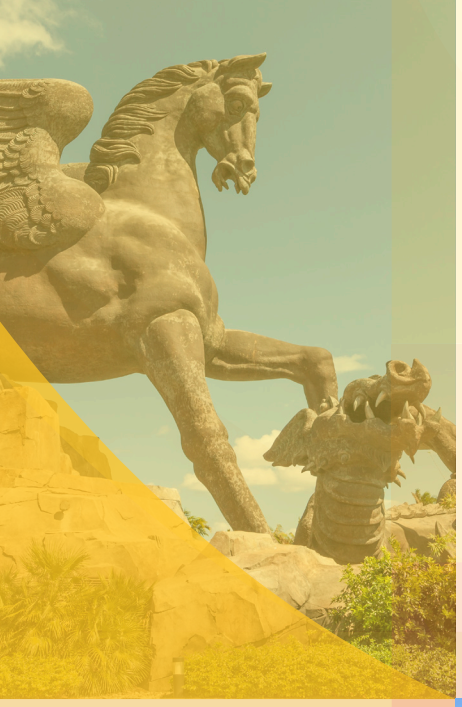


Hallandale Beach

COMPREHENSIVE PLAN
EAR BASED AMENDMENTS



Prepared by

CORRADINO



TABLE OF CONTENTS

1.0 INTRODUCTION 1-1
- 1.1 INTRODUCTION 1-1
- 1.2 PURPOSE OF THE COMPREHENSIVE PLAN 1-1
- 1.3 HALLANDALE BEACH'S APPROACH TO PREPARING THE COMPREHENSIVE PLAN 1-1
- 1.4 CONTENTS OF THE PLAN 1-1
- 1.5 THE CITY OF HALLANDALE BEACH: ORIGIN AND GROWTH 1-2
- 1.6 DEFINITIONS 1-4

2.0 FUTURE LAND USE ELEMENT 2-1
- 2.1 INTRODUCTION 2-1
- 2.2 GOALS, OBJECTIVES, AND POLICIES 2-1
- 2.3 PERMITTED USES IN FUTURE LAND USE CATEGORIES 2-14
- 2.4 MONITORING AND EVALUATION PROCEDURES 2-27
- 2.5 CONSISTENCY WITH BROWARD COUNTY LAND USE PLAN 2-28
- 2.6 EXISTING LAND USE CONDITIONS AND TRENDS 2-33
- 2.7 DATA AND ANALYSIS 2-48

3.0 TRANSPORTATION ELEMENT 3-1
- 3.1 INTRODUCTION 3-1
- 3.2 DESCRIPTION OF EXISTING TRANSPORTATION SYSTEM 3-1
- 3.3 DATA AND ANALYSIS 3-30
- 3.4 GOALS, OBJECTIVES AND POLICIES 3-88
- 3.5 APPENDIX A : LEVEL OF SERVICE (LOS) 3-95

TABLE OF CONTENTS CONTINUED

4.0 HOUSING ELEMENT 4-1
- 4.1 INTRODUCTION 4-1
- 4.2 DATA AND ANALYSIS 4-1
- 4.3 GENERAL RECOMMENDATIONS 4-22
- 4.4 GOALS, OBJECTIVES AND POLICIES 4-26

5.0 SANITARY SEWER, SOLID WASTE, STORMWATER MANAGEMENT, POTABLE WATER, AND NATURAL GROUNDWATER AQUIFER RECHARGE ELEMENT 5-1
- 5.1 INTRODUCTION 5-1
- 5.2 GOALS, OBJECTIVES, AND POLICIES 5-1
- 5.3 INVENTORY 5-6
- 5.4 DATA AND ANALYSIS 5-19
- APPENDIX A 5-27

6.0 COASTAL MANAGEMENT ELEMENT 6-1
- 6.1 INTRODUCTION 6-1
- 6.2 GOALS, OBJECTIVES, AND POLICIES 6-1
- 6.3 ENVIRONMENTAL SETTING 6-5

7.0 CONSERVATION ELEMENT 7-1
- 7.1 INTRODUCTION 7-1
- 7.2 GOALS, OBJECTIVES, POLICIES 7-1
- 7.3 DATA AND ANALYSIS 7-5
- 7.4 INVENTORY 7-8
- 7.5 POLLUTION PROBLEMS 7-12
- 7.6 CURRENT & PROJECTED WATER NEEDS AND RESOURCES 7-14

TABLE OF CONTENTS CONTINUED

8.0 RECREATION AND OPEN SPACE ELEMENT 8-1
- 8.1 INTRODUCTION 8-1
- 8.2 GOALS, OBJECTIVES, AND POLICIES 8-1
- 8.3 INVENTORY 8-2
- 8.4 DATA AND ANALYSIS 8-5

9.0 CAPITAL IMPROVEMENTS ELEMENT 9-1
- 9.1 INTRODUCTION 9-1
- 9.2 GOALS, OBJECTIVES, POLICIES 9-1
- 9.3 EXISTING CONDITIONS 9-3
- 9.4 ANALYSIS OF EXISTING CONDITIONS 9-9
- 9.5 CAPITAL IMPROVEMENTS SCHEDULE 9-13
- 9.6 SUMMARY AND CONCLUSIONS 9-14

10.0 INTERGOVERNMENTAL COORDINATION ELEMENT 10-1
- 10.1 INTRODUCTION 10-1
- 10.2 GOALS, OBJECTIVES AND POLICIES 10-1
- 10.3 INVENTORY 10-4
- 10.4 DATA AND ANALYSIS 10-6

11.0 PUBLIC SCHOOL FACILITIES ELEMENT 11-1
- 11.1 INTRODUCTION 11-1
- 11.2 GOALS, OBJECTIVES, POLICIES 11-1
- 11.3 MAP EXHIBITS 11-6

12.0 PROPERTY RIGHTS ELEMENT 12-1
- ~~13.1~~ 12.1 GOALS, OBJECTIVES, AND POLICIES 12-1

1.1 INTRODUCTION

This document serves as the introductory framework for the City of Hallandale Beach's Comprehensive Plan, providing historical context, outlining its legislative origins, and explaining its structure and purpose. Developed in accordance with Florida's Growth Management laws, the Comprehensive Plan is the City's principal policy guide for managing growth, redevelopment, and the provision of public services and infrastructure. It reflects the City's long-term vision, incorporating goals, objectives, and policies intended to preserve community character while addressing evolving local and regional needs. The document also includes key supporting materials such as planning timeframes, contextual history, and a glossary of definitions to ensure clarity and consistency throughout the Plan's implementation.

1.2 PURPOSE OF THE COMPREHENSIVE PLAN

In 1985 and 1986 the Florida Legislature amended the 1975 Growth Management Act which required that by December 1, 1988, the City of Hallandale Beach prepare, approve and submit an updated Comprehensive Plan, to the State Department of Community Affairs (now the Department of Economic Opportunity) for their review, as to minimum criteria content of the now repealed 9-J5, and consistency with both the South Florida Regional Planning Council Strategic Regional Policy Plan (SRPP) and State of Florida Comprehensive Plan. Since that time the City has undertaken two (2) Evaluation and Appraisal Report (EAR) processes resulting in EAR-Based Amendments to the City's Comprehensive Plan. There have also been a number of Future Land Use Map (FLUM) amendments, various text amendments and regular updates to the Capital Improvement Element. The City's 2006 Evaluation and Appraisal Report of the Comprehensive Plan recommended updating all data and tables; analyze changes to data and tables; evaluate concurrency; review changes to Chapter 163 F.S., the now repealed Rule 9J-5 F.A.C., the State Comprehensive Plan, the SFRPC Strategic Regional Policy Plan, and the Broward County Comprehensive Plan for consistency; and revise and update Goals, Objectives and Policies and support documents as needed. The 2018 Evaluation and Appraisal Amendments constitute minor, targeted revisions to the Comprehensive Plan consistent with changes in Chapter 163, F.S. made subsequent to last.

The purpose of the Comprehensive Plan is to ensure that the City of Hallandale Beach maintains the capability to continue to guide development and redevelopment, and provide for the maintenance of existing development so that the nature and character of the City may be preserved for future generations. In addition, the plan and its elements, spell out goals, objectives, and policies which are tied to implementation and capital budgeting programs.

1.3 HALLANDALE BEACH'S APPROACH TO PREPARING THE COMPREHENSIVE PLAN

The extensiveness of the plan is reflected in the word "COMPREHENSIVE" which implies that the Plan is all inclusive, considering, comparing, and coordinating all factors related to the Plan's implementation. The City can only plan for and direct activities concerning the City's future over which it has direct control. Some factors and activities are not under local control or are part of a wider public or private sector. Every attempt has been made to coordinate and include activities and elements which have a direct effect on the City but are outside of its sphere of control, such as social services, health services, education and mass transportation. The City's plan covers two planning periods. The first time period covers the short-term five year period of 2018 through 2023. The second long-range time period covers an overall ten year period (to 2028) or longer in some instances where indicated.

1.4 CONTENTS OF THE PLAN

The City of Hallandale Beach is a coastal community with a 2007 population as estimated by the Bureau of Economic and Business Research (BEBR) of the University of Florida to be 38,193 and is, therefore, required under the Growth Management Act to complete the following mandatory elements:

1. Future Land Use
2. Transportation Element
3. Housing

4. Sanitary Sewer, Solid Waste, Stormwater Management, Potable Water and Natural Groundwater Aquifer Recharge
5. Coastal Management
6. Conservation
7. Recreation and Open Space
8. Capital Improvements
9. Intergovernmental Coordination
10. Public School Facilities
11. Private Property Rights

~~Consistency with the Comprehensive Regional Policy Plan and the State Comprehensive Plan~~

1.5 THE CITY OF HALLANDALE BEACH: ORIGIN AND GROWTH

The City of Hallandale Beach was founded in 1897 by Swedish homesteaders, through the efforts of Luther Halland, when the Florida East Coast Railway from West Palm Beach to Miami lengthened. At that time, the settlement encompassed three square miles and was then part of Dade County. Hallandale Beach became part of Broward County when the County was created in 1915. It became a township on May 14, 1927, and was a very conservative farm community whose major crop was tomatoes and other winter crops.

The City's geographical location has been a key factor in its colorful development. While the growth of the City, agriculture industries, and tourism all followed the extensions of the Intracoastal Waterway and the railroad, real estate booms and diversity of land uses marked the frantic expansion of Hallandale Beach in the twentieth century. Until recently, the area was little more than a soggy wilderness covered with saw palmettos, cypress palms, mangroves and a latticework of waterways.

In 1910, Hallandale Beach had a population of 246 persons according to the 13th U.S. Census. On January 15, 1926, Hallandale Beach successfully petitioned Hollywood to annex their then three square miles of territory to the Hollywood Corporation. Hallandale Beach remained part of the Hollywood Corporation until May 14, 1927, when it was again incorporated as the Township of Hallandale and established a Mayor-Council form of government. It should be noted that it was still a farm community. In 1930, the 15th U.S. Census reported Hallandale's population as 999 persons. Hallandale's economic recovery during the lean days of the Depression was sparked by the emergence of gambling as its major industry. September 8, 1934, was the opening of the Hollywood Kennel Club, subsequently called the Hollywood Greyhound Track. Horse racing became reality in Hallandale on February 1, 1939 with the official opening of Gulfstream Park. By 1940, Hallandale's population numbered 1,827 residents. In 1945, Hallandale boasted three service stations, one hardware store, and two grocery stores. All banking and nearly all shopping were accomplished either in Hollywood or Miami. Between the beginning of 1945 and the end of 1946, the issuance of building permits went up 500% in dollar value from $100,000 to $518,813. Then Mayor H.C. Schwartz noted that "Hallandale has grown and from all indications will continue to grow by leaps and bounds".

On May 21, 1947, the Town of Hallandale became a City. Hallandale Beach was still perceived as a small city without much future. Only a few motels had been built on the beach after the war. The City's economy was still based on farming. Most of the east side was untouched by development. The demise of the gambling casinos was sparked by the 1950-51 Kefauver probe into organized crime. In 1948, the State secured injunctions closing down gambling spots. The year 1950 saw Hallandale's population grow to 6,025. Eight new stores were built on Old Dixie Highway and Hallandale's first self-service laundry was erected. In June of 1953, Hallandale City Council-Mayor type of government was changed to the present City Manager-City Commission form of operation.

In January, 1957, Hubert B. Layne, owner of 580 acres of tropical swampland, had crews clearing and forming canals by dredging up 3,500,00 cubic yards of sand and living coral reef to form the islands and mainland called Golden Isles.

In 1960, Hallandale's population was 10,483 according to the U.S. Census. By 1968, Golden Isles straddled the Dade and Broward County lines, and boasted 7,000 residents living in its 125 single family homes and 2,000 apartment units. The boom in construction on Hallandale's beachfront began in 1960 and continued at an accelerated pace. The same year marked the opening of the Bank of Hallandale,

making it possible for the first time in decades for local residents to bank in their own community. 1961 opened a new era of shopping centers in Hallandale Beach when Publix supermarket #73 opened on East Hallandale Beach Boulevard near the entrance of Golden Isles. By 1975, Hallandale Shopping Center included 17 stores. Ro-Len Lake Gardens Apartments was the first large co-op complex in 1962. Hallandale Beach, by 1964, boasted a spate of high rise construction with fully 25% of the people living in apartments. Hallandale's chief industry, as in previous years, included tourism, building, and allied trades. The City had two weekly newspapers and nine large motels with a total of 750 rooms as well as 750 other units in small motels. In 1968, Hallandale Beach surprised the nation by recording the third largest building permit construction value in Florida. Building permits issued by Hallandale Beach in 1968 reached $69,292,344 in construction value. That year permits were issued for 11 high-rise buildings containing 4,556 dwelling units. 1969 saw a slight decline; 31 permits for additional building encompassing another 1,680 units and the Diplomat Mall Shopping Center was already in the early phases of construction.

By the close of the 1960's, the City boasted 34 high-rises with a total of 5,577 dwelling units in the beach area. With the onset of 1970, Hallandale's population was 23,849 persons and ranked as Florida's 31st most populous city. Reportedly, this figure was low because several hundred owners of residences in the City claimed their official domicile to be elsewhere. 1971 saw the start of development called Three Islands to contain 12,000 additional dwelling units. During 1975 and 1976, there was some carryover in construction started in previous years, but the building boom had ended. By 1978, single family lots and small parcels made up the remaining vacant 200 acres zoned for residential construction, thereby, demonstrating that Hallandale's days of explosive population expansion were at an end. The south side of Holiday Drive was annexed to Hallandale Beach in June of 1979. During the 1970's, as Hallandale Beach continued its transformation from a farm community to a City of high-rises, the municipality became overly dependent on tourism and construction. As a consequence, Hallandale Beach, like the rest of Broward County, experienced a period of economic flux throughout the decade.

In 1980, Hallandale Beach had a population of 36,517 persons according to the U.S. Census. That year, 18,182 persons or 49.8% of Hallandale's residents were aged 65 and over. Households averaged 1.89 persons per unit. December 1980, marked the last harvest by pioneer Hallandale farmer, Reverend Walter Jackson, on a dusty agricultural tract located at Hallandale Beach Boulevard and Federal Highway. Bulldozers demolished the carefully cultivated plantings and workers started construction of the Promenade at Hallandale Beach Shopping Center.

The last 25 years marked construction of more high-rises, such as La-Mer, Hemispheres, and Malaga Towers. Sage Corporation made its home in Hallandale Beach and erected the Sage Professional Building. The beach area from North Hollywood to Golden Beach became a canyon of hotels and towering apartments.

Today, Hallandale Beach occupies approximately 4.4 square miles. Its coastal strip has been developed almost entirely with condominiums and high-rise apartments. Older housing including wood framed single family houses and cottages still stand in Hallandale Beach primarily west of Federal Highway. Residential is the predominate land use accounting for 41.5% of the available acreage, followed by commercial 9.7%, transportation 15.5%, vacant land 4.1%, water 8.6%, community facilities 5.1%, light industrial 1.7%, and recreation 11.6%. In a community where agriculture was once the backbone of the economy, retail trades, personal services, construction, manufacturing, finance, insurance, and real estate industries are among the major current employers.

At the dawn of this century, life was rugged for Hallandale Beach pioneers. Much of the acreage had to be cleared and cultivated by hand. The predominately Swedish colony had no plan of its own, so its residents adopted the U.S. Government's organizing framework known as the rectangular survey or grid. The rest was up to early settlers and the 20th Century developers to decide what could be built. Hallandale Beach is now more than 96% built out. The problems facing the City today are how to maintain what has been developed in the framework of a rapidly changing society and technology. It has been said by many planners,

that it is easy to plan new development but the challenge lies in how to maintain a fully developed City.

IMPLEMENTATION OF CITY'S COMPREHENSIVE PLAN

1.6 DEFINITIONS

For the purposes of administering this plan, the following definitions shall apply.

ACCESSORY USE - means a use naturally and customarily incidental, ancillary or subordinate to the principal use.

ACCOMMODATIONS - means any apartment, condominium or cooperative unit, cabin, lodge, hotel or motel room, campground, or other private or commercial structure which is situated on real property and designed for occupancy or use by one or more individuals.

ADAPTATION ACTION AREA - or "Adaptation Area" means a designation in the coastal management element of a local government's comprehensive plan which identifies one or more areas that experience coastal flooding due to extreme high tide and storm surge, and that are vulnerable to the related impacts of rising sea levels for the purpose of prioritizing funding for infrastructure needs and adaptation planning.

ADMINISTRATION COMMISSION - means the Governor and the Cabinet of the State of Florida.

ADJUSTED GROSS INCOME - means all wages, assets, regular cash or non cash contributions or gifts from persons outside the household, and such other resources and benefits as may be determined to be income by the United States Department of Housing and Urban Development, adjusted for family size, less deductions allowable under Statue 62 of the Internal Revenue Code.

ADMINISTRATIVE RULES DOCUMENT - means a publication containing rules, guidelines, procedures, and methodologies reviewed, revised, adopted and amended by the Broward County Planning Council and Board of County Commissioners for the purpose of providing assistance and guidance to local governmental entities and providing direction to Council staff in implementing the Broward County Land Use Plan.

AFFECTED PERSONS - includes the affected local government; persons owning property, residing, or owning or operating a business within the boundaries of the local government whose plan is the subject of the review; and adjoining local governments that can demonstrate that adoption of the plan as proposed would produce substantial impacts on the increased need for publicly funded infrastructure or substantial impacts on areas designated for protection or special treatment within their jurisdictions. Each person, other than an adjoining local government, in order to qualify under this definition, shall also have submitted oral or written comments, recommendations, or objections to the local government during the period of time beginning with the transmittal hearing for the Plan or Plan amendment and ending with the adoption of the Plan or Plan amendment.

AFFORDABLE HOUSING - means housing for which monthly rents or monthly mortgage payments (including taxes and insurance) do not exceed 30 percent of an amount representing the percentage (very low = 50%; low = 80%; moderate = 120%) of the median income limits adjusted for family size for the households.

AFFORDABLE RENTAL - means that monthly rent and utilities do not exceed 30 percent of that amount which represents the percentage of the median adjusted gross annual income for extremely-low-income, very-low-income, low-income, or moderate-income persons.

AIRPORT OBSTRUCTION - means any structure, object of natural growth, existing condition, or use of land which obstructs the airspace required for the flight of aircraft in landing or taking off at an airport or which otherwise increases the risk of danger to aircraft operations.

ALLEY - means a right-of-way providing a secondary means of access and service to abutting property.

AMENDMENT - means any action of a local government which has the effect of amending, adding to, deleting from

or changing an adopted comprehensive plan element or map or map series, including an action affecting a prior plan or plan amendment adoption ordinance, but shall not mean a legislative act which only codifies local legislation or makes corrections, updates and modifications of the capital improvements element concerning cost, revenue sources, acceptance of facilities or facility construction dates consistent with the plan as provided in subsection 163.3177(3)(b), Florida Statues, and corrections, updates, or modifications of current costs in other elements, as provided in subsection 163.3187(2), Florida Statues. Any references to a plan or comprehensive plan shall also be deemed to refer to a plan amendment.

ANNEXATION - means the adding of real property to the boundaries of an incorporated municipality, such addition making such real property a part of the municipality.

AQUATIC VEGETATION - means a plant character - characteristically growing wholly or partly submerged in water.

AREAS SUBJECT TO COASTAL FLOODING - see "hurricane vulnerability zone".

ARTERIAL ROAD - means a roadway providing service which is relatively continuous and of relatively high traffic volume, long trip length, and high operating speed. In addition, every United States numbered highway is an arterial road.

BEACH - means the zone of unconsolidated material that extends landward from the mean low water line to the place where there is marked change in material or physiographic form, or to line of permanent vegetation, usually the affective limit of storm waves. "Beach", as used in the coastal management element requirements, is limited to oceanic and estuarine shorelines.

BICYCLE AND PEDESTRIAN WAYS - means any road, path or way, which is open to bicycle travel and traffic afoot and from which motor vehicles are excluded.

BROWARD COUNTY COASTAL AREA - means the land and water eastward of US 1 Highway to the Atlantic Ocean.

BROWARD COUNTY COASTAL HIGH HAZARD AREA - means the land and water eastward of the Atlantic Intracoastal Waterway to the Atlantic Ocean including any coastal protection structures.

BROWARD COUNTY LAND USE PLAN - means the future land use plan element for all of Broward County adopted by the Broward County Commission in conformance with the requirements of the Broward County Charter and the Local Government Comprehensive Planning and Land Development Regulation Act.

BROWARD COUNTY TRAFFICWAYS PLAN - means the plan promulgated by the Broward County Planning Council pursuant to Chapter 59-1154, Laws of Florida, as amended, and the Broward County Charter, which depicts a network of trafficways for Broward County (also known as the Broward County Planning Council Trafficways Plan).

BUILDING - means any structure having a roof and used or built for the shelter or enclosure of persons, animals, chattels, or property of any kind.

BUILDING PERMIT - means:

(1) Any permit for erection or construction of a new building required by the South Florida Building Code, 1994, Broward Edition, as amended.

(2) Any permit for an addition to an existing building which would:

(a) create one or more additional dwelling units, or

(b) involve a change in the occupancy of a building as described in the South Florida Building Code, 1994, Broward Edition, as amended.

(3) Any permit which would be required for the nonresidential operations included in the South Florida Building Code, 1994, Broward Edition, as amended.

CAPITAL BUDGET - means the portion of each local government's budget which reflects capital improvements scheduled for the current or upcoming fiscal year.

CAPITAL IMPROVEMENT - means physical assets constructed or purchased to provide, improve or replace a public facility and which are large scale and high in cost. The cost of a capital improvement is generally nonrecurring and may require multi-year financing. For the purpose of this rule, physical assets which have been identified as existing or projected needs in the individual comprehensive plan elements shall be considered capital improvements.

CERTIFIED LAND USE PLAN - means a local land use plan which has been certified by the Broward County Planning Council as being in substantial conformity with the Broward County Land Use Plan and which has been adopted by a unit of local government in conformance with the requirements of the Local Government Comprehensive Planning and Land Development Regulation Act.

CLUSTERING - means the grouping together of structures and infrastructure on a portion of a development site.

COASTAL CONSTRUCTION CONTROL LINE - means the line established by the Florida Department of Natural Resources after a determination, through comprehensive engineering study and topographic survey, that the establishment of such control line is necessary for the protection of upland properties and the control of beach erosion, pursuant to Chapter 161 Florida Statutes.

COASTAL HIGH HAZARD AREA - means the area below the elevation of the category 1 storm surge line as established by Sea, Lake, and overland Surges from Hurricanes (SLOSH) computerizes storm surge model.

COASTAL PLANNING AREA - means the area lying east of NE 14 Avenue and a line extended south there from. The Hurricane Vulnerability Zone is used for purposes of hurricane evacuation and hazard mitigation planning.

COLLECTOR ROAD - means a roadway providing service which is of relatively moderate traffic volume, moderate trip length, and moderate operating speed. Collector roads collect and distribute traffic between local roads or arterial roads.

COMMERCIAL USES - means activities within land areas which are predominantly connected with the sale, rental and distribution of products, or performance of services.

COMMUNITY CULTURAL FACILITY - means a facility that is readily accessible to all segments of the community for cultural activities (performing, visual and literary arts). The center should include classroom and workshop space, exhibit and performance space and cultural programming by professional artists for all age groups.

COMPATIBILITY - means a condition in which land uses or conditions can coexist in relative proximity to each other in a stable fashion over time such that no use or condition is unduly negatively impacted directly or indirectly by another use or condition.

COMPOSITION - means the make up of various land uses by type, extend, intensity, density, or otherwise, which are included in a development or land use category.

COMPREHENSIVE PLAN - means a plan that meets the requirements of Chapter 163, Florida Statutes.

COMMUNITY PARK - means acreage listed in the "Community and Regional Parks" subsection of the Plan Implementation Requirements Section of the Broward County Land Use Plan that is utilized by local government entities to meet the community level parks requirement of the Broward County Land Use Plan.

COMMUNITY REDEVELOPMENT AGENCY - means a local governmental agency established under Part III of Chapter 163 or created with similar powers and responsibilities by special act for the purpose of planning, coordinating, and assisting in the implementation, revitalization, and redevelopment of a specific downtown area of a city.

COMMUNITY REDEVELOPMENT AREA - means a slum area, a blighted area, or an area in which there is a shortage

of housing that is affordable to residents of low or moderate income, including the elderly, or a combination thereof which the governing body designates as appropriate for community redevelopment.

COMMUNITY SHOPPING CENTER - means a shopping center which typically ranges from approximately 100,000 to 300,000 square feet of gross leasable area and is generally built around a junior department store or variety store and supermarket as the major tenants. Community shopping centers typically range in area from approximately 10 acres to 30 acres and serve trade areas ranging from roughly 40,000 people to 150,000 people.

CONCURRENCY - means public facilities and services needed to support development shall be available when the impacts of development occur.

CONCURRENCY MANAGEMENT SYSTEM (CMS) - means the provisions in the local government comprehensive plan including implementation regulations, encompassing the restrictions, methods, resources, timing and solutions intended to be compatible with and further compliance with the statutory requirement to provide public facilities and services needed to support development concurrent with the impacts of such development.

CONE OF INFLUENCE (ZONE OF INFLUENCE) - means an area around one or more major water wells the boundary of which is determined by the government agency having specific statutory authority to make such a determination based on groundwater travel or drawn down depth.

CONSERVATION USES - means activities within land areas designated for the purpose of conserving or protecting natural resources or environmental quality and includes areas designated for such purposes as flood control, protection of quality or quantity of groundwater or surface water, floodplain management, fisheries management, or protection of vegetative communities or wildlife habitats.

CONSISTENT - means compatible with and furthers. "Compatible with" means not in conflict with. "Furthers" means to take action in the direction of realizing the goals and policies. As applied to the local plan, a local plan shall be consistent with the state plan and the regional plan.

CONTIGUOUS - means next to, abutting, touching or adjacent.

CONTRACTION - means the reversion of real property within municipal boundaries to an unincorporated status.

COUNTY COMMISSION - means the Board of County Commissioners of Broward County.

COUNTY LAND PLANNING AGENCY - means the agency designated to prepare the comprehensive plan for the county or in the case of chartered counties, the agency which has the planning responsibility between the County and the municipalities as stipulated in the Charter.

COUNTY LAND USE PLAN - means the Broward County Land Use Plan adopted by the County Commission on March 1, 1989.

CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED) - means a proactive approach, using the following four (4) principles in the design and care of the built environment, to reduce the incidence and fear of crime:

1. Natural Surveillance: the placement of physical features, activities and people in such a way a to maximize visibility;

2. Natural Access Control: the physical guidance of people coming and going from a space by the judicial placement of entrances, exists, fencing, landscaping and lighting;

3. Territorial Reinforcement: the use of physical attributes that express ownership; and,

4. Maintenance: allows for the continued use of a space for its intended purpose; serves as an additional expression of ownership; prevents reduction of visibility from landscaping overgrowth, and obstructed or inoperative lighting.

DASHED-LINE AREA - means an area on the Future Broward County Land Use Plan Map (Series) bordered by a dashed line and designated as having a particular maximum overall density of dwelling units for all land and land uses within the area, and/or a particular total number of dwelling units permitted within the area.

DEEPWATER PORTS - means the ports of Jacksonville, Tampa, Port Everglades, Miami, Port Canaveral, Ft. Pierce, Palm Beach, Port Manatee, Port St. Joe, Panama City, St. Petersburg and Pensacola.

DEMINIMIS IMPACTS - are impacts to transportation facilities within an existing urban area that would not affect more than 0.1% of the maximum volume at the adopted level of service standard of the affected transportation facility as determined by the local government, and that is caused by an increase in density or intensity that is less than, or equal to, twice the density or intensity of the existing land use or, in the case of vacant land, is a density of less than 1 dwelling unit per quarter acre or a floor area ratio of 0.1 for non-residential uses.

DENSITY - means an objective measurement of the number of people or residential units allowed per unit of land, such as residents or employees per acre.

DEVELOPER - means any person, including a governmental agency, undertaking any development.

DEVELOPMENT - The term "development" means:

(1) The carrying out of any building activity or mining operation, the making of any material change in the use or appearance of any structure or land, or the dividing of land into two more parcels.

(2) The following activities or uses shall be taken for the purposes of this chapter to include "development," as defined in this section:

(a) A reconstruction, alteration of the size, or material change in the external appearance of a structure on land.

(b) A change in the intensity of use of land, such as an increase in the number of dwelling units in a structure or on land or a material increase in the number of businesses, manufacturing establishments, offices, or dwelling units in a structure or on land.

(c) Alteration of a shore or bank of a seacoast, river, stream, lake, pond, or canal, including any "coastal construction" as defined in S.161.021.

(d) Commencement of drilling, except to obtain soil samples, mining, or excavation on a parcel of land.

(e) Demolition of a structure.

(f) Clearing or fill of land as an adjunct of construction.

(3) The following operations or uses shall not be taken for the purpose of this chapter to include "development" as defined herein:

(a) Work by a highway or road agency or railroad company for the maintenance or improvement of a road or railroad track, if the work is carried out on land within the boundaries of the right-of way.

(b) Work-by-any utility and other persons engaged in the distribution or transmission of gas or water, for the purpose of inspecting, repairing, renewing, or constructing on established rights-of-way any sewers, mains, pipes, cables, utility tunnels, powerlines, towers, poles, tracks or the like.

(c) Work for the maintenance, renewal, improvement, or alteration of any structure, if the work affects only the interior or the color of the structure or the decoration of the exterior of the structure.

(e) The use of any land for the purpose of growing plants, crops, trees and other agricultural or forestry products; raising livestock; or for other agricultural purposes.

(f) A change in the use of land or structure from a use within a class specified in an ordinance or rule to another use in the same class.

(g) A change in the ownership or form of ownership of any parcel or structure.

(h) The creation or termination of rights of access, riparian rights, easements, covenants concerning development of land, or other rights in land.

(4) "Development," as designated in an ordinance, rule, or development rule includes all other development customarily associated with it unless otherwise specified. When appropriate to the context, "development" refers to the act of developing to the result of development. Reference to any specific operation is not intended to mean that the operation or activity, when part of other operations or activities, is not development. Reference to particular operations is not intended to limit the generality of subsection (1).

DEVELOPMENT CONTROLS - means standards in the comprehensive plan which control the development or use of land and which are in addition to the densities, intensities, and uses assigned to land by the future conditions map.

DEVELOPMENT ORDER - means any order granting, denying, or granting with conditions an application for a development permit.

DEVELOPMENT PERMIT - includes any building permit, zoning permit, plat approval, or rezoning, certification, variance, or other action having the effect of permitting development.

DOWNTOWN REVITALIZATION - means the physical and economic renewal of a central business district of a community as designated by local government, and includes both downtown development and redevelopment.

DRAINAGE BASIN - means the area defined by topographic boundaries which contributes stormwater to a drainage system, estuarine waters, or oceanic waters, including all areas artificially added to the basin.

DRAINAGE FACILITIES - means a system of man-made structures designed to collect, convey, hold, divert or discharge stormwater, and includes stormwater sewers, canals, detention structures, and retention structures.

DUNE- means a mound or ridge of loose sediments, usually sand-sized sediments, lying landward of the beach and extending inland to the landward toe of the dune which intercepts the 100-year storm surge.

DWELLING UNIT - means a house, apartment, or condominium unit, trailer, group of rooms, or a single room intended for occupancy as separate living quarters with direct access from the outside of the building or through a common hall and with complete kitchen facilities for the exclusive use of the occupants, including the rental units contained in a multi-unit structure or complex which are licensed by the State Department of Business Regulation, Division of Hotels and Restaurants, as "apartments", "rental condominiums" and "retirement housing" or live-aboard vessels located in multi-family “Residential” designated areas which are required to hookup to marine sanitation systems.

EASEMENT - means any strip of land created by a subdivider for public or private utilities, drainage, sanitation, or other specified uses having limitations, the title to which shall remain in the name of the property owner, subject to the right of use designated in the reservation of the servitude.

ECOLOGICAL COMMUNITY - means a distinctive combination of two or more ecologically related species, living together and interacting with each other in a characteristic natural habitat.

EDUCATIONAL USES - means activities and facilities of public or private primary or secondary schools, vocational and technical schools, and colleges and universities licensed by-the Florida Department of Education, including the areas of buildings, campus open space, dormitories, recreational facilities or parking.

ENVIRONMENTALLY SENSITIVE LAND - means those areas containing Natural Resources, as depicted in the Natural Resource Map Series of the Broward County Land Use plan, which have been determined to be environmentally sensitive by the Broward County Board of County Commissioners. The criteria for designation of Environmentally Sensitive Land are contained within the Plan Implementation section of the Broward County Land Use Plan. Policies which ensure the protection of Environmentally Sensitive Lands, consistent with the requirements of Section 163.3202 Florida Statutes, are located under Objective 9.01.00 of the Broward County Land Use Plan.

ESTUARY - means a semi-enclosed, naturally existing coastal body of water in which saltwater is naturally diluted by freshwater and which has an open connection with oceanic waters. "Estuaries" include bays, lagoons, sounds and tidal streams.

EVACUATION ROUTES - means routes designated by county civil defense authorities or the regional evacuation plan, for the movement of persons to safety, in the event of a hurricane.

EXISTING URBAN SERVICE AREA - means built-up areas where public facilities and services such as sewage treatment systems, roads, schools and recreation areas are already in place.

EXTENT - means the amount of development, including the area or size in acres.

EXTREMELY-LOW-INCOME PERSONS - means one or more natural persons or a family whose total annual household income does not exceed 30 percent of the median annual adjusted gross income for households within the state. The Florida Housing Finance Corporation may adjust this amount annually by rule to provide that in lower income counties, extremely low income may be less than 30 percent of area median income.

FACILITY AVAILABILITY - means whether or not a facility is available in a manner to satisfy the concurrency management system.

FINANCIAL FEASIBILITY - means that sufficient revenues are currently available or will be available from committed funding sources for the first 3 years, or will be available from committed or planned funding sources for the years 4 and5, of a 5-year capital improvement schedule for financing capital improvements, such as ad valorem taxes, bonds, state and federal funds, tax revenues, impact fees, and developer contributions, which are adequate to fund the projected costs of the capital improvements identified in the comprehensive plan necessary to ensure that adopted level-of-service standards are achieved and maintained within the period covered by the 5-year schedule of capital improvements. A comprehensive plan shall be deemed financially feasible for transportation and school facilities throughout the planning period addressed by the capital improvements schedule if it can be demonstrated that the level-of-service standards will be achieved and maintained by the end of the planning period even if in a particular year such improvements are not concurrent as required by 163.3180, Florida State Statues.

FLEXIBILITY ZONE - means a geographic area, as delineated on the flexibility zone boundary maps in the Administrative Rules Document of Broward County Planning Council, within which residential densities and land uses may be redistributed through the plan certification process.

FLOODPLAINS - means areas inundated during an identified flood event or identified by the National Flood Insurance Program as an A Zone or V Zone on Flood Insurance Rate Maps or Flood Hazard Boundary Maps.

FLOODPRONE AREAS - means areas inundated during a 100-year flood event or areas identified by the National Flood Insurance Program as an A Zone on Flood Insurance Rate Maps or Flood Hazard Boundary Maps.

FUNCTIONAL RELATIONSHIPS - means a complementary and interactive relationship among land uses or development, including at a minimum a substantial and positive exchange of human interaction, goods, resources, institutions, services, jobs, or workers between land uses or developments

FUTURE BROWARD COUNTY LAND USE PLAN MAP (SERIES) - means the series of maps adopted by the Broward County Board of County Commissioners as part of the Broward County Land Use Plan. These include the Broward County Land Use Plan Map, Historic District and Historically Significant Properties Map, Natural Resources Map Series-Eastern Broward County and Natural Resources Map Series-Western Broward County.

GOAL - means the long-term end toward which programs and activities are ultimately directed.

GOVERNING BODY - means the board of county commissioners of a county, the commission or council of an incorporated municipality, or any other chief governing body of a unit of local government, however designated, or the combination of such bodies.

GOVERNMENTAL AGENCY - means:

(a) The United States or any department, commission, agency, or other instrumentality thereof;

(b) The-State-of-Florida-or- any-department,-commission, -agency,-or-other instrumentality thereof;

(c) Any- local -government, -or -any -department, -commission, -agency, -or- other instrumentality thereof;

(d) Any school board or other special district, authority, or other governmental entity.

GROUP HOME - means a facility which provides a living environment for unrelated residents who operate as the functional equivalent of a family, including such supervision and care as may be necessary to meet the physical, emotional and social needs of the residents. Adult Congregate Living Facilities comparable in size to group homes are included in this definition. It shall not include rooming or boarding homes, clubs, fraternities, sororities, monasteries or convents, hotels, residential treatment facilities, nursing homes, or emergency shelters.

HARDWOOD - means a broad-leaved angiosperm (flowering plant) tree having wood characterized by the presence of specialized cells called vessels.

HAZARDOUS WASTE - means solid waste, or a combination of solid waste, which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or may pose a substantial present or potential hazard to human health or the environment when improperly transported, disposed of, stored, treated or otherwise managed.

HISTORIC RESOURCES - means all areas, districts or sites containing properties listed on the Florida Master Site File, the National Register of Historic Places, or designated by a local government as historically, architecturally, or archaeologically significant.

HURRICANE SHELTER - means a structure designated by local officials as a place of safe refuge during a storm or hurricane.

HURRICANE VULNERABILITY ZONE (ALSO "AREAS SUBJECT TO COASTAL FLOODING") - means the areas delineated by the regional or local hurricane evacuation plan as requiring evacuation. The hurricane vulnerability zone shall include the area requiring evacuation in the event of a 100-year storm or Category 3 storm event.

IMPROVEMENTS - may include, but are not limited to, street pavement, curbs and gutters, sidewalks, alley pavements, walkway pavements, water mains, sanitary sewers, storm sewers or drains, street names, signs, landscaping, permanent reference monuments permanent control points, or any other improvement by a governing body.

IN COMPLIANCE - means consistent with the requirements of Florida State Statue 163.3177, when a local government adopts an educational facilities element, 163.3178, 163.3180, 163.3191, and 163.3245, with the state comprehensive plan, with the appropriate strategic regional policy plan, and with Chapter 9J-5, Florida Administrative

Code, where such rule is not inconsistent with this part and with the principles for guiding development in designated areas of critical state concern and with part III of chapter 369, where applicable.

INDUSTRIAL USES - means the activities within land areas predominantly connected with manufacturing, assembly, processing, or storage of products.

INFRASTRUCTURE - means those man-made structures which serve the common needs of the population, such as: sewage disposal systems; potable water systems; potable water wells serving a system; solid waste disposal sites or retention areas; stormwater systems; utilities, piers; docks; wharves; breakwaters; bulkheads; seawalls; bulwarks; revetments; causeways; marinas; navigation channels; bridges; and roadways.

INTENSITY - means an objective measurement of the extent to which land may be developed or used, including the consumption or use of the space above, on or below ground; the measurement of the use of or demand on natural resources; and the measurement of the use of or demand on facilities and services.

INTERNAL TRIP CAPTURE – means trips generated by a mixed-use project that travel from one onsite land use to another onsite land use without using the external road network.

LAKE - means a natural depression fed by one or more streams and from which a stream may flow; occurs due to widening or natural blockage of a river or stream or occurs in an isolated natural depression that is not part of surface river or stream; usually too deep to permit the growth or rooted plants from shore to shore.

LAND - means the earth, water, and air above, below or on the surface, and includes any improvements or structures customarily regarded as land.

LAND DEVELOPMENT CODE - means the various types of regulations for the development of land within the jurisdiction of a unit of local government when combined into a single document.

LAND DEVELOPMENT REGULATION - means ordinances enacted by governing bodies for the regulation of any aspect of development and includes any local government zoning, rezoning, subdivision, building construction, or sign regulations or any other regulation controlling the development of land.

LAND USE - means the development that has occurred on the land or the development that is proposed by a developer on the land, or the use that is permitted or permissible on the land under an adopted comprehensive plan or element or portion thereof, land development regulations, or a land development code, as the context may indicated.

LAND USE PLAN - means the Land Use Plan for the City of Hallandale Beach, Florida, adopted as the Future Land Use Plan Element of the Local Government Comprehensive Planning Act of 1975, Sections 163.3161- 163.3211, Florida Statutes, and certified by the Broward County Planning Council is being in substantial conformity with the Broward County Land Use Plan pursuant to Article VI of the Broward County Charter.

LEVEL OF SERVICE - means an indicator of the extent or degree of service provided by, or proposed to be provided by a facility based on and related to the operational characteristics of the facility. Level of service shall indicate the capacity per unit of demand for each public facility.

LIMITED ACCESS FACILITY - means a roadway especially designed for through traffic, and over, from, or to which owners or occupants of abutting land or other persons have no greater than a limited right or easement of access.

LITTORAL - means that portion of a body of water extending from the shoreline toward the middle of the water to the limit of occupancy by rooted plants.

LOCAL AREA OF PARTICULAR CONCERN - means an area designated on the Natural Resource Map Series of the Broward County Land Use Plan which has been declared to be environmentally sensitive.

LOCAL COMPREHENSIVE PLAN - means any or all local comprehensive plans or elements or portions thereof prepared, adopted, or amended pursuant to the Local Government Comprehensive Planning and Land Development Regulation Act.

LOCAL GOVERNMENT ENTITY - means a unit of government or any officially designated public agency or authority of a unit of government with less than statewide jurisdiction, or any officially designated public agency or authority of such a governmental entity. The term includes a county, an incorporated municipality, a consolidated city-county government, a metropolitan planning organization, an expressway or transportation authority, a turnpike project, a regional planning council, or a school board or other special district.

LOCAL PLANNING AGENCY - means the agency designated to prepare the comprehensive plan required by Chapter 163, Florida Statutes.

LOCAL ROAD - means a roadway providing service which is of relatively low traffic volume, short average trip length or minimal through traffic movements, and high volume land access for abutting property.

LOT - a designated parcel, tract or area of land established by plat, subdivision or as otherwise permitted by law, to be used, developed or built upon as a unit.

LOT OR PARCEL OF RECORD - means a quantity of real property as a single unit described and identified in a deed and/or plat recorded in the public records of a county in the State of Florida.

LOW AND MODERATE INCOME FAMILIES - means "lower income families" as defined under the Section 8 Assisted Housing Program, or families whose annual income does not exceed 80 percent of the median income for the area. The term "families" includes "households."

LOW IMPACT DEVELOPMENT (LID) – means an ecologically-based stormwater management approach favoring soft engineering to manage rainfall on site through a vegetated treatment network (University of Arkansas Community Design Center, 2010).

LOW-INCOME PERSONS - means one or more natural persons or a family, the total annual adjusted gross household income of which does not exceed 80 percent of the median annual adjusted gross income for households within the state, or 80 percent of the median annual adjusted gross income for households within the metropolitan statistical area (MSA) or, if not within an MSA, within the county in which the person or family resides, whichever is greater.

MAJOR TRANSPORTATION HUB - means transit stations with collocation of more than one major mode of transit, defined as a combination of bus and train or light rail station; or where at least three bus routes, including one of a regional nature, are located at the same facility with appropriate pull-ins or other bus bays at the station. Such major transportation hubs shall also offer a mix of other transportation options such as micromobility services, complete sidewalks, bicycle infrastructure, and rideshare access, along with shelter and shade for passengers to be deemed a major transportation hub.

MAJOR TRIP GENERATORS OR ATTRACTORS - concentrated areas of intense land use or activity that produces or attracts a significant number of local trip ends.

MARINE HABITAT - means areas where living marine resources naturally occur, such as mangroves, seagrass beds, algae beds, salt marshes, transitional wetlands, marine wetlands, rocky shore communities, hard bottom communities, oyster bars or flats, mud flats, coral reefs, worm reefs, artificial reefs, offshore springs, nearshore mineral deposits, and offshore sand deposits.

MARINE RESOURCES - means living oceanic or estuarine plants or animals, such as mangroves, seagrasses, algae, coral reefs, and living marine habitat; fish, shellfish, crustacea and fisheries; and sea turtles and marine mammals.

MASS TRANSIT - means passenger services provided by public, private or nonprofit entities such as the following surface transit modes; commuter rail, rail rapid transit, light

rail transit, light guideway transit, express bus, and local fixed route bus.

MEAN HIGH WATER - means the average height of the high water over a 19-year period. For shorter periods of observation, "mean high water" means the average height of the high waters after corrections are applied to eliminate known variations and to reduce the result to the equivalent of a mean 19-year value.

MEAN HIGH-WATER LINE - means the intersection of tidal plane of mean low water with the shore.

MEAN LOW WATER - means the average height of the low waters over a 19-year period. For shorter periods of observation, "mean low water" means the average height of low waters after corrections are applied to eliminate known variations and to reduce the result to the equivalent of a mean 19-year value.

MEAN LOW-WATER LINE - means the intersection of the tidal plane of mean low water with the shore.

MOBILE HOME - means a structure, transportable in one or more sections, which, in the traveling mode, is eight body feet or more in width, and which is built on a metal frame and designed to be used as a dwelling with or without a permanent foundation when connected to the required utilities, and includes the plumbing, heating, air conditioning and electrical systems contained herein. If fabricated after June 15, 1976, each section bears a U.S. Department of Housing and Urban Development label certifying that it is built in compliance with the federal Manufactured Home Construction and Safety Standards.

MOBILITY HUB - means central locations where people can access and seamlessly transfer between multiple types of transportation modes and are designed and constructed to enhance connectivity within a minimum of one-quarter mile. To qualify as a mobility hub, the site shall be a nexus point with collocation of facilities for multiple modes of transportation, and additionally include, but are not limited to, infrastructure that supports transfer at the hub to and from alternative modes of transportation, such as parking, such as sidewalks, bicycle facilities, transit, rideshare, micromobility options, and related amenities.

MODERATE-INCOME PERSONS - means one or more natural persons or a family, the total annual adjusted gross household income of which is less than 120 percent of the median annual adjusted gross income for households within the state, or 120 percent of the median annual adjusted gross income for households within the metropolitan statistical area (MSA) or, if not within an MSA, within the county in which the person or family resides, whichever is greater.

MUNICIPALITY - means any incorporated city, town, or village.

NATIVE VEGETATIVE COMMUNITIES - means those areas which contain ecological communities, such as coastal strands, oak hammocks, and cypress swamps, which are classified based on the presence of certain soils, native vegetation and animals.

NATURAL DRAINAGE FEATURES - means the naturally occurring features of an area which accommodate the flow of stormwater, such as streams, rivers, lakes and wetlands.

NATURAL DRAINAGE FLOW - means the pattern of surface and storm water drainage through or from a particular site before the construction or installation of improvements or prior to regarding.

NATURAL GROUNDWATER AQUIFER RECHARGE AREAS - means areas contributing to or providing volumes of water which make a contribution to the storage or regional flow of an aquifer.

NATURAL RESOURCES - means those natural resources identified in Section 9J-5 Florida Administrative Code: existing and planned waterwells and cones of influence, beaches and shores, including estuarine systems, rivers, bays, lakes, floodplains, and harbors; wetlands; minerals and soils.

NEIGHBORHOOD PARK - means a park which serves the population of a neighborhood and is generally accessible by bicycle or pedestrian ways.

NEIGHBORHOOD SHOPPING CENTER - means a shopping center typically ranging from 30,000 to 100,000 square feet of gross leasable area for the sale of convenience goods (food, drugs and sundries) and personal services which meet the daily needs of any immediate neighborhood. Neighborhood shopping centers range in area from approximately 3 acres to 10 acres and generally require a minimum market support population ranging from 2,500 to 40,000 people.

NEWSPAPER OF GENERAL CIRCULATION - means a newspaper published at least on a weekly basis and printed in the language most commonly spoken in the area within which it circulates, but does not include a newspaper intended primarily for members of a particular professional or occupational group, a newspaper whose primary function is to carry legal notices, or a newspaper that is given away primarily to distribute advertising.

NONPOINT SOURCE POLLUTION - means any source of water pollution that is not a point source.

OBJECTIVE - means a specific, measurable, intermediate end that is achievable and marks progress toward a goal.

OCEAN WATERS - means waters of the Atlantic Ocean, Gulf of Mexico, or straits of Florida, but does not include bays, lagoons, or harbors.

OPEN SPACES - means undeveloped lands suitable for passive recreation or conservation uses.

PARK - means a tract of land, designated and used by the public for active and passive recreation.

PARTIES AFFECTED - means any persons or firms owning property in, or residing in, either a municipality proposing annexation or contraction or owning property that is proposed for annexation to a municipality or any governmental unit with jurisdiction over such area.

PATTERN - means the form of the physical dispersal of development or land use.

PERSON - means an individual, corporation, governmental agency, business trust, estate, trust, partnership, or association.

PLANNING ACT - means the Local Government Comprehensive Planning and Land Development Regulation Act.

PLANNING COUNCIL - means the Broward County Planning Council.

PLAT - means a map or delineated representation of the subdivision of lands, being a complete exact representation of the subdivision and other information in compliance with the requirement of all applicable sections of this chapter and of any local ordinances, and may include the terms "replat," "amended Plat," or "revised Plat."

PLAYGROUND - means a recreation area with play apparatus.

POINT SOURCE POLLUTION - means any source of water pollution that constitutes a discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

POLICY - means the way in which programs and activities are conducted to achieve an identified goal.

POLLUTION - is the presence in the outdoor atmosphere, ground or water of any substances, contaminants, noise, or man-made or man-induced alteration of the chemical, physical, biological, or radiological integrity of air or water, in quantities or at levels which are or may be potentially harmful or injurious to human health or welfare, animal or plant life, or property, or unreasonably interfere with the enjoyment of life or property.

POND - means a small, quiet body of standing water, usually sufficiently shallow to permit the potential growth of rooted plans from shore to shore.

PORT FACILITY - means harbor or shipping improvements used predominantly for commercial purposes including channels, turning basins, jetties, breakwaters, landings, wharves, docks, markets, structures, buildings, piers, storage facilities, plazas, anchorages, utilities, bridges, tunnels, roads, causeways, and all other property or facilities necessary or useful in connection with commercial shipping.

POTABLE WATER FACILITIES - means a system of structures designed to collect, treat, or distribute potable water, and includes water wells, treatment plants, reservoirs, and distribution mains.

POTABLE WATER WELLFIELD - means the site of one or more water wells which supply potable water for human consumption to a water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year- round residents.

PRINCIPAL BUILDING - means a building which is occupied by, devoted to, a principal use or an addition to an existing principal building which is larger than the original existing building. In determining whether a building is of primary importance, the use of the entire parcel shall be considered. There may be more than one principal building on a parcel.

PRINCIPAL USE - means the primary or main use of a parcel of land as distinguished from an accessory use. There may be more than one principal or main use on a parcel of land.

PRIVATE RECREATION SITES - means sites owned by private, commercial or nonprofit entities available to the public for purposes of recreational use.

PROJECTS THAT PROMOTE PUBLIC TRANSPORTATION - means projects that directly affect the provisions of public transit including transit terminals, transit lines and routes, separate lanes for the exclusive use of public transit services, transit stops (shelter and stations) and office buildings or projects that include fixed rail or transit terminals as part of the building.

PROTECTED POTABLE WATER SYSTEM - means a community water supply which has been given a consumptive use permit by the South Florida Water Management District and which is protected by the Broward County wellfield protection program.

PUBLIC ACCESS - means the ability of the public to physically reach, enter or use recreation sites including beaches and shores.

PUBLIC BUILDING AND GROUNDS - means structures or lands that are owned, leased, or operated by a government entity, such as civic and community centers, hospitals, libraries, police stations, fire stations, and government administration buildings.

PUBLIC FACILITIES - means major capital improvements, including, transportation, sanitary sewer, solid waste, drainage, potable water, educational, parks and recreational facilities.

PUBLIC NOTICE OR DUE PUBLIC NOTICE as used in connection with the phrase "public hearing" or "hearing to be held after due public notice" - means publication of notice of the time, place, and purpose of such hearing at least twice in a newspaper of general circulation in the area, with the first publication not less than 14 days prior to the date of the hearing and the second to be at least 5 days prior to the hearing.

PUBLIC RECREATION SITES - means sites owned or leased on a long-terms basis by a federal, state, regional or local government agency for purposes of recreation use.

PUBLIC TRANSIT - means passenger services provided by public, private or non-profit entities such as the following surface transit modes: commuter rail, rail rapid transit, light rail transit, light guideway transit, express bus, and local fixed route bus.

PUBLIC UTILITY - includes any public or private utility, such as, but not limited to, storm drainage, sanitary sewers, electric power, water service, gas service, or telephone line, whether underground or overhead.

PURCHASE OF DEVELOPMENT RIGHTS - means the acquisition of a governmentally recognized right to develop land which is severed from the realty and held or further conveyed by the purchaser.

RECERTIFICATION - means a local land use plan which has previously been certified by the Broward County Planning Council, but because of amendments, decertification, or amendment to the Broward County Land Use Plan, is no longer in conformity, and must be recertified by the Broward County Planning Council as being in substantial conformity with the Broward County Land Use Plan.

RECREATION - means the pursuit of leisure time activities occurring in an indoor or outdoor setting.

RECREATION FACILITY - means a component of a recreation site used by the public such as a trail, court, athletic field or swimming pool.

RECREATIONAL USES - means activities within areas where recreation occurs.

REGIONAL PARK - means acreage listed in the "Community and Regional Parks" subsection of the Plan Implementation Requirements Section of the Broward County Land Use Plan that is utilized by the Broward County Board of County Commissioners to meet the regional level parks requirement of the Broward County Land Use Plan.

REGIONAL PLAN FOR SOUTH FLORIDA - means the plan prepared and adopted by the South Florida Regional Planning Council, pursuant to the provisions of Section 186 Florida Statutes governing comprehensive regional policy plans.

REGIONAL PLANNING AGENCY - means the council created pursuant to Chapter 186.

REGIONAL ROADWAY NETWORK - means the roads contained within the Broward County Metropolitan Planning Organization's adopted Year 2010 Highway Network, except for those roads functionally classified as city collector roads.

REGIONAL SHOPPING CENTER - means a shopping center which typically ranges from approximately 300,000 square feet to 1,000,000 square feet or more of gross leasable area and provides a full range of shopping goods, general merchandise, apparel, furniture and home furnishings. Such center is usually built around a full-time department store as the major drawing power. Regional shopping centers are approximately 30 acres in size or larger and generally require a minimum market support population in excess of 150,000 people and a trade area extending 10 to 15 miles or more modified by such factors as competitive facilities and travel time over access highways.

REGULATED PLANT INDEX - means the total number of species native to the State of Florida that are listed as commercially exploited plants, endangered plants, and threatened plants.

RESIDENT POPULATION - means inhabitants counted in the same manner utilized by the United States Bureau of the Census, in the category of total population. Resident population does not include seasonal population.

RESIDENTIAL USES - means activities within land areas used predominantly for housing.

RETAIL SHOPPING AREA - means a miscellaneous collection of individual stores which stand on separate lot parcels along streets and highways or which are clustered as a concentrated business district, with or without incidental off-street parking (as distinguished from a shopping center).

RIGHT-OF-WAY - means land dedicated, deeded, used, or to be used for a street, alley, walkway, boulevard, drainage facility, access or ingress and egress, or other purpose by the public, certain designated individuals, or governing bodies.

ROADWAY CAPACITY - means the maximum volume of traffic which can be accommodated on a roadway at a given level of service.

ROADWAY FUNCTIONAL CLASSIFICATION - means the assignment of roads into categories according to the character of service they provide in relation to the total

road network. Basic functional categories include limited access facilities, arterial roads, and collector-roads, which may be subcategorized into principal, major or minor level. Those levels may be further grouped into urban and rural categories.

SANITARY SEWER FACILITIES - means structures or systems designed for the collection, transmission, treatment, or disposal of sewage and includes trunk mains, interceptors, treatment plants and disposal systems.

SEASONAL POPULATION - means part-time inhabitants who use, or may be expected to use, public facilities or services, but are not residents and includes tourists, migrant farmworkers, and other short-term and long-term visitors.

SEPTIC TANK - means an on-site sewage disposal system, consisting of a watertight receptacle constructed to promote separation of solid and liquid components of wastewater, to provide limited digestion of organic matter, to store solids, and to allow clarified liquid to discharge for further treatment and disposal in a soil-absorption system.

SERVICES - means the program and employees determined necessary by local government to provide operation and maintenance of public facilities and infrastructure, as well as those education, health care, social and other programs necessary to support the programs, public facilities, and infrastructure as well as those educational, health care, social and other programs necessary to support the programs, public facilities, and infrastructure set out in the local plan or required by local, state, or federal law.

SHOPPING CENTER - means a group of architecturally unified commercial establishments built on a site which is planned, developed, owned, and managed as an operating unit related in its location, size, and type of shops to the trade area that the unit serves. The unit provides on-site parking in definite relationship to the types and total size of the stores.

SHORELINE OR SHORE - means the interface of land and water and, as used in the coastal management element requirements, is limited to oceanic and estuarine interfaces.

SOLID WASTE - means sludge from a waste treatment works, water supply treatment plant, or air pollution control facility or garbage, rubbish, refuse, or other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from domestic, industrial, commercial, mining, agricultural, or governmental operations.

SOLID WASTE FACILITIES - means structures or systems designed for the collection, processing or disposal of solid wastes, including hazardous wastes, and includes transfer stations, processing plants, recycling plants, and disposal systems.

SOLID WASTE PROCESSING PLANT - means a facility for incineration, resource recovery, or recycling of solid waste prior to its final disposal.

SPECIAL PART-TIME DEMANDS - is one that does not have more than 200 scheduled events during any calendar year, and does not affect the 100 highest traffic volume hours.

STATE COMPREHENSIVE PLAN - means the goals and policies contained within the state comprehensive plan.

STATE LAND PLANNING AGENCY - means the Department of Community Affairs may be referred to in this part as "DCA".

STORMWATER - means the flow of water which results from a rainfall event.

STORMWATER FACILITIES - means manmade structures that are part of a stormwater management system designed to collect, convey, hold, divert, or discharge stormwater, and may include stormwater sewers, canals, detention facilities and retention facilities.

STORMWATER MANAGEMENT SYSTEMS - means a system which is designed and constructed or implemented to control stormwater, incorporating methods to collect, convey, store, absorb, inhibit, treat, use, or reuse stormwater to prevent or reduce flooding, over-drainage, environmental degradation and water pollution or

otherwise affect the quantity and quality of discharges from the system.

STREAM - means any mass of water with a unidirectional flow.

STREET - includes any access way such as a street, road, lane, highway, avenue, boulevard, alley, parkway, viaduct, circle, a court, terrace, place, or cul-de-sac, and also includes all of the land lying between the right-of-way lines as delineated on a plat showing such streets, whether improved or unimproved, but shall not include those access ways such as easements and rights-of-way intended solely for limited utility purposes, such as for electric power lines, gas lines, telephone lines, water lines, drainage and sanitary sewers, and easements of ingress and egress.

STRUCTURE - means anything constructed, installed or portable, the use of which requires a location on a parcel of land. It includes a movable structure while it is located on land which can be used for housing, business, commercial, agricultural, or office purposes either temporarily or permanently. "Structure" also includes fences, billboards, swimming pools, poles, pipelines, transmission lines, tracks, and advertising signs.

SUBDIVISION - means the platting of real property into two or more lots, parcels, tracts, tiers, blocks, sites, units, or any other division of land; and includes establishment of new streets and alleys, additions, and resubdivisions; and, when appropriate to the context, related to the process of subdividing or the lands or area subdivided.

SUBSTANTIAL CONFORMITY - refers to the Broward County charter requirement that local governmental future land use plans shall be materially and pertinently compatible with and further the Broward County Land Use plan in order to be certified or recertified.

SUITABILITY - means the degree to which the existing characteristics and limitations of land and water are compatible with a proposed use or development.

SUPPORT DOCUMENTS - means any surveys, studies, inventory maps, data, inventories, listings or analysis used as bases for or in developing the local comprehensive plan.

SURFACE WATERS - means lakes or ponds excavated to generate fill material for a development and/or to provide recreational and aesthetic amenities. Other water upon the surface of the earth, contained in bounds created naturally or diffused, including water from natural springs, is defined as "lake", "pond" or "stream".

THREATENED SPECIES - means any species of fish and wildlife naturally occurring in Florida which may not be in immediate damage of extinction, but which exists in such small populations as to become endangered if it is subjected to increased stress as a result of further modification of its environment.

TIDE - means the periodic rising and falling of the waters of the earth that result from the gravitational attraction of the moon and the sun acting upon the rotating earth.

TIME-SHARE PERIOD - means that period of time when a purchaser of a time-share plan is entitled to the possession and use of the accommodations or facilities, or both, of a time-share plan.

TIME SHARE PLAN - means any arrangement, plan, or similar device, other than an exchange program, whether by membership, agreement, tenancy in common, sale, lease, deed, rental agreement, license, or right-to-use agreement or by any other means, whereby a purchaser, in exchange for a consideration, receives ownership rights in or a right to use accommodations or facilities, or both, for a period of time less than a full year during any given year, but not necessarily for consecutive years, and which extends for a period of more than 3 years.

TIME-SHARE PROPERTY - means one or more time-share units subject to the same time-share instrument, together with any other property or rights to property appurtenant to those units.

TIME-SHARE UNIT - means an accommodation of a time-share plan which is divided into time-share periods.

TOURIST UNIT - a house, an apartment, a group of rooms, or a single room occupied or intended for occupancy as a separate living quarter which is licensed or intended for license as a "hotel" or "motel" by the State Department of Business Regulation, Division of Hotels and Restaurants.

TRANSFER OF DEVELOPMENT RIGHTS - means a governmentally recognized right to use or develop land at a certain density, or intensity, or for a particular purpose, which is severed from the realty and placed on some other property.

TRANSIT STOPS - means designated and publicly noted fixed locations where public transit vehicles pick up or drop off passengers.

TRANSIT ORIENTED DEVELOPMENT - means a project or projects, in areas identified in a local government comprehensive plan, that is or will be served by existing or planned transit service. These designated areas shall be compact, moderate to high density developments, of mixed-use character, interconnected with other land uses, bicycle and pedestrian friendly, and designed to support frequent transit service operating through, collectively, or separately, rail, fixed guideway, streetcar, or bus systems on dedicated facilities or available roadway connections.

TRANSPORTATION CORRIDOR MANAGEMENT - means the coordination of the planning of designated future transportation corridors with land use planning within and adjacent to the corridor to promote orderly growth, to meet the concurrency requirements of this plan, and to maintain the integrity of the corridor for transportation purposes.

URBAN AREA - means an area of or for development characterized by social, economic and institutional activities which are predominantly based on the manufacture, production, distribution, or provision of goods and services in a setting which typically includes residential and nonresidential development uses other than those which are characteristic of rural areas.

URBAN CHARACTER - means an area used intensively for residential, urban recreational, commercial, industrial, institutional, or governmental purposes or an area undergoing development for any of these purposes.

URBAN INFILL - means the development of vacant parcels in otherwise built-up areas where public facilities such as sewer systems, roads, schools and recreation areas are already in place and the average residential density is at least five dwelling units per acre, the average nonresidential intensity is at least a floor area ratio of 1.0 and vacant developable land does not constitute more than 10 percent of the area.

URBAN PURPOSES - means that land is used intensively for residential, commercial, industrial, institutional, and governmental purposes, including any parcels of land retained in their natural state or kept free of development as dedicated government areas.

URBAN REDEVELOPMENT AREA - means demolition and reconstruction or substantial renovation of existing building or infrastructure within urban infill areas or existing urban service areas, or community redevelopment areas created pursuant to Chapter 163, Part III.

URBAN SERVICES - means services offered by a municipality, either directly or by contract, to any of its present residents.

URBAN SPRAWL - means a development pattern characterized by low density, automobile – dependent development with either a single use or multiple uses that are not functionally related, requiring the extension of public facilities and services in an inefficient manner, and failing to provide a clear separation between urban and rural uses.

VERY-LOW-INCOME PERSONS- means one or more natural persons or a family, not including students, the total annual adjusted gross household income of which does not exceed 50 percent of the median annual adjusted gross income for households within the state, or 50 percent of the median annual adjusted gross income for households within the metropolitan statistical area (MSA) or, if not within an MSA, within the county in which the person or family resides, whichever is greater.

VESTED RIGHTS - means rights which have so completely and definitely accrued to or settled in a person, which it is right and equitable that government should recognize and protect, as being lawful in themselves, and settled according to the current law.

WATER-DEPENDENT USES - means activities which can be carried out only on, in or adjacent to water areas because the use requires access to the water body for waterborne transportation including ports or marinas, recreation, electrical generating facilities; or water supply.

WATER RECHARGE AREAS - means land or water areas through which groundwater is replenished.

WATER-RELATED USES - means activities which are not directly dependent upon access to a water body, but which provide goods and services that are directly associated with water-dependent or waterway uses.

WATER WELLS - means wells excavated, drilled, dug, or driven for the supply of industrial, agricultural or potable water for general public consumption.

WELLHEAD PROTECTION AREA - means an area designated by local government to provide land use protection for groundwater source for a potable water wellfield, as defined in this section, including the surface and subsurface area surrounding the wellfield. Differing levels of protection may be established within the wellhead protection area commensurate with the capacity of the well and an evaluation of the risk to human health and the environment. Wellhead protection areas shall be delineated using professionally accepted methodologies base on the best available data and taking into account any zone of contribution described in existing data.

WETLANDS - means those areas that are inundated or saturated by ground or surface water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

2.1 INTRODUCTION

The purpose of this Land Use Element is to set forth the City's vision of its future built environment. This vision is described graphically through maps which show existing and future land uses and textually through goals, objectives, and policies which list the conditions under which future development will occur and through the guiding principals in the Citywide Master Plan. It is a vision which also describes graphically and textually the City's responsibility to conserve and preserve its neighborhoods, its capital investments, and its natural features and resources. The tools which will implement this vision are described as policies, which are primarily aimed at regulating the future development and redevelopment of land in the City of Hallandale Beach. The vision is described in immediate terms, a short term future (~~five~~ ten years), and an ultimate future (~~build-out, approximately 2030~~ twenty years).

The City of Hallandale Beach consists of 2,831 acres (4.4 square miles) of land. There are no Areas of Critical State Concern pursuant to Section 380.05, Florida Statutes, in Hallandale Beach. Also, there are no local Areas of Critical Concern, as defined by Broward County.

Since the City is over 96 percent developed and has limited annexation opportunities, urban sprawl is not an issue the City faces. The City has primarily experienced redevelopment and rehabilitation during the last planning period (1998-2006). The City has seen a fair amount of redevelopment along its major roadway corridors and within designated neighborhood areas which has benefited the City and its neighborhoods. In the 1996 the City Commission designated a Community Redevelopment Area within the City which includes all areas west of NE/SE 14 Avenue.

Undisturbed natural areas are nearly nonexistent in Hallandale Beach. Only two (2) significantly sized (5 – 10 acres) undeveloped parcels exist in the City. Soils in the City place only minimal restrictions on development. The danger of flooding is a more important natural condition affecting development, but through the years the City has put in place appropriate infrastructure to reduce the flood potential in the City.

Land use trends since 1978 could generally be described as infill development, both residential and commercial, with primary emphasis on single-family and duplex residential construction. However, in the last five years the City has seen an increase in redevelopment of larger commercial properties and associated with the Gulfstream Park Racetrack property which went through the DRI process and was approved as a Local Activity Center (See page 2-36 or more detail). In addition, the City has seen an increase in mixed-use and multi-family residential projects.

No new industrial establishments of a significant size are anticipated to locate in Hallandale Beach because of the urbanized character of the City and due to both land use and zoning restrictions already in place.

With the exception of the two (2) parcels mentioned above, most of the undeveloped parcels in the City are scattered small-scale sites so that any single development should not significantly impact infrastructure and capital improvement requirements. While it is possible that these small-scaled sites could be accumulated into a larger site, the City will be able to monitor such redevelopment through its normal site development procedures.

The City's infrastructure is in place and modifications and improvements have occurred in the last 10 years to maintain the systems efficiency and level of service requirements. ~~An example of the City's efforts is the new water filtration plant which was just completed.~~ The City continues to include infrastructure improvements in its 5-year Capital Improvement Plan and works with developers to make sure that new development and redevelopment does not unjustly burden the City's existing infrastructure and level of service standards.

2.2 GOALS, OBJECTIVES, AND POLICIES

2.2.1 INTRODUCTION

This section presents the City's land use goals, objectives, and policies. The City's land use goals, objectives and policies were derived from its analysis of land use, environmental, infrastructure, housing and population characteristics and

trends. It is also based on the City's evaluation of its past performance in meeting its land use goals, objectives, and policies as found in the City's 2006 Evaluation and Appraisal Report. The Future Land Use Map is included as Figure 2-1of this element. Hallandale Beach is located in Broward County, which is a charter county, having specific land use requirements in that charter, implemented through its county-wide Land Use Plan. The consistency with Broward County's Land Use Plan is addressed in Section 2.4 of this Future Land Use Element.

2.2.2 GOALS, OBJECTIVES AND POLICIES

The City has established the following definitions for the terms, goals, objectives, and policies ~~as described in the Florida Administrative Code Rule 9J-5~~:

"GOAL" means the long-term end toward which programs or activities are ultimately directed

"OBJECTIVE" means a specific, measurable, intermediate end that is achievable and marks progress toward a goal

"POLICY" means the way in which programs and activities are conducted to achieve an identified goal ~~(FAC Rule 9J-5.003)~~

GOAL 1: To provide a coordinated and compatible mix of land uses which encourages a high quality of life meeting the social, economic and physical needs of the present and future population of Hallandale Beach, while insuring reasonable environmental protection and timely and efficient provision of services.

OBJECTIVE 1.1: Levels of Service: The City shall continue to condition approval of development applications upon maintaining the provision of services at the Levels of Service (LOS) which meet or exceed levels specified in this Comprehensive Plan.

POLICY 1.1.1: The City shall maintain, within the Comprehensive Plan Elements, Level of Service standards for City facilities which will meet the existing and future needs of Hallandale Beach population and the standards established by Chapter 163 F.S.~~, and Rule 9J-5 F.A.C.~~

POLICY 1.1.2: Any development order or permit shall be approved only when adequate public services and facilities are in place, or will be provided to support the development at Levels of Service adopted by this Plan.

The necessary facilities and services shall be available concurrent with the impacts of development or through any of the following situations:

A. The necessary facilities are in place at the time a development order or permit is issued, or a development order or permit is issued subject to the condition that the necessary facilities will be in place when the impacts of the development occur.

B. The necessary facilities are under construction at the time a development order or permit is issued.

C. The necessary facilities are the subject of a binding contract executed for the construction of those necessary facilities at the time development order or permit is issued.

D. The necessary facilities have been included in the annual City budget and capital improvements program at the time development order or permit is issued although the facilities are not yet the subject of a binding contract for the construction.

E. The necessary facilities are committed facilities at the time a development order or permit is issued.

F. The Hallandale Beach City Commission assures the necessary facilities will be in place within a reasonable period of time consistent with the requirements of Chapter 163. At a minimum, the necessary facilities are to be included within a financially feasible capital improvements element which is determined by the Florida Department of Community Affairs to be in compliance with Rule 9J-5 of the Florida Administrative Code and supported by all necessary implementing land

use development regulations and a monitoring system for provision of the necessary facilities.

G. An applicant may choose to satisfy concurrency requirements by making a proportionate share contribution to mitigate the impacts of new development on the City's infrastructure system, pursuant to the methodology provided in the Land Development Code, in accordance with Section 163.3180 F.S.

POLICY 1.1.3: The City will require a development impact analysis to be submitted for developments which contain ten (10) residential dwelling units or more, or developments containing four thousand (4,000) square feet of nonresidential gross floor area or more. The applicant or his agents will be responsible for preparing the impact analysis which shall evaluate the overall effect of a proposed development on its surrounding neighborhood and the overall community.

POLICY 1.1.4: The City shall, through development regulations direct commercial and industrial land uses to areas with existing public facility capacity.

POLICY 1.1.5: The City shall maintain criteria and procedures, which obligate developments causing expansions or extensions of City services to contribute a proportionate share of the cost of provision of these supporting services and related facilities.

POLICY 1.1.6: The City of Hallandale Beach will provide sanitary sewer, solid waste, drainage and potable water facilities and services to correct deficiencies and to meet existing and project demands identified in this Plan.

POLICY 1.1.7: Permitted residential densities on the future land use plan map or as allowed in the element text shall not be increased beyond the ability of the surrounding roadway network and public transit system to accommodate projected traffic flows and ridership without degradation of levels of service for these facilities below that standard adopted in the plan.

POLICY 1.1.8: Prior to approving a building permit or its functional equivalent, the City shall consult with the water supplier to determine whether adequate water supplies will be available to serve the new development no later than the anticipated date of issuance of a certificate of occupancy or its functional equivalent in the City.

OBJECTIVE 1.2: Land Use Compatibility: Continuously review and reevaluate existing and potential land use conflicts and recommend solutions, in order to enhance land use compatibility and quality of life.

POLICY 1.2.1: Upon completion of the Citywide Master Plan, the City will reevaluate the various City neighborhoods, corridors, districts, and small area redevelopment plans for appropriate action which may include revising existing plans or developing new plans that promote land use compatibility and decrease land use conflicts.

POLICY 1.2.2: Hallandale Beach Boulevard: The City shall continue to utilize the City's Zoning Code, Land Development Regulations, Citywide Master Plan and the Design Guidelines Manual in review of development and redevelopment within the Hallandale Beach Boulevard Corridor.

POLICY 1.2.3: South Federal Highway: The City shall utilize the South Federal Highway Neighborhood Plan as a guide in the development and redevelopment of the South Federal Highway area.

POLICY 1.2.4: North Federal Highway: The City shall continue to utilize the City's Zoning Code, Land Development Regulations, Citywide Master Plan and the Design Guidelines Manual in review of development and redevelopment within the North Federal Highway Corridor.

POLICY 1.2.5: Fashion Row District: The City shall continue to implement the Fashion Row District Plan by upholding and enhancing the Fashion Row Overlay District, and funding improvements to the District provided there is sufficient private effort by the merchants and investment from property owners to justify City expenditures.

POLICY 1.2.6: North Dixie Highway: The City shall continue to implement the North Dixie Corridor Plan. The City will have succeeded in meeting this objective if all further

development is consistent with plan recommendations and overlay district standards, and if additional City investment occurs.

POLICY 1.2.7: South Dixie Highway: The City shall continue to implement the South Dixie Corridor Plan. The City will have succeeded in meeting this objective if all further development is consistent with plan recommendations and overlay district standards, and if additional City investment occurs.

POLICY 1.2.8: County Line Road Corridor: The City shall continue to implement the County Line Road Corridor Plan to the extent possible.

POLICY 1.2.9: Pembroke Road: The City shall continue to implement the Pembroke Road Corridor Plan. The City will have succeeded in meeting this objective if all further development is consistent with the plan recommendations and overlay district standards, and if additional City investment occurs.

POLICY 1.2.10: Foster Road: the City shall continue to implement the Foster Road Corridor Plan. The City will have succeeded in meeting this objective if all further development is consistent with the plan recommendations and overlay district standards, and if additional City investment occurs.

POLICY 1.2.11: The City shall reduce land use conflicts through prohibiting incompatible commercial uses in residential neighborhoods, through enforcement of the Hallandale Beach Zoning District requirements. Commercial development shall be limited primarily to the perimeter areas of Hallandale Beach's planning districts (as delineated in this Element). Well-planned mixed use projects and appropriate neighborhood commercial uses in defined neighborhood commercial nodes are encouraged where they will improve an area or serve as neighborhood centers. However, commercial uses within residential areas shall not be considered incompatible if, through proper screening, buffering, design and access control, there are no significant noises, odors, fumes, vibrations or other negative impacts beyond the site boundaries, and provided the use is either tied to a neighborhood commercial node, or a peripheral commercial corridor or area.

POLICY 1.2.12: The City shall not approve zoning variances from the nonconforming use provisions of the land development regulations, unless denial of the variance would result in inability to use the property for any conforming use in the foreseeable future.

POLICY 1.2.13: The City shall ensure that its land development regulations are consistent with its comprehensive plan and shall coordinate with any dependent special districts to ensure their regulations and development activities also align with the plan, in accordance with Sections 163.3177(5)(a) and 189.031(7), Florida Statutes, and Chapter 2023-31, Laws of Florida.

OBJECTIVE 1.3: Residential Land Use: Maintain at least 2 residential land use categories and corresponding zoning districts, covering at least 30% of the City's land area, providing for low (single-family only) and medium to high densities. At least 25% of land designated for residential use shall permit only single-family residential uses.

POLICY 1.3.1: Maintain categories of residential land use on the Future Land Use Plan map consistent with those categories contained within the Residential Permitted Uses listed in Section 2.3 of the Future Land Use Element.

POLICY 1.3.2: Permit those land uses within areas designated for residential use on the Future Land Use Map (FLUM) which are identified in the Residential Permitted Uses Implementation Section 2.3 of the Future land Use Element.

POLICY 1.3.3: The City shall maintain land development regulations intended to preserve and protect existing single-family neighborhoods from the negative impacts of incompatible land uses and nuisances.

POLICY 1.3.4: Low and medium density residential areas should continue to be buffered from high intensity residential and nonresidential uses and should continue to be located with access to existing local, collector and minor

arterial streets.

POLICY 1.3.5: High density residential developments should continue to be located with direct access to major arterial streets.

POLICY 1.3.6: The City adopts Broward County's rules and regulations for flexibility of residential densities.

POLICY 1.3.7: The City shall focus on compatible infill residential development.

OBJECTIVE 1.4: Subdivision and Platting: The City shall continue to provide for subdivision and platting regulations which promote well-planned, orderly, and attractive development and accommodate public facilities. They are to be consistent with the locally adopted capital improvements element, and, the goals, objectives and policies of the Broward County Land Use Plan and the Hallandale Beach Land Use Plan.

POLICY 1.4.1: The City shall maintain platting requirements and land development regulations to ensure they are in conformance with, and/or more stringent than, the Broward County Land Use Plan platting regulations, and, Local Government Comprehensive Planning and Land Development Regulation Act and the requirements and criteria of this Plan.

OBJECTIVE 1.5: Commercial Land Use: Maintain at least 2 commercial/business land use categories and corresponding zoning districts, covering at least 20 percent of the City's land area, providing for neighborhood commercial, general commercial uses and commercial recreation uses. At least 40 percent of the land area designated for commercial use shall be devoted to commercial recreation and ancillary uses, however, the City may elect to approve a proposed land use plan amendment to convert a portion of any parcel designated commercial recreation land use on the City's Future land Use Map, even though when the result may be a reduction in total commercial recreation land use below the 40% threshold, provided that the proposed land use designation compliments the commercial recreation land use category.

POLICY 1.5.1: Maintain categories of commercial land use on the Future Land Use Map consistent with those areas identified in the Commercial Permitted Uses listed in Section 2.3 of the Future Land Use Element.

POLICY 1.5.2: Maintain a Commercial Recreation Category including Hallandale Beach major commercial recreation facilities, i.e., Gulfstream Park Race Track and Casino, Mardi Gras Racing and Casino and Diplomat Golf Course and Country Club. The Commercial Recreation Category will allow public and private recreationally-based facilities. Conversion of these facilities to other uses having increased impacts on public facilities will be contingent upon the new developments ability to maintain adopted level of service standards for affected public facilities and a land use compatibility determination by the City.

POLICY 1.5.3: The City adopts Broward County's rules and regulations for flexibility of commercial areas on the Hallandale Beach Land Use Plan.

POLICY 1.5.4: Commercial areas will continue to be regulated by development standards, such as, but not limited to, size and bulk regulations, landscaped medians, right-turn only exits and other controls or designs intended to improve vehicular and pedestrian safety.

POLICY 1.5.5: The commercial policy statements and categories in the Hallandale Beach Land Use Plan shall form the basis for zoning categories and land development regulations which establish different intensities of commercial development compatible with their respective service areas and adjacent and surrounding land uses.

POLICY 1.5.6: The City shall restrict further commercial development, or reuse of existing commercially-zoned property, of the auto maintenance nature along Hallandale Beach Boulevard, US-1 or A1A.

POLICY 1.5.7: Development and redevelopment along Hallandale Beach Boulevard and U.S. 1 shall continue to be reviewed and evaluated based on guidelines established for these corridors in the City's Zoning Code, Land Development Regulations, the Citywide Master Plan and the Design Guidelines Manual. Recommendations

from the Citywide Master Plan should also be considered and incorporated upon the Plan's completion expected in late 2008.

OBJECTIVE 1.6: Industrial Land Use: Maintain at least 2 light-industrial and/or employment center land use categories and corresponding zoning district, covering at least 2 percent (50 acres) of the City land area, to provide for non-polluting, innocuous light manufacturing, high-technology, and related research and development uses.

POLICY 1.6.1: Maintain a Light Industrial category and/or an Employment Center category on the Future Land Use Map in order to allow for the development of certain light industrial and employment center uses in order to improve the community's overall economic base. Allowable light industrial and employment center uses are enumerated in Permitted Uses listed in Section 2.3 of the Future Land Use Element.

POLICY 1.6.2: The location of the Light Industrial category and/or the Employment Center category on the Land Use Plan Map shall continue to be based upon providing access to major transportation facilities, i.e., highway and railroad, while safeguarding the environment, tourism, community preferred life style, and residential areas from adverse impact of industrial development.

POLICY 1.6.3: New residential uses are disallowed in areas designated for industrial and employment center uses except for motel and hotel uses in employment center areas.

POLICY 1.6.4: Industrial land uses and/or employment center uses should continue to be buffered from existing and proposed residential areas by yard setbacks and sufficient landscaping or other screening to effectively screen the use(s) from public view

OBJECTIVE 1.7: Community Facility Land Use: Maintain at least one future land use category and corresponding zoning district to provide for a complete range of community facilities including but not limited to, educational, governmental, religious, utility, civic, recreational and cultural facilities adequate to meet the current and future needs of Hallandale Beach's population.

POLICY 1.7.1: Continue to designate an Institutional category on the Land Use Plan Map which will meet the intent of Objective 1.154 of this Plan Element and will allow uses as numerated in Permitted Uses listed in Section 2.3 of the Future Land use Element.

POLICY 1.7.2: Future institutional uses should be located in, or in close proximity to, population areas they are intended to serve.

POLICY 1.7.3: The City shall continue to designate a public parks category on the Future Land Use Plan map to preserve existing park and open space areas and protect them from encroachment by future development. Allowable Public Park uses are enumerated in the Permitted Uses Implementation Section of the Future Land Use Element.

POLICY 1.7.4: The City shall coordinate the location of public utilities with the Future Land Use Map to ensure adequate service delivery and infrastructure compatibility for the 2025–2045 planning horizon.

OBJECTIVE 1.8: Local Activity Center Land Use: Maintain a Local Activity Center (LAC) land use category within the city to encourage compact development that includes a mixture of community-serving uses such as commercial, office, employment, civic and institutional, recreation and open space, hotel, and/or residential. Development shall be characterized by efficient infrastructure, close-knit neighborhoods with a sense of community, preservation of natural systems, promotion of pedestrian circulation, and convenient access to mass transit facilities.

POLICY 1.8.1: The City shall use the Local Activity Center designation as a means to carry out recommended land use policies within a unified planning district based on an adopted master or redevelopment plan.

POLICY 1.8.2: Local Activity Centers shall support the location of uses in a manner oriented around a five-minute

(i.e. quarter mile) walk. Multiple nodes of activity oriented around a five-minute walk may be included within one Local Activity Center.

POLICY 1.8.3: Local Activity Centers shall support the location of uses and internal circulation such that pedestrian mobility is a priority. All land uses in a Local Activity Center shall be directly assessed via pedestrian ways, and accessible to existing or future alternative public transportation modes, including bicycle and transit.

POLICY 1.8.4: Local Activity Centers with multiple nodes of activity shall be connected by pedestrian ways and/or transit services.

POLICY 1.8.5: A uniform streetscape program shall be implemented within a Local Activity Center to include pedestrian amenities, public plaza areas, bicycle facilities, unified way-finding signage, and transit related amenities.

POLICY 1.8.6: The City will adopt, as part of its land development regulations, design guidelines to encourage pedestrian oriented development and consistent architectural design within Local Activity Centers.

POLICY 1.8.7: Parkland and/or open space that is accessible to the public shall be included as a functional component of a Local Activity Center. Parkland and/or open space may include defined landscape and pedestrian areas, squares, greenbelts, greenways, playgrounds, private plazas accessible to the public, and/or walking paths or promenades; however ill-defined residual areas such as buffers and berms, for purposes of this criteria, are not considered park land or open space.

POLICY 1.8.8: Housing opportunities shall be included as a functional component of any Local Activity Center. Residential development shall be limited to multifamily units as one means to encourage compact development and integrate mixed-use development.

POLICY 1.8.9: The City may direct public housing programs funds into designated Local Activity Centers consistent with the policies adopted in the Housing Element of the City's Comprehensive Plan as one means to encourage affordable housing opportunities within these centers.

POLICY 1.8.10: The City shall actively promote the provision of affordable housing opportunities within Local Activity Centers during the review and approval of design plans and guidelines for these centers by favoring urban development patterns characterized by reduced lot sizes, construction of zero lot line and cluster housing, vertical integration of residential units with non-residential uses, the allowance of accessory dwelling units, and/or through other mechanisms proven effective in increasing the stock of affordable housing units.

POLICY 1.8.11: Local Activity Centers should encourage the rehabilitation and use of historic structures identified within the designated center as one means to reinforce the local history and community character that is unique to the City of Hallandale Beach. To this end, the City will contact representatives of the Broward County Historical Commission, the Florida Department of State Division of Historical Resources, and the National Register of Historic Places during staff review for any proposed Local Activity Center and, when historic buildings and/or sites are identified, the City will determine the reasonable rehabilitation and reuse of historic buildings located on the site.

POLICY 1.8.12: The City shall coordinate with Broward County and relevant public and private stakeholders to address affordable housing needs, consistent with Section 163.3175(2), Florida Statutes, and as amended by Chapter 2024-188, by ensuring intergovernmental coordination in the development and implementation of housing strategies that support a range of income levels.

OBJECTIVE 1.9: Regional Activity Center Land Use: Consider a Regional Activity Center (RAC) land use category within the city to encourage attractive and functional mixed living, working, shopping, educational and recreational activities.

POLICY 1.9.1: The City shall use the Regional Activity Center designation as a means to carry out recommended land

use policies within a unified planning district based on an adopted master or redevelopment plan.

POLICY 1.9.2: Non-motorized transportation as well as mass transit shall be encouraged to serve a Regional Activity Center to reduce reliance upon automobile travel.

POLICY 1.9.3: To facilitate public transit access, integrated transportation systems should be encouraged to serve a Regional Activity Center.

POLICY 1.9.4: To enhance pedestrian movement and safety, the separation of pedestrian and vehicular traffic should be encouraged within a Regional Activity Center.

POLICY 1.9.5: Redevelopment activities should be encouraged within a Regional Activity Center.

POLICY 1.9.6: A Regional Activity Center should provide for substantial housing opportunities to allow people to both live and work within the Regional Activity Center.

POLICY 1.9.7: A Regional Activity Center shall include opportunities to address the affordable/workforce housing needs of the city.

POLICY 1.9.8: Park land and/or open space that is open to the public must be included as a functional component within a proposed Regional Activity Center.

POLICY 1.9.9: The City shall adopt design standards within the land development regulations ensuring compatibility between existing and planned land uses within and adjacent to the Regional Activity Center.

POLICY 1.9.10: Pursuant to an interlocal agreement between the City and Broward County, the City shall monitor development activity and enforce the permitted land use densities and intensities within the Regional Activity Center.

POLICY 1.9.11: In order to ensure that all properties can be developed within the overall density and intensity limitations of the Regional Activity Center, the City shall establish and implement a development tracking system.

POLICY 1.9.12: Acreage for non-residential land uses will be assigned on a net-acreage basis to all lands included within the development parcel needed to comply with on-site land development requirements, such as, but not limited to, building footprint, setbacks, parking, outdoor pedestrian circulation, landscaping, drainage, etc.

OBJECTIVE 1.10: Historic and Natural Resources: Ensure that no development adversely impacts historic resources, pollutes the aquifer, surface water bodies or air, contributes to beach erosion or tree removal in excess of tree replacement, disturbs migratory aquatic wildlife, or harms beach vegetation in excess of permitted and acceptable levels, as determined by the City, water management and environmental monitoring and permitting agencies. This objective will be achieved if there is no degradation of these resources attributed to specific development or development within the City, in general.

POLICY 1.10.1: The City shall protect, by regulation, acquisition and/or restoration, existing natural areas.

POLICY 1.10.2: The City of Hallandale Beach Code of Ordinances shall continue to regulate development in the 100-year flood level areas, as designated by the federal flood insurance program, and particularly in the Coastal High Hazard areas.

POLICY 1.10.3: The City shall continue to require building construction elevations consistent with minimum federal flood insurance regulations.

POLICY 1.10.4: Minimum road crown elevation standards as implemented by the South Florida Water Management District shall be applied to all new roadway construction in the City.

POLICY 1.10.5: Encourage the preservation of historically significant structures in the City by designating them on the FLUM and Official Zoning Map to provide for their preservation and appropriate use.

POLICY 1.10.6: The City shall protect historical structures by enforcing Broward County regulations

for the preservation of locally significant historical structures.

POLICY 1.10.7: The City shall maintain procedures for incentives, bonuses, and penalties to implement the preservation of historical structures.

POLICY 1.10.8: The City of Hallandale Beach shall continue to evaluate development proposals with respect to pervious area requirements specified in the Land Development Code.

POLICY 1.10.9: The City shall continue to discourage developments which may handle, generate or store hazardous material from locating within a wellfield cone of influence.

POLICY 1.10.10: The City shall protect the ground water aquifer within the cone of influence in conjunction with its agreements with Broward County Water Resources Management Division and the Broward County Wellfield Protection Ordinance and through the enforcement of the policies set forth in the "Infrastructure" Element of this Comprehensive Plan, and the regulations of the South Florida Water Management District (SFWMD).

POLICY 1.10.11: The City shall continue to protect its natural resources and maintain its environmental quality through the provision of land use regulations which are consistent with the policies of this Comprehensive Plan.

OBJECTIVE 1.11: Coastal Area Densities, Hurricane Evacuation: Maintain coastal area densities in order to maintain the hurricane evacuation times listed in the South Florida Regional Planning Council's (SFRPC) Regional Hurricane Evacuation Model Traffic Study.

POLICY 1.11.1: The City shall continue to enforce development regulations which are consistent with the policies of the Coastal Management Element, emphasizing the safety of life and property in the Coastal High Hazard Area.

POLICY 1.11.2: The City shall continue to require building construction elevations consistent with minimum federal flood insurance regulations.

POLICY 1.11.3: Encourage development and redevelopment in the coastal high hazard area to include hazard mitigation measures for beach and beachfront property protection to minimize loss of life and property and protect against beach erosion.

POLICY 1.11.4: The ordinances which the City will continue to enforce and update include the Flood Ordinance, and the Coastal Construction Code, as part of Florida Building Code.

POLICY 1.11.5: The City shall direct populations away from Coastal High-Hazard Areas, to the extent legally feasible, through establishment of redevelopment regulations for Coastal High Hazard Areas.

POLICY 1.11.6: The City shall establish limits on levels of service and areas of service for infrastructure systems within the Coastal High Hazard Area.

POLICY 1.11.7: The City shall require that proposed developments, which would result in a concentration of elderly and/or handicapped residents, provide plans and methods of evacuation as part of their development planning. The City will continue to enforce its Emergency Operations Plan which requires all condominiums to have a natural disaster plan in place.

POLICY 1.11.8: The City shall restrict construction or redevelopment in areas controlled by State Coastal Construction Control lines (CCCL) and require State agency approval prior to the City issuance of building permits for any portion of a structure seaward of the CCCL.

OBJECTIVE 1.12: Land Use Consistency: The City shall manage growth and development through the continued administration, and enforcement of the Hallandale Beach Zoning and Land Development Code which shall ensure that future land uses remain consistent with this Plan.

POLICY 1.12.1: As part of the development review and approval process, the City shall continue to implement a

system of Comprehensive Plan compliance review for all development and approval petitions.

POLICY 1.12.2: The City shall continue to ensure that the provisions of the Hallandale Beach Zoning and Land Development code include all necessary site plan requirements to further the intent of this Comprehensive Plan. These requirements shall include but not be limited to adequate drainage and stormwater management, landscaping and open space requirements, signage regulations, subdivision regulations, safe and convenient on-site traffic flow, vehicle parking and consistency of land uses with Plan designations.

POLICY 1.12.3: The City shall continue to review, evaluate and update the City's Unified Land Development Code.

POLICY 1.12.4: The City shall maintain innovative land development regulations that encourage mixed-use developments and incorporate site design planning techniques that will enhance the quality of large scale developments or redevelopment areas.

POLICY 1.12.5: The City shall continue to require adequate pervious areas to improve aquifer recharge and look for alternative ways to increase stormwater recapture.

POLICY 1.12.6: The City shall study and consider amortization and other methods of requiring nonconforming mobile home parks to meet Codes, including replacement of the parks with conforming uses by 2012.

OBJECTIVE 1.13: Housing: The City shall decrease the amount of substandard living conditions and blighting influences in the Hallandale Beach community through actions identified in the Housing Element to achieve stated objectives.

POLICY 1.13.1: The City shall continue its involvement in coordinating State, County and Federal funding allocations directed toward new construction, rehabilitation, and/or demolition of irreparable residential and nonresidential structures, strict code enforcement program, and the provision of public facilities and services which target low and moderate income households and neighborhoods.

POLICY 1.13.2: The Hallandale Beach Zoning and Land Development Code provisions which contain design standards relative to landscaping, setbacks, and other site controls, shall continue to be strictly enforced to meet the intent of the Goal, Objective and Policies of the Future Land Use Element of the Plan.

POLICY 1.13.3: The City should continue to commit resources to the Community Redevelopment Area where neighborhood improvements are needed.

OBJECTIVE 1.14: Capital Improvements: A five year schedule of Capital improvements will be maintained. The schedule will be oriented toward implementation of concurrency requirements of Chapter 163.F.S. that require public facilities and services be available, at levels of service consistent with those adopted in the Comprehensive Plan, when the impacts of development occur.

POLICY 1.14.1: The City shall determine the status and capabilities of existing and proposed facilities (including water, wastewater, solid waste, traffic, stormwater, and recreation/open space) to accommodate current, new, and redevelopment demands, and any projects necessary to maintain adopted levels of service. These projects will be added to the five-year Capital Improvements Plan.

POLICY 1.14.2: The Development Services Department shall evaluate impacts resulting from new developments to ensure that adequate facilities are either in place or planned so that Level of Service standards are not reduced.

POLICY 1.14.3: The City shall adopt level of service standards and shall be used as the basis for determining the availability of facility capacity. See the Capital Improvements Element for a complete list of adopted Level of Service Standards.

POLICY 1.14.4: The assessment of needed capital improvements shall be based on the Level of Service standards adopted in the Transportation Element, Sanitary Sewer, Solid Waste, Stormwater Management, Potable

Water, and Natural Groundwater Aquifer Recharge Element, and Recreation and Open Space Element of the Comprehensive Plan.

OBJECTIVE 1.15: Transportation: The City shall not issue a development order or permit which results in a reduction in level of service on any portion of the City roadway system below adopted level of service unless the development is located within an urban infill or redevelopment area and satisfies objectives and policies relating thereto and mitigation is provided (Note: the entire City is located within an urban infill area).

POLICY 1.15.1: The City shall through implementation of the Broward County Trafficways Plan and the minimum City right-of-way standard of fifty (50) feet, secure right-of-way dedications at time of development review to ensure that adequate right-of-way is provided to serve existing and future development.

POLICY 1.15.2: The City shall minimize future curb cuts on arterial and collector roadways during development review as identified in the Unified Land Development Code.

POLICY 1.15.3: The City shall encourage developments that promote safe and efficient on and off-site transportation improvements.

OBJECTIVE 1.16: Intergovernmental Coordination: Maintain or improve existing mechanisms and establish new ones as required to ensure coordination and cooperation between the City of Hallandale Beach and other units of local, County, Regional, State, and Federal governments regarding planning and development matters.

POLICY 1.16.1: The City shall use existing and establish new procedures as needed to ensure consistency and coordination between the City and County Comprehensive Plans, the State of Florida Comprehensive Plan, the Regional Policy Plan for South Florida, plans of adjacent municipalities, and plans of other units of local government which provide services within the City, but do not have regulatory authority.

POLICY 1.16.2: The City, in coordination with the Broward County School Board, encourages the location of schools proximate to urban residential areas to the extent possible, and to collocate public facilities, such as parks, libraries, and community centers with schools to the extent possible.

OBJECTIVE 1.17: Transportation Concurrency Exception Areas: Maintain urban infill and urban redevelopment area(s) within the City containing residential and nonresidential uses where public services and facilities are in place.

POLICY 1.17.1: Urban infill and urban redevelopment area(s) shall be mapped within the Future City and Broward County Land Use Plan Maps.

POLICY 1.17.2: Designated urban infill and urban redevelopment area(s) must contain residential and nonresidential uses and must be identified on the Future Land Use Plan Map Series consistent with the following criteria.

Where any two areas meeting the criteria for designation as urban infill, urban redevelopment or downtown revitalization area(s) are contiguous, they may be combined on the Land Use Plan Map as one distinct geographical area for the purposes of permitting development pursuant to the goals, objectives and policies of the Plan.

URBAN INFILL AREAS

a. The boundaries and approximate acreage of the area must be identified.

b. Public facilities and services such as sewage treatment systems, schools, and recreation areas must be in place.

c. Mass transit must be available within a quarter mile of 75 percent of the urban infill area and transportation facilities.

d. An analysis must be included considering the impact of the urban infill area on the Florida Intrastate Highway System.

e. Average residential density for developed residential areas must be at least 5 dwelling units per acre.

f. Average nonresidential intensity for developed nonresidential areas must have a floor area ratio of at least 1.0.

g. Vacant, developable land must not constitute more than 10 percent of the area.

h. Alternatively, in addition to meeting criteria (a), (b), (c) (d), (e), (f) and (g) above, the area may be a designated Community Redevelopment Area per Chapter 163, Florida Statutes.

URBAN REDEVELOPMENT AREAS

a. The boundaries and approximate acreage of the area must be identified.

b. Public facilities and services such as sewage treatment systems, schools, and recreation areas must be in place.

c. Transportation facilities and mass transit service must be available within a quarter mile of 75 percent of the urban redevelopment area providing a headway of thirty minutes or less, available at least 5 days a week.

d. An analysis is required, considering the impact of the urban redevelopment area on the Florida Intrastate Highway System.

e. In addition to meeting criteria (a), (b), (c), and (d) above, such area must be over 80% built-out, regularly served by mass transit and the subject of a locally adopted revitalization/redevelopment plan.

f. Alternatively, in addition to meeting criteria (a), (b), (c) and (d) above, the area may be a designated Community Redevelopment Area per Chapter 163, Florida Statutes.

g. The Urban Redevelopment Areas must be within an urban infill area or within an existing service area.

OBJECTIVE 1.18: Urban Infill and Redevelopment: Establish criteria which encourage development of urban infill and urban redevelopment area(s) to promote economic development, increase housing opportunities, and maximize the use of existing public facilities and services.

POLICY 1.18.1: Increase economic development and employment opportunities within urban infill and urban redevelopment area(s).

POLICY 1.18.2: Adequate housing opportunities necessary to accommodate all segments of present and future residents shall be provided within urban infill and urban redevelopment area(s).

POLICY 1.18.3: The Hallandale Beach Land Use Plan shall encourage mixed use developments within urban infill and urban redevelopment area(s).

POLICY 1.18.4: Designated urban infill and urban redevelopment area(s) shall be excepted from transportation facilities concurrency requirements consistent with Chapter 163 Florida Statutes; however, application will be subject to providing a traffic analysis consistent with the Transportation Element and potential improvements to minimize impacts.

POLICY 1.18.5: Notwithstanding the above, all development is subject to Broward County Transportation Concurrency Management Area (TCMA) Level of Service criteria and the payment of Transit Impact Fees as determined by Broward County prior to the issuance of permits.

POLICY 1.18.6: Integrated transportation systems, mass transit facilities, bikeways and pedestrian corridors should be encouraged to serve urban infill and urban re-development area(s) to reduce reliance upon automobile travel.

The City shall address the transportation needs of the exception areas through Objectives and Policies identified in the Transportation Element, the Citywide Transportation Plan and participation in existing or new County, MPO and FDOT programs and projects. These programs and projects include:

- Development of a Traffic Management System to monitor the traffic impacts of all developments approved within the exception areas.

- The Broward County Congestion Demand Management Plan

- The "Downtown (Fort Lauderdale CBD) Transportation Management Area" ride-sharing, flex-time guaranteed ride home and mass transit programs for any commuters living in Hallandale Beach.

- The I-95 Master Plan participation on the I-95 Master Plan (including Tri-Rail System) project will include coordination with Florida Department of Transportation to identify alternative approaches to address the transportation needs of the exception areas. Coordination will also identify the traffic impacts of the exception areas and evaluation of proposed I-95 alternatives on the overall Hallandale Beach Transportation System.

- The City actively encourages the use of the City Mini Bus System and implements bicycle and sidewalk improvements.

POLICY 1.18.7: The Hallandale Beach Comprehensive Plan and LDRs shall establish standards and monitoring procedures for the expansion of mass transit, pedestrian travel and other forms of non-automobile travel within urban infill and urban redevelopment area(s).

OBJECTIVE 1.19: Crime Prevention: The City shall review all major developments for their use of Crime Prevention Through Environmental Design (CPTED) principles and standards.

POLICY 1.19.1: The City shall maintain a CPTED review policy and procedure in the form of administrative policy or land development regulations. The policy shall require plan review by the Development Services and Police Departments, at a minimum.

POLICY 1.19.2: The City shall incorporate CPTED principles into the Unified Land Development Code by 2011.

POLICY 1.19.3: Consistent with Hallandale Beach Safe Neighborhood Districts for Golden Isles and Three Islands - Safe Neighborhood Improvement Plans, the City shall continue to recognize and assist with implementation of the adopted plans, as amended, to provide a safe and secure environment for residents of the district through community policing, environmental design and environmental security.

OBJECTIVE 1.20: The City shall continue to implement its energy-efficient “grid” Future Land Use Plan and discourage urban sprawl accounting for existing and future energy power generation and transmission systems.

POLICY 1.20.1: The City shall ensure the Comprehensive Plan and Land Development Code do not prevent the construction of electrical substations and transmission systems in the City. This shall not preclude the City from requiring proper siting and buffering.

POLICY 1.20.2: The City shall continue to enforce the provisions of the most recent edition of the Florida Building Code, particularly the updated Energy Code (adopted 3/09) to achieve higher energy efficiency in buildings.

POLICY 1.20.3: The City shall require the use of low water use plumbing fixtures in new construction and continue to encourage the use of low water use plumbing fixtures in building renovations through periodic give-away toilet retrofit programs and encourage energy efficient electrical systems, such as retrofitting lighting fixtures in City buildings.

POLICY 1.20.4: The City shall continue to provide educational materials to its residents / property owners on energy saving strategies and water conservation methods such as domestic water use, rainwater recycling for irrigation, and landscaping techniques. The City will continue periodic give-away rain sensor retrofit programs for sprinkler systems.

POLICY 1.20.5: The City shall allow the use of alternative, renewable sources of energy including the use of solar panels. This shall not preclude the City from requiring proper installation locations and buffering.

POLICY 1.20.6: The City shall include energy-related goals, objectives, and policies in its comprehensive plan to promote the development and use of renewable energy resources and energy conservation strategies, consistent with Section 163.3210, Florida Statutes, as amended by Chapter 2024-186.

POLICY 1.20.~~6~~7: The City shall continue to encourage mixed-use development and concentrations of higher land use intensities along major transportation corridors by allowing urban-type development standards (i.e. height / setbacks), residential use and density bonuses in designated commercial areas via Flex Allocation.

POLICY 1.20.~~7~~8: The City shall continue to foster its "sustainable" community character with a variety of housing opportunities at varying price ranges, employment and retail uses, educational, community facilities, parks and recreational uses, etc. to the extent possible.

POLICY 1.20.~~8~~9: The City shall continue to maintain, upgrade and complete missing segments of its pedestrian and bikeway networks connecting development to transportation systems, schools, public facilities and commercial areas.

POLICY 1.20.~~9~~10: The City shall continue to reduce the heat island effect by improving its green infrastructure (i.e. tree canopy / parks and open spaces / landscaped medians) and requiring private lands to comply as well. The City has previously adopted a Resolution to achieve a 30% tree canopy by 2030.

POLICY 1.20.~~10~~11: The City shall initiate Comprehensive Plan amendments within one year of publication of approved DCA guidelines (Rules) for implementing the 2008 statutory requirements for energy reduction and subsequently amend its Land Development Regulations to adopt specific standards and strategies that address Greenhouse Gas (GHG) emissions, energy efficient housing, and overall energy conservation, if deemed appropriate for the City and they are financially feasible.

2.3 PERMITTED USES IN FUTURE LAND USE CATEGORIES

The following section is a listing of the types of uses permitted in each of the City Future Land Use Plan Map designations. These uses were developed to be consistent with State requirements for regulating land uses within each Plan designation and with the Broward County Land Use Plan. These uses are intended to guide land use decisions and provide the framework for consistency between the Hallandale Beach Zoning and Land Development Code and this Comprehensive Plan.

As identified, the permitted uses in the Land Use Plan categories are tied to specific zoning categories of the Hallandale Beach Zoning and Land Development Code.

Utilities ancillary to permitted and conditional uses may be permitted within all land use categories.

A. RESIDENTIAL USE (See Objective 1.3)

Permitted uses in the Residential categories include:

1. LOW DENSITY CATEGORY - Each parcel of land within an area which is designated in Low Density Residential land use category by the City Future Land Use Plan Map must be zoned in a low density residential zoning district (RS-5, or RS-6, or RS-7) which permits the following specific uses.

   a) Single family dwelling units and accessory structures subject to a maximum density of nine (9) dwelling units per net acre.

   b) Home occupations

   c) Public parks and playgrounds.

   d) Public utilities including substations, transformers and transmission facilities.

   e) Community facilities designed to serve the residential area such as schools, day care centers and churches, synagogues and other similar houses of worship.

2. LOW-MEDIUM DENSITY CATEGORY - Each parcel of land within an area which is designated Low-Medium Density Residential land use category by the City Future Land Use Plan Map must be zoned in a low to low-medium density residential zoning district (RS-5, RS-6, RS-7 or RD-12). Permitted uses are as follows:

   a) Dwelling units and accessory structures subject to a maximum density of fourteen (14) dwelling units per net acre.

   b) Home occupation

   c) Public parks and playgrounds.

   d) Recreational, civic or other cultural buildings ancillary to primary outdoor recreational use of the site.

   e) Public utilities including substations, transformers and transmission facilities.

   f) Community facilities designed to serve the residential area such as schools, day care centers and churches, synagogues and similar houses of worship.

   g) Mobile home residential dwellings subject to a maximum density of 12 dwelling units per net acre.

   h) Parking lots

3. MEDIUM DENSITY CATEGORY - Each parcel of land within an area which is designated in a Medium Density Residential land use category by the City Future Land Use Plan Map, must be zoned in the Low, Low-Medium or Medium Density residential zoning districts (RS-5, RS-6, RS-7, RD-12 or RM-18). Permitted uses are as follows:

   a) Dwelling units and accessory structures subject to a maximum density of eighteen (18) dwelling units per net acre.

   b) Home occupations

   c) Public parks and playgrounds.

   d) Recreational, civic, or other cultural buildings ancillary to primary outdoor recreational use of the site.

   e) Public utilities including substations, transformers and transmissions facilities.

   f) Community facilities designed to serve the residential area such as school, day care centers and churches, synagogues and similar house of worship.

   g) Parking lots

   h) Mixed residential and commercial use provided at least 50% of the floor area is used for residential.

   i) Mixed commercial and residential or principal commercial uses permitted in the Neighborhood Commercial category, subject to allocation of commercial flexibility according to the 5% commercial flexibility rule of the Broward County Land Use Plan Administrative Rules Documents adopted herein.

4. HIGH DENSITY CATEGORY - Permitted uses in the High Density Residential land use category on the City Land

FIGURE 2-1
FUTURE LAND USE MAP

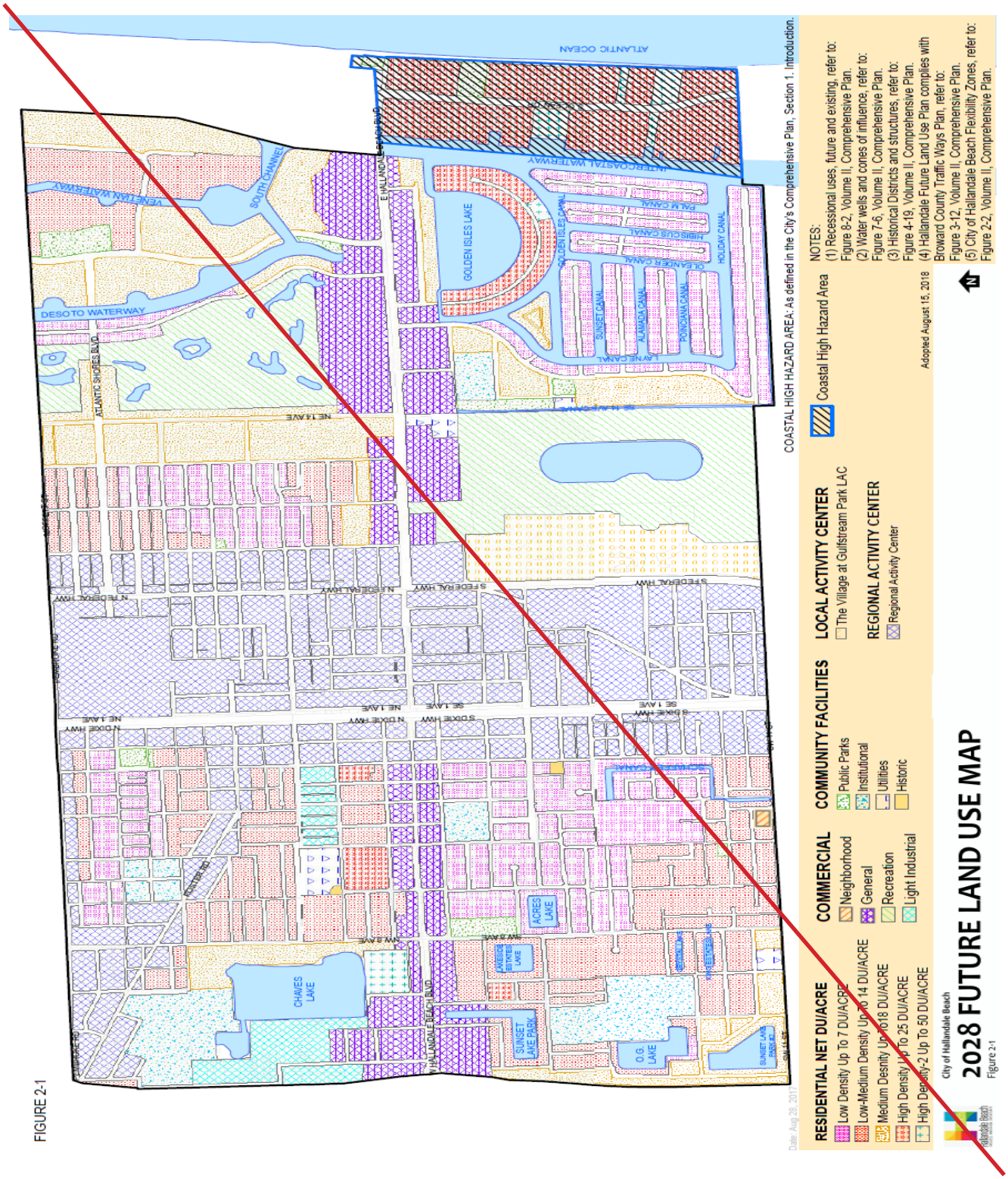
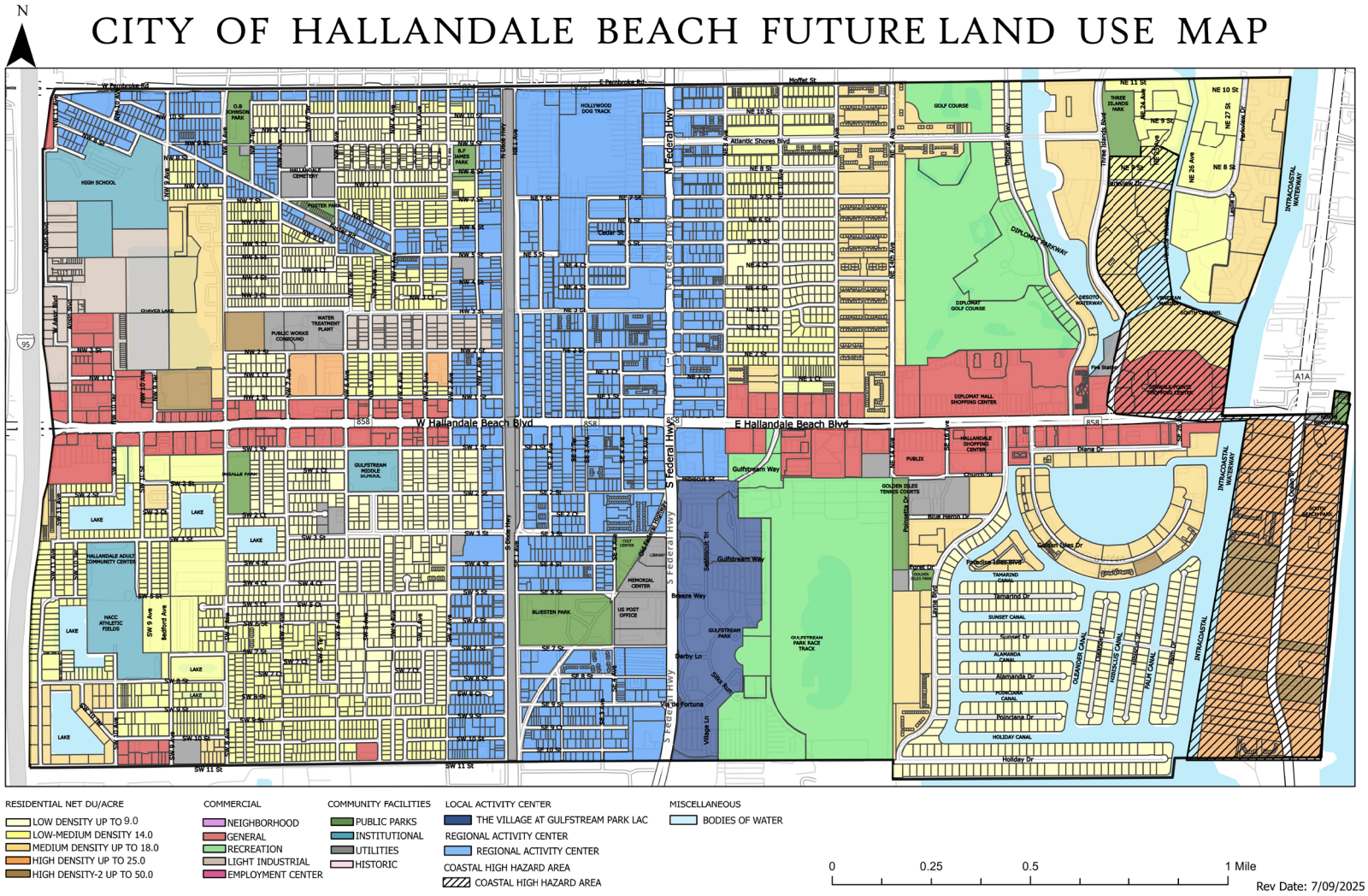


FIGURE 2-1
FUTURE LAND USE MAP



Use Plan Map are as follows:

a) Dwelling units and accessory structures subject to a maximum density of twenty-five 25 dwelling units per net acre.

b) Home occupations.

c) Hotels and motels: The maximum number of hotel, motel or similar lodging units permitted on any parcel designated for residential use is double the maximum number of dwelling units permitted by the land use plan map designation;

d) Nursing and convalescent homes.

e) Public Parks and playgrounds.

f) Recreational, civic or other cultural buildings ancillary to primary outdoor recreational uses of the site.

g) Public utilities including substations, transformers and transmission facilities.

h) Community facilities designed to serve the residential area such as schools, day care centers and churches, synagogues and similar houses of worship.

i) Parking lots

j) Office, service and retail uses within multi-family, hotel or motel structures provided that at least 50% of the building floor area is used for residences.

k) Mixed commercial and residential or principal commercial uses permitted in the Neighborhood Commercial category, subject to allocation of commercial flexibility according to the 5% commercial flexibility rule of the Broward County Administrative Rules Document.

5.HIGH DENSITY-2 CATEGORY- Permitted uses in the High Density - 2 Residential land use category on the City Land Use Plan Map are as follows:

a) Dwelling units and accessory structures subject to a maximum density of fifty (50) dwelling units per net acre, provided however that any density over 25 dwelling units per net acre may only be permitted by the City Commission on site specific properties.

b) Home occupations

c) Hotels and motels: The maximum number of hotel, motel or similar lodging units permitted on any parcel designated for residential use is double the maximum number of dwelling units permitted by the land use plan map designation;

d) Nursing and convalescent homes.

e) Public Parks and playgrounds.

f) Recreational, civic or other cultural buildings ancillary to primary outdoor recreational uses of the site.

g) Public utilities including substations, transformers and transmission facilities.

h) Community facilities designed to served the residential area such as schools, day care centers and churches, synagogues and similar houses of worship.

i) Parking lots.

j) Office, service and retail uses within multi-family, hotel or motel structures provided that at least 50% of the building floor area is used for residences.

k) Mixed commercial and residential uses or principal commercial uses permitted in the Neighborhood Commercial category, subject to allocation of commercial flexibility according to the 5% commercial flexibility rule of the Broward County Administrative Rules Document.

6. HALLANDALE BEACH REDEVELOPMENT DISTRICT – Permitted uses in the Hallandale Beach Redevelopment District land use category on the City Land Use Plan Map are as follows:

a) Dwelling units and accessory structures subject to a maximum density of fifty (50) dwelling units per net acre;

b) Home occupations;

c) Hotels and motels: The maximum number of hotel, motel or similar lodging units permitted on any parcel designated for residential use is double the maximum number of dwelling units permitted by the land use plan map designation;

d) Public parks and playgrounds;

e) Recreational, civic, or other cultural buildings ancillary to primary outdoor recreational uses of the site;

f) Public facilities, including substations, transformers, and transmission facilities;

g) Community facilities designed to serve the residential area such as schools, day care centers, churches, synagogues, and other similar houses of worship;

h) Office, service, and retail uses within multi-family, hotel or motel structures, provided at least 50% of the building floor area is used for residences; and

i) Mixed commercial and residential uses or principal commercial uses permitted in the Neighborhood Commercial Category, subject to allocation of commercial flexibility according to the 5% Commercial Flexibility Rule of the Broward County Administrative Rules Document.

B. COMMERCIAL USE (See Objective 1.5)

1. NEIGHBORHOOD COMMERCIAL CATEGORY - The Neighborhood Commercial category shall provide for a variety of convenience goods and sales designated to serve an immediate residential neighborhood. Permitted uses are:

a) Neighborhood retail and office uses which do not have adverse impacts upon adjacent residential uses regarding noise, hours of operation, or other nuisance factors.

b) All nonresidential uses permitted in the residential categories.

c) Recreation, civic, or cultural uses.

d) Community facilities and utilities

e) Residential, and mixed residential and neighborhood commercial uses subject to the following provisions:

- Residential uses shall be subject to allocation of Residential Flexibility or Reserve Units for the site.
- For mixed commercial/residential developments greater than 5 acres in size, freestanding multi-family residential uses are permitted provided the gross residential acreage does not exceed 5 acres or 40% of the commercially-designated site, whichever is greater, and the entire mixed commercial/residential development be governed by specific zoning regulations that establish criteria to ensure proper integration and compatibility of land uses within and surrounding the development.
- Residential densities shall not exceed 50 dwelling units per net acre.
- Freestanding multi-family residential uses (including duplexes and townhomes) on parcels 5 acres or less in size.
- Residential units within the same structure as commercial uses for the owner, manager or caretaker of the commercial uses may be located in areas designated commercial without allocation of flexibility or reserve units.

Such uses shall be limited in intensity to result in sufficient landscape area in accordance with all regulatory agencies and such that no structure shall exceed a maximum height of 200 feet after development. Nonconforming uses are exempt from this provision. Uses may exceed the prescribed intensity by up to 50% above the average intensity for property within a quarter mile radius of the site in question.

2. GENERAL COMMERCIAL CATEGORY - The General Commercial category shall provide for retail stores, entertainment, restaurants, professional offices, financial and related services that are oriented to the City as a whole. Permitted uses are:

a) Neighborhood, community, regional and highway retail uses.

b) Office and retail business uses.

c) All nonresidential uses permitted in the residential categories.

d) Hotels, motels.

e) Community facilities and utilities.

f) Multi-family residential, and mixed residential and neighborhood commercial uses subject to the provisions for residential and mixed uses set forth in the Neighborhood Commercial Category.

g) Wholesale uses.

h) Warehouses accessory to wholesale and light industrial uses.

i) Light-industrial uses.

j) Communication facilities.

k) Resiliency Facility

~~k)~~ l) Prohibited uses

1. Gun shops

2. Building materials and lumber supply yards

3. Contractors plants/storage yards

4. Pawn shops

5. Building trade shops

6. Substance abuse clinics

Such uses shall be limited in intensity to result in sufficient landscape area in accordance with all regulatory agencies and such that no structure shall exceed a maximum height of 450 feet after development. The 450 feet maximum height shall apply to those properties zoned Planned Development Overlay District (PDD) only as delineated on the City's official Zoning Map, and shall be limited in intensity in accordance with PDD zoning regulations. Nonconforming properties are exempt from this provision.

3. COMMERCIAL RECREATION CATEGORY - The COMMERCIAL RECREATIONAL category shall provide for suitable land areas for commercial recreational attractions and facilities of an active or passive, indoor or outdoor nature which require extensive land area and are recognized as being supportive of a tourist-oriented economy. Each parcel of land within an area designated in the Commercial Recreation land use category by the city Land Use Plan Map must be zoned in a Commercial Recreational zoning district which permits the following land uses:

a) Golf courses.

b) Spectator sport and entertainment facilities and auditoriums.

c) Zoos.

d) Marinas.

e) Indoor and outdoor amusements.

f) Athletic facilities and exercise facilities.

g) Cultural centers.

h) Accessory office, service, and retail uses.

i) Hotels and Motels.

Such uses shall be limited in intensity to result in sufficient landscape area in accordance with all regulatory agencies and such that no structure shall exceed a maximum height of 450 feet after development. The 450 feet maximum height shall apply to those properties zoned Planned Development Overlay District (PDD) only as delineated on the City's official Zoning Map, and shall be limited in intensity in accordance with PDD zoning regulations. Nonconforming properties are exempt from this provision.

C. LIGHT INDUSTRIAL AND EMPLOYMENT CENTER CATEGORIES (See objective 1.6)

1. LIGHT INDUSTRIAL CATEGORY

Permitted uses in the Light Industrial Category are:

a. Light industrial uses.

b. Heavy commercial uses.

c. Commercial parking and vehicle storage facilities.

d. Wholesaling uses.

e. Warehouses.

f. Ancillary retail/commercial uses within buildings devoted to primary industrial uses.

g. Auto repair and service.

h. Community facilities such as schools and libraries.

i. Office uses.

j. Resiliency Facility

k. Floating Solar Facility

Such uses shall be limited in intensity to result in sufficient landscape area in accordance with all regulatory agencies and such that no structure shall exceed a maximum height of 200 feet after development. Nonconforming properties are exempt from this provision. Uses may exceed the prescribed intensity by up to 50% above the average intensity for property within a quarter mile radius of the site in question.

2. EMPLOYMENT CENTER CATEGORY

The purpose of the Employment Center land use category is to encourage nonresidential development, compatible with residential and other less intensive land uses, and which will support the tourist-oriented segment of the economy as well as high technology and service-based activities. Each parcel of land within an area designated in an Employment Center land use category by the City Land Use plan Map must be zoned in a zoning district which permits any one or more uses listed below:

a. Office

b. Research and Assembly

c. Community Facilities

d. Communication Facilities

e. Light Manufacturing

f. Hotels, Motels and similar lodging

g. Non-Residential Agricultural (such as horticulture research)

h. Indoor and Outdoor Recreation

i. Restaurants and Personal Services

j. Commercial and retail business principal uses,

providing the total area of such uses does not consume more than 20 percent of the Employment Center land designated on the City Future Land Use Plan Map within a flexibility zone and the location of these uses do not preclude or adversely affect the future use of surrounding areas for employment center use.

k. ACCESSORY USES: (limited to less than 50% of the total gross development complex site)

(1) Transportation and Utilities,

(2) Storage, Warehousing, Distribution,

(3) Retail within buildings devoted to principal uses,

l. PROHIBITED USES:

(1) Automobile Sales and Display (new and used)

(2) Automobile Repair and Service

(3) Automobile Paint and Body Shops

(4) Motorcycle Sales and Display

(5) Nightclubs, Dance Halls, and Discotheques

(6) Pawn Shops

(7) Recreational Vehicle Sales and Display

(8) Roofers, Asphalt Works, Building Trade Shops

(9) Secondhand Merchandise Stores

(10) Truck and Trailer Sales

(11) All heavy commercial uses (not including manufacturing wholesaling or warehouse) permitted in the City's industrial category.

m. Such uses shall be limited in intensity to result in sufficient landscape area in accordance with all regulatory agencies and such that no structure shall exceed a maximum height of 200 feet after development. Nonconforming properties are exempt from this provision. Uses may exceed the prescribed intensity by up to 50% above the average intensity for property within a quarter mile radius of the site in question.

D. PUBLIC PARKS (See Objective 1.7)

Each parcel of land within an area designated in the Public Parks land use category by the City Future Land Plan Map must be zoned in an OS Recreation and Open Space zoning district which permits one or more of the following specified uses:

1. Active and passive outdoor recreation.

2. Recreation, civic or cultural buildings which are ancillary to the primary recreational use. (CU)

3. Picnic facilities and accessory facilities (i.e. concession stands, restrooms).

4. Other recreation/open space uses which do not impair the natural environment or do not permanently disturb the natural ecosystem of the area.

5. Communication facilities.

Such uses shall be limited in intensity to result in sufficient landscape area in accordance with all regulatory agencies and such that no structure shall exceed a maximum height of 200 feet after development. Nonconforming properties are exempt from this provision. Uses may exceed the prescribed intensity by up to 50% above the average intensity for property within a quarter mile radius of the site in question.

E. HISTORICAL CATEGORY (See Objective 1.9)

Each parcel of land within an area designated in a Historical land use category on the City Future Land Use Map must be zoned to permit any one or more of the following specific uses:

1. Historical properties and sites

2. Civic and Cultural facilities

3. Accessory office, service, and retail uses that are ancillary to the primary use of the property.

F. INSTITUTIONAL CATEGORY (See Objective 1.7).

Each parcel of land within an area designated in an Institutional land use category on the City Future Land Use Plan Map must be zoned to permit any one or more of the following specified uses:

1. Educational institutions.

2. Churches, synagogues and other houses of worship.

3. Government administration buildings.

4. Police and fire stations.

5. Public works facilities.

6. Parks and playgrounds and other public recreation areas.

7. Hospitals

8. Libraries

9. Cultural facilities

10. Other community facilities necessary or beneficial to the community.

11. Communication facilities

Such uses shall be limited in intensity to result in sufficient landscape area in accordance with all regulatory agencies and such that no structure shall exceed a maximum height of 200 feet after development. Nonconforming properties are exempt from this provision. Uses may exceed the prescribed intensity by up to 50% above the average intensity for property within a quarter mile radius of the site in question.

G. UTILITIES CATEGORY (See Objective 1.7)

Each parcel of land within an area designated in a UTILITIES land use category on the City Future Land Use Plan Map must be zoned to permit any one or more of the following specified uses:

1. Water

2. Sanitary Sewer

3. Drainage

4. Solid Waste

5. Communications

6. Gas

7. Electric

8. Ancillary Utility Support Uses

9. Such uses shall be limited in intensity to result in sufficient landscape area in accordance with all regulatory agencies and such that no structure shall exceed a maximum height of 200 feet after development. Nonconforming properties are exempt from this provision. Uses may exceed the prescribed intensity by up to 50% above the average intensity for property within a quarter mile radius of the site in question.

H. LOCAL ACTIVITY CENTER (See Objective 1.8)

The purpose of the Local Activity Center land use category is to encourage compact, mixed-use development comprised of such uses as commercial, office, employment, civic and institutional, recreation and open space, hotel, and residential. Development of these sites should emphasize the efficient use of infrastructure, preservation of natural systems, promotion of pedestrian circulation and

convenient access to mass transit facilities, and an urban form characterized by close-knit neighborhoods and sense of community. Consistent with the Broward County Land Use Plan, the following criteria must be met for an area to qualify as a Local Activity Center within the City of Hallandale Beach:

- A Local Activity Center shall be a specific geographic area not exceeding 160 gross contiguous acres, unless located within an approved Chapter 163, Florida Statutes, Redevelopment Area. At such time as 75% of the originally designated Local Activity Center is developed/redeveloped, consistent with Objective 1.8, an expansion to a subject Local Activity Center up to 100% may be proposed.

- The type and density or intensity of land uses permitted within a proposed Local Activity Center shall be specified for inclusion within the Permitted Uses Section of the City of Hallandale Beach Future Land Use Element.

- Land uses proposed within a Local Activity Center shall include residential and park land and/or open space. One or more other uses such as commercial, office, employment, civic, institutional, hotel, or employment-based activity shall also be included within a Local Activity Center.

- Park land must reflect no net loss of acreage of existing and designated parks within the proposed Local Activity Center. Park and open space land may include public squares and plazas, greenbelts, greenways and playgrounds; however ill-defined residual areas such as buffers and berms, for purposes of this criteria, are not considered park land or open space.

- To address proposed residential density above what is yielded by the present land use designations, a proposed Local Activity Center shall first utilize at least 75% of available “flexibility units” and “reserve units” from the flexibility zone where the Local Activity Center is located, before an increase in density is requested via the land use plan amendment process. A proposed Local Activity Center located within an approved Chapter 163, Florida Statutes, Redevelopment Area is exempt from this criteria.

- A proposed Local Activity Center must have a geographic configuration of appropriate depth and frontage to support the location of uses in a manner oriented around the five-minute (i.e. quarter mile) walk. Multiple nodes of activity oriented around the five-minute (i.e. quarter mile) walk may be included within one Local Activity Center.

- Seventy-five percent (75%) of the land within a Local Activity Center must be located within a quarter-mile of mass transit or multi-modal facilities or are included within an adopted plan to be located within a quarter-mile of mass transit or multi-modal facilities upon buildout of the Local Activity Center. Local Activity Centers shall ensure convenient access to mass transit, community shuttle or multi-modal facilities where such facilities are in place or planned to be in place at the time the Local Activity Center is proposed. Where such facilities are not in place or planned to be in place at the time of the proposal, the city shall require design standards enforceable at site plan review for the proposed development to ensure that the primary priority is a safe, comfortable and attractive pedestrian environment that will allow for convenient interconnection to transit, will reduce the number of automobile trips internally and will ultimately support an integrated multi-modal transportation system.

- A proposed Local Activity Center shall demonstrate consistency with the goals, objectives, and policies and other requirements of the City of Hallandale Beach Comprehensive Plan.

- An interlocal agreement between the City of Hallandale Beach and Broward County must be executed no later than six months from the effective date of the adoption of any Local Activity Center within city limits that provides for monitoring of development activity and enforcement of permitted land uses and proposed densities and intensities by the city.

The following areas have been designated as Local Activity Centers within the City of Hallandale Beach Land Use Plan consistent with the Broward County Land Use Plan:

GULFSTREAM LOCAL ACTIVITY CENTER

Acreage: 60.7664 (net) acres

General Location: East side of U.S.1/Federal Highway, south of Hallandale Beach Boulevard. ~~South of Hibiscus Street, west of the Gulfstream Park Racetrack facilities, north of the Broward/Miami-Dade County Line, east of Federal Highway.~~

DENSITY/INTENSITY OF LAND USES

Land Use	Maximum
Residential*:	1,500 DU.
Hotel:	500 rooms
Commercial ~~Retail~~:	750,000 sq. ft.
~~General~~ Office:	140,000 sq. ft.
Movie Cinema ~~Theater~~	2,500 seats
Recreation and Open Space **:	

* = The specific quantity and types of residential units will be determined at the time of site plan approval. The City shall not issue residential building permits until the execution and implementation of a legally enforceable mechanism, such as a tri-party agreement, regarding a student station fee or other mutually agreed upon mitigation.

** = As an urban development, open space will be provided throughout the project in the form of public squares, fountains, arcades, and pedestrian-friendly streetscapes.

I. REGIONAL ACTIVITY CENTER (See Objective 1.9)

The purpose of the Regional Activity Center land use category is to facilitate mixed-use development, encourage mass transit, and non-motorized transportation, reduce the need for automobile travel, provide incentives for quality development and give definition to the urban form.

This designation will only be applied to areas that are of regional significance. Consistent with the Broward County Land Use Plan, the following criteria must be met for an area to qualify as a Regional Activity Center within the City of Hallandale Beach:

- A Regional Activity Center shall be a specific geographic area consisting of at least 160 gross contiguous acres. No new Regional Activity Center shall be permitted on the barrier island (the area east of the Intracoastal Waterway).

- The type and density or intensity of land uses permitted within a proposed Regional Activity Center shall be specified for inclusion within the Permitted Uses Section of the City of Hallandale Beach Future Land Use Element.

- An inter-local agreement between the City of Hallandale Beach and Broward County must be executed no later than six months from the effective date of the adoption of any Regional Activity Center within city limits that provides for monitoring of development activity and enforcement of permitted land uses and proposed densities and intensities by the City.

- A Regional Activity Center shall include mixed land uses of regional significance, including residential uses.

- A Regional Activity Center shall integrate open spaces that are accessible to the public such as greenways, public plazas, recreational areas in order to enhance pedestrian and non-motorized activities and connectivity of the Regional Activity Center.

- A Regional Activity Center shall be guided by performance and design standards approved for the Regional Activity Center that provide for an interconnected street network, safe and attractive pedestrian environment and multi-modal transit connections.

- A Regional Activity Center shall provide design

standards that ensure compatibility between existing and planned land uses within and adjacent to the Regional Activity Center.

The following areas have been designated as Regional Activity Centers within the City of Hallandale Beach Land Use Plan consistent with the Broward County Land Use Plan:

HALLANDALE BEACH REGIONAL ACTIVITY CENTER

Acreage: Approximately 464.49 (net) acres

General Location: The site is generally located east of Interstate 95, between Pembroke Road and Southwest 11 Street (Broward/Miami-Dade County Line).~~The site is in the central and northwestern portions of the City.~~

Density/Intensity of Land Uses:[1]

Residential Land Uses: 4,241 dwelling units [2, 5]
Commercial Land Uses: 234.86 gross acres
Commercial Recreation Land Uses: 49.03 gross acres
Community Facilities Land Uses: 22.47 gross acres
Recreation & Open Space: 19.56 gross acres minimum[3, 4]
Industrial Land Uses: 13.31 gross acres
Employment Center-High Land Uses: 4.42 gross acres

~~Land Use~~	~~Maximum~~
~~Residential:~~	~~4741 dwelling units*~~
~~Commercial:~~	~~136.94 net acres~~
~~Commercial Recreation:~~	~~45.95 net acres~~
~~Community Facilities:~~	~~17.83 net acres~~
~~Employment Center:~~	~~3.61 net acres~~
~~Light Industrial:~~	~~10.15 net acres~~
~~Public Parks:~~	~~17.04 net acres~~ [3,4]

~~*Includes 605 flex units allocated to the RAC.~~

Remarks:

1. Acreage for non-residential land uses will be assigned on a gross acreage basis to all lands included within the development parcel needed to comply with on-site land development requirements, such as, but not limited to, building footprint, setbacks, parking, outdoor pedestrian circulation, landscaping, drainage, etc. Within mixed use projects, acreage shall be assigned according to the proportion of floor area associated with each use (e.g. if 50 percent of the floor area is used for A, then 50 percent of the gross acreage of the development parcel will be assigned to A).

2. Consisting of 550 single-family units, 491 duplexes, 1,200 townhomes, 1,000 garden apartments, and 1,000 mid-rise apartments. Dwelling units from any given category (ex: single-family, townhomes, etc.) may be substituted for dwelling units of another category provided that the substitution results in the same or lesser student generation using the County's adopted student generation rates. Residential development east of U.S. 1 shall be limited to the number of units currently permitted by the Broward County Land Use Plan.

3. Resolution 2009-09 (adopted May 6, 2009) of the City of Hallandale Beach dedicates Foster Park to the public for twenty-five (25) years as an outdoor recreation area because funding was provided through the Florida Recreation Development Assistance program (FDRAP). Additionally, if any other existing park acreage in the RAC is replaced, such replacement lands and facilities shall serve the same neighborhoods in an equivalent or improved capacity.

4. Park acreage includes the 0.4175 acres of the Foster Park Addition. Acquisition of the site was accommodated through the Broward County Safe Parks and Land Preservation Bond Program.

5. The City of Hallandale Beach allocated 500 additional dwelling units per BCLUP Policy 2.4.1 as recertified by the Planning Council on March 23, 2023.

~~1. Acreage for non-residential land uses will be assigned on a net acreage basis to all lands included within the development parcel needed to comply with on-site land development requirements, such as, but not limited to, building footprint, setbacks, parking, outdoor pedestrian circulation, landscaping, drainage, etc. Within mixed~~

~~us projects, acreage shall be assigned according to the proportion of floor area associated with each use (e.g. if 50 percent of the floor area is used for A. then 50 percent of the net acreage of the development parcel will be assigned to A).~~

[2] ~~Consisting of 550 single-family units, 491 duplexes, 1,200 townhouses, 1,000 garden apartments, and 1,000 mid-rise apartments. Dwelling units from any given category (ex: single-family, townhouses, etc.) may be substituted for dwelling units of another category provided that the substitution results in the same or lesser student generation using the County's adopted student generation rates. Residential development east of U.S. 1 shall be limited to the number of units currently permitted by the Broward County Land Use Plan.~~

[3] ~~Resolution 2009-09 (adopted May 6, 2009) of the City of Hallandale Beach dedicates Foster Park to the public for twenty-five (25) years as an outdoor recreation area because funding was provided through the Florida Recreation Development Assistance Program (FORAP). Additionally, if any other existing park acreage in the RAC is replaced, such replacement lands and facilities shall serve the same neighborhoods in an equivalent or improved capacity.~~

[4] ~~Park acreage includes the 0.4175 acres of the Foster Park Addition. Acquisition of the site was accommodated through the Broward County Safe Land Preservation Bond Program.~~

In its implementation of development and redevelopment within the RAC area, the City shall:

1. Direct development and redevelopment proposals, as appropriate, to areas adjacent to major transportation corridors within the RAC area: US 1, Dixie Highway, Hallandale Beach Boulevard, Pembroke Road and Foster Road.

2. Within six months of the effective date of this amendment, the City shall adopt land development regulations which shall protect existing residential areas. These land development regulations will require City Commission approval of any development plans or rezoning proposals on lands zoned for residential use as of the effective date of this amendment located inside the RAC area which seek either:

   a. To increase residential intensity to a level greater than permitted under the applicable property's zoned residential density as of the effective date of this amendment; or

   b. To introduce a non-residential use onto lands residentially zoned as of the effective date of this amendment.

The purpose and intent of implementing land development regulations shall be to protect established residential neighborhoods within and adjacent to the RAC area, while allowing appropriate redevelopment to take place.

In addition, due to the unique historical and cultural nature of the Foster Road community, land development regulations for that area will be developed in conjunction with the community to ensure that redevelopment activities complement surrounding neighborhoods and further enhance those historical and cultural elements identified by the community.

2.4 MONITORING AND EVALUATION PROCEDURES

~~Chapter 9J-5, FAC requires that each comprehensive plan contain a section identifying periodic monitoring, updating, and evaluation procedures to be followed in the preparation of five-year evaluation and appraisal reports.~~ Monitoring and evaluation procedures will need to be consistent for all elements of the comprehensive plan. Monitoring and Evaluation procedures for this Plan Element include:

1. Review of all approvals of development permits including an analysis of building permits granted, Rezonings, Plan Amendments, Variances, Conditional Use Approvals, Redevelopment Area Modifications, Plats and any other land use regulation occurring after the effective date of

the Plan. This review shall show the impacts of these development permits and their degree of "compliance" with the intent and requirements of the Element."

2. The City shall keep an ongoing log of plan amendments and rezonings, including acreage figures and housing unit counts by land use category and residential density, in order to provide this data to the Broward County Planning Council for use in meeting the Flexibility Rules requirements.

3. Review of all applicable land development regulations as to compliance with the Hallandale Beach Comprehensive Plan.

4. Review of public facility impacts of development to ensure acceptable Levels of Service, as adopted by this Comprehensive plan, are not adversely affected.

5. Review of capital expenditures to ensure facilities and services have been provided in a manner consistent with and in pursuit of this Element and the Capital Improvements Element of this Plan.

6. Monitor the mix of land uses, either new development or redevelopment, to ensure compliance with the Goals, Objectives and Policy and land use plan designations set forth in this Plan.

7. Evaluate future land uses with their impact on the environment and natural systems present in Hallandale Beach in order to protect Hallandale Beach's natural resources and environmental quality.

8. Review the opportunity for and progress towards protection of historic resources.

9. Review the opportunity for and progress towards protection of coastal area resources and impact upon evacuation demand.

10. Review progress toward the revitalization of the CRA "Target Area" through analysis of infill development, physical improvements and code enforcement in the area.

11. Review the degree of consistency of this Plan Element with the other Elements of this plan.

2.5 CONSISTENCY WITH BROWARD COUNTY LAND USE PLAN

All land use planning activities for the incorporated areas in Broward County are required to be consistent with the County Land Use Plan. The County Plan, mandated by the Broward County Charter, establishes maximum permitted intensities and land uses for all areas of the County. If the City of Hallandale Beach submits a land use plan to the County, which is deemed "in compliance" with the Goals, Objectives, and Policies and Plan Map designation Broward County Land Use Plan, then the Hallandale Beach Land Use Plan becomes the effective plan for Hallandale Beach. The agency responsible for the preparation and amendment of the Broward County Land Use Plan is the Broward County Planning Council.

A local certified plan has the opportunity to utilize the County's Flexibility Rules which would allow the City of Hallandale Beach to adjust residential densities and commercial intensities without the need for an amendment to the Broward County Land Use Plan.

As referenced in Policies within this Future Land Use Element, the City has adopted the Broward County Rules and Regulation for Flexibility. The "Broward County Administrative Rules Document" can be referenced for specific rules and regulations.

The City of Hallandale Beach consists entirely of Broward County's Flexibility Zones #93 (east of the FEC Railroad ROW) and #94 (west of the FEC Railroad ROW) as designated and controlled by Broward County requirements and allowances. As such, land uses within these designations can be rearranged or densities can be modified with other land uses in the same Flexibility Zone. Broward County now allows the creation of a unified flexibility zone within a City composed of multiple Flex Zones. The City will be creating a Unified Flex Zone utilizing the County’s rules.

In addition to Flexibility Rules, as a certified Land Use Plan, the City of Hallandale Beach is required to follow the rules which pertain to, plan amendments and re-certifications. For a description of the rules pertaining to the recertification process, refer to the Broward County Administrative Rules Document.

As a charter County, Broward County also has comprehensive powers of platting requirements. Basically the County requires that local platting rules be consistent with or more stringent than the County. Any plat application in Hallandale Beach is required by the County to receive local review in advance of or concurrent with a Broward County application.

Land Use Consistency. As part of the Land Use Plan inclusion process, a consistency evaluation and adjustment process was conducted to ensure substantial compliance between the plans. Although Hallandale Beach uses a "net density" method of determining residential densities as opposed to the "gross density" method used by the County, adjustments were made between plans so that conformance was achieved between the two Plans. This is true for all land uses on the Hallandale Beach Land Use Plan. Note that the maximum number of hotel, motel or similar lodging units permitted on any parcel designated for residential use is double the maximum number of dwelling units permitted by the land use plan map designation.

A comparison of the Hallandale Beach Land Use Plan and the County Land Use Plan is shown in Table 2-1 of this Element.

TABLE 2-1
RESIDENTIAL FLEXIBILITY COMPARISON
HALLANDALE BEACH VS. BROWARD COUNTY LAND USE PLANS
UNIFIED FLEXIBILITY ZONES

DENSITY CATEGORY	FLEX ZONE ~~93~~				~~FLEX ZONE 94~~			
	ACRES		UNITS		~~ACRES~~		~~UNITS~~	
	H	BC	H	BC	~~H~~	~~BC~~	~~H~~	~~BC~~
LOW 1-~~7~~ 9 UNITS/ACRE	~~150.67~~ 336.03	~~149~~ 254	~~1055~~ 2353	~~745~~ 1,270	~~185.36~~	~~105~~	~~1298~~	~~525~~
LOW MED. ~~7.1~~ 9.1-14 U/A	~~172.27~~ 454.27	~~49.5~~ 331.50	~~2412~~ 6360	~~495~~ 4,205	~~282~~	~~371~~	~~3948~~	~~3,710~~
MEDIUM 14.1-18 U/A	~~313.01~~ 369.01	~~233~~ 258	~~5634~~ 6642	~~3,728~~ 4,128	~~56~~	~~25~~	~~1008~~	~~400~~
HIGH 18.1-25 U/A	91.15	~~381~~ 401	2279	~~9,525~~ 10,025	~~0~~	~~20~~	~~0~~	~~500~~
HIGH 25.1-50 U/A	~~13.53*~~ 20.60*	~~0~~ 7.07	~~625*~~ 837*	~~0~~ 212	~~7.07~~	~~7.07~~	~~212**~~	~~212**~~
TOTAL	~~740.63~~ 1,271.06	~~812.5~~ 1,251.57	~~12,005~~ 18,471	~~14,493~~ 19,840	~~530.43~~	~~528.07~~	~~6466~~	~~5347~~

* Properties included in this category with assigned densities:
  1. 201 Golden Isles Drive-1.31 AC x (33.54 DU/AC) = 44 Units
  2. 1935-1945 S. Ocean Drive – 5.66 AC x (50 DU/AC) = 283 Units
  3. 2065-2080 S. Ocean Drive – 5.26 AC x (44.2 DU/AC) = 233 Units
  5. 2000 S. Ocean Drive – 1.3 AC x (50 DU/AC) = 65 Units

** Properties included in this category with assigned densities:
  1. 100 NW 9th Terrace – 7.07AC x (30 DU/AC) = 212 Units

~~Summary: All of Hallandale Beach is contained in Flexibility Zones #93 and #94. The dividing line between the zones is the FEC Railroad ROW (See Figure 2-21). According to Flexibility and Reserve Unit rules established by Broward County, Flexibility Zones contain 2 percent of the maximum units allowed under the Broward County Land Use Plan for Reserve Units. These units may be rearranged within the Flexibility Zone and assigned to any particular site within the Flexibility Zone to allow for increased residential densities above the amount permitted under the Hallandale Beach Land Use Plan map. This process is done without a Plan amendment being required. In addition, normal Flex Zone limitations do not apply or are applied under special procedures for "Special Residential Facilities" or "Affordable Housing Units."~~

~~FIGURE 2-2~~
~~FLEXIBILITY ZONES~~

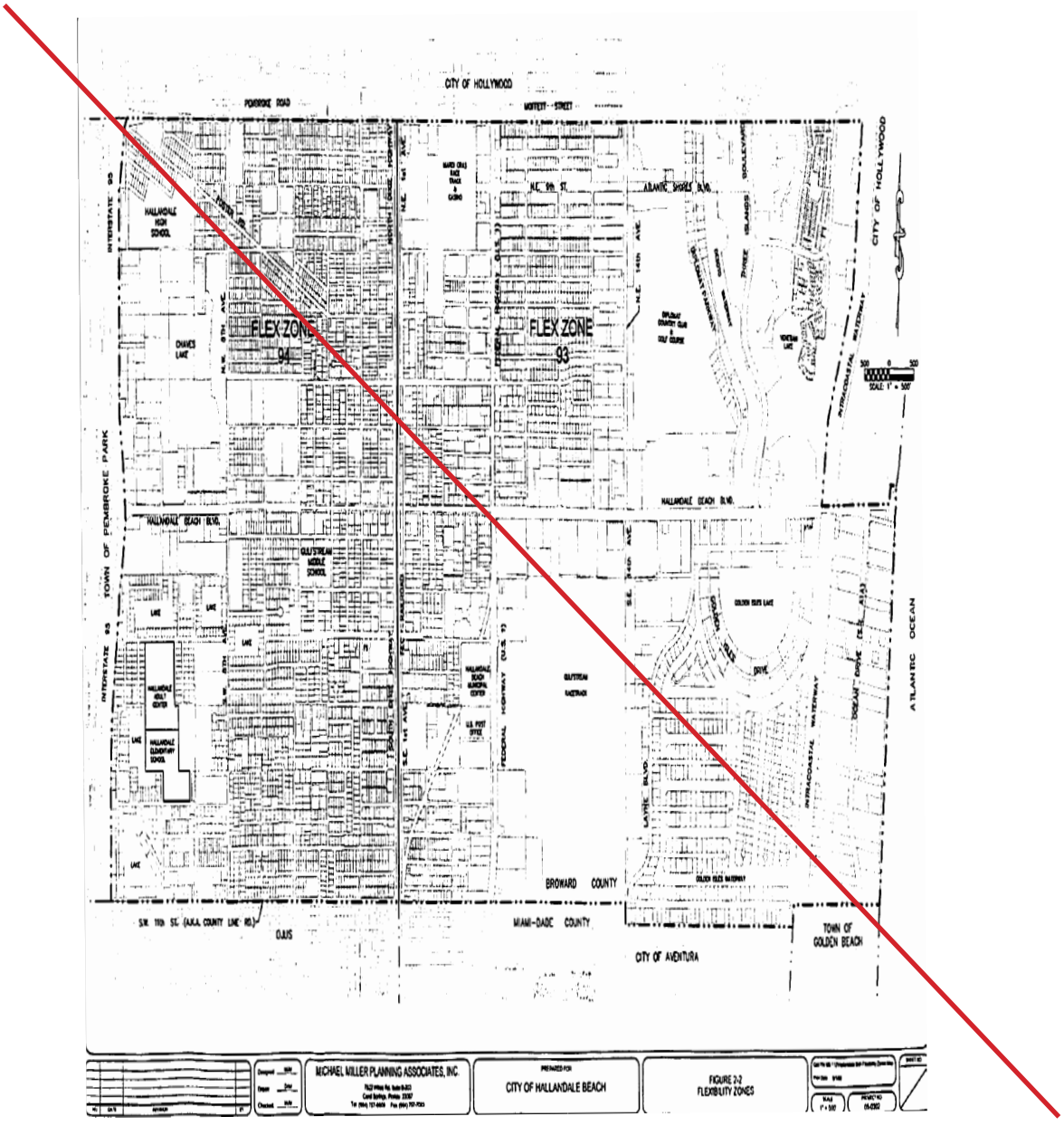


TABLE 2-2
CITY OF HALLANDALE BEACH
CITYWIDE EXISTING LAND USE ACREAGE
2025

LAND USE	CITY TOTAL
Residential	
Low (1-~~7~~ 9)	314.80 Acres
Low-Medium (~~7.1~~ 9.1-14)	265.01 Acres
Medium (14.1-18)	256.05 Acres
Medium-High (18.1-25)	111.63 Acres
High (25.1-50)	8.49 Acres
Subtotal	1,497.97 Acres
Commercial	
General	561.26 Acres
Subtotal	561.26 Acres
L. I. & EC	
Light Industrial	59.70 Acres
Employment Center	3.61 Acres
Subtotal	63.31 Acres
Activity Center	
Gulfstream LAC	60.76 Acres
Central RAC	335.69 Acres
RAC	52.81 Acres
Subtotal	388.64 Acres
Community Facilities	
Public Parks	45.76 Acres
Institutional	73.61 Acres
Historic	0.64 Acres
Subtotal	120.01 Acres
Water	155.51 Acres
Utilities	14.55 Acres
Transportation	
Right-of-way, Streets, Roads	195.71 Acres
Railroads	18 Acres
Subtotal	213.71 Acres
Citywide Total	2832.00 Acres

TABLE 2-3
CITY OF HALLANDALE BEACH
CITYWIDE FUTURE LAND USE ACREAGE
~~BY FLEXIBILITY ZONES~~
2045 ~~MARCH 2008~~

LAND USE	~~FLEX ZONE 93~~	~~FLEX ZONE 94~~	CITY TOTAL
Residential			
Low (1-~~7~~ 9)	~~150.67 Acres~~	~~185.36 Acres~~	314.80 Acres
Low-Medium (~~7.1~~ 9.1-14)	~~172.27 Acres~~	~~282.00 Acres~~	454.27 Acres
Medium (14.1-18)	~~313.01 Acres~~	~~56.00 Acres~~	369.01 Acres
Medium-High (18.1-25)	~~91.15 Acres~~	~~0.00 Acres~~	91.15 Acres
High (25.1-50)	~~13.53 Acres~~	~~7.07 Acres~~	20.60 Acres
Subtotal	~~740.63 Acres~~	~~530.43 Acres~~	1271.06 Acres
Commercial			
Neighborhood	~~2.03 Acres~~	~~18.10 Acres~~	20.13 Acres
General	~~201.00 Acres~~	~~115.65 Acres~~	316.65 Acres
Recreation	~~294.10 Acres~~	~~0.00 Acres~~	294.10 Acres
Subtotal	~~497.13 Acres~~	~~133.75 Acres~~	630.88 Acres
L. I. & EC			
Light Industrial	~~7.00 Acres~~	~~61.00 Acres~~	68.00 Acres
Employment Center	~~0.00 Acres~~	~~3.56 Acres~~	3.56 Acres
Subtotal	~~7.00 Acres~~	~~64.56 Acres~~	71.56 Acres
Activity Center			
Gulfstream LAC	~~60.80 Acres~~	~~0.00 Acres~~	60.80 Acres
Subtotal	~~60.80 Acres~~	~~0.00 Acres~~	60.80 Acres
Community Facilities			
Public Parks	~~35.34 Acres~~	~~12.90 Acres~~	48.24 Acres
Institutional	~~26.00 Acres~~	~~75.44 Acres~~	101.44 Acres
Historic	~~0.00 Acres~~	~~0.64 Acres~~	0.64 Acres
Subtotal	~~61.34 Acres~~	~~88.98 Acres~~	150.32 Acres
Water	~~175.00 Acres~~	~~34. 00 Acres~~	155.51 Acres
Utilities			
Transportation			
Right-of-way, Streets, Roads	~~220.10 Acres~~	~~200.27 Acres~~	195.71 Acres
Railroad	~~18.00 Acres~~	~~0.00 Acres~~	18.00 Acres
Subtotal	~~238.10 Acres~~	~~200.27 Acres~~	213.71 Acres
Citywide Total	~~1780.00 Acres~~	~~1052.00 Acres~~	2832.00 Acres

TABLE 2-3
CITY OF HALLANDALE BEACH
~~RESIDENTIAL RESERVE~~ UNITS BY UNIFIED ~~FLEXIBILITY~~ ZONE

FLEX ZONE	TOTAL NUMBER OF RESERVE UNITS*	TOTAL NUMBER OF ALLOCATED AS OF MAY 2024 ~~MARCH 2008~~
FLEX ZONE ~~93~~	1,258 ~~290~~	21 ~~2~~
~~FLEX ZONE 94~~	~~107~~	~~25~~

2.6 EXISTING LAND USE CONDITIONS AND TRENDS

2.6.1 INTRODUCTION

This section describes existing land use in Hallandale Beach and highlights important problems and opportunities.

2.6.2 LAND USE INVENTORY

The predominant existing land use in Hallandale Beach is residential (41.5 percent) as shown in Table ~~2-4~~ 2-2. Commercial land use represents 9.7 percent; local activity center 2.1 percent; transportation 15.5 percent; vacant land 4.1 percent; water 8.6 percent; community facilities 5.1 percent; light-industrial 1.7 percent; public recreation 1.3 percent, and private recreation 10.3 percent. There are no Areas of Critical State Concern pursuant to Section 380.05, Florida Statutes, in Hallandale Beach. Also, there are no local Areas of Critical Concern, as defined by Broward County.

The Existing Land Use Map depicts the existing land uses in the City of Hallandale Beach and is included as an attachment to this Element. Table ~~2-4~~ 2-2 shows Citywide existing land use totals ~~and Table 2-5 shows existing land use totals for each of the seven City Planning Districts~~. The following sections describe seven categories of land use in Hallandale Beach: residential, commercial, ~~local~~ activity center; industrial, recreational and community facilities, and vacant lands.

2.6.2.1 RESIDENTIAL LAND USE

Residential use patterns vary greatly throughout the City. In the Southwest and Northwest Planning Districts (see Figure 2-3), the land use is characterized by a majority of low density (up to 9 dwelling units (DU) per acre as specified by the City Plan) and low-medium density (up to 14 DU per acre) residential structures comprised mostly of single family homes and duplexes. Density ranges from primarily medium density (up to 18 DU per acre) in the central portion to the City to high (over 50 DU per acre) along the Intracoastal Waterway and the beachfront.

Hallandale Beach is a city of contrasts. Along the coastline (State Road A1A) residential development is in the form of very expensive condominiums and apartments. Condominium development along State Road A1A and in other portions of the Golden Isles/A1A Planning District represents some of the highest density residential development in South Florida (up to 160 DU/A). An extensive canal system in this area allows many homes to have water access. Development on the west side of the city is very different from the east. On the west side, most of the housing stock consists of single family and duplex residences, but also includes a number of older mobile home/RV parks which in recent years have begun to show a certain amount of deterioration.

Over 36 ~~40~~ percent of the total city area (approximately 955.98 ~~1,174~~ acres out of 2,624 ~~2,831~~ acres) is occupied by residential land uses. ~~The Planning Districts have a wide range of total land devoted to residential use, running from a low of 18.2 percent residential in the Gulfstream Planning District, to a high of 62.2 percent in the Northeast Planning District (See Table 2-5 for more detail).~~

2.6.2.2 COMMERCIAL LAND USE

Approximately 10 percent of the land area in Hallandale Beach is commercial use. The predominant commercial

pattern in the City of Hallandale Beach is strip shopping areas and office space. There are several small shopping plazas or clusters (of between 6,000 and 20,000 square feet), and five centers approaching or exceeding 100,000 square feet including a large strip-center (approximately 200,000 square feet) and one mall (Diplomat Mall) exceeding 300,000 square feet.

The proportion commercial use by planning district varies from a low of 5.5 percent in the Golden Isles/A1A Planning District to a high of 16.9 percent in the Central Gateway Planning District. Table 2-5 illustrates land use by Planning District. ~~Table 2-5 illustrates land use by Planning District.~~

Northwest Planning District. The percent of Commercial Land Use in the Northwest District is 10.3 percent and is located primarily on the major arterials: Pembroke Road, Dixie Highway, and Hallandale Beach Boulevard. Although Foster Road was planned as a strip commercial street, market factors could not sustain a high concentration of businesses in this area. The Foster Road commercial strip has several "Mom and Pop" neighborhood related stores which serve the immediate surrounding community. Commercial improvement programs sponsored by the Hallandale Community Development Corporation have provided financial assistance to commercial businesses along Foster Road, Dixie Highway, and Pembroke Road to sustain the quality of the structures.

Central Gateway Planning District. Commercial uses which comprise approximately 17% of the total land area of the District, are located on Federal Highway (U.S. Highway 1), Moffett Street, Hallandale Beach Boulevard, and Northeast First and Second Avenues (Fashion Row). Fashion Row consists of a variety of businesses which are regional serving in scope. This planning district includes the Mardi Gras Race Track and Casino which is approximately 50 acres in size.

Northeast Planning District. Approximately 9.8 percent of the land in this district is in commercial use. Business establishments are located adjacent to Federal Highway and Hallandale Beach Boulevard.

FIGURE 2-2 ~~2-3~~
PLANNING DISTRICTS

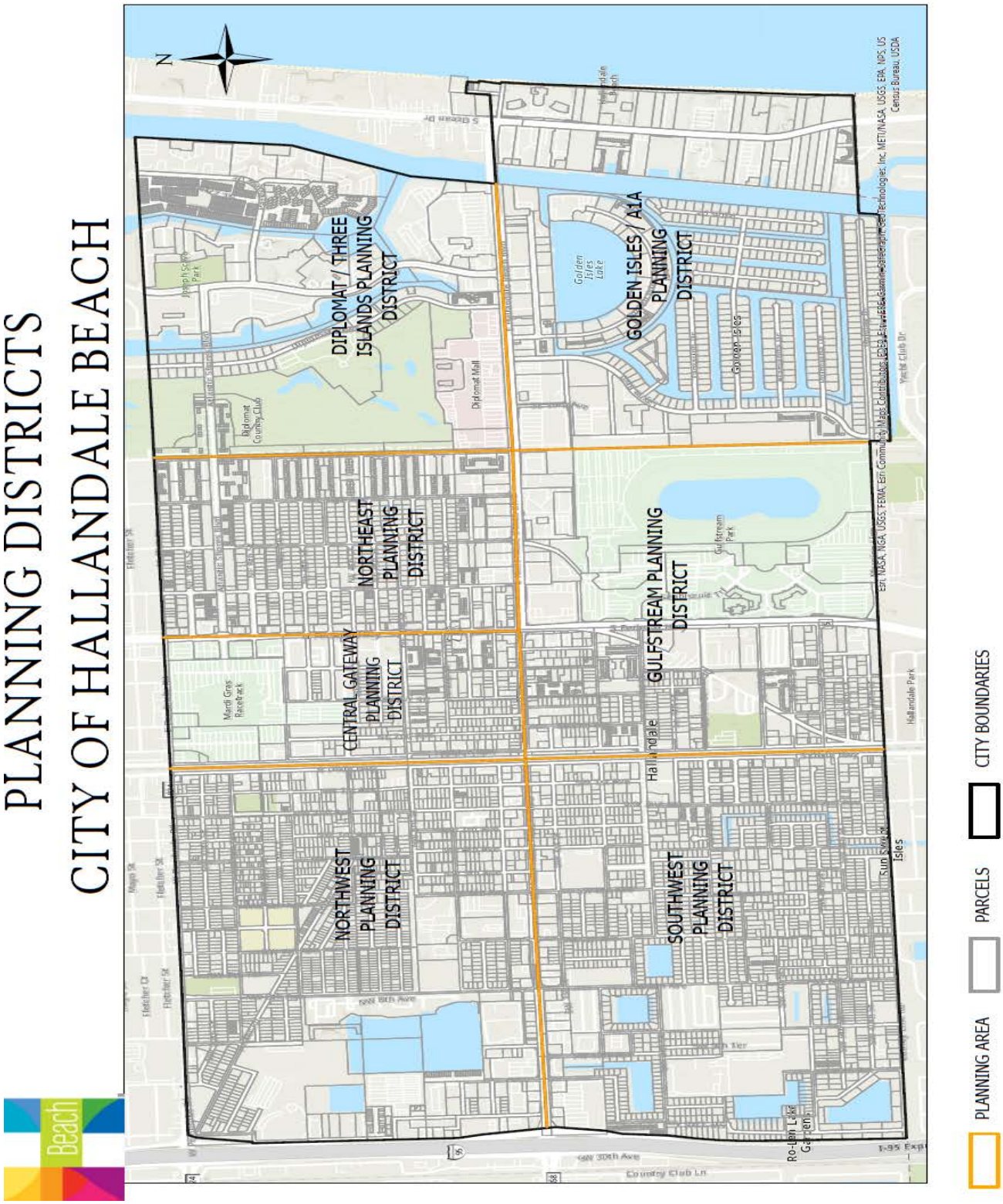


TABLE 2-4
CITY OF HALLANDALE BEACH
CITYWIDE EXISTING LAND USE

Land Use	2008 Acres	2008 % of Total
RESIDENTIAL		
Single Family	438.36	15.5%
Two Family	133.44	4.7%
Three & Four Family	37.85	1.3%
Multi-Family	501.28	17.7%
Mobile Homes	63.54	2.2%
SUBTOTAL	1174.47	41.5%
GENERAL COMMERCIAL	274.37	9.7%
LOCAL ACTIVITY CENTER	60.80	2.1%
COMMUNITY FACILITY		
Public	103.70	3.7%
Private	38.81	1.4%
Historic	0.64	0.02%
SUBTOTAL	143.15	5.1%
LIGHT INDUSTRIAL	48.39	1.7%
RECREATION		
Public	38.09	1.3%
Private	291.80	10.3%
SUBTOTAL	329.89	11.6%
TRANSPORTATION		
Streets	422.41	14.9%
Railroad	17.87	0.6%
SUBTOTAL	440.28	15.5%
WATER	243.48	8.6%
VACANT	116.00	4.1%
TOTAL	2830.83	100.0%

Diplomat/Three Islands Planning District. Approximately 12.6 percent of the land in this planning district is commercially developed. Strip commercial and other businesses are located on Hallandale Beach Boulevard including the Diplomat Mall. The commercial uses in this district form the core of the City's financial center and serve a regional rather than neighborhood market.

Gulfstream Planning District. Approximately 10.3 percent of this Planning District is devoted to commercial use. General business and commercial establishments are located adjacent to Hallandale Beach Boulevard, Southeast First Avenue, and Federal Highway (U. S. Highway 1). Although counted as commercial recreation and local activity center land in the land use inventory, the Gulfstream Park Race Track and Casino is located in this District and comprises approximately 200 acres.

Southwest Planning District. Commercial development is very limited in this district occupying 7.9 percent of the total area, with strip commercial being the predominant commercial land use. General business and commercial establishments are located adjacent to Hallandale Beach Boulevard. Small businesses and offices are located on South Dixie Highway. Several small neighborhood commercial developments are located on Southwest Eleventh Street.

Golden Isles/A1A Planning District. This planning district is dominated by residential development with commercial development representing a smaller proportion of the land in this district than in any other (5.5%).

2.6.2.3 LOCAL ACTIVITY CENTER (MIXED USE) LAND USE

The local activity center land use is a mixed use land use which encourages a mix of commercial, residential, civic, recreational and other appropriate uses. Currently the City's only local activity center land use is located in the Gulfstream Planning District representing 14.6 percent of the total land of the planning district. The ~~first phase of the~~ Village at Gulfstream Park ~~is currently under construction and when the entire plan is completed it will~~ includes ~~up to~~ 1,500 dwelling units, a 500 room hotel, 750,000 square feet of retail, 140,000 square feet of office and a 2,500 seat movie theater.

2.6.2.4 LIGHT-INDUSTRIAL LAND USE

Industrial land uses in the City are generally characterized by light industries, which include storage warehouses, wholesale trade, sales offices, light manufacturing, and distribution.

~~Table 2-5 indicates that only 1.7 percent of the City's land area is industrial use.~~ The bulk of this land is located in the Northwest planning district.

~~TABLE 2-5~~
~~CITY OF HALLANDALE BEACH~~
~~NORTHWEST PLANNING DISTRICT~~
~~EXISTING LAND USE~~

~~Land Use~~	~~2008 Acres~~	~~2008 % of Total~~
~~RESIDENTIAL~~		
~~Single Family~~	~~81.07~~	~~16.0%~~
~~Two Family~~	~~23.19~~	~~4.6%~~
~~Three & Four Family~~	~~12.61~~	~~2.5%~~
~~Multi-Family~~	~~27.66~~	~~5.5%~~
~~Mobile Homes~~	~~2.29~~	~~0.5%~~
~~SUBTOTAL~~	~~146.82~~	~~29.0%~~
~~GENERAL COMMERCIAL~~	~~51.99~~	~~10.3%~~
~~LOCAL ACTIVITY CENTER~~	~~0.00~~	~~0.0%~~
~~COMMUNITY FACILITY~~		
~~Public~~	~~52.24~~	~~10.3%~~
~~Private~~	~~11.47~~	~~2.3%~~
~~Historic~~	~~0.00~~	~~0.0%~~
~~SUBTOTAL~~	~~63.71~~	~~12.6%~~
~~LIGHT INDUSTRIAL~~	~~44.80~~	~~8.9%~~
~~RECREATION~~		
~~Public~~	~~7.62~~	~~1.5%~~
~~Private~~	~~0.00~~	~~0.0%~~
~~SUBTOTAL~~	~~7.62~~	~~1.5%~~
~~TRANSPORTATION~~		
~~Streets~~	~~102.15~~	~~20.2%~~
~~Railroad~~	~~0.00~~	~~0.0%~~
~~SUBTOTAL~~	~~102.15~~	~~20.2%~~
~~WATER~~	~~34.76~~	~~6.9%~~
~~VACANT~~	~~53.83~~	~~10.6%~~
~~TOTAL~~	~~505.68~~	~~100.0%~~

~~TABLE 2-5~~
~~CITY OF HALLANDALE BEACH~~
~~CENTRAL GATEWAY PLANNING DISTRICT~~
~~EXISTING LAND USE~~

~~Land Use~~	~~2008 Acres~~	~~2008 % of Total~~
~~RESIDENTIAL~~		
~~Single Family~~	~~16.78~~	~~9.1%~~
~~Two Family~~	~~3.85~~	~~2.1%~~
~~Three & Four Family~~	~~2.87~~	~~1.6%~~
~~Multi-Family~~	~~14.18~~	~~7.7%~~
~~Mobile Homes~~	~~16.24~~	~~8.8%~~
~~SUBTOTAL~~	~~53.92~~	~~29.4%~~
~~GENERAL COMMERCIAL~~	~~31.47~~	~~17.1%~~
~~LOCAL ACTIVITY CENTER~~	~~0.00~~	~~0.0%~~
~~COMMUNITY FACILITY~~		
~~Public~~	~~0.00~~	~~0.0%~~
~~Private~~	~~0.00~~	~~0.0%~~
~~SUBTOTAL~~	~~0.00~~	~~0.0%~~
~~LIGHT INDUSTRIAL~~	~~3.59~~	~~2.0%~~
~~RECREATION~~		
~~Public~~	~~0.00~~	~~0.0%~~
~~Private~~	~~49.47~~	~~26.9%~~
~~SUBTOTAL~~	~~49.47~~	~~26.9%~~
~~TRANSPORTATION~~		
~~Streets~~	~~34.37~~	~~18.7%~~
~~Railroad~~	~~8.84~~	~~4.8%~~
~~SUBTOTAL~~	~~43.21~~	~~23.5%~~
~~WATER~~	~~0.00~~	~~0.0%~~
~~VACANT~~	~~1.91~~	~~1.0%~~
~~TOTAL~~	~~183.57~~	~~100.0%~~

~~TABLE 2-5~~
~~CITY OF HALLANDALE BEACH~~
~~NORTHEAST PLANNING DISTRICT~~
~~EXISTING LAND USE~~

~~Land Use~~	~~2008 Acres~~	~~2008 % of Total~~
~~RESIDENTIAL~~		
~~Single Family~~	~~45.27~~	~~18.7%~~
~~Two Family~~	~~16.14~~	~~6.7%~~
~~Three & Four Family~~	~~8.25~~	~~3.4%~~
~~Multi-Family~~	~~80.31~~	~~33.1%~~
~~Mobile Homes~~	~~0.94~~	~~0.4%~~
~~SUBTOTAL~~	~~150.91~~	~~62.2%~~
~~GENERAL COMMERCIAL~~	~~23.69~~	~~9.8%~~
~~LOCAL ACTIVITY CENTER~~	~~0.00~~	~~0.0%~~
~~COMMUNITY FACILITY~~		
~~Public~~	~~0.00~~	~~0.0%~~
~~Private~~	~~3.81~~	~~1.6%~~
~~SUBTOTAL~~	~~3.81~~	~~1.6%~~
~~LIGHT INDUSTRIAL~~	~~0.00~~	~~0.0%~~
~~RECREATION~~		
~~Public~~	~~0.00~~	~~0.0%~~
~~Private~~	~~0.00~~	~~0.00~~
~~SUBTOTAL~~	~~0.00~~	~~0.00~~
~~TRANSPORTATION~~		
~~Streets~~	~~56.28~~	~~23.2%~~
~~Railroad~~	~~0.00~~	~~0.00~~
~~SUBTOTAL~~	~~56.28~~	~~23.2%~~
~~WATER~~	~~0.00~~	~~0.0%~~
~~VACANT~~	~~7.81~~	~~3.2%~~
~~TOTAL~~	~~242.50~~	~~100.0%~~

~~TABLE 2-5~~
~~CITY OF HALLANDALE BEACH~~
~~DIPLOMAT/THREE ISLANDS PLANNING DISTRICT~~
~~EXISTING LAND USE~~

~~Land Use~~	~~2008~~ ~~Acres~~	~~2008~~ ~~% of Total~~
~~RESIDENTIAL~~		
~~Single Family~~	~~9.07~~	~~2.1%~~
~~Two Family~~	~~0.15~~	~~0.03%~~
~~Three & Four Family~~	~~0.30~~	~~0.07%~~
~~Multi-Family~~	~~167.87~~	~~39.5%~~
~~Mobile Homes~~	~~0.00~~	~~0.0%~~
~~SUBTOTAL~~	177.39	~~41.8%~~
~~GENERAL COMMERCIAL~~	~~53.43~~	~~12.6%~~
~~LOCAL ACTIVITY CENTER~~	~~0.00~~	~~0.0%~~
~~COMMUNITY FACILITY~~		
~~Public~~	~~0.00~~	~~0.0%~~
~~Private~~	~~0.00~~	~~0.00~~
~~SUBTOTAL~~	~~0.00~~	~~0.00~~
~~LIGHT INDUSTRIAL~~	~~0.00~~	~~0.0%~~
~~RECREATION~~		
~~Public~~	~~7.20~~	~~1.7%~~
~~Private~~	~~103.34~~	~~24.3%~~
~~SUBTOTAL~~	~~110.54~~	~~26.0%~~
~~TRANSPORTATION~~		
~~Streets~~	~~35.49~~	~~8.3%~~
~~Railroad~~	~~0.00~~	~~0.00~~
~~SUBTOTAL~~	~~35.49~~	~~8.3%~~
~~WATER~~	~~43.23~~	~~10.2%~~
~~VACANT~~	~~4.46~~	~~1.0%~~
~~TOTAL~~	~~424.53~~	~~100.0%~~

~~TABLE 2-5~~
~~CITY OF HALLANDALE BEACH~~
~~GULFSTREAM PLANNING DISTRICT~~
~~EXISTING LAND USE~~

~~Land Use~~	~~2008 Acres~~	~~2008 % of Total~~
~~RESIDENTIAL~~		
~~Single Family~~	~~15.68~~	~~3.8%~~
~~Two Family~~	~~16.37~~	~~3.9%~~
~~Three & Four Family~~	~~5.25~~	~~1.3%~~
~~Multi-Family~~	~~27.01~~	~~6.5%~~
~~Mobile Homes~~	~~11.42~~	~~2.7%~~
~~SUBTOTAL~~	~~75.73~~	~~18.2%~~
~~GENERAL COMMERCIAL~~	~~42.71~~	~~10.3%~~
~~LOCAL ACTIVITY CENTER~~	~~60.80~~	~~14.6%~~
~~COMMUNITY FACILITY~~		
~~Public~~	~~18.63~~	~~4.5%~~
~~Private~~	~~4.34~~	~~1.0%~~
~~SUBTOTAL~~	~~22.97~~	~~5.5%~~
~~LIGHT INDUSTRIAL~~	~~0.00~~	~~0.0%~~
~~RECREATION~~		
~~Public~~	~~7.35~~	~~1.8%~~
~~Private~~	~~138.99~~	~~33.4%~~
~~SUBTOTAL~~	~~146.34~~	~~35.2%~~
~~TRANSPORTATION~~		
~~Streets~~	~~39.04~~	~~9.4%~~
~~Railroad~~	~~9.03~~	~~2.2%~~
~~SUBTOTAL~~	~~48.07~~	~~11.6%~~
~~WATER~~	~~2.70~~	~~0.6%~~
~~VACANT~~	~~16.29~~	~~3.9%~~
~~TOTAL~~	~~415.61~~	~~100.0%~~

~~TABLE 2-5~~
~~CITY OF HALLANDALE BEACH~~
~~SOUTHWEST PLANNING DISTRICT~~
~~EXISTING LAND USE~~

~~Land Use~~	~~2008~~ ~~Acres~~	~~2008~~ ~~% of Total~~
~~RESIDENTIAL~~		
~~Single Family~~	~~171.36~~	~~31.5%~~
~~Two Family~~	~~73.74~~	~~13.6%~~
~~Three & Four Family~~	~~8.26~~	~~1.5%~~
~~Multi-Family~~	~~21.34~~	~~3.9%~~
~~Mobile Homes~~	~~32.65~~	~~6.0%~~
~~SUBTOTAL~~	~~307.35~~	~~56.5%~~
~~GENERAL COMMERCIAL~~	~~42.95~~	~~7.9%~~
~~LOCAL ACTIVITY CENTER~~	~~0.00~~	~~0.0%~~
~~COMMUNITY FACILITY~~		
~~Public~~	~~31.50~~	~~5.7%~~
~~Private~~	~~8.49~~	~~1.6%~~
~~Historic~~	~~0.64~~	~~0.1%~~
~~SUBTOTAL~~	~~40.63~~	~~7.5%~~
~~LIGHT INDUSTRIAL~~	~~0.00~~	~~0.0%~~
~~RECREATION~~		
~~Public~~	~~5.00~~	~~0.9%~~
~~Private~~	~~0.00~~	~~0.0%~~
~~SUBTOTAL~~	~~5.00~~	0.9%
~~TRANSPORTATION~~		
~~Streets~~	~~99.03~~	~~18.2%~~
~~Railroad~~	~~0.00~~	~~0.0%~~
~~SUBTOTAL~~	~~99.03~~	~~18.2%~~
~~WATER~~	~~33.15~~	~~6.1%~~
~~VACANT~~	~~16.02~~	~~2.9%~~
~~TOTAL~~	~~544.13~~	~~100.0%~~

~~TABLE 2-5~~
~~CITY OF HALLANDALE BEACH~~
~~GOLDEN ISLES/A1A PLANNING DISTRICT~~
~~EXISTING LAND USE~~

~~Land Use~~	~~2008 Acres~~	~~2008 % of Total~~
~~RESIDENTIAL~~		
~~Single Family~~	~~99.13~~	~~19.3%~~
~~Two Family~~	~~0.00~~	~~0.0%~~
~~Three & Four Family~~	~~0.31~~	~~0.1%~~
~~Multi-Family~~	~~162.91~~	~~31.6%~~
~~Mobile Homes~~	~~0.00~~	~~0.0%~~
~~SUBTOTAL~~	~~262.35~~	~~51.0%~~
~~GENERAL COMMERCIAL~~	~~28.13~~	~~5.5%~~
~~LOCAL ACTIVITY CENTER~~	~~0.00~~	~~0.0%~~
~~COMMUNITY FACILITY~~		
~~Public~~	~~1.33~~	~~0.2%~~
~~Private~~	~~10.70~~	~~2.1%~~
~~SUBTOTAL~~	~~12.03~~	~~2.3%~~
~~LIGHT INDUSTRIAL~~	~~0.00~~	~~0.0%~~
~~RECREATION~~		
~~Public~~	~~10.92~~	~~2.1%~~
~~Private~~	~~0.00~~	~~0.0%~~
~~SUBTOTAL~~	~~10.92~~	~~2.1%~~
~~TRANSPORTATION~~		
~~Streets~~	~~56.05~~	~~10.9%~~
~~Railroad~~	~~0.00~~	~~0.0%~~
~~SUBTOTAL~~	~~56.05~~	~~10.9%~~
~~WATER~~	~~129.64~~	~~25.2%~~
~~VACANT~~	~~15.68~~	~~3.0%~~
~~TOTAL~~	~~514.80~~	~~100.0%~~

Recreation and Community Facilities Land Use in the City includes city parks and open space; commercial recreation land use including Gulfstream Park Racing and Casino, Diplomat Country Club and Golf Course, and Mardi Gras Gaming and Casino; private passive recreation spaces; City Hall and other government buildings and property; schools and public education centers; churches, synagogues, and other houses of worship; and fraternal and social organization halls. Within the City, recreational land uses including both public and private represents 11.6 percent of the total land area while community facilities both public and private represents 5.1 percent.

2.6.2.6 VACANT LAND

The City is virtually built out as of 2021, with only 0.07 ~~4.1~~ percent (187.02 ~~116~~ acres) of the existing land use within the City being vacant. Since 1978, the City has slowly seen the development of the last remaining large vacant parcels. Currently there are only two vacant parcels in the City that are over 5 acres – a 10 acre parcel just east of Gulfstream Park Race Track and 7.5 acres that is west of the City's Public Works Compound. The 10 Acre parcel east of Gulfstream Park has a Future Land Use designation of Medium Density up to 18 Dwelling Units per Acre and is zoned RM-18. The ~~7.5~~ 4.5 acres west of the City's Public Works Compound has a Future Land Use designation of ~~Low Density~~ High Density-2 up to ~~7~~ 50 Dwelling Units per Acre and is zoned ~~RS-6~~ RMHD-2. This parcel is partially owned by the City.

There are also several vacant parcels in the City in the 2 to 5 acres range including an approximately 3 acre industrial parcel on Ansin Boulevard, an approximately 2.5 acre parcel north of Chaves Lake (City owned), and an approximately 3 acre parcel at 601 Old Dixie Highway (City owned). The latter parcel is proposed to be developed into an addition to Blueston Park. Currently there are also several 2-3 acre parcels in the City that are vacant but are pending redevelopment including several sites along East Hallandale Beach Boulevard and a church site on SW 10 Avenue.

The remaining vacant land in the City are small parcels and lots of undeveloped platted land. The majority of these smaller parcels and lots are in the Northwest Planning District. Over the last planning period the Northwest Planning District did see a significant increase in development and redevelopment of vacant parcels and lots. It should be noted that the amount of vacant land in the City might be 20-25 percent lower than what is reported on Table~~s 2-4 and 2-5~~ 2-2 due to minor computing errors.

2.6.2.7 SURROUNDING LAND USE

The City is bordered on the north by the City of Hollywood, on the east by the Atlantic Ocean, on the south by the Town of Golden Beach, City of Aventura, and unincorporated Dade County and on the west by the Town of Pembroke Park. Adjacent land uses within these surrounding municipalities are discussed below and shown on Figure 2-4.

Adjacent land uses to the north in the City of Hollywood include commercial and low density residential land uses along Pembroke Road, low density residential land uses along Moffett Street, medium and medium-high density residential in the Three Islands Phase III area, and commercial, medium and high density residential along SR A1A. All of these adjacent land use are compatible with associated land uses in Hallandale Beach.

Adjacent land uses to the south in the Town of Golden Beach are low density residential. In the City of Aventura the land uses include medium and high density residential south of the Golden Isles Planning District, commercial uses along U.S. 1 and Dixie Highway, and low density residential south of the Southwest Planning District. All of these adjacent land uses to the south are compatible with associated land uses in Hallandale Beach.

FIGURE 2-3 ~~2-4~~
~~SURROUNDING~~ EXISTING LAND USE MAP

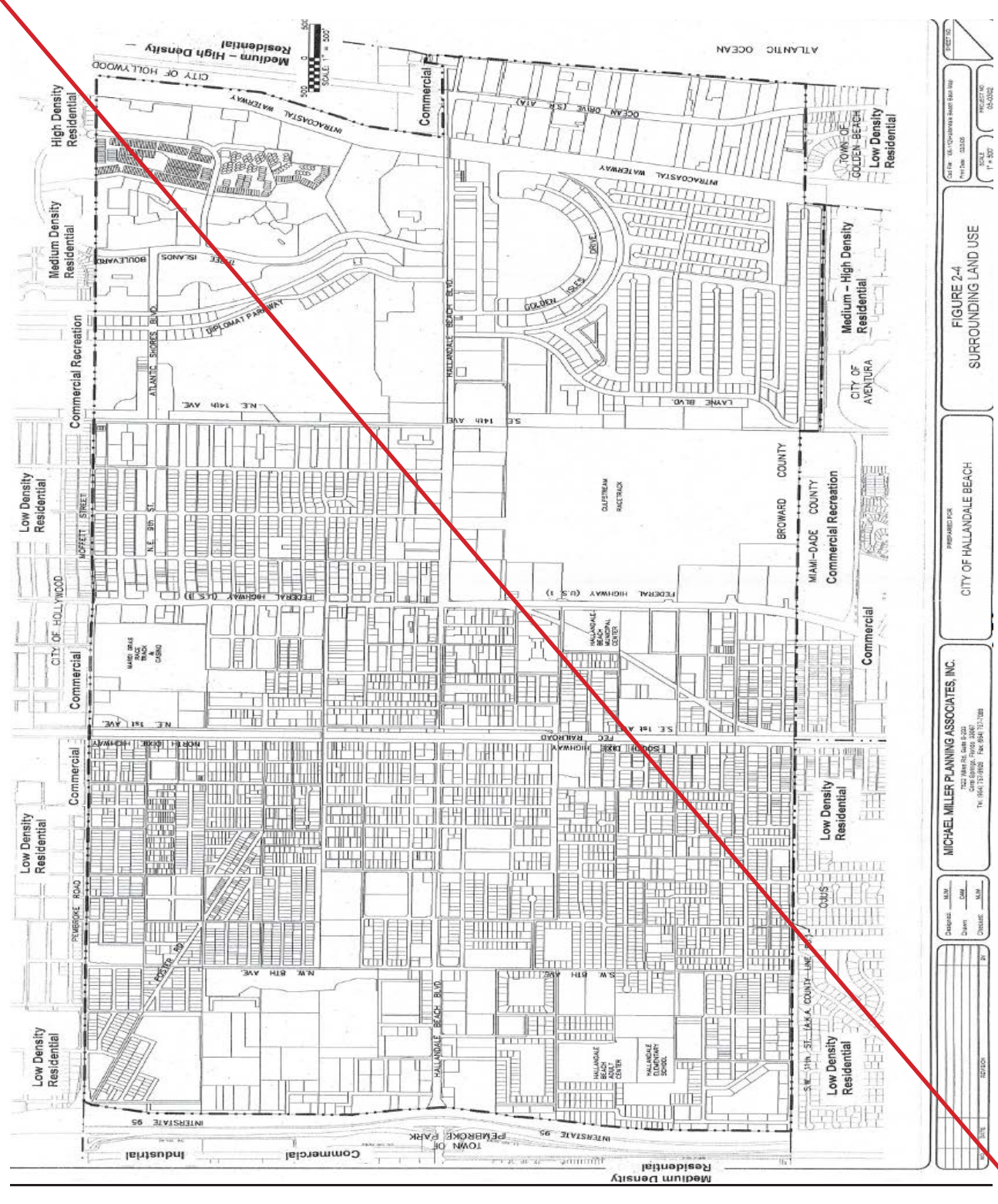
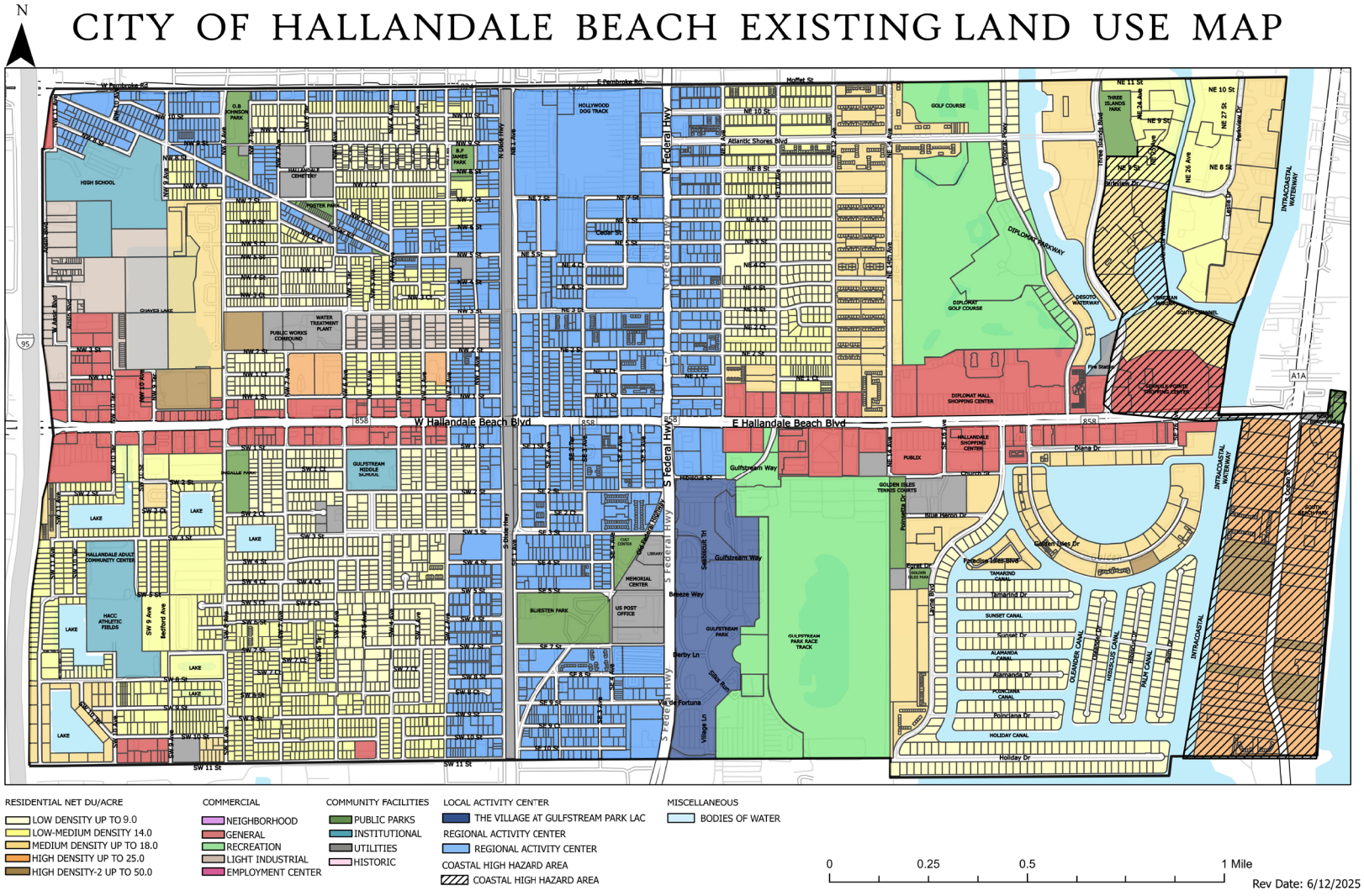


FIGURE 2-3
EXISTING LAND USE MAP



Land use to the west in the Town of Pembroke Park are primarily commercial between I-95 and the South Florida Rail Corridor and low density single-family residential south of Hallandale Beach Boulevard and commercial and industrial use north of Hallandale Beach Boulevard. The commercial and industrial uses are buffered and physically separated from the City of Hallandale Beach by Interstate 95 and are also compatible with adjacent uses in Hallandale Beach.

2.6.2.78 URBAN BLIGHT

The City of Hallandale Beach continuously works to eliminate urban blight within the City and has for many years worked with the County and other agencies to effectively and logically address the causes and consequences of "urban blight" in Hallandale Beach.

Through these partnerships, a comprehensive effort is ongoing which impacts the housing and physical attributes of the Community Redevelopment Area. Through funding assistance via Broward County, CDBG, Rental Rehab and other Federal funds have been awarded to accomplish priorities. See the Housing Element of this Plan for more details and information.

2.7 DATA AND ANALYSIS

2.7.1 INTRODUCTION

This section describes the conditions and land use needs in the City which were analyzed to develop its goals, objectives, policies, and its Future Land Use Plan Map.

Natural conditions affecting development are discussed in the Section. Constraints on future development are also discussed. Ongoing land use issues and opportunities in Hallandale Beach are analyzed. Population estimates and projects for Hallandale Beach are presented at the end of this Section.

2.7.2. NATURAL CONDITIONS AFFECTING DEVELOPMENT

Hallandale Beach is approximately 96 percent built. Discussed below are the natural conditions that affect development and redevelopment efforts within the City.

TOPOGRAPHY

The City of Hallandale Beach is located on low-lying coastal lands characterized by a relatively flat topography. West of U. S. Highway 1, elevations generally range between 8 and 10 feet above mean sea level. Existing elevations to the east of U. S. Highway 1 decrease gradually west to east to approximately 4 to 5 feet above mean sea level. On the barrier island (A1A), elevations range from sea level up to approximately 6 to 10 feet above mean sea level.

The existing topography along the Intracoastal Waterway reflects the influence of residential development. Historical dredge and fill activities converted wetlands and other flood-prone areas into farmable or developable upland land. Intensive development over time has eliminated most natural topographic features of the area.

Soils in Hallandale Beach have largely been modified for development as described previously in this element, and so place only minimal restrictions on development. A generalized Soils map is shown in Figure 7-4 of the Conservation Element.

BEACHES

Beaches within Hallandale Beach are described more fully in the Coastal Management Element of this Comprehensive Plan. The beach area of Hallandale Beach is approximately 4,000 feet in length and averages 100 to 200 feet in width. This beach is considered urbanized in that all the original dune systems have been destroyed by beachfront development of high-rise, multi-dwelling complexes. Beach renourishment efforts have been necessary to restore the beach to allow continued use as a recreational resource and to protect the beachfront properties from direct erosional problems.

ESTUARINE RESOURCES

The Intracoastal Waterway and its associated waterway systems have been developed extensively in the City of Hallandale Beach. Nearly all the shorelines of these waterways have been stabilized by concrete bulkheads over the course of development. Shorelines along these waterways are generally privately owned and utilized for personal recreation.

The danger of flooding is a more important natural condition affecting development. As noted previously, most of the eastern half of the City would be flooded by a 100-year flood. In addition, the western half of the City has been subject to localized flooding. However, this problem is being corrected through drainage improvements and enforcement of modern pervious area requirements. In addition, the City enforces comprehensive Flood Plain Management procedures and participates in the FEMA National Flood Insurance Program. Under these regulations, buildings are required to be placed above the 100 year flood level. The danger from hurricanes can be somewhat controlled by limiting future allowable densities in the coastal high hazard areas. This subject is more fully addressed in the Coastal Management and Conservation Elements of this Comprehensive Plan.

Groundwater resources are also of concern in Hallandale Beach. The City's source of water has been the Biscayne Aquifer, which is subject to saltwater intrusion. As noted in the Conservation Element, direct intrusion of saltwater has reached to within one-third of a mile of the City's well field. Some of the City's wells are closed, and the City is purchasing additional water from the City of North Miami Beach and Broward County. The closed wells will be maintained for use under emergency circumstances, however, surplus capacity of water is supplied by North Miami Beach and Broward County as discussed in the "Utilities" Element.

2.7.3. BUILT ENVIRONMENT AND PROJECTIONS OF DEVELOPMENT IMPACTS

Facets of the built environment which can affect and are effected by existing or future development and redevelopment in Hallandale Beach include the following:

2.7.3.1. INFRASTRUCTURE

A. Utilities – Since the City is almost entirely build out, its utility infrastructure is existing and in place. The City is continuously replacing and modernizing its facilities and will be able to meet the needs of the current and future population projects for the City. Florida Power & Light Company provides electrical service to Hallandale Beach and has sufficient generation and transmission capacity to supply future demands.

B. Schools - New residential development is most likely to affect elementary and middle-school capacity in the short and medium range planning horizons. The Hallandale Beach Adult Center is available for re-conversion into a school. Hallandale Beach High School remains well under capacity.

C. Park and Recreational Facilities- As shown in the Recreation and Open Space Element, the amount of public recreation land in Hallandale Beach, in combination with commercial and private recreation facilities and public waterways is more than adequate to serve the City through build out. The City is continuously replacing and analyzing its recreational needs to meet its current and future population projects.

2.7.5 PROJECTIONS OF LAND USE, POPULATION, AND HOUSING

This section describes projected land uses, projected population and housing growth.

2.7.5.1 METHODOLOGY FOR PROJECTING FUTURE LAND USE

The City has evaluated its past performance on Land Use through its Evaluation And Appraisal Reports. The City has also examined the natural and built environment factors, as well as regulatory factors which affect its ability to grow, redevelop, and conserve itself. The City examined potentials open to it and evaluated possible future scenarios for the City. Discussions with property owners and representatives of the City's Planning Districts have also provided valuable input to the decisions of the City Commission concerning future land use. The ability and desire of the City to provide adequate infrastructure was evaluated. The Future Land Use Plan, which was prepared and evaluated by the City Commission and the Local Planning Agency has been gradually fine tuned through City-initiated Land Use Plan Amendments since 1978. The recommended future land uses, as described in this section, came out of this process. The population and housing projections, and methodologies for deriving them are found in the Housing Element.

2.7.5.2 POPULATION AND HOUSING PROJECTIONS

Estimated and projected figures for population and housing units for Hallandale Beach are shown in Table 2-6. The ~~2000~~ 2020 U.S. Census figures are used as a baseline while the ~~2006-2020~~ 2025-2040 population and housing unit estimates were calculated by the Broward County Urban Planning and Redevelopment Department, Planning Services Division.

The ~~2000~~ 2020 U.S. Census indicated that the City had a population of ~~34,282~~ 41,773 persons. The Broward County projections indicated that the ~~2006~~ 2025 City population was ~~34,622~~ 44,550 and is expected to grow to ~~48,493~~ 54,687 by ~~2020~~ 2040 representing a ~~41.45~~ 30.91 percent increase from ~~2000~~ 2020. The ~~2000~~ 2020 U.S. Census indicated that the City had ~~25,022~~ 28,448 housing units. The Broward County projections indicated that in ~~2006~~ 2025 the City had ~~25,176~~ 31,596 housing units and is expected to grow to ~~29,229~~ 37,362 units by ~~2020~~ 2040 representing a ~~26.81~~ 31.34 percent increase from ~~2000~~ 2020.

2.7.5.3 FUTURE LAND USE NEEDS

The projected rate of population growth will not require significant changes to the current land use designations of the City on its Future Land Use Map. The City is expecting to see continued redevelopment of existing land uses within the City with an increase in the desire for mixed uses and moderate densities especially along the City's primary transportation corridors. The City is also expecting continued infill of scattered vacant parcels throughout the City including both residential and commercial lots. The overall percentages of different land uses on the City's Future Land Use Map are expected to remain constant and there are no adjacent areas to be annexed into the City.

GREENHOUSE GAS REDUCTION STRATEGIES

Climate change is largely attributed to the buildup of carbon dioxide gas (GHG) concentrations in the atmosphere. Global emissions of GHG from human activities, such as burning fossil fuels and deforestation, have increased by 70% between 1970 and 2004 according to the American Planning Association (APA). The April 2008 document published by APA entitled "Policy Guide on Planning and Climate Change" provides guidance for local governments toward the reduction of GHG emissions and on energy efficient land use decisions. The APA document indicates that actions to address GHG emissions should included a mix of education, incentives, subsidies and regulation. The APA has suggested the following strategies for local governments to facilitate a reduction in GHG emissions. These include a mixed-use development, infill and redevelopment to utilize existing utilizes and

TABLE 2-4 ~~2-6~~
POPULATION AND HOUSING UNIT ESTIMATES AND PROJECTIONS CITY OF HALLANDALE BEACH

	Year					
	~~2000~~ 2020[a]	~~2006~~ 2025[b]	~~2010~~ 2030[b]	~~2015~~ 2035[b]	~~2020~~ 2040[b]	2045
Population	~~34,282~~ 41,773	~~34,622~~ 44,550	~~39,406~~ 47,886	~~43,996~~ 50,241	~~48,493~~ 54,687	57,657
Housing Units	~~25,022~~ 28,448	~~25,176~~ 31,596	~~26,825~~ 33,527	~~28,025~~ 34,933	~~29,229~~ 37,362	39,011

[a] *~~2000 figures are from the 2000~~ 2020 U.S. Census*

[b] *~~Projections were provided by~~ 2024 Broward County and Municipal Forecast and Allocation Model ~~Broward County, Urban Planning and Redevelopment Department, Planning Services Division~~*

service, providing employment opportunities near a range of housing opportunities, energy efficient buildings, convenient intermodal transportation systems, and the reduction of heat island effects through green spaces.

In addition to the broad strategies listed above, every decrease in energy consumption reduces the carbon dioxide emissions from power plants and associated development to continue to expand the electric system; every diversion from a landfill increases the efficiency of curbside pick-up and the amount of debris placed in the landfill and ultimately the production of methane; every reduction in water use decreases the amount of energy required to produce potable water and to treat wastewater. Encouraging recycling, facilitating the capacity to bicycle and walk, retaining and increasing landscaping, and conserving potable water supplies are also effective strategies to achieve GHG emission reductions.

The City of Hallandale Beach has implemented a number of these strategies. There is a generally continuous pedestrian and bikeways network throughout the City, especially in close proximity to and abutting mass transit routes. The City is relatively compact and nearly built-out with the highest intensities of development located along major transportation routes (US 1 / Hallandale Beach Boulevard / Pembroke Road / SR A1A). Because of the lack of any large development parcels all new development is considered "infill". The City exists as a very "sustainable" community with many employment opportunities in close proximity to a wide variety of housing types. Florida has one of the toughest Building Energy Codes in the nation and recently made (effective 3/09) significant updates to require more energy efficient buildings of all types. Many of the new large-scale developments are proposed to be LEED certified or will incorporate such features. The City includes or is in close proximity to well-established multi-modal transportation systems (roadways / railways / airports / seaport / mass transit / pedestrian). The City has had a strict Landscape Code for many years and enforces tree canopy protection and new plantings on all land uses, including parking areas and around structures. In the past few years most of the new and/or re-development submittals have been for mixed-use. The City allows some of the highest residential densities in South Florida. This facilitates a decrease in the number of trips and drive times for residents conducting routine shopping trips or outings for dining or entertainment experiences.

Broward County monitors traffic signals on all arterial and collector roadways within the City. The City works with the County to minimize signal timing delays and idling on all arterial and collector roadways. The efficiency of the roadway system throughout the City allows rapid response to any problems that may arise, thereby decreasing idling times and unnecessary emissions and decreasing energy consumption through efficiency.

The pedestrian and bicycle facilities and the efficiency of the roadway system throughout the City each facilitate energy conservation. The City has significant open space and landscape requirements to diminish heat island effects. The City's Landscape Code implements xeriscape principles and requires native vegetation. All of those items help to diminish heat island effects but contribute to carbon dioxide uptake and oxygen production. The City has a landscape inspection program on all commercial and multi-family properties to ensure the maintenance and retention of required landscape materials.

Irrigation for public properties and right-of-ways includes rain sensors installed through the system. The City is implementing a program of switching the sprinkler heads to efficient micro sprinklers.

As a compact fixed-boundary built-out community with a defined footprint and density, the City will not contribute to the sprawl and continued expansion of utilities that has become a prominent development concern across the nation. The City is nearly built-out, and as such, nearly all future projects will be redevelopment projects with existing infrastructure available.

The City is also implementing strategies for more energy efficient lighting within the City. Voltage regulators are being installed on City-owned lighting systems that will reduce their energy cost by 20%-30%. Older style fluorescent lighting in all municipal buildings will also be replaced with a more efficient version that will reduce energy costs.

TABLE 2-5
RESIDENTIAL CAPACITY ANALYSIS INCLUDING FLEXIBILITY AND RAC UNITS

FLU Category	Acres	Max. DU/AC	Base Dwelling Units
Residential Low	336.03	9	3,024
Residential Low-Medium	454.27	14	6,360
Residential Medium	369.01	18	6,642
Residential Medium-High	91.15	25	2,279
Residential High	20.6	50	1,030
Base Totals	—	—	**19,335**
Flexibility Units	—	—	**1,258**
RAC Units	—	—	**5,105**
Total Capacity Units	—	—	25,698

Note: Additional units from the City's allocation of flexibility and RAC units increase the total residential capacity beyond base FLU limits.

HOUSEHOLD SIZES (US CENSUS)	
Jurisdiction	Household Size
Hallandale Beach	2.09
Broward County	2.57
Miami-Dade County	2.74

ESTIMATED POPULATION CAPACITY BY SCENARIO		
Jurisdiction	Household Size	Population Capacity (25,698 DUs)
Hallandale Beach	2.09	53,708
Broward County	2.57	66,043
Miami-Dade County	2.74	70,412

Source: Census 5-Year ACS (2019-2023)

The base Future Land Use designations support a total of approximately 19,335 dwelling units. The City has also allocated an additional 1,258 flexibility units and is in application for 5,105 Regional Activity Center (RAC) units, raising the total residential capacity to 25,698 dwelling units. Based on regional household sizes and US Census data, household sizes range from 2.09 currently within Hallandale Beach, to per household to 2.57 in Broward County, and 2.74 in Miami-Dade County, which neighbors Hallandale Beach. Hallandale Beach can support between 53,708 and 70,412 residents based on these figures. We note that while the census data notes a 2.09 persons per household for the city, this is inconsistent with population and household numbers also provided by the US Census. As we project to the future, the City will continue to monitor, but is expected to reach the same household patterns as the rest of the county as it continues to mature. As a result, it is more appropriate to assume the population that can be housed in Hallandale Beach should be estimated at the same level as the rest of the county, at 2.57 persons per household. Therefore, the City has adequate capacity to accommodate future population projections as identified in the Broward County Population Forecast and Allocation Model (PFAM).

TABLE 2-6
COMPARISON OF FUTURE LAND USE DESIGNATIONS AND EXISTING RESIDENTIAL LAND USE ACREAGE

COMPARISON OF FUTURE LAND USE DESIGNATIONS AND EXISTING RESIDENTIAL LAND USE ACREAGE				
Category	FLU Acres	Existing LU Acres	Difference (LU-FLU)	Existing LU*Max. DU/AC
Residential Low	336.03	314.80	-21.23	2,833.2
Residential Low-Medium	454.27	265.01	-189.26	3,710.14
Residential Medium	369.01	256.05	-112.96	4,608.9
Residential Medium-High	91.15	111.63	20.48	2,790.75
Residential High	20.60	8.49	-12.11	424.5
TOTAL	1,271.06	955.98	-315.08	14,367.49

An analysis comparing the City of Hallandale Beach's existing residential land use to its Future Land Use (FLU) designations indicates a need to provide additional units to prevent a shortfall. In response, the City is actively applying for an additional 4,000 RAC units with Broward County. Including its existing RAC unit allocation, the City will have 5,105 RAC units overall, and 1,258 reserved flexibility units. Once these are included, there will be a 2,643-excess capacity of units in anticipation of the 2045 projection of 57,657 residents.

Another positive feature is that the City is currently underbuilt relative to its planned residential capacity. The total existing residential land use comprises approximately 955.98 acres, whereas the FLU allocates 1,271.06 acres for residential development, reflecting a remaining capacity of 315.08 acres. This indicates that only about 75% of the city's planned residential land has been developed, leaving room for additional residential growth.

When broken down by category, most residential classifications, Low, Low-Medium, Medium, and High, have fewer acres currently in use than allocated under the FLU, suggesting potential for infill or redevelopment at higher densities. However, the Medium-High Residential category exceeds its FLU allocation by 20.48 acres, which may reflect areas already built at higher intensities than currently planned, or transitional neighborhoods in need of FLU map adjustments.

Overall, the city retains sufficient residential land capacity to support future population growth consistent with its comprehensive planning objectives.

3.1 INTRODUCTION

The City of Hallandale Beach adopted a Traffic Circulation Element in accordance with the requirements of Chapter 16.3177 (6)(b) F.S. and Rule 9J-5.007 F.A.C. requirements in May of 1989. Because of the City's size and population, the City was not required to prepare a Mass Transit Element or a Ports, Aviation and Related Facilities Element. In 1993, the Florida Legislature amended Chapter 163 F.S. to require each local government within the urbanized area of a Metropolitan Planning Organization (MPO) to prepare a Transportation Element which would replace the Traffic Circulation Element, Mass Transit Element and Ports, Aviation and Related Facilities Element. The purpose of the Transportation Element is to plan for a multi-modal transportation system that places more emphasis on public transportation systems.

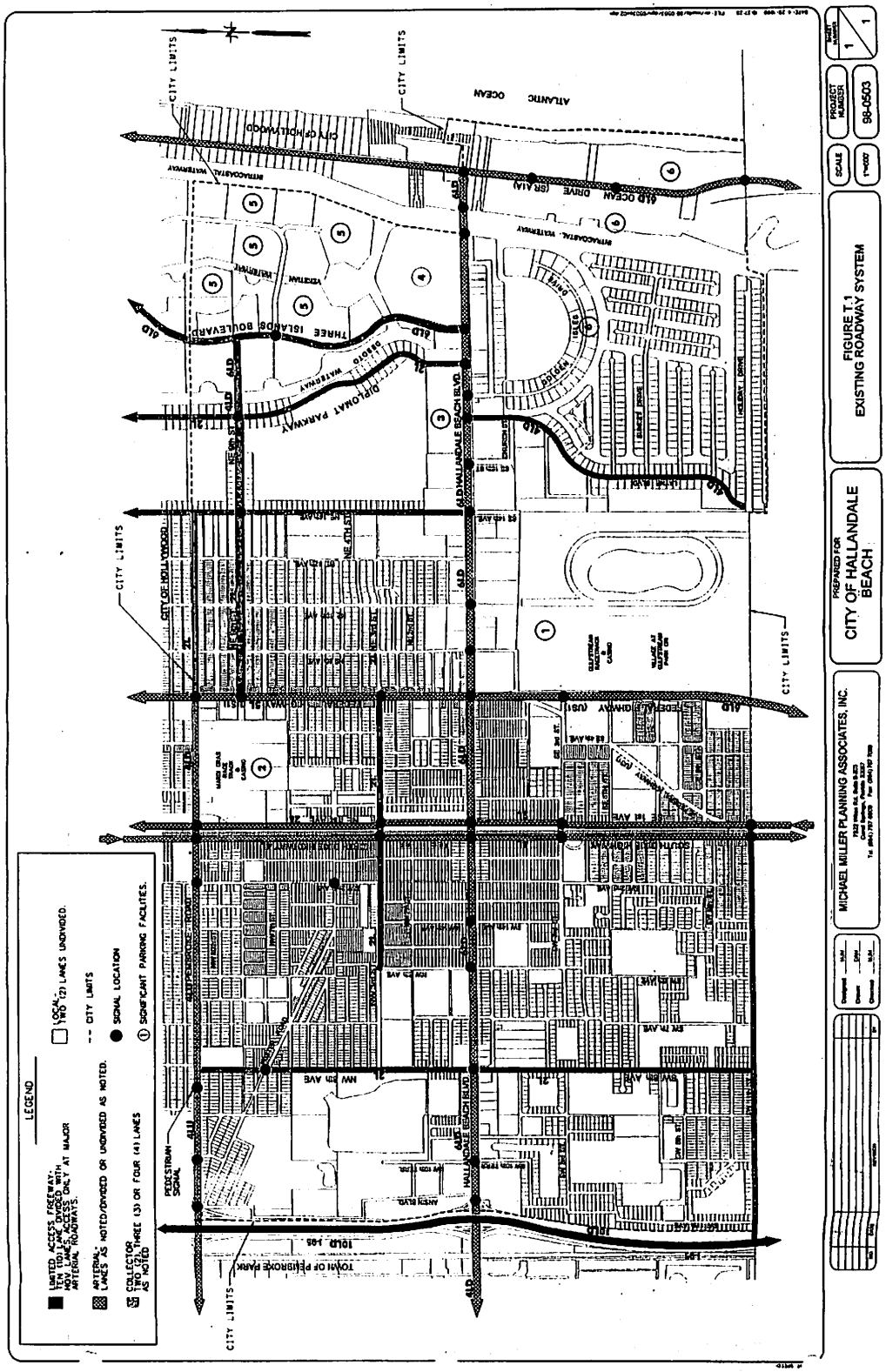
3.2 DESCRIPTION OF EXISTING TRANSPORTATION SYSTEM

This portion of the Element examines the facilities that serve vehicular and non-vehicular traffic within the City of Hallandale Beach planning area. The transportation system is a critical component of society, playing a role in all facets of life, having economic implications, and of recreational value.

The transportation system has two basic components. One is the internal access and circulation of the City's residential neighborhoods and other areas. The other is the external component that serves as the link to other communities. The first, or internal component forms part of the Florida Intrastate Highway System (FIHS), State of Florida or Broward County Traffic Circulation Network.

The Broward County transportation planning process is carried out by the Metropolitan Planning Organization (MPO), whose charge is to master plan and coordinate roadways, mass transit and other transportation systems on a countywide basis. The MPO is a federally mandated planning body responsible for transportation planning in the Broward County urbanized area. The MPO formally provides representation of Cities in the County, the South Florida Regional Transportation Authority, the Broward County School Board and the Broward County Board of County Commissioners and as of 2008 has 19 voting members. The Broward County MPO participates with other MPO's in the State-wide MPO Advisory Council.

FIGURE T.1
EXISTING ROADWAY SYSTEM



ROADWAY SYSTEM

Figure T.1 graphically illustrates the existing transportation road system. Within the City of Hallandale Beach, the following roadways are classified as follows:

FIGURE T.1
EXISTING ROADWAY SYSTEM LIMITED ACCESS FACILITIES

- Interstate 95 (I-95)

ARTERIAL ROADS

North/South

- Dixie Highway
- Federal Highway (US 1)
- Ocean Drive (SR A1A)

East/West

- Pembroke Road (SR 824)
- Hallandale Beach Boulevard (SR 858)

COLLECTOR ROADS

- NE 9TH Street (Atlantic Shores Blvd.)
- SW 11th Street – Dixie Highway to I-95
- NW / SW 8th Avenue
- NE / SE 1st Avenue
- NE 14th Avenue – north of Hallandale Bch. Blvd.
- Foster Road
- Hibiscus Street (SE 2nd Street) – US 1 to NE 14th Ave.
- Three Islands Boulevard
- Diplomat Parkway
- NW / NE 3rd Street – NW 6th Ave. to US 1
- SE 3rd Street – SE 1st Ave. to US 1
- SE 5th Street – SE 1st Ave. to US 1
- SE 7th Street – SE 1st Ave. to US 1
- SE 9th Street – SE 1st Ave. to US 1
- Pembroke Road
- Federal Highway – north of Hallandale Bch. Blvd.
- Dixie Highway

LOCAL ROADS

1. All other City public roads

SIGNIFICANT PARKING FACILITIES

The City has several developments or areas that have significant parking facilities. The City's definition of significant includes available spaces of 500 or more. (Numbers correspond to locations depicted on Figure T.1)

1. Gulfstream Race Track and Casino / Village at Gulfstream Park DRI – approximately 6,700 parking spaces for the Race Track, casino and Phase I development area. This development is located at the SE corner of Hallandale Beach Boulevard and Federal Highway. This is a regional attraction for horse racing. In 2007 a DRI was approved on a portion of the site for a large-scale mixed-use development integrated with the Race Track and casino. The overall site encompasses approximately 200 acres.

2. Mardi Gras Racetrack and Casino – approximately 3,300 parking spaces located south of Pembroke Road, between NE 1ST Avenue and Federal Highway. This is a regional attraction for greyhound dog racing and a casino was added in 2007. The facility encompasses approximately 38 acres.

3. Diplomat Mall / DUO Condominiums – approximately 2,400 parking spaces. The Diplomat Mall / DUO is

located on the north side of Hallandale Beach Boulevard, generally between Diplomat Parkway and NE 14th Avenue. The Diplomat Mall consists of approximately 331,900 square feet of retail space and provides retail shopping opportunities for residents of the City and neighboring communities. The DUO condominium located at the north edge of the site contains 398 high-rise dwelling units.

4. Seawalk Pointe Shopping Center – approximately 1,035 parking spaces. The Seawalk Pointe Shopping Center is located on the north side of Hallandale Beach Boulevard immediately west of the Intracoastal Waterway. This shopping center consists approximately 147,200 square feet of retail space, and provides retail shopping opportunities for residents of the City and neighboring communities.

5. Diplomat / Three Islands Planning District – this area, located north of Hallandale Beach Boulevard between NE 14th Avenue and the Intracoastal Waterway consists of many high intensity multi-family developments located primarily in the Three Islands residential developments. Too numerous to mention individually, it is estimated that this area contains 4,529 dwelling units with densities as high as forty five (45) dwelling units per acre. Many of the highest intensity developments are served by surface parking lots. An estimate of parking for this are, based upon 2 spaces per unit results in an estimated parking total of 9,058 parking spaces. Located immediately north of the Diplomat Mall and Seawalk Pointe Shopping Center, this area is well served by the existing public transit system

6. Golden Isles / A1A Planning District – this area is located generally east of NE 14th Avenue, south of Hallandale Beach Boulevard and along SR A1A from the Miami-Dade County Line to Hallandale Beach Boulevard. This area is among the most high density developed areas in Broward County. With densities averaging as high as between 89 – 200 DUA, this area consists primarily of multistory high density multi-family development located along SR A1A and Golden Isles Drive. It is estimated that the Golden Isles / A1A Planning District consists of approximately 8,448 dwelling units. Using an estimate of 2 parking spaces per unit results in a total estimate of approximately 16, 896 parking spaces. Many developments in the area are served by parking garages with others being served by surface parking or a combination of both. This area is well served by the existing public transit system.

PUBLIC TRANSIT SYSTEM

Figures T.2 (A, B & C) depict the existing Public Transit System. Information was obtained from the Broward County Community Services Department Mass Transit Division, the Miami-Dade County Transit Division and the City's transit staff.

The western portion of the City (I-95 to NE 14th Avenue) is a community of fairly low to medium overall density of development, while eastern portion of the City (east of NE 14th Avenue) consists of significantly higher densities, particularly located among major arterial roadways or clustered at other locations in the coastal area. The City exhibits lower than average income levels and higher than average age characteristics. The dense housing concentrations located in the eastern portions of the City is well served by existing bus service to all areas.

PUBLIC TRANSIT TERMINALS AND TRANSFER STATIONS

No public transit terminals or transfer stations exist within Hallandale according to the Broward County Transportation Element. Periodic bus stops are located along the bus routes within the City limits. Six (6) Broward County bus routes provide service within the City (US 1 Breeze, 1, 4, 5, 6, and 28). Miami-Dade County also operates two (2) bus routes (3 and K) which connect to Broward routes at the Diplomat Mall. Both systems operate open door and honor transfers from each other. In addition to the bus service provided by Broward and Miami-Dade Counties, the City also provides a local bus services for City residents. The City's local bus system consists of three (3) routes (1, 2 and 3) and links to other transit (County Bus Service) at the Diplomat Mall. Although there are no public transit or official transfer stations within the City, the Diplomat Mall functions closely as a public transit station. As part of the Village at Gulfstream Park DRI mixed-use development improvements, a super-stop bus stop (multiple buses at one time) will be provided on US 1 just south of Hibiscus Street. Also the FEC Railroad Study has identified Hallandale Beach as a potential stop.

PUBLIC TRANSIT RIGHTS OF WAY AND EXCLUSIVE PUBLIC TRANSIT CORRIDORS

There are no public transit right-of-ways or exclusive public transit corridors located within the City, although Tri-Rail runs along the South Florida Railroad Corridor located immediately west of I-95 in the neighboring Town of Pembroke Park.

FIGURE T.2(A)
EXISTING PUBLIC TRANSIT SYSTEM
BROWARD COUNTY TRANSIT ROUTES

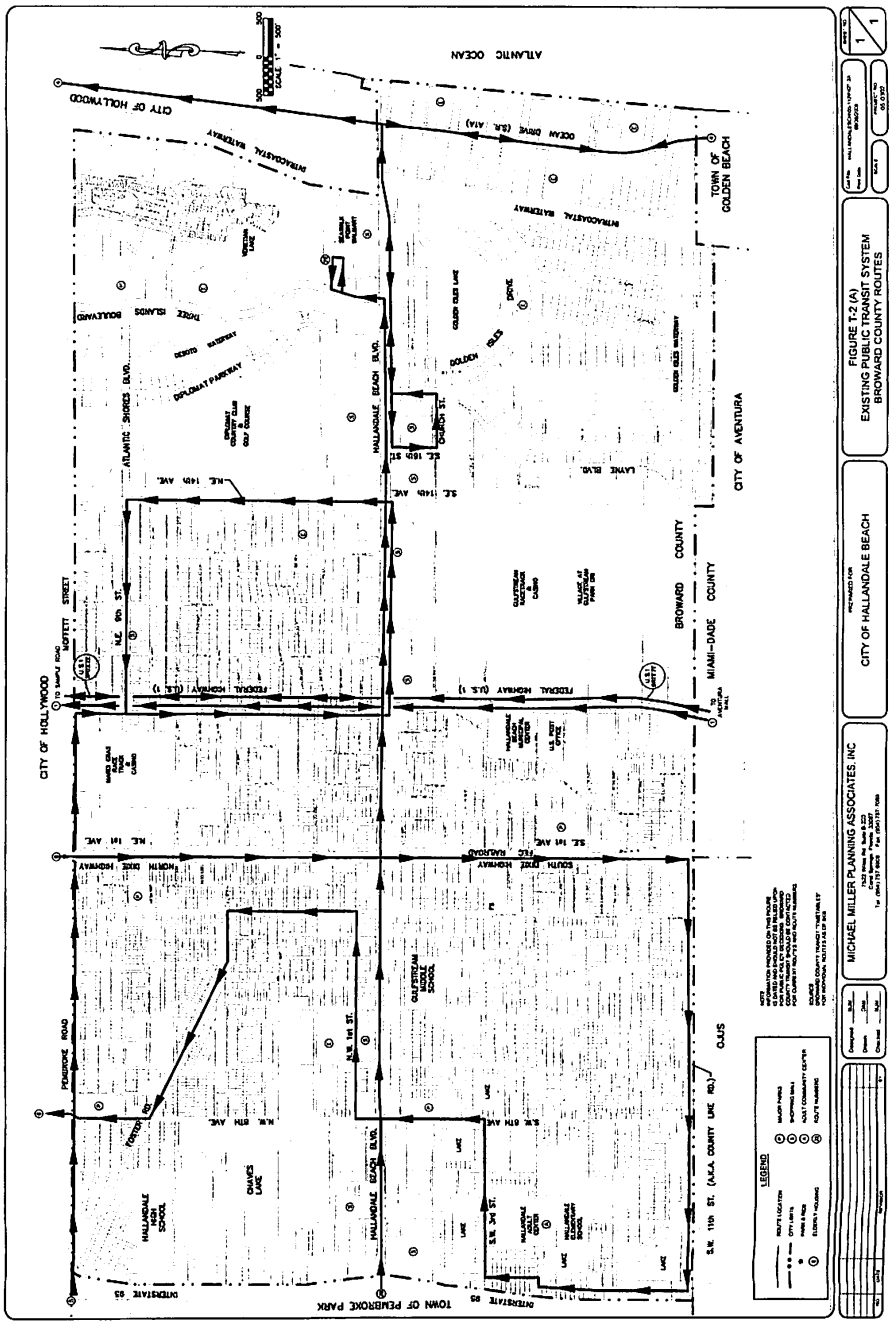


FIGURE T.2(B)
EXISTING PUBLIC TRANSIT SYSTEM
MIAMI-DADE COUNTY TRANSIT ROUTES

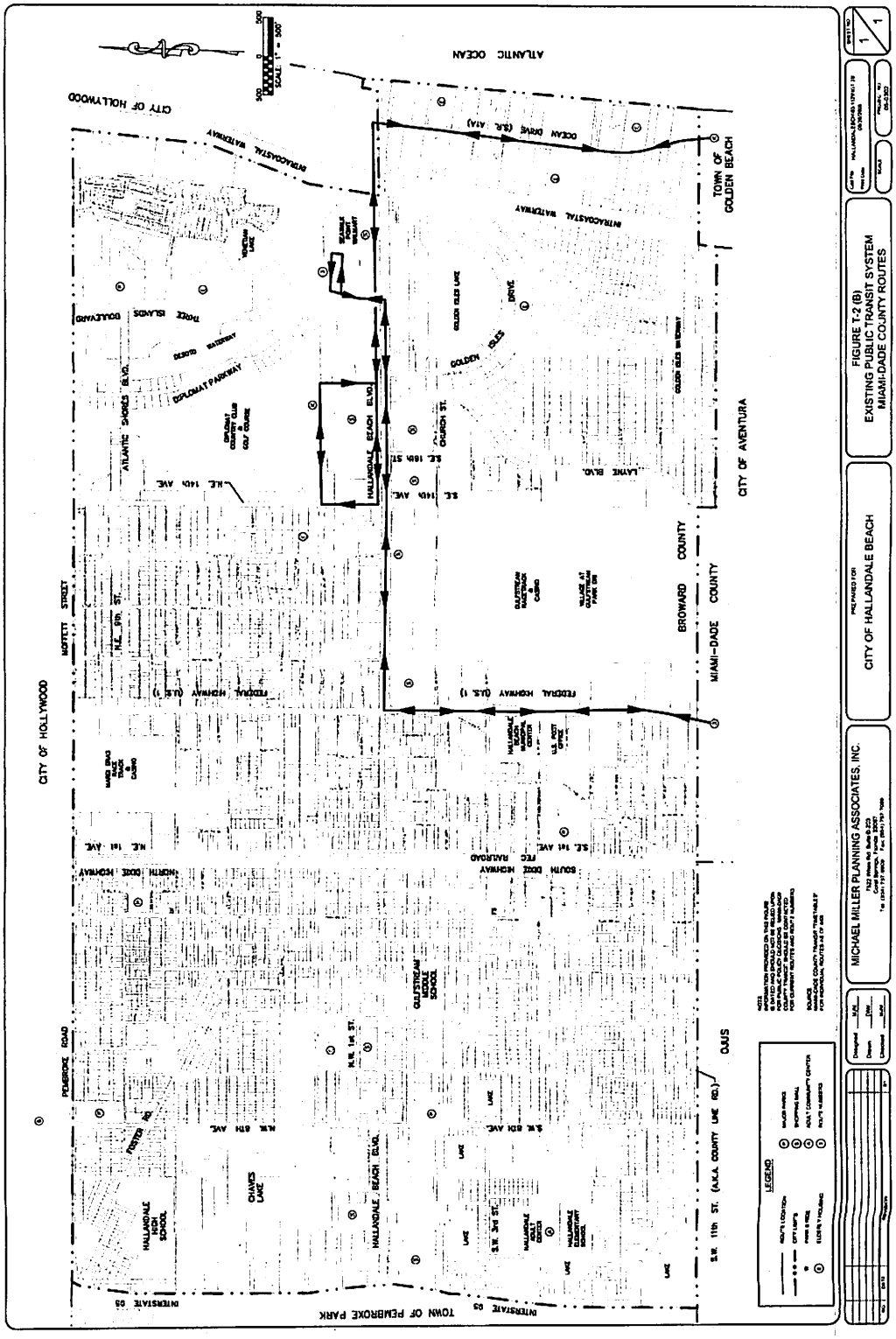
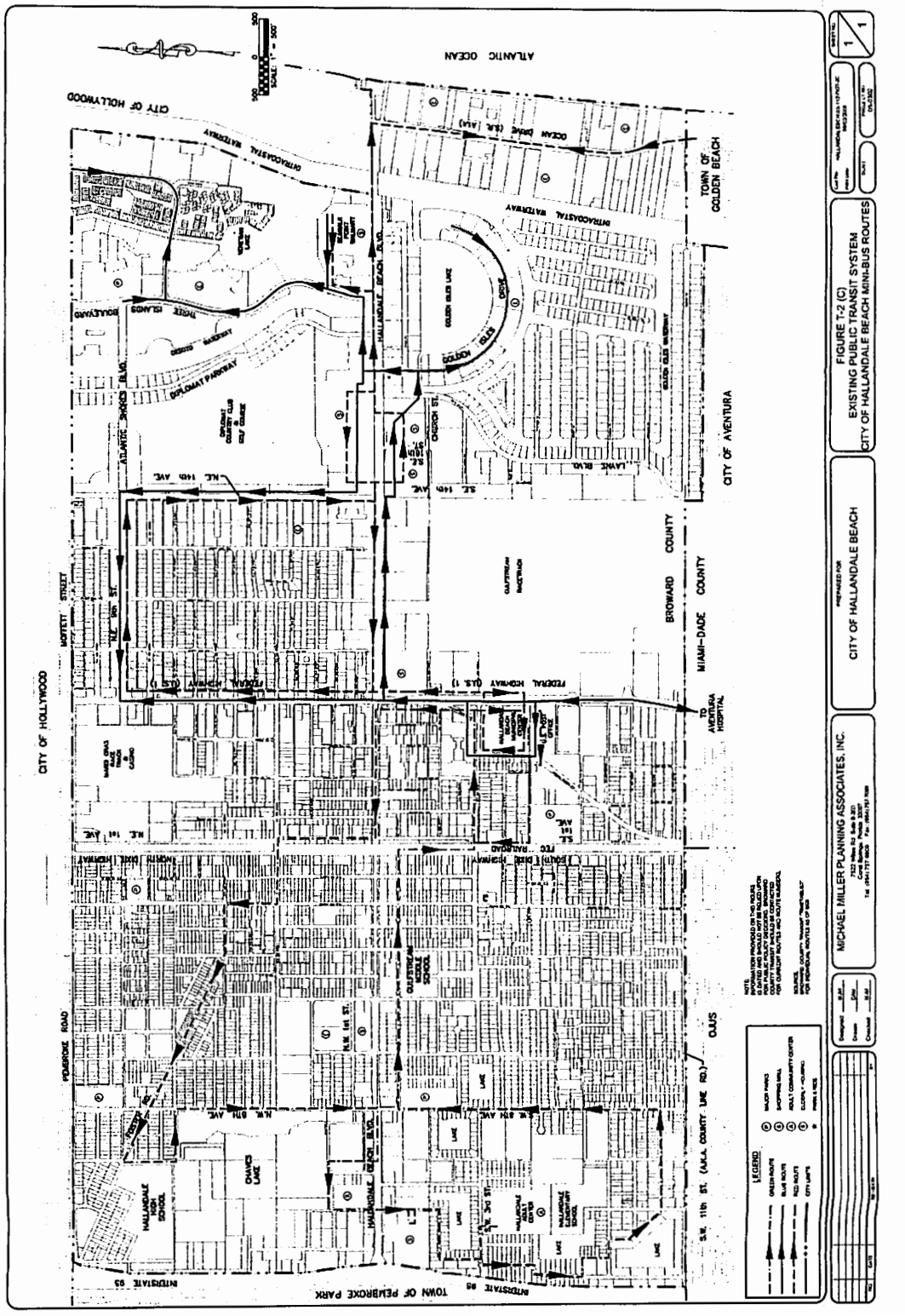


FIGURE T.2(C)
EXISTING PUBLIC TRANSIT SYSTEM
CITY OF HALLANDALE BEACH MINI BUS ROUTES



SIGNIFICANT BICYCLE AND PEDESTRIAN WAYS

Figure T.3 depicts the existing bicycle and pedestrian ways within the City.

a) Bicycle Traffic

There are no exclusive dedicated bicycling facilities in Hallandale Beach. This is verified by Map 3-3 of Broward County's Transportation Element. However, bicycle usage is common within the City, particularly along local roadways and SR A1A adjacent to the beach area. Bike lanes exist along the sides of Hallandale Beach Boulevard and US 1.

Bicycling within the City's local street system is common, given the relatively low traffic volumes, and controlled traffic conditions encountered. On major roadways, bicyclists typically utilize sidewalks for safety reasons. Many properties in the eastern portion of the City provide bike racks but this is not provided on a consistent basis. There is little feasibility of developing an extensive bikeway system within the City.

b) Pedestrian Traffic

Pedestrian traffic is very common within the City neighborhoods. Major streets in Hallandale Beach generally have sidewalks along both sides of the street. These include Hallandale Beach Boulevard, Pembroke Road, SR A1A and Federal Highway north of SE 2nd Street. Other major streets such as Dixie Highway and NE/SE 1st Avenue have sidewalks in place but not continuously. Collector streets such as SW 3rd Street and NE 3rd Street have sidewalks; however, SE 3rd Street and NW 3rd Street do not have continuous sidewalks. Residential areas, particularly in the southwest area of the City, generally do not have continuous sidewalk systems, although sections of sidewalk do exist. In some residential areas, particularly along NE 9th Street and NE 14th Avenue there is back-out parking but the sidewalk is outside the parking area. Most streets leading to schools have sidewalks.

Although the provision of sidewalks in the City appears to be satisfactory, it should be noted that many of the City's residents are elderly and unable to drive. Thus, sidewalks are important for walking to shopping centers, bus stops, etc. In addition, sidewalks at intersections that are ramped down to the curb are being encouraged for handicapped access and to remove bikes from the street. The Figure identifying bicycle and pedestrian ways illustrates that the City has been generally successful in implementing a citywide system.

FIGURE T.3
EXISTING PEDESTRIAN AND BICYCLEWAYS

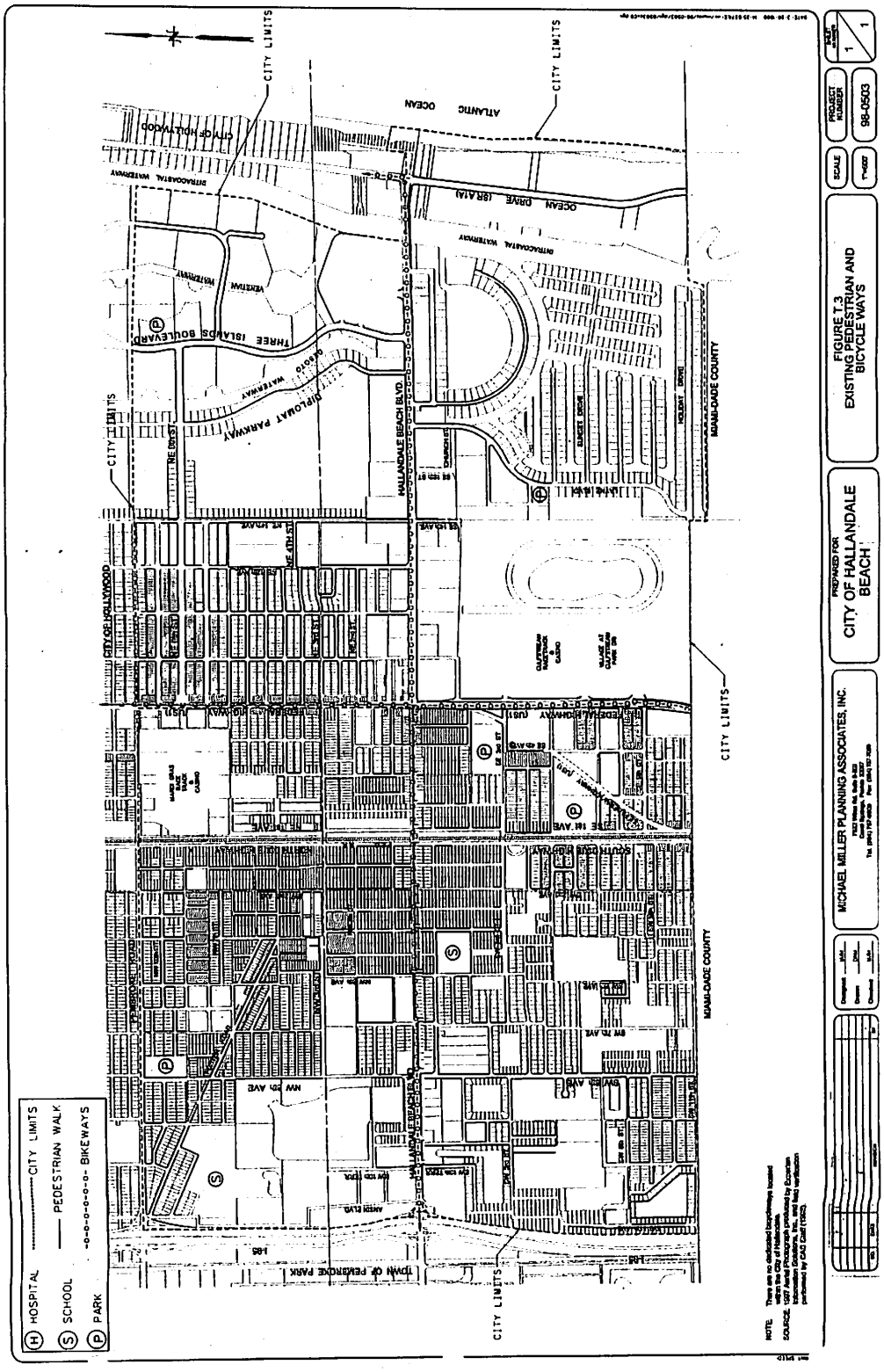
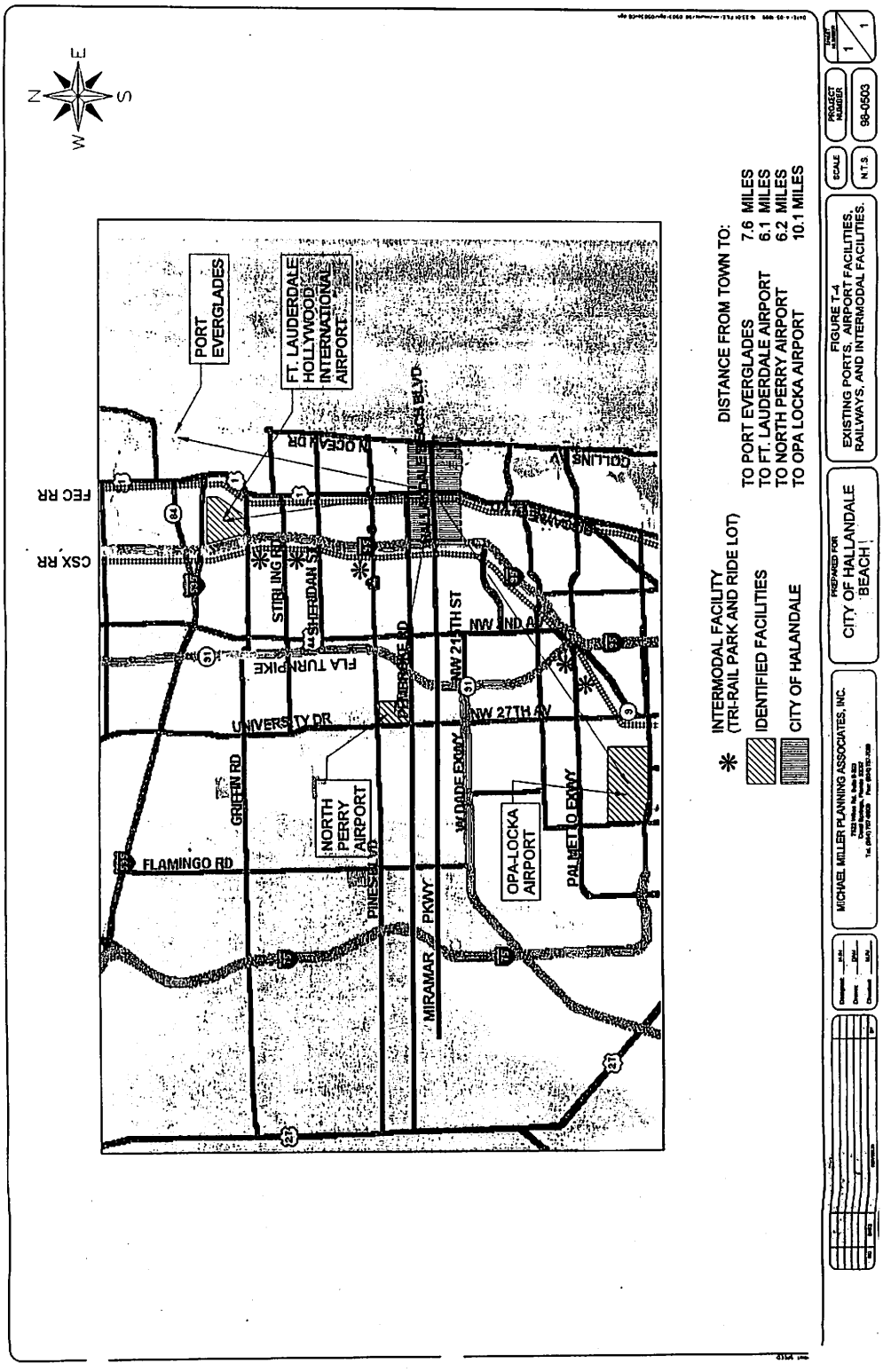


FIGURE T.4
EXISTING PORTS, AIRPORT FACILITIES, RAILWAYS AND INTERMODAL FACILITIES



PORTS, AIRPORT FACILITIES, RAILWAYS AND INTERMODAL FACILITIES

Figure T.4 illustrates the proximity of the City of Hallandale to nearby Ports, Airports, Railways and Related Facilities

PORT FACILITIES

There are no port facilities within Hallandale Beach. The nearest major seaport is Port Everglades which is located approximately eight (8) miles northeast of the City, southeast of the central business district of the City of Fort Lauderdale. Port Everglades is a deep water port serving commercial freight customers, cruise lines and recreation boating needs.

AIRPORT FACILITIES INCLUDING CLEAR ZONES AND OBSTRUCTIONS

There are no airport facilities within the City; however, there are three (3) airports within a few miles of the City.

FORT LAUDERDALE/HOLLYWOOD INTERNATIONAL AIRPORT

- Fort Lauderdale/Hollywood International Airport is located approximately six (6) miles north of the City. The runway alignments are generally east/west. Air traffic typically lands from the west and takes off eastward over the Atlantic Ocean before beginning turning movements. Therefore, there are no clear zones or obstruction issues affecting the City. Aircraft do fly over the City occasionally, however these flights are typically at higher altitudes with typically minor noise or visual impacts.

NORTH PERRY AIRPORT

- North Perry Airport is a general aviation facility located approximately 6.2 miles west/northwest of the City. Air traffic is generally restricted to non-commercial activities. The airport has both north/south and east/west runway alignments. Air traffic typically takes off and lands on the east/west runway due to prevailing winds. Most aviation activity occurs within a 2-3 mile distance of the airport. Therefore, no clear zone or obstruction issues generally affect the City.

OPA LOCKA AIRPORT

- Opa Locka Airport is a general aviation facility located approximately 10.1 miles southwest of the City within Miami-Dade County. Air traffic is generally restricted to non-commercial activities. The runway alignments are generally east/west. Air traffic typically makes turning movements within a few miles of the airport, therefore, no clear zone or obstruction issues affect the City.

OTHER FACILITIES

- There are no heliports or similar facilities within the City.

FREIGHT AND PASSENGER RAIL LINES AND TERMINALS

The City has a long established rail line corridor within its boundaries. This corridor is known as the Florida East Coast (FEC) Railroad and currently functions as an exclusive freight railroad line. The FEC corridor is located between Dixie Highway and NE/SE 1st Avenue. There studies ongoing to add commuter services in the future.

In addition to the FEC railroad, another rail corridor is located immediately west of the City, just west of I-95. This rail line was previously known as the Seaboard Coastline (CSX) Railroad; however, it is now referred to as the South Florida Rail Corridor, which is utilized primarily as a commuter line by Tri-Rail and Amtrak, although some freight also uses this corridor.

A transit station is located approximately 2+/- miles north and west of the City, just north of Hollywood Boulevard. The City's relatively close proximity to the station provides an opportunity for residents to commute to work in Miami-Dade, Broward and Palm Beach Counties, although the 2+/- mile distance to the station hinders its use.

INTERMODAL TERMINALS AND ACCESS TO INTERMODAL FACILITIES

There are no intermodal terminals within the City. Access to such facilities involves driving to a terminal such as a Park and Ride lot or Metro Rail Station to cite examples. The nearest intermodal facility is at the Hollywood Boulevard Tri-Rail terminal which has a Park and Ride lot and bus feeder service.

EXISTING FUNCTIONAL CLASSIFICATION AND MAINTENANCE RESPONSIBILITIES

The Functional Classification of roadways is utilized to create a hierarchical system to establish the responsibility for roadway maintenance and operation by either the State, the County or the local jurisdiction. The following broad guidelines are used to define roadway types:

- Principal Arterials – Major highways serving heavy volumes of traffic through the urban area.
- Minor Arterials – Roadways carrying moderately heavy volumes of traffic which channel traffic to community activity centers.
- Collectors – Roadways carrying moderate volumes of traffic to the arterial network.
- Local Roadways – Neighborhood roadways carrying low volumes of traffic to collector or arterial roadways.

The existing functional classification of roadways in the City are provided in the following Table T – 1 and illustrated in Figure T.5. Both the Federal Government and State of Florida have utilized functional classification systems to assign roadway jurisdictions. In May of 1996 the Florida Department of Transportation issued a letter stating that applicable State laws pertaining to functional classifications had been repealed (Florida State Statute 335.04). Therefore, the information provided is from the federal classification system and/or previous State classification system, as contained within Appendix 3-A of the Broward County Transportation Element. The table includes the most recent update to the roadway functional classifications as approved by FDOT and the Broward County MPO and has been used since 2004.

Maintenance responsibilities are divided between the State Department of Transportation for Urban Principal Arterials, Broward County for other arterials and County Collector roadways and the City for City Collector and local streets.

TABLE T - 1
FUNCTIONAL CLASSIFICATION OF ROADWAYS

	Segment	TIP Design Code	Functional Classification	Required Width	# of Lanes
North South Roadways					
I-95 (SIS)	I-95	1021	XWay	325'	10LD*
Dixie Highway	N of Dade CL	420	UCOLL	54'	4L
	N of Hall. Bch Blvd.	420	UCOLL	54'	4L
SE 1st Ave	N of Dade CL	221	UCOLL	N/A	2L
NE 1st Ave	N of Hall. Bch. Blvd.	221	UCOLL	N/A	2L
Federal Highway	N of Dade CL	623	UPA	120'	6LD
	N of Hall. Bch. Blvd.	433	UPA	106'	4LD
SE Federal Highway	Dade CL to US1	211	CC	N/A	2L
S. Ocean Drive	N of Dade CL	620	UPA	106'	6LD
SW 8th Avenue	N of Dade CL	211	CC	N/A	2L
NW 8th Avenue	N of Hall. Bch Blvd.	211	CC	N/A	2L
NE 14th Avenue	N of Hall. Bch Blvd.	211	CC	N/A	2L
Three Islands Blvd.	N of Hall. Bch Blvd.	621	CC	80'	6LD
Diplomat Pkwy.	N of Hall. Bch Blvd.	211	CC	N/A	2L
East/West Roadways					
Pembroke Road	E of I-95	430	UPA	100'	4LU
	E of Dixie Highway	410	UPA	100'	4LU
Foster Road	Pembroke Rd to Dixie Hwy	264	CC	50'	2L
Hallandale Bch. Blvd.	E of 1-95	623	UPA	120'	6LD
	E of Dixie Hgwy	613	UPA	120'	6LD
	E of US1	633	UPA	120'	6LD
	E of Diplmt. Pkwy	433	UPA	120'	6LD
NE 9TH Street / Atlantic Shores Blvd	E of US1	231	CC	80'	2L
NW / NE 3RD Street	NW 6th Ave to US 1	221	CC	N/A	2L
SE 3rd Street	SE 1 Ave. to US 1	274	CC	60'	2L
SE 5th Street	SE 1 Ave. to US 1	274	CC	60'	2L
SE 7th Street	SE 1 Ave. to US 1	274	CC	60'	2L
SE 9th Street	SE 1 Ave. to US 1	274	~~CC~~	60'	2L

Legend: SIS = Strategic Intermodal System UPA = Urban Principal Arterial UCOLL = Urban Collector LR = Local Road
XWay = Expressway UMA = Urban Minor Arterial CC = City Collector LD / LU = Lanes Divided / Lanes Undivided

Note: Required Right of Way (ROW) width per BC Trafficways Plan
** I-95 has 8 Through Lanes and 2 HOV Lanes.*
Source: Broward County Roadway Capacity & Level of Service Analysis for 2005 / 2030 published 9/2006
Broward County Transportation Element - 2007 / Michael Miller Planning Associates, Inc. – June 2008

FIGURE T.5
EXISTING FUNCTIONAL CLASSIFICATION OF ROADWAYS

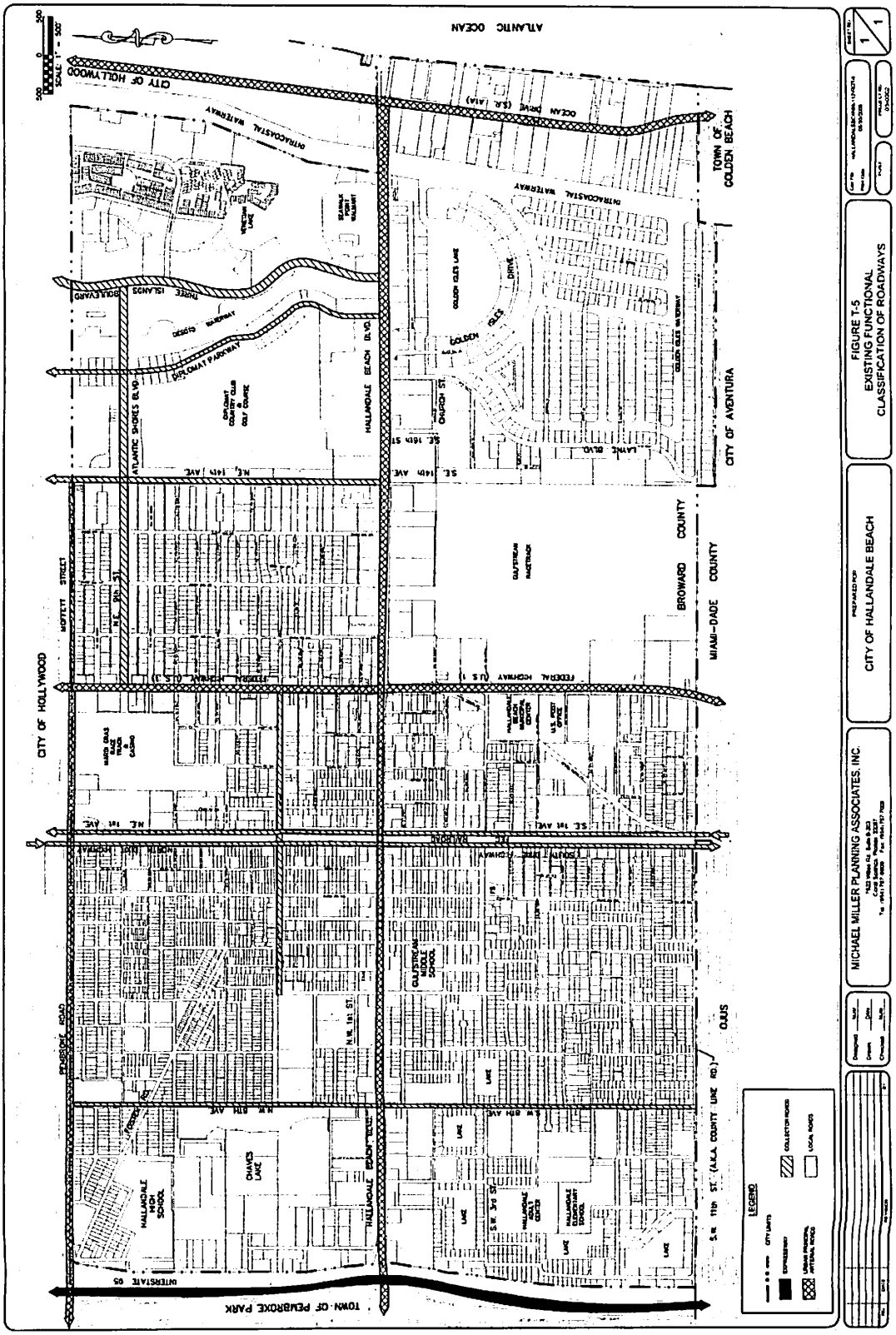


FIGURE T.6
EXISTING NUMBER OF THROUGH LANES

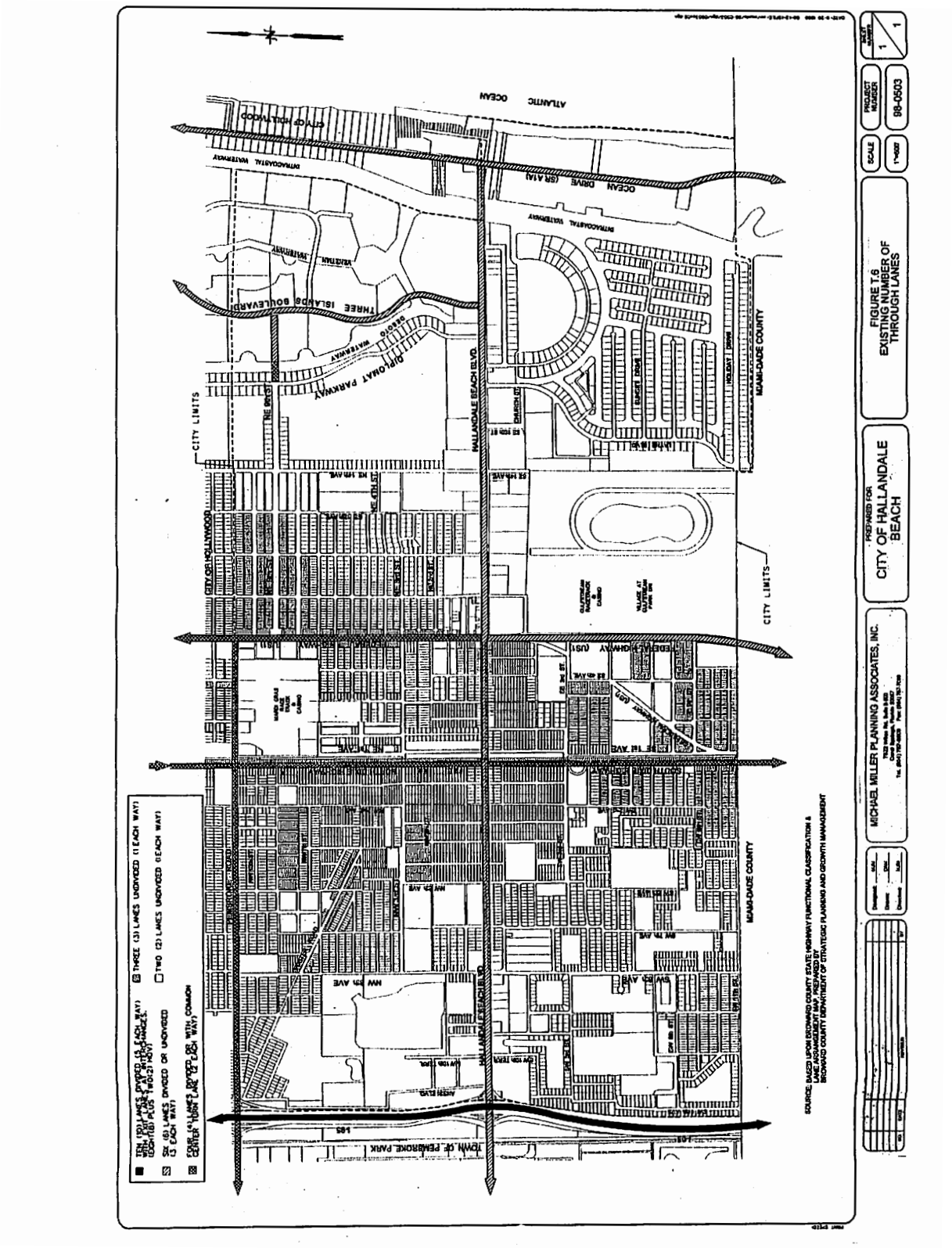
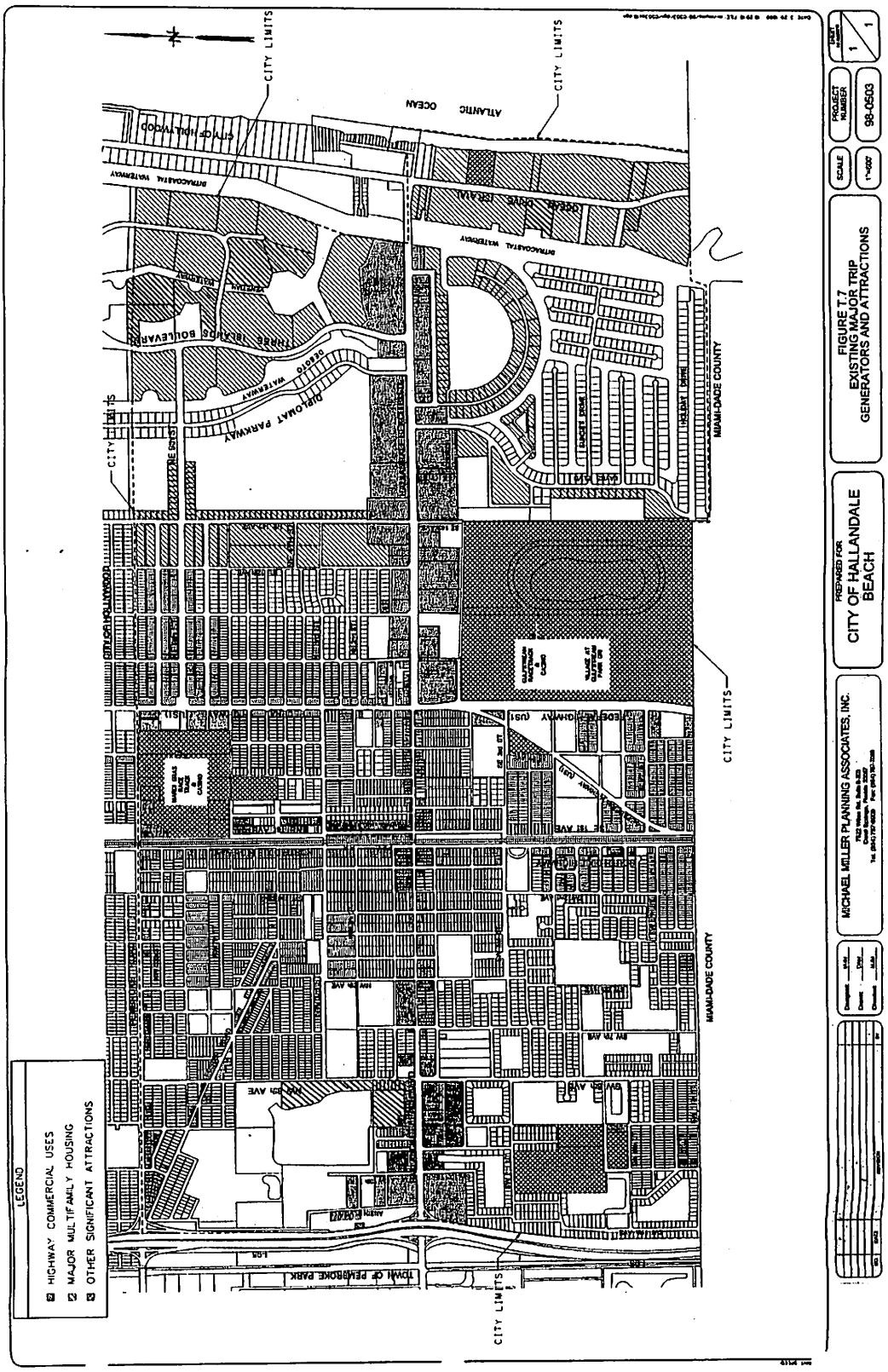

FIGURE T.6
EXISTING NUMBER OF THROUGH LANES
CITY OF HALLANDALE BEACH
MICHAEL MILLER PLANNING ASSOCIATES, INC.
PROJECT NUMBER
98-0503
SCALE
CITY LIMITS
HALLANDALE BEACH BLVD.
DIPLOMAT PARKWAY
THREE ISLANDS BOULEVARD
OCEAN DRIVE (SR A1A)
ATLANTIC OCEAN
INTRACOASTAL WATERWAY
MIAMI-DADE COUNTY
TOWN OF PEMBROKE PARK
NW 7th AVE
SW 7th AVE
NW 10th AVE
SW 10th AVE
NW 14th AVE
SW 14th AVE
NW 18th AVE
SW 18th AVE
NW 21st AVE
SW 21st AVE
NW 24th AVE
SW 24th AVE
NW 28th AVE
SW 28th AVE
NW 31st AVE
SW 31st AVE
NW 36th AVE
SW 36th AVE
NW 40th AVE
SW 40th AVE
NW 44th AVE
SW 44th AVE
NW 48th AVE
SW 48th AVE
NW 52nd AVE
SW 52nd AVE
NW 56th AVE
SW 56th AVE
NW 60th AVE
SW 60th AVE
NW 64th AVE
SW 64th AVE
NW 68th AVE
SW 68th AVE
NW 72nd AVE
SW 72nd AVE
NW 76th AVE
SW 76th AVE
NW 80th AVE
SW 80th AVE
NW 84th AVE
SW 84th AVE
NW 88th AVE
SW 88th AVE
NW 92nd AVE
SW 92nd AVE
NW 96th AVE
SW 96th AVE
NW 100th AVE
SW 100th AVE
NW 104th AVE
SW 104th AVE
NW 108th AVE
SW 108th AVE
NW 112th AVE
SW 112th AVE
NW 116th AVE
SW 116th AVE
NW 120th AVE
SW 120th AVE
NW 124th AVE
SW 124th AVE
NW 128th AVE
SW 128th AVE
NW 132nd AVE
SW 132nd AVE
NW 136th AVE
SW 136th AVE
NW 140th AVE
SW 140th AVE
NW 144th AVE
SW 144th AVE
NW 148th AVE
SW 148th AVE
NW 152nd AVE
SW 152nd AVE
NW 156th AVE
SW 156th AVE
NW 160th AVE
SW 160th AVE
NW 164th AVE
SW 164th AVE
NW 168th AVE
SW 168th AVE
NW 172nd AVE
SW 172nd AVE
NW 176th AVE
SW 176th AVE
NW 180th AVE
SW 180th AVE
NW 184th AVE
SW 184th AVE
NW 188th AVE
SW 188th AVE
NW 192nd AVE
SW 192nd AVE
NW 196th AVE
SW 196th AVE
NW 200th AVE
SW 200th AVE
NW 204th AVE
SW 204th AVE
NW 208th AVE
SW 208th AVE
NW 212th AVE
SW 212th AVE
NW 216th AVE
SW 216th AVE
NW 220th AVE
SW 220th AVE
NW 224th AVE
SW 224th AVE
NW 228th AVE
SW 228th AVE
NW 232nd AVE
SW 232nd AVE
NW 236th AVE
SW 236th AVE
NW 240th AVE
SW 240th AVE
NW 244th AVE
SW 244th AVE
NW 248th AVE
SW 248th AVE
NW 252nd AVE
SW 252nd AVE
NW 256th AVE
SW 256th AVE
NW 260th AVE
SW 260th AVE
NW 264th AVE
SW 264th AVE
NW 268th AVE
SW 268th AVE
NW 272nd AVE
SW 272nd AVE
NW 276th AVE
SW 276th AVE
NW 280th AVE
SW 280th AVE
NW 284th AVE
SW 284th AVE
NW 288th AVE
SW 288th AVE
NW 292nd AVE
SW 292nd AVE
NW 296th AVE
SW 296th AVE
NW 300th AVE
SW 300th AVE
NW 304th AVE
SW 304th AVE
NW 308th AVE
SW 308th AVE
NW 312th AVE
SW 312th AVE
NW 316th AVE
SW 316th AVE
NW 320th AVE
SW 320th AVE
NW 324th AVE
SW 324th AVE
NW 328th AVE
SW 328th AVE
NW 332nd AVE
SW 332nd AVE
NW 336th AVE
SW 336th AVE
NW 340th AVE
SW 340th AVE
NW 344th AVE
SW 344th AVE
NW 348th AVE
SW 348th AVE
NW 352nd AVE
SW 352nd AVE
NW 356th AVE
SW 356th AVE
NW 360th AVE
SW 360th AVE
NW 364th AVE
SW 364th AVE
NW 368th AVE
SW 368th AVE
NW 372nd AVE
SW 372nd AVE
NW 376th AVE
SW 376th AVE
NW 380th AVE
SW 380th AVE
NW 384th AVE
SW 384th AVE
NW 388th AVE
SW 388th AVE
NW 392nd AVE
SW 392nd AVE
NW 396th AVE
SW 396th AVE
NW 400th AVE
SW 400th AVE
NW 404th AVE
SW 404th AVE
NW 408th AVE
SW 408th AVE
NW 412th AVE
SW 412th AVE
NW 416th AVE
SW 416th AVE
NW 420th AVE
SW 420th AVE
NW 424th AVE
SW 424th AVE
NW 428th AVE
SW 428th AVE
NW 432nd AVE
SW 432nd AVE
NW 436th AVE
SW 436th AVE
NW 440th AVE
SW 440th AVE
NW 444th AVE
SW 444th AVE
NW 448th AVE
SW 448th AVE
NW 452nd AVE
SW 452nd AVE
NW 456th AVE
SW 456th AVE
NW 460th AVE
SW 460th AVE
NW 464th AVE
SW 464th AVE
NW 468th AVE
SW 468th AVE
NW 472nd AVE
SW 472nd AVE
NW 476th AVE
SW 476th AVE
NW 480th AVE
SW 480th AVE
NW 484th AVE
SW 484th AVE
NW 488th AVE
SW 488th AVE
NW 492nd AVE
SW 492nd AVE
NW 496th AVE
SW 496th AVE
NW 500th AVE
SW 500th AVE
NW 504th AVE
SW 504th AVE
NW 508th AVE
SW 508th AVE
NW 512th AVE
SW 512th AVE
NW 516th AVE
SW 516th AVE
NW 520th AVE
SW 520th AVE
NW 524th AVE
SW 524th AVE
NW 528th AVE
SW 528th AVE
NW 532nd AVE
SW 532nd AVE
NW 536th AVE
SW 536th AVE
NW 540th AVE
SW 540th AVE
NW 544th AVE
SW 544th AVE
NW 548th AVE
SW 548th AVE
NW 552nd AVE
SW 552nd AVE
NW 556th AVE
SW 556th AVE
NW 560th AVE
SW 560th AVE
NW 564th AVE
SW 564th AVE
NW 568th AVE
SW 568th AVE
NW 572nd AVE
SW 572nd AVE
NW 576th AVE
SW 576th AVE
NW 580th AVE
SW 580th AVE
NW 584th AVE
SW 584th AVE
NW 588th AVE
SW 588th AVE
NW 592nd AVE
SW 592nd AVE
NW 596th AVE
SW 596th AVE
NW 600th AVE
SW 600th AVE
NW 604th AVE
SW 604th AVE
NW 608th AVE
SW 608th AVE
NW 612th AVE
SW 612th AVE
NW 616th AVE
SW 616th AVE
NW 620th AVE
SW 620th AVE
NW 624th AVE
SW 624th AVE
NW 628th AVE
SW 628th AVE
NW 632nd AVE
SW 632nd AVE
NW 636th AVE
SW 636th AVE
NW 640th AVE
SW 640th AVE
NW 644th AVE
SW 644th AVE
NW 648th AVE
SW 648th AVE
NW 652nd AVE
SW 652nd AVE
NW 656th AVE
SW 656th AVE
NW 660th AVE
SW 660th AVE
NW 664th AVE
SW 664th AVE
NW 668th AVE
SW 668th AVE
NW 672nd AVE
SW 672nd AVE
NW 676th AVE
SW 676th AVE
NW 680th AVE
SW 680th AVE
NW 684th AVE
SW 684th AVE
NW 688th AVE
SW 688th AVE
NW 692nd AVE
SW 692nd AVE
NW 696th AVE
SW 696th AVE
NW 700th AVE
SW 700th AVE
NW 704th AVE
SW 704th AVE
NW 708th AVE
SW 708th AVE
NW 712th AVE
SW 712th AVE
NW 716th AVE
SW 716th AVE
NW 720th AVE
SW 720th AVE
NW 724th AVE
SW 724th AVE
NW 728th AVE
SW 728th AVE
NW 732nd AVE
SW 732nd AVE
NW 736th AVE
SW 736th AVE
NW 740th AVE
SW 740th AVE
NW 744th AVE
SW 744th AVE
NW 748th AVE
SW 748th AVE
NW 752nd AVE
SW 752nd AVE
NW 756th AVE
SW 756th AVE
NW 760th AVE
SW 760th AVE
NW 764th AVE
SW 764th AVE
NW 768th AVE
SW 768th AVE
NW 772nd AVE
SW 772nd AVE
NW 776th AVE
SW 776th AVE
NW 780th AVE
SW 780th AVE
NW 784th AVE
SW 784th AVE
NW 788th AVE
SW 788th AVE
NW 792nd AVE
SW 792nd AVE
NW 796th AVE
SW 796th AVE
NW 800th AVE
SW 800th AVE
NW 804th AVE
SW 804th AVE
NW 808th AVE
SW 808th AVE
NW 812th AVE
SW 812th AVE
NW 816th AVE
SW 816th AVE
NW 820th AVE
SW 820th AVE
NW 824th AVE
SW 824th AVE
NW 828th AVE
SW 828th AVE
NW 832nd AVE
SW 832nd AVE
NW 836th AVE
SW 836th AVE
NW 840th AVE
SW 840th AVE
NW 844th AVE
SW 844th AVE
NW 848th AVE
SW 848th AVE
NW 852nd AVE
SW 852nd AVE
NW 856th AVE
SW 856th AVE
NW 860th AVE
SW 860th AVE
NW 864th AVE
SW 864th AVE
NW 868th AVE
SW 868th AVE
NW 872nd AVE
SW 872nd AVE
NW 876th AVE
SW 876th AVE
NW 880th AVE
SW 880th AVE
NW 884th AVE
SW 884th AVE
NW 888th AVE
SW 888th AVE
NW 892nd AVE
SW 892nd AVE
NW 896th AVE
SW 896th AVE
NW 900th AVE
SW 900th AVE
NW 904th AVE
SW 904th AVE
NW 908th AVE
SW 908th AVE
NW 912th AVE
SW 912th AVE
NW 916th AVE
SW 916th AVE
NW 920th AVE
SW 920th AVE
NW 924th AVE
SW 924th AVE
NW 928th AVE
SW 928th AVE
NW 932nd AVE
SW 932nd AVE
NW 936th AVE
SW 936th AVE
NW 940th AVE
SW 940th AVE
NW 944th AVE
SW 944th AVE
NW 948th AVE
SW 948th AVE
NW 952nd AVE
SW 952nd AVE
NW 956th AVE
SW 956th AVE
NW 960th AVE
SW 960th AVE
NW 964th AVE
SW 964th AVE
NW 968th AVE
SW 968th AVE
NW 972nd AVE
SW 972nd AVE
NW 976th AVE
SW 976th AVE
NW 980th AVE
SW 980th AVE
NW 984th AVE
SW 984th AVE
NW 988th AVE
SW 988th AVE
NW 992nd AVE
SW 992nd AVE
NW 996th AVE
SW 996th AVE
NW 1000th AVE
SW 1000th AVE
NW 1004th AVE
SW 1004th AVE
NW 1008th AVE
SW 1008th AVE
NW 1012th AVE
SW 1012th AVE
NW 1016th AVE
SW 1016th AVE
NW 1020th AVE
SW 1020th AVE
NW 1024th AVE
SW 1024th AVE
NW 1028th AVE
SW 1028th AVE
NW 1032nd AVE
SW 1032nd AVE
NW 1036th AVE
SW 1036th AVE
NW 1040th AVE
SW 1040th AVE
NW 1044th AVE
SW 1044th AVE
NW 1048th AVE
SW 1048th AVE
NW 1052nd AVE
SW 1052nd AVE
NW 1056th AVE
SW 1056th AVE
NW 1060th AVE
SW 1060th AVE
NW 1064th AVE
SW 1064th AVE
NW 1068th AVE
SW 1068th AVE
NW 1072nd AVE
SW 1072nd AVE
NW 1076th AVE
SW 1076th AVE
NW 1080th AVE
SW 1080th AVE
NW 1084th AVE
SW 1084th AVE
NW 1088th AVE
SW 1088th AVE
NW 1092nd AVE
SW 1092nd AVE
NW 1096th AVE
SW 1096th AVE
NW 1100th AVE
SW 1100th AVE
NW 1104th AVE
SW 1104th AVE
NW 1108th AVE
SW 1108th AVE
NW 1112th AVE
SW 1112th AVE
NW 1116th AVE
SW 1116th AVE
NW 1120th AVE
SW 1120th AVE
NW 1124th AVE
SW 1124th AVE
NW 1128th AVE
SW 1128th AVE
NW 1132nd AVE
SW 1132nd AVE
NW 1136th AVE
SW 1136th AVE
NW 1140th AVE
SW 1140th AVE
NW 1144th AVE
SW 1144th AVE
NW 1148th AVE
SW 1148th AVE
NW 1152nd AVE
SW 1152nd AVE
NW 1156th AVE
SW 1156th AVE
NW 1160th AVE
SW 1160th AVE
NW 1164th AVE
SW 1164th AVE
NW 1168th AVE
SW 1168th AVE
NW 1172nd AVE
SW 1172nd AVE
NW 1176th AVE
SW 1176th AVE
NW 1180th AVE
SW 1180th AVE
NW 1184th AVE
SW 1184th AVE
NW 1188th AVE
SW 1188th AVE
NW 1192nd AVE
SW 1192nd AVE
NW 1196th AVE
SW 1196th AVE
NW 1200th AVE
SW 1200th AVE
NW 1204th AVE
SW 1204th AVE
NW 1208th AVE
SW 1208th AVE
NW 1212th AVE
SW 1212th AVE
NW 1216th AVE
SW 1216th AVE
NW 1220th AVE
SW 1220th AVE
NW 1224th AVE
SW 1224th AVE
NW 1228th AVE
SW 1228th AVE
NW 1232nd AVE
SW 1232nd AVE
NW 1236th AVE
SW 1236th AVE
NW 1240th AVE
SW 1240th AVE
NW 1244th AVE
SW 1244th AVE
NW 1248th AVE
SW 1248th AVE
NW 1252nd AVE
SW 1252nd AVE
NW 1256th AVE
SW 1256th AVE
NW 1260th AVE
SW 1260th AVE
NW 1264th AVE
SW 1264th AVE
NW 1268th AVE
SW 1268th AVE
NW 1272nd AVE
SW 1272nd AVE
NW 1276th AVE
SW 1276th AVE
NW 1280th AVE
SW 1280th AVE
NW 1284th AVE
SW 1284th AVE
NW 1288th AVE
SW 1288th AVE
NW 1292nd AVE
SW 1292nd AVE
NW 1296th AVE
SW 1296th AVE
NW 1300th AVE
SW 1300th AVE
NW 1304th AVE
SW 1304th AVE
NW 1308th AVE
SW 1308th AVE
NW 1312th AVE
SW 1312th AVE
NW 1316th AVE
SW 1316th AVE
NW 1320th AVE
SW 1320th AVE
NW 1324th AVE
SW 1324th AVE
NW 1328th AVE
SW 1328th AVE
NW 1332nd AVE
SW 1332nd AVE
NW 1336th AVE
SW 1336th AVE
NW 1340th AVE
SW 1340th AVE
NW 1344th AVE
SW 1344th AVE
NW 1348th AVE
SW 1348th AVE
NW 1352nd AVE
SW 1352nd AVE
NW 1356th AVE
SW 1356th AVE
NW 1360th AVE
SW 1360th AVE
NW 1364th AVE
SW 1364th AVE
NW 1368th AVE
SW 1368th AVE
NW 1372nd AVE
SW 1372nd AVE
NW 1376th AVE
SW 1376th AVE
NW 1380th AVE
SW 1380th AVE
NW 1384th AVE
SW 1384th AVE
NW 1388th AVE
SW 1388th AVE
NW 1392nd AVE
SW 1392nd AVE
NW 1396th AVE
SW 1396th AVE
NW 1400th AVE
SW 1400th AVE
NW 1404th AVE
SW 1404th AVE
NW 1408th AVE
SW 1408th AVE
NW 1412th AVE
SW 1412th AVE
NW 1416th AVE
SW 1416th AVE
NW 1420th AVE
SW 1420th AVE
NW 1424th AVE
SW 1424th AVE
NW 1428th AVE
SW 1428th AVE
NW 1432nd AVE
SW 1432nd AVE
NW 1436th AVE
SW 1436th AVE
NW 1440th AVE
SW 1440th AVE
NW 1444th AVE
SW 1444th AVE
NW 1448th AVE
SW 1448th AVE
NW 1452nd AVE
SW 1452nd AVE
NW 1456th AVE
SW 1456th AVE
NW 1460th AVE
SW 1460th AVE
NW 1464th AVE
SW 1464th AVE
NW 1468th AVE
SW 1468th AVE
NW 1472nd AVE
SW 1472nd AVE
NW 1476th AVE
SW 1476th AVE
NW 1480th AVE
SW 1480th AVE
NW 1484th AVE
SW 1484th AVE
NW 1488th AVE
SW 1488th AVE
NW 1492nd AVE
SW 1492nd AVE
NW 1496th AVE
SW 1496th AVE
NW 1500th AVE
SW 1500th AVE
NW 1504th AVE
SW 1504th AVE
NW 1508th AVE
SW 1508th AVE
NW 1512th AVE
SW 1512th AVE
NW 1516th AVE
SW 1516th AVE
NW 1520th AVE
SW 1520th AVE
NW 1524th AVE
SW 1524th AVE
NW 1528th AVE
SW 1528th AVE
NW 1532nd AVE
SW 1532nd AVE
NW 1536th AVE
SW 1536th AVE
NW 1540th AVE
SW 1540th AVE
NW 1544th AVE
SW 1544th AVE
NW 1548th AVE
SW 1548th AVE
NW 1552nd AVE
SW 1552nd AVE
NW 1556th AVE
SW 1556th AVE
NW 1560th AVE
SW 1560th AVE
NW 1564th AVE
SW 1564th AVE
NW 1568th AVE
SW 1568th AVE
NW 1572nd AVE
SW 1572nd AVE
NW 1576th AVE
SW 1576th AVE
NW 1580th AVE
SW 1580th AVE
NW 1584th AVE
SW 1584th AVE
NW 1588th AVE
SW 1588th AVE
NW 1592nd AVE
SW 1592nd AVE
NW 1596th AVE
SW 1596th AVE
NW 1600th AVE
SW 1600th AVE
NW 1604th AVE
SW 1604th AVE
NW 1608th AVE
SW 1608th AVE
NW 1612th AVE
SW 1612th AVE
NW 1616th AVE
SW 1616th AVE
NW 1620th AVE
SW 1620th AVE
NW 1624th AVE
SW 1624th AVE
NW 1628th AVE
SW 1628th AVE
NW 1632nd AVE
SW 1632nd AVE
NW 1636th AVE
SW 1636th AVE
NW 1640th AVE
SW 1640th AVE
NW 1644th AVE
SW 1644th AVE
NW 1648th AVE
SW 1648th AVE
NW 1652nd AVE
SW 1652nd AVE
NW 1656th AVE
SW 1656th AVE
NW 1660th AVE
SW 1660th AVE
NW 1664th AVE
SW 1664th AVE
NW 1668th AVE
SW 1668th AVE
NW 1672nd AVE
SW 1672nd AVE
NW 1676th AVE
SW 1676th AVE
NW 1680th AVE
SW 1680th AVE
NW 1684th AVE
SW 1684th AVE
NW 1688th AVE
SW 1688th AVE
NW 1692nd AVE
SW 1692nd AVE
NW 1696th AVE
SW 1696th AVE
NW 1700th AVE
SW 1700th AVE
NW 1704th AVE
SW 1704th AVE
NW 1708th AVE
SW 1708th AVE
NW 1712th AVE
SW 1712th AVE
NW 1716th AVE
SW 1716th AVE
NW 1720th AVE
SW 1720th AVE
NW 1724th AVE
SW 1724th AVE
NW 1728th AVE
SW 1728th AVE
NW 1732nd AVE
SW 1732nd AVE
NW 1736th AVE
SW 1736th AVE
NW 1740th AVE
SW 1740th AVE
NW 1744th AVE
SW 1744th AVE
NW 1748th AVE
SW 1748th AVE
NW 1752nd AVE
SW 1752nd AVE
NW 1756th AVE
SW 1756th AVE
NW 1760th AVE
SW 1760th AVE
NW 1764th AVE
SW 1764th AVE
NW 1768th AVE
SW 1768th AVE
NW 1772nd AVE
SW 1772nd AVE
NW 1776th AVE
SW 1776th AVE
NW 1780th AVE
SW 1780th AVE
NW 1784th AVE
SW 1784th AVE
NW 1788th AVE
SW 1788th AVE
NW 1792nd AVE
SW 1792nd AVE
NW 1796th AVE
SW 1796th AVE
NW 1800th AVE
SW 1800th AVE
NW 1804th AVE
SW 1804th AVE
NW 1808th AVE
SW 1808th AVE
NW 1812th AVE
SW 1812th AVE
NW 1816th AVE
SW 1816th AVE
NW 1820th AVE
SW 1820th AVE
NW 1824th AVE
SW 1824th AVE
NW 1828th AVE
SW 1828th AVE
NW 1832nd AVE
SW 1832nd AVE
NW 1836th AVE
SW 1836th AVE
NW 1840th AVE
SW 1840th AVE
NW 1844th AVE
SW 1844th AVE
NW 1848th AVE
SW 1848th AVE
NW 1852nd AVE
SW 1852nd AVE
NW 1856th AVE
SW 1856th AVE
NW 1860th AVE
SW 1860th AVE
NW 1864th AVE
SW 1864th AVE
NW 1868th AVE
SW 1868th AVE
NW 1872nd AVE
SW 1872nd AVE
NW 1876th AVE
SW 1876th AVE
NW 1880th AVE
SW 1880th AVE
NW 1884th AVE
SW 1884th AVE
NW 1888th AVE
SW 1888th AVE
NW 1892nd AVE
SW 1892nd AVE
NW 1896th AVE
SW 1896th AVE
NW 1900th AVE
SW 1900th AVE
NW 1904th AVE
SW 1904th AVE
NW 1908th AVE
SW 1908th AVE
NW 1912th AVE
SW 1912th AVE
NW 1916th AVE
SW 1916th AVE
NW 1920th AVE
SW 1920th AVE
NW 1924th AVE
SW 1924th AVE
NW 1928th AVE
SW 1928th AVE
NW 1932nd AVE
SW 1932nd AVE
NW 1936th AVE
SW 1936th AVE
NW 1940th AVE
SW 1940th AVE
NW 1944th AVE
SW 1944th AVE
NW 1948th AVE
SW 1948th AVE
NW 1952nd AVE
SW 1952nd AVE
NW 1956th AVE
SW 1956th AVE
NW 1960th AVE
SW 1960th AVE
NW 1964th AVE
SW 1964th AVE
NW 1968th AVE
SW 1968th AVE
NW 1972nd AVE
SW 1972nd AVE
NW 1976th AVE
SW 1976th AVE
NW 1980th AVE
SW 1980th AVE
NW 1984th AVE
SW 1984th AVE
NW 1988th AVE
SW 1988th AVE
NW 1992nd AVE
SW 1992nd AVE
NW 1996th AVE
SW 1996th AVE
NW 2000th AVE
SW 2000th AVE
NW 2004th AVE
SW 2004th AVE
NW 2008th AVE
SW 2008th AVE
NW 2012th AVE
SW 2012th AVE
NW 2016th AVE
SW 2016th AVE
NW 2020th AVE
SW 2020th AVE
NW 2024th AVE
SW 2024th AVE
NW 2028th AVE
SW 2028th AVE
NW 2032nd AVE
SW 2032nd AVE
NW 2036th AVE
SW 2036th AVE
NW 2040th AVE
SW 2040th AVE
NW 2044th AVE
SW 2044th AVE
NW 2048th AVE
SW 2048th AVE
NW 2052nd AVE
SW 2052nd AVE
NW 2056th AVE
SW 2056th AVE
NW 2060th AVE
SW 2060th AVE
NW 2064th AVE
SW 2064th AVE
NW 2068th AVE
SW 2068th AVE
NW 2072nd AVE
SW 2072nd AVE
NW 2076th AVE
SW 2076th AVE
NW 2080th AVE
SW 2080th AVE
NW 2084th AVE
SW 2084th AVE
NW 2088th AVE
SW 2088th AVE
NW 2092nd AVE
SW 2092nd AVE
NW 2096th AVE
SW 2096th AVE
NW 2100th AVE
SW 2100th AVE
NW 2104th AVE
SW 2104th AVE
NW 2108th AVE
SW 2108th AVE
NW 2112th AVE
SW 2112th AVE
NW 2116th AVE
SW 2116th AVE
NW 2120th AVE
SW 2120th AVE
NW 2124th AVE
SW 2124th AVE
NW 2128th AVE
SW 2128th AVE
NW 2132nd AVE
SW 2132nd AVE
NW 2136th AVE
SW 2136th AVE
NW 2140th AVE
SW 2140th AVE
NW 2144th AVE
SW 2144th AVE
NW 2148th AVE
SW 2148th AVE
NW 2152nd AVE
SW 2152nd AVE
NW 2156th AVE
SW 2156th AVE
NW 2160th AVE
SW 2160th AVE
NW 2164th AVE
SW 2164th AVE
NW 2168th AVE
SW 2168th AVE
NW 2172nd AVE
SW 2172nd AVE
NW 2176th AVE
SW 2176th AVE
NW 2180th AVE
SW 2180th AVE
NW 2184th AVE
SW 2184th AVE
NW 2188th AVE
SW 2188th AVE
NW 2192nd AVE
SW 2192nd AVE
NW 2196th AVE
SW 2196th AVE
NW 2200th AVE
SW 2200th AVE
NW 2204th AVE
SW 2204th AVE
NW 2208th AVE
SW 2208th AVE
NW 2212th AVE
SW 2212th AVE
NW 2216th AVE
SW 2216th AVE
NW 2220th AVE
SW 2220th AVE
NW 2224th AVE
SW 2224th AVE
NW 2228th AVE
SW 2228th AVE
NW 2232nd AVE
SW 2232nd AVE
NW 2236th AVE
SW 2236th AVE
NW 2240th AVE
SW 2240th AVE
NW 2244th AVE
SW 2244th AVE
NW 2248th AVE
SW 2248th AVE
NW 2252nd AVE
SW 2252nd AVE
NW 2256th AVE
SW 2256th AVE
NW 2260th AVE
SW 2260th AVE
NW 2264th AVE
SW 2264th AVE
NW 2268th AVE
SW 2268th AVE
NW 2272nd AVE
SW 2272nd AVE
NW 2276th AVE
SW 2276th AVE
NW 2280th AVE
SW 2280th AVE
NW 2284th AVE
SW 2284th AVE
NW 2288th AVE
SW 2288th AVE
NW 2292nd AVE
SW 2292nd AVE
NW 2296th AVE
SW 2296th AVE
NW 2300th AVE
SW 2300th AVE
NW 2304th AVE
SW 2304th AVE
NW 2308th AVE
SW 2308th AVE
NW 2312th AVE
SW 2312th AVE
NW 2316th AVE
SW 2316th AVE
NW 2320th AVE
SW 2320th AVE
NW 2324th AVE
SW 2324th AVE
NW 2328th AVE
SW 2328th AVE
NW 2332nd AVE
SW 2332nd AVE
NW 2336th AVE
SW 2336th AVE
NW 2340th AVE
SW 2340th AVE
NW 2344th AVE
SW 2344th AVE
NW 2348th AVE
SW 2348th AVE
NW 2352nd AVE
SW 2352nd AVE
NW 2356th AVE
SW 2356th AVE
NW 2360th AVE
SW 2360th AVE
NW 2364th AVE
SW 2364th AVE
NW 2368th AVE
SW 2368th AVE
NW 2372nd AVE
SW 2372nd AVE
NW 2376th AVE
SW 2376th AVE
NW 2380th AVE
SW 2380th AVE
NW 2384th AVE
SW 2384th AVE
NW 2388th AVE
SW 2388th AVE
NW 2392nd AVE
SW 2392nd AVE
NW 2396th AVE
SW 2396th AVE
NW 2400th AVE
SW 2400th AVE
NW 2404th AVE
SW 2404th AVE
NW 2408th AVE
SW 2408th AVE
NW 2412th AVE
SW 2412th AVE
NW 2416th AVE
SW 2416th AVE
NW 2420th AVE
SW 2420th AVE
NW 2424th AVE
SW 2424th AVE
NW 2428th AVE
SW 2428th AVE
NW 2432nd AVE
SW 2432nd AVE
NW 2436th AVE
SW 2436th AVE
NW 2440th AVE
SW 2440th AVE
NW 2444th AVE
SW 2444th AVE
NW 2448th AVE
SW 2448th AVE
NW 2452nd AVE
SW 2452nd AVE
NW 2456th AVE
SW 2456th AVE
NW 2460th AVE
SW 2460th AVE
NW 2464th AVE
SW 2464th AVE
NW 2468th AVE
SW 2468th AVE
NW 2472nd AVE
SW 2472nd AVE
NW 2476th AVE
SW 2476th AVE
NW 2480th AVE
SW 2480th AVE
NW 2484th AVE
SW 2484th AVE
NW 2488th AVE
SW 2488th AVE
NW 2492nd AVE
SW 2492nd AVE
NW 2496th AVE
SW 2496th AVE
NW 2500th AVE
SW 2500th AVE
NW 2504th AVE
SW 2504th AVE
NW 2508th AVE
SW 2508th AVE
NW 2512th AVE
SW 2512th AVE
NW 2516th AVE
SW 2516th AVE
NW 2520th AVE
SW 2520th AVE
NW 2524th AVE
SW 2524th AVE
NW 2528th AVE
SW 2528th AVE
NW 2532nd AVE
SW 2532nd AVE
NW 2536th AVE
SW 2536th AVE
NW 2540th AVE
SW 2540th AVE
NW 2544th AVE
SW 2544th AVE
NW 2548th AVE
SW 2548th AVE
NW 2552nd AVE
SW 2552nd AVE
NW 2556th AVE
SW 2556th AVE
NW 2560th AVE
SW 2560th AVE
NW 2564th AVE
SW 2564th AVE
NW 2568th AVE
SW 2568th AVE
NW 2572nd AVE
SW 2572nd AVE
NW 2576th AVE
SW 2576th AVE
NW 2580th AVE
SW 2580th AVE
NW 2584th AVE
SW 2584th AVE
NW 2588th AVE
SW 2588th AVE
NW 2592nd AVE
SW 2592nd AVE
NW 2596th AVE
SW 2596th AVE
NW 2600th AVE
SW 2600th AVE
NW 2604th AVE
SW 2604th AVE
NW 2608th AVE
SW 2608th AVE
NW 2612th AVE
SW 2612th AVE
NW 2616th AVE
SW 2616th AVE
NW 2620th AVE
SW 2620th AVE
NW 2624th AVE
SW 2624th AVE
NW 2628th AVE
SW 2628th AVE
NW 2632nd AVE
SW 2632nd AVE
NW 2636th AVE
SW 2636th AVE
NW 2640th AVE
SW 2640th AVE
NW 2644th AVE
SW 2644th AVE
NW 2648th AVE
SW 2648th AVE
NW 2652nd AVE
SW 2652nd AVE
NW 2656th AVE
SW 2656th AVE
NW 2660th AVE
SW 2660th AVE
NW 2664th AVE
SW 2664th AVE
NW 2668th AVE
SW 2668th AVE
NW 2672nd AVE
SW 2672nd AVE
NW 2676th AVE
SW 2676th AVE
NW 2680th AVE
SW 2680th AVE
NW 2684th AVE
SW 2684th AVE
NW 2688th AVE
SW 2688th AVE
NW 2692nd AVE
SW 2692nd AVE
NW 2696th AVE
SW 2696th AVE
NW 2700th AVE
SW 2700th AVE
NW 2704th AVE
SW 2704th AVE
NW 2708th AVE
SW 2708th AVE
NW 2712th AVE
SW 2712th AVE
NW 2716th AVE
SW 2716th AVE
NW 2720th AVE
SW 2720th AVE
NW 2724th AVE
SW 2724th AVE
NW 2728th AVE
SW 2728th AVE
NW 2732nd AVE
SW 2732nd AVE
NW 2736th AVE
SW 2736th AVE
NW 2740th AVE
SW 2740th AVE
NW 2744th AVE
SW 2744th AVE
NW 2748th AVE
SW 2748th AVE
NW 2752nd AVE
SW 2752nd AVE
NW 2756th AVE
SW 2756th AVE
NW 2760th AVE
SW 2760th AVE
NW 2764th AVE
SW 2764th AVE
NW 2768th AVE
SW 2768th AVE
NW 2772nd AVE
SW 2772nd AVE
NW 2776th AVE
SW 2776th AVE
NW 2780th AVE
SW 2780th AVE
NW 2784th AVE
SW 2784th AVE
NW 2788th AVE
SW 2788th AVE
NW 2792nd AVE
SW 2792nd AVE
NW 2796th AVE
SW 2796th AVE
NW 2800th AVE
SW 2800th AVE
NW 2804th AVE
SW 2804th AVE
NW 2808th AVE
SW 2808th AVE
NW 2812th AVE
SW 2812th AVE
NW 2816th AVE
SW 2816th AVE
NW 2820th AVE
SW 2820th AVE
NW 2824th AVE
SW 2824th AVE
NW 2828th AVE
SW 2828th AVE
NW 2832nd AVE
SW 2832nd AVE
NW 2836th AVE
SW 2836th AVE
NW 2840th AVE
SW 2840th AVE
NW 2844th AVE
SW 2844th AVE
NW 2848th AVE
SW 2848th AVE
NW 2852nd AVE
SW 2852nd AVE
NW 2856th AVE
SW 2856th AVE
NW 2860th AVE
SW 2860th AVE
NW 2864th AVE
SW 2864th AVE
NW 2868th AVE
SW 2868th AVE
NW 2872nd AVE
SW 2872nd AVE
NW 2876th AVE
SW 2876th AVE
NW 2880th AVE
SW 2880th AVE
NW 2884th AVE
SW 2884th AVE
NW 2888th AVE
SW 2888th AVE
NW 2892nd AVE
SW 2892nd AVE
NW 2896th AVE
SW 2896th AVE
NW 2900th AVE
SW 2900th AVE
NW 2904th AVE
SW 2904th AVE
NW 2908th AVE
SW 2908th AVE
NW 2912th AVE
SW 2912th AVE
NW 2916th AVE
SW 2916th AVE
NW 2920th AVE
SW 2920th AVE
NW 2924th AVE
SW 2924th AVE
NW 2928th AVE
SW 2928th AVE
NW 2932nd AVE
SW 2932nd AVE
NW 2936th AVE
SW 2936th AVE
NW 2940th AVE
SW 2940th AVE
NW 2944th AVE
SW 2944th AVE
NW 2948th AVE
SW 2948th AVE
NW 2952nd AVE
SW 2952nd AVE
NW 2956th AVE
SW 2956th AVE
NW 2960th AVE
SW 2960th AVE
NW 2964th AVE
SW 2964th AVE
NW 2968th AVE
SW 2968th AVE
NW 2972nd AVE
SW 2972nd AVE
NW 2976th AVE
SW 2976th AVE
NW 2980th AVE
SW 2980th AVE
NW 2984th AVE
SW 2984th AVE
NW 2988th AVE
SW 2988th AVE
NW 2992nd AVE
SW 2992nd AVE
NW 2996th AVE
SW 2996th AVE
NW 3000th AVE
SW 3000th AVE
NW 3004th AVE
SW 3004th AVE
NW 3008th AVE
SW 3008th AVE
NW 3012th AVE
SW 3012th AVE
NW 3016th AVE
SW 3016th AVE
NW 3020th AVE
SW 3020th AVE
NW 3024th AVE
SW 3024th AVE
NW 3028th AVE
SW 3028th AVE
NW 3032nd AVE
SW 3032nd AVE
NW 3036th AVE
SW 3036th AVE
NW 3040th AVE
SW 3040th AVE
NW 3044th AVE
SW 3044th AVE
NW 3048th AVE
SW 3048th AVE
NW 3052nd AVE
SW 3052nd AVE
NW 3056th AVE
SW 3056th AVE
NW 3060th AVE
SW 3060th AVE
NW 3064th AVE
SW 3064th AVE
NW 3068th AVE
SW 3068th AVE
NW 3072nd AVE
SW 3072nd AVE
NW 3076th AVE
SW 3076th AVE
NW 3080th AVE
SW 3080th AVE
NW 3084th AVE
SW 3084th AVE
NW 3088th AVE
SW 3088th AVE
NW 3092nd AVE
SW 3092nd AVE
NW 3096th AVE
SW 3096th AVE
NW 3100th AVE
SW 3100th AVE
NW 3104th AVE
SW 3104th AVE
NW 3108th AVE
SW 3108th AVE
NW 3112th AVE
SW 3112th AVE
NW 3116th AVE
SW 3116th AVE
NW 3120th AVE
SW 3120th AVE
NW 3124th AVE
SW 3124th AVE
NW 3128th AVE
SW 3128th AVE
NW 3132nd AVE
SW 3132nd AVE
NW 3136th AVE
SW 3136th AVE
NW 3140th AVE
SW 3140th AVE
NW 3144th AVE
SW 3144th AVE
NW 3148th AVE
SW 3148th AVE
NW 3152nd AVE
SW 3152nd AVE
NW 3156th AVE
SW 3156th AVE
NW 3160th AVE
SW 3160th AVE
NW 3164th AVE
SW 3164th AVE
NW 3168th AVE
SW 3168th AVE
NW 3172nd AVE
SW 3172nd AVE
NW 3176th AVE
SW 3176th AVE
NW 3180

FIGURE T.7
EXISTING MAJOR TRIP GENERATORS AND ATTRACTIONS



NUMBER OF THROUGH LANES FOR EACH ROADWAY

The number of through lanes is described in Table T-2 and illustrated in Figure T-6

TABLE T-2
NUMBER OF THROUGH LANES FOR EACH ROADWAY

	Segment	Number of Through Lanes
North South Roadways North South Roadways		
I-95		10 (5 Each Direction)*
Dixie Highway	N of Dade CL	4 (One-way SB)
	N of Hall. Bch Blvd.	4 (One-way SB)
NE 1st Ave	N of Dade CL	2 (One-way NB)
SE 1st Ave	N of Hall. Bch. Blvd.	2 (One-way NB)
Federal Highway	N of Dade CL	6 (3 Each Direction)
	N of NE 2 St	4 (2 Each Direction)
SE Federal Highway	Dade CL to US1	2 (1 Each Direction)
S. Ocean Drive	N of Dade CL	6 (3 Each Direction)
SW 8th Avenue	N of Dade CL	2 (1 Each Direction)
NW 8th Avenue	N of Hall. Bch Blvd.	2 (1 Each Direction)
NE 14th Avenue	N of Hall. Bch Blvd.	2 (1 Each Direction)
Three Islands Blvd.	N of Hall. Bch Blvd.	6 (3 Each Direction)
Diplomat Pkwy.	N of Hall. Bch Blvd.	2 (1 Each Direction)
East/West Roadways		
Pembroke Road	E of I-95	4 (2 Each Direction)
	E of Dixie Highway	4 (2 Each Direction)
Hallandale Bch. Blvd.	E of 1-95	6 (3 Each Direction)
	E of Dixie Highway	6 (3 Each Direction)
	E of US1	6 (3 Each Direction)
	E of Diplomat Parkway	6 (3 Each Direction)
NE 9TH Street/Atlantic Shores Blvd	E of US1	2 (1 Each Direction)
	E. of Diplomat Parkway	2 (1 Each Direction)
	E. of Desoto Waterway	4 (2 Each Direction)
NW/NE 3RD Street	NW 6th Ave to Fed. Hgwy.	2 (Each Direction)
Other Local Roadways		2 (1 Each Direction) / Some Local Roads may be 4 (2 Each Direction)

** I-95 has 8 through Lanes and 2 HOV Lanes.*

MAJOR PUBLIC TRANSIT GENERATORS AND ATTRACTORS

A major public transit generator or attractor is defined by Broward County as concentrated areas of intense land use or activity that produce or attracts a significant number of local trip ends. For public transit, a site which attracts a substantial number of person trips per day. The City of Hallandale has been developed in a grid-like fashion with major roadways generally following section lines. These major roadways have existing commercial development abutting the roadways in many areas. These areas can best be described as "strip commercial" in design. The typical problems associated with strip commercial development such as excessive driveway connections, little or no landscaping, excessive or out of scale signage and building placement are noted throughout the commercial areas. These commercial areas are located on Hallandale Beach Boulevard, Pembroke Road, Dixie Highway, SE/NE 1st Avenue and Federal Highway. Throughout the balance of the City, commercial uses are located more at nodes of major roadway intersections. Generally the existing public transit system provides service along all major roadways. Therefore, for the more part, all commercial areas are well served by the existing system.

The intensity of development in the strip commercial areas is primarily one-story retail/office/restaurant uses of a low intensity nature, in the western portion of the City (west of US 1) with significantly more intense commercial activity including several shopping centers, restaurants and multi-story office buildings being located east of US 1, primarily along Hallandale Beach Boulevard. Located generally east US 1 and west of SR A1A along Hallandale Beach Boulevard is the City's Central Business District. Development intensity in this area is significantly more intense with multi-story office buildings and a conglomeration of financial institutions and professional offices. Also, included in this area are the Diplomat Mall and Seawalk Pointe shopping center. These two developments provide larger scale retail and commercial establishments and attract city residents and residents from neighboring communities. The City's Central Business District and major retail shopping areas are well served by the existing public transit system.

In addition to the City's Financial District and retail shopping centers, referenced previously, the City of Hallandale is home to the Mardi Gras Race Track / casino and Gulfstream Race Track. In 2007 the City approved the Village at Gulfstream Park DRI mixed-use development on a portion of the Gulfstream site. This development will have retail, office, restaurants, movies and residential components. These large scale private recreation facilities have regional attraction from Miami-Dade County, Broward County and as far as Palm Beach County. The Mardi Gras Track / casino is located on the southeast corner of Pembroke Road and NE 1st Avenue. The Gulfstream Race Track / casino and Village at Gulfstream Park DRI is located on the southeast corner of Hallandale Beach Boulevard and Federal Highway. Both areas are felt to be well served with public transit service.

Some older neighborhoods are designed with multi-family development fronting the roadways with single family development in the middle of the neighborhoods. For the most part existing densities are a mixture of single family (0-5-DUA) and low density multi-family (5-14 DUA) in the western portion of the City (west of NE 14th Avenue) with significantly more intense multi-family development occurring east of 14th Avenue and adjacent to the beach along SR A1A. The two most intense areas of development are located north of Hallandale Beach Boulevard and east of NE 14th Avenue (Diplomat / Three Islands Planning District) and the area south of Hallandale Beach Boulevard east of NE 14th Avenue and SR A1A (Golden Isles / A1A Planning District). It is estimated that these two (2) multifamily concentrations located in the eastern portion of the City consist of a total of approximately 12,977 dwelling units. These areas are well served by the existing public transit system.

Research of Broward County's Mass Transit Division's data revealed that ridership is generally higher on the routes in the County's system. Because of the City's residents' general economic characteristics and demographics, more and more residents are believed to utilize public transit for transportation. As referenced in preceding sections of this element, the City of Hallandale Beach is generally well served by existing mass transit services provided by the City itself, Broward County and Miami-Dade County. Information relating to the ridership on Miami-Dade County Bus Routes

was reviewed for service in the City. However it is felt by the City of Hallandale Beach that the major service provider of public transit within the City is Broward County with the City's local mini-bus system playing a significant role, as well. The City's local system provides service focusing on attractions located within the City for local residents, while the two (2) County systems provide service for regional attractions located outside the City for residents of the City, in addition to, providing service to regional attractions located within the City for both residents of the City and other areas of Miami-Dade and Broward County.

DESIGNATED LOCAL AND REGIONAL TRANSPORTATION FACILITIES CRITICAL TO THE EVACUATION OF THE COASTAL POPULATION

According to the Broward County Hurricane Evacuation Plan prepared by the Division of Emergency Preparedness, the following areas within the City of Hallandale Beach are identified for evacuation during different intensities of hurricanes.

CITY OF HALLANDALE BEACH
AREAS IDENTIFIED FOR EVACUATION DURING A HURRICANE

Hurricane Intensity	Area Identified for Evacuation
Category 1 -2 / Plan A	All areas east of the Intracoastal Waterway
Category 3 or Higher / Plan B	All areas east of US1

** All mobile home residents are required to evacuate regardless of Hurricane Intensity.*

Source: Broward County Hurricane Evacuation Map (2008), prepared by Broward County's Emergency Management Division.

Broward County does not have a designated Hurricane Evacuation Shelter located within the City of Hallandale; however, several others are located within southern Broward County in case of emergency. The closest designated shelter is now located at the Watkins Elementary School in the Town of Pembroke Park about 1.5 miles west of I-95 and depicted on Figure T.8. Residents are free to seek refuge at all designated shelters within Broward County. The shelters are opened, supplied and operated by the Red Cross which coordinates with the local school administration and Broward County. Residents evacuating the City are to travel along Hallandale Beach Boulevard and Pembroke Road to get to the shelter. In addition, I-95 could also be utilized to evacuate from the region in general, however it is anticipated that congestion will likely occur.

CITY OF HALLANDALE [1]
DESIGNATED HURRICANE SHELTERS AS OF JUNE 2008

- Watkins Elementary School2
  3520 SW 52nd Avenue, Pembroke Park 33023
- New Renaissance Middle School2
  10701 Miramar Boulevard, Miramar 33025

NOTE: [1]Residents may seek refuge at all Broward County designated shelters.

[2]Shelter not located within the City of Hallandale Beach.

EXISTING AVERAGE DAILY TRAFFIC, PEAK HOUR PEAK DIRECTION LEVELS OF SERVICE FOR ROADS, MASS TRANSIT FACILITIES AND CORRIDORS/ROUTES

The existing Average Daily Traffic (ADT), peak hour, peak direction levels of service for roads, transit facilities and corridors/routes are described in Tables T-3 and Table T-4, illustrated on Figure T.9 and in the following text.

A. ROADWAYS

EBA Editing Note: Existing Table T-3 entitled Capacity Analysis of Existing Roadway System 1997 Traffic Volumes will be deleted in its entity, as the data and analysis is out of date, and the FDOT roadway capacities were changed in 2002. A new Table T-3 is to be adopted. Also note SIS Facility Capacity / LOS data for I-95 per Chapter 14-94 F.A.C.

TABLE T-3
CAPACITY ANALYSIS OF EXISTING ROADWAY SYSTEM
AADT / PEAK SEASON ~~2007~~ 2024 TRAFFIC VOLUMES

	Segment	TIP Design Code	~~2007~~ 2024 AADT	2007 Peak Season	LOS D Cap (AADT)	Existing V/C	LOS AADT	Peak V/C	LOS Peak Season
North/South Roadways									
I-95 (SIS Road)	N of Dade CL	10*5	~~232,000~~ 209,000	240,485	207,600 LOS E	~~1.12~~ 0.86	~~F~~ E	1.16	F
(SIS Road)	N of Hall Bch Blvd	10*5	~~240,760~~ 259,168	N/A	207,600 LOS E	~~1.16~~ 0.90	~~F~~ E	N/A	N/A
Dixie Highway	N of Dade CL	420	~~5,777~~ 6,700	6,470	26,040	~~0.22~~ 0.86	~~C+~~ C	0.26	C+
(One Way SB)	S of Hall Bch Blvd	420	~~4,840~~	5,260	26,040	0.18	C+	0.20	C+
	N of Hall Bch Blvd	420	~~6,204~~ 6,600	6,602	26,040	~~0.24~~ 0.84	~~C+~~ C	0.25	C+
NE/SE 1 Ave.	S of Hall Bch Blvd	221	~~4,235~~ 6,400	4,910	26,040	~~0.16~~ 0.80	~~C+~~ D	0.19	C+
(One Way NB)	S of Pembroke Road	221	~~4,280~~ 3,200	5,047	26,040	~~0.16~~ 0.81	~~C+~~ C	0.19	C+
Federal Highway	N of Dade CL	613	~~54,000~~ 51,000	68,700	49,200	~~1.10~~ 0.97	~~E~~ D	1.40	F
	S of Pembroke Road	433	~~36,500~~ 35,000	39,321	32,700	~~1.12~~ 0.99	E	1.20	F
S. Ocean Drive	N of Dade CL	620	~~28,000~~ 30,000	29,939	49,200	0.57	~~C+~~ D	0.61	C+
	~~S~~ N of Hall Bch Blvd	620	~~31,000~~ 37,500	33,419	49,200	~~0.63~~ 0.71	~~C+~~ D	0.68	C+
SW 8 Avenue	S of Hall Bch Blvd	211	~~10,175~~ 13,200	12,349	10,000	~~1.02~~ 0.99	~~E~~ D	1.23	F
NW 8 Avenue	N of Hall Bch Blvd	211	~~7,930~~ 8,400	8,314	10,000	~~0.79~~ 0.63	~~E~~ D	0.83	C
NE 14 Avenue	N of Hall Bch Blvd	211	~~10,008~~ 9,000	10,650	10,000	~~1.00~~ 0.68	~~E~~ D	1.06	E
Three Islands Blvd.	N of Hall Bch Blvd	621	14,500	N/A	46,800	.31	C+	N/A	N/A
Diplomat Pkwy.	N of Hall Bch Blvd	211	~~3,347~~ 9,800	3,562	10,000	~~0.33~~ 0.74	~~C+~~ D	.36	C+

	Segment	TIP Design Code	~~2007~~ 2024 AADT	2007 Peak Season	LOS D Cap (AADT)	Existing V/C	LOS AADT	Peak V/C	LOS Peak Season
East / West									
Pembroke Road	E of I-95	430	~~38,000~~ 36,500	41,360	32,700	~~1.16~~ 1.03	F	1.26	F
	W of US 1	410	~~24,500~~ 23,500	25,431	32,700	~~0.75~~ 0.73	~~C~~ D	0.78	C
	E of US 1	210	~~6,719~~ 10,300	7,448	10,000	~~0.67~~ 0.97	~~C+~~ D	0.75	C+
Hallandale Bch. Blvd.	E of I-95	633	~~64,000~~ 57,390	N/A	49,200	~~1.30~~ 1.07	F	N/A	N/A
	W of US 1	633	~~40,500~~ 52,000	40,614	49,200	~~0.82~~ 1.02	~~C~~ F	0.82	C
	E of US 1	633	~~39,500~~ 42,500	42,273	49,300	~~0.80~~ 0.81	~~C~~ D	0.86	D
	~~W of ICWW Bridge~~ E of Diplomat Parkway	433	~~31,000~~ 39,500	33,948	44,700	~~0.69~~ 0.75	~~C+~~ D	0.76	C
NE 9 Street / Atlantic Shores Blvd	E of US 1	231	~~9,285~~ 11,700	11,994	10,000	~~0.93~~ 0.84	D	1.20	F
NW/NE 3 Street	W of US 1	221	~~4,900~~	N/A	10,000	0.49	C+	N/A	N/A
	E of Dixie Highway	221	~~6,100~~	N/A	10,000	0.61	C+	N/A	N/A

DESIGN CODE

1st Digit: # of lanes

2nd Digit: Signals/Mile:

1=Low (less than 1.99)

2=Medium (2.0 – 4.5)

3=High (over 4.5)

3rd Digit: Facility Type

0=Minor Arterial

1=Collector

2=One-way

3=Major Arterial

4=Multi-Lane Highway

5=Expressway

9=Planned Roadway

Sources FDOT / BC Functional Classification Map, BC MPO 2007 Traffic Count Report, FDOT Level of Service Manual 2002, Michael Miller Planning Associates, Inc. June 2008

Note: This Table indicates both Average Annual Daily Traffic (AADT) counts as well as the Peak Season traffic counts reported by Broward County for the year ~~2007~~ 2024 ~~published in April 2008~~. Typically Broward County takes 2 traffic counts per year (summer / winter) and the AADT is the average of the counts. The Peak Season traffic count data is the highest of the counts reported.

EBA Editing Note: Existing Table T-4 entitled Peak Hour / Peak Directional Analysis (1997) will be deleted in its entity, as the data and analysis is out of date, and the FDOT roadway capacities were changed in 2002. See new Table T-4. Also note SIS Facility Capacity / LOS data for I-95 per Chapter 14-94 F.A.C.

TABLE T-4
TWO-WAY PEAK HOUR / PEAK DIRECTIONAL ANALYSIS (2007)

	Segment	Peak Hour Direction	Peak Hr Volume	# Lanes	LOS D Cap	Peak Hr V/C	LOS Peak Hr	Signal Per Mile
North / South Roadways								
I-95 (SIS Road)	N of Dade CL	SB	19,720	10LD	19,310 LOS E	1.02	F	0
(SIS Road)	N of HBB	SB	20,460	10LD	19,310 LOS E	1.06	F	0
Dixie Highway	N of Dade CL	SB	575	4L	2,484	0.23	C+	3
(One Way SB)	S of HBB	SB	440	4L	2,484	0.18	C+	3
	N of HBB	SB	560	4L	2,484	0.22	C+	3
NE/SE 1 Ave.	N of Dade CL	NB	539	2L	1,692	0.32	C+	3
(One Way NB)	N of HBB	NB	551	2L	1,692	0.33	C+	3
Federal Highway	N of Dade CL	NB	4,860	6LD	4,680	1.04	E	2
	S of Pemb. Road	NB	3,290	6LD	3,100	1.06	E	5
S. Ocean Drive	N of Dade CL	NB	2,520	6LD	4,680	0.54	C+	4
	S of HBB	NB	2,790	6LD	4,680	0.60	C+	4
SW 8 Avenue	S of HBB	N/A	937	2L	950	0.99	E	1
NW 8 Avenue	N of HBB	N/A	754	2L	950	0.79	C	2
NE 14 Avenue	N of HBB	SB	900	2L	950	0.95	D	2
Three Islands Blvd.	N of HBB	SB	1,309	6LD	4,352	.30	C+	3
Diplomat Pkwy.	N of HBB	NB	366	2L	950	0.38	C+	1
East / West								
Pembroke Rd	E of I-95	EB	3,420	4LU	3,110	1.10	E	5
	W of US 1	EB	2,210	4LU	3,110	0.71	C+	2
Hallandale Bch. Blvd.	E of I-95	EB	6,040	6LD	4,680	1.29	F	6
	W of US 1	EB	3,650	6LD	4,680	0.78	C	5
	E of US 1	WB	3,560	6LD	4,420	0.80	C	8
	E of Diplomat Parkway	WB	2,790	6LD	4,420	0.63	C+	6
NE 9 Street / Atlantic Shores	E of US 1	WB	840	2L	950	0.88	D	4
NW/NE 3 Street	W of US 1	WB	441	2L	950	0.46	C+	3
	E of Dixie Highway	WB	549	2L	950	0.58	C+	3

Note: This Table indicates the Two-Way Peak Hour traffic counts recorded or calculated from the Average Annual Daily Traffic (AADT) counts reported by Broward County. Typically Broward County takes 2 traffic counts per year (summer / winter) and the AADT is the average of the counts. The Two-Way Peak Hour traffic count data is calculated on the AADT traffic (not Peak Season).

B. MASS TRANSIT FACILITIES/ROUTES

BUS SERVICE

Both Broward and Miami-Dade County provide Inter-County Bus Service within the City of Hallandale Beach. Service in Broward County is provided by the Broward County Community Services Division – Mass Transit Division and by Miami-Dade Transit in Miami-Dade County. Six (6) Broward County bus routes currently provide service to the City in 2008. Two (2) Miami-Dade County Bus routes also provide service within the City. In addition to both Broward and Miami-Dade County service, the City provides local minibus mass transit service (3 routes) as well. Along each route are numerous bus stops and shelters too numerous to identify on the map series. According to recent Broward County estimates, there are a total of 134 bus stops in the City of which 80 have benches, 29 have shelters, 9 have bus bays and 40 have trash cans. Following is a description of each route.

FIGURE T-8
EXISTING EVACUATION ROUTE

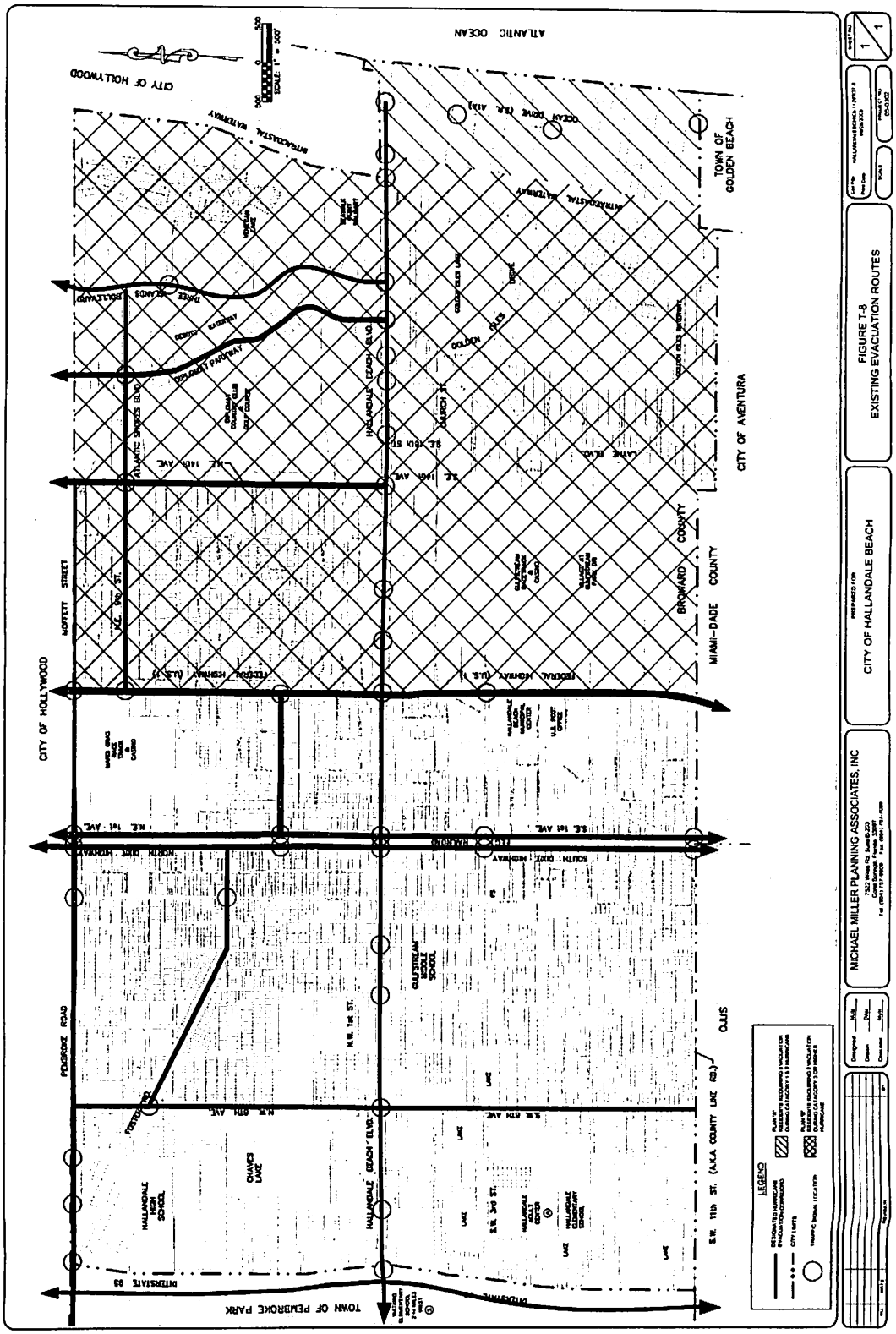
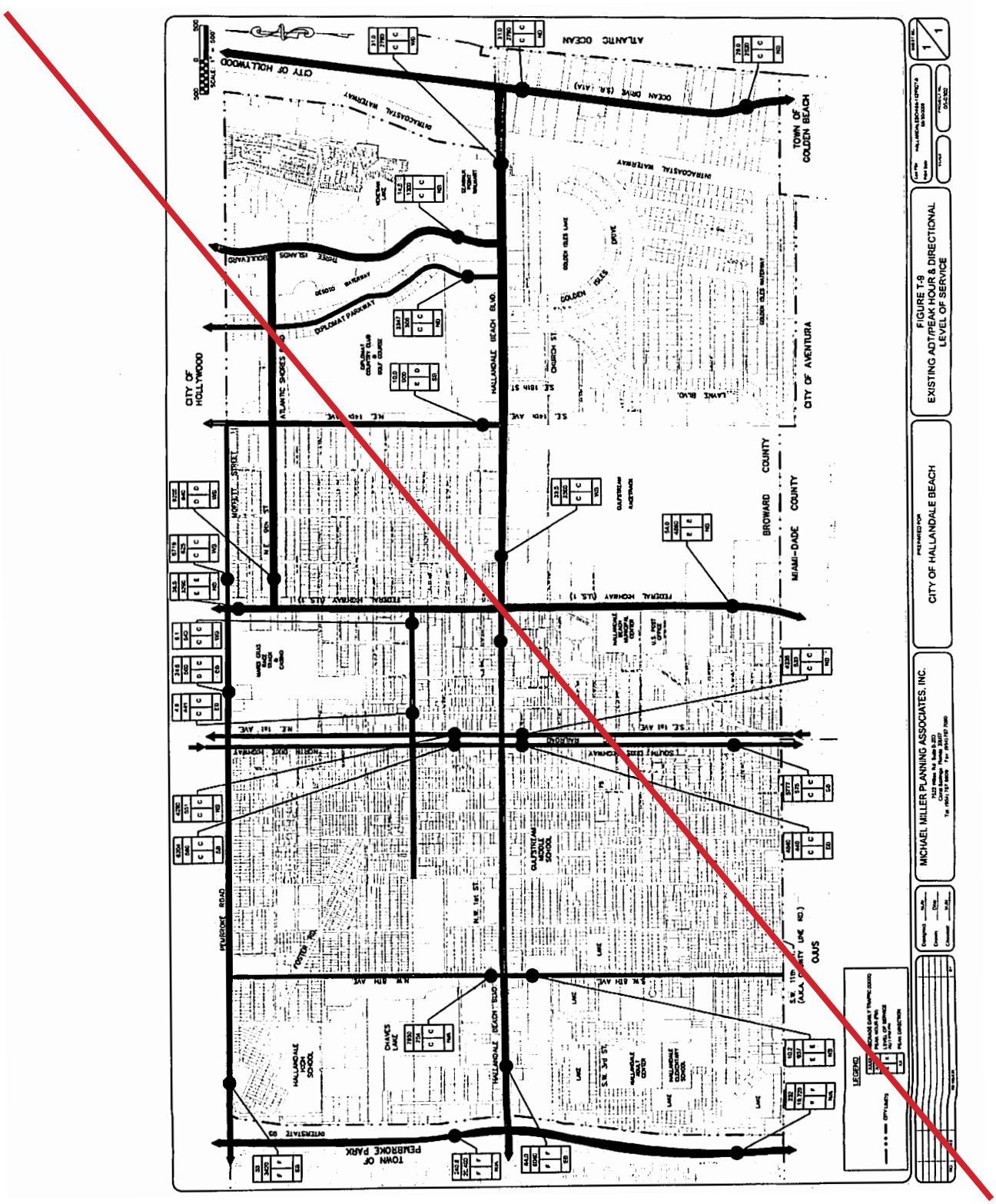
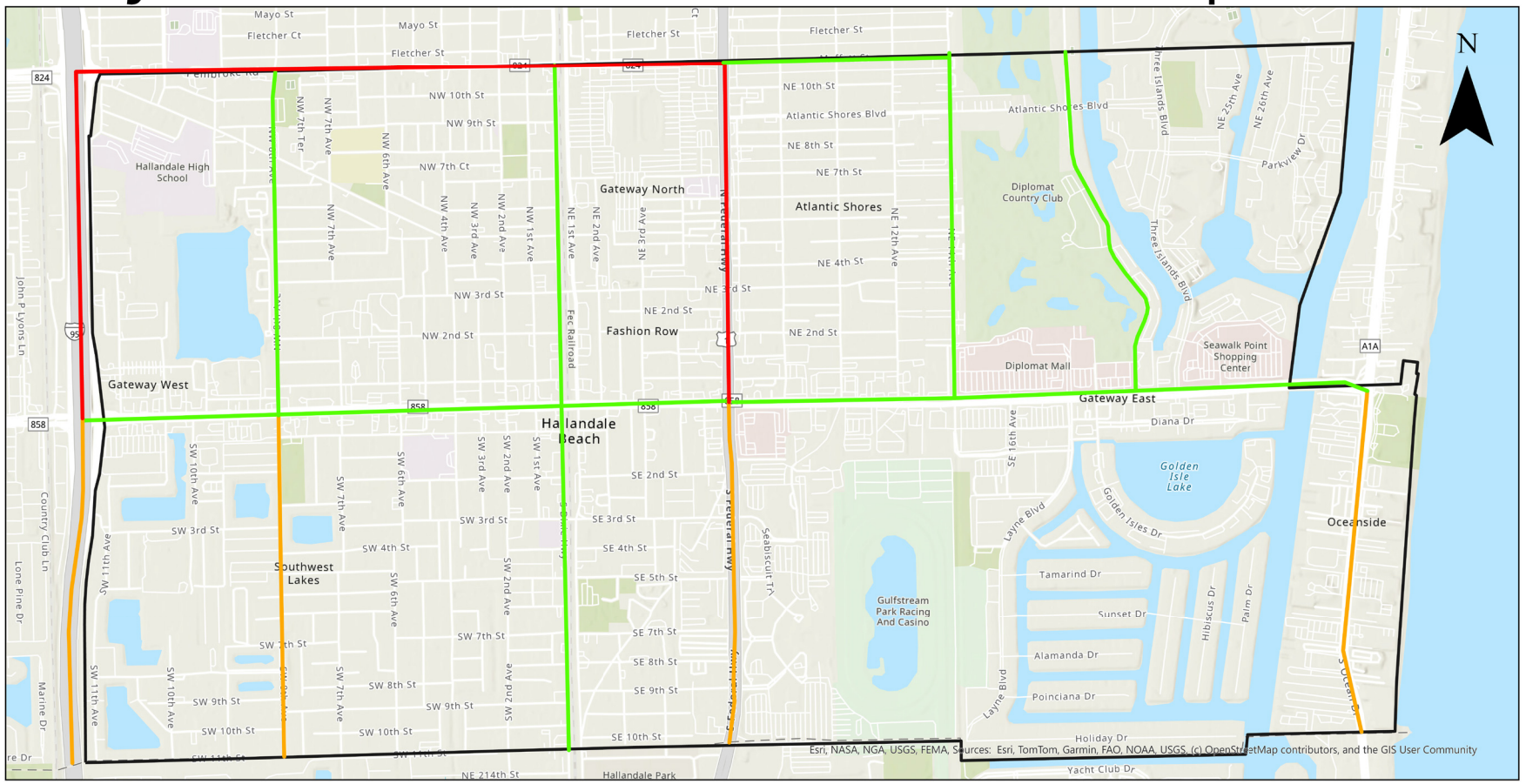


FIGURE T-9
EXISTING PEAK HOUR AND PEAK DIRECTIONAL LEVEL OF SERVICES



City of Hallandale Beach LOS Map (2020)



Level of Service

- C - Stable Flow
- D - Approaching unstable flow
- E - Unstable flow
- F - Forced or breakdown flow
- Hallandale Beach Boundary

Source: Broward County MPO

Revision Date: 5/12/2025

0 0.25 0.5 1 Miles

BROWARD COUNTY BUS ROUTES:

Route US 1 Breeze is a new generally north/south route servicing eastern Broward County. The route is an express route with minimum stops. The route initiates at the Aventura Mall in northern Miami-Dade County and proceeds north on Federal Highway (US 1), where it enters the City of Hallandale Beach. The route then continues north on US 1 through the City of Hallandale Beach exiting the City and continuing north through Broward County passing Young Circle located in the City of Hollywood until it reaches SE 17th Street. The route turns westerly on SE 17th Street past the Broward Medical Center complex to Andrews Avenue. The route turns north on Andrews Avenue into the central business district of the City of Fort Lauderdale with a stop at the Broward County Transit (BCT) Central Terminal at Broward Boulevard and NW 1st Avenue. After leaving the BCT Central Terminal the route again returns to Andrews Avenue northward to Flager Drive and then turns easterly to Federal Highway (US 1). The route turns northerly on Federal Highway (US 1) and extends to Sample Road in the City of Pompano Beach at the Shoppers Haven Shopping Center where it loops and then turns southward along the same route. Headways are approximately every thirty (30) minutes during weekdays only. No service is available on weekends (Saturday and Sunday).

Route 1 is generally a north/south route servicing southeastern Broward County. The route initiates at the Aventura Mall in Miami-Dade County and proceeds north on 29th Place. The route then travels west on 203rd Street and turns north onto Federal Highway (US 1), where it enters the City of Hallandale Beach. Route 1 then continues north on US 1 through the City of Hallandale Beach exiting the City. Route 1 then continues north through Broward County passing Young Circle located in the City of Hollywood until it reaches the Fort Lauderdale Hollywood International Airport. After leaving the Fort Lauderdale/Hollywood International Airport, Route 1 proceeds to the BCT Central Terminal at Broward Boulevard just west of Andrews Avenue where it then turns to head southward along the same route. Headways are approximately every fifteen (15) minutes during weekdays and every thirty (30) minutes on weekends (Saturday and Sunday).

Route 4 is generally a north/south route servicing southeastern Broward County. The route initiates at the Aventura Mall in Miami-Dade County and proceeds easterly on the William Lehmann Causeway (193rd Street) to SR A1A and then travels northerly on SR A1A through a portion of the City of Sunny Isles Beach and the Town of Golden Beach before entering the City of Hallandale Beach to Hallandale Beach Boulevard where the route turns westerly to SE 16th Street near the Diplomat Mall and other commercial areas of the City. The route loops from SE 16th Avenue onto Church Drive and then Layne Boulevard and then continues easterly on Hallandale Beach Boulevard back to SR A1A. The route then turns northerly on SR A1A and traverses north into the City of Hollywood to Hollywood Boulevard, turning westerly to Young Circle at Federal Highway and then returning easterly back to SR A1A where the route continues northerly to Dania Beach Boulevard. The route turns westerly on Dania Beach Boulevard to Federal Highway (US 1) where the route turns north on NW 3rd Avenue to NW 1st Street, then turns west to Bryan Road and then north to Griffin Road. The route then turns westerly on Griffin Road to the Tri-Rail Station / Park and Rode Lot west of I-95 on Ravenswood Road / Anglers Drive just south of Griffin Road. The route retraces its course southerly along the same route. Headways are approximately every forty (40) minutes during weekdays and on Saturday and every fifty (50) minutes on Sundays.

Route 5 is generally on east/west route servicing south Broward County. The route initiates at the Century Village retirement community in the City of Pembroke Pines near Pines Boulevard and SW 136th Street and extends easterly on Pines Boulevard to the Memorial West Hospital / Pembroke Lakes Mall and then turns southerly on Flamingo Road to Pembroke Road. The route then turns easterly on Pembroke Road to Federal Highway (US 1) located in the City of Hallandale Beach. The route then proceeds southerly on Federal Highway to Hallandale Beach Boulevard where the route turns east past the Gulfstream Park Racetrack to NE 14th Avenue adjacent to the Diplomat Mall and other commercial areas. The route turns north on NE 14th Avenue to NE 9th Street / Atlantic Shores Boulevard where the route turns west back to Federal Highway (US 1) and

then returns westerly along the same route. Headways are approximately every sixty (60) minutes during the week and on weekends

Route 6 is primarily a north/south route that services southeastern Broward County. The route initiates at County Line Road and Dixie Highway in the City of Hallandale Beach and travels westerly on County Line Road to SW 11th Avenue where the route turns northerly to SW 3rd Street, east of SW 3rd Street and then north on SW 8th Avenue crossing Hallandale Beach Boulevard to NW 1st Street where the route turns easterly on NW 1st Street to NW 2nd Avenue where the route turns northerly to Foster Road, where the route turns northwesterly to NW 8th Avenue again and then north across Pembroke Road into the City of Hollywood. The route continues north on South 26th Avenue (extension of NW 8th Avenue) to Hollywood Boulevard then turns east on Van Buren Street to South 24th Avenue and then turns northerly to Taft Street. The route crosses through areas of Hollywood to Stirling Road where the route turns westerly to Ravenswood Road / Anglers Avenue where the route turns northerly stopping at the Tri-Rail / Park and Ride Lot near Griffin Road. The route then continues west of Griffin Road to SW 30th Avenue where the route turns north to SR 84. The route then continues east on SR 84 to SW 9th Avenue in the City of Fort Lauderdale and then south and easterly to SW 4th Avenue where the route turns northerly to Broward Boulevard to the Broward County Transit Central Terminal. Route 6 generally follows the route in reverse except upon returning into the City of Hollywood, at Washington Street the route turns easterly to Dixie Highway where it turns southerly back to County Line Road. Headways are approximately every thirty (30) minutes on weekdays and Saturdays with headways once every hour on Sundays.

Route 28 is generally on east/west route servicing south Broward County from its western extreme near the Everglades to near the beach. The route initiates at Memorial Hospital in the City of Miramar north of Miramar Parkway on SW 172nd Avenue and then travels southerly on SW 172nd Avenue to Miramar Parkway and then turns easterly on Miramar Parkway several miles crossing through the Cities of Miramar, West Park, Pembroke Park and Hallandale Beach. The route terminates at the Seawalk Pointe Shopping Center on Three Islands Boulevard at the Intracoastal Waterway. The route returns along the same route. Headways are every their (30) minutes on weekdays and Saturdays and once every forty-five (45) minutes on Sundays.

Conversations with the Broward County's Mass Transit Division yielded a conclusion that no capacity problems existed, in fact, methods to increase ridership are continually being sought. Occupancy rates vary by route. According to Broward County, Route 1 is the second most used bus route in the county with about 450,000 annual riders. The US 1 Breeze route is a new route and data is not available. Route 5 has experienced a steady increase with about 97,000 riders per year. Route 6 has experienced little growth averaging about 100,000 riders per year. Route 28 has experienced steady growth with about 190,000 riders per year. The average number of daily boardings in the City was 2,043 and the number of alightings was 2,190 in the 4th quarter of 2007. Following is a route-by-route summary of boardings and alightings as provided by Broward County Transit staff during the 4th quarter of 2007. Route 1 had 650 boardings and 635 alightings. Route 4 had 300 boardings and 291 alightings. Route 5 had 99 boardings and 283 alightings. Route 6 had 225 boardings and 231 alightings. Route 28 had 769 boardings and 750 alightings.

The City of Hallandale contracts with a private company to install and maintain bus benches and shelters within the City. Pedestrian access to but routes is good, as the City provides an extensive sidewalk system on all major roadways.

MIAMI-DADE COUNTY BUS ROUTES

Route 3 originates at the Downtown Bus Terminal generally located at the intersection of 1st Avenue and SE/SE 1st Street in Miami-Dade County. Route 3 travels north and east through Miami-Dade County providing service to the Turnberry Country Club, the Aventura Mall and the 163rd Street Mall. Route 3 enters the City of Hallandale Beach traveling north on US 1 until reaching Hallandale Beach Boulevard, where it turns east. Route 3 heads east on

Hallandale Beach Boulevard until reaching and stopping at the Diplomat Mall then continuing eastward to Three Islands Boulevard where the route turns north and enters the Seawalk Pointe (WalMart) Shopping Center and circles around to head south along the same route, exiting the City of Hallandale Beach, traveling south on US 1. Headways are approximately every twenty (20) minutes during peak periods and every sixty (60) minutes during late night periods on weekdays and weekends.

Route K (111) initiates at the OMNI Metromover Station / Bus Terminal in Miami-Dade County and travels north and east until entering the City of Hallandale Beach traveling north on South Ocean Drive (A1A). Route K travels north on SR A1A until Hallandale Beach Boulevard, where it turns east, until reaching Layne Boulevard where it enters the Diplomat Mall. After circulating around the mall, Route K exits the mall traveling south on NE 14th Avenue and then east along Hallandale Beach Boulevard to SR A1A then south until entering Miami-Dade County traveling south on A1A. Headways are approximately every thirty (30) minutes at peak periods and every sixty (60) minutes at other times of the day 7 days a week.

Conversations with Miami-Dade County revealed that no capacity problems exist.

All Miami-Dade Transit buses servicing these routes are wheelchair accessible and can carry bicycles.

CITY OF HALLANDALE BEACH MINIBUS SERVICE

The City of Hallandale Beach provides a local circulation minibus system for its residents. All of the minibuses are oriented to destinations within the City of Hallandale Beach, whereas the Broward County Bus routes have county-wide focus. Only two of three bus routes service Diplomat Mall. The following descriptions provide details of the individual routes.

Route #1

The minibus route is located in the eastern portion of the City and extends from the City Hall / Cultural Center / Post Office complex on the west side of Federal Highway (US 1) between SE 3rd Street and SE 5th Street and travels north on Federal Highway (US 1) past the Mardi Gras Gaming Racetrack / Casino to NE 9th Street / Atlantic Shores Boulevard and then along NE 9th Street / Atlantic Shores Boulevard to NE 14th Avenue and then southerly to Hallandale Beach Boulevard. The route then turns eastbound on Hallandale Beach Boulevard with stops at the Diplomat Mall and the Publix Shopping Center at Hallandale Beach Boulevard and NE 14th Avenue and the Seawalk Pointe Shopping Center at Hallandale Beach Boulevard and Three Islands Boulevard to SR A1A / Ocean Drive going southward past the high-rise multifamily developments to the Miami-Dade County Line, U-turns northward to return and cross the Intracoastal Waterway on Hallandale Beach Boulevard. The route returns to the Federal Highway governmental complex. Headways are approximately every fifty (50) minutes, Monday through Saturday.

Route #2

The minibus route is also located in the eastern portion of the City and extends from the Aventura Hospital Complex located in the City of Aventura just south of the City Limits along Federal Highway / US 1 to the City Hall / Cultural Center Library / Post Office complex on the west side of US 1 between SE 3rd Street and SE 5th Street and the Gulfstream Park Racetrack / Casino and Village at Gulfstream Park development, traverses northward on US 1 to Hallandale Beach Boulevard, goes eastward on Hallandale Beach Boulevard to the Publix Shopping Center located on the southeast corner of SE 14th Avenue and Hallandale Beach Boulevard, crosses over to Golden Isles Drive, returning to Hallandale Beach Boulevard then going eastward to Three Islands Boulevard and Seawalk Pointe Shopping Center / Wal-Mart. This minibus route extends northerly into the Three Islands high-density residential development area. The minibus returns southward to Hallandale Beach Boulevard and goes west to the Diplomat Mall, then northward on N.E. 14th Avenue to Atlantic Shores / US 1 where the route turns southerly on Federal Highway (US 1) past the Mardi Gras Racetrack and Casino. Headways are approximately sixty (60) minutes, Monday through Saturday.

Route #3

The minibus route is located in the western portion of the City looping through the entire area. The route extends from the City Hall / Cultural Center / Post Office / Gulfstream Park area on Federal Highway between SE 3rd Street and SE 5th Street and heads northerly on Federal Highway (US 1) to Hallandale Beach Boulevard where the route turns westerly to NE 1st Avenue turning northerly to 3rd Street where the route crosses the FEC Railroad / Dixie Highway corridor and then extends west to NW 2nd Avenue. The route then turns north ion NW 2nd Avenue to Foster Road traveling northwesterly to NW 10th Avenue then west onto Pembroke Road to stops at the Hollywood Tri-Rail Station and Memorial Primary Care Center outside of the City. The route then loops back along Pembroke Road to NW 10th Avenue to Foster Road then turning southward onto NW 9th Avenue then eastward on NW 7th Street to NW 8th Avenue the southward to Hallandale Beach Boulevard. The route travels west on Hallandale Beach Boulevard to NW 9th Terrace where the route turns north to NW 1st Court, west to NW 10th Terrace and then back south crossing Hallandale Beach Boulevard to SW 2nd Street, stopping at the Winn Dixie Shopping Center. The route then travels west on SW 2nd Street to SW 11th Avenue meandering southerly to SW 9th Street where the route turns easterly to SW 8th Avenue. The route travels north on SW 8th Avenue to SW 1st Street just south of the commercial uses on Hallandale Beach Boulevard to Dixie Highway where the route turns southerly to SE 3rd Street again crossing the FEC Railroad corridor back the government complex on Federal Highway (US 1). Headways are about every sixty (60) minutes.

3.3 DATA AND ANALYSIS

ANALYSIS OF EXISTING TRANSPORTATION SYSTEM:

A) LIMITED ACCESS FACILITIES

Although not located within its corporate limits, the City of Hallandale Beach abuts one limited access highway. This roadway is part of the Florida Intrastate Highway System (FIHS) and is maintained by the Florida Department of Transportation (FDOT).

1) I-95

a) Facility Description

Discussion – The City of Hallandale Beach directly abuts I-95 between County Line Road and Pembroke Road. The roadway is part of the Federal and State Roadway system and is maintained by FDOT. The roadway is a limited access facility with interchanges at both Pembroke Road and Hallandale Beach Boulevard. I-95 crosses over both roads. The roadway from Pembroke Road to County Line Road is a 10-land divided (10LD) roadway with 325' feet of right-of-way. The innermost lanes to the concrete median are designated as high occupancy vehicle (HOV) lanes during A.M. and P.M. peak hours. The entrance and exit ramps are signalized at the underpasses. The roadway's length adjacent to the City is approximately two (2) miles.

The roadway is well paved and marked with traffic control signs and lane striping. There is limited drainage, and, on occasions of heavy rainfall, stormwater runoff floods properties located on the west side of the roadway (located in the Town of Pembroke Park) and on the east side in Hallandale Beach. Due to repeated flooding of the above lands, in 2002 FDOT constructed a major stormwater pump station on the west side of I-95 midway between Hallandale Beach Boulevard and Pembroke Road. Stormwater is now collected and pumped north within the South Florida Rail Corridor to the SFWMD ocean outfall canal at Hollywood Boulevard. This has significantly reduced flooding in the general area.

I-95 is part of Federal Intrastate Highway System (FIHS). The roadway commences near downtown Miami and extends north along the eastern seaboard of the U.S., terminating in Maine at the Canadian border. FDOT maintains the road and general ROW.

Traffic signalization – There are no traffic signals on I-95, however there are signals at the entrance /

exit ramps at both Pembroke Road and Hallandale Beach Boulevard.

Adjoining land uses/access – On the west side of the I-95 is the Town of Pembroke Park and on the east side is the City of Hallandale Beach. Access to the facility can be made only from either Hallandale Beach Boulevard or Pembroke Road. The adjoining land uses in the City of Hallandale Beach include mostly commercial, industrial and the high school between Pembroke Road and Hallandale Beach Boulevard and residential south of Hallandale Beach Boulevard.

b) Present Level of Service

Average Annual Daily Traffic (AADT) - The roadway segment from the Miami-Dade County Line to Hallandale Beach Boulevard is currently (~~2007~~ 2024) handling ~~232,000~~ 209,000 average daily trips per day (TPD). During the peak season traffic volumes increase to about 240,500 trips per day. The roadway segment from Hallandale Beach Boulevard to Pembroke Park is currently (~~2007~~ 2024) handling ~~240,760~~ 259,168 average daily TPD. No peak season traffic volumes were reported by Broward County or FDOT. The established Level of Service (LOS) volume for I-95 at LOS D is 182,600 TPD. The current volume to capacity (V/C) ratios are ~~1.27~~ 0.86 and ~~1.32~~ 0.90 respectively. This results in a current operating level of service of ~~F~~ E for both roadway segments. (See Table T-3).

PM Peak Hour Traffic (PMPH) - The roadway segment from the Miami-Dade County Line to Hallandale Beach Boulevard is currently (2007) handling 19,720 trips in the PM Peak Hour. The roadway segment from Hallandale Beach Boulevard to Pembroke Park is currently (2007) handling 20,460 trips in the PM Peak Hour. The established Level of Service (LOS) volume for I-95 at LOS D is 16,980 trips in the PM Peak Hour. The current volume to capacity (V/C) ratios are 1.16 and 1.20 respectively. This results in a current operating level of service of F for both roadway segments. (See Table T-4).

c) Future Level of Service

The Broward County Year ~~2030~~ 2045 traffic projections estimate that traffic volumes will continue to increase ~~significantly~~ resulting in daily volumes of ~~348,281~~ 232,078 between the Dade County Line and Hallandale Beach Boulevard and ~~337,574~~ 259,168 between Hallandale Beach Boulevard and Pembroke Road. In 1994 actual flows exceeded Broward County's projections (prepared in 1989) by approximately 40%. The eastern areas of Miami-Dade and Broward County are nearly fully developed. However, according to Broward County the LOS D capacity of I-95 in 2015 will remain at 182,600 TPD. The projected volumes will result in V/C ratios of ~~1.91~~ 0.96 and ~~1.85~~ 0.90 respectively. This results in a projected operating LOS of ~~F~~ E for both roadway segments.

d) Proposed Improvements

There are no further improvements to I-95 that would affect the capacity of the roadway listed in any agency plans.

B) ARTERIAL ROADWAYS

Several arterial roadways provide travel both through and within the City of Hallandale Beach. These roadways are part of Broward County's system and are maintained by the State of Florida and/or Broward County.

1) DIXIE HIGHWAY

a) Facility Description

Discussion – This roadway begins in South Miami and travels north through Miami-Dade County and traverses across Broward County. The portion of this roadway that exists within the City of Hallandale Beach parallels the FEC railroad corridor, beginning

at County Line Road and traverses north to Pembroke Road, where it continues north through Broward County and enters Palm Beach County. Within the City of Hallandale Beach this roadway is constructed as a 4-lane undivided facility with 50'of right-of-way which provides one-way southbound traffic only. Its length within the City is approximately 1.5 miles. In general the provision of sidewalks along Dixie Highway is limited to only a few individual businesses.

The pavement is in good condition. There are a total of five (5) traffic signals on this roadway for an average of approximately 3 signals per mile. There is clearly marked traffic lane striping on the entire length of the roadway. Adequate drainage exists on this roadway.

Traffic Signalization – exists at the following locations:

- Pembroke Road
- NW 3rd Street
- Hallandale Beach Boulevard
- SW 3rd Street
- SW 11th Street (County Line Road)

All traffic signals are operated maintained by Broward County.

Adjoining land uses/access – Adjoining land uses are primarily commercial in nature on the west side with the FEC railroad corridor abutting the roadway to the east. Dixie Highway provides access to various strip type commercial properties as well as freestanding commercial buildings on the west side. Adequate drainage exists on this roadway.

b) Present Level of Service

The roadway segment between Pembroke Road and Hallandale Beach Boulevard, as the facility enters the City is currently (~~2007~~ 2024) handling ~~6,204~~ 6,600 TPD in ~~2008~~ 2024, ~~a decline from 10,300 in 1998~~. The roadway segment between Hallandale Beach Boulevard and County Line Road is currently handling ~~4,840~~ 6,700 TPD ~~just south of Hallandale Beach Boulevard and 5,777 TPD at the Miami-Dade County Line. In 1997 the volumes were 10,300 TPD just south of Hallandale Beach Boulevard and 5,310 TPD at the Miami-Dade County Line~~. The established LOS volume for Dixie Highway at LOS D is 26,040 TPD. This results in V/C ratios of approximately ~~.24~~ .86, ~~.18~~ and ~~.22~~ .84 respectively. This results in current operating LOS of ~~C+~~ C for all roadway segments. (Note: according to the FDOT LOS Manual, LOS A & B are not attainable on this roadway). See Table T-3.

PM Peak Hour Traffic (PMPH) - The roadway segment north of Hallandale Beach Boulevard is currently (2007) handling 560 trips in the PM Peak Hour. The roadway segment south of Hallandale Beach Boulevard is currently handling 440 trips in the PM Peak Hour. The roadway segment at the Miami-Dade County Line is currently handling 575 trips in the PM Peak Hour. The established Level of Service (LOS) volume at LOS D is 2,484 trips in the PM Peak Hour. The current volume to capacity (V/C) ratios are .22, .18 and .23 respectively. This results in a current operating level of service of C+ for all roadway segments. (See Table T-4).

c) Future Level of Service

The Broward County Year ~~2030~~ 2045 traffic projections estimate that traffic levels will increase ~~significantly~~ resulting in the segment north of Hallandale Beach Boulevard handling approximately ~~17,743~~ 7,329 TPD with the segment at the Miami-Dade County estimated to be approximately ~~25,097~~ 7,440 TPD. ~~No estimate is provided just south of Hallandale Beach Boulevard.~~ The results in V/C ratios of ~~.68~~

.95 and ~~.96~~ .94 for the two roadway segments respectively which result in a projected operating level of service of ~~D~~ C and C, respectively. The City feels that these Broward County estimates may be somewhat high, given the built-out nature of the City and abutting areas and given the fact traffic volumes decreased significantly between 1997 and 2007, even during the last so-called peak 2000-06 re-development period.

d) Proposed Improvements

There are no proposed improvements scheduled to Dixie Highway for maintenance, upgrade or that would affect the capacity of the roadway per the Broward County Metropolitan Planning Organization's (MPO) Five Year Transportation Improvement Plan (TIP) for the years FY 2007-08 through 2011-12.

2) NE/SE 1st Avenue

a) Facility Description

Discussion – This roadway is a two lane roadway with various sections of 30', 50' and 70' of right-of-way. This roadway functions as a minor arterial, carrying predominately one way northbound traffic from Miami-Dade County through the City of Hallandale Beach and continuing north through Broward County. At the southern boundary of the City of Hallandale Beach a small segment of this roadway allows for limited south bound traffic movement from a small number of parking spaces located on the west side of the facility abutting the FEC railway corridor. As referenced previously, Dixie Highway is located on the west side of the FEC railroad corridor and provides for one-way southbound traffic. The length of NE/SE 1st Avenue in the City of Hallandale Beach is approximately 1.5 miles.

The roadway is well paved with clearly marked traffic lane striping. In general, the provision of sidewalks is limited to a few individual establishments or developments located on the east side of the roadway. There are a total of five (5) traffic signals on this roadway for an average of 3.3 signals per mile.

Traffic Signalization – exists at the following locations:

- Pembroke Road
- NW 3rd Street
- Hallandale Beach Boulevard
- SW 3rd Street
- SW 11th Street (County Line Road)

All traffic signals are operated and maintained by Broward County.

Adjoining land uses/access – Adjoining land uses are primarily commercial strip type development with a small number of light industrial uses. Offstreet parking is provided in the areas immediately west of NE/SE 1st Avenue between the roadway and the FEC railroad corridor. In some locations, the parking is located such that vehicles back directly onto the roadway which creates the potential for conflicts with through traffic. NE/SE 1st Avenue also provides access to the Mardi Gras Racetrack and Casino (former Hollywood Dog Track) located on the SE corner of NE 1st Avenue and Pembroke Road as well as a public Community Park named "Bluesten Park" located on the northeast corner of SE 1st Avenue and SE 7th Street. In addition NE/SE 1st Avenue provides access to other arterial and collector facilities, as well as to both Miami-Dade County (located south of the City) and portions of Broward County (located north of the City). Adequate drainage exists on this roadway.

b) Present Level of Service

The segment of NE/SE 1st Avenue located between the Miami-Dade County line and Hallandale Beach Boulevard is currently (~~2007~~ 2024) handling approximately ~~4,235~~ 6,400 TPD. The segment between Hallandale Beach Boulevard and Pembroke Road is currently (~~2007~~ 2024) handling about ~~4,280~~ 3,200 TPD. The established LOS D volume for NE/SE 1st Avenue is 15,600 TPD. This results in V/C ratios of ~~.27~~ .80 for the segment of NE/SE 1st Avenue located between the Miami-Dade County line and Hallandale Beach Boulevard and 0.81 for the segment between Hallandale Beach Boulevard and Pembroke Road. This results in a current operating LOS of D for the segment located between the Miami-Dade County line and Hallandale Beach Boulevard, and C for the segment between Hallandale Beach Boulevard and Pembroke Road ~~C+ (although the average daily traffic volume is actually much higher than the LOS C capacity, according to the FDOT 2002 LOS Manuals LOS A or B is not attainable on this roadway due to the number of traffic signals).~~

PM Peak Hour Traffic (PMPH) - The roadway segment north of Hallandale Beach Boulevard is currently (2007) handling 551 trips in the PM Peak Hour. The roadway segment south of Hallandale Beach Boulevard is currently handling 539 trips in the PM Peak Hour. The established Level of Service (LOS) volume at LOS D is 1,692 trips in the PM Peak Hour. The current volume to capacity (V/C) ratios are ~~.33~~ 0.80 and ~~.32~~ 0.81 respectively. This results in a current operating level of service of ~~C+~~ D and C respectively ~~for all roadway segments.~~ (See Table T-4).

c) Future Level of Service

The Broward County Year ~~2030~~ 2045 traffic projections estimate that traffic levels will increase resulting in the segment of NE/SE 1st Avenue located between the Miami-Dade County line and Hallandale Beach Boulevard handling approximately ~~17,743~~ 7,107 TPD with the segment Hallandale Beach Boulevard and Pembroke Road estimated to be approximately ~~25,097~~ 3,553 TPD. ~~Data provided by Broward County did not include future projections (2030) for NE/SE 1st Avenue. However, utilizing the current 2007 Broward County traffic counts, the City estimates the future traffic volume (2030) for the segment south of Hallandale Beach Boulevard will be about 5,250 TPD and about 5,300 TPD for the segment north of Hallandale Beach Boulevard.~~ This results in V/C ratios of .89 for the segment of NE/SE 1st Avenue located between the Miami-Dade County line and Hallandale Beach Boulevard and 0.90 for the segment between Hallandale Beach Boulevard and Pembroke Road. This results in a current operating LOS of D for the segment located between the Miami-Dade County line and Hallandale Beach Boulevard, and C for the segment between Hallandale Beach Boulevard and Pembroke Road. Given the built out nature of the City and surrounding areas it is anticipated that the existing capacity of the roadway will be able to accommodate future traffic increase given the fact that the current volume (4,300) equates to only 25% of LOS "D" capacity. Therefore, it is anticipated that the roadway could sustain a significant increase in traffic volume and remain at an acceptable LOS, although a significant increase is not anticipated at this time.

d) Proposed Improvements

There are no proposed improvements to NE/SE 1st Avenue for maintenance, upgrade or that would affect the capacity of the roadway per the Broward County MPO 5-year Transportation Improvement Program (TIP) for FY 2007-08 through 2011-12.

T) FEDERAL HIGHWAY (US 1)

T) Facility Description

Discussion – Federal Highway (US1) is a north – south arterial roadway centrally located in the

City of Hallandale Beach. US 1 initiates in Key West and traverses the eastern seaboard of the United States ultimately terminating in the northeast region of the Country. The portion of US 1 located within the City enters the City at SW 11th St. (County Line Road) and continues north until it intersects with Pembroke Road and exits the City. The roadway is constructed as both a 6-lane divided facility (Miami-Dade County Line to Hallandale Beach Boulevard) and a 4-lane undivided facility (north of Hallandale Beach Boulevard) with a common center left turn lane. Federal Highway has 133' of right-of-way south of Hallandale Beach Boulevard and 80' of right-of-way north of Hallandale Beach Boulevard. It's enough within the City is approximately 1.5 miles. Concrete sidewalks are provided on both side of the majority roadway with only a few areas missing.

The pavement is in good condition. There are currently a total of five (5) traffic control signals on Federal Highway, for an average of approximately 3.3 signals per mile. Signals are located at intersections of other arterials and collectors. There is clearly marked traffic lanes striping the entire length of the roadway. Adequate drainage exists on this roadway.

Traffic Signalization – exists at the following locations:

- Pembroke Road
- NE 9th Street (Atlantic Shores Boulevard)
- NE 3rd Street
- Hallandale Beach Boulevard
- SE 3rd Street
- SE 9th Street (Village at Gulfstream Park DRI project)

All traffic signals are operated and maintained by Broward County.

Adjoining land uses/access – Adjoining land uses are primarily strip type commercial uses, and governmental uses. US 1 also provides access to the U.S. Post Office, Gulfstream Park Raceway / Casino and the new Village at Gulfstream Park DRI mixed–use development and the City of Hallandale Beach Municipal Complex. US 1 intersects with the 2 major east/west arterials in Hallandale, those being Pembroke Road and Hallandale Beach Boulevard. In addition, US 1 provides access to Miami-Dade County and areas of Broward County (located north of the City).

T) Present Level of Service

The roadway segment located between the Miami-Dade County line and Hallandale Beach Boulevard (6-lane divided) is currently handling ~~54,000~~ 51,00 TPD (68,700 TPD Peak Season). This is approximately a 25% increase since the element was adopted in 1997. The roadway segment between Hallandale Beach Boulevard and Pembroke Road is handling ~~36,500~~ 35,000 TPD (39,321 TPD in Peak Season). This is approximately a 17% increase since the element was adopted in 1997. The established LOS D capacity for these roadway segments are 49,200, and 32,700 TPD respectively. This results in V/C ratios of ~~1.10~~ 1.01 and ~~1.12~~ 1.04 respectively. These V/C ratios indicate current operating LOS of D and E ~~for both segments of this roadway~~ respectively.

PM Peak Hour Traffic (PMPH) – The roadway segment south of Hallandale Beach Boulevard is currently (2007) handling 4,860 trips in the PM Peak Hour. The roadway segment north of Hallandale Beach Boulevard is currently handling 3,290 trips in the PM Peak Hour. The established Level of Service (LOS) volume at LOS D is 4,680 and 3,100 trips in the PM Peak Hour, respectively.

The current volume to capacity (V/C) ratios are 1.04 and 1.06 respectively. This results in a current operating level of service of E for all roadway segments. (See Table T-4).

T) Future Level of Service

The Broward County Year ~~2030~~ 2045 traffic projections estimate that traffic counts will increase ~~significantly~~. They estimate that volumes will be ~~69,470~~ 56,631 TPD north of the Miami-Dade County Line and ~~45,841~~ 38,865 north of Hallandale Beach Boulevard. According to Broward County the capacity of these 2 roadway segments at LOS D in 2030 will be the same in the future, 49,200 TPD and 26,500 32,700 TPD. These capacities result in anticipated V/C ratios of ~~1.41~~ 1.06 and ~~1.40~~ 1.10, respectively. These V/C ratios result in projected operating LOS of F on all roadway segments. However, the entire City is within an Urban Infill Area (UIA) which allows traffic volumes to exceed capacity, provided mitigation is included.

D) Proposed Improvements

There are no proposed improvements to be constructed which would increase the capacity of the roadway contained within the Broward County MPO TIP for the years 2007-08 through 2011-12. The roadway segment from the Miami-Dade County line to Hallandale Beach Boulevard is being resurfaced in FY 07-08. As part of the Village at Gulfstream Park DRI located east of US 1 from the Miami-Dade County line to Hibiscus Street, a number of improvements will occur. These include a new signalized intersection at SE 9th Street, median modifications, turn lane changes, driveway improvements into the project and a "Super Stop" for buses. As part of the proposed Park Central mixed-use development located west of US 1 between NE 3rd Street and NE 4th Court, a southbound right turn lane onto NE 3rd Street will be added.

4) OCEAN DRIVE (SR A1A)

T) Facility Description

Discussion – Ocean Drive (State Road A1A) is the eastern most north/south arterial located within Broward County. The segment of the roadway that exists within the City of Hallandale Beach is generally only south of Hallandale Beach Boulevard. The roadway continues north paralleling the eastern coast of Broward County within the City of Hollywood. The roadway is constructed as a 6-lane divided facility with 100 feet of right-of-way. It's length within the City of Hallandale Beach is approximately 0.75 miles. Concrete sidewalks exist on both sides of the roadway.

The pavement on SR A1A is in very good condition. There are four (4) traffic signals on the roadway located at major development access points. Adequate drainage exists on this roadway.

All traffic signals are operated and maintained by Broward County.

Adjoining land uses/access – Adjoining land uses are primarily high density multi-family residential, a small number of Hotels and private and public recreation. SR A1A provides access to public beach areas as well as to Hallandale Beach Boulevard and other east/west arterials located in Miami-Dade, Broward and Palm Beach Counties.

T) Present Level of Service

The segment of SR A1A located within the City of Hallandale Beach (Miami-Dade County Line to Hallandale Beach Boulevard) is currently (~~2007~~ 2024) handling ~~28,000~~ 30,000 TPD with an average count of ~~31,000~~ 37,500 TPD having been noted just south of Hallandale Beach Boulevard. The capacity of this segment at LOS D is 49,200 TPD. This results in a V/C ratio of .57 and ~~.63~~ .71 respectively. These V/C ratios result in a current

operating LOS of ~~C+~~ D for the segments of the roadway at both locations. Growth has been slow during the last 10-year period despite the last "2000-05 redevelopment spurt".

PM Peak Hour Traffic (PMPH) – The roadway segment near the Miami-Dade County line is currently (2007) handling 2,520 trips in the PM Peak Hour. The roadway segment just south of Hallandale Beach Boulevard is currently handling 2,790 trips in the PM Peak Hour. The established Level of Service (LOS) volume at LOS D is 4,680 trips in the PM Peak Hour. The current volume to capacity (V/C) ratios are .54 and .60 respectively. This results in a current operating level of service of C+ for all roadway segments. (See Table T-4).

T) Future Level of Service

The Broward County Year ~~2030~~ 2045 traffic projections estimate that traffic will increase ~~significantly~~. Broward County has estimated that in the year ~~2030~~ 2045 the segment of SR A1A between Hallandale Beach Boulevard and the Dade County Line will handle ~~47,893~~ 33,313 TPD. According to Broward County the roadway capacity at LOS D will still be 49,200 TPD. This traffic projection results in a V/C ratio of~~.97~~ .63 which results in a projected operating LOS of ~~E~~ D. The City believes the county's estimate is high given the built-out nature of the area. The City estimates the traffic volumes will be about 33,810 TPD near the Miami-Dade County line and 37,670 south of HBB.

D) Proposed Improvements

There are no proposed improvements to Ocean Drive / SR A1A that would affect the capacity of the roadway per the Broward County MPO 5-year Transportation Improvement Program (TIP) for FY 2007-08 through 2011-12. However, there appears to be a resurfacing project scheduled for the roadway from the Miami-Dade County line into the City of Hollywood in FY 09-10 ($1.93M) and sidewalk improvement funds scheduled for FY 09-10 ($200K) from the Miami-Dade County line to Hallandale Beach Boulevard.

5) PEMBROKE ROAD

T) Facility Description

Discussion – Pembroke Road is the northern most east/west arterial roadway located within the City of Hallandale Beach. Pembroke Road is an arterial which will extend from US 27 at the westernmost edge of the urbanized area of Broward County, in the City of Miramar, and traverses easterly through Broward County until terminating at Federal Highway (US 1) in the City of Hallandale Beach. The section of the roadway located within the City enters the City just east of I–95 and continues easterly until US 1 where the roadway becomes Moffet Street. The length of the portion within Hallandale Beach is approximately 1.4 miles. The roadway is constructed as a 4-lane undivided facility with a shared center left turn lane. The northern side of Pembroke Road is located within the City of Hollywood. A continuous concrete sidewalk is provided along the south side of Pembroke Road located in the City of Hallandale Beach.

The pavement is in good condition. There are a total of seven (7) traffic signals located along this facility with five (5) signals between I–95 and Dixie Highway with the remaining two (2) signals on the eastern segment. These signals are located primarily at the intersections of major collectors and arterials. There is clearly marked lane striping on the entire length of the roadway. Adequate drainage exists on this roadway.

Traffic Signalization – exists at the following locations:

- I-95
- S 28th Avenue (City of Hollywood)
- Approximately 1 block east of S 26th Ave. (City of Hollywood)
- NW 2nd Avenue
- Dixie Highway
- NE 1st Avenue
- Federal Highway (US1)

All traffic signals are operated and maintained by Broward County.

Adjoining land uses/access – Adjoining land uses are primarily strip type commercial developments and scattered office buildings (2-3 story). Pembroke Road provides access to I-95 and other north/south arterials within the City. In addition, Pembroke Road provides direct access to the Mardi Gras Racetrack and Casino (former Hollywood Dog Track) on the southeast corner of Pembroke Road and Federal Highway (US 1).

T) Present Level of Service

The segment of Pembroke Road between I-95 and Dixie Highway is currently handling ~~38,000~~ 36,500 TPD and the segment of the roadway between Dixie Highway and US 1 is currently handling ~~24,500~~ 23,500 TPD. The capacity of these roadway segments at LOS D is 32,700 TPD The roadway segment east of US 1 (Moffet Street) is currently handling about ~~6,719~~ 10,300 TPD. This represents about a 26% increase between 1997 and 2007 near I-95 and a 12% increase near US 1 during the same planning period. No data was available for the segment east of US 1 in 1997. These volumes result V/C ratios of ~~1.16~~ 1.03, ~~.75~~ .73 and ~~.67~~ .97 respectively. This results in a current operating LOS of F, ~~B~~ D and ~~B~~ D respectively.

PM Peak Hour Traffic (PMPH) – The roadway segment east of I-95 is currently (2007) handling 3,420 trips in the PM Peak Hour. The roadway segment just west of US 1 is currently handling 2,210 trips in the PM Peak Hour. The established Level of Service (LOS) volume at LOS D is 3,110 trips in the PM Peak Hour. The current volume to capacity (V/C) ratios are 1.10 and .71 respectively. This results in a current operating LOS of E for the roadway segment east of I-95 and LOS C+ west of US 1 (See Table T-4).

T) Future Level of Service

~~The~~ Broward County's Year ~~2030~~ 2045 Traffic Projections estimate that traffic volumes will steadily increase on the segment of this roadway between I-95 to Dixie Highway and east of US 1 to about ~~49,642~~ 40,530 TPD and 26,095 for the segment of the roadway between Dixie Highway and US 1. ~~(Note: Broward County did not include a year 2030 projection for portions of Pembroke Road east of Dixie Highway to US 1). The City believes a valid estimate west of US 1 may be about 30,700 in 2030.~~ Broward County estimates that in the year ~~2030~~ 2045 at LOS D is projected to be 32,700 TPD. This results in a projected V/C ratio of ~~1.52~~ 1.14, ~~.93~~ .81 and ~~.93~~ 1.02 respectively. This results in a projected operating LOS of F, D and F respectively ~~east of I-95 and LOS D at the other locations in 2030.~~ However, the entire City is within an Urban Infill Area (UIA) which allows traffic volumes to exceed capacity, provided mitigation is included.

D) Proposed Improvements

There are no proposed improvements scheduled in the Broward County MPO TIP for the years FY 2007-08 to 2011-12. Because of the projected traffic increases, improvements to increase

capacity need to be planned and scheduled in the near future near I-95.

6) HALLANDALE BEACH BOULEVARD

T) Facility Description

Discussion – Hallandale Beach Boulevard is a centrally located east/west principal arterial roadway which bisects the City of Hallandale Beach. The roadway will eventually extend from US 27 to SR A1A. The roadway is known as Miramar Parkway from Pembroke Road to SR 7 / US 441 and Hallandale Beach Boulevard from SR 7 / US 441 to SR A1A. Before intersecting SR A1A, Hallandale Beach Boulevard crosses over a drawbridge traversing the Intracoastal Waterway. The bridge section contains two bridges (1 each direction). The portion of Hallandale Beach Boulevard located in the City of Hallandale Beach is approximately 2.7 miles in length. The roadway is constructed as a 6-lane divided facility with 100' of right-of-way. Concrete sidewalks exist on both sides of the roadway and adequate drainage exists.

The pavement is in good condition. There are a total of 19 traffic signals located along Hallandale Beach Boulevard located primarily at the intersections of arterials and other major collectors. This number includes 2 traffic signals to service the drawbridge crossing the Intracoastal Waterway. Adequate drainage exists on this roadway.

Traffic Signalization – exists at the following locations:

- I-95
- SW/NW 10th Terrace
- SW/NW 8th Avenue
- SW/NW 6th Avenue
- SW/NW 4th Avenue
- Dixie Highway
- SE/NE 1st Avenue
- US 1
- NE 8th Avenue
- NE 10th Avenue
- NE 14th Avenue
- SE 16th Avenue
- Layne Boulevard
- Golden Isles Drive
- Diplomat Parkway
- Three Islands Boulevard
- ICWW Bridge EB
- ICWW Bridge WB
- Ocean Drive (SR A1A)

All traffic signals are operated and maintained by Broward County.

Adjoining land uses/access – Adjoining land uses are primarily strip type commercial development, large scale retail (supermarkets, Diplomat Mall, etc.) and office. Hallandale Beach Boulevard provides access to the major commercial development within the City, the City's Financial District, as well as, to several high density multi-family development located adjacent to and east of NE 14th Avenue. In addition, Hallandale Beach Boulevard provides access to the Gulfstream Race Track / Casino, generally located on the SE corner

of Hallandale Beach Boulevard and US 1, as well as to the beach via an intersection with SR A1A. Hallandale Beach Boulevard intersects with I-95, Dixie Highway, US 1 and SR A1A and therefore, provides access for residents leaving the City and visitors coming to the City from Miami-Dade, Broward and Palm Beach Counties.

While Hallandale Beach Boulevard functions as a regional arterial roadway, the lack of a well defined support system of collector streets, and given the existing adjacent land uses and access to the facility, the roadway is forced to provide a variety of other functions as well. Hallandale Beach Boulevard provides access for local circulation, frequent pedestrian crossings, bus routes, minibus routes and direct property access which are not typically associated with the function of an arterial roadway. The multiple functions of Hallandale Beach Boulevard frequently lead to congestion problems as well as to hazardous conditions for pedestrian and vehicular traffic that would not normally be associated with the function of an arterial roadway.

T) Present Level of Service

The roadway segment between I-95 and Dixie Highway is currently handling ~~64,000~~ 57,390 TPD. The roadway segment between Dixie Highway and US1 is currently (~~2007~~ 2024) handling ~~40,500~~ 52,000 TPD. The segment between US 1 and the Intracoastal Waterway is currently handling ~~39,500~~ 42,500 TPD. Finally the segment just west of the Intracoastal Waterway (ICWW) Bridge is currently handling ~~31,000~~ 39,500 TPD. The capacity of these roadway segments at LOS D are 49,500 TPD on all segments except at the ICWW because of the number of traffic signals, respectively. These traffic volumes result in V/C ratios of ~~1.30~~ 1.07, 1.02, .81 ~~.82~~ and ~~.80~~ .75, respectively. These V/C ratios result in a current operating LOS of F, F, D ~~C~~ and ~~C~~ D respectively for the roadway segments.

The spacing of traffic signals along an urban arterial street is very Important to maintaining progressive traffic flow. On East Hallandale Beach Boulevard, there are four (4) closely spaced signalized intersections at Layne Boulevard, Golden Isles Drive, Diplomat Parkway and Three Islands Boulevard. These traffic signals, together with the FEC Railroad crossing and the ICWW drawbridge, contribute to the traffic delays which commonly occur along Hallandale Beach Boulevard.

PM Peak Hour Traffic (PMPH) – The roadway segment east of I-95 is currently (2007) handling 6,040 trips in the PM Peak Hour. The roadway segment just west of US 1 is currently handling 3,650 trips in the PM Peak Hour. The roadway segment just east of US 1 is currently handling 3,560 trips in the PM Peak Hour. Lastly, the roadway segment just west of the ICWW Bridge is currently handling 2,790 trips in the PM Peak Hour. The established Level of Service (LOS) volume at LOS D is 4,680 trips in the PM Peak Hour between I-95 and US 1 but only 4,420 trips in the PM Peak Hour between US 1 and the ICWW because of the number of traffic signals. The current volume to capacity (V/C) ratios are 1.29, .78 and .80 respectively. This results in a current operating LOS of F for the roadway segment east of I-95 and LOS C for the other roadway segments (See Table T-4).

T) Future Level of Service

The Broward County Year ~~2030~~ 2045 Traffic Projections estimate that traffic counts will steadily increase. Broward County estimates that the segment east of I-95 will be handling ~~69,242~~ 63,727 TPD, the segment East of Dixie Highway will be handling 57,742 TPD the segment east of US 1 will be handling ~~51,027~~ 47,193 TPD and the segment east of Diplomat Parkway will be handling ~~37,916~~ 43,862 TPD in the year ~~2030~~ 2045. ~~Note: Broward County's projections did not include a projection for the segment of Hallandale~~

~~Beach Boulevard located US 1; however, the City estimates the traffic volume at that location will be about 45,560 TPD~~. According to Broward County, the LOS D capacity of the roadway segments for which a projection was provided will remain at 49,200 TPD between I-95 and US 1, 49,300 east of US 1 and 44,700 at the ICWW, respectively. These projections result in V/C ratios of ~~1.40~~ 1.19, ~~1.03~~ 1.13, .90 and ~~.85~~ .84 respectively. These V/C ratios result in projecting operating LOS F, ~~E~~ F, D and ~~C~~ D. The City feels the projections are somewhat unrealistic given the built out nature of surrounding land; however, the City has been receiving numerous re-development applications that significantly increase the density / intensity of development. However, the entire City is within an Urban Infill Area (UIA) which allows traffic volumes to exceed capacity, provided mitigation is included.

D) Proposed Improvements

There are no proposed improvements scheduled in the Broward County MPO TIP for the years FY 2007-08 to 2011-12 that would increase roadway capacity. However, the Village at Gulfstream Park DRI approval included requirements to improve traffic signal timing along the roadway from US 1 to I-95 and to improve the ramps / intersection at I-95, as well as other items. There is a resurfacing project that is on-going in FY 07-08 from Dixie Highway to I-95 and extending westerly into Pembroke Park. Because of the projected traffic increases, Improvements to increase capacity need to be planned and scheduled in the near future near I-95. As part of continuing studies of roadway operations aimed at alleviating or assisting in traffic on Hallandale Beach Boulevard, the City is currently studying the feasibility of modifying the current one-way traffic flows on NE 8th Avenue and NE 10th Avenue to two-way traffic flows and is coordinating with FDOT on the analysis and future roadway modifications.

T) COLLECTOR ROADWAYS

Several collector roadways are located within the City of Hallandale Beach. These facilities are maintained by Broward County, or the City of Hallandale Beach. The City of Hallandale Beach maintains all collector roadways with the exception of Dixie Highway which is maintained by Broward County. The City dentifies several additional collector roadways that are not identified on the Broward County Functional Roadway Classification map series or text but serve the City as major or minor collector roadway links from neighborhoods, or that provide current or future alternate roadway linkages between major roads. Since most of the major arterial roadways in the City are built at maximum design and future roadway widening of those roads cannot occur without extensive / costly right-of-way acquisition, the City relies on the secondary collector roadway system to move traffic through and within the City. The purpose of identifying the additional collector roads in the plan is to identify those collector roadways for right-of-way protection. Traffic count data is not monitored by Broward County on most City Collector roadways. Following is an analysis of those roads:

T) NW / SW 8th AVENUE

T) Facility Description

Discussion – NW/SW 8th Avenue is a north/south collector roadway located in the western portion of the City. This roadway begins at SW 11th Street (County Line Road) and travels north through the City terminating at Pembroke Road. The roadway is approximately 1.5 miles long and is constructed as a 2 lane undivided facility with approximately 50 feet of right-of-way. Concrete sidewalks are provided on both sides of approximately 70% of NW 8th Avenue (north of Hallandale Beach Boulevard) and on both side of 100% of SW 8th Avenue (south of Hallandale Beach Boulevard).

The pavement is in good condition. There are 2 traffic control signals located on the roadway located at the intersections of Pembroke Road and Hallandale Beach Boulevard, for an average of 1.3 signals per mile. There is clearly marked lane striping. In some locations (north of Hallandale Beach Boulevard) a small amount of parallel parking spaces are provided on the east side of the roadway. In addition, SW 8th Avenue provides access to Ingall's Park located immediately south of Hallandale Beach Boulevard east of SW 8th Avenue and schools. Residents using the park typically park vehicles in the grass area immediately adjacent to the park and back directly out onto the roadway. Adequate drainage exists on NW/SW 8th Avenue.

Traffic Signalization – exists at the following locations:

- Pembroke Road
- Hallandale Beach Boulevard

All signals are operated and maintained by Broward County.

Adjoining land uses/access – NW/SW 8th Avenue provide access to various low density multi-family developments as well as mobile home parks and some individual neighborhoods commercial type uses as well as a City park which abut the roadway. SW 8th Avenue has become a major route to Gulfstream Middle School. In some areas, particularly adjacent to the park and low density multi-family developments, off-street parking backs out directly onto the roadway. In addition, a small amount of parallel parking is provided on the east side of the roadway north of Hallandale Beach Boulevard.

T) Present Level of Service

~~Information relating traffic flow on SW 8th Avenue (south of Hallandale Beach Boulevard) has not provided or monitored by Broward County until just recently.~~ However, ~~Broward County did provide traffic count information for NW 8th Avenue (north of Hallandale Beach Boulevard).~~ According to current (~~2007~~ 2024) Broward County, the segment of SW 8th Avenue south of Hallandale Beach Boulevard is currently handling approximately ~~10,175~~ 13,200 TPD. According to Broward County, the segment of NW 8th Avenue between Hallandale Beach Boulevard and Pembroke Road is currently handling approximately ~~7,930~~ 8,400 TPD. The capacity of this roadway at LOS D is 10,000. This results in a V/C ratio of ~~1.02~~ .99 and ~~.79~~ .63 respectively. This V/C ratio results in a current operating LOS of ~~E and C~~ D for both segments. Field observation of SW 8th Avenue reveals that the roadway now appears to be functioning at an unacceptable level of service, especially during school operating periods.

PM Peak Hour Traffic (PMPH) – SW 8th Avenue south of Hallandale Beach Boulevard is currently (2007) handling 937 trips in the PM Peak Hour. NW 8th Avenue north of Hallandale Beach Boulevard is currently handling 754 trips in the PM Peak Hour. The established Level of Service (LOS) volume at LOS D is 950 trips in the PM Peak Hour. The current volume to capacity (V/C) ratios are .99 and .79 respectively. This results in a current operating LOS of E for the roadway segment south of HBB and LOS C north of HBB (See Table T-4).

T) Future Level of Service

Broward County year ~~2030~~ 2045 traffic projections now include projections for NW/SW 8th Avenue. By ~~2030~~ 2045 Broward County forecasts that traffic will increase on SW 8th Avenue to about ~~17,224~~ 14,658 TPD. By ~~2030~~ 2045 Broward County forecasts that traffic will increase on NW 8th Avenue to about ~~13,004~~ 9,328 TPD. Given the built out status of the area surrounding NW/SW 8th

Avenue and unless some intense redevelopment were to occur it is felt that traffic volumes will not increase significantly. The City estimates that the a more valid forecast would be about 12,620 TPD on SW 8th Avenue and 10,410 TPD on NW 8th Avenue. Given the current (2007) traffic volume on SW 8th Avenue and future projection on both roadway segments, the City / County should consider some improvements to handle the expected traffic increases and maintain LOS D.

d) Proposed Improvements

At this time there are no improvements to NW/SW 8th Avenue proposed to be completed between FY 2007-08 through 2011-12.

T) NE 14th AVENUE

T) Facility Description

Discussion – NE 14th Avenue is a north/south collector roadway located in the central/eastern portion of the City approximately one half mile east of Federal Highway (US 1). The portion of NE 14th Avenue located within the City begins approximately 1 block south of Hallandale Beach Boulevard and is approximately .8 miles in total length. The roadway is constructed as a 2 lane undivided facility with approximately 70 feet of right-of-way. Sidewalks are provided along approximately 80% of the western side of the roadway and only approximately 20% of the east side of the facility.

The pavement is in fair condition. There are a total of two (2) traffic signals located on this roadway at major intersections for an average of 2.5 signals per mile. There is clear lane striping along the entire length of the roadway. Adequate drainage exists on this roadway.

Traffic Signalization – exists at the following locations:

- NE 9th Street (Atlantic Shores Boulevard)
- Hallandale Beach Boulevard

All signals are operated and maintained by Broward County.

Adjoining land uses/access – Adjoining land uses are primarily high density multi-family and commercial. NE 14th Avenue provides access to arterial roadways for a large block of high density multi-family residential developments (approximately 10 stories) located on both the east and west sides of the roadway. In addition, NE 14th Avenue provides access to two (2) arterials (Hallandale Beach Boulevard and Pembroke Road), to the Diplomat Golf Course located generally on the southeast corner of Atlantic Shores Boulevard (NE 9th Street) and NE 14th Avenue.

T) Present Level of Service

According to Broward County the segment of NE 14th Avenue north of Hallandale Beach Boulevard is currently (~~2007~~ 2024) handling approximately ~~10,008~~ 9,000 TPD, ~~almost double since 1997~~. The capacity of the roadway at LOS D is 10,000 TPD. This results in a V/C of ~~1.00~~ .68. This results in a current operating LOS of ~~E~~ D.

PM Peak Hour Traffic (PMPH) – According to Broward County, the roadway segment north of Hallandale Beach Boulevard is currently (2007) handling 900 trips in the PM Peak Hour. The established Level of Service (LOS) volume at LOS D is 950 trips in the PM Peak Hour. The current volume to capacity (V/C) ratio is .95. This results in a current operating LOS of D for the roadway (See Table T-4).

T) Future Level of Service

Broward County year ~~2030~~ 2045 traffic projections estimate that NE 14th Avenue will increase

somewhat. Broward County estimates that in ~~2030~~ 2045 this roadway will handle approximately ~~12,839~~ 9,994 TPD. This estimate is felt to be somewhat high given the built out nature of the City and surrounding area; however, since the traffic volume has increased significantly since 1997 due in part to persons by-passing traffic congestion on Hallandale Beach Boulevard, it could be accurate. The capacity of the roadway at LOS D is anticipated to remain at 10,000 TPD. This results in a projected V/C ratio of ~~1.28~~ .75. This V/C results in a projected operating LOS of ~~F~~ D by ~~2030~~ 2045, requiring some form of mitigation.

D) Proposed Improvements

There are no proposed improvements to NE 14th Avenue currently scheduled between FY 2007-08 through 2011-12; however, due to the poor operating LOS, plans should be made to increase the capacity of the road.

T) THREE ISLANDS BOULEVARD

T) Facility Discussion

Discussion – Three Islands Boulevard is a north/south collector roadway located north of Hallandale Beach Boulevard and approximately one half mile west of Ocean Drive (SR A1A). The segment of Three Islands Boulevard located within the City of Hallandale Beach begins at Hallandale Beach Boulevard and traverses north into the City of Hollywood. The length of the segment of Three Islands Boulevard located in the City of Hallandale Beach is approximately .75 miles. The roadway is constructed as a 6 lane divided facility with 100 feet of right-of-way. Concrete sidewalks are provided on both side of the facility.

The pavement is in good condition. There are a total of 2 traffic signals on this roadway. In addition to traffic signalization there is a guard gate which stops vehicles traveling north located approximately ¼ mile north of Hallandale Beach Boulevard. Adequate drainage exists on this roadway.

Traffic Signalization – exists at the following locations:

- Hallandale Beach Boulevard
- Park View Drive

All signals are operated and maintained by Broward County.

Adjoining land uses/access – Adjoining land uses are primarily low density and high density multi-family residential uses. Three Islands Boulevard provides access to Hallandale Beach Boulevard for a large concentration of high rise (15-story) condominium developments as well as low density villa type multi-family developments, located on 3 islands completely surrounded by the Venetian, Desoto and Intracoastal Waterways. The roadway does not provide through traffic north of the Three Islands development for which it serves. There is clearly marked lane striping on the entire length of the roadway.

T) Present Level of Service

Broward County does not monitor the traffic counts on Three Islands Boulevard; therefore, no information relating to existing traffic levels and level of service was available at time of the original element in 1997. However, a count was taken in 1994 which revealed that the road was handling 11,298 TPD. Recently as part of a re-development application an updated traffic volume was taken that revealed the roadway is now handling about 14,500 TPD. The LOS D capacity of this road is 46,800 TPD. This results in a V/C ratio of .31. This results in an operating LOS (2007) of C (LOS A and B are not attainable). Field observation of this facility reveals that this roadway appears to operate at an acceptable level of service.

PM Peak Hour Traffic (PMPH) – Based on the above analysis, it is estimated the roadway is currently (2007) handling about 1,309 trips in the PM Peak Hour. The established Level of Service (LOS) volume at LOS D is 4,352 trips in the PM Peak Hour. The current volume to capacity (V/C) ratio is .30. This results in a current operating LOS of C for the roadway (See Table T-4).

T) Future Level of Service

Broward County's year 2030 traffic projections do not provide an estimated for the year 2015. However, City estimates are that Three Islands Boulevard will be handling approximately 17,980 TPD. The anticipated capacity of this roadway is 46,800 TPD. This results in a V/C ratio of .38. This results in a projected operating LOS of C (LOS A and B are not attainable) in the year 2015.

D) Proposed Improvements

There are no proposed improvements to Three Islands Boulevard scheduled between FY 2007-08 through 2011-12.

4) DIPLOMAT PARKWAY

T) Facility Description

Discussion – Diplomat Parkway is a north/south collector located approximately 1 mile east of US 1. The segment of Diplomat Parkway within the City of Hallandale Beach begins at Hallandale Beach Boulevard and continues to north to the City of Hollywood. The roadway is constructed as a 2 lane undivided facility with 60 feet of right-of-way. It's length within the City is approximately .75 miles long. Concrete sidewalks exist from Hallandale Beach Boulevard to the southern edge of the single family homes at Atlantic Shores Boulevard on the east and only from Hallandale Beach Boulevard to the golf course clubhouse on the west side.

The pavement of Diplomat Parkway was resurfaced in 2000-01. There are a total of 2 traffic signals located at major intersections on Diplomat Parkway. There is clearly marked lane striping the entire length of the roadway. Adequate drainage exists on this roadway.

Traffic Signalization – exists at the following locations.

- Hallandale Beach Boulevard
- Atlantic Shore Boulevard

All signals are operated and maintained by Broward County.

Adjoining land uses/access – Adjoining land uses are primarily multi-family residential uses along the eastern boundary of Diplomat Parkway, while the Diplomat Country Club (Private Golf Facility) is located on the west boundary of the roadway. Diplomat Parkway provides access from and to Hallandale Beach Boulevard as well as to the portion of the City of Hollywood located immediately north of the City of Hallandale Beach.

T) Present Level of Service

The roadway segment located in the City of Hallandale Beach, north of Hallandale Beach Boulevard is currently handling 3,347 9,800 TPD. The LOS D capacity of the roadway is 10,000 TPD. This results in a V/C ratio of .33 .74. This V/C ratio results in an LOS of C D (LOS A & B are un-attainable).

PM Peak Hour Traffic (PMPH) – The roadway is currently (2007) handling 366 trips in the PM Peak Hour. The established Level of Service (LOS) volume at LOS D is 950 trips in the PM Peak Hour. The current volume to capacity (V/C) ratio is .38. This results in a current operating LOS of C for the roadway (See Table T-4).

T) Future Level of Service

According to Broward County's year ~~2030~~ 2045 traffic projections, Diplomat Parkway will handle ~~4,230~~ 10,882 TPD. The anticipated LOS D capacity is 10,000 TPD. This results in a V/C ratio of ~~.42~~ .82. This results in a projected ~~2030~~ 2045 operating LOS of ~~C+~~ D.

T) Proposed Improvements

There are no improvements scheduled for Diplomat Parkway to be completed between FY 2007-08 through 2011-12.

5) NE 9th STREET (ATLANTIC SHORES BOULEVARD)

T) Facility Description

Discussion – NE 9th Street is an east-west collector located approximately 2 blocks south of the boundary of the City of Hollywood in the eastern portion of the City of Hallandale Beach. The roadway initiates at Federal Highway (US1) and travels eastward until terminating at Three Islands Boulevard. This roadway is also known as Atlantic Shores Boulevard and its length within the City is approximately 1 mile. The roadway is constructed as a 2 lane undivided facility between US 1 and Diplomat Parkway with 100' of right-of-way. The roadway becomes a 6 lane facility east of Diplomat Parkway. Concrete sidewalks are provided only on approximately 20% of the roadways.

The pavement is In good condition. There are a total of three (3) traffic signals located on the facility at the intersection of arterial or other collectors, for an average of 3 signals per mile. In addition to traffic signalization there are three (3) 4-way stop intersections located at NE 8th Avenue, NE 10th Avenue and NE 12th Avenue and a guard gate located east of Diplomat Parkway Drive Parkway which stops vehicles. There is clearly marked lane striping along the length of the roadway. Adequate drainage exists on this roadway.

Traffic signalization – exists at the following locations:

- Federal Highway
- NE 14th Avenue
- Diplomat Parkway

All traffic signals are operated and maintained by Broward County.

Adjoining land uses/access – Adjoining land uses are commercial recreation, commercial and low density multi-family residential. Atlantic Shores Boulevard provides access to the Mardi Gras Racetrack and Casino (former Hollywood Dog Track) for vehicles traveling from south of Pembroke Road. In addition, NE 9th Street provides access to NE 14th Avenue, US 1 and various strip commercial properties located at intersections and along US 1 for residents living in the Three Islands residential developments.

T) Present Level of Service

~~Broward County did not monitor the existing traffic volumes on NE 9th Street until just recently. However, a 1994 count was provided by Broward County. In 1994 NE 9th Street was handling approximately 9,037 TPD.~~ In ~~2007~~ 2024 Broward County notes that ~~9,285~~ 11,700 TPD used the roadway on a daily basis. The LOS D capacity of the roadway is 10,000 TPD. This results in a V/C ratio of ~~.93~~ .84. This V/C ratio results in an operating LOS of D. Observation of the facility reveals that NE 9th Street appears to be operating at an acceptable level of service; however, significant increases would negatively affect the roadway operations, as many multiple-family residential complexes have

direct back-out parking along the road, particularly near US 1.

PM Peak Hour Traffic (PMPH) – The current Broward County data noted the roadway was handling 840 trips in the PM Peak Hour. The established Level of Service (LOS) volume at LOS D is 950 trips in the PM Peak Hour. The current volume to capacity (V/C) ratio is .84. This results in a current operating LOS of C for the roadway (See Table T-4).

T) Future Level of Service

Broward County Year ~~2030~~ 2045 projections did not include an estimate of future traffic levels for NE 9th Street until just recently. However, it is anticipated that the only source of additional traffic for NE 9th Street will stem from the completion of the Three Islands Residential Development or "short-cut" traffic. It is felt that the completion of the Three Islands Development may cause the traffic on NE 9th Street to increase above the LOS D capacity of this facility. Therefore, the City should continue to monitor this roadway to address any future need for improvements. The current Broward County ~~2030~~ 2045 forecast indicates that traffic volumes will ~~decrease~~ increase to about ~~4,166~~ 12,992 TPD. This is highly unlikely as the traffic volumes have stayed fairly constant for many years. ~~The City believed a more valid 2030 forecast may be about 11,450 TPD~~

d) Proposed Improvements

There are no proposed improvements to NE 9th Street scheduled ~~to~~ between FY 2007-08 through 2011-12.

6) NW / NE 3rd STREET

T) Facility Description

Discussion – NW / NE 3rd Street is an east/west collector road which is located approximately 4 blocks north of Hallandale Beach Boulevard in the central portion of the City. NW / NE 3rd Street initiates at NW 6th Avenue in the northwestern portion of the City. The road then continues east until terminating at Federal Highway, in the eastern portion of the City, for a total of approximately 0.75 miles in length. The road is constructed as a 2 lane undivided facility with approximately 50 feet of right-of-way.

The pavement is in good condition. There are three (3) traffic signals located on the roadway and one (1) 4-way stop intersection. Concrete sidewalks are provided on some portions of the roadway; however they are not continuous. Adequate drainage exists on this roadway.

Traffic Signalization – exists at the following locations:

- Dixie Highway
- NE 1st Avenue
- US1

All traffic signals are operated and maintained by Broward County.

Adjoining land uses/access – Adjoining land uses are light industry, retail/warehouse, commercial and single family residential. NE 3rd Street provides access to various strip commercial and light industrial uses including retail/warehouses. In addition, this roadway provides access to Dixie Highway, NE 1st Avenue and US 1.

T) Present Level of Service

Broward County does not monitor the traffic levels on NW/NE 3rd Street; therefore, no information relating to the current traffic volume was available at the time the original element was prepared. During a recent review of a redevelopment project

located at the northwest corner of US 1 and NE 3rd Street, traffic counts were taken for that roadway segment. The data revealed that about 4,900 TPD use the road just west of US 1 and about 6,100 TPD just east of Dixie Highway. The roadway segment west of Dixie Highway has less traffic volume. The LOS D capacity of the roadway is 10,000 TPD. This results in V/C ratios of .49 at US 1 and .61 at Dixie Highway. This V/C ratio results in an operating LOS of C+ at both locations (per FDOT LOS A and B are not attainable).

PM Peak Hour Traffic (PMPH) – Based on the above 2007 Traffic Study it was noted the roadway was handling about 441 trips in the PM Peak Hour at US 1 and about 549 trips in the PM Peak Hour at Dixie Highway. The established Level of Service (LOS) volume at LOS D is 950 trips in the PM Peak Hour. The current volume to capacity (V/C) ratios are .46 and .58 respectively. This results in a current operating LOS of C+ for both reported roadway segments (See Table T-4).

T) Future Level of Service

Broward County's year 2015 traffic projections do not include a projection for NW/NE 3rd Street. However, given the developed status of the area surrounding NW / NE 3rd Street it is not felt that traffic levels will increase significantly. Based on the above 2007 Traffic Study it is projected that if the planned redevelopment occurs, by 2013 traffic volumes may increase to about 5,200 TPD at US 1 and about 6,500 TPD at Dixie Highway. By 2030 traffic volumes are expected to increase to about 6,050 TPD at US 1 and about 7,630 at Dixie Highway. The LOS would still be C+. It is anticipated that in 2030 NW / NE 3rd Street will continue to operate at an acceptable LOS.

D) Proposed Improvements

There are no proposed improvements to NW / NE 3rd Street scheduled to be constructed between 2007-08 through 2011-12 in the MPO 5-Year Plan; however, there is a planned reconstruction of the roadway segment west of US 1 to include a common center turning lane and a right turn lane at NE 1st Avenue that are necessary as part of the Park Central redevelopment project.

7) SW 11TH STREET (a.k.a. COUNTYLINE ROAD)

SW 11th Street (a.k.a. Holiday Drive/County Line Road) is an east/west 2-lane undivided roadway located in the southwest corner of the City between I-95 and Dixie Highway along the southern boundary of the City. SW 11th Street exists west of I-95 as "County Line Road" (SW 41st Street) in the Town of Pembroke Park, West Park and Miramar and continues west along the border between Miami-Dade and Broward County. In western portions of Broward County, County Line Road provides access between Broward County and Miami-Dade County and to I-95. However, in the City of Hallandale Beach, SW 11th Street does not provide access to Miami-Dade County. In fact, there is a concrete wall constructed along the south boundary on the majority of the roadway between the two Counties preventing access from Miami-Dade County.

Although the roadway is located within close proximity to I-95, in the City of Hallandale Beach, there is not direct access to or from I-95. Therefore, access to the roadway is restricted primarily to the properties abutting the facility and vehicles accessing the roadway from either Hallandale Beach Boulevard (via SW 11th Avenue) or from Dixie Highway. In previous years SW 11th Street was included on the Broward County Trafficways Plan as a 106' collector roadway in order to insure adequate right of way for a possible future connection between the western and eastern portions of County Line Road. However, a connection of SW 11th Street between the Town of Pembroke Park and Hallandale Beach was never constructed and the right of way was subsequently reduced from 106' to 80' within the City of Hallandale Beach. The existing platted properties provided between 25'-40' of right of way. Additional right of way of various width appears to exist in Miami-Dade County also.

Although the roadway is depicted on the Broward County Trafficways Plan, Broward County does not place a Functional Classification on the roadway nor does Broward County monitor traffic levels on the facility. This roadway functions primarily as a local collector to provide access for residents immediately abutting the facility to Dixie Highway and Hallandale Beach Boulevard via SW 11th Avenue.

Information relating to the current traffic volume on SW 11th Street was unavailable as traffic volumes on SW 11th Street are not monitored by Broward County. Field observation of the roadway reveals that the roadway has low volumes and appears to have sufficient capacity to accommodate the current traffic volumes at LOS A. Given the built-out nature of the properties located along the roadway it is not anticipated that traffic volumes will increase significantly during the planned period. Therefore it is anticipated that SW 11th Street will continue to provide an acceptable level of service throughout the planning period. The roadway corridor could, in the future and if found feasible, provide an alternate route as a collector or minor arterial roadway to move traffic from the US 1 / Dixie Highway area westerly connecting to the west side of I-95 with or without a connection to I-95.

8) FEDERAL HIGHWAY / DIXIE HIGHWAY & NE 1ST AVENUE CONNECTORS (SE 3rd STREET / SE 5th STREET / SE 7th STREET / SE 9th STREET)

In the area west of Federal Highway (US 1), east of the Dixie Highway / NE 1st Avenue, south of Hallandale Beach Boulevard and north of the Broward / Miami-Dade County Line are several east / west roadways that link Federal Highway to the Dixie Highway / NE 1st Avenue corridor. This area has been in a state of redevelopment for many years and currently includes more intensive uses along the Federal Highway corridor such as the City's Municipal Center, a US Post Office, hotels and restaurants, but also includes a few older Mobile Home / RV Parks. Future redevelopment plans already approved or anticipated along the corridor include high-rise mixed-use developments with offices, hotels, retail and ancillary uses. West of the Federal Highway frontage uses and extending westerly to the Dixie Highway / NE 1st Avenue corridor is an area that includes some older developments including Mobile Home / RV Parks, single-family homes and various multi-family developments with mostly low intensity commercial uses along NE 1st Avenue. Commonly motorists use the above listed east / west roadways in this area to travel between Federal Highway and the Dixie Highway / NE 1st Avenue corridor to avoid the traffic congestion. Many of the original platted roadways in this area were either narrow 40-50-foot wide right-of-ways or "half" streets meaning one adjoining owner dedicated "half" of the overall right-of-way while the other half would be dedicated by the other adjoining when the land was developed or redeveloped. The City has been able to obtain additional right-of-way in some instances as redevelopment occurs. Subsequently, in many instances the actual roadway pavement on these roads was built within the available right-of-way and is not in compliance with modern day standards. The current use of the above listed roadways by motorists causes occasional conflicts due to the narrow right-of-way and pavement width and with the some of the older land uses.

As redevelopment continues to occur in this area, including the Gulfstream Park Racetrack and Casino, the Village at Gulfstream Park DRI mixed-use and the higher intensity redevelopment projects on the west side of Federal Highway mentioned above, traffic is anticipated to increase on those roadways. It is anticipated that some or all of the listed roadways may need to be rebuilt to minor collector road designs that exceed a typical local road right-of-way width (50'). Therefore, the City designates the above listed roadways as City Collector roads and will require a sixty (60) foot right-of-way to handle the necessary through lanes, turn lanes, drainage and pedestrian walkways, particularly near intersections. The roadways expected to receive the most traffic increases are SE 3rd Street and SE 9th Street, as these roadways intersect with signalized entry points to the Gulfstream Park site.

Since Broward County does not monitor traffic volumes on any of these roadways, traffic volume data was

obtained from traffic studies submitted by developers as part of their site plan reviews. Data is not available for all roadway segments. However, the available data reveals that existing traffic volumes are quite low. The traffic volume noted recently on SE 9th Street west of US 1 was about 800 TPD. The traffic volume noted recently on SE 8th Street west of US 1 was about 300 TPD. The capacity of a 2-lane local road is roughly 10,000 TPD or 950 trips in the Peak Hour. Future traffic volume projections calculated during the Village at Gulfstream Park DRI review noted traffic volumes may increase to about 3,500-4,000 TPD on both of those road segments, still below the capacity of a 2-lane road. However, as mentioned previously there is a need to obtain additional right-of-way to reconstruct the road pavement to modern standards, add turn lanes and install stormwater management facilities, as this area experiences occasional flooding.

9) FOSTER ROAD

Foster Road is a 2-lane City Collector roadway located in the northwest area of the City. The road extends westerly from Dixie Highway to NW 4th Avenue and then turns northwesterly terminating at NW 11th Avenue near the intersection of I-95 and Pembroke Road. The area surrounding the roadway is mostly single-family residential with a few commercial uses. The City's future redevelopment plans for the area call for mixed-use along the roadway corridor. Adequate right-of-way currently exists.

Since Broward County does not monitor traffic volumes on this roadway, traffic volume data is not available. Field observations reveal traffic volumes are quite low with no capacity problems. The roadway could accommodate additional traffic and still operate at a high LOS.

10) HIBISCUS STREET (SE 2ND STREET)

The western portion of Hibiscus Street / SE 2nd Street currently functions as a local road / driveway into the Gulfstream Promenade Shopping Center located at the southeast corner of Federal Highway and Hallandale Beach Boulevard. A 40-foot wide right-of-way exists in that area. Between NE 10th Avenue and NE 14th Avenue additional portions of right-of-way exist (25-feet+/-) which was intended for an east / west alley system behind the commercial businesses that front Hallandale Beach Boulevard in that area. This roadway corridor is being considered for an alternative east / west collector roadway paralleling Hallandale Beach Boulevard that could provide an alternative route for motorists to travel around the central business district and reduce traffic congestion on the major arterial roadways. The corridor is proposed from Federal Highway to NE 14th Avenue. The largest obstacle in implementing the construction of a road within this corridor is right-of-way acquisition as both plats and site plans have been approved by the City without obtaining additional right-of-way. A portion of the corridor is within the Gulfstream Park property and physical improvements exist that prohibit a through roadway. The existing roadway is currently built as a 2-lane section. Very little traffic now uses the road. If the significant approved redevelopment occurs, the need to acquire right-of-way and construct a road may occur.

ANALYSIS OF AVERAGE DAILY AND PEAK HOUR TRIPS

The data provided in this element was obtained from Broward County, developer Traffic Studies and/or FDOT. The City's 1995 EAR included the 1994 AADT data provided by the consultant that prepared the City's EAR. 1997 AADT data was obtained which was published in March 1998 and was incorporated into Broward County's Transportation Element, adopted in November of 1998. Forecasts for the Year 2015 were obtained from Broward County. Data for the City's 2006 EAR and subsequent 2008 plan update was obtained again from Broward County as well as developer Traffic Studies. Future traffic projections were obtained from the Broward County MPO and/or calculated by the City's consultants based on available data and local knowledge.

The City of Hallandale Beach is a community through which much traffic passes, primarily to coastal areas, regional

attractions (Gulfstream Race Track / Casino and Mardi Gras Racetrack and Casino (former Hollywood Dog Track) and to I-95. In addition, Hallandale Beach experiences through traffic stemming from vehicles traveling between Miami-Dade and Broward County. Although I-95 exists to the west of the City, many commuters utilize Dixie Highway, NE/SE 1st Avenue and US 1 to travel between the two (2) Counties and utilize Hallandale Beach Boulevard and Pembroke Road to access I-95.

The City of Hallandale Beach is subject to fluctuating traffic flows throughout the year. This seasonal variation, as referenced elsewhere in this element, is attributable to residents, visitors, and tourists who visit the City of Hallandale Beach during the months of November through April. Seasonal traffic flows on Hallandale Beach Boulevard have been noted in the past to increase as much as thirty (30) percent during peak winter months as compared with off-season flows (See Tables T-3, T-5a, T-5b and T-5c).

In addition, the City is subject to seasonal event-induced traffic flows that result from people attending activities of the Gulfstream Race Track and Casino and the Mardi Gras Racetrack and Casino (former Hollywood Greyhound Track) as discussed later in this element. Such seasonal increases result in longer delays at traffic signals, greater difficulty in entering and leaving driveways, slower speeds and increased hazards to pedestrian and vehicular traffic. Minor occurrences such as vehicles entering or leaving driveways, lane changing, pedestrian jaywalking, buses stopping and starting to on-load or off-load passengers, typically go un-noticed during off-season periods, but readily are the cause of traffic delays resulting from the breakdown in the flow of traffic during peak season months.

Any discussion of traffic flows much include the fact that Broward County created Transportation Concurrency Exception Areas (TCEA) which included all lands east of the Turnpike from the Miami-Dade County line to Commercial Boulevard and east of I-95 from Commercial Boulevard to the Palm Beach County line. This occurred in 1993. The purpose was to encourage urban infill and redevelopment. Because many roadways in eastern Broward County have high traffic volumes, new development had been essentially stopped. With the adoption of the concurrency exception area, new development was exempt from roadway concurrency review, but Transit Impact Fees are required by the County if platting is necessary. In April 2005 Broward County switched to a Transit-Oriented Concurrency (TOC) system that divided the county geographically into ten (10) benefit districts. The City is within the Southeast District. A list of transit improvements and their estimated costs were developed for each district. Impact fees are established for each land use type per district. Credits may be received for existing and planned improvements. Since many of the county roads have high traffic volumes and poor operating LOS, and many roads cannot be widened any further, the county, while not totally ignoring poor roadway LOS, chose to focus on transit-related improvements as the county changes from a suburban to more urban form. The county examines all development and re-development applications and assesses impact fees that focus only on transit improvements. Roadway impacts and improvements are still analyzed, made and funded as needed, but developer impact fees only relate to transit. In June 2008 Broward County adopted plan amendments as part of the County's last EAR that was challenged by DCA / FDOT / SFRPC. A Stipulated Settlement Agreement was created with remedial plan text / GOPs. The County renamed the Transit-Oriented Concurrency (TOC) system as the Transit Concurrency Management Areas (TCMA) system and adopted supplemental GOPs to provide revised performance standards for mass transit, adopted LOS standards for Strategic Intermodal System (SIS) Facilities and Transportation Regional Incentive Program (TRIP) Funded Facilities, new Policies on Pedestrian and Bikeway Facilities and new Policies on coordinating transportation plans and programs. This includes coordination mechanisms between the County, FDOT and the municipalities on some development reviews below DRI thresholds that may affect SIS Facilities.

Most of Hallandale Beach Boulevard and US 1 are and will continue to operate at unacceptable LOS in the future with a few exceptions. The State and County have the ability to establish concurrency management systems on the roads they have jurisdiction over; however, the City can set its own concurrency system for local roads. The City has no choice but to use the Broward County Transit Concurrency

Management Areas (TCMA) system for arterial roadways and County Collectors and realizes certain benefits to doing so as the City ages and re-development is desired. If a major roadway LOS is exceeded, development can proceed if impact fees are paid and mitigation is done. Despite the emphasis on transit, the reality is that less than 3% of all commuters use some form of transit, even with recent higher fuel costs. Modeling by Broward County showed significant negative impacts on roadway conditions if density is increased in hopes that more commuters may use transit; therefore, Broward County has focused this higher density development philosophy only along specific roadway corridors. While it may be acceptable to expect traffic delays in urbanized areas below normal LOS conditions, people still need to travel with as little delay as possible. It is really a matter of "how bad can people tolerate traffic congestion".

In addition to the Broward County concurrency system, the City adopted an "Urban Infill" designation for the entire City. Similar to the former Broward County TCEA, the City is free to approve development regardless of traffic congestion, but requires some form of mitigation deemed acceptable to the City. Typically, a Developer Agreement is required that lists the required City mitigation. Because Broward County is charged with overseeing arterial roadways and certain major County Collector roads and the fact that mass transit serves only a small percentage of commuter, the City will still use the standard roadway concurrency system for local roadways and City Collectors, as transit services do not typically use local streets and homeowners are sensitive to traffic volumes and speeding. This will not preclude the City from requiring mitigation for county / state roads, if deemed appropriate, including improvements necessary for safe and adequate access to a site(s) or to improve general transportation operations that will serve a development. The City recognizes the benefits of a TCMA concurrency system may have on the City in the future. However, the City will continue to monitor traffic volumes and development impacts as well. The City is consider traffic calming improvements and programs, provided the improvement(s) analyzes local conditions, requires community input and majority consent prior to any devices being installed such as speed humps, pavement narrowing, round-a-bouts, etc.

Broward County's 1989 Comprehensive Plan contained baseline existing traffic counts for 1987 and forecasts for 1994 and 2010. Later Broward County forecasts were for 2015, 2020, 2025 and most recently 2030. Forecasted traffic flows are based on computer modeling assuming maximum land use intensities for all land uses and using major traffic generators and attractors as "gravity" to influence traffic patterns. The Broward County Transportation Element adopted in November 1998 contained 1997 actual traffic-counts and forecasts for 2015. The latest actual and forecast update is related to the 2005 Broward County EAR and provides forecasts to the year 2030. The County does not update future forecasts frequently because of the expense involved and they acknowledge some forecasts 23 years in the future may not be realistic.

The City has analyzed the existing 2007 traffic counts, inventory of vacant lands and Broward County forecasted volumes, primarily for 2030 and created updated short term forecasts (2013). There is one (1) existing roadway segment (NE 9th Street / Atlantic Shores) where the 2007 traffic counts are higher (9,285 TPD) than are forecasted for 2030 by Broward County (4,166 TPD), despite the fact traffic volumes have been fairly steady on that road for many years. Some Broward County forecasts show huge increases on certain roads by 2030 (i.e. 75% increase on Dixie Highway / 25-50% on several more), despite the fact the City is 92% built-out, as are the communities around the City. The new Casino operations and re-development of those sites will have major impacts on the City and regional roadway network. The City will monitor the annual traffic volumes in the future and make necessary adjustments to transportation facilities.

EBA Editing Note: Existing Table T-5 entitled Historical and Forecasted Counts prepared in 1997 will be deleted in its entirety, as the data and analysis is out of date. See new Tables T-5a (AADT) and T-5b (PM Peak Hour).

TABLE T-5A
HISTORICAL AND FORECASTED TRAFFIC COUNTS
AVERAGE ANNUAL DAILY TRAFFIC (AADT)

	Segment	Actual 1987	Actual 1997	Actual ~~2007~~ 2024	City Est. 2013	BC Est. ~~2030~~ 2045	City Est. 2030
North South Roadways							
I-95 (SIS)	N of Dade CL	125,000	205,051	~~232,000~~ 209,000	252,500	~~348,281~~ 232,078	295,300*
	N of HBB	136,200	224,233	~~240,760~~ 259,168	250,676	~~337,574~~ 259,168	293,320*
Dixie Highway	N of Dade CL	8,000	5,310	~~5,777~~ 6,700	6,057	~~25,097~~ 7,400	7,090*
(One Way SB)	S of HBB	9,000	10,300	~~4,840~~ N/A	5,130	N/A	6,000*
	N of HBB	N/A	N/A	~~6,204~~ 6,600	6,576	~~17,743~~ 7,329	7,700*
NE/SE 1 Avenue	S of HBB	N/A	4,700	~~4,235~~ 6,400	4,489	~~N/A~~ 7,107	5,250*
(One Way NB)	S of Pembroke Rd	N/A	N/A	~~4,280~~ 3,200	4,537	~~N/A~~ 3,553	5,300*
Federal Highway	N of Dade CL	29,100	40,936	~~54,000~~ 51,000	61,800	~~69,470~~ 56,631	69,470
	S of Pembroke Rd	27,800	30,283	~~36,500~~ 35,000	40,220	~~45,841~~ 38,865	45,841
S. Ocean Drive	N of Dade CL	19,100	26,447	~~28,000~~ 30,000	28,900	~~47,893~~ 33,313	33,810*
	~~S~~ N of HBB	N/A	29,000	~~31,000~~ 37,500	32,200	~~N/A~~ 41,641	37,670*
SW 8 Avenue	S of HBB	N/A	N/A	~~10,175~~ 13,200	10,785	~~17,224~~ 14,658	12,620*
NW 8 Avenue	N of HBB	N/A	6,300	~~7,930~~ 8,400	8,900	~~13,004~~ 9,328	10,410*
NE 14 Avenue	N of HBB	N/A	5,364	~~10,008~~ 9,000	11,000	~~12,839~~ 9,994	12,839
Three Islands Blvd.	N of HBB	N/A	N/A	14,500	15,370	N/A	17,980*
Diplomat Pkwy.	N of HBB	N/A	2,342	~~3,347~~ 9,800	3,950	~~4,230~~ 10,882	4,230
East/West Roadways							
Pembroke Road	E of I-95	24,000	28,003	~~38,000~~ 36,500	44,000	~~49,642~~ 40,530	49,642
	W of US 1	N/A	21,600	~~24,500~~ 23,500	26,240	~~N/A~~ 26,095	30,700*
	E of US 1	N/A	N/A	~~6,719~~ 10,300	7,648	~~9,351~~ 11,437	9,351
Hallandale Beach Blvd. (HBB)	E of I-95	39,800	38,252	~~64,000~~ 57,390	65,850	~~69,242~~ 63,727	69,242
	W of US 1	N/A	38,300	~~40,500~~ 52,000	41,820	~~N/A~~ 57,742	45,560*
	E of US 1	32,100	45,918	~~39,500~~ 42,500	43,600	~~51,027~~ 47,193	51,027
	E of ICWW Bridge	N/A	30,040	~~31,000~~ 39,500	31,600	~~37,916~~ 43,862	37,916
NE 9 Street / Atlantic Shores	E of US 1	N/A	N/A	~~9,285~~ 11,700	9,842	~~4,166~~ 12,992	11,450*
NW / NE 3 Street	W of US 1	N/A	N/A	~~4,900~~	5,200	~~N/A~~	6,050*
	E of Dixie Hwy	N/A	N/A	~~6,100~~	6,500	~~N/A~~	7,630*

Source: Broward County Metropolitan Planning Organization Roadway Capacity / LOS Report 9/06
Broward County Annual Traffic Count Reports
Michael Miller Planning Associates, Inc. 7/08

*Notes: An asterisk * means the City disagrees with the current Broward County 2030Forecast or represents an estimate not provided by the Broward County Metropolitan Planning Organization.*

TABLE T-5B
HISTORICAL AND FORECASTED TRAFFIC COUNTS
PM PEAK HOUR (PMPH)

	Segment	Actual 1987	Actual 1997	Actual ~~2007~~ 2024	City Est. 2013	BC Est. ~~2030~~ 2045	City Est. 2030
North South Roadways							
I-95 (SIS)	N of Dade CL	11,625	19,070	19,720	23,482	32,390	27,463*
	N of HBB	12,667	20,854	20,460	23,313	31,394	27,279*
Dixie Highway	N of Dade CL	744	494	575	563	2,334	659*
(One Way SB)	S of HBB	837	958	440	477	N/A	558*
	N of HBB	N/A	N/A	560	611	1,650	716*
NE/SE 1 Avenue	S of HBB	N/A	437	539	417	N/A	488*
(One Way NB)	S of Pembroke Rd	N/A	N/A	551	422	N/A	493*
Federal Highway	N of Dade CL	2,706	3,807	4,860	5,747	6,461	6,461
	S of Pembroke Rd	2,585	2,816	3,290	3,740	4,263	4,263
S. Ocean Drive	N of Dade CL	1,776	2,460	2,520	2,688	4,454	3,144*
	S of HBB	N/A	2,697	2,790	2,995	N/A	3,503*
SW 8 Avenue	S of HBB	N/A	N/A	937	1,003	1,602	1,174*
NW 8 Avenue	N of HBB	N/A	586	754	828	1,209	968*
NE 14 Avenue	N of HBB	N/A	499	900	1,023	1,194	1,194
Three Islands Blvd.	N of HBB	N/A	N/A	1,309	1,429	N/A	1,672*
Diplomat Pkwy.	N of HBB	N/A	218	366	367	393	393
East/West Roadways							
Pembroke Road	E of I-95	2,232	2,604	3,420	409	4,617	4,617
	W of US 1	N/A	2,009	2,210	2,440	N/A	2,855*
	E of US 1	N/A	N/A	625	711	870	870
Hallandale Beach Blvd. (HBB)	E of I-95	3,701	3,557	6,040	6,124	6,439	6,439
	W of US 1	N/A	3,562	3,650	3,889	N/A	4,237*
	E of US 1	2,985	4,270	3,560	4,055	4,745	4,745
	E of ICWW Bridge	N/A	2,794	2,790	2,939	3,526	3,526
NE 9 Street / Atlantic Shores	E of US 1	N/A	N/A	840	915	387	1,065*
NW / NE 3 Street	W of US 1	N/A	N/A	441	484	N/A	563*
	E of Dixie Hwy	N/A	N/A	549	604	N/A	710*

Source: Broward County Metropolitan Planning Organization Roadway Capacity / LOS Report 9/06
Broward County Annual Traffic Count Reports; Michael Miller Planning Associates, Inc. 7/08

*Notes: An asterisk * means the City disagrees with the current Broward County 2030Forecast or represents an estimate not provided by the Broward County Metropolitan Planning Organization.*

Absent of actual PMPH traffic counts a Peak Hour factor of .093 was utilized.

TABLE T-5C
HISTORICAL TRAFFIC TRENDS (AADT)

Roadway	Sta .#	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007
I-95											
N of Dade CL	2487	153.8	186.1	190.0	201.0	220.0	212.0	220.0	225.0	238.0	232.0
N of HBB	331	175.1	205.6	228.5	232.5	233.2	239.4	243.3	252.0	241.1	240.7
Dixie Hwy											
N of Dade CL	7001	7.7	6.1	4.7	4.6	5.7	5.9	5.4	5.7	6.3	5.8
S of HBB	7719	5.4	5.2	4.1	4.7	4.6	4.4	4.8	5.4	5.7	4.8
N of HBB	9635	NL	NL	NL	4.9	4.4	5.2	5.3	6.0	5.5	6.2
NE/SE 1 Ave											
S of HBB	7037	4.7	4.0	4.9	4.6	4.3	4.3	4.8	3.1	4.4	4.2
S of Pem. Rd	9634	NL	NL	NL	3.7	3.7	4.2	4.9	3.9	4.3	4.3
Federal Hwy / US 1											
N of Dade CL	268	32.7	40.1	44.5	47.0	50.0	45.0	48.0	52.5	48.5	54.0
S of Pem. Rd	5028	27.6	32.1	31.0	35.0	34.5	33.0	35.5	35.5	38.0	36.5
S. Ocean Dr											
N of Dade CL	421	19.0	19.8	26.0	24.0	25.0	23.0	25.0	24.0	25.5	28.0
S of HBB	5044	26.1	26.6	29.0	29.0	30.0	26.0	26.5	28.5	32.0	31.0
SW 8 Ave											
S of HBB	9633	NL	NL	NL	6.6	7.5	9.9	8.9	8.8	7.4	10.2
NW 8 Ave											
N of HBB	7312	6.2	6.6	6.1	6.4	7.2	6.5	7.4	7.4	7.6	7.9
NE 14 Ave											
N of HBB	7309	8.8	8.0	8.0	7.8	8.1	6.6	7.8	6.6	7.3	10.0
Diplomat Pkwy											
N of HBB	9630	NL	NL	NL	4.0	4.2	3.9	4.0	3.9	3.8	3.3
Pembroke Rd											
E of I-95	5181	31.2	29.2	37.5	37.0	39.0	42.0	44.5	40.0	42.0	38.0
W of US 1	5093	14.2	18.2	22.5	22.5	24.5	26.5	25.0	24.0	24.0	24.5
E of US 1	9631	NL	NL	NL	6.7	6.2	4.5	6.7	6.7	6.4	6.7
Hall. Bch. Blvd											
E of I-95	150	43.2	53.9	62.8	60.9	61.3	61.9	61.4	60.8	63.0	64.0
W of US 1	590	31.3	38.2	40.5	40.5	43.0	40.0	40.5	38.0	44.0	40.5
E of US 1	5029	42.4	45.7	46.0	44.5	48.0	48.5	49.5	47.0	45.5	39.5
W of ICCW	349	22.5	27.8	30.5	35.5	35.5	34.0	33.5	35.5	30.5	31.0
NE 9th St. / Atl. Shores											
E of US 1	9757	NL	NL	NL	NL	NL	NL	9.6	8.5	8.8	9.3

Source: Broward County Metropolitan Planning Organization
Broward County Annual Traffic Count Reports
MMPA, July 2008

As may be observed from the above data, the results of forecasted versus actual traffic counts varied widely. The Broward County forecasts are performed via computer modeling. The assumptions of growth areas intensities and travel patterns are best guesses. The computer model utilizes link analysis, travel distance and attractor/generator variables. As actual growth has occurred in Broward County and the City, more specific data has become available and travel patterns have become more visible. The City's roadway pattern is virtually complete. Development opportunities that remain can best be described as infill. Given these facts, future projections can be more accurately made at this time compared to estimates made in 1987 or 1997. Of the 12 monitored stations, only 1 of the 1994 forecasted traffic projections was within 10% of the 1994 actual traffic flows. Only 3 locations noted lower than anticipated traffic volumes. These were on Dixie Highway (46% less north of Miami-Dade County, 13% less north of Hallandale Beach Boulevard) and Ocean Drive (31% less).

A comparison of estimated 1994 volumes with 1997 actual counts provides a greater number of projections which were lower than anticipated. These were Dixie Highway (57% less north of the Miami-Dade County line and 23% less, north of Hallandale Beach Boulevard, Ocean Drive (11% less) and Hallandale Beach Boulevard east of I-95 (84% less). Note: the disparity between the 1994 projected traffic levels has increased from 1994 to 1997. In 1994 actual flows on Dixie Highway were only 46% and 13% less than an anticipated, while in 1997, flows on Dixie Highway were 57% and 23% less than as anticipated thus, indication that actual traffic volumes are increasing at a much slower rate than as anticipated by Broward County.

Traffic volumes on I-95 north of Miami-Dade County line were 43% higher than as projected by forecast for 1994, 43% higher north of Hallandale Beach Boulevard, an average of 23% higher on Federal Highway, 14% higher on Pembroke Road and 39% higher on Hallandale Beach Boulevard east of US1.

The estimated 1994 versus actual 1997 traffic volumes for Ocean Drive were the most accurate except for the location immediately south of Hallandale Beach Boulevard which was forecasted 11% higher than actually occurred. It is unknown why that location projected a higher forecast than the other location on the roadway which projected within 5% of actual 1997 volumes.

Examining the 1987, 1997 and 2007 actual traffic volumes and historical traffic volumes (1990, 1995, 2000 and 2001-07), one can observe trends for the City. Other than expected traffic increases on the City's major arterial roads (US 1 / I-95 / Hallandale Beach Boulevard / Pembroke Road), traffic volumes have remained fairly constant over the years. Somewhat surprisingly, the traffic volumes on Hallandale Beach Boulevard except near I-95 have remained fairly constant since 1995, despite redevelopment of lands in and around the City. Traffic volumes have increased the most on US 1 from the county line to Hallandale Beach Boulevard due primarily to the buildup of the City of Aventura and the congestion on Ives Dairy Road, on Pembroke Road east of I-95 and on Hallandale Beach Boulevard east of I-95. Also, traffic volumes have increased to unacceptable LOS on NE 14th Avenue north of Hallandale Beach Boulevard because of "short-cut" traffic and on SW 8th Avenue south of Hallandale Beach Boulevard due to new / renovated schools in that area.

Future traffic projections may be less certain due to the slowing real estate market and the price of fuel. The year 2007 noted a decrease in traffic volumes on several roadways noted to always increase annually. The City and adjoining cities have approved many new redevelopment projects, many of which may never be built due to the real estate market decline since 2006. Broward County's forecasts for the year 2030 must be reviewed cautiously, as they forecast growth based on the theory that every parcel of land will be developed or redeveloped at its maximum intensity. It may not be reasonable to expect that the traffic on I-95 will increase by 100,000 vehicles per day by 2030, twice the theoretical capacity of the road, or that the traffic volume on Dixie Highway near the Miami-Dade boundary will triple from 5,777 TPD to over 25,000 TPD when traffic has decreased on that road for many years. Broward County does not have a short-range (5-year) traffic forecast at this time which would be more accurate. Therefore, the City is providing its own forecasts for 2013 (5-year) and 2030 (long range) for planning purposes.



The City of Hallandale Beach, because of its geographic location, demographics and occupancy characteristics and design experiences fluctuation in traffic levels relating to significant peak hour characteristics. As may be expected, most peak season fluctuation is during the winter months and is attributable to a seasonal influx of visitors in the coastal areas of Broward and Miami-Dade County. The majority of peak hour traffic is in the PM hours (4-6 PM) and related to work trips stemming from commuters utilizing Hallandale Beach Boulevard and Pembroke Road to access I-95 as well as US 1 and Dixie Highway.

As mentioned previously, the Broward County forecasts for ~~2030~~ 2045 appear high for several roadways. After years of steady growth, traffic volumes decreased in Broward County by about 1% overall in 2007, with some roadways experiencing much more. It appears that the rise in fuel prices (over $4.00 per gallon) and the general economic conditions is having some effect on motorists. There is little vacant land remaining in eastern Broward County. Therefore, development which is anticipated to occur is primarily redevelopment of existing heavily developed areas. Broward County has projected that traffic volumes on segments of Federal Highway, Ocean Drive, NW/ SW 8th Avenue, NE 14th Avenue, Pembroke Road and Hallandale Beach Boulevard will increase between 20% and 42% by the year 2030. In order to achieve the anticipated growth traffic volumes on these segments, traffic volumes would have to increase at a rate of 3-6% every year through 2030. Additionally, Broward County has projected that traffic volumes on Dixie Highway will increase by 65% (north) and 77% (south) by 2030. In order to reach these levels traffic would have to increase by an average of 3 to 3.5% each year. The assumption that traffic will continue increasing at those annual rates is felt to be questionable in light of existing development status of the City and surrounding communities. Some estimates are felt to be too low given existing traffic volumes, particularly on NE 9th Street / Atlantic Shores Boulevard, as the existing traffic volume is about 9,200 TPD; however, the county's 2030 estimate is 4,166 TPD.

Mass Transit (bus) occupancy levels are generally higher on average than in other areas of the County. The peak occupancy occurred during A.M. peak periods. Normal occupancy levels are monitored by Broward County Transit by route. Occupancy rates in 1997 ranged from 37% on Route 1, 33% on Route 5, 22% on Route 6, 25% on Route 9 and 28% on Route 28. Broward County has deleted Route 9 and added Route 4 and the US 1 Breeze in recent years. More recent data as to occupancy is not available from Broward County. The county now monitors route ridership on an annual basis. BCT data from 2005 noted that ridership in the previous year for Route 1 had increased 4.8%, for Route 5 had increased 11.1%, for Route 6 had increased 0.4% and for Route 28 had increased 4.5%. Route-by-route boardings and alightings were previously discussed. Route 1 and Route 28 have much higher ridership characteristics (almost double) than the other routes that serve the City.

ANALYSIS OF MODAL SPLIT AND VEHICLE OCCUPANCY RATES

Data sources with reliable estimates are difficult to obtain. For planning purposes ~~it is~~ Broward County in 1997 estimated that occupancy rates for vehicles average approximately 1.56 persons per vehicle. This data is verified in a May 1995 study prepared for Broward County MPO which noted the occupancy as the County average. The 2000 US Census revealed that the average number of persons per vehicle in Hallandale Beach was only 1.08. Because of the relatively lower income levels within the City and surrounding areas, a higher proportion of public transit use is thought to occur. A visual inspection of bus occupancy noted higher occupancy rates that some other communities with lower median incomes. The current modal split noted in the 1998 Broward County Transportation Element is 1.15% utilizing mass transit. The 2000 US Census revealed that the percentage of person using mass transit service was 4.1%. In 1990, the US Census reported that the vast majority (80%) of Hallandale households own at least one automobile. In 2000, the US Census reported that 81% of households owned at least one vehicle. Of the total 59% of the households owned one vehicle, 18% owned 2 vehicles, 3% owned 3 vehicles and 1% owned 4 or more vehicles. Of the 3,744 households (20% of total) that did not own at least one automobile, 80% (2,939) were households over 65 years of age in 1997. No updated data was available in 2000 but is believed to be similar. According to the 2000 US Census, 88.2% of workers drove to work and 76.6% drove alone. About 11.6% carpooled

and 3.2% walked or rode a bicycle to work. About 3.2% of workers reported they worked at home. The mean travel time to a place of employment was 27.8 minutes. This high of a number reveals that most employment opportunities appear to be some distance away from Hallandale Beach in one of the larger cities such as Miami or Fort Lauderdale.

ANALYSIS OF EXISTING PUBLIC TRANSIT FACILITIES

The City is currently served by either (8) bus routes, provided by Broward and Miami-Dade County and three (3) local routes provided by the City of Hallandale Beach. The City is felt to be well served by the bus routes which are available to the residents geographically. In nearly all instances, pedestrian walkways allow easy travel to bus routes/stops. The Tri-Rail system is not easily accessible to City residents. Major roadways must be traveled to reach the nearest station located at I-95 and Hollywood Boulevard. The Broward County Transit Division maintains detailed records on ridership by route, peak hour capacities and headways.

As stated previously, Broward County Transit does not report daily load factors anymore. However, Broward County reported that of the 6 routes that serve the City, only Route 28 from US 1 to the Florida Turnpike experienced a load factor over 1 (all bus seats occupied). Newer buses now (2007) are able to seat only 40-42 passengers. As stated previously, according to Broward County, Route 1 is the second most used bus route in the county with about 450,000 annual riders. The US 1 Breeze route is a new route and data is not yet available. Route 5 has experienced a steady increase with about 97,000 riders per year. Route 6 has experienced little growth averaging about 100,000 riders per year. Route 28 has experienced steady growth with about 190,000 riders per year. The average number of daily boardings in the City was 2,043 and the number of alightings was 2,190 in the 4th quarter of 2007. Following is a route-by-route summary of boardings and alightings as provided by Broward County Transit staff during the 4th quarter of 2007. Route 1 had 650 boardings and 635 alightings. Route 4 had 300 boardings and 291 alightings. Route 5 had 99 boardings and 283 alightings. Route 6 had 225 boardings and 231 alightings. Route 28 had 769 boardings and 750 alightings.

At the time of this report ridership information relating to Miami-Dade County bus routes was unavailable. The City will seek to coordinate with Miami-Dade County in order to identify methods to continue to enhance mass transit service provided in the City of Hallandale Beach.

Research of the ridership records for the City's local transit system revealed that in FY 2007-08 Route #1 averaged 5,620 total riders per month, Route #2 averaged 4,353 riders per month and Route #3 averaged approximately 3,105 riders per month for a total of 13,078 total persons per month. Ridership on the City's minibus system has increased 70% per month in the last 10-year period. Route #1 exhibits a marked increase in usage during the winter seasonal months while Routes #2 and #3 exhibit fairly constant monthly usage. The City continuously monitors ridership and utilization of the local transit system and will continue to evaluate methods to increase and/or enhance service provided to City residents.

POPULATION CHARACTERISTICS INCLUDING TRANSPORTATION DISADVANTAGE

The City of Hallandale Beach can best be described as generally mature. As of ~~February 2008~~ 2023, the Area Median Income (AMI) for Broward County was ~~$59,600~~ $74,531; whereas the AMI for Hallandale Beach was ~~$34,800~~ $48,518. The median age of a City resident declined from ~~64.0 in 1990 to~~ 52.7 years old in 2000 to 46.3 in 2023, as compared to ~~37.8~~ 41.5 for Broward County as a whole and ~~35.3~~ 39.2 in the entire United States. A more detailed breakdown is as follows:

TABLE T-6
CITY OF HALLANDALE BEACH
ANALYSIS OF RESIDENTS AGES

Age Group	Quantity	Percent
Under 18	~~4,534~~ 6,587	~~15.2%~~ 15.9%
18 - 64	~~17,486~~ 24,591	~~49%~~ 59.7%
65 and Over	~~12,262~~ 10,039	~~35.8%~~ 24.4%
Total	~~34,282~~ 41,217	100%

Source: ~~2000~~ 2020 U.S. Census

Household occupancy is estimated at ~~1.88~~ 2.11 persons per household according to the ~~2000~~ 2020 U.S. Census. Out of a total ~~18,178~~ 19,512 total households ~~8,158~~ 7,510 households or ~~45%~~ 38% were one person households. ~~5,084~~ 4,172 or ~~62%~~ 56% of the one person households were occupied by a female. ~~9,029~~ 7,761 total households (~~50~~ 40%) had at least one person over 65 years of age.

An exact number of persons needing transportation assistance is difficult to determine. The vast majority of residents are mobile and can either walk or drive for services. Broward County contracts with private providers for services also. Service for qualified elderly and handicapped persons within Hallandale remains on a prearranged "as needed" basis. All Broward County buses are equipped to be wheelchair accessible routes.

CHARACTERISTICS OF MAJOR TRIP GENERATORS AND ATTRACTORS

As described in previous sections, the City has identified five (5) land uses/areas which it considers major trip generators and attractors. These include highway commercial uses fronting on major arterial roadways, primarily Hallandale Beach Boulevard, major multi-family housing concentrations located in the Diplomat/Three Islands Planning District and the Golden Isles/A1A Planning District, the City's Financial District and two (2) regional attractors for commercial recreation, the Mardi Gras Racetrack and Casino (former Hollywood Dog Track) and Gulfstream Park Racetrack and Casino and new Village at Gulfstream Park DRI mixed-use development.

A. Highway Commercial Uses – The City's major commercial area is located between I-95 and SR A1A, primarily along Hallandale Beach Boulevard with the most intense area being located between NE 14th Avenue and SR A1A. This area contains the City's "Central Business District", the Diplomat Shopping Mall, the Hallandale Shopping Center and Seawalk Pointe Shopping Center. Connected to the central spine (Hallandale Beach Boulevard) are two (2) north/south extensions on Dixie Highway and Federal Highway from the Miami-Dade County line to Pembroke Road. There are other strips/nodes of commercial uses along the western portions of Hallandale Beach Boulevard, Pembroke Road and Foster Road.

Roughly 117 (41%) acres of the City's total 283 developed acres of commercial land are located in the core area along Hallandale Beach Boulevard east of NE 14th Avenue. Due to the intensity of commercial development in this location many of the developments are designed with master parking areas with access points only at street crossings or mid-block. Generally, these parking areas are well lit, and provide landscaping and parking spaces, both in front of the buildings and to the rear. However, there are several developments with curb cuts not at street openings and several which are lacking in comparable landscaping.

This central business district provides a mixed variety of strip type retail establishments and restaurants, intermixed with large scale retail and grocery stores with several multistory office buildings. Major retail development in this area includes the Diplomat Mall which contains 315,000 square feet of commercial space, and the Seawalk Pointe Shopping Center contains 168, 224 square feet of commercial space.

Based upon an Institute of Transportation Engineers (ITE/Sixth Edition) estimated trip generation rate of 40.4 trips per day per 1,000 square feet of commercial space, it is estimated that two (2) shopping centers attract an estimated 19,522 trips per day. Inter-mixed with the various strip commercial uses and major retail developments in this area is City's Central Business District. The City's Central Business District is home to many professional offices, financial institutions and multi-story office buildings. The City's Central Business District is located along Hallandale Beach Boulevard east of Federal Highway and west of the Intracoastal Waterway. This segment of Hallandale Beach Boulevard with its adjacent uses functions as the commercial core of the City and it is well served by the existing public transit system.

The uses along Dixie Highway and Federal Highway, are generally more heavily commercial in nature (uses including vehicle repair shops) and are not as intensely

developed as the City's commercial core. The majority of developments in these areas are small individual establishments. At the intersection of Hallandale Beach Boulevard and I-95, there are more intensive commercial uses including a Winn-Dixie grocery store, however, these uses are not felt to be as intense as the used located east of NE 14th Avenue. The existing public transit system provides service to nearly all major roadways, therefore the most part all Highway Commercial Uses are well served by public transportation facilities.

B. Multi Family Concentrations – In 2000, the resident population was 8,143 per square mile as compared to the Florida average of 296 persons per square mile. These numbers are based on gross City acreage as opposed to net residential acreage density. These types of densities are considered favorable for higher transit use. The western half of the City (west of NE 14th Avenue) is generally low density single family and multifamily dwellings with density up to 14 units per acre (2 story) while the area east of NE 14th Avenue has significantly more intensive multi-family concentrations.

The area north of Hallandale Beach Boulevard and east of NE 14th Avenue is the Diplomat/Three Islands planning area which consists of approximately 4,929 units. The area south of Hallandale Beach Boulevard east of NE 14th Avenue is the Golden Isles/A1A planning area which consists of 8,448 units. There are approximately 13,377 multi-family dwelling units between these two areas in 2008. The highest densities are along SR A1A, Diplomat Parkway, Three Islands Boulevard and NE 14th Avenue with the most dense development along the beach areas. According to the 2000 US Census approximately 28% of total units in the City of Hallandale Beach were held for seasonal use only. Therefore, utilizing an average household size of 1.88 persons per unit (2000 US Census) and applying 28% seasonal vacancy rate, it has been estimated that the eastern areas in Hallandale (Diplomat/Three Islands and Golden Isles/SR A1A planning areas) are home to more than 18,108 persons (permanent residents).

Based upon an estimated ITE trip generation rate of 3.7 trips per day high-rise multi-family unit, it is estimated that the eastern area in Hallandale could potentially generate approximately 49,495 trips per day. However, given the high seasonal vacancy rates and large number of households owning no vehicles as reported by the 2000 US Census, it is felt that the actual traffic generated by these areas is significantly less than as previously estimated.

Sunny Isles Beach and Golden Beach in Miami-Dade County are developed almost exclusively for residential uses. Therefore, beach residents must travel across the Intracoastal Waterway for shopping, medical care, employment and most other purposes. Given the limited crossings of the Intracoastal Waterway, residents in Sunny Isles Beach, South Hollywood and the City of Hallandale Beach typically utilized Hallandale Beach Boulevard to gain access to land uses west of the Intracoastal Waterway which results in occasional congestion occurring at the intersection Hallandale Beach Boulevard and SR A1A. However, the redeveloped 6-lane Intracoastal Waterway Bridge and SR A1A / Hallandale Beach Boulevard intersection modifications have solved a majority of the previous congestion. The City remains concerned with some of the anticipated traffic impacts from proposed redevelopment activity in the City of Hollywood just north of Hallandale Beach Boulevard, especially the parcel of land immediately adjacent to the City's Fire Station. The City's existing public transit system provides adequate service to both planning districts.

C. Central Business District – As referenced previously the City of Hallandale Beach is home to a mixture of financial institutions and professionals offices, primarily located along Hallandale Beach Boulevard between US 1 and the Intracoastal Waterway. Designated as the City's "Central Business District", this area consists of intense financial commerce and professional office space. In the past few years the City has been requested to approve a number of high intensity mixed-use developments in this area. Due to the 2006-08 real estate market constriction, it is doubtful if all or even a few developments will proceed. Information relating to the total square footage contained within the financial districts was unavailable at time of this report and would be difficult to estimate due to the uncertainty of redevelopment.

D. Mardi Gras Racetrack and Casino (former Hollywood Dog Track) – The Mardi Gras Racetrack and Casino is a greyhound racing facility encompassing approximately 38 acres. Casino operations began in 2006 with 1,500 slot machines. This facility has a regional attraction from Miami-Dade, Broward and Palm Beach Counties. Based upon an ITE trip generation rate of approximately 43 trips per acre per day, it is estimated that the Mardi Gras complex generates approximately 1,634 trips per day when in operation.

E. Gulfstream Park Racetrack / Casino / Village at Gulfstream Park DRI Mixed-Use – The site includes a horse racing facility, a casino facility with about 1,500 slot machines as well as a recently approved mixed-use development encompassing approximately 200 acres. The facility has a regional attraction from Miami-Dade, Broward and Palm Beach Counties. Based upon an ITE trip generation rate of approximately 43 trips per acre per day, it is estimated that Gulfstream Race Track generates approximately 8,600 trips per day when in operation at maximum use. The Village at Gulfstream Park DRI approved in 2007 is being constructed on a portion of the site and will include at build-out up to 1,500 DU, 750,000 square feet of commercial, 140,000 square feet of office, a 2,500 seat Movie Theater and a 500 room hotel. At build-out the development could generate over 20,000 trips per day (1,800 PMPH trips).

ANALYSIS OF AVAILABILITY OF TRANSPORTATION FACILITIES AND SERVICES TO SERVE EXISTING LAND USES

All areas of the City are currently served by existing roadways. No additional major roadways will be necessary to serve the community at build-out; however, some roadway improvements (widening / turn lanes) and/or alternative routes (Hibiscus Street / County Line Road / other) may be needed. The largest problem is the capacity and current/future traffic volumes of only a few of the existing roadways. The City is located at the edge of the southeast Florida Metropolitan area. The existing major roadways have been widened for the most part to their maximum lane expansions. Therefore, in order to address the roadway segments which are currently operating below adopted LOS levels, the City will need to coordinate with Broward County and FDOT to identify and implement solutions to existing capacity problems other than widening. The City is preparing a Citywide Transportation Master Plan in hopes of seeking solutions.

As mentioned earlier, Tri-Rail is available but not conductive to use because the transit station is some distance away from the residential areas of the City.

Bus service is felt to be readily available to all residents of the City. The major provider of service is the Broward County Mass Transit Division, which operates the countywide bus system. The county also contracts with private vendors for public school busing, handicapped and Social Service Transportation (SST). Miami-Dade County Transit also provides limited bus service to the City. In addition to the services provided by the County, the City provides an effective minibus system which provides additional convenient services to City residents. Other service providers include private taxi service companies and the Greyhound/Trailways Bus Company.

Broward County as a whole is characterized by a suburban land development pattern and consequently by relatively low residential land use densities and few activity focal points. There are a few major corridors with significant transit trip origins and destinations. Given the multitude of local governments in Broward County, dense roadway network, an average vehicle occupancy ratio of 1.08 and a relatively affluent population, the transit modal split is only 1.1 percent of total daily trips in Broward County but 4.1% in the City. As reported previously, the 2000 US Census reported that 88.2% of workers drive to work with 76.6% driving alone.

Although a majority of the transit service within the City is provided by BCT and Tri-Rail, the City plays an important role in transit planning. The City's primary role in transit planning is to enhance the service provided by BCT to provide additional convenient service and access to City residents for local destinations through the minibus system. In addition another important role that the City performs is to monitor County actions and provide for local input where necessary to insure the maximum benefit and consideration of the City's needs.

The County's Mass Transit operation is primarily a large passenger bus system operating on the existing highway network. There about 40 BCT routes in 2007. The average seating capacity of Broward County Transit buses is 40 persons. Considering the capacity of the fleet and the provision of either 20, 30, 60 minute headways for all of the routes, the overall capacity of the system far exceeds the level of existing ridership. Even with ample transit system capacity and existing congested roadways in the region, the vast majority of the local population still prefers the automobile as a means of transportation. Transit planning activities are carried out by the Broward County Office of Transportation. The transit planning and operation staff monitors ridership and periodically alters routes and operations. The County staff is also charged with preparing the County's Transit Development Program which summarizes future capital and operations improvements.

BCT is a fixed-route, fixed-schedule bus system operated by the Broward County Office of Transportation with the main hub operating from Downtown Fort Lauderdale. BCT operates 7 days a week with maximum service provided on weekdays. Weekday service hours generally run from 5:00 A.M. to 10:30 P.M., with most routes operating on half hour headways. Saturday service operates almost the same as weekday service hours, with all routes in operation and some minor changes in headways and service hours. On Sunday a reduced route schedule is available between 9:00 A.M. to 8:00 P.M. with all routes operating on one hour headways.

The County's main bus maintenance facility and the Broward County Division of Mass Transit main office are located in the City of Pompano Beach on Copans Road just east of the Florida Turnpike.

The BCT charges low fares for riders. Reduced fares for senior (65 years old plus) and handicapped citizens are available. Monthly unlimited use passes are also available. The weekly pass is targeted mostly for tourists and is sold at many hotels and motels.

BCT interfaces with the Miami-Dade and Palm Beach County transit systems to provide tri-county service. Miami-Dade County's METROBUS links with BCT at locations in south Broward County (Diplomat Mall) and the Aventura Mall in North Miami-Dade County. BCT also connects with the Palm Beach County Palm Tran system at the Boca Town Center Mall and at Mizner Park. Finally, the County's Tri-Rail stations are served by nine (9) BCT routes.

Paratransit Service is a specialized transportation system provided for the County's elderly and for person with physical, cognitive or visual disabilities who are functionally unable to use the County's fixed Route bus system. Services are available to qualified persons after an assessment is made of each case.

The school bus system serves the public schools in Hallandale Beach and is provided by a private company contracted by the Broward County School Board. The system provides free service to all students enrolled at public schools who live more than two miles from their respective school, or who otherwise lack safe accessways to a less distant facility.

Regional, statewide and interstate travel is provided by the Greyhound/Trailways Bus Line. They provide fixed service seven days a week as well as specialized services.

The adopted level of service set by Broward County states that at least 70% of all residences and employment locations have access to fixed route transit service during the peak hour.

System capacity is analyzed by service frequency, or headway and the seating capacity of the vehicles in relation to ridership.

The existing level of service, according to Broward County, is above the seventy (70) percent coverage rate countywide (78+). Hallandale Beach is within the County's southeast sector where there is a high percent population coverage and high percent employment location coverage by fixes transit service.

Evaluation of service area coverage is based on how well a system services the general population, special transit captive groups and the accessibility of service between these

groups and major work, shopping, medical and recreational facilities within the community. Mass transit ridership is significantly influenced by auto ownership. Zero or single auto households are in greater need of transit service than other households. Automobile ownership is generally characterized by relatively few automobiles per household. In addition, senior citizens are also more apt to utilize public transportation. An identification of these target groups and areas were made to identify existing service needs.

Demographic data provided in the 2000 U.S. Census was analyzed to identify the City's level of transit dependency as compared to Broward County's based upon areas of low income, concentrations of senior citizens and concentrations of persons whose means of transportation to work is by bus.

According to the 2000 Census, Hallandale Beach had a median household income of $28,266. This figure is approximately 32% lower than the median household income for Broward County as a whole ($41,691). The United States median household income was $41,994 according to the 2000 US Census.

The Table below indicates that ~~48%~~ 50% of total households were occupied by at least one person 65 year or older. In addition, the percentage of households with no vehicles available is 18.9%. The presence of such a great number of elderly households and a large number of households with no vehicles available indicates a substantial demand for public transportation in the City of Hallandale

CITY OF HALLANDALE BEACH TRANSIT DEPENDENCY DEMOGRAPHICS

Age: % Under 15	Age: % Over 65	% Using Public Transportation	Median Income
5.9	35.8	4.1	$28,266

Source: 2000 US Census

The most recent Broward County Transit Plan includes a Transit Propensity map that indicates the entire City land area is within the "high" category.

TRI-RAIL

Tri-Rail is a sixty-seven (67) mile at-grade commuter rail line serving Palm Beach, Broward and Miami-Dade Counties. Tri-Rail service connects to Metrorail in Miami-Dade County at the Tri-Rail/Metrorail Station and to Miami International Airport (MIA) via a shuttle bus service provided at the last stop. Tri-Rail currently operates thirty fifty (50) weekday trains, twenty (20) Saturday trains and ten (10) Sunday trains. Operations begin at 4:45 A.M. and end at midnight. During peak periods trains run every twenty (20) minutes, otherwise trains run every thirty (30) minutes.

Tri-Rail has been working on a three (3) phase improvement program. Double tracking within the rail corridor was included in the first phase of improvement. Future improvements include extending Tri-Rail further south to connect to the MIA and replacing the signaling system. Tri-Rail is also in the process of upgrading its stations to include more amenities and landscaping. Miami-Dade County however, is considering funding cuts arguing that Miami-Dade County residents do not benefit significantly from Tri-Rail service. This funding issue has generated some controversies and questioned Tri-Rail's service, performance and future presence.

HIGH SPEED RAIL

The Governor of Florida has discontinued the concept of High Speed Rail project in the State at this time.

ANALYSIS OF THE ADEQUACY OF THE EXISTING AND PROPOSED TRANSPORTATION SYSTEM TO EVACUATE THE COASTAL POPULATION PRIOR TO AN IMPENDING NATURAL DISASTER

According to the Broward County Hurricane Evacuation Plan prepared by the Division of Emergency Preparedness, approximately 50% of the City of Hallandale Beach is identified for evacuation should a hurricane occur. According to Broward County's Emergency Management Agency, individual Cities are not specifically designated to utilize individual hurricane shelters. Therefore, residents from Hallandale Beach would be welcome to travel to any shelter in Broward County or Miami-Dade County.

The closest designated shelter to the City is now (2008) Watkins Elementary School located at 3520 SW 52nd Avenue in the Town of Pembroke Park about 1.5 miles west of I-95. The shelters are opened, supplied and operated by the Red Cross which coordinates with the local school administration and Broward County. Figures T.8 and T.18 depicts the specified evacuation routes to the shelters. In general, within 12 hours of an anticipated storms landfall or coastal impact, evacuation notice is given to residents. The primary evacuation routes for residents would be along Hallandale Beach Boulevard and Hollywood Boulevard for residents east of the Intracoastal Waterway and Pembroke Road and Hallandale Beach Boulevard for residents west of the Intracoastal Waterway. In addition, I-95, the Florida Turnpike or other north/south roadways could be utilized to evacuate from the region. Based on the above analysis, the transportation system is deemed adequate for evacuation should the need arise.

BCt continues to provide service to the Coastal High Hazard Area. BCt buses, augmented by other vehicles if necessary, are prepositioned at designated pick-up points to provide transportation to refuge locations for those individuals who have not been able to make other arrangements. Approximately 175 BCt buses have been committed to participate in the evacuation of transit dependent individuals. Due to mobile home trailer park resident's and owners' land of response to surveys that identify emergency transportation needs, the Mass Transit Division maintains 10 vehicles on standby status ready to respond, as needed, to trailer parks.

Transportation for people with special needs is coordination through Broward County's Emergency Welfare Services, the Mass Transit Para-transit Service, and its designated contractor. One of the major responsibilities of the Para-transit Service Section is to notify and mobilize all assigned staff personnel necessary to implement the Emergency Action Plan for evacuation outlined in the Emergency Transportation Plan.

Before the start of each hurricane season, the Broward County Mass Transit Division reviews its Hurricane Evacuation Plan for currency and continued effectiveness. Mission for such plan is to assure a safe and orderly evacuation of transit dependant residents, or visitors to a designated hurricane refuge prior to the landfill of hurricanes.

ANALYSIS OF GROWTH TRENDS, TRAVEL PATTERNS, INTERACTIONS BETWEEN LAND USE AND TRANSPORTATION FACILITIES AND COMPATIBILITY BETWEEN FUTURE LAND USES AND TRANSPORTATION ELEMENTS

The City of Hallandale Beach's growth trend can be best described as "meteoric" particularly in the 1960's and 1970's. The growth rate during this period was one of the highest in the State of Florida. In the 1980-1990 period growth slowed with build-out rapidly approaching. The City's 1996 Evaluation and Appraisal Report stated that the City was 92% developed as of August 1995. In fact, during the period between 1990 and 1995 the City's net total number of housing units as reported in the City's 1996 EAR actually decreased from 24,595 to 23,664 or by approximately 4%. Further evidence of the City's slow growth is exhibited by the fact that during the period between 1987 and 1995 the City developed an average of approximately 4 acres of commercial land and 0 acres of industrial land per year. Most of the commercial growth has been infill development along Hallandale Beach Boulevard and Pembroke Road. During the period between 1990 and 1995 the City averaged 18 new single family and 62 multi-family units per year. The vast majority of recent residential development has been in northeastern Hallandale in the Three Islands area.

However, according to the 2000 US Census, between 1990 and 2000 a total of 23 Mobile Homes, 44 single-family homes and 576 multiple-family homes were added. Since 2000, it is estimated that about 2,200 new residential units, almost all multiple-family units, have been constructed in the City. In addition, another 2,500+/- dwelling units have been approved but not built as yet. As to nonresidential uses, about 1.4 million square feet of commercial use, 410,000 square feet of office use, 750 hotel rooms and other uses have been approved. Finally, gambling casinos opened at both the Gulfstream Park and Mardi Gras Gaming complexes including about 3,000 slot machines. Due to the recent real estate market correction (2005-08) it is unknown if all of the approved development will proceed. The Village

at Gulfstream Park DRI which includes an Urban Main Street design concept, is now under construction with about 400,000 square feet of commercial use. In adjoining communities (Hollywood / Aventura / Pembroke Park) a great deal of new development has also occurred. The City's 2006 EAR reported that the City was about 97% built-out at that time.

An important issue to address when analyzing the compatibility of the existing transportation system with the existing land uses and travel patterns are the barriers to travel associated with the geographic and geo political location of the City of Hallandale Beach, the location of existing intermodal facilities and natural features of the City (existing rail lines and Intracoastal Waterway) and the location of major land uses present within the City.

Predominantly the main obstacle presented by the barriers to travel are the obstruction of direct flows and requirement for traffic to travel along circuitous routes causing increased travel distances and congestion. Some of the barrier crossings are interruptible. When there is a train on either the FEC or South Florida Rail Corridor Railroads, the gates may be closed for several minutes during which no traffic may pass. When the Intracoastal Waterway Bridge is raised to permit water traffic to pass land traffic must be halted.

The Intracoastal Waterway has only one crossing in the City of Hallandale Beach (Hallandale Beach Boulevard). The next crossing to the north is 1.8 miles away at Hollywood Boulevard. The next crossing to the south is at the William Lehman Causeway (192nd Street) in Miami-Dade County, a distance of 2.3 miles away. Thus, the heavily developed beach areas in Hollywood, Hallandale Beach, and North Miami-Dade County have access across the Intracoastal Waterway at only three (3) locations within a distance of 4.1 miles. A 1995 comparison of traffic crossing these facilities was performed during preparation of the City's 1996 Evaluation and Appraisal Report. In 1995 the Hallandale Beach Boulevard Bridge carried approximately 27,000 vehicles on an average day, while the Hollywood Boulevard Bridge carried approximately 14,100 and the Lehman Causeway carried an average of approximately 20,100 vehicles in 1995. Therefore, the Hallandale Beach Boulevard Bridge carried nearly half of the traffic crossing the Intracoastal Waterway within a distance of 4.1 miles. In 2007 about 31,000 vehicles per day cross the Intracoastal Waterway on Hallandale Beach Boulevard, 13,000 vehicles per day cross the Intracoastal Waterway on Hollywood Boulevard and about 36,000 vehicles per day cross the Intracoastal Waterway on the William Lehmann Boulevard. The high traffic growth in north Miami-Dade County is due to the redevelopment in the new City of Sunny Isles Beach and new development in the City of Aventura. However, both Hallandale Beach Boulevard and the William Lehmann Causeway are 6-lane facilities that can handle 49,200 TPD.

The Florida East Coast Railroad (FEC) is also a barrier to east-west travel. There are five (5) crossings of the FEC Railroad in the City of Hallandale Beach and relatively few crossings elsewhere in South Hollywood or North Miami-Dade County.

Dixie Highway and NE/SE 1st Avenue are one-way streets in the City of Hallandale Beach, as well as a few others. Although one-way streets typically increase highway capacities, they tend to increase "around the block" traffic as well. This results in complaints by local residents of speeding and truck traffic on local streets. This problem can be minimized by providing cross streets which intersect the one-way pair at frequent intervals. In Hallandale Beach the presence of the FEC Railroad restricts the development of effective cross streets.

I-95 is a conduit for travel in the north-south direction, but there are few ways to get across I-95 in the east-west direction. All of the I-95 crossroads are at grade separated interchanges. Thus, all east-west traffic must mix with I-95 interchange traffic in order to cross I-95. There are no intermediate crossings of I-95 between Johnson Street in Hollywood and NW 143 Street in Miami, a distance of 10 miles. This problem adds to the already overburdened traffic flow on Hallandale Beach Boulevard stemming from residents living in Hollywood and North Miami-Dade County utilizing Hallandale Beach Boulevard and Pembroke Road to gain access to land uses west of I-95.

The South Florida Railroad Corridor (former CSX) is also a barrier to east-west traffic with crossings spaced at the same locations as I-95.

Travel barriers also impede traffic on local streets. For example, the area fed by Layne Boulevard is surrounded by water on three (3) sides plus the Miami-Dade County line to the south and Gulfstream Park to the west. This area of mixed single and multifamily residential plus retail uses must depend on Hallandale Beach Boulevard for all it's access. Similarly the area fed by Golden Isles Drive has access to only Hallandale Beach Boulevard.

North-south travel across the Miami-Dade County Line also experiences a barrier to travel stemming from the fact that there are no roadways which cross the Miami-Dade County Line located between US 1 and SR A1A. Therefore all traffic in eastern Hallandale Beach and northeastern Miami-Dade County rely on US 1 and SR A1A for north-south travel between the two (2) counties.

The effects of the numerous barriers to travel as presented above have the cumulative impact of causing congestion and inadequate access which leads to circuity of travel which typically results in traffic seeking to cross a barrier to travel utilizing Hallandale Beach Boulevard for access which leads to additional congestion on the roadway.

This element is felt to be consistent and compatible with the Future Land Use Element and other Transportation related planning documents including the Broward County Transportation Element, the Broward County Land Use Plan, the Long Range Transportation Plan, the Year 2030 Cost Feasible Plan (CFP), the Florida Department of Transportation's Adopted Work Program, the Transportation Improvement Program (TIP), the Tri-County Rail Transit Development Plan and the Broward County Bicycle Facilities Network Plan.

ANALYSIS OF EXISTING AND PROJECTED INTERMODAL DEFICIENCIES AND NEEDS

There are no identifiable deficiencies for Intermodal facilities noted within the City. City residents are anticipated to continue the use of automobiles for primary travel purposes as is common in Broward County where 98.9% automobile use is the current modal split. As reported earlier, 4.1% of Hallandale Beach residents use mass transit, much higher than the county as a whole. Access to the Tri-Rail system is available but not convenient to City residents.

ANALYSIS OF THE PROJECTED TRANSPORTATION LEVEL OF SERVICE AND SYSTEM NEEDS

The City is approximately 97% built-out in 2008. There is approximately 74 acres of vacant land as of 2007. However, the City has also been experiencing a phenomenon where already developed "under-developed" lands are being redeveloped with newer much more intensive LDR allowances. Mixed-use developments are more common which have more internal capture characteristics; therefore, typical traffic generation calculations are difficult to measure. Following is an estimate of future additional traffic that could be added based on vacant lands, Flex Zone allowances and standard land use calculations, as there is no reasonable method to predict the amount, internalization or timing of redevelopment. The maximum number of additional dwelling units that could be constructed is about 1,000; however, Broward County allows for density increases above the limits in certain circumstances (affordable housing bonus / RAC / LAC / other Complan changes) and in one instance (Posner Tract) a court order allows up to 1,500 DU versus 320 as per the FLUM. Certain assumptions were made for typical plot coverage. ITE generation rates were utilized to examine probable traffic generations rates by use. Broward County maintains a countywide computer modeling program which monitors existing traffic and future estimates. The City provides annual updates on new physical development and development approvals. Therefore, the following is a worst case scenario based on vacant land only (not redevelopment).

A. Residential
Single Family = 150 (units) @ 10 TPD = 1,500 TPD
Multifamily = 850 (units) @ 5 TPD = 4,250 TPD
B. Commercial
33.46 AC (remaining vacant) @ 25% coverage 364,379 sq. ft.
364,379 sq. ft. @ 51 TPD per 1000 sq. ft. = 18,583 TPD
C. Industrial
5 AC @ 40% coverage = 87,120 sq. ft.
87,120 sq. ft. @ 5.4 TPD per 1000 sq. ft. = 470 TPD
Total = 24,803 potential tpd

The previous analysis identified some capacity problems to accommodate the future growth. Some roadway segments theoretically would need to be widened but most of the roadways with the capacity problems are built as maximum cross sections. Widening would be very expensive in many instances, not possible in others and could cause more harm to adjoining land uses.

The 1998 Broward County Transportation Element contained a detailed analysis on the current and future public transit network needs. This analysis was performed by taking the future bus route system and superimposing it over a database associated with the 2015 TAZ Map. The results of this analysis show that the future public transit network would meet the adopted transit level of service standard; however, implementation of the plan was deemed unfeasible by Broward County.

Additionally, some needs for the year 2015 were identified and are as follows:

- Estimated fleet size: 700 buses (including 20% space)
- System highlights: Regional Park and Ride network, local routes including existing and new as proposed in Transit Development Plan, plus additional new local routes conceptually consistent with the 2010 Regular Transit Network, with 7.5 minute headway service on most routes.
- Established Daily Ridership: 448,000 boardings and 230,600 local bus trips.

In 1998 when Broward County and its municipalities prepared their initial Transportation Elements, the state required modeling of different development intensity scenarios to determine if increased residential density would result in increases in mass transit ridership. Broward County developed a modeling program and analyzed several different scenarios. The result was that while increases in ridership, would occur, the resultant increase in vehicular trips would overwhelm the regions roadway system; therefore, no wholesale density increases were considered. However, the county selected several roadway corridors for further study and possible localized actions.

As of 2007 BCT operated 275 buses; therefore, the likelihood of meeting the modeled future public transit need (700 buses) would be cost prohibitive and the resultant vehicular impact on roadways would be devastating.

There are portions of missing bikeway/sidewalk segments that could eventually complete a more comprehensive citywide system. For the past several years, the City, through implementation of the adopted Community Redevelopment Plan and Community Development Block Grant Program has been actively constructing missing segments of sidewalk in order to provide a more complete system throughout the City. The City anticipates continued implementation of these worthwhile programs to provide for the continued construction of sidewalks throughout the planning period. The County's element identifies future bikeways on Hallandale Beach Boulevard, Pembroke Road, NE 14th Avenue and SW 8th Avenue by 2015.

As mentioned previously, no airport or seaport facilities are located within the City, therefore integration and coordination analysis is not applicable. The two (2) railway corridors have existed for many years and other than maintenance and ~~lane~~ widening on the Tri-Rail route, no expansion is warranted.

ANALYSIS OF PROJECTS PLANNED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION'S ADOPTED WORK PROGRAM, METROPOLITAN PLANNING ORGANIZATION AND LOCAL TRANSPORTATION AUTHORITY

Previous discussion on each major roadway contained a description of proposed improvements which is summarized below:

Roadway / Location	Improvement	Anticipated Year(s)
Hallandale Beach Boulevard* (I-95 to Dixie Hwy – City portion)	Resurfacing / Medians / Landscaping	FY 2006-09 $4,440,000
Citywide Local Roads	Resurfacing	FY 2007-11 $1,100,000 (07-08 = $350K yr) (08-11 = $250K yr)
Citywide Stormwater	Stormwater Improvements	FY 2007-11 $300,000 (07-08 = $150K) (08-09 = $100K) (09-11 = $50K yr)
SR A1A / Ocean Drive (Miami-Dade CL to into City of Hollywood)	Resurfacing	FY 2009 - 10 $1,930,000
Three Islands Blvd*	Landscaping	FY 2007 – 08 $80,000
Federal Hwy / US 1* (Miami-Dade CL to HBB)_	Resurfacing / Landscaping	FY 2007 - 08 $80,000
Citywide Bus Shelters (10 shelters)	Bus Shelters / Landscaping ($150K / $150K)	FY 2008 - 09 $300,000
SR A1A / Ocean Drive	Sidewalk	FY 2009 - 10 $200,000
Citywide Sidewalks / Drainage / LS)	Sidewalks / Drainage / LS (CDBG)	FY 2007 - 08 $300,000 per yr

** Currently under construction*

Source: MPO 5-Year Project Funding Listing FY 2007-08 to 2011-12

ANALYSIS OF MAINTENANCE OF ADOPTED LEVEL OF SERVICE (LOS) STANDARDS

Broward County and the FDOT have adopted LOS D for all arterial and collector roadways under their jurisdiction. The City of Hallandale Beach has adopted LOS D for all City collector and local roadways. Existing AADT volumes are generally within acceptable LOS limitation except for I-95 (not within City Limits), Federal Highway south of Pembroke Road (LOS E / Peak Season LOS F), Federal Highway north of the Miami-Dade County Line (LOS E / Peak Season LOS F), SW 8th Avenue (LOS E / Peak Season LOS F), NE 14th Avenue (LOS E / Peak Season LOS E), Pembroke Road east of I-95 (LOS F / Peak LOS F) and Hallandale Beach Boulevard east of I-95 (LOS F / Peak Season F). The peak hour and peak directional analysis did not reveal many capacity problems with the exception of I-95 (not within City Limits), US 1 north of Hallandale Beach Boulevard (Peak Hour LOS E), US 1 north of the Miami-Dade County Line (Peak Hour LOS E) and Pembroke Road east of I-95 (LOS E). The majority of peak hour LOS levels are C and D. As the remaining property is developed additional traffic volumes can be expected. The entire City ~~is~~ was located within ~~a~~ the former Broward County Traffic Concurrency Exception Area; therefore, new development or redevelopment was exempted from meeting the minimum LOS D concurrency requirements. However, payment of Transit Impact fees ~~is~~ was required and earmarked towards improving the transit systems in the County.

As stated previously, in April 2005 Broward County abandoned a purely roadway based concurrency management system and switched to a Transit-Oriented Concurrency (TOC) system that divided the county geographically into ten (10) benefit districts. The City is located within the Southeast District. A list of transit improvements and their estimated costs were developed for each district. Impact fees are

established for each land use type per district and updated annually. Credits may be received for existing and planned improvements. Since many of the county roads have high traffic volumes and poor operating LOS, and many roads cannot be widened any further, the county, while not totally ignoring poor roadway LOS, chose to focus on transit-related improvements as the county is expected to change from a suburban to more urban form. The county examines all development and re-development applications and assesses transit impact fees that focus only on transit improvements. Roadway impacts and improvements are still analyzed, made and funded as needed, but developer impact fees only relate to transit. Portions of Hallandale Beach Boulevard and US 1 are and will continue to operate at unacceptable LOS in the future with a few exceptions. Pursuant to a Stipulated Settlement Agreement to address plan amendments of the County's plan adopted in June 2008, in March 2009 Broward County renamed the system the Transportation Management Concurrency System (TCMA), amended the plan text and adopted new GOPs / performance standards for implementation and added new planning coordination mechanisms.

The State and County have the ability to establish concurrency management systems on the roads they have jurisdiction over; however, the City can set its own concurrency system for local roads. The City chose to participate in the Broward County TCMA system for arterial roadways and County Collectors and realizes certain benefits to doing so as the City ages and re-development is desired. If a major roadway LOS is exceeded, development can proceed if impact fees are paid and mitigation is done. While it may be acceptable to expect traffic delays in urbanized areas below normal LOS conditions, people still need to travel with as little delay as possible. It is really a matter of "how bad can people tolerate traffic congestion".

In addition to the Broward County concurrency system, in June 1994 the City adopted an "Urban Infill" designation for the entire City. Similar to the former Broward County TCEA, the City is free to approve development regardless of traffic congestion, but requires some form of mitigation deemed acceptable to the City. Typically, a Developer Agreement is required that lists the required City mitigation.

Because Broward County is charged with overseeing arterial roadways and certain major County Collector roads and the fact that mass transit serves only a small percentage of commuter traffic, the City will still use the standard roadway concurrency system for local roadways and City Collectors, as transit services do not typically use local streets and homeowners are sensitive to traffic volumes and speeding. This will not preclude the City from requiring mitigation for county / state roads, if deemed appropriate, including improvements necessary for safe and adequate access to a site(s) or to improve general transportation operations that will serve a development.

The City is also implementing traffic calming improvements and programs, provided the improvement analyzes local conditions, requires community input and majority consent prior to any devices being installed such as speed humps, pavement narrowing, round-a-bouts, etc. The City recognizes the benefits of a TCMA concurrency system may have on the City in the future. However, the City will continue to monitor traffic volumes and development impacts as well.

As referenced previously, many roadways within the City have been widened to their maximum width thus preventing additional widening to increase capacity. In addition, the major roadways within the City are maintained by Broward County and/or FDOT. Therefore, as infill development and redevelopment continue to occur the City will coordinate with Broward County toward maintaining existing LOS levels utilizing alternative approaches rather than road widening, which in many cases would not be feasible. Roadways in need of scheduled improvements include:

- Federal Highway (US 1) north of Hallandale Beach Boulevard / south of Pembroke Road – Existing traffic is 36,500 TPD ADT / 39,321 TPD peak and is projected to increase to 40,220 TPD ADT by the Year 2013 and 45,841 TPD ADT by 2030. LOS D capacity for this facility is 32,700 TPD. Any improvements would have to include Broward County and FDOT. It is recommended that improvements to this roadway consider alternative approaches than road widening, as right of way acquisition costs may present significant obstacles

to widening of the road due to existing development along the roadway. However, as redevelopment opportunities arise adjoining the roadway in the future, additional right-of-way acquisition should be considered for widening and turn lanes.

- Federal Highway (US 1) north of the Miami-Dade County Line – Existing traffic is 54,000 TPD ADT / 68,700 TPD peak and is projected to increase to 61,800 TPD ADT by the Year 2013 and 69,470 TPD ADT by 2030. LOS D capacity for this facility is 49,200 TPD. Again, any improvements would have to include Broward County and FDOT. Since the roadway is already a 6-lane divided facility, and the recent Village at Gulfstream Park DRI will result in numerous improvements to roadways and mass transit facilities, it is recommended that improvements to this roadway consider alternative approaches than additional road widening. However, as redevelopment opportunities arise adjoining the roadway in the future, additional right-of-way acquisition should be considered for widening and turn lanes.

- Pembroke Road east of I-95 – Existing traffic is 38,000 TPD ADT / 41,360 TPD peak and is projected to increases to 44,000 TPD ADT by the Year 2013 and 49,642 by 2030. LOS D capacity for this facility is 32,700 TPD. Any improvements would have to include alternative methods to road widening and coordination with the City of Hollywood, Broward County and FDOT.

- Hallandale Beach Boulevard east of I-95 – Existing traffic is 64,000 TPD ADT (no BC Peak Hour data). Traffic volumes are proposed to increase to 65,850 TPD ADT by the Year 2013 and 69,242 by 2030. LOS D capacity for this segment is 49,200 TPD. Traffic volumes west of US 1 are projected to increase to about 41,820 TPD by 2013 and 45,560 by 2030. Traffic volumes east of US 1 are projected to increase to about 43,600 TPD by 2013 and 51,027 by 2030. Finally, traffic volumes east of the ICWW Bridge at SR A1A are projected to increase to about 31,600 TPD by 2013 and 37,916 by 2030. This roadway currently operates at LOS F east of I-95 but LOS C on the other segments and is projected to remain so in 2013; however, by 2030 the roadway segment east of US 1 is expected to fall to LOS E. Additional redevelopment in this area will change the future projections and should be monitored closely and mitigated. The portion of this roadway located between US 1 and the ICWW has been widened to its maximum extent; therefore, LOS improvements will require alternative methods to road widening and will be required to be coordinated by FDOT

- SW 8th Avenue south of Hallandale Beach Boulevard – Existing traffic is 10,175 TPD ADT / 12,349 TPD peak season and is projected by the City to increase to about 10,785 TPD ADT by the Year 2013. Broward County forecasts that by 2030 the traffic volume will increase significantly to about 17,224 TPD. The City believes a more reasonable estimate would be about 12,620 TPD, as the area is currently built-out. LOS D capacity for this 2-lane facility is 10,000 TPD. Any improvements would have to include right-of-way acquisition, as the existing right-of-way is only 50-feet in width.

- NE 14th Avenue north of Hallandale Beach Boulevard – Existing traffic is 10,008 TPD ADT / 10,650 TPD peak season and is projected by the City to increase to about 11,000 TPD ADT by the Year 2013. Broward County forecasts that by 2030 the traffic volume could increase to about 12,839 TPD. The City believes the county estimate is reasonable, as redevelopment is imminent in the area. The roadway is used as a short-cut northerly to avoid Hallandale Beach Boulevard traffic congestion. LOS D capacity for this 2-lane facility is 10,000 TPD. Any improvements would have to include right-of-way acquisition, as the existing right-of-way is only 50-feet in width.

Due to the fact that majority of roads currently operating below adopted LOS levels have been widened to the maximum extent possible, while there is need for additional capacity there are few options to achieve increases in capacity. It is possible to achieve increases in capacity through intersection improvements such as adding or lengthening turn lanes or improving turning geometry, etc. It is recommended that the City continue to

coordinate with Broward County and FDOT, as appropriate to recommend the inclusion of additional improvements to existing intersections of roadways currently operating below adopted level of service as part of the overall strategy for improving traffic LOS in the City of Hallandale Beach.

Additionally, Broward County and/or the City could employ several strategies or tactics to help maintain its adopted transportation Level of Service (LOS) standards. These include continued implementation of a coordinated concurrency management system, transportation system management and transportation demand management. Transportation System Management focuses on a comprehensive strategy to improve all aspects of transportation capacity and safety without requiring extensive capital improvements. Broward County's adopted Transportation Element contains directives to pursue Transportation System Management techniques in order to improve capacities of the Countywide Transportation system. Transportation Demand Management focuses on influencing the demand for transportation by encouraging alternatives to the single-occupant automobile and by altering local peak hour travel demand. Transportation Demand Management activities may include programs such as ridesharing, flexible work hours, telecommuting, shuttle services and parking management. It is recommended that the City coordinate with Broward County and property owners in the implementation of the Countywide Transportation Element and pursue the implementation of Transportation System Management and Demand Management improvements within the City of Hallandale Beach. These are explained in more detail in the Broward County Transportation Element of the Comprehensive Plan.

All of the above roadway segments which have current or projected LOS capacity problems are Broward County or state maintained roadways, except SW 8th Avenue and NE 14th Avenue, which have fallen below the adopted LOS between 1997 and 2007. The City of Hallandale Beach will continue to monitor these roadways and make recommendations to Broward County and the Metropolitan Planning Organization (MPO) to schedule needed improvements.

ANALYSIS OF INTERNAL CONSISTENCY BETWEEN ELEMENTS

No inconsistencies are known to exist between elements of the adopted plan. No land use compatibility issues are known to exist related to the various transportation modes. This is primarily because the entire City is within an Urban Infill Area (UIA), Broward County acknowledges urban congestion management techniques and has implemented a Transit-Oriented Concurrency system, and the City requires Traffic Impact studies and mitigation for transportation facilities.

ANALYSIS OF TRANSPORTATION MANAGEMENT PROGRAMS NECESSARY TO PROMOTE AND SUPPORT PUBLIC TRANSPORTATION SYSTEMS

The City promotes and supports the use of Public Transportation Programs. As an example, in addition to the provision of the existing minibus system provided by the City, the City supports adequately placed bus stops in attempts to increase ridership. Bus route notices are posted and available at City Hall. Many land uses except single-family homes have direct access to pedestrian walkways linking public transportation access points. The City attempts to participate with Broward County and FDOT on programs to the best of their ability given the size and build-out condition of the community.

During preparation and updates of this Transportation Element, the City analyzed the adopted Future Land Use Plan in order to identify potential opportunities for increasing density or intensity to promote increased mass transit usage. As evidence by the intensity of existing development within the City of Hallandale Beach, the City's adopted Future Land Use plan provides opportunities for high density development conductive to increased mass transit use. The existing commercial, higher density housing areas and housing with more elderly populations have existing bus service. The Broward County Transportation Element analysis as summarized earlier in this document provided transportation modeling which illustrated that adoption of Land Use Plan Amendments to increase density and intensity of development for the purpose of increasing mass transit usage were linked only to slight increases in

mass transit usage. The entire City area is currently in a City designated Urban Infill Area (UIA) and Broward County TCMA District. This means all development and/or redevelopment is excepted from meeting adopted levels of service for traffic concurrency; however, study and possible mitigation is required. Most major arterials are fully developed or will be in the next few years. The age of development is relatively old but the City is beginning to experience a good amount of higher-intensity redevelopment of under-developed sites. The City of Hallandale Beach is nearly built-out with little vacant land remaining; however, as stated above, a number of existing under-developed sites are being redeveloped at much higher intensities. There maybe however, Transit impact fees (County) or City impact fees required as part of a development approval.

The City has major concentrations of high density development around the main transportation modal split node (Diplomat Mall) and will be around the new Village at Gulfstream Park DRI mixed-use lands. The City's most intensely developed areas are well served by Bus Service from primarily Broward County as well as the City's minibus system and Miami-Dade County. Adequate service is available to transport residents in the most intense eastern areas to opportunities for shopping, professional services, dining and commercial recreation. In addition, all three transit service providers (Broward County, Miami-Dade County and the City) provide service to the Diplomat Mall which functions as a transfer station, as well as other sites. The Village at Gulfstream Park DRI project will include a "super stop" multiple bus stop on US 1 just south of Hibiscus Street. The City will continue to review the existing level of service provided by Broward County and Miami-Dade County and provide recommendations as appropriate to improve service. In addition, the City monitors the ridership on the minibus service each month and continuously evaluates potential methods to improve upon the service provided not only to ensure the most efficient use of City financial resources, but also to enhance the service provided by both Broward County and Miami-Dade County.

In summary, the City has determined that existing development intensities and allowances are not an impediment to high concentrations of people as evidenced by the intensity of development in the City. The City feels that the Goals, Objectives and Policies of the adopted Comprehensive Plan currently provide for the development of high density and intensity development more conductive to increased mass transit use. Therefore, at this time, the City does not anticipate adoption of amendments to arbitrarily increase density or intensity specifically for the purpose of increasing mass transit usage. The City will continue to coordinate with Broward County in the implementation their County-wide Transportation Element. Many of the Transportation system problems and solutions are countywide issues and cannot be addressed separately by the City.

STRATEGIC INTERMODAL FACILITIES (SIS) AND TRANSPORTATION REGIONAL INCENTIVE PROGRAM (TRIP) ANALYSIS

In 2007 the Florida Legislature adopted amendments to the Florida Statutes and Florida Administrative Rules to define Strategic Intermodal Facilities (SIS) and Transportation Regional Incentive Program (TRIP) and add Level of Service (LOS) standards. Countywide, the LOS standards for roadways on the SIS, including connectors, and roadways funded in accordance with Section 339.2819 F.S, the TRIP, shall be as set forth in Rule 14-94 F.A.C., summarized below. No SIS Facility, SIS Connector or TRIP Facility is located within the City; however, one SIS Facility (I-95) adjoins the City on its westerly boundary.

SIS Corridor	Roadway Segment	LOS Standard
I-95	Miami-Dade to PB County Line	E

The City will amend its plan to incorporate new GOPs and coordinate with Broward County and FDOT on various transportation planning initiatives.

FIGURE T.10
FUTURE ROADWAY SYSTEM

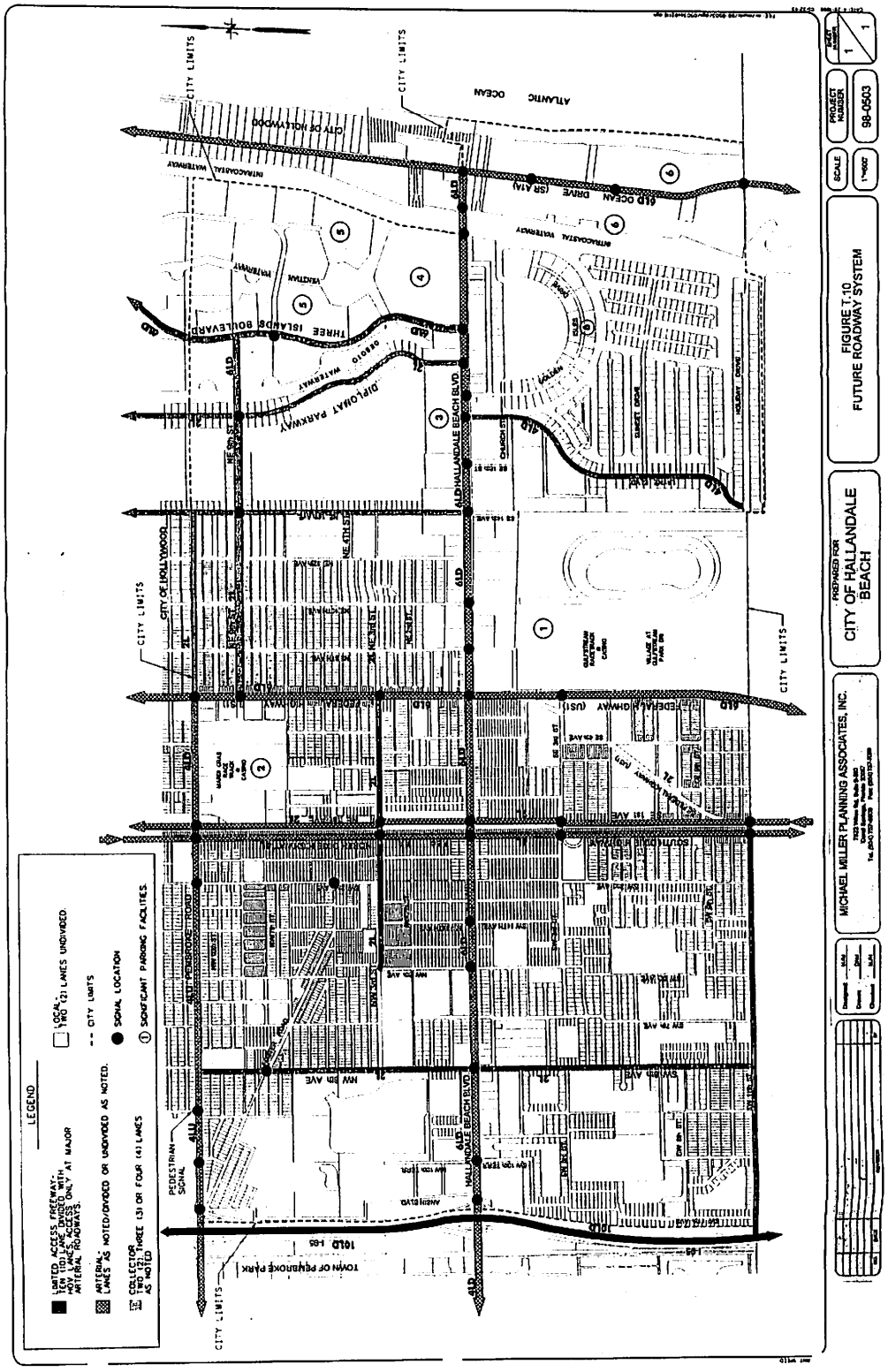


FIGURE T.11 (A)
FUTURE PUBLIC TRANSIT SYSTEM BROWARD COUNTY ROUTES

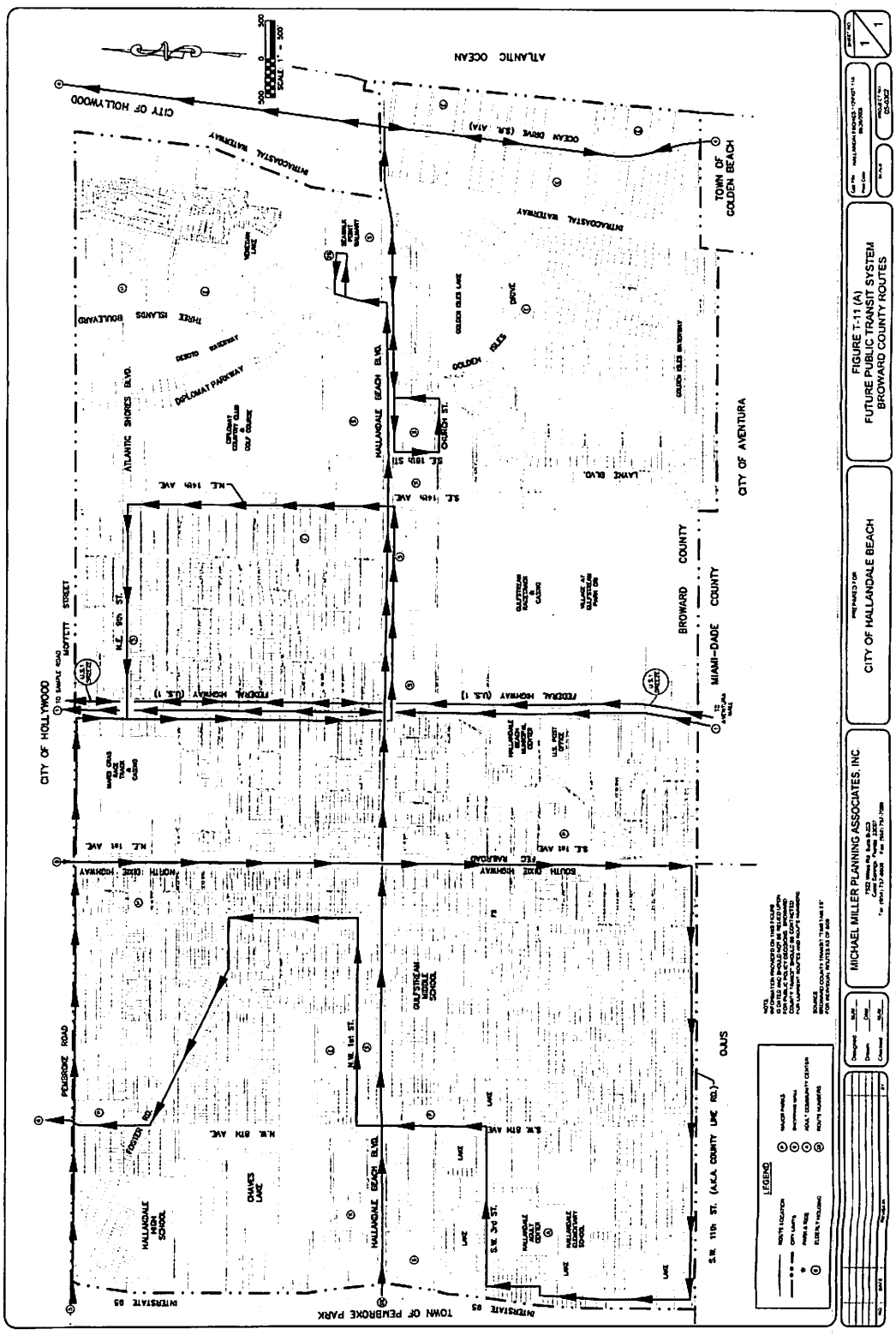


FIGURE T.11 (B)
FUTURE PUBLIC TRANSIT SYSTEM METRO-DADE COUNTY ROUTES

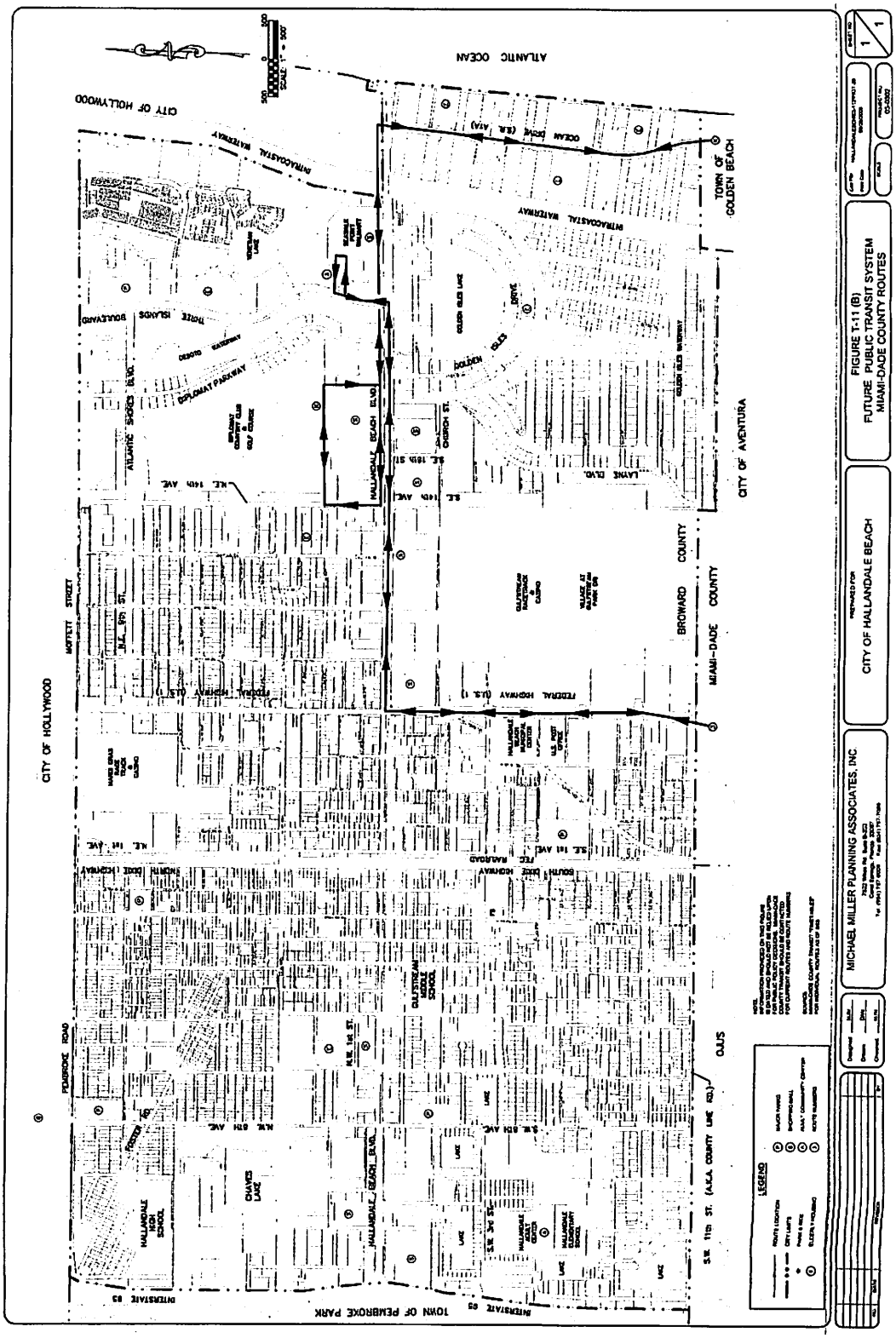


FIGURE T.11 (C)
FUTURE PUBLIC TRANSIT SYSTEM CITY OF HALLANDALE BEACH MINI BUS ROUTES

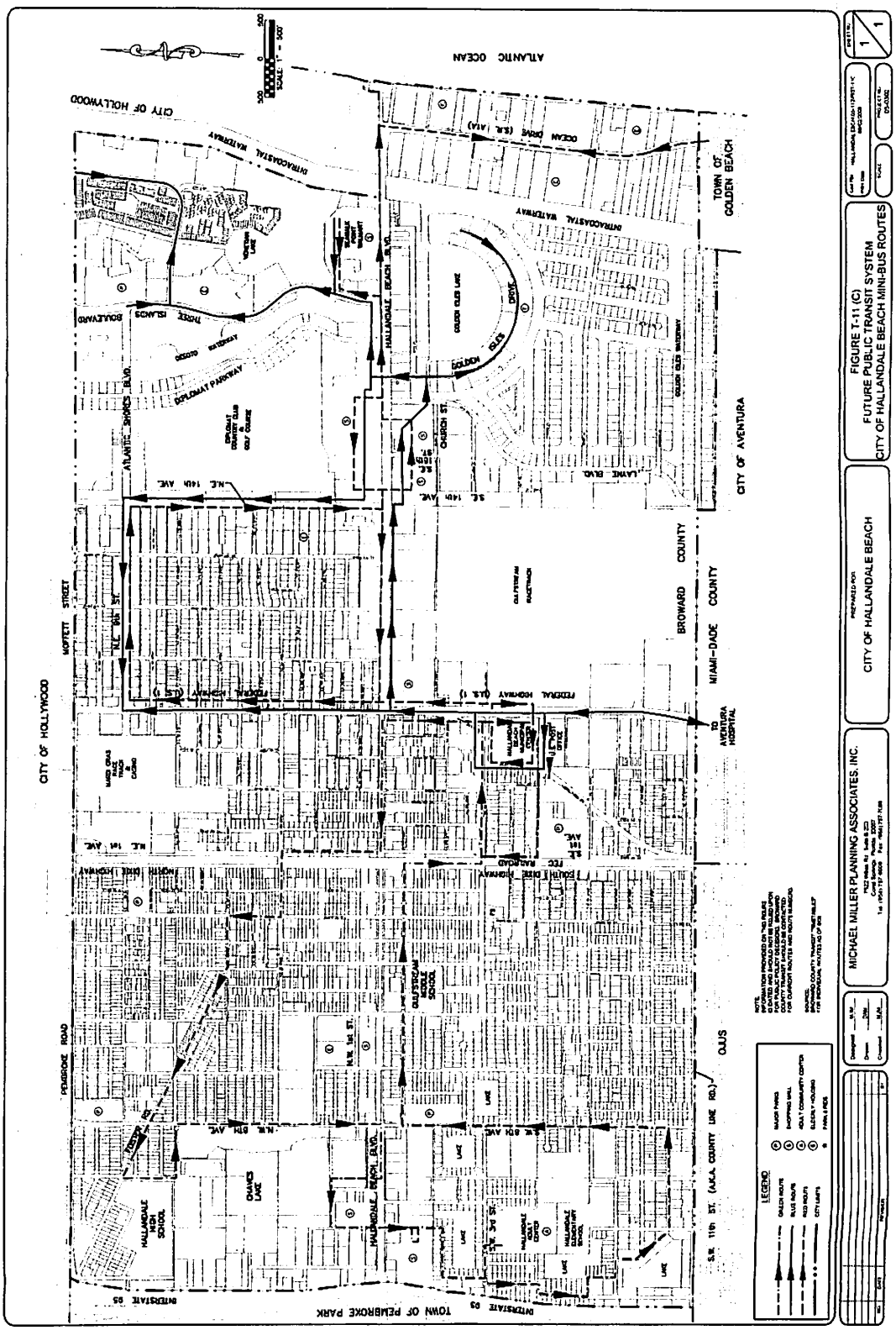


FIGURE T.12
FUTURE PEDESTRIAN AND BICYCLE WAYS

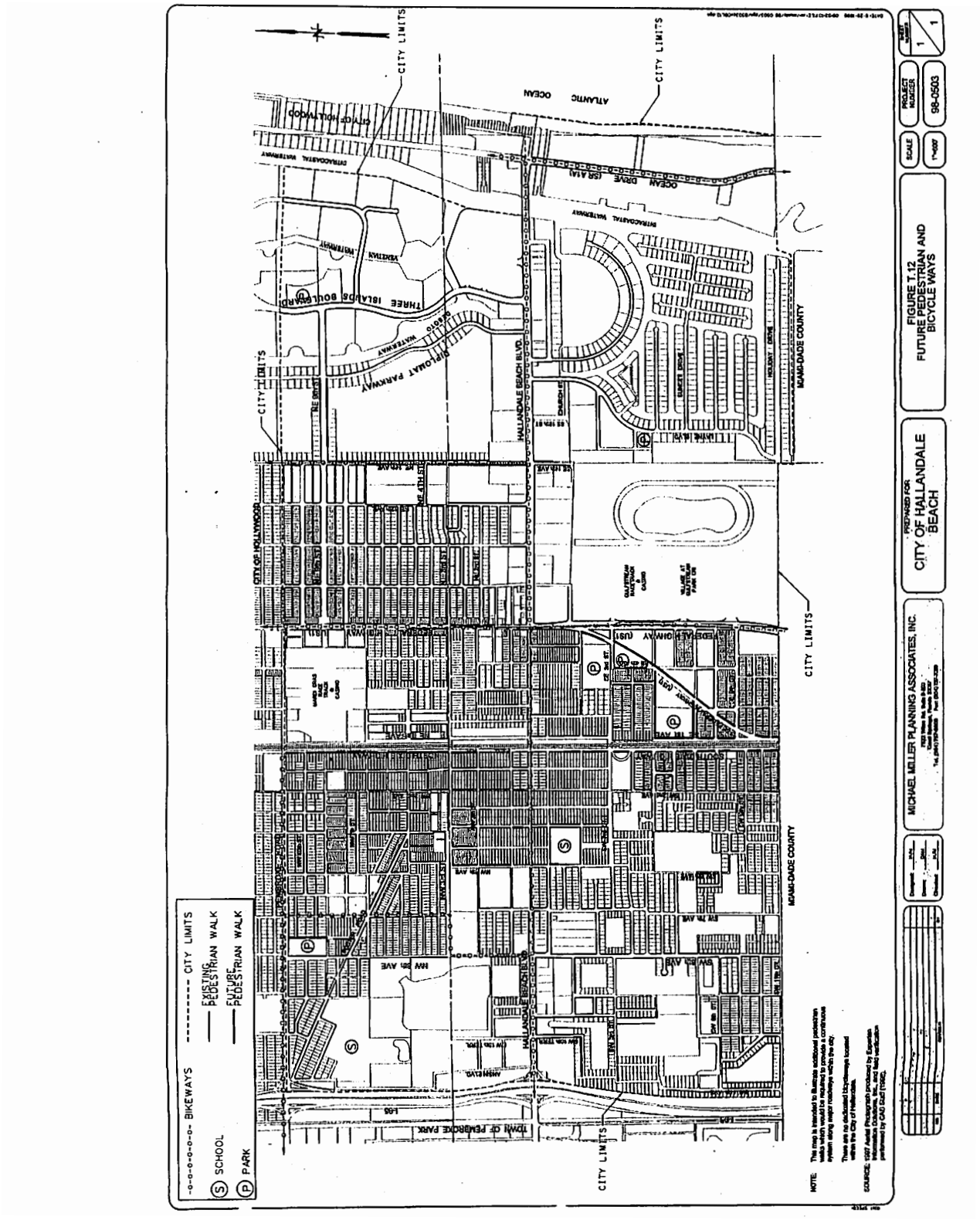


FIGURE T-13
FUTURE PORTS, AIRPORT FACILITIES, RAILWAYS, AND INTERMODAL FACILITIES

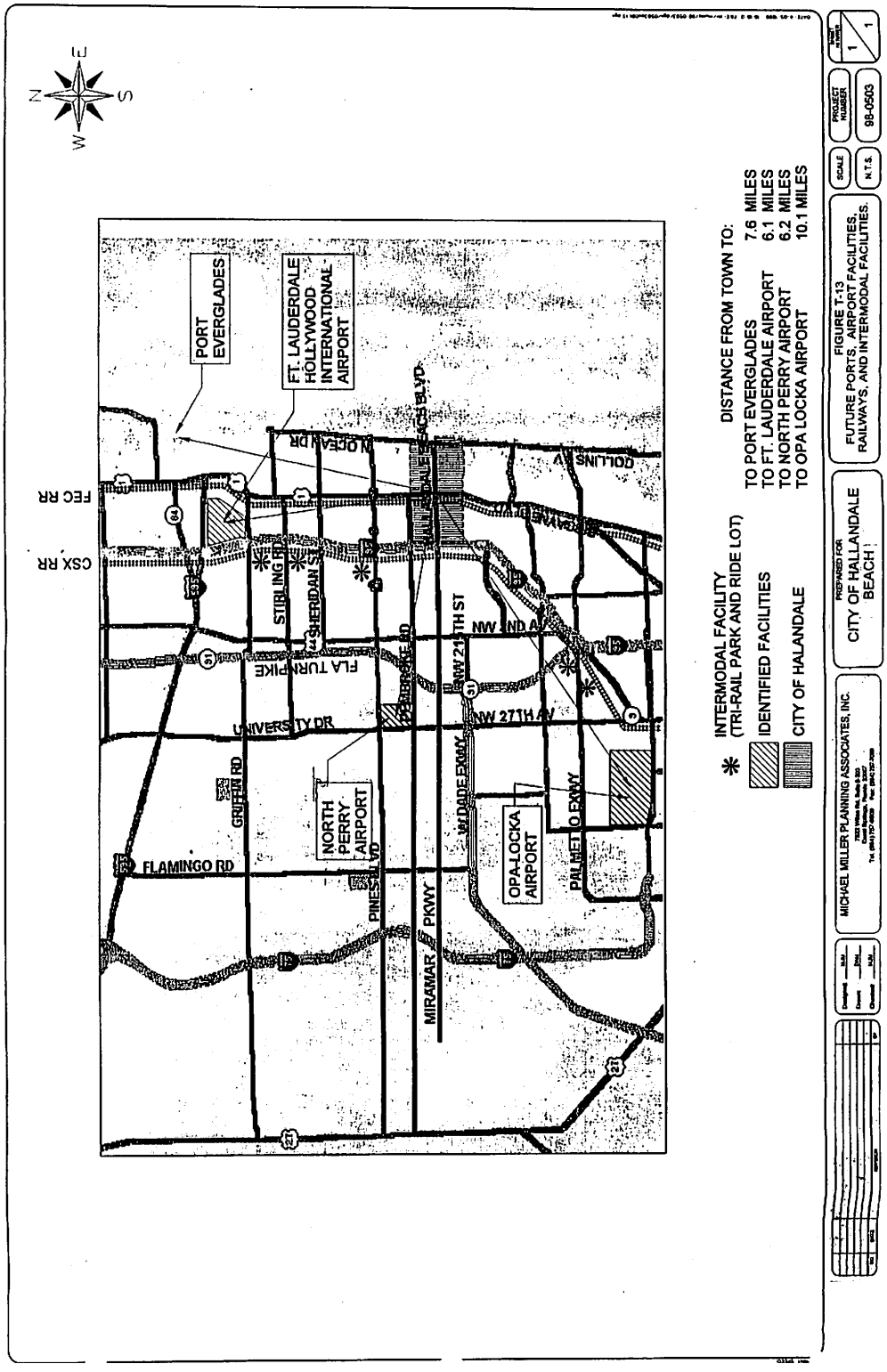


FIGURE T.14
FUTURE FUNCTIONAL CLASSIFICATION OF ROADWAYS

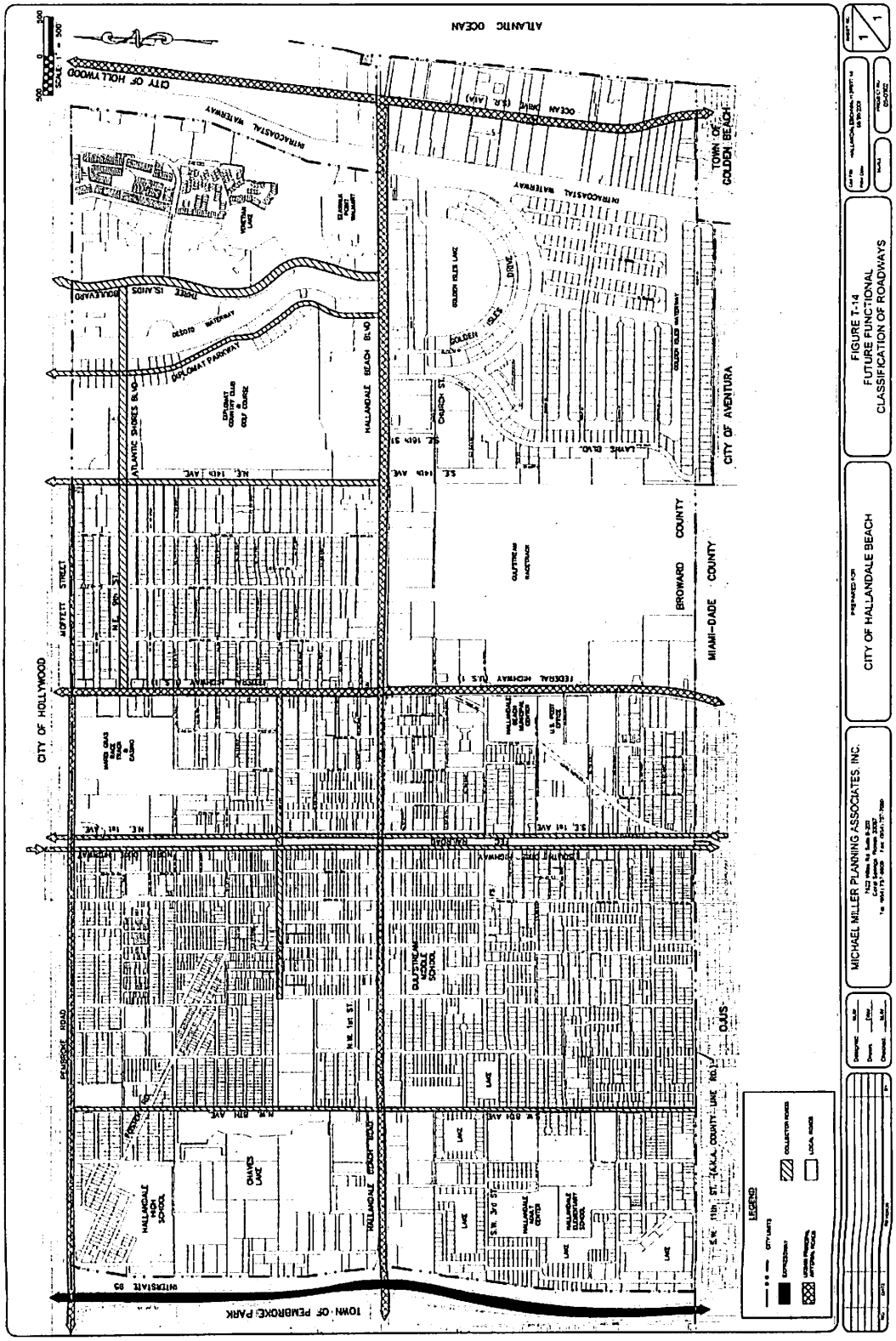


FIGURE T.15
FUTURE NUMBER OF THROUGH LANES

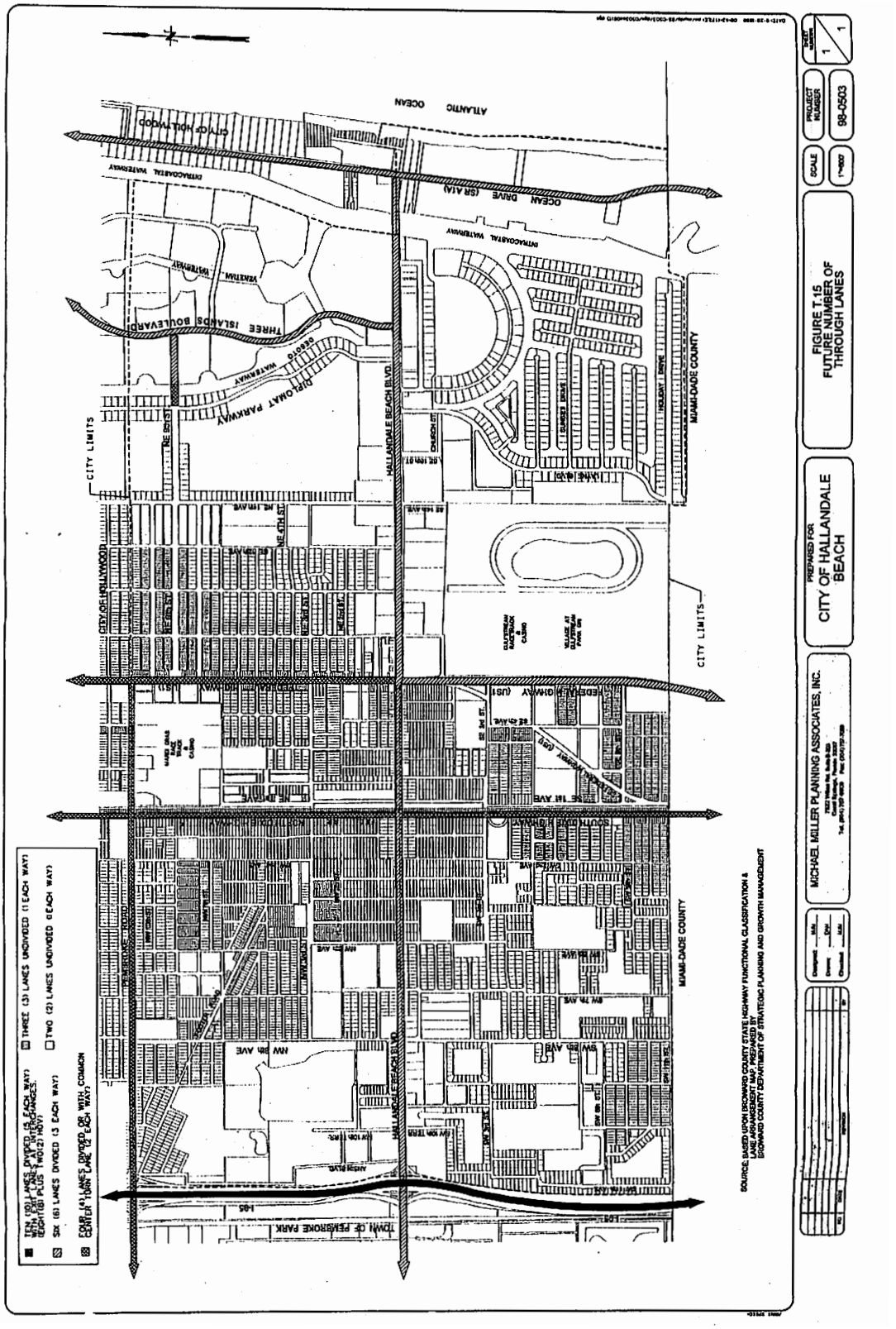


FIGURE T.16
FUTURE MAJOR TRIP GENERATORS AND ATTRACTIONS

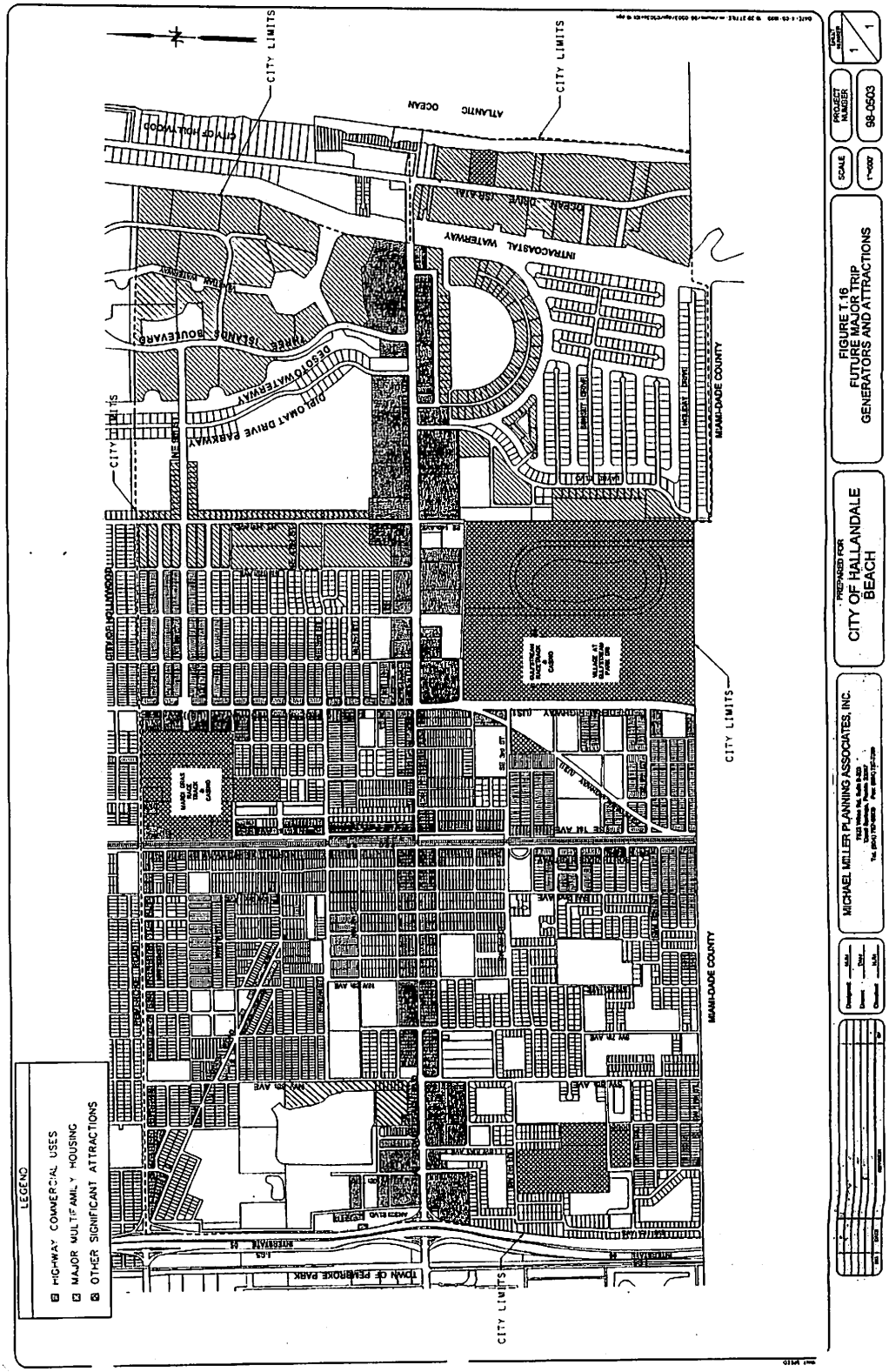


FIGURE T-17
FUTURE PEAK HOUR AND PEAK DIRECTIONAL LEVEL OF SERVICE

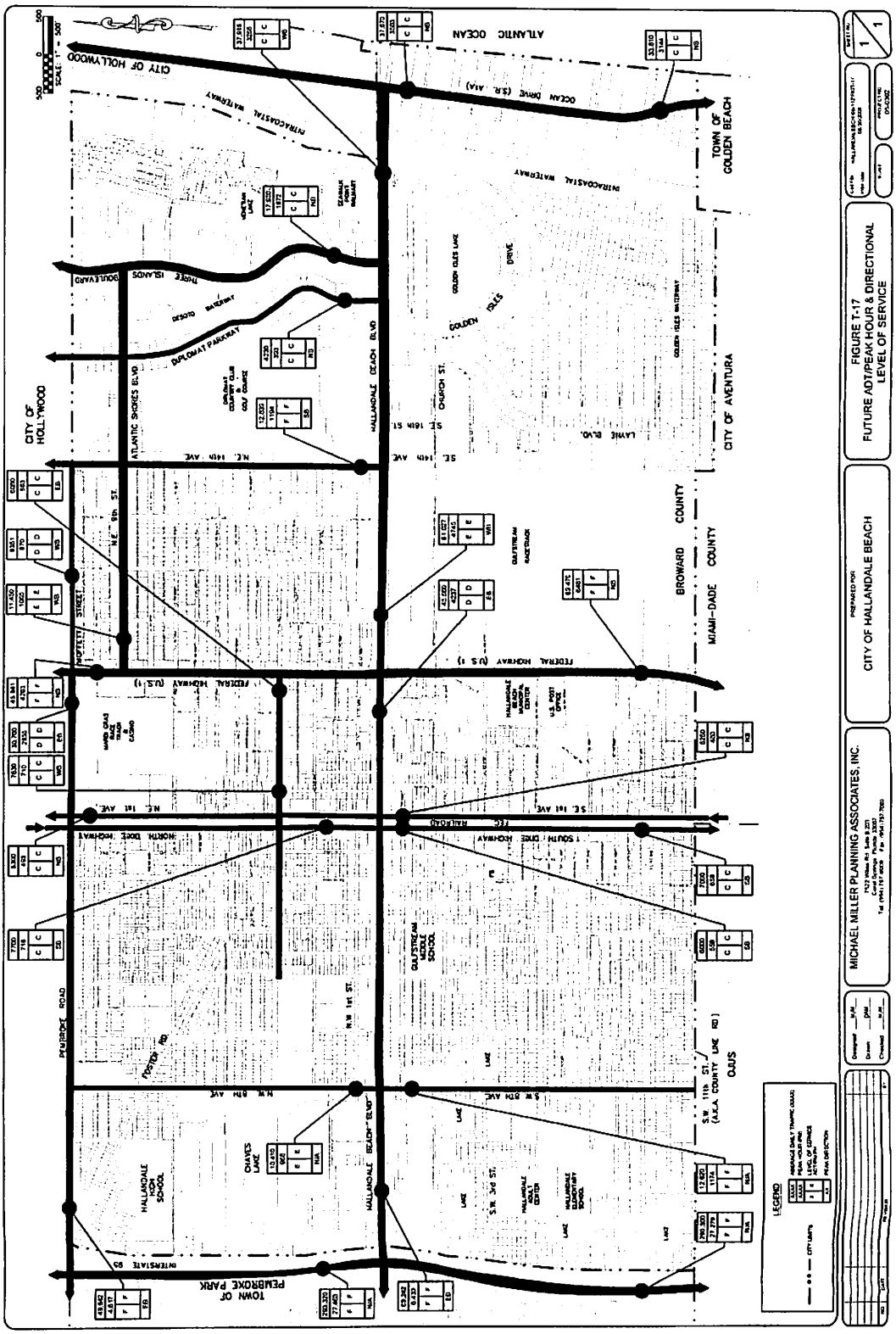


FIGURE T-18
FUTURE EVACUATION ROUTES

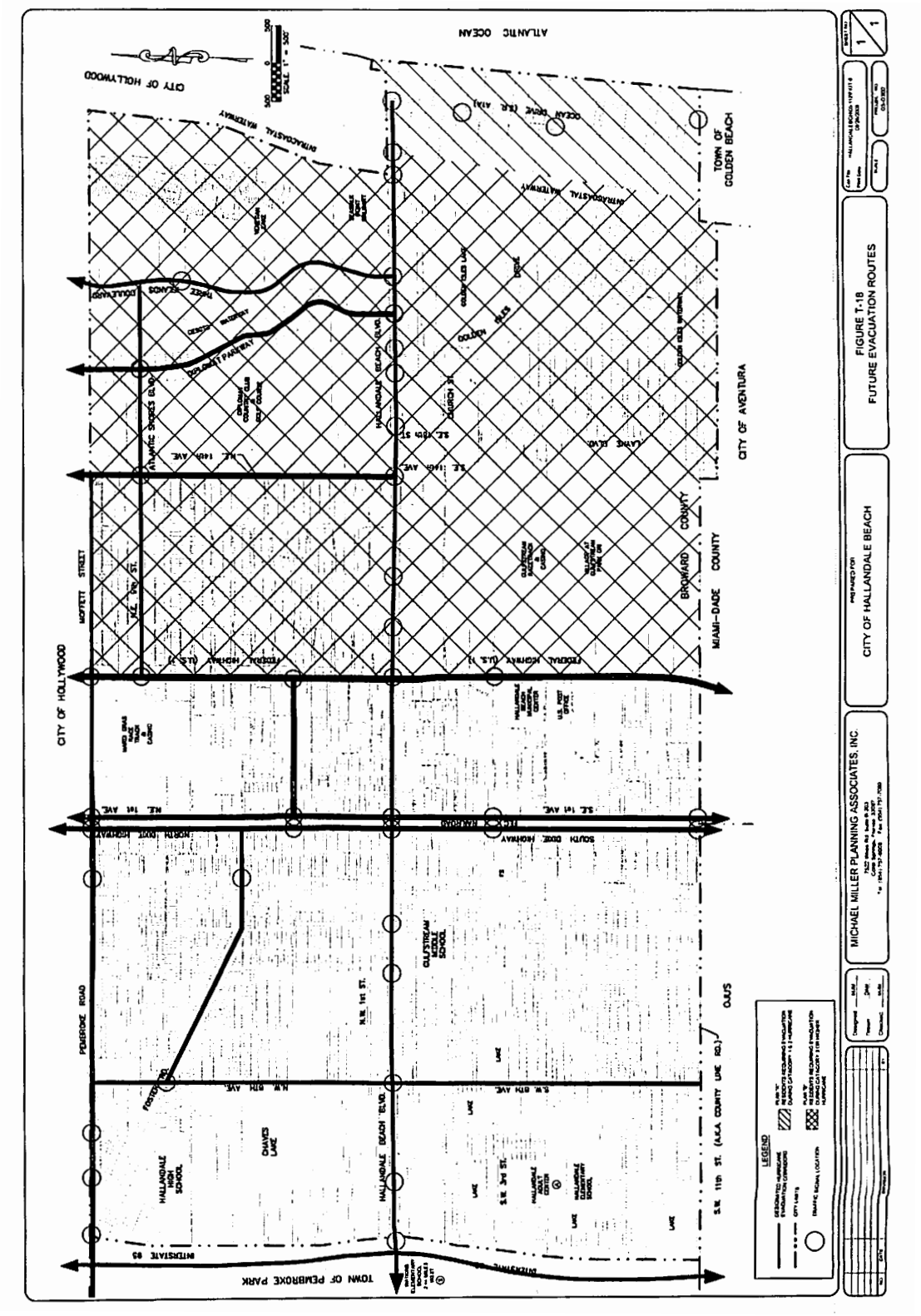


FIGURE T-19
2020 LOS MAP

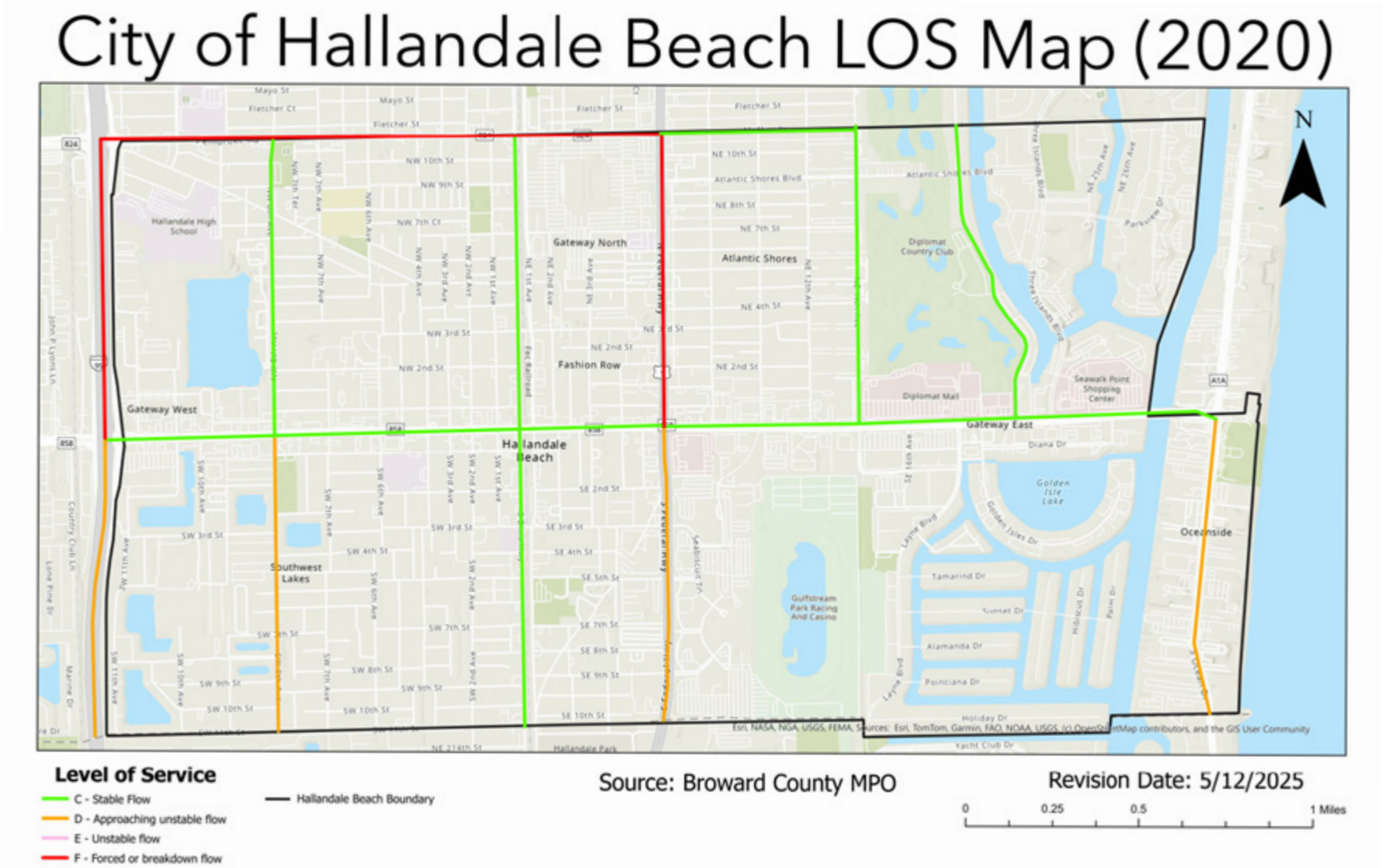


FIGURE T-19
2045 LOS MAP

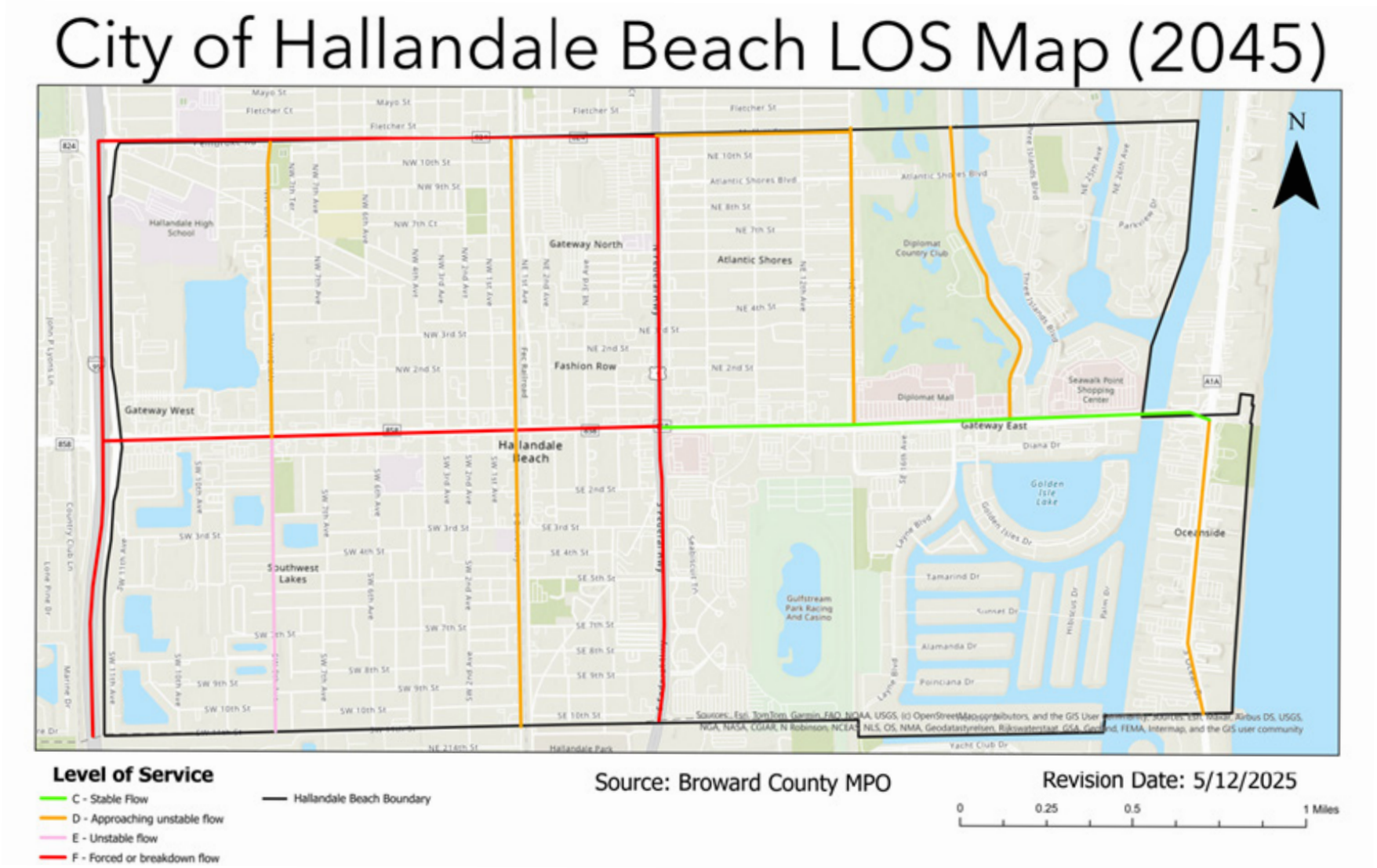


FIGURE T-20
ANNUAL AVERAGE DAILY TRAFFIC EXISTING AND FORECASTED

#	Roadway Segment Name	Limits of Corridor Segment		Road Jurisdiction	Functional Classification	Existing 2024 AADT *	Base Capacity Volume**	Adjusted Base Capacity Volume	Existing 2024 V/C	2024 LOS	Forecasted 2035 AADT ***	Forecasted 2035 V/C	Forecasted 2035 LOS	Forecasted 2045 AADT ***	Forecasted 2045 V/C	Forecasted 2045 LOS
		From	To													
1	I-95	North of Dade County Line	South of Hallandale Beach Boulevard	State	XpressWy	209000	222700	242700	0.86	E	220787	0.91	E	232078	0.96	E
2	I-95	North of Hallandale Beach Boulevard	South of Pembroke Road	State	XpressWy	259168	268900	288900	0.90	E	259168	0.90	E	259168	0.90	E
3	Dixie Highway	North of Dade County Line	South of Hallandale Beach Boulevard	County	Collector	6700	14500	7830	0.86	C	7078	0.90	C	7440	0.95	C
3	Dixie Highway	North of Hallandale Beach Boulevard	South of Pembroke Road	County	Collector	6600	14500	7830	0.84	C	6972	0.89	C	7329	0.94	C
4	NE/SE 1 Avenue	City Limits	South of Hallandale Beach Boulevard	City	Collector	6400	14800	7992	0.80	D	6761	0.85	D	7107	0.89	D
4	NE/SE 1 Avenue	North of Hallandale Beach Boulevard	South of Pembroke Road	City	Collector	3200	7300	3942	0.81	C	3380	0.86	C	3553	0.90	C
5	Federal Highway	North of Dade County Line	South of Hallandale Beach Boulevard	State	Arterial	51000	50000	52500	0.97	D	53876	1.01	F	56631	1.06	F
5	Federal Highway	North of Hallandale Beach Boulevard	South of Pembroke Road	State	Collector	35000	33800	35490	0.99	E	36974	1.04	F	38865	1.10	F
6	S. Ocean Drive	North of Dade County Line	South of Hallandale Beach Boulevard	State	Arterial	30000	50000	52500	0.57	D	31692	0.60	D	33313	0.63	D
6	S. Ocean Drive	North of Hallandale Beach Boulevard	City Limits	State	Arterial	37500	50000	52500	0.71	D	39615	0.75	D	41641	0.79	D
7	SW 8 Avenue	North of Dade County Line	South of Hallandale Beach Boulevard	City	Local	13200	14800	13320	0.99	D	13944	0.99	E	14658	1.04	F

#	Roadway Segment Name	Limits of Corridor Segment		Road Jurisdiction	Functional Classification	Existing 2024 AADT *	Base Capacity Volume**	Adjusted Base Capacity Volume	Existing 2024 V/C	2024 LOS	Forecasted 2035 AADT ***	Forecasted 2035 V/C	Forecasted 2035 LOS	Forecasted 2045 AADT ***	Forecasted 2045 V/C	Forecasted 2045 LOS
		From	To													
7	NW 8 Avenue	North of Hallandale Beach Boulevard	South of Pembroke Road	City	Local	8400	14800	13320	0.63	D	8874	0.67	D	9328	0.70	D
8	NE 14 Avenue	North of Hallandale Beach Boulevard	South of Moffet Street	City	Collector	9000	14800	13320	0.68	D	9508	0.71	D	9994	0.75	D
9	Diplomat Parkway	North of Hallandale Beach Boulevard	City Limits	City	Collector	9800	14800	13320	0.74	D	10353	0.78	D	10882	0.82	D
10	Pembroke Road	East of I95	West of Dixie Hwy	State	Collector	36500	33800	35490	1.03	F	38558	1.09	F	40530	1.14	F
10	Pembroke Road	East of Dixie Hwy	West of Federal Hwy	State	Collector	23500	32400	32400	0.73	D	24825	0.77	D	26095	0.81	D
11	Moffett Street	East of Federal Hwy	NE 14 Avenue	City	Local	10300	14800	10656	0.97	D	10881	0.97	E	11437	1.02	F
12	Hallandale Beach Boulevard	East of I95	West of Dixie Hwy	State	Arterial	57390	50900	53445	1.07	F	60627	1.13	F	63727	1.19	F
12	Hallandale Beach Boulevard	East of Dixie Hwy	West of Federal Hwy	State	Arterial	52000	50900	50900	1.02	F	54933	1.08	F	57742	1.13	F
12	Hallandale Beach Boulevard	East of Federal Hwy	West of Diplomat Parkway	State	Arterial	42500	50000	52500	0.81	D	44897	0.86	D	47193	0.90	D
12	Hallandale Beach Boulevard	East of Diplomat Parkway	S Ocean Drive	State	Arterial	39500	50000	52500	0.75	D	41728	0.79	D	43862	0.84	D
13	NE 9 Street / Altantic Shores Boulevard	East of Federal Hwy	Diplomat Parkway	City	Collector	11700	14800	13986	0.84	D	12360	0.88	D	12992	0.93	D

3.4 GOALS, OBJECTIVES AND POLICIES

TRANSPORTATION

GOAL 1: The City of Hallandale Beach shall maintain with assistance from applicable County and State agencies, a multi-modal transportation system which will meet the travel needs of all of the City's residents and businesses in a safe, convenient and efficient manner and is coordinated with Broward County in the implementation of a county-wide transit concurrency system.

OBJECTIVE 1.1: With the cooperation of the Florida Department of Transportation and Broward County Traffic Engineering, the City shall establish local regulations and transportation, system management procedures to provide for a safe, convenient, and energy efficient motorized and non-motorized transportation system, with special emphasis placed on correcting deficiencies in the Hallandale Beach Boulevard Corridor and Federal Highway / US 1 Corridor so that it may function as an arterial roadway.

MEASURE: Adopt regulations and procedures.

POLICY 1.1.1: The City shall coordinate with Broward County and the Florida Department of Transportation in support of maximizing existing intersection performance through the use of low cost Transportation System Management (TSM) strategies to include a computerized signalization program that minimizes travel delays on Hallandale Beach Boulevard and Federal Highway / US 1 with particular emphasis places on seasonal and event induced traffic demand.

POLICY 1.1.2: The City shall work with Florida Department of Transportation (FDOT) through semi-annual contact by a designated City representative in establishing roadway engineering and access review criteria including limitations on curb-cuts and standards for deceleration lanes on collector and arterial streets with particular emphasis on Hallandale Beach Boulevard.

POLICY 1.1.3: The City shall continue, through semi-annual contact by a designated City representative, to urge the Florida Department of Transportation to provide safety related improvements on Hallandale Beach Boulevard with particular emphasis placed on pedestrian safety.

POLICY 1.1.4: The City should assist the Florida DOT in developing a transportation improvement plan and program for Hallandale Beach Boulevard and shall appoint a staff member to act as liaison with the Florida DOT in review of planned and programmed improvements.

POLICY 1.1.5: The City shall continue to request, when solicited by the County to submit proposed traffic improvement data, that the Broward County MPO include improvements to roads in the City that will reduce traffic volumes on Hallandale Beach Boulevard, Federal Highway / US 1 and Pembroke Road in their 5-year Transportation Improvement Program (TIP).

POLICY 1.1.6: The City shall continue to require any new development or redevelopment proposal to include, as part of the site plan approval process, to provide a valid FDOT Conceptual Access permit, if the site adjoins or has access to a state roadway.

OBJECTIVE 1.2: The City shall coordinate with Broward County and Miami-Dade County to insure the efficient provision of public transit continue to provide alternative mobility to serve the special needs of transportation disadvantaged residents who do not have access to drive an automobile, who are unable to drive or who desire not to drive an automobile.

MEASURE: Maintain a list of persons with needs and service providers.

POLICY 1.2.1: The City will continue to provide for the operation of the City Minibus system based on economic feasibility and need, and shall monitor the expansion needs of the network of 134 County public transit system bus stops in the City. A five (5) year assessment concerning provision of County public transit services will be carried out by a designated City representative in conjunction with County public transit representatives.

POLICY 1.2.2: The City shall monitor and review State and regional planning efforts directed toward the planning

and implementation of a high speed rail system through a designated City representative appointed to contact State and regional transportation planning agencies on a semi-annual basis.

POLICY 1.2.3: The Broward County Concurrency Management System (CMS) shall provide that for the purpose of issuing development orders and permits, the adopted public transit level of service shall be for the BCT to provide fixed-route transit service to at least 75 percent of all residences and employment locations during the peak hour, achieve headways of 30 minutes or less on 80% of the routes, establish at least one neighborhood transit center, establish at least one additional community bus route, increase peak-hour weekday fixed-route transit ridership by 22% from FY 2009 to 2013 and maintain the current number of community bus routes (10) through 2013.

POLICY 1.2.4: The City shall review, and if appropriate support the recommended level of service provisions in the Broward County Transportation Element, as may be amended.

POLICY 1.2.5: The City shall coordinate with the Broward County Division of Mass Transit and Tri-Rail to ensure the required transit services are available to meet the adopted level of service.

POLICY 1.2.6: The City shall monitor the existing Public Transit System service to existing and future major trip generators and attractors, as defined in this element, and evaluate and implement as necessary modifications to the existing system through coordination with Broward County and Miami-Dade County to improve provision of public transit.

OBJECTIVE 1.3: The City shall coordinate the transportation systems with existing and future land use as shown on the future land use map and shall coordinate with the Broward County MPO, Florida DOT and developers to secure funding for transportation improvements necessary to ensure that the roadway, transit, pedestrian and bikeway systems can support the needs of future development and redevelopment. The City adopts the Level of Service for all FIHS facilities according to Rue 14-94 F.A.C. Although the City is located within one of Broward County's Transit-Oriented Concurrency Districts and the entire City is within an Urban Infill Area (UIA), the City adopts level of service "D" for all local roadways and City Collectors within the City of Hallandale Beach.

MEASURE: Maintenance of adopted level of service for local roadways and completion of roadway improvements through coordination with Broward County and FDOT.

POLICY 1.3.1: The City shall implement its adopted yearly priorities for capital improvements for local streets to promote timely resurfacing and repair of roads, to minimize costly reconstruction and to enhance safety.

POLICY 1.3.2: The City will incorporate provisions into its capital improvements planning process to ensure that underground utilities improvements are made in advance of, or concurrent with, street improvements.

POLICY 1.3.3: The City will update its procedure for managing traffic during event at Gulfstream Park and the Mardi Gras Racetrack and Casino (former Hollywood Dog Track) in conjunction with the implementation of a Transportation Management System (TMS) which is based on a computerized signalization program. This review is needed to enable the City to expedite traffic entering and leaving parking areas without sacrificing capacity and safety on City and regional streets.

POLICY 1.3.4: The City shall discourage through traffic in neighborhoods through continued implementation of the Broward County Trafficways Plan which requires right-of-way dedications or easements in conjunction with development and redevelopment along designated trafficways. The gradual acquisition of right-of-way allows for future road widening and other road improvements necessary to prevent traffic congestion thereby discouraging motorists from seeking travel alternatives through residential neighborhoods.

POLICY 1.3.5: Based on the Florida Department of Transportation (FDOT) and Broward County adopted minimum level of service (LOS) "D" for local streets, the City shall establish LOS "D" as the minimum acceptable LOS

on all local roads in Hallandale Beach to include peak hour travel times.

POLICY 1.3.6: Development applications located within the boundaries of an urban infill or urban redevelopment area are exempt from traffic concurrency or over capacity roadway links per Chapter 163.3188(5)(b) Florida Statutes. However, Broward County transit impact fees / physical improvements or City impact fees / physical improvements may be required.

POLICY 1.3.7: Development applications located within the boundaries of the City's urban infill or redevelopment area shall indicate traffic impacts to the local, state and Intrastate Highway system. The study will address over capacity roadway links and intersections within the City within one (1) mile of the subject site where impact exceeds de minimis levels. Although the study will be required to address improvements to over capacity links and/or intersections, the study shall not be limited by this approach. The study shall analyze alternatives or techniques to minimize traffic impacts on the Hallandale Beach roadway network. These techniques shall include but not be limited to Transportation Demand Management applications, Transportation Systems Management approaches and improving multi-modal access. For projects generating in total less than 100 average net daily trips per day, a traffic statement may be provided assessing conditions within 1,000 feet of the subject site, unless otherwise required by the City.

POLICY 1.3.8: The City shall continue to coordinate with Broward County though an existing interlocal agreement to insure the monitoring of traffic impacts of approved developments within- the exception areas. The City shall coordinate with Broward County to utilize the Traffic Management System maintained by Broward County for the purpose of monitoring traffic impacts. Applicant's traffic studies shall utilize this information in analyzing their site impacts.

POLICY 1.3.9: Using the cost capacity model identified in the City Land Development Code, in accordance with Chapter 163.3180, F.S. a developer may chose to satisfy all transportation concurrency requirements by contributing or paying proportionate fair-share mitigation if transportation facilities or facility segments identified as mitigation for traffic impacts are specifically identified for funding in the City's 5-year schedule of capital improvements or if such contribution or payments to such facilities or segments are reflected in the 5-year schedule of capital improvements in the next regularly scheduled update of the capital improvement element. Proportionate fair-share mitigation shall be applied as a credit against impact fees.

POLICY 1.3.10: The City shall participate and monitor the development of the I-95 Master Plan by the Florida Department of Transportation. Participation and monitoring shall include, but not be limited to, plans for increased capacity to the facility and the impacts of development/ redevelopment in the City on the Intrastate System.

POLICY 1.3.11: Through participation in the MPO and coordination with Broward County, increase the vehicle occupancy rate through TDM strategies, such as ride sharing programs, preferred parking and High Occupancy Vehicle (HOV) lanes; work to reduce the per capita Vehicle Miles Traveled (VMT) below the year 2002 projected daily per capita VMT of 21.70 by implementing TDM strategies and increasing the public transit modal split from the current 1.15 percent to 1.23 percent by 2011 as specified in Policies 3.3.1 and 3.3.2 of the Broward County Transportation Element.

POLICY 1.3.12: The City shall coordinate with Broward County to develop Transportation Demand Management (TDM) and Transportation System Management (TSM) programs to modify peak hour travel demand and reduce the number of vehicle miles traveled within the City and region. Consistent with the Broward County Transportation Element, TDM strategies may include:

a. Ridesharing programs – Ridesharing is a form of transportation, other than public transit, in which more than one person shares the use of the vehicle, such as a car or van, to make a trip.

b. Flexible Work Hours – Allows employees to schedule their work hours so as to avoid driving during peak hours.

c. Telecommuting – Home-based employees primarily in information-oriented jobs.

d. Shuttle Service – Buses, vans or cars used to provide transportation from remote parking locations to the workplace.

e. Parking Management – Includes preferred parking, price parking, parking limitations and shared parking.

f. Corridor Studies – Coordinated efforts between the County, MPO, FDOT and local governments which consider a wide variety of initiatives to encourage higher public transit use and transit-oriented design development.

g. Congestion Management Plan (CMP) – Priority strategies serving the County's Urban Infill Area, which includes the entire City area, intended to mitigate congestion and improve operational LOS.

TMS Strategies may include:

a.Roadway improvements – In lieu of traditional widening and construction, alternative solutions are proposed to eliminate traffic problems such as corridor studies.

b. Intersection improvements – Turn lane additions on other geometric improvements.

c. Access Management – Control and spacing/design of driveways, ramps, medians, median openings, traffic signals and intersections on arterials and collector roadways.

d. Signalization – Computerization of signals on roadways to improve traffic flows.

POLICY 1.3.13: The City, in conjunction with MPO, FDOT and the DCA will analyze the feasibility of establishing a demonstration overlay transit-oriented corridor (TOC) zoning district on a selected corridor in the City by December 2013. To promote a multimodal transportation system that places emphasis on public transportation systems, the following studies and strategies are recommended.

1. Determine the amount of undeveloped land and the potential for redevelopment of existing land along the corridor.

2. Determine the roadway level of service and public transit ridership along the corridor.

3. Study the type of development incentives needed to encourage transit oriented development (TOD) within a TOC zoning district. These incentives could include any combination of the following: reduced parking requirements; waiver or partial waiver of impact fees and other development related costs; public costs; public funding of transit-oriented development improvements (such as bus bays, bus benches and shelters, pedestrian facilities and connections to bus stop, etc.)

4. Develop a roadway and public transit monitoring system. The monitoring system should provide for measuring, on at least an annual basis, the roadway and transit impacts along the corridor, the roadway and transit impacts of transit oriented developments versus auto-oriented developments along the corridor.

5. Study the potential for securing grant funding for the demonstration project, including the hiring of a full-time transit corridor coordinator.

6. By 2001, coordinate with the BCPC to modify and restructure the transportation planning process to enhance the relationship between land use and transportation planning.

POLICY 1.3.14: The City shall continue its current practice of recognizing the interaction within mixed-use developments and the resulting internal trip reductions. Mixed-use developments are characterized by three (3) or more mutually supporting land uses with physical site integration in a coherent plan.

OBJECTIVE 1.3A: The City will urge Broward County to provide transit services to all present and future major trip

generators and attractors and provide safe and convenient transit terminals.

Measure:

1. Number of major trip generators and attractors served by mass transit.

2. Number of bus stops with shelters and benches at stops with 25 or more passengers boarding per day.

POLICY 1.3A.1: The City will work cooperatively with Broward County to increase the level of service to all major trip generators and attractors to at least meet the adopted LOS of 75% coverage to all residences and employment locations during peak hour, achieve headways of 30 minutes or less on 65% of the routes, establish at least one neighborhood transit center and establish at least one additional community bus route.

POLICY 1.3A.2: The City will coordinate with Broward County and FDOT to implement actions listed in Broward County Transportation Element Policy 3.2.2 appended to the City's Element which includes the provision of convenient public transit terminals transit needs for residents and facility design features.

POLICY 1.3A.3: The City will contact Broward County Mass Transit at least annually to update information and coordination strategies.

OBJECTIVE 1.4: The City shall coordinate its transportation activities and improvements with the plans and programs of neighboring cities, Broward County, Miami-Dade County, the Florida Department of Transportation 5-Year Transportation Plan and other appropriate State plans and statutes. A designated City representative shall interface with the above agencies to coordinate transportation planning efforts on an annual or more frequent basis.

MEASURE: Contact other entities and document resulting communications.

POLICY 1.4.1: The City shall coordinate its transportation improvement plans for the Diplomat/Three Islands Planning District with the City of Hollywood to identify and plan for the anticipated future impacts of the Phase III Three Islands development in the City of Hollywood.

POLICY 1.4.2: The City shall coordinate its efforts with State and County Transportation Departments to improve intersections of high accident rates.

POLICY 1.4.3: The City shall coordinate with FDOT and Broward County to minimize curb cuts on arterial and collector roadways, through development review procedures. As part of the review of any development or redevelopment for lands adjacent to a state roadway, an applicant shall provide a FDOT Conceptual Access letter agreeing to the design presented for consideration.

POLICY 1.4.4: The City shall cooperate with FDOT and Broward County in the identification of constrained roadway facilities and will propose adequate Level of Service (LOS) standards and recommend appropriate actions to improve mobility.

OBJECTIVE 1.5: The City shall provide for rights-of-way adequate for existing and future transportation needs.

MEASURE: Quantity of additional right of way acquired.

POLICY 1.5.1: The City shall review, in conjunction with its Evaluation and Appraisal Reports, or separately, right-of-way requirements for existing and future transportation needs to ensure continuity of the thoroughfare system. The City will coordinate requests for Trafficways Plan amendments with Broward County through a designated City representative assigned to process these amendments.

POLICY 1.5.2: The City shall address the proliferation of existing curb cuts and better manage future curb cuts by enforcing standards for the location and design of driveways which intersect arterial and collector streets. See Policy 1.4.3.

POLICY 1.5.3: The City shall enforce its local right-of-way protection ordinance to ensure that no building permits or development orders are issued for construction within

identified rights-of-way and that the minimum right-of-way necessary to maintain the adopted minimum level of services on all roads in the City is provided for.

POLICY 1.5.4: The City shall through implementation of the Broward County Trafficways Plan and the minimum City right-of-way standard of fifty (50) feet, secure right-of-way dedications at time of development review to ensure that adequate right-of-way is provided to serve existing and future development.

OBJECTIVE 1.6: The City shall encourage developments that promote safe and efficient on and off-site transportation improvements.

MEASURE: Quantity of improvements as noted below.

POLICY 1.6.1: The City shall require that site development designs incorporate safe and efficient on-site traffic circulation and adequate provisions for motorized and non-motorized parking where required, including bicycle parking.

POLICY 1.6.2: The City shall continue to require, at the time of development review, that developers include off-site project related transportation improvements including sidewalks, street and curb construction and/or reconstruction where required, including bicycle facilities consistent with the City's Future Pedestrian and Bikeway System (Figure T-12).

OBJECTIVE 1.7: Reduce overall energy consumption by increasing the efficiency of the existing transportation system, implementing Transportation Demand Management (TDM) strategies, and by encouraging integrated transportation systems, mass transit facilities, bikeways, and pedestrian corridors throughout the City, including urban infill areas.

MEASURE: Continued promotion and maintenance of existing Minibus Service and amount of additional sidewalks/bikeways constructed by the City. Construct 10% of missing segments by 2013.

POLICY 1.7.1: Coordinate with the County on providing computerized traffic signal control and proper signal progression.

POLICY 1.7.2: Request the Broward County Mass Transit Division and the Broward MPO to reduce headways for bus routes.

POLICY 1.7.3: Continue to fund or seek funding for bikeway and pedestrian corridor improvements.

POLICY 1.7.4: Support the development of the County Congestion Management Plan.

POLICY 1.7.5: Require the payment of any applicable Broward County Mass Transit Impact Fees for developments receiving transportation concurrency exceptions in designated urban infill areas.

POLICY 1.7.6: The City shall evaluate the incorporation of land development regulation requiring developing application to demonstrate locations for bicycle storage and pathway connections to be made between buildings and the public sidewalk system.

POLICY 1.7.7: The City shall continue to provide educational materials to its residents and property owners on the cost and environmental effects of automobile idling to encourage the use of alternative transportation modes.

POLICY 1.7.8: The City shall consider the availability of low emission or fuel efficient vehicles as the replacement of municipal vehicles is scheduled.

POLICY 1.7.9: The City shall initiate Comprehensive Plan amendments within one year of publication of approved Department of Community Affairs (DCA) guidelines (Rules) for implementing the 2008 statutory requirements for energy reduction and subsequently amend its Land Development Regulations to adopt specific standards and strategies that address Greenhouse Gas (GHG) emissions, energy efficient housing, and overall energy conservation, if deemed appropriate for the City and they are financially feasible.

OBJECTIVE 1.8: Continue to investigate the feasibility of revising the Land Development Code to provide incentives for the incorporation of mass transit, car pool, pedestrian and bicycle amenities in major commercial, industrial and office buildings.



MEASURE:

a) Amend the Land Development Code

b) Prepare and publish informational material to business owners to encourage other than one person occupancy automobile usage.

POLICY 1.8.1: Require pedestrian and bicycle facilities, where feasible, in highway improvement projects.

POLICY 1.8.2: Promote and help coordinate countywide ridesharing efforts.

POLICY 1.8.3: Encourage staggered and flexible work schedules.

POLICY 1.8.4: The City/County shall coordinate with the Florida Department of Transportation, Broward County, and applicable agencies to implement an Alternative Mobility Funding System in accordance with Sections 163.3164, 163.3180, 163.3180(5)(j), and 163.31801, F.S., as amended by Chapter 2024-266, Laws of Florida.

OBJECTIVE 1.9: The City will coordinate with the plans and programs of the Broward County Metropolitan Planning Organization (MPO), Broward County and the Florida Department of Transportation's Five (5) Year Transportation Plan and any appropriate resource planning and management plans prepared pursuant to state statues.

MEASURE: Annually provide Broward County MPO with prioritized listing of needed improvements to City transportation system for inclusion in the County Transportation Improvement Program (TIP).

POLICY 1.9.1: Maintain an active, positive relationship with FDOT, Broward County, adjacent municipalities, and other relevant public and private entities in order to support and engage in cooperative funding of transportation improvements.

POLICY 1.9.2: Continue to participate in the Broward County Technical Coordinating Committee.

POLICY 1.9.3: Provide an annual review of the number of roadway improvements constructed within the City.

OBJECTIVE 1.10: The City will coordinate with Broward County in the implementation of their Transportation Element. The City was developed in a grid like pattern, generally with intensively developed uses located on major transportation routes located along land section lines.

MEASURE: Meet as needed with the Broward County Transportation Planning Division to coordinate activities, programs and data.

POLICY 1.10.1: The City shall maintain its highest intensities of land use along major transportation routes and encourage the clustering of parking areas near major routes and transit stops. The City does not contain any designated exclusive public transportation corridors; however, the City will participate in providing data to the County and/or FDOT and coordinate parking strategies and alternatives to utilizing the Florida Intrastate Highway System (FIHS) by local traffic. The City will coordinate with FDOT and the County utilizing the following strategies found in Policy 3.4.7 of the County's Transportation Element.

1. Maintain and, where feasible, improve the level of service on County roads that are parallel to FIHS roads.

2. Implement the Congestion Management Plan recommendations, with a emphasis on those county roads that are parallel to FIHS roads.

3. Coordinate and synchronize the signalization system along County roads that are parallel to FIHS roads.

4. Through its membership on the MPO, support implementation of Intelligent Transportation Systems (ITS).

5. Coordinate with FDOT and the BCPC to identify a public transportation corridor demonstration project.

6. Investigate the potential of programming public transit route headways and span of service, and the provisions

of information kiosks along County roads that are parallel to FIHS roads.

7. Support the double-tracking of the South Florida Transportation Corridor, a transportation facility parallel to Interstate 95 (west side).

8. Enhance regular route service to Tri-Rail stations.

9. Improve pedestrian access to transit by ensuring that all phases of road planning design, and construction include the necessary walkways on all arterial and collectors under the responsibility of the State and County.

10. Provide public education through marketing strategies about public transit desirability and availability

11. Promote transit oriented design along County roads that are parallel to FIHS roads.

12. Monitor FIHS level of service and work with the FDOT and the MPO to identify additional strategies.

POLICY 1.10.2: The City recognizes that Broward County is the agency responsible for mass transit service and overall transportation planning on a countywide basis. The City will coordinate with the County in implementing the element. To encourage more ridership, the City will continue to provide service schedules at City Hall and implement the Zoning and Land Development Code concerning providing mass transit stops for major traffic generators and attractors.

POLICY 1.10.3: The City will maintain a comprehensive review of the land use designations, including density and intensity controls, mixed use provisions and land use locations.

POLICY 1.10.4: The City supports the conversion / co-use of the FEC corridor for both freight and commuter purposes.

3.5 APPENDIX A : LEVEL OF SERVICE (LOS)

METHODOLOGY

The following is a description how Level of Service (LOS) standards are defined and utilized to determine acceptable operating levels. The City utilizes LOS definitions common to Broward County. The Florida Department of Transportation (FDOT) establishes LOS for roadways under their jurisdiction.

ANALYSIS OF EXISTING SYSTEM

The existing roadway network has been analyzed to determine average annual daily volumes, peak hour volumes, capacities, peak hour volume to capacity ratios and resulting levels of service. Such an analysis is required in order to establish a basis for adopting Level of Service (LOS) standards at peak hour pursuant to Chapter 9J-5 F.A.C. Traffic counts were provided by the Florida Department of Transportation and Broward County Office of Planning.

LEVEL OF SERVICE

To determine current LOS on the roadway network, peak hourly demand volumes for various roadways were calculated using ~~2007~~ 2024 Average Daily Traffic (ADT) volume counts as well as PM Peak Hour traffic counts and/or calculations based on accepted standards. These counts were obtained from the Broward County Environmental Protection and Growth Management Department and include counts supplied by the Florida Department of Transportation (FDOT) for the arterial roadways on the State system.

Establishing a roadway's LOS is the most common index of traffic congestion. Level of service may denote any number of differing operating conditions that may occur on a given lane or roadway when it is accommodating various traffic volumes. The LOS of a roadway is often defined as ratio of the traffic volumes (V) to the actual capacity (C) of the roadway (V/C ratio). The higher the V/C Ratio the more congested a road becomes.

The appendix tables illustrate the peak hour two-way direction roadway capacities used to calculate the V/C ratios for this analysis of existing roadway conditions in Hallandale Beach. Listed below are the V/C ratios used to determine LOS. Both the peak hour capacities and the V/C ratios are consistent with those used by the SFRPC and the Broward County. Specific peak hour volumes were provided by or

calculated utilizing data provided by the Broward County.

The description of service levels used are as follows:

V/C	LOS	DESCRIPTION
0 - .65	LOS A	Free flow traffic at average travel speeds
.66 - .77	LOS B	Stable flow with the presence of other users in traffic stream being noticeable.
.76 - .85	LOS C	Uncongested with other users in traffic Stream causing significant interactions.
.86 - .95	LOS D	Congested stable flow with major delays.
.96 – 1.15	LOS E	Very congested with traffic at or near capacity.
1.16+	LOS F	Extremely congested with breakdown Flow (major delays occurring frequently).

The Florida Department of Transportation adopted an updated Quality / Level of Service (LOS) Manual in 2002. This manual sets forth minimum accepted LOS Standards for State roadways. Table 6.1 "Statewide Minimum of Level of Service Standards for the State Highway System" states that for roadways such I-95, Pembroke Road, Hallandale Beach Boulevard and Federal Highway, which are within urbanized areas with population characteristics over 500,000, the adopted LOS is "D". A local government cannot establish a higher level of service for state roadways. The City has adopted a LOS Standard of "D" for all roadways in the City.

SERVICE VOLUMES / AVERAGE TRAVEL SPEED

Roadway capacities for different levels of service are referred to as service volumes and vary by the type of roadway analyzed, the number of signals per mile and the number of lanes. Using figures developed by the Florida Department of Transportation, the following Table E-1 lists the daily service volumes for different roadway types.

The values provided in Table 4-1 are based on the methods and definitions provided in the Quality / Level of Service Manual prepared by the Florida Department of Transportation, 2002 update. The Level of Service Manual measures, or determined, level of service based on average travel speed consistent with the Highway Capacity Manual. Table 4-4 provides the general relationship between the level of service letters (A, B, C, D, E and F) and the average travel speed during the peak hour on typical highways in Florida.

PEAK HOUR ANALYSIS

Similar to the Link Analysis conducted for average daily traffic (ADT) conditions, the peak hour two-way analysis concentrates on peak hour volumes instead of average daily traffic volumes. Peak hour service volumes are provided in Table 4-4 from the Florida Department of Transportation's Quality / Level of Service Manual 2002 Update. The methods and definitions are provided in the FDOT Highway Capacity Manual.

Transportation level of service (LOS) standards. Florida law requires transportation level of service standards be adopted for roads and public transit facilities within the local government's jurisdiction. Level of service standards for other transportation facilities, such as bikeways and airports, are optional. Broward County applies transportation LOS standards through its Concurrency Management System only to roadways and public transit.

Florida Intrastate Highway System. Rule 9J-5.0055(2)(c), FAC, requires local governments to adopt the LOS standards established by the Florida Department of Transportation by rule for facilities on the Florida Intrastate Highway System (FIHS). The following Table provides the generalized two-way peak hour volumes for these FIHS roadways. It is based on a LOS "E" standard for urbanized areas with population over 500,000.

Other non-local and non-municipal roadways. Rule 9J-5.0055(2)(c), FAC, requires local governments to adopt adequate LOS standards for local roads. Broward County proposes to adopt the generalized two-way peak hour volumes for Florida's Urbanized Areas at the LOS "D" standard, as shown in Table 3-38. In the City's 1989 Traffic

Roadway	Link	Annual Average Daily Volumes	Two-way Peak Hour Volumes	Lanes
I-95	Miami-Dade County Line to Palm Beach County Line	207,600	19,310	10

Source: Quality / Level of Service Manual, Table 4-1 and 4-4, Florida Department of Transportation, 2002.

Circulation Element, the roadway LOS "D" standard was measured by the average annual daily traffic (AADT) volumes; however, state law now requires the LOS standard be measured by peak-hour volumes. The City of Hallandale Beach will continue to use the LOS "D" standard as the roadway concurrency standard. The two-way peak hour LOS "D" standard volumes are calculated by multiplying the Annual Average Daily Traffic (AADT) volumes by the statewide average of 0.093. This average is also the Planning Analysis Hour Factor or K factor (K100). According to the FDOT 2002 Quality / Level of Service Manual, it is "the 100th highest demand volume hour of the year for a roadway section" or "the ratio of the 100th highest volume hour of the year to the annual average daily traffic." Broward County is using the two-way peak hour volumes instead of the directional peak hour volumes because the FDOT also uses two-way peak hour volumes.

GENERALIZED TWO-WAY PEAK HOUR VOLUMES FOR LOS D FOR FLORIDA'S URBANIZED AREAS

Lanes	2 Lane Un-div.	4 Lane Div.	6 Lane Div.	8 Lane Div.	10 Lane Div.	12 Lane
State 2-way Arterials Uninterrupted Flow	1,720	5,870	8,810	--	--	--
Interrupted Flow Class I (0 to 1.99)	1,560	3,390	5,080	6,440	--	--
Interrupted Flow Class I (2.0 to 4.5)	1,460	3,110	4,680	6,060	--	--
Interrupted Flow Class III	1,200	2,750	4,240	5,580	--	--
Interrupted Flow Class IV	1,310	2,880	4,350	5,690	--	--
Freeways, Group 1	--	6,510	10,050	13,600	17,160	20,710
Freeways, Group 2	--	6,250	9,840	13,420	16,980	20,560
Non-State Roadways Major City/County Rd	1,390	2,950	4,450	--	--	--
Other Signalized Rds.	950	2,070	--	--	--	--

Source: Level of Service Manual, Table 4-4, Florida Department of Transportation, 2002.

It should be mentioned that the FDOT Tables are "generalized" numbers and FDOT statisticians have suggested that if specific roadways are in question, a traffic engineer can prepare a study to determine more specific capacity numbers. Broward County has generally abandoned the previous regional roadway concurrency system (except in standard concurrency districts) and replaced it with a Transit-Oriented Concurrency system. However, the county's Transportation Element still includes maximum roadway service volumes for long-range planning purposes.

Broward County TE Policy 3.4.2 states in part: "The concurrency management system shall establish the following transportation level of service (LOS) standards:

1. Within transit oriented concurrency districts, the transportation LOS standards, for the purpose of issuing development orders and permits, are to achieve and maintain the following by FY 2009:

2. Southeast District – Achieve headways of 30 minutes or less on 80% of routes, establish at least one neighborhood transit center, establish at least one additional community bus route, increase peak-hour weekday fixed-route transit ridership by 22% from FY 2009 to 2013 and maintain the current number of community bus routes (10) through 2013.

The County's Transportation Element also contains a Table within Policy 3.4.2 entitled "Peak Hour Two Way Maximum Service Volumes*" which indicates traffic volumes 75% higher than the values in the FDOT Generalized Tables. Broward County advises that these values are not to be used for roadway capacity concurrency analysis; rather, they were required by DCA / FDOT to be included to set maximum traffic volume values at which time all development orders and permits must be denied, regardless of impact fees or mitigation.

Broward County TE Policy 3.4.3 states in part: "The transportation LOS standards for the purpose of long-range transportation planning are:

1. For facilities within the Strategic Intermodal System (SIS), inclusive of the Florida Intrastate Highway System (FIHS), the Generalized Peak Hour Two Way Level of Service Standard, established by the Florida Department of Transportation, is as follows:

SIS / FIHS Roadway	Roadway Segment	LOS Standard
Interstate 95	Miami-Dade County line to Palm Beach County line	E

2. For facilities not within the SIS / FIHS, the LOS standard shall be the generalized two-way peak hour LOS "E" standard volumes depicted on Table 4-4, Level of Service Manual, Florida Department of Transportation, (2002) within the Eastern Core District, and the generalized two-way peak hour LOS "D" standard volumes depicted on Table 4-4, Level of Service Manual, Florida Department of Transportation, (2002) within all other Districts.

4.1 INTRODUCTION

The purpose of the Housing Element is to serve as a guide in the development of plans and policies aimed at meeting identified or projected deficits in the supply of housing for all residents, including affordable housing for very low, low and moderate income households, as well as, group homes, foster care facilities and households with special needs.

The Housing Element is divided into four parts: Housing Element Data, Analysis, General Recommendations, and Goals, Objectives, and Policies. The Housing Element Data section provides a comprehensive inventory of the City's existing housing stock. The Analysis section provides projections of demand and need, land requirements, private sector involvement, and the housing delivery system. The General Recommendation section provides an overview of the City's role in the provision of housing. The fourth section, Goals, Objectives, and Policies is based on the previous three sections and provides the City with a foundation in which to make sound housing related decisions.

The Housing Element uses, as one source, the housing data as presented in the U.S. Department of Housing Development, Comprehensive Housing Affordability Strategy (CHAS) ~~Affordable Housing Needs Assessment (AHNA) Users Guides of 2008~~, prepared by the Shimberg Center for Affordable Housing. The CHAS ~~AHNA~~ utilizes data from the U.S. Census of 2020 ~~2000~~ and the databases maintained by the Bureau of Economic and Business Research (BEBR) at the University of Florida. ~~Staff inserted local data on population projections into the AHNA model.~~ Population projections utilized are from the 2024 Broward County and Municipal Population Forecast and Allocation Model (PFAM).

4.2 DATA AND ANALYSIS

HOUSING INVENTORY

This section describes the housing characteristics of the City of Hallandale Beach. The basis for these descriptions is the ~~2000~~ 2020 Census, except where noted.

TABLE 4-1
ALL HOUSING UNITS, VACANCY & OCCUPANCY STATUS, 2020 ~~2000~~

	Hallandale Beach	Broward County
Occupied	~~18,110~~ 19,512	~~654,445~~ 756,657
Vacant (Rate)	~~1,558 (7.9%)~~ 8,931 (31.4%)	~~31,875 (4.6%)~~ 103,672 (12%)
Total	~~19,668~~ 28,443	~~686,320~~ 860,329
Vacant Seasonal, etc., Units (Rate)	~~5,430 (21.6%)~~ 6,590 (22.7%)	~~54,723 (7.4%)~~ 56,007 (6.5%)
Total Units (Rate)	~~25,098 (27.8%)~~ 29,019	~~741,043 (11.7%)~~ 868,151

Source: ~~2000~~ 2020 US Census/ CHAS ~~AHNA~~

As identified on Table 4-1, Hallandale Beach had ~~18,110~~ 19,512 occupied units and ~~1,558~~ 8,931 vacant permanent units, for a total of ~~19,668~~ 28,443 units in ~~2000~~ 2020. Hallandale Beach had an additional ~~5,430~~ 6,590 nonpermanent vacancies constituting ~~25,098~~ 29,019 total units in ~~2000~~ (2020). ~~Hallandale Beach has a total vacancy rate of 27.8% and Broward County has a rate of 11.7% in 2000.~~ The City appears to have a high seasonal vacancy rate which has a large impact on the total vacancy rate.

HOUSING UNITS BY TYPE

TABLE 4-2
HOUSING UNITS BY TYPE, 2020 ~~2000~~

	Hallandale Beach		Broward County	
	Number	Percent	Number	Percent
Single-Family	~~3,568~~ 4,053	~~14.2%~~ (14%)	~~360,764~~ 412,016	~~48.7%~~ 47.5%
Multi-Family	~~20,471~~ 24,143	~~81.5%~~ 83%	~~352,349~~ 434,500	~~47.5%~~ (50%)
Mobile Homes	~~1,018~~ 823	~~4.1%~~ (3%)	~~26,834~~ 20,996	~~3.6%~~ (2.4%)
Other	~~41~~ 0	~~0.2%~~ (0%)	~~1,096~~ 639	~~0.2%~~ (0.1%)
Total	~~25,098~~ 29,019	100.0%	~~741,043~~ 868,151	100.0%

Source: ~~2000~~ 2020 US Census/ CHAS ~~AHNA~~

As identified in Table 4-2, there were ~~3,568~~ 4,053 single family units, ~~20,471~~ 24,143 multi-family structures, ~~1,018~~ 823 mobile homes and ~~41~~ 0 units in the "other" category in ~~2000~~ 2020. Hallandale Beach had approximately 30% more multifamily units and 30% less single family units than the County in ~~2000~~ 2020.

These totals include seasonal and other types of vacant units that the assessment will eventually exclude from the permanent housing stock. When housing demand and need projections are made, the total in Hallandale Beach is ~~25,098~~ 29,019 units which includes a number of condominium units that are seasonably occupied.

~~In addition to the above, since 2000 approximately 2,164 new dwelling units have been built, the vast majority being multiple-family housing. Lastly, another 2,500+/- dwelling units have been approved but not as yet built. A further description of the more current data is found later in this element.~~

HOUSING UNITS BY TENURE (OWNER OR RENTER)

TABLE 4-3
HOUSING UNITS BY TENURE (2020 ~~2000~~)
CITY OF HALLANDALE BEACH

Tenure	Number of Units	Share
Owner Occupied	~~11,957~~ 9,644	49%
Renter Occupied	~~6,153~~ 9,868	51%
Total Occupied Units	~~18,110~~ 19,512	
For Rent	~~567~~ 1,133	
For Sale Only	~~392~~ 196	
Rented or Sold Not Occupied Portion of Total - Assumed Use		
Owner	~~395~~ 130	
Renter	~~204~~ 362	
Total	~~599~~ 492	

Tenure	Number of Units	Share
Total Units by Intended Use (Occupied by Permanent Residents)		
Owner	10,500 ~~12,744~~	
Renter	9,147 ~~6,924~~	
Total	19,647 ~~19,668~~	

Source: 2020 ~~2000~~ US Census/ CHAS ~~AHNA~~ & ACS 5-Year Estimates (2023)

Note: Household estimates and projections for "All Households" are estimated separately, therefore owner and renter households do not add up to total households.

Hallandale Beach had ~~11,957~~ 9,644 owner occupied and ~~6,153~~ 9,868 renter occupied units, with an additional ~~567~~ 1,133 vacant for rent and ~~392~~ 196 vacant for sale in ~~2000~~ 2020. A total of ~~599~~ 492 units were rented or sold but not occupied; if distributed according to the proportion of occupied owner and renter units they would consist of ~~204~~ 362 rental units and ~~395~~ 130 owner units in ~~2000~~ 2020. The total owner housing stock was therefore 10,500 ~~12,744~~ units in 2023 ~~2000~~. Owner units represented 53% ~~66%~~ of the occupied housing stock in 2023 ~~2000~~.

HOUSING UNITS BY GROSS RENT LEVELS

TABLE 4-4
RENTAL UNITS BY GROSS RENT LEVELS, 2020 ~~2000~~
CITY OF HALLANDALE BEACH & BROWARD COUNTY

Rent Range	Hallandale Beach # of Units	Broward Co. # of Units
$1 - $200	~~171~~ 0	~~3,892~~ 900
200 - 299	~~162~~ 89	~~3,515~~ 2,168
300 - 499	~~1,161~~ 86	~~17,640~~ 2,127
500 - 749	~~2,457~~ 153	~~69,173~~ 4,020
750 - 999	~~1,114~~ 622	~~62,862~~ 6,722
1,000 - 1,499	~~627~~ 3,065	~~28,298~~ 48,957
1,500+	~~129~~ 4,941	~~7,376~~ 198,184
No cash rent	~~323~~ 191	~~6,809~~ 10,617
TOTAL	~~6,144~~ 9,147	~~199,565~~ 273,695

Source: 2020 ~~2000~~ US Census/ CHAS ~~AHNA~~

In Hallandale Beach, the rent categories range with the most units being those between ~~$300~~ $1,000 and ~~$999~~ $1,500+ in 2000. There was also a large number of apartments with rents greater than $1500 ~~ranging from $$1,000 to $$1,499~~ in ~~2000~~ 2020. ~~These numbers are consistent with the County's rent distribution.~~

OWNER HOUSING UNITS BY VALUE RANGES

TABLE 4-5
VALUE OF OWNER-OCCUPIED HOUSING UNITS*, 2020 ~~2000~~
CITY OF HALLANDALE BEACH

Value	# of Units
$0 - 50,000	~~127~~ 658
50,000 - 99,999	~~988~~ 431
100,000 - 149,999	~~668~~ 1,279
150,000 - 199,999	~~187~~ 883
200,000 - 299,999	~~95~~ 3,225
300,000 - 499,999	~~230~~ 2,464
500,000 - 999,999	~~75~~ 1,341
1,000,000+	~~0~~ 219
TOTAL	~~2,370~~ 10,500

Source: 2020 ~~2000~~ US Census/ CHAS ~~AHNA~~

** Note: Specified owner occupied units include only one family residential units on fewer than 10 acres without a business or medical office on the property. The data excludes mobile homes, residential units with a business or medical office, houses on 10 or more acres, and housing units in multi-family buildings.*

Pursuant to the information in Table 4-5, Hallandale Beach had most of its housing units in the value ranges above ~~$50,000~~ $100,000 between ~~$50,000~~ $200,000 and ~~$150,000~~ $499,000 with a small spike between ~~$300,000~~ $100,000 and ~~$499,999~~ $149,000 in ~~2000~~ 2020. Almost 70% of units represented in the sample were valued between ~~$50,000~~ $200,000 and ~~$150,000~~ $500,000. ~~During the early 2000s real estate values rose significantly in South Florida; however, since 2006 values have decreased again.~~

AGE OF HOUSING STOCK

TABLE 4-6
AGE OF HOUSING STOCK CITY OF HALLANDALE BEACH

Year Constructed	No. of Units	%
1939 or earlier	~~384~~ 57	~~1.5%~~ 3.0%
1940 - 1949	~~408~~ 456	~~1.6%~~ 10.7%
1950 - 1959	~~2,112~~ 2,388	~~8.4%~~ 4.4%
1960 - 1969	~~7,492~~ 5,992	~~29.9%~~ 13%
1970 - 1979	~~10,803~~ 10,945	~~43.0%~~ 37.7%
1980 - 1989	~~2,975~~ 3,784	~~11.9%~~ 20.6%
1990-~~1994~~ 1999	~~626~~ 1,278	~~2.5%~~ 8.2%
~~1995~~ 2000- ~~March, 2000~~ 2009	~~298~~ 3,096	~~1.2%~~ 1.6%
2010- 2019	864	0.2%
TOTAL	~~25,098~~ 29,019	100.0%

Source: 2020 ~~2000~~ US Census/ CHAS ~~AHNA~~

In Hallandale Beach, most of the existing housing stock was constructed between 1960 and 1980. During the 1970's the City experienced a boom in multifamily housing construction. The City's housing stock doubled during that time period. ~~As stated previously, between 2000 and 2008 there has been about 2,164 new dwelling units constructed in the City with another 2,500 dwelling units approved but not as yet built.~~

MONTHLY COSTS

TABLE 4-7
MONTHLY COSTS - OWNER OCCUPIED HOUSING UNITS, ~~2000~~ 2020
CITY OF HALLANDALE BEACH

Mortgage Status and Selected Monthly Owner Costs	
Specified owner-occupied housing units with a mortgage	
~~2000~~ 2020 Owner Costs	# of Units
~~$0- $ 299~~	~~9~~
0- 499	10
~~300- 499~~	~~45~~
~~500- 699~~	~~114~~
~~700 999~~	~~575~~
500 - 999	182
1,000 - 1,499	~~570~~ 1,159
1,500 -1,999	~~90~~ 714
2,000+	1,314
TOTAL	~~1,588~~ 3,379
Specified owner-occupied housing units without a mortgage	
~~2000~~ 2020 Owner Costs	# of Units
~~$0- $199~~	~~103~~
~~200 – 299~~	~~185~~
~~0- 250~~	~~352~~
~~300~~ 250 - 399	~~182~~ 432
400 - 599	~~145~~ 1,160
600 - 799	~~72~~ 1,485
800+	~~95~~ 3,692
TOTAL	~~782~~ 7,121

Source: 2020 ~~2000~~ US Census/ CHAS ~~AHNA~~

In Hallandale Beach a majority of people with mortgages paid between ~~$700~~ $1,000 ~~and~~ to ~~$1,500~~ $2,000 a month in costs in ~~2000~~ 2020. While those home owners without a mortgage typically paid less than ~~$600~~ $800 a month in costs in ~~2000~~ 2020. ~~It is believed in 2008 those numbers have doubled.~~

RENTAL AND OWNER COST

TABLE 4-8A
GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME BY INCOME CATEGORY, ~~2000~~ 2020
CITY OF HALLANDALE BEACH

	Less than $10,00	$10,000 to $19,999	$20,000 to $34,999	$35,000 to $49,999	$50,000+	Total
<30%	~~85~~ 51	~~235~~ 41	~~715~~ 23	~~696~~ 420	~~1,128~~ 2,021	~~2,859~~ 2,556
30 -34.9%	~~6~~ 18	~~70~~ 48	~~251~~ 103	~~57~~ 310	~~32~~ 298	~~416~~ $777
35% +	~~652~~ 663	~~1,129~~ 957	~~487~~ 1,778	~~48~~ 1,022	~~0~~ 274	~~2,316~~ 4,694
Not Computed	~~300~~ 460	~~87~~ 0	~~29~~ 43	~~68~~ 35	~~69~~ 64	~~553~~ 602
Total	~~1,043~~ 1,192	~~1,521~~ 1,046	~~1,482~~ 1,947	1,787	~~1,229~~ 2,657	~~6,144~~ 8,629

TABLE 4-8B
HOUSEHOLDS PAYING 30% OR MORE FOR RENT BY INCOME CATEGORY, ~~2000~~ 2023
CITY OF HALLANDALE BEACH

	Less than $10,00	$10,000 to $19,999	$20,000 to $34,999	$35,000 to $49,999	$50,000+	Total
Percent of Income Range	~~658~~ 681 ~~63.1%~~ 57.1%	~~1,199~~ 1,005 ~~78.8%~~ 96.1%	~~738~~ 1,881 ~~49.8%~~ 96.6%	~~105~~ 1,332 ~~12.1%~~ 74.5%	~~32~~ 572 ~~2.6%~~ 21.5%	~~2,732~~ 5,471

In Hallandale Beach, 65% ~~64%~~ of those households sampled with household incomes less than $35,000 pay more than 30% of their income for rent in 2023 ~~2000~~.

TABLE 4-8C
COST BURDEN SUMMARY, ~~2000~~ 2020 SPECIFIED RENTER-OCCUPIED HOUSING UNITS
CITY OF HALLANDALE BEACH

# of Households		Total Households*	Percent of Households		
30% - 34.9%	35%+	-	30- 34.9%	35%+	Total
~~416~~ 777	~~2,316~~ 4,694	~~5,591~~ 8,027	~~7.4%~~ 9.7%	~~41.4~~ 58.5%	~~48.8%~~ 68.2%

According to Table 4-8C, of all income groups sampled, ~~48.8%~~ 68.2% paid 30% or more on rent.

Source Tables 4-8A, 4-8B, and 4-8C: 2020 ~~2000~~ US Census/CHAS ~~AHNA~~

** Does not include "Not Computed" category*

TABLE 4-9A
OWNER HOUSING COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME BY INCOME CATEGORY, ~~2000~~ 2023
CITY OF HALLANDALE BEACH

Household income in ~~1999~~ 2023 by selected monthly owner costs as a percentage of household income- specified owner occupied housing units.

	Less than ~~$10,000~~ 20,000	~~$10,000 to $19,999~~	$20,000 to $34,999	$35,000 to $49,999	$50,000+	Total
~~<30~~ <20%	~~21~~ 0	~~116~~	~~167~~ 0	~~279~~ 22	~~961~~ 1126	~~1,544~~ 1148
~~30- 34.9~~ 20-29%	~~9~~ 0	~~26~~	~~99~~ 0	~~65~~ 30	~~41~~ 723	~~240~~ 783
~~35%+~~ 30%+	~~105~~ 323	~~176~~	~~170~~ 328	~~53~~ 170	~~52~~ 548	~~556~~
Not Comp.	~~30~~ 0	~~0~~	0	0	0	~~30~~ 0
Total*	~~135~~ 323	~~318~~	~~436~~ 328	~~397~~ 222	~~1,054~~ 2,397	~~2,340~~ 3,270
Total > 30%	~~114~~ 323	~~202~~	~~269~~ 328	~~118~~ 222	~~93~~ 2,397	

**not including Not Computed*

TABLE 4-9B
PERCENTAGE OF OWNER-OCCUPIED HOUSEHOLDS PAYING MORE THAN 30% OF THEIR INCOME FOR MONTHLY OWNER COSTS, 2000
CITY OF HALLANDALE BEACH

< $10,000	84.4%
$10,000 - 19,999000	63.5%
$20,000 - 34,999	61.7%
$35,000 - 49,999	29.7%
$50,000+	8.8%

In Hallandale Beach, those with the lowest incomes paid a greater percentage of their income on monthly costs in 2000.

TABLE 4-9C
COST BURDEN SUMMARY, 2000 SPECIFIED OWNER-OCCUPIED HOUSING UNITS
CITY OF HALLANDALE BEACH

# of Households		Total Households*	Percent of Households		
30% - 34.9%	35%+	-	30 - 34.9%	35%+	Total
240	556	2,340	10.3%	23.8%	34.1%

**not including Not Computed*

According to Table 4-9C, of all income groups sampled, 34.1% paid 30% or more on housing costs.

Source Tables 4-9A, 4-9B and 4-9C: 2000 US Census/ AHNA

ASSISTED HOUSING INVENTORY

TABLE 4-10A
FEDERALLY, STATE, AND LOCAL ASSISTED RENTAL HOUSING 2008
CITY OF HALLANDALE BEACH

Development Name Address	Total Units	Assisted Units	Housing Programs	Target
1. Chaves Lake Apts 201 NW 8th St.	238	238	Housing Credits 4% Local Bonds; SAIL	Family
2. Harbour Cove Apts. 100 NW 9th Terr.	212	212	Guarantee; Housing Credits 4%; Local Bonds; Sect 542; SAIL	Family
3. Wesley Group Home 616 SW 3rd St.	7	7	Section 811 Capital Advance; Rental Assistance/HUD	Persons with Disabilities
4. Hurley Hall 632 NW 1st St	121	120	Section 223 (f) Refi/Purchase Rental Assistance/HUD	Elderly

Source: AHNA Quick Report Shimberg Center for Affordable Housing

The median household income for the City of Hallandale Beach was $28,266 in 1999. The County Median household income was $41,691 in 1999. Therefore, at least half of the residents in the City of Hallandale Beach made less than 70% of the County median income, and would qualify as a low income household.

GROUP HOMES

TABLE 4-10B
LICENSED GROUP HOMES
CITY OF HALLANDALE BEACH

	1995		2025 ~~2008~~	
Type of Home	Number	Capacity	Number	Capacity
ACLF	2	104	6 ~~4~~	90 ~~128~~
Youth Home	0	0	0	0
Development Services	3	19	1	7
TOTAL	5	123	7 ~~5~~	97 ~~135~~

Source: Florida Center for Health Information and Policy Analysis; City of Hallandale Beach Development Services Department

The City of Hallandale Beach currently has four (4) Adult Congregate Living Facilities (ACLF) and one (1) Development Services Home (Wesley Group Home) within the City. In 1995 there were only 2 ACLF but 3 additional properties that were listed as Development Services homes. However, the overall total capacity has slightly lowered ~~remains relatively the same~~ with 123 group home capacity in 1995 and 97 ~~135~~ group home capacity as of March 2025 ~~in 2008.~~ The current ACLF in the City are:

~~1. Bernadette ACFL Inc. at 520 NW 2nd Avenue~~

~~2. Quality Homecare Management, Inc. at 131 SE 5th Street~~

~~3.~~ 1. Seaside Healthcare at 2091 South Ocean Drive

~~4.~~ 2. Sun Coast Residential Care, Inc. at 813 SW 9th Street

3. Living by Faith Assisted Living Facility at 905 NE 10th Street

4. Hallandale Group Home at 616 SW 3rd Street

5. Prestige Care Hallandale at 105 SW 4th Street Unit 1-2

6. Carimaerican Services at 117 SW 1st Avenue

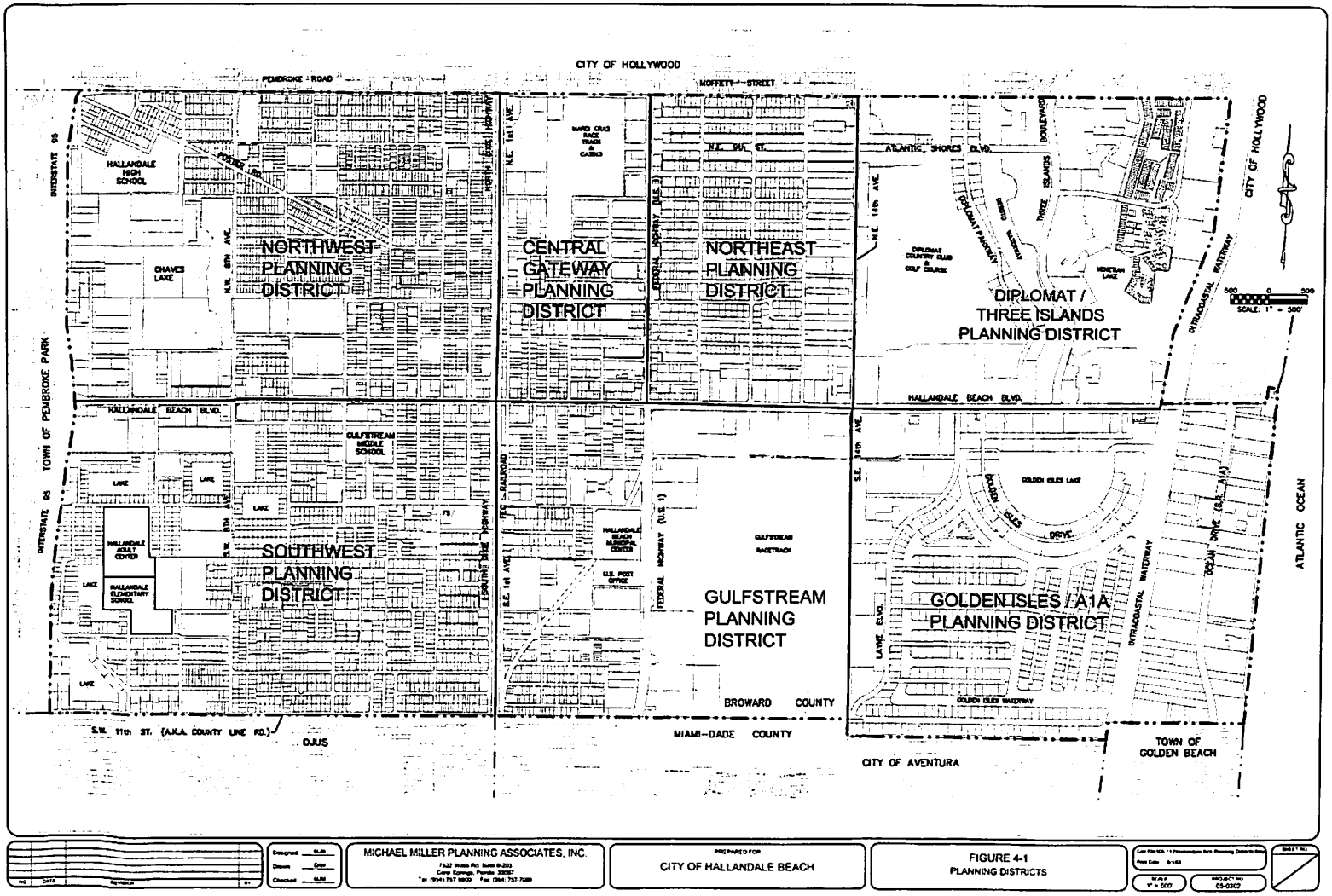
MOBILE HOMES

TABLE 4-10C
MOBILE HOME PARKS (2025) ~~BY PLANNING DISTRICT - 2008 (DISTRICT LOCATION FIGURE 4-2)~~

Park Name	Address	# of Trailers
Northwest Planning District *(None)*		
Southwest Planning District		
Emerald Isles	150 SW 10 Avenue	22
Home	480 SW 8 Avenue	136
Hallandale	865 SW 1 Place	72
Golden Trio	700 SW 8 Avenue	43
Sunnydale	915 SW 5 Street	64
Snowbird	855 SW 7 Street	54
		391
Central Gateway Planning District		
Sea Esta	350 NE 7 Street	65
Van Der Hayden	512 NE 1 Court	5
Seville	426 NE 5 Street	167
		237
Northeast Planning District		
El Rancho	420 North Federal Highway	13
Gulfstream Planning District		
~~Gulfstream~~	~~227 SE 5 Street~~	~~20~~
~~Tower~~	~~600 Old Federal Highway~~	~~80~~
Woodbine	304 SE 8 Street	23
Eastwood	418 SE 8 Street	28
~~Sunshine~~	~~130 SE 7 Street~~	~~8~~
Royal Palm	720 South Federal Highway	114
		~~273~~ 165
City of Hallandale Beach Total Mobile Homes		~~914~~ 806

Source: US Census and City of Hallandale Beach Development Services Department

FIGURE 4-1
PLANNING DISTRICTS



The City now has 16 mobile home parks, with the greatest concentration of parks located in the Southwest, Central Gateway and Gulfstream Planning Districts.

HISTORICAL STRUCTURES

In 1992, the City received a grant from the Florida Department of State to prepare a Historic Properties Survey. Since the publishing of the report, prepared by the Historic Property Association, the City of Hallandale Beach has only one ~~three~~ sites listed ~~with~~ on the National Register ~~potential~~: ~~These sites are:~~

~~1. The Moffit House- 134 South Dixie Highway~~

~~2. The Trembicki House- 34 Southwest 8th Street~~

~~3.~~ 1. The Curci House- 324 Southwest Second Avenue

~~In early 2008 the Moffit House was moved to the same location as the Curci House.~~ The property is now located on City owned property and is planned to be preserved and restored, shown in Figure 4-2. The Future Land Use designation on the property has been changed to Historic and is the only land use with this designation in the City of Hallandale Beach.

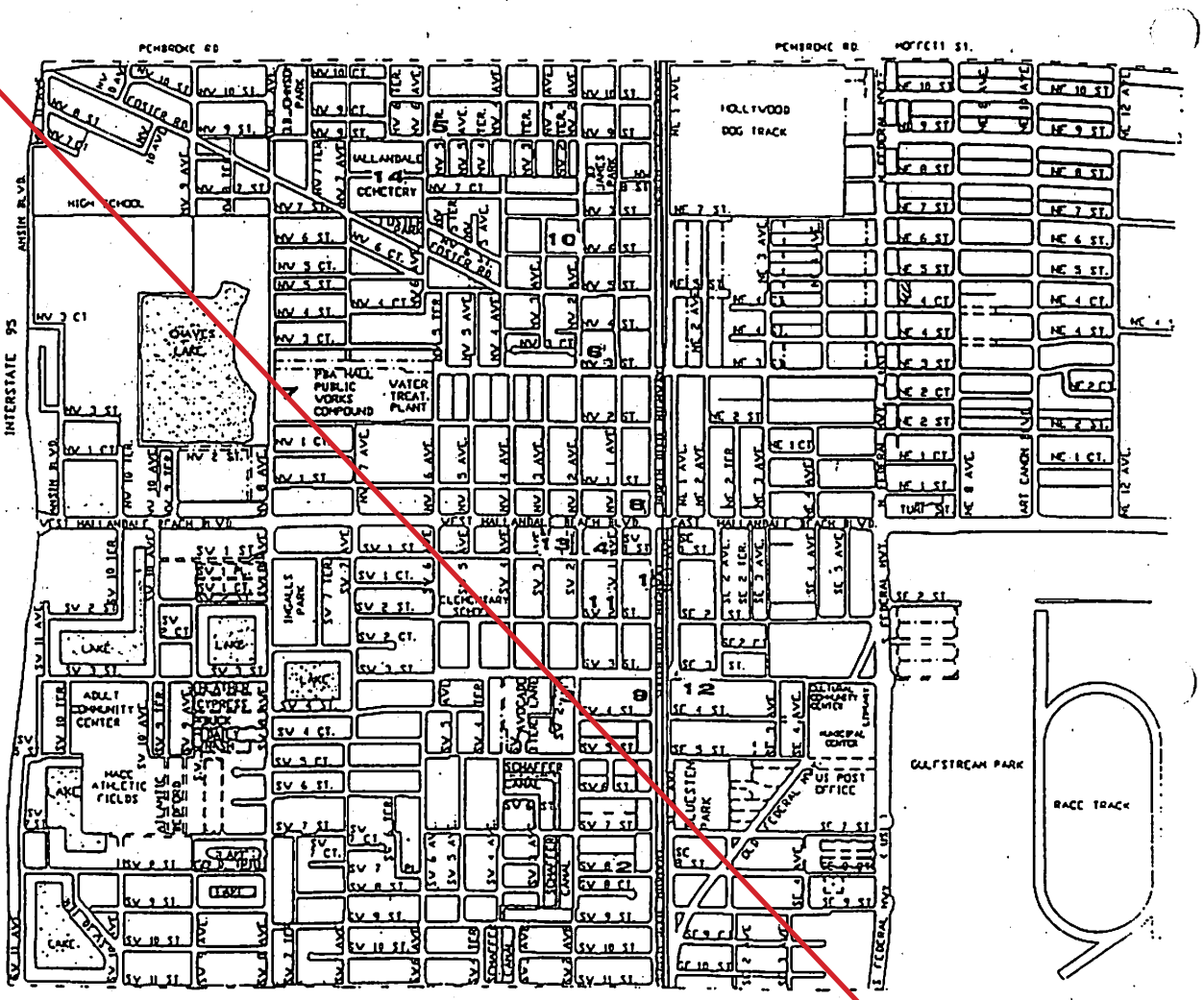
In Addition, the City also has a limited number of buildings or sites which are of "local significance," though no action has been performed for historic designation since these were originally identified. These are:

1. 102 and 106-108 Southwest First Street
2. 920 Northwest Ninth Street
3. 312 Northwest Second Street- Pall Bearer Hall
4. The Old Schoolhouse- 650 Northwest Second Street
5. 222 West Hallandale Beach Blvd.- Gieges Building
6. 420 South Dixie Highway- The Schwartz Building
7. 519 and 521 Northwest Third Avenue
8. 130 Southwest First Avenue
9. 112 Southeast Third Street - Schoenberger Tomatoe House
10. 216 Southwest First Street
11. Hallandale Municipal Cemetery

Source: Historic Property Associates, Inc., Historic Properties Survey of Hallandale, FL, 1992.

~~In 1993, four properties were placed on the Broward County List of Local Areas of Particular Concern. These four sites included: Hallandale Cemetery, Moffit House, Curci House and Old School House . All sites are shown on Figure 4-2A.~~

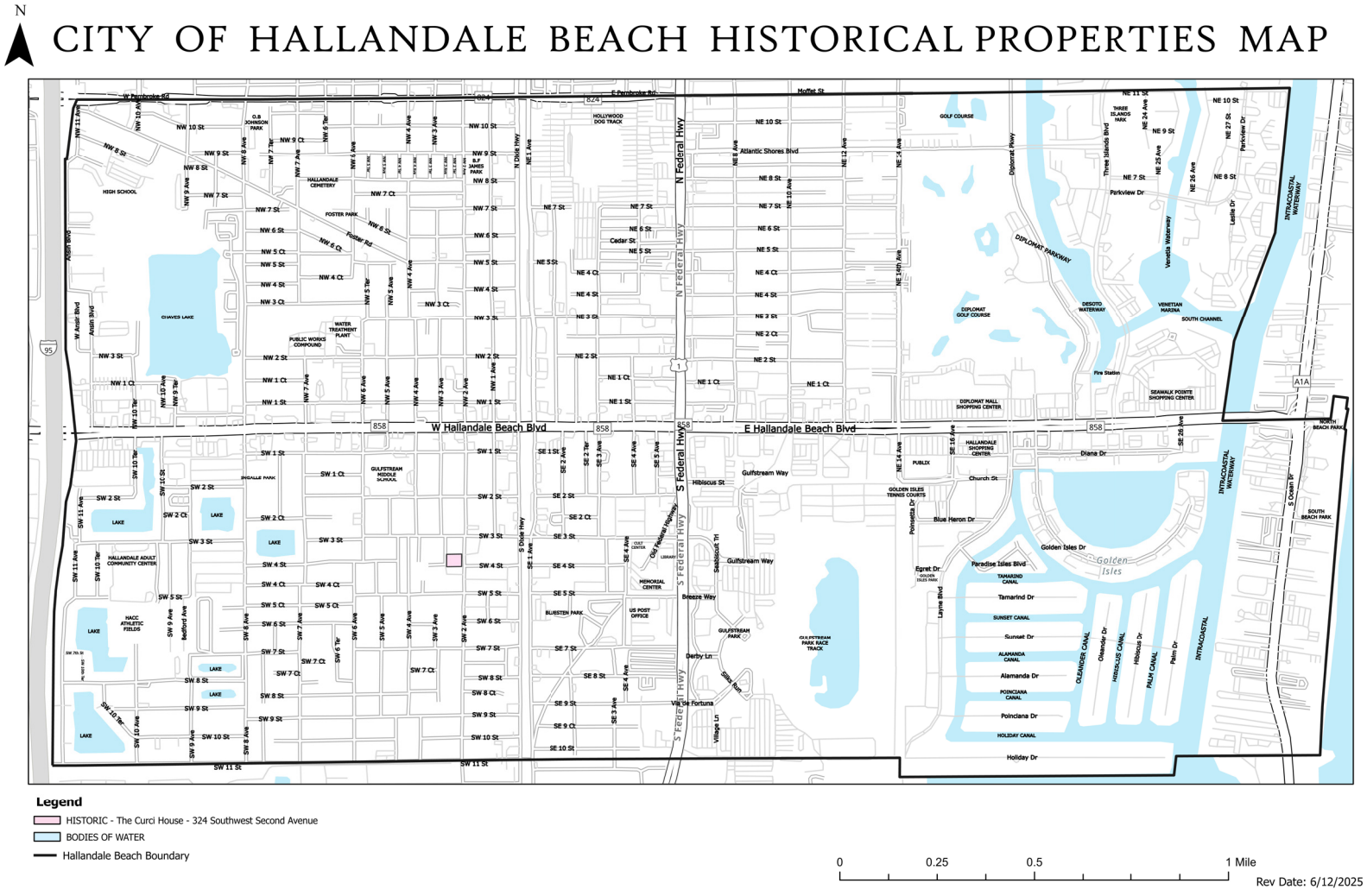
FIGURE 4-2
HISTORIC STRUCTURES MAP



MAP LEGEND

1	THE MOFFIT HOUSE- 134 SOUTH DIXIE HIGHWAY
2	THE TREMBICKI HOUSE- 34 SOUTHWEST 8TH STREET
3	THE CURCI HOUSE- 324 SOUTHWEST SECOND AVENUE
4	102 AND 106-108 SOUTHWEST FIRST AVENUE
5	920 NORTHWEST NINTH STREET
6	312 NORTHWEST SECOND STREET- PALL BEARER HALL
7	THE OLD SCHOOLHOUSE- 650 NORTHWEST SECOND STREET
8	222 WEST HALLANDALE BEACH BLVD.- GEIGES BUILDING
9	420 SOUTH DIXIE HIGHWAY- THE SCHWARTZ BUILDING
10	519 AND 521 NORTHWEST THIRD AVENUE
11	130 SOUTHWEST FIRST AVENUE
12	112 SOUTHEAST THIRD STREET- SCHOENBERGER TOMATOE HOUSE
13	216 SOUTHWEST FIRST STREET
14	HALLANDALE MUNICIPAL CEMETERY

FIGURE 4-2
HISTORIC STRUCTURES MAP



HOUSING UNIT CONDITION

~~Rule 9J-5(1)(c), FAC, requires an "inventory using data from the latest decennial United States Census showing the number of dwelling units in each of the following categories: lacking complete plumbing, lacking complete kitchen facilities, lacking central heating or overcrowded".~~

SUBSTANDARD INDICATORS

TABLE 4-15
HOUSING UNIT CONDITION SUMMARY SUBSTANDARD INDICATORS, 2020 ~~2000~~
CITY OF HALLANDALE BEACH

Condition	# of Units	Total Units	%
Lacking complete plumbing facilities	~~86~~ 0	~~25,098~~ 29,019	~~0.3%~~ 0%
Lacking complete kitchen facilities	~~126~~ 227	~~25,098~~ 29,019	~~0.5%~~ 0.8%
No Heating System	~~850~~ 1,624	~~25,098~~ 29,019	~~4.7%~~ 5.6%
1.01 or More Persons Per Room (Overcrowded)	~~1,186~~ 1,178	~~25,098~~ 29,019	~~6.5%~~ 4.1%

Source: ~~2000~~ 2020 US Census/CHAS ~~AHNA~~

By all measures used by the U.S. Bureau of the Census, the City of Hallandale Beach demonstrated a sound housing stock. Units which were seriously deteriorated (e.g., lacking complete plumbing) constituted less than one percent of the City's housing stock. The City has had a problem with illegal conversions and plans to bring all properties up to minimum code requirements. ~~Currently the City is working on 65 active cases.~~

POPULATION PROJECTIONS

The City has reviewed population projection data supplied by both the Bureau of Economic and Business Research (BEBR) at the University of Florida and the Broward County Planning Services Division (PSD). While both projection sources expect the City's population to increase between ~~now~~ 2020 and ~~2020~~ 2040, they differ on how significant the increase will be. Each source's projections for the City are reviewed below followed by a discussion of its implications for the City. Both projection sources start with the ~~2000~~ 2020 US Census population figure for the City of ~~34,282~~ 41,217 persons as a baseline.

BROWARD COUNTY AND MUNICIPAL POPULATION FORECAST AND ALLOCATION MODEL (PFAM) ~~BROWARD COUNTY PLANNING SERVICES DIVISON (PSD)~~

The most recent Broward County and Municipal Population Forecast and Allocation Model (PFAM) ~~Broward County PSD~~ projections for the City are from ~~2006~~ 2024. The PFAM ~~PSD's~~ projections for the City of Hallandale Beach indicated that the City had a population in ~~2006~~ 2025 of ~~34,622~~ 44,550 which represents a ~~340~~ 2,777 person or 6.6% increase since ~~2000~~ 2020. By ~~2020~~ 2040 the PSD projects that the City will have ~~48,493~~ 54,687 persons which represents a ~~14,211~~ 12,914 person or ~~41.5%~~ 30.9% increase from ~~2000~~ 2020. ~~In 2007, Broward County experienced its first recorded population decline and the current municipal projections supplied by the PSD are not reflective of this decline. However, the City and County believe that the current County population decline is a temporary fluctuation and that the County's population will continue to increase.~~ The table below shows in more detail the ~~2006~~ 2024 PSD population projections for the City of Hallandale Beach and Broward County.

TABLE 16
BROWARD COUNTY PLANNING SERVICES DIVISION (PSD) POPULATION PROJECTIONS, ~~2006~~ 2024
CITY OF HALLANDALE BEACH AND BROWARD COUNTY

	Census ~~2006~~ 2025		~~2010~~ 2030		~~2015~~ 2035		~~2020~~ 2040		2045
Hallandale Beach	~~34,622~~	44,550	~~39,406~~	47,886	~~43,996~~	50,241	~~48,493~~	54,687	57,657
Broward County	~~1,792,144~~	2,022,529	~~1,902,536~~	2,090,446	~~2,034,371~~	2,145,214	~~2,154,348~~	2,191,944	2,233,056

Sources: US Census and Broward County Planning Services Division

Broward County and Municipal Population Forecast and Allocation Model (PFAM) ~~Bureau of Economic and Business Research (BEBR)~~

The most recent BEBR population estimate for the City is from April 1, 2007 which showed the City's estimated population to be 38,193. However, Shimberg Center for Affordable Housing data used later in this Housing Element is based on BEBR population estimates and projections from 2005, therefore the 2005 number are discussed here. BEBR's projections for the City of Hallandale Beach indicated that the City had a population in 2005 of 35,716 which represents a 1,434 person or 4.2% increase since 2000. By 2020 BEBR projects that the City will have 38,532 persons which represents a 4,250 person or 12.4% increase from 2000. Table 17A below indicates in more detail the 2005 BEBR population projections for the City of Hallandale Beach and Broward County. Table 17B indicates from the BEBR population projects by age groups that the City's under-50 age groups and over- 75 age group populations will decline by 2020 and the 50-75 age groups will post significant increases by 2020.

TABLE 17A
~~BUREAU OF ECONOMIC AND BUSINESS RESEARCH (BEBR)~~ BROWARD COUNTY AND MUNICIPAL POPULATION FORECAST AND ALLOCATION MODEL (PFAM) POPULATION PROJECTIONS, ~~2005~~ 2024
CITY OF HALLANDALE BEACH AND BROWARD COUNTY

	Census ~~2006~~ 2025		~~2010~~ 2030		~~2015~~ 2035		~~2020~~ 2040		2045
Hallandale Beach	~~35,716~~	44,550	~~37,280~~	47,886	~~38,054~~	50,241	~~38,532~~	54,687	57,657
Broward County	~~1,740,988~~	2,022,529	~~1,905,499~~	2,090,446	~~2,059,603~~	2,145,214	~~2,200,104~~	2,191,944	2,233,056

Source: Broward County PFAM (2024) ~~US Census and BEBR~~

TABLE 4-17B
BEBR POPULATION PROJECTIONS BY AGE GROUP, 2025

US Census Population			Controlled Age Projections				15 Year Difference
Age	~~1990~~ 2010	~~2000~~ 2020	~~2005~~ 2025	~~2010~~ 2030	~~2015~~ 2035	~~2020~~ 2040	
0- 4	1,073	1,371	1,417	1.406	1,363	1,300	(117)
5- 9	848	1,285	1,422	1,488	1,427	1,372	(50)
10-14	741	1,215	1,286	1,259	1,190	1,124	(162)
15-19	857	1,142	1,328	1,390	1,376	1,400	72
20-24	1,180	1,331	1,535	1,667	1,626	1,480	(55)
25-29	1,501	1,781	1,700	1,806	1,830	1,770	70
30-34	1,522	1,995	1,925	1,906	1,935	1,885	(40)
35-39	1,271	2,073	2,076	2,135	1,938	1,878	(198)
40-44	1,204	2,007	2,294	2,237	2,082	1,984	(310)
45-49	1,076	1,869	2,337	2,588	2,465	2,447	110
50-54	1,137	1,928	2,347	2,811	2,985	2,806	459
55-59	1,416	1,894	2,468	2,897	3,376	3,525	1,057
60-64	2,134	2,129	2,541	3,084	3,538	4,006	1,465
65-69	2,868	2,333	2,244	2,621	3,252	3,634	1,390
70-74	3,189	2,691	2,388	2,407	2,727	3,170	782
75+	8,979	7,238	6,408	5,578	4,953	4,751	(1,657)
TOTAL	30,996	34,282	35,716	37,280	38,054	38,532	2,816

CITY OF HALLANDALE BEACH

Source: US Census/ CHAS ~~AHNA~~

COMPARISON BETWEEN PSD AND BEBR DATA

PSD and BEBR projection data for the City of Hallandale Beach are fairly similar in the near term with BEBR being slightly higher, but by 2020 the BEBR projection indicate that the City will only have approximately 4,000 additional persons while PSD indicates almost 14,000 additional persons. While the City believes that the PSD projection is somewhat high since it is based on 2006 data before the County experienced a slight population decline, the City believes that it more accurately reflects the current trends that the City has been experiencing over the last 5 years with redevelopment. However, as stated before, BEBR's 2005 projections are utilized in the Shimberg Center data used in the next section.

HOUSEHOLD PROJECTIONS

The most recent information from the Shimberg Center for household projections is based on 2005 information. The Shimberg Center's household projections for household size is included below in Table 4-18. Each of the three household size categories (1-2; 2-4; 5+) are expected to grow approximately 10% over the next 15 years. Therefore, the total increase in number of households in the City of Hallandale Beach is expected to grow approximately 10% by 2020 to a total of 20,709 households which is a net increase in 1,886 households from 2005.

TABLE 4-18
PROJECTED HOUSEHOLDS BY HOUSEHOLD SIZE

Household Size	2005	2010	2015	2020	15 Year Difference (%)
1-2	11,577	11,991	12,353	12,702	1,125 (9.7%)
3-4	5,206	5,451	5,617	5,755	549 (10.5%)
5+	2,040	2,134	2,197	2,252	212 (10.3%)
TOTALS	18,823	19,576	20,167	20,709	1,886 (10.0%)

CITY OF HALLANDALE BEACH

Source: CHAS ~~AHNA~~ Quick Report Shimberg Center for Affordable Housing

The Shimberg Center has also supplied information on household projections by household income levels as a percent of Area Median Income (AMI). Table 4-19 shows this projection for the City of Hallandale Beach. The income category that is expected to grow the most by 2020 is the households with incomes 120% or more of AMI. However, the City can expect an 8.7% or 251 household increase in household with income levels below 30% of AMI.

TABLE 4-19

Household Income As % of AMI	2005	2010	2015	2020	15 Year Difference (%)
<30% AMI	2,894	2,962	3,051	3,145	251 (8.7%)
30.01-50% AMI	2,601	2,637	2,715	2,807	206 (7.9%)
50.01%-80 AMI	3,387	3,482	3,582	3,688	301 (8.8%)
80.01%-120% AMI	3,422	3,573	3,677	3,769	347 (10.1%)
120.01%+ AMI	6,522	6,923	7,143	7,299	777 (11.9%)
TOTALS	18,826	19,577	20,168	20,708	1,882 (10.0%)

PROJECTED HOUSEHOLDS BY HOUSEHOLD INCOME LEVEL
CITY OF HALLANDALE BEACH

Source: CHAS ~~AHNA~~ Quick Report Shimberg Center for Affordable Housing

SHIMBERG CENTER FOR AFFORDABLE HOUSING DATA

Based on information received from the Shimberg Center for Affordable Housing, the City of Hallandale Beach is projected to have a 250 household increase by 2020 in the number of severely cost burdened households with income levels less than 80% of AMI (119 owner occupied households and 131 renter occupied households). Of the 250 household increase, 160 are projected to be at income levels below 30% of AMI (58 owner occupied households and 102 renter occupied

households). The total number of severely cost burdened owner occupied households is expected to be 1,493 in 2020 and renter occupied households 1,471. See Tables 4-20A, 4-20B, 4-21A and 4-21B for more detail. The City should continue to make available funds and programs to meet this need.

TABLE 4-20A
AFFORDABLE HOUSING NEED DETAIL ~~2005-2020~~ 2025-2040
NUMBER OF SEVERELY COST BURDENED (50%+) HOUSEHOLDS WITH LESS THAN 80% AMI BY TENURE AND INCOME LEVEL
CITY OF HALLANDALE BEACH

Owner Occupied Housing Units				
Household Income As % of AMI	~~2005~~ 2025	~~2010~~ 2030	~~2015~~ 2035	~~2020~~ 2040
<30% AMI	~~715~~ 1,725	~~719~~ 1,785	~~742~~ 1,835	~~773~~ 1,855
30.01- 50% AMI	~~413~~ 276	~~420~~ 285	~~434~~ 293	~~449~~ 296
50.01%- 80 AMI	~~246~~ 316	~~256~~ 327	~~263~~ 337	~~271~~ 340
TOTAL	~~1,374~~ 2,317	~~1,395~~ 2,397	~~1,439~~ 2,465	~~1,493~~ 6,090

Source: Florida Housing Data Clearinghouse, Shimberg Center for Affordable Housing

TABLE 4-20B
AFFORDABLE HOUSING NEED DETAIL ~~2005-2020~~ 2025-2040
NUMBER OF SEVERELY COST BURDENED (50%+) HOUSEHOLDS WITH LESS THAN 80% AMI BY TENURE AND INCOME LEVEL
CITY OF HALLANDALE BEACH

Renter Occuppied Housing Units				
Household Income As % of AMI	~~2005~~ 2025	~~2010~~ 2030	~~2015~~ 2035	~~2020~~ 2040
<30% AMI	~~1,018~~ 1,966	~~1,071~~ 2,006	~~1,101~~ 2,039	~~1,120~~ 2,060
30.01-50% AMI	~~251~~ 1,208	~~261~~ 1,233	~~268~~ 1,253	~~274~~ 1,266
50.01%-80 AMI	~~71~~ 296	~~73~~ 302	~~74~~ 307	~~77~~ 310
TOTAL	~~1,340~~ 3,470	~~1,405~~ 3,541	~~1,443~~ 3,599	~~1,471~~ 3,636-

Source: Florida Housing Data Clearinghouse, Shimberg Center for Affordable Housing

TABLE 4-21A
GROWTH IN SEVERELY COST BURDENED (50%+) HOUSEHOLDS WITH LESS THAN 80% AMI BY TENURE AND INCOME LEVEL
CITY OF HALLANDALE BEACH

Owner Occupied Housing Units				
Household Income As % of AMI	~~2005-10~~ 2025-30	~~2010-15~~ 2030-35	~~2015-20~~ 2035-40	Total
<30% AMI	~~4~~ 60	~~23~~ 50	~~31~~ 20	~~58~~ 130
30.01-50% AMI	~~7~~ 9	~~14~~ 8	~~15~~ 3	~~36~~ 20
50.01%-80 AMI	~~10~~ 11	~~7~~ 10	~~8~~ 3	~~25~~ 24
TOTAL	~~21~~ 80	~~44~~ 68	~~54~~ 26	~~119~~ 174

Source: Florida Housing Data Clearinghouse, Shimberg Center for Affordable Housing

TABLE 4-21B
GROWTH IN SEVERELY COST BURDENED (50%+) HOUSEHOLDS WITH LESS THAN 80% AMI BY TENURE AND INCOME LEVEL CITY OF HALLANDALE BEACH

Renter Occupied Housing Units				
Household Income As % of AMI	2005-10	2010-15	2015-20	Total
<30% AMI	~~53~~ 40	~~30~~ 33	~~19~~ 21	~~102~~ 94
30.01-50% AMI	~~10~~ 25	~~7~~ 20	~~6~~ 13	~~23~~ 58
50.01%-80 AMI	~~2~~ 6	~~1~~ 5	~~3~~ 3	~~6~~ 14
TOTAL	~~65~~ 71	~~38~~ 58	~~28~~ 37	~~131~~ 166

Source: Florida Housing Data Clearinghouse, Shimberg Center for Affordable Housing

These cost burdens are not unique to Hallandale Beach as they are evident throughout Broward County. There are many factors which contribute to the large number of residents seemingly paying more to live in Broward County than what is "considered" affordable. Housing costs are just one of many factors people consider when they decide to live in one place over another.

Broward County (in particular Hallandale Beach) has a large proportion of its residents over the age of 65. Income calculations do not include wealth held in investments. Therefore, median income does not always provide an accurate indicator of housing affordability.

A review of the information generated by the Shimberg Center AHNA program reveals that there is a need to construct a total of ~~293~~ 1,886 units by the year 2020 to meet the demand for housing units. However, housing demand differs from affordable housing demand. To provide for the affordable housing needs of the residents of the City, the cost burden of thousands of existing residential units would have to be modified to "fit" in federally or state defined parameters. Because most of the existing units are privately owned, local policy will have no impact on the affordability of these units.

It is very difficult to modify cost burden. Households can increase their incomes and thereby have a wider variety of choice in housing and the ability to reduce the percentage of their income dedicated to housing.

The only other alternative is to increase government subsidies to households. Table 4-20 A and B indicate that approximately ~~2,714~~ 5,787 households were in need of housing subsides in ~~2005~~ 2025. That same number is projected to rise to ~~2,964~~ 9,726 households by ~~2020~~ 2040.

In February 2008, the City contracted Rutgers University to conduct an Affordable/Workforce Housing Study to help determine what is affordable in Hallandale Beach. This study has two major components, which are; Section I – Determining Workforce/Affordable Housing Needs- 1. Define Workforce/Affordable Housing in Hallandale Beach and 2. Current and Future Needs; Section II- Modeling Affordable Housing Delivery- 1. Creating a Housing Affordability Model and 2. Implementing a Housing Affordability Model.

~~This study is anticipated to be completed by December 2008~~. ~~This~~ The study ~~will~~ has ~~assist assisted~~ in developing Affordable Housing policies and future program changes, to address the housing needs of the community.

LAND AREA REQUIREMENTS

The City of Hallandale Beach is currently approximately 96% developed. There are virtually no large parcels remaining within the City to be developed and no current possibilities exist for annexation of adjacent land into the City. Table 4-22 reflects this limited growth potential by showing approximately 36 acres of vacant residentially zoned property in the City that could be developed by 2020 to

meet the projected housing demand. Approximately 438 housing units could be built on the 36 acres based on current maximum density restrictions. However, since 2000 the City has been experiencing a large amount of redevelopment on underutilized parcels. Since 2000 the City has seen 139 new infill single-family homes constructed (primarily in the Northwest and Southwest Planning Districts). Additionally, between 2005-2008 approximately 2,164 new townhouse and multi-family housing units were constructed in the City and another 2,500 units have been approved to be built in the next 5-10 years. Table 23 shows the location of the units by Planning District.

TABLE 4-22
LAND AND DWELLING UNIT AVAILABILITY TO MEET HOUSING NEED BY PLANNING DISTRICT CITY OF HALLANDALE BEACH (Refer To Figure 4-2 for Planning Districts)

Planning District	Approximate Vacant Residential Acreage	Maximum Units Permitted
Diplomat/3 Islands	0.0	0
Central Gateway	0.60	9
Golden Isles/A1A	12.5	194
Gulfstream	2.1	34
Northeast	1.5	18
Northwest	16.7	157
Southwest	2.6	26
CITYWIDE TOTAL	36.0	438

Source: MMPA and City of Hallandale Beach Development Services Department

TABLE 4-23
TOWNHOUSE AND MULTI-FAMILY DWELLING UNIT CONSTRUCTION AND APPROVAL BY PLANNING DISTRICT 2005-2015 CITY OF HALLANDALE BEACH

Planning District	Constructed Units 2005-08	Approved Units 2008-2015
Diplomat/3 Islands	398	118
Central Gateway	12	379
Golden Isles/A1A	1,503	179
Gulfstream	24	1,779
Northeast	0	0
Northwest	212	70
Southwest	15	0
CITYWIDE TOTAL	2,164	2,525

Source: MMPA and City of Hallandale Beach Development Services Department - 2008

PUBLIC/PRIVATE SECTOR HOUSING MARKET

The ~~only~~ public sector housing providers in the City of Hallandale Beach are the Broward County Housing Authority, Broward County Community Development Division which administers HUD programs and the Hallandale Beach Community Redevelopment Agency (CRA).

The pace of residential development in Hallandale Beach has increased substantially since 2000. There are approximately

4,000 new housing units proposed, through several major development projects, such as Millennium, Oasis, European Club and the Village of Gulfstream Park. Economics Research Associates' (ERA) analysis prepared for the City as part of the Citywide Master Plan in 2008 suggests that an estimate of 2,500 to 3,000 new housing units appear to be supported by the market over the next 10 years, reflecting an annual pace in the range of 250 – 300 units.

Outside of publicly funded construction, there has been little interest by the private sector to supply the housing needs of the low and very low income groups, as the projects noted above are priced beyond the grasp of the 50%- 80% AMI income brackets. This lack of interest is based on the economic factors associated with the development of land and cost of the land in Broward County.

According to ESRI Business Analyst, as part of the economic analysis conducted by ERA; the median housing value in Hallandale Beach stood at $193,400 in 2007. By 2012, median housing values in Hallandale Beach are forecasted to reach $235,000 and reflect the recent and planned construction of higher-priced condominium and hotel-condominium units.

In Broward County it is unlikely for a very low income person to afford a house or condominium without the assistance of subsidies. A low income household may be able to find suitable affordable housing. However, the quality of life and the diversity of choice will greatly improve with subsidies. Currently, the City of Hallandale Beach average median income is $34, 800 per year and is expected to rise to almost $40,000 per year in 2012.

Source: ESRI Business Analyst; ERA Report; October 2007.

As of ~~February 2008~~ 2023, the Area Median Income (AMI) for Broward County was ~~$59,600~~ 74,531; whereas the AMI for Hallandale Beach was ~~$34,800~~ 48,518. Many of the subsidized housing assistance programs utilize some form of housing measurement mechanism, such as the County AMI to determine eligibility for assistance. In comparison, the AMI for Hallandale Beach is dramatically lower than that of Broward County, which then creates a challenge to shorten the affordability gap for attainable housing for local residents, in which the City is seeking to address as mentioned below with the Highland Park Village project.

Therefore, incentives need to be provided to improve private sector involvement. This would include the creation of public/private partnerships. The City of Hallandale Beach Community Redevelopment Agency (CRA) will be exploring the availability of funds to spur the creation of such partnerships. There has been continued private sector interest in developing affordable residential units for the middle/upper income households.

To assist in the effort to provide affordable housing to low to moderate income families; the CRA and a local developer has entered into the first of many public/private partnerships to develop affordable housing projects. In April 2008, the City approved the Highland Park Village development; a (53) owner-occupied affordable housing project located in the Northwest quadrant of the City. The CRA has committed approximately $4.4 million dollars to ensure the affordability to the end user. These units will be offered to Hallandale Beach residents first and then to the general public. The prices are anticipated to be around $160,000 to $180,000, after the applicable subsidizes.

In addition, the Village of Gulfstream Park Development Order requires the developer to construct or cause the construction of a minimum of 225 "Affordable Housing" and/or "Workforce Housing" units, according to the City's applicable housing procedures and regulations. The Development Order requires 15% of the total 1,500 proposed units be affordable. A minimum of 75 Affordable/ Workforce Housing units will be built off site.

Recently, the DUO Condominiums with 400 residential units was recently completed, which is located near the Diplomat Center. In addition, the Park Central project has been approved, which will provide 372 rental units to the CRA area and also serve as transitional housing for the future housing needs of the City. The Beach Club, an oceanfront luxury high-rise condominium building complex with 1,255 units total, was also recently completed on the Posner Tract, which had court ordered development rights to build up to 1,500 units.

Given the very high property values along the ocean, the likelihood is high that the units built on this parcel of land will only be available to those in higher income brackets.

THE HOUSING DELIVERY SYSTEM

Development and redevelopment of the housing stock is primarily the function of the private sector. The City's role in the delivery system is to ensure the enforcement of the City's Zoning, Building and Property Maintenance Codes.

A review of the City's development review process indicates that there may be some opportunities in which to streamline the process, making it easier to develop a wide variety of housing choices in the City.

Hallandale Beach has designated the area west of NE/SE 14 Avenue a Community Redevelopment Area (CRA). The CRA created pursuant to Chapter 163, Part III as amended, F.S., allows communities to tap various resources to improve the designated area, through the usage of Tax Increment Financing (TIF).

4.3 GENERAL RECOMMENDATIONS

PROVISION OF ADEQUATE HOUSING

Housing construction is just one of many actions required for the provision of providing adequate housing. While housing construction is primarily a private sector function, there are several actions which the City can take to support the provision of adequate housing.

These actions include support for public housing programs and cooperation with other local government and federal housing agencies, provision of adequate infrastructure, the elimination of substandard housing conditions, the provision of adequate sites for housing and the protection of historic resources.

SUPPORT FOR PUBLIC HOUSING PROGRAMS AND INTER-GOVERNMENTAL COOPERATION

The Housing Goals for Broward County through its Consolidated Strategic Plan for years 2002-2007 identifies the following Housing Goals:

1. To preserve, enhance and revitalize Broward County's neighborhoods.

2. To improve the housing stock through rehabilitation or demolition and rehabilitation.

3. To meet the needs of lower income households by ensuring opportunities for affordable housing.

There are six target areas in Broward County which qualify for this target area designation due to their state of decline, concentration of low and moderate income persons and deteriorating housing conditions. These areas are then eligible for concentrated attention through the various Community Development grant projects which will be discussed under Funding Resources.

Hallandale Beach is one of the six target areas established by Broward County. The original tract area, census tract #1004 is bounded on the north by the south side of Pembroke Road; on the East side by the FEC railroad tracts; on the South by the north side of Hallandale Beach Blvd.; and on the west by the east side of I-95. This target area has 71% of low/moderate income families residing in this area.

Three additional census tracts have been added to the targeted area. They are: #1002, #1003 and the Hallandale Beach portion of census tract #1005. The four census tracts bound the Hallandale Beach ~~CDBG~~ CRA target area. The Hallandale Beach Community Redevelopment Agency has very few City owned lots for construction of affordable homes

for First-Time Home Buyers, however, the CRA is acquiring vacant property strategically located along the Foster Road corridor, for redevelopment purposes. The CRA First Time Homebuyers program is consistent with the project components of the City of Hallandale Beach, comprehensive plan and Broward County's CDBG program, in providing adequate and decent new housing stock to compliment the proposed public works and facility improvements.

The project goals for the Hallandale Beach CRA, a community development organization is to provide direct benefit to very-low, low and moderate income individuals and families by providing affordable housing opportunities through a First-Time Home Buyer program or Neighborhood Redevelopment programs.

FUNDING RESOURCES

There primary grant resources that the Hallandale Beach CRA can access are as follows: Community Development Block Grant (CDBG) program, State Housing Initiatives Partnership (SHIP) program and the Home Investment Partnership (HOME) program.

1. CDBG

The three national objectives for CDBG funding:

1. Benefit low and moderate income persons
2. Aid in the prevention or elimination of slums or blight
3. Meet a need having a particular urgency, i.e. hurricanes

CDBG assisted activities under housing activities relate to property acquisition, new housing construction and rehabilitation of an existing property. Operating expenditures for community development organizations and local jurisdictions are a vital component of CDBG funds.

2. SHIP PROGRAM

Ship funds are used to assist developers and consumers in reducing the cost of housing through the five SHIP programs:

1. Home purchase second mortgage program
2. Purchase assistance program
3. Pre-development assistance program
4. New construction program
5. Land acquisition program

The City of Hallandale Beach is currently not an entitlement City of State Housing Initiatives Partnership (SHIP) program funding, as the population is below 50,000. However, the City is experiencing a growth in redevelopment and changes in demographics, therefore, entitlement of these funds are anticipated to come in the next 5 – 7 years.

3. HOME PROGRAM

The Home program was established for local jurisdictions to provide more affordable housing through acquisition, rehabilitation and new construction of housing for rental housing and home ownership projects. Home ownership programs include:

1. Second and third mortgages for qualifying applicants
2. Acquisition
3. New construction or rehabilitation of existing structures
4. Pre-development costs

The grant funds from Broward County's CDBG, SHIP and HOME programs will compliment the Hallandale Beach CRA efforts, by assisting in addressing the housing needs of the City.

MESUARABLE ACTIVITIES AFFORDABLE HOUSING

According to Hallandale Beach CRA plan; the CRA shall continue to implement the acquisition of vacant lots and parcels throughout the Hallandale Beach CRA which are suitable for the construction of single-family affordable housing, remaining sensitive to the use of surrounding properties.

While the majority of new residential development is located in a limited number of new high-rise projects, which are

located outside of the Hallandale Beach CRA area. The City's Northwest quadrant has experienced new economic growth in the form of low density (most single family) in-fill housing. Since 1994, there were 107 new single family homes built in Hallandale Beach, of which the Northwest area captured half of that new growth, with 55 new single-family houses.

Many participants in the CRA loan and grant assistance programs contribute private funds to supplement the CRA proceeds. Private lenders provide most of the funding for the mortgages under the First Time Homebuyers Program. In addition, as part of the Development Review process the City negotiates with developers contribute to the City's Affordable Housing programs.

Participation in the program was as follows:

FY 2006-07 Participation	
Number of new construction closed	6
Number of existing homes closed	3

In FY 2006-07, total of (9) participants received assistance by the First Time Home Buyers program, which resulted in $396,000 being spent.

When available the Hallandale Beach CRA will convey vacant lots suitable for single family housing from the inventory of City- owned property. These properties will go toward an eligible low/moderate and very low-income applicant through the Hallandale Beach CRA First-Time Home Buyer Program, in an effort to reduce the overall cost to the applicant.

With respect to targeting the very low-income families below 50%, as defined by Broward County area median income, the Hallandale Beach CRA will make every effort to increase the number of very low-income applicant's into the First-Time Home Buyer Program. Therefore, staff has increase the public knowledge regarding CRA programs through multiple media streams.

The City of Hallandale Beach is pursuing CDBG grants for improvements to streets, side walks, drainage systems and landscaping as well as upgrading and expanding community facilities to complement the housing initiatives.

NEIGHBORHOOD REDEVELOPMENT

A Residential Neighborhood Improvement Program (NIP) initiated during FY 1998-99 is ongoing. Under this program, subsidized loans are offered to owners of private residential properties to assist in correcting exterior code deficiencies. Deficiencies include lack of paved parking areas, lack of necessary drainage, doors, windows, roof replacement or repair, painting, drainage and any other deficiency that may be identified by the Code Enforcement Division. Residential neighborhoods, in which comprehensive public works improvements have been completed or are scheduled, assist both private properties and the public rights-of-way remain improved for a more aesthetically appealing neighborhood.

As of September 30, 2007, 899 applications had been received for the program. A breakdown of the loan program through September 30, 2007 is as follows:

	FY06/07	Cumulative
Applications	22	899
Applications Approved	11	805
Loans Closed*	16	768
Work Completed	22	757

**Some of the loans closed were approved during the previous year, hence the reason the number of loans approved is less than the number closed.*

Broward County's Consolidated Strategic Plan indicates a first priority to upgrade the existing substandard units suitable for rehabilitation and occupied by either renter or owner households. The five year plan includes the following estimates of increased housing in Hallandale Beach from the following agencies:

1. Broward County Community Development Division

   A. Three units per year for a total of fifteen units under the Residential Redevelopment Program.

B. Six units per year for a total of thirty units under the Rental Rehabilitation Program.

2. Regional Housing Authorities

There are six (6) housing authorities that serve Broward County. Hallandale Beach residents currently receive assistance from four (4) of the Housing Authorities – Broward County, Hollywood, Dania Beach, and Fort Lauderdale. There are two-hundred and ninety (290) families currently receiving House Choice Vouchers as part of Section 8 assistance. It is anticipated that the number of participants on Section 8 will remain the same for the next five years.

INFRASTRUCTURE

All areas of the City are serviced by existing public infrastructure. One of the main priorities of the City is to maintain and upgrade existing infrastructure. This is accomplished through a regular maintenance program. Funding for these improvements is available from the water fund, sewer fund or storm water utility, CDBG, Developer Contributions and CRA funding.

ELIMINATION OF SUBSTANDARD HOUSING

In 1996, the City updated the Minimum Property Maintenance and Occupancy Code. This Code provides the City with a comprehensive set of regulations to battle substandard housing. Collaboratively, the Building Division and Code Compliance Division, perform housing inspections on a regular basis. Further, the City intends to bring violators into compliance within six months or violators maybe subject to fines or liens brought forth before the Special Magistrate. In addition, City staff is working with nonconforming and illegal conversion property owners, to bring them into compliance, through the possible use of CRA program funding.

ADEQUATE SITES MOBILE HOMES

There are currently 16 mobile home parks in the City. More so, as these sites are privately owned, the City is working with the owners to ensure that the minimum housing codes are being adhered to. Land costs in existing residential areas would be prohibitively expensive for mobile home parks or subdivisions. Furthermore, the remaining residential properties are not zoned for mobile homes. Therefore, the City will continue to focus on ensuring that minimum housing codes are being met.

MANUFACTURED HOMES

The City does not distinguish between manufactured homes, factory built homes and traditionally constructed homes. However, manufactured homes and factory built homes are only permitted if they met all Florida State Statues and Building Codes.

VERY LOW, LOW AND MODERATE INCOME HOUSING

Federal policy on meeting the housing needs of very low to moderate income people has changed over the years. Large scale segregated housing "projects" are no longer being built in our communities. Federal programs have become more geared to providing households the ability to "choose" where they want to live.

Properties located within the Hallandale Beach CRA offer the greatest opportunities to meet the City's very low to moderate income housing needs. Properties which are not within the Coastal High Hazard Area are convenient to public transportation, schools, recreation, shopping and offer a more reasonable value than the coastal area.

There are 7 Planning Districts within the City and approximately 116 acres of vacant land of which approximately 36 acres are zoned residential. Within the 5 Planning Districts which comprise the CRA; Northwest, Central Gateway, Northeast, Gulfstream and Southwest there is a majority of the vacant acres. See the Future Land Use Element for more detail on each Planning District.

LICENSED GROUP AND FOSTER HOMES

The City's Land Use Plan and all of its land development codes allow ~~for~~ group homes to be appropriately located in the City. Further, the City provides assistance to applicants

seeking approvals for group homes in the City. While it is not the City's position to actively pursue a role as the lead agency in providing group homes in the City, it is the City's intent to cooperate with agencies which provide group homes and to insure that its plans and codes allow for appropriate facilities.

RURAL AND FARM WORKER HOUSING

The City does not have any rural or farm worker populations.

THE IDENTIFICATION OF CONSERVATION, REHABILITATION OR DEMOLITION ACTIVITIES AND HISTORICALLY SIGNIFICANT HOUSING OR NEIGHBORHOODS.

The City prepares a neighborhood plan, which focus on the preservation and conservation of our neighborhoods and housing stock.

In the latter part of 1999, a Neighborhood Improvement Program was implemented. This program provides a comprehensive, designated strategic approach to Code Enforcement to address blighted and deteriorated properties. Code Enforcement target areas are based upon the high number of existing violations and blighted conditions within each area.

The methodology for achieving improvement is to strategically target inspections for properties exhibiting the highest degree of deterioration and violations. Over time, properties are brought into compliance. Unsafe structures are demolished as needed.

HISTORICALLY SIGNIFICANT HOUSING

In 1992, the City received a grant from the Florida Department of State to prepare a historic properties survey. This survey identified historic properties in the City of Hallandale. The City will use this information to evaluate the need for historic preservation. In addition, a Historical Preservation Ordinance was passed and adopted in May 2005, establishing regulations to preserve significant historic properties in the City of Hallandale Beach.

The City in many ways strives to empower and inform the community about our historic resources. Currently, the City has three historical sites; 1) the Moffitt House; 2) the Curci House and 3) PBA Hall.

4.4 GOALS, OBJECTIVES AND POLICIES

GOAL 4-1: Quality Residential Environment. To assure the availability of a safe, sound and attractive residential environment for all residents of Hallandale Beach.

OBJECTIVE 4-1.1: Provide Adequate and Affordable Housing. Provisions for adequate and affordable housing for current (38,193) and future (an additional 1,510 projected residents through the year 2012) residents of Hallandale Beach shall be made. This objective shall be achieved through the following policies.

POLICY 4-1.1.1: Public Sector Coordination and Cooperation in Housing Production. Hallandale Beach, through the Hallandale Beach Community Redevelopment Agency will continue to support partnerships with local, county, state and regional housing providers.

POLICY 4-1.1.2: The Utilization of Public Funding Programs. Upon becoming an entitlement City; the City shall apply for funding through SHIP or other funding sources, to purchase lots and real property. These lots will be conveyed to eligible very low and low income households, to reduce the cost of new housing.

POLICY 4-1.1.3: Submission of Applications for Public Funding Programs. The City will submit applications for funding to Broward County CDBG, SHIP and HOME programs to provide ~~40~~ new single family owner-occupied homes.

POLICY 4-1.1.4: Form Partnerships with Nonprofit Housing Agencies. The Hallandale Beach CRA. will partner with various housing agencies to provide new homes in the City of Hallandale Beach.

POLICY 4-1.1.5: Cooperate with The South Florida Regional Planning Council's Strategic Regional Policy Goals For Housing. Beginning in January 1999, the City shall participate

in South Florida Regional Planning Council's initiatives directed toward affordable housing.

POLICY 4-1.1.6: Reduce Development Fees. The City may waive certain development fees for new construction by various developers and agencies on a case by case basis for affordable housing. The City will prepare as a part of its unified land development code a policy explaining the development fee waiver process and eligibility requirements by the year 2010.

POLICY 4-1.1.7: Support Local Housing Initiative. The City will provide technical support and guidance to the Hallandale Beach CRA.

POLICY 4-1.1.8: Maintain Accurate Records. The City shall, by June 1, 2010 create a comprehensive system to track the supply of affordable housing in the City.

POLICY 4-1.1.9: Eliminating Barriers. The City shall eliminate barriers to the creation of housing, especially affordable housing. This action will include but not be limited to, streamlining the review process, especially in regarding to affordable housing projects.

POLICY 4-1.1.10: Reduction in Vacancy Rates. By the year 2010, the City shall conduct an analysis to determine the causes of high vacancy rates and determine possible solutions.

POLICY 4-1.1.11: Relocation. The City shall only implement programs, which will cause the temporary or permanent displacement of private households, when the program includes a provision for providing replacement housing for such persons in safe, decent and sanitary dwelling units within their means and without undue hardship to such families. Such programs shall be coordinated through the Broward County Community Development Block Grant Programs following the Uniform Relocation Act requirements.

POLICY 4 -1.1.12: Accessory Dwelling Units. The City shall permit the development of accessory dwelling units (ADUs) in single-family residential zones to promote affordable housing opportunities. In accordance with Section 163.31771, Florida Statutes, ADUs that are rented at rates affordable to extremely-low, very-low, low, or moderate-income persons shall not be counted towards the maximum allowable density calculations. The City shall ensure that such ADUs comply with all applicable land development regulations and maintain neighborhood compatibility.

OBJECTIVE 4-1.2: The Elimination of Substandard Housing Conditions. The City will continue to eliminate substandard housing conditions and blighted influences and improve structural and aesthetic housing conditions. This objective will be achieved through the implementation of the following policies:

POLICY 4-1.2.1: Enforce Building and Zoning Codes. New housing construction and rehabilitation shall be in conformance with local building and zoning codes.

POLICY 4-1.2.2: The Elimination of Unsafe Structures. The City will continue to patrol and survey all areas of the City to identify unsafe structures and building. Once identified, the staff shall utilize the Unsafe Structures Board to eliminate or bring the structure into compliance. The City will process at least thirty (30) unsafe structures a year for the next five years.

POLICY 4-1.2.3: Aesthetic Improvement. The City shall, through the preparation of two neighborhood plans a year, identify the means to improve the aesthetic conditions in our neighborhoods.

OBJECTIVE 4-1.3: Housing Stock Conservation. The City will conserve the existing housing stock.

POLICY 4-1.3.1: Continue the efforts of the Neighborhood Improvement Program. The City shall continue to actively enforce the Minimum Property Maintenance Code and Minimum Housing Code.

POLICY 4-1.3.2: City Investment in Neighborhoods. The City will continue to identify and upgrade deteriorating infrastructures and City services to our neighborhoods.

POLICY 4-1.3.3: Housing Rehabilitation. The City shall work with the Broward County Community Development Division rehabilitation programs to ensure that residential units are rehabilitated, which can be accomplished through the usage of CDBG funding.

POLICY 4-1.3.4: Preservation of Historically Significant Housing. By June 1, 2010 the City shall institute a voluntary marker program to identify and preserve the City's historic resources.

OBJECTIVE 4-1.4: Adequate Housing Sites. The City shall support the need for adequate sites for all residents.

POLICY 4-1.4.1: Affordable Infill Development. The City will continue to make City owned vacant properties available to eligible very low and low and moderate income households. (See Policy 4-1.1.2)

POLICY 4-1.4.2: Coordination among Housing Production Participants. The City shall support the efforts of private, nonprofit and governmental agencies involved in housing production to improve coordination among all entities. (See Policy 4-1.1.1)

POLICY 4-1.4.3: Dissemination of Information. The City shall continue to educate its residents on City administered affordable housing programs.

POLICY 4-1.4.4: Very Low, Low and Moderate Income. The City shall continue to provide technical support to the Hallandale Beach CRA, supplementing their efforts to identify adequate sites for very low to moderate income households. (See also Policy 4-1.1.4)

POLICY 4-1.4.5: Mobile Homes. The City shall continue to work with park owners to address code and minimum housing standards.

POLICY 4-1.4.6: Group Homes and Foster Care Facilities. The City shall ensure appropriate land use and zoning classifications for a variety of residential land uses, thereby providing, in cooperation with state and county agencies, opportunities for state licensed group homes and foster care facilities to be placed in existing neighborhoods and will continue to permit the siting of group homes and foster care facilities in the Low, Low-Medium, Medium and High Density Residential Future Land Use Categories.

POLICY 4-1.4.7: Housing for the elderly. By January 1, 2010, The City shall continue to ensure its zoning and land development code does not include language which may negatively impact the siting of elderly housing. Policies shall be written which provide the following criteria for the siting of elderly facilities.

- accessible to shopping areas
- accessible to recreation areas
- located on sites that have adequate infrastructure and City services
- accessible to public transportation

POLICY 4-1.4.8: Adequate Sites for Special Housing Needs. The City will cooperate with agencies responsible for the siting of community residential facilities servicing the regional demand for special needs housing, including disabilities and/or handicaps. Encouraging the development of community residential alternatives to institutionalization and fostering nondiscrimination in the siting of housing.

POLICY 4-1.4.9: Provision of Diverse Housing Types. The City shall continue to provide a balance of land use designations and zoning districts on the Future Land Use and the official zoning maps to ensure single family, duplex and multifamily housing units are allowed within the City.

POLICY 4-1.4.10: Provision of Assistance to the Private Housing Sector. The City shall continue to provide technical assistance and information to the private sector in order to facilitate a housing production capacity sufficient to meet our future housing demands.

OBJECTIVE 4-1.5: Energy Efficiency (Greenhouse Gas Reduction). The City shall support energy efficiency and the

use of renewable energy resources in existing housing and in the design and construction of new housing.

POLICY 4-1.5.1: The City shall continue to enforce the provisions of the most recent edition of the Florida Building Code, particularly the Energy Code (3/09) to achieve high energy efficiency.

POLICY 4-1.5.2: The City shall encourage the use of low water use plumbing fixtures and energy efficient electrical systems / appliances.

POLICY 4-1.5.3: The City shall continue to provide educational materials to its residents and property owners on energy saving strategies, including the suggested placement of landscape materials to reduce energy consumption.

POLICY 4-1.5.4: The City shall allow the use of alternative, renewable sources of energy including the use of solar panels. This shall not preclude the City from requiring proper installation locations and buffering.

POLICY 4-1.5.5: The City shall continue to encourage mixed-use development and concentrations of higher residential densities along major transportation corridors. The City shall continue to foster a variety of housing opportunities at varying price ranges to the extent possible.

5.1 INTRODUCTION

The primary focus of this element is to (1) identify existing sanitary sewer, solid waste, stormwater management, potable water and natural groundwater aquifer recharge protection systems currently in place in Hallandale Beach, (2) to provide methods for meeting existing and future needs; and (3) to identify general facilities that will be required for meeting the City's needs.

5.2 GOALS, OBJECTIVES, AND POLICIES

5.2.1 INTRODUCTION

The City's goals, objectives and policies were derived from an analysis of existing sanitary sewer, solid waste, stormwater management, potable water and natural groundwater aquifer recharge protection systems, in relation to future needs.

GOAL 1: Public facilities shall be provided in a manner which protects investments in existing facilities and meets future needs in an economical fashion.

OBJECTIVE 1.1: Public facilities and services that meet or exceed the levels of service adopted in this Plan shall be available concurrent with the impacts of development.

POLICY 1.1.1: The following level of service standards are hereby adopted, and shall be used as the basis for determining the availability of facility capacity and the demand generated by a development:

Facility	Level of Service Standard
Sanitary Sewer	Average Sewage Generation Rate; 187 gallons per capita per day (gpcd)
Solid Waste Rate	Average Solid Waste Generation; 4.75 pounds per capita per day
Stormwater Management- New Development	Design Storm for onsite retention: 5 year frequency: 1 hour duration; 3.3 total inches
Existing Development	To meet Florida Building Code drainage standards.
Potable Water	~~148~~ 187.1 gallons per capita per day (gpcd) of finished water (max. day)

POLICY 1.1.2: All improvements for replacement, expansion or increase in capacity of facilities shall be compatible with the adopted level of service standards for the facilities.

POLICY 1.1.3: The Departments of Public Works, and Development Services shall jointly develop procedures to update facility demand and capacity information as development orders or permits are issued.

POLICY 1.1.4: The Departments of Public Works, and Development Services shall prepare summaries of capacity and demand information for each facility once every two years.

OBJECTIVE 1.2: The City will maintain a five-year schedule of capital improvement needs for public facilities, to be updated annually in conformance with the review process for the Capital Improvement Element of this plan.

POLICY 1.2.1: A Capital Improvement Program will be submitted annually to the City Commission with the operating budget.

POLICY 1.2.2: Capital improvement projects will be identified and budgeted by the City Commission each fiscal year.

GOAL 2: The City of Hallandale Beach will provide sanitary sewer, solid waste, stormwater management and potable water facilities and services to correct deficiencies and to meet existing and projected demands identified in this Plan.

OBJECTIVE 2.1: Existing deficiencies will be corrected by undertaking the following projects by the year 2024:

a. Implement the Water Projects in the City's Five Year CIP (FY 2025 to FY 2029) described in the City's "10-Year Water Supply Facilities Work Plan 2026 Update". These projects will ensure adequate water supply through the year 2050. ~~Installation of a relief force main in the southeast section.~~

b. ~~Installation of two (2) subaqueous water mains in the southeast section of the City.~~

~~c.~~ Implementation of commingled recycling system for residential and multi- family customers.

~~d. New production well PW-9 and raw water pipeline from PW-9 to PW-8.~~

~~e. Installation of RO Membrane Skid No. 3 at the existing membrane facility.~~

~~f. Implementation of Phase 1 of the C-51 Reservoir.~~

~~g. Installation of new water main along Foster Road.~~

POLICY 2.1.1: Projects shall be undertaken in accordance with the schedule provided in the Capital Improvements Element of this Plan.

POLICY 2.1.2: Projects needed to correct existing deficiencies shall be given priority in the annual work programs of the City Departments.

POLICY 2.1.3: Permits will not be issued for new developments which would result in an increase in demand that would exceed the ability of the City to provide the level of service adopted for the facility.

OBJECTIVE 2.2: Project demands through the year 2025 will be met by undertaking the following projects:

a. Sanitary Sewer Projects

1. Provide rehabilitation for two collection system lift stations per year.

2. Locate and eliminate major sources of I/I in sewer system to prevent increase over present unmetered sewer flow to Hollywood Regional Treatment Plant (R.T.P.)

3. Replace existing 16" Intracoastal force main crossing with new 24" force main.

4. Collaborate with other large users for use of existing wastewater treatment plant capacity. The City of Hallandale Beach has adequate reserve capacity at the City of Hollywood's Southern Regional Wastewater Treatment Plant (SRWWTP) for sewage treatment and disposal through the year 2030.

5. Initiate planning to increase sewage treatment and disposal capacity by evaluating the efficacy of the "Miami-Dade County - Sewer Trunk Line" project. In parallel explore opportunities for purchase of additional reserve capacity with other utilities. ~~Implement first phase of wastewater reuse program.~~

b. Solid Waste Projects

1. Enhance and expand City's recycling program through curbside service and commingled recycling.

2. Increase automation and versatility of sanitation fleet.

c. Stormwater Management Projects

1. Meet monitoring and removal of contaminants from surface water discharges to National Pollutant Discharge Elimination System (NPDES) Stormwater Permit requirements.

2. Evaluate major storm (hurricane) related drainage problems to ascertain needs to mitigate flood damages.

3. Perform dredging in drainage canals.

4. Implement major drainage improvement projects in the northeast section of the City.

d. Potable Water Projects

1. Install major water distribution mains in Golden Isles area and across the Intracoastal Waterway to improve pressure, increase capacity and improve looping.

2. Pursue new treated water interconnections with neighboring utilities, especially City of Hollywood.

3. Continue to upgrade distribution system by improved looping, adding fire hydrants, and upgrading water main sizes where appropriate.

4. Coordinate with the City of North Miami Beach for future purchase of potable water as may be required.

5. The City's "10-Year Water Supply Facilities Work Plan 2026 Update" defines a series of projects to increase membrane treatment capacity and augment water supply via addition of Floridan Aquifer wells. The City will continue to implement the water supply and treatment projects outlined in the "10-Year Water Supply Facilities Work Plan 2026 Update", ensuring adequate water supply for its customers. ~~Complete the construction of Biscayne Aquifer Production Well No. 9 to shift raw water withdrawals westward.~~

6. Continue to participate in the C-51 reservoir regional stormwater capture project in collaboration with the Broward County Water Resources Task Force Technical Team.

7. ~~Install membrane skid No. 3 at the existing membrane facility.~~

~~8.~~ Begin implementation of other projects as required in City's 10-Year Water Supply Facilities Work Plan 2026 Update ~~10-Year Water Supply Facilities Plan.~~

POLICY 2.2.2: The City shall review the annual work program of the Public Works and Utilities Department to ensure that projects are scheduled to minimize disruption of services, duplication of effort, and to maintain the adopted levels of service for all facilities.

POLICY 2.2.3: All required Federal and State permits shall be obtained before the City undertakes or authorizes contractors to undertake construction and/or operation maintenance of facilities listed in the capital improvements program schedule.

OBJECTIVE 2.3: Project demands for the period 2020 through 2030 will be met by undertaking the following projects:

a. Sanitary Sewer Projects

1. Ongoing maintenance rehabilitation of sewer lines to reduce I/I.

2. Replacement of aging infrastructure as required.

3. Evaluating the efficacy of the "Miami-Dade County - Sewer Trunk Line" to augment sewage capacity.

b. Solid Waste Projects

1. Establishment of disposal agreement(s) for City garbage.

2. Continued implementation of enhanced recycling, including curbside service and commingled recycling

c. Stormwater Management Projects

1. Ongoing installation of drainage facilities to comply with adopted policies.

2. Implementation of major drainage improvement projects as required

d. Potable Water Projects

1. Establish interconnect(s) with neighboring jurisdictions.

2. Implementation of distribution improvements to accommodate growth.

3. Continue implementation of the City's plan to transition to 100% membrane treatment to comply with the PFAS (per- and polyfluoroalkyl substances) Rule as outlined in the City's "10-Year Water Supply Facilities Work Plan 2026 Update". A series of projects are planned to increase membrane treatment

capacity and augment water supply via addition of Floridan Aquifer wells. Projects include installation of Reverse Osmosis (RO) Skids 2 and 3 along with construction of Floridan Aquifer Wells 1 and 2, new backup emergency generator and Deep Injection Well (DIW) 2. These projects will ensure adequate water supply through the year 2050. ~~Implementation of projects to meet future water supply needs, including possible utilization of reverse osmosis technology.~~

4. Replacement of aging infrastructure as required.

5. The City will prepare a Water Master Plan. ~~Develop a conceptual plan that identifies future water sources to meet increasing demand and to treat or replace water from the City's wellfield as it is impacted by saltwater intrusion.~~

6. Continue to implement the City's ongoing conservation programs as outlined in the City of Hallandale Beach 10-Year Water Supply Facilities Work Plan 2026 Update. ~~10-Year Water Supply Facilities Work Plan – October 17, 2019 Update.~~

7. Continue to participate in the C-51 reservoir regional stormwater capture project in collaboration with the Broward County Water Resources Task Force Technical Team.

8. Continue to evaluate and implement improvements to water, wastewater, reuse and stormwater infrastructure to ensure sustainable, reliable, and adaptable water and wastewater services.

9. Continue to develop infrastructure to reduce the risk of saltwater intrusion at the City's existing wellfield.

~~10. Complete the construction of Biscayne Aquifer Production Well No. 9 to shift raw water withdrawals westward.~~

POLICY 2.3.1: The summaries of facility capacity and demand information prepared by the Public Works and Development Services Departments shall be used to evaluate the scheduling of projects to extend or increase the capacity of existing facilities.

POLICY 2.3.2: All projects required to meet projected demands shall be submitted to the City and considered for scheduling in the Capital Improvements Element of this plan.

POLICY 2.3.3: New application calculation for any associated impact fee or concurrently associated fee shall be assessed at rates as of June 30, 2023.

GOAL 3: Adequate stormwater drainage facilities will be provided to afford reasonable protection from minor flooding and to prevent degradation of quality of receiving waters in conformance with the requirements of the NPDES Stormwater permit.

OBJECTIVE 3.1: The City shall maintain or improve its existing drainage facilities and shall require installation of new facilities at new development sites through the development approval process.

POLICY 3.1.1: The City shall continue to enforce storm drainage requirements of hard surface parking areas and of existing City streets so that no nuisance will be caused to adjacent properties.

POLICY 3.1.2: The City shall establish desired levels of service including impacts on natural resources for drainage facilities within the City and shall investigate the sizes, capacities, and drainage basins of existing facilities in order to establish a present as-built "level of service" for each basin.

POLICY 3.1.3: New development shall provide water storage capacity equal to that which existed under predevelopment conditions consistent with the water management regulations and plans of the South Florida Water Management District, and the Broward County Environmental Protection Department.

POLICY 3.1.4: The City shall maintain its commitment to environmental protection by coordinating with Broward County and state agencies to ensure continued operation and maintenance of its central sewer system, the eventual decommissioning of the remaining onsite

sewage system at the Three Islands Fire Station, and support for the implementation of advanced wastewater treatment technologies where feasible and appropriate, consistent with ss.163.3177(3)(a), (6)(c), and (6)(c)(3), Florida Statutes.

GOAL 4: Quality potable water will be provided to meet existing and future needs of the City of Hallandale Beach during both normal and emergency situations.

OBJECTIVE 4.1: The City will continue to provide sufficient quality treated water to serve present and future citizen needs.

POLICY 4.1.1: City shall update the City of Hallandale Beach 10-Year Water Supply Facilities Work Plan 2026 Update prepared by the City in association with Hazen and Sawyer dated December 12, 2025, ~~Hazen and Sawyer dated December 12, 2020, and adopted on February 17, 2021,~~ to increase the coordination between land use and water supply planning within 18 months of the approval of the next planned update of the ~~2018~~ Lower East Coast Water Supply Plan (tentative estimated to occur in the year 2030), as required by the Chapter 163, Florida Statutes. (See Exhibit 5-1)

POLICY 4.1.2: Planning for additional capacity and/or a reduction in per capita demand is ~~shall be~~ included in the 10-Year Water Supply Facilities Work Plan as required in Chapter 163 of Florida Statutes to increase the coordination of local land use and future water supply planning.

POLICY 4.1.3: City will evaluate all requirements of the Safe Drinking Water Act (SDWA) and State of Florida standards to assure that the quality of treated water meets all standards.

POLICY 4.1.4: City will provide the necessary capital funds to upgrade the water plant to meet all needs.

OBJECTIVE 4.2: City will work towards a water system that meets its needs under emergency situations.

POLICY 4.2.1: The City will continue to maintain water main interconnections with neighboring utilities to provide emergency service.

POLICY 4.2.2: City will continue to improve looping and upgrading of water distribution system.

OBJECTIVE 4.3: City of Hallandale Beach will follow a course of action which assures a long-term water supply for the present and future development of the City.

POLICY 4.3.1: Maintain a long-term agreement with Broward County for long-term water supply. Additionally, construct Floridan Aquifer wells and reverse osmosis treatment to ensure adequate water supply to meet long-term growth projects ~~and develop a reverse osmosis facility to provide raw water supply, if needed.~~

POLICY 4.3.2: The City will negotiate with the City of Hollywood to procure interconnects as a backup system to the current system.

POLICY 4.3.3: The City will study the possibility of the cost effective use of wastewater reuse for City irrigation needs.

POLICY 4.3.4: The City shall establish landscaping guidelines which require planting materials which are low water users.

POLICY 4.3.5: The City shall study the viability of using grey water on public areas, golf courses, racetracks and other large irrigation areas.

POLICY 4.3.6: The City will continue to work in conjunction with the South Florida Water Management District to coordinate the monitoring of the saltwater front along the Southeast Broward County coast.

POLICY 4.3.7: The City will develop and implement a program to curtail excess water use during excessively dry periods. In addition, the City will implement a plan to promote the use of water-efficient appliances and continue to coordinate efforts for water resource conservation with the SFWMD.

POLICY 4.3.8: The City will work with private parties,

SFWMD, FDEP, City of Hollywood, and Broward County in evaluating and implementing a wastewater reuse program within Hallandale Beach.

GOAL 5: The City shall enforce preservation of existing pervious areas and conversion of unnecessary impervious areas to pervious areas to increase groundwater aquifer recharge.

OBJECTIVE 5.1: The City shall continue to encourage aquifer recharge opportunities through enforcement of minimum pervious area requirements of the Hallandale Beach Zoning and Land Development Code at time of development review.

POLICY 5.1.1: At time of development review, the City shall require on-site, stormwater detention such that past development runoff rates and quantities do not change from predevelopment values. Detention methods will provide a direct means of aquifer recharge. All aspects of stormwater management will include the use of Best Management Practices (BMP's).

5.3 INVENTORY

The primary focus of this section is to (1) identify existing sanitary sewer, solid waste, stormwater management, potable water and natural groundwater aquifer recharge protection systems currently in place in Hallandale Beach, (2) to provide methods for meeting existing and future needs over the next 10 years; and (3) to identify general facilities that will be required for meeting the City's needs over the next 10 years.

Since 1997, the City has had much success in modernizing public works technology, which has resulted in the ability to better analyze the City's infrastructure and improve the service delivery system. In addition, the City has made significant improvements in the various infrastructure systems during the planning period. A great deal of the original infrastructure was designed and built many years ago under different growth projections and prior to more modern designs, environmental programs and products being available. The City has spent a great deal of time re-designing older system components and retrofitting / rebuilding infrastructure.

5.3.1 SANITARY SEWER SYSTEM

5.3.1.1 BACKGROUND

TERMS AND CONCEPTS

Regional Facilities. Regional facilities are large scale sanitary sewer systems which generally provide service to densely populated areas. These facilities are comprised of three components which perform the basic functions of collection, treatment and disposal of sewage. The City of Hollywood, Florida, acts as the regional agency under the Broward County 201 Wastewater Facilities Plan.

Collection System. The collection system within Hallandale Beach is composed of a network of sewer pipes which collect sewage from individual establishments and convey it to the regional system for treatment and disposal. The collection network is generally laid out in a pattern analogous to the branching pattern of a tree.

The major components of the collection network are the trunk gravity mains and gravity interceptors, force mains and pump stations. Interceptors are defined as gravity sewers which connect directly to and convey sewage to the regional treatment plant. Trunk gravity mains are defined as sewers which connect directly to and convey sewage by gravity flow to an interceptor.

Due to the relatively level terrain of Hallandale Beach, a pumping system is used internally and in conjunction with the major components of the regional collection system. This allows sewage to be conveyed under pressure within the City and to the metering facilities of the Hollywood regional system. In conjunction with this type of system, the term "force main" is applied to the pressurized sewers without regard to their location within the network.

Treatment Facilities. The City of Hollywood operates the Southern Regional Wastewater Treatment Plant (SRWWTP) ~~Regional Sewage Treatment Facility~~ which functions to remove solid and organic materials from the sewage. The Hollywood facility is categorized as a secondary treatment facility.

Secondary treatment processes remove between 80 and 90 percent of total organic materials and suspended solids from sewage. This level of treatment generally requires multiple steps involving one biological process and one or more processes for removal of suspended solids.

Septic Tanks. Septic tank systems are usually used to serve isolated single housing units. Since the City is nearly fully served by sewers, septic tank use has been phased out. Only one unit remains in use which is the Three Islands Fire Station.

Broward County Environmental Protection Department and Broward County Health Department have regulatory authority and have established construction and operational standards which are met by the City of Hallandale Beach.

The City of Hallandale Beach has a "Large User Agreement" with the City of Hollywood as the Regional Agency. The Large User Agreement provides for certain standards of sewage quality and quantity pumped to Hollywood from Hallandale Beach.

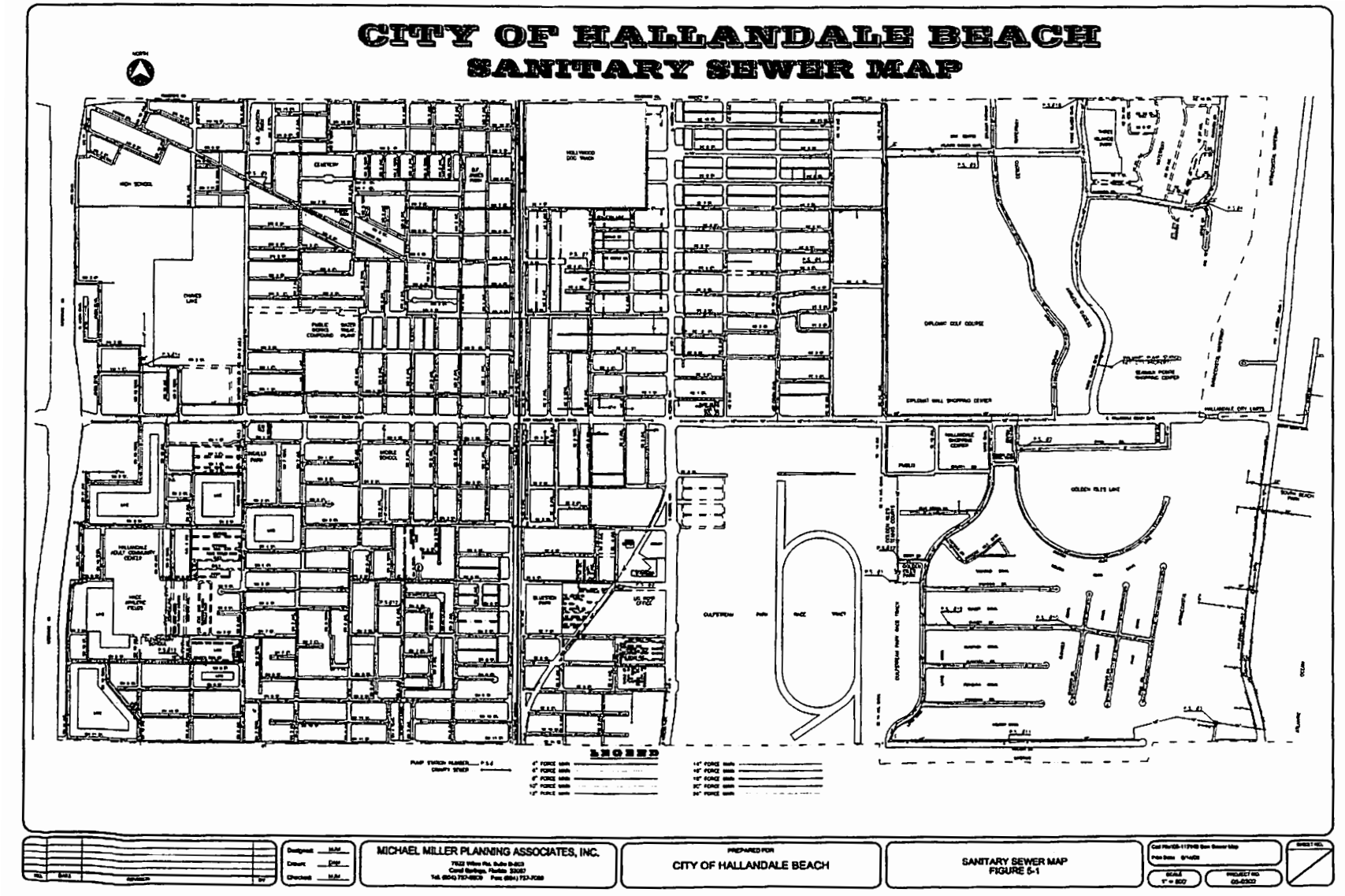
To ensure economic efficiency in the operation of its own sanitary sewer collection system, Hallandale Beach has adopted regulations which require establishments to connect to the sewer system when service is made available (Ordinance No. 79-32). The Public Works Department has also adopted design standards and review procedures to ensure that all connections to the system are compatible with system design.

5.3.1.2 SYSTEM DESCRIPTION

Collection System. The sewage collection system was installed in phases between 1961 and 1988. Each phase functions as a separate entity with its own collection and pumping facilities.

Sanitary Sewer Improvement Project (SSI) No. 1 was started in 1961, with the establishment of a collection system in the area south of Moffett Street, north of Hallandale Beach Boulevard, west of De Soto Waterway and east of U.S. Highway 1. (See Figure 5-1).

FIGURE 5-1
SANITARY SEWER MAP



The construction of SSI No. 2 was begun in 1964. This project provided a system in the area from the Atlantic Ocean, east of U.S. Highway 1, and south of Hallandale Beach Boulevard.

SSI No. 3 sewered the area east of Florida East Coast Railway, west of U.S. Highway 1, south of Pembroke Road, and north of Miami-Dade County line and was started in 1967.

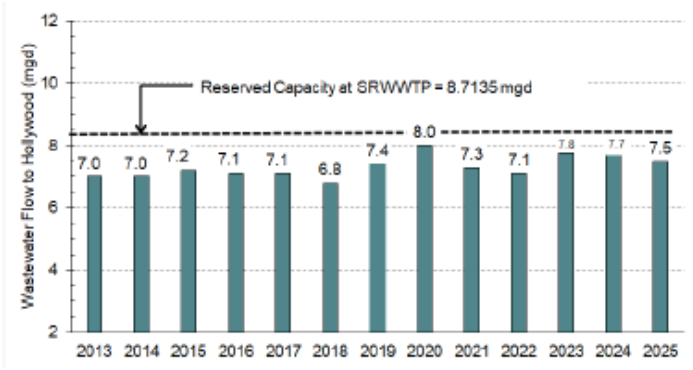
The final SSI No. 4 provides a sewer collection system for the area of the City west of Dixie Highway. Due to the cost of constructing SSI No. 4, the City divided the work into phases. The last phase of SSI No. 4 was completed in early 1988 providing a sewer collection system for the entire City.

The sanitary sewer collection system on Three Islands was constructed and paid for by the developers and accepted by the City to be included in the overall sewer collection system.

The current collection system consists of 57 miles of gravity sewer, 12 miles of ~~72.61 miles of gravity sewer and~~ force mains and 15 lift stations. Operation and maintenance of the collection system is funded solely through user fees.

The Southern Regional Wastewater Treatment Plant (SRWWTP) ~~Treatment Facility~~ is located on a 32 acre site in the central section of Hollywood. In addition to serving the cities of Hollywood and Hallandale Beach, the regional treatment facility also serves the cities of Dania Beach, Pembroke Park, eastern Pembroke Pines, as well as portions of unincorporated Broward County. The total service area is currently 139,802 acres.

The design capacity of the Hollywood plant is 55.5 mgd on an annual average daily flow (AADF) basis. The historical AADF received at the SRWWTP from 2013 through 2022 was approximately 38 mgd. The City of Hallandale Beach has a reserved capacity of 8.7135 mgd in the Hollywood SRWWTP as stipulated by the Large User Agreement. ~~48.75 mgd with a possible re-rate to 50 mgd. The plant rating and ability to meet needs is based on the average day during the peak month. In 2008 the 12-month average daily flow was 39.57 mgd. The City of Hallandale Beach has a reserved capacity of 7.85 mgd in the Hollywood Regional Facility as stipulated by the Large User Agreement.~~



Over the last ten years the City's average daily flow has ranged from a high of 8.0~~7.3~~ mgd to a low of 6.8~~5.9~~ mgd. From 2020 to 2024, the average sewage generate rate was approximately 7.6 mgd. ~~Recent average daily flow is approximately 6.9 mgd.~~

System Problem Areas. The current collection system capacity adequate to convey all sewage on an AADF basis and peak hour flows during wet weather. ~~is estimated to be 14.75 mgd, while the average daily flow is 6.9 mgd.~~ However, the Hallandale Beach collection system experiences significant infiltration / inflow (I/I). I/I is defined as extraneous flow that enters the sanitary sewer system during high groundwater conditions or inflow (with extreme events during wet weather). Water may enter the system through pipe joints, sewer line defects, (including main sewer lines and building sewer laterals), manhole walls, benches and pipe seals that are defective, and pump station wetwell walls. Hallandale Beach has year round relatively high groundwater. Much of the gravity collection system is always below the water table. The City has been actively working to increase its lift station capacities to ensure that it can convey all sewage during wet weather.

Hallandale Beach has been actively working to reduce the I/I since 1980. The City received a Federal Grant and did repair a portion of the system in 1980. The City also purchased a televising and sealing vehicle in 1982 which has been used extensively to address the I/I problem.

Several consultants field investigative surveys and resultant rehabilitation projects, as well as the City's on-going in-house rehabilitation program, have been successful in reducing excessive I/I in selected areas. However, continued I/I problems cause higher flows not reflective of actual use. In addition, the City has rehabilitated, rebuilt and upgraded lift stations and pumping facilities to meet demand. Per capita flows appear to be higher than in 1997, primarily due to I/I. Shortcomings include the fact that the City is near the allowable capacity at the Hollywood Treatment Plant and additional capacity must be reserved.

5.3.1.3 EXISTING POPULATIONS, FLOWS AND LEVELS OF SERVICE

Current Population. Table 5-1 presents population and housing estimates.

Existing Levels of Service. The existing per capita sewage flows were calculated by dividing the total system average daily flow by the total population of the Hallandale Beach service area. The existing average sewer service need for the City of Hallandale Beach is 187~~190~~ gallons per capita per day. Based on the peak needs of the system, the peak hourly wet weather flow is estimated at 19.0 mgd. ~~flow is estimated to be 0.72 mgd.~~ The peaking factor of 2.5 is based on studies of flows in the South Florida area. The existing level of service is calculated by dividing the total system capacity by the total population of the service area. The total system capacity was taken to be the capacities of the lift stations which transport wastewater to the Hollywood Wastewater Treatment Plant. The existing capacity level for the Hallandale Beach facility is 389 gallons per capita per day.

Level of Service Required by Law and Desired Level of Service. The level of treatment service required by FDEP is determined by the method of effluent disposal utilized. Disposal by ocean outfall requires secondary treatment to levels below 30 mg/l BOD and 30 mg/l total suspended solids in the effluent. In addition, FDEP requires that the capacity of the treatment plant be greater than the service needs of the population being served. It is based on the average daily sewage flow during the peak months flow. In 2008 the Florida legislature passed a law that requires all ocean outfalls to be closed by the year 2025. This will require alternative methods to dispose of effluent including deep well injection and greater reuse efforts.

Since Hallandale Beach's sanitary sewer system does not include its own wastewater treatment plant, capacity is determined by the effluent limit stipulated in the Large User Agreement with Hollywood and capacities of the pump stations that transport Hallandale Beach's wastewater to Hollywood. This level of service is maintained by proceeding with the design of new facilities when flows reach 80 percent of respective capacities. The City of Hallandale Beach has reserved 8.7135~~7.85~~ mgd capacity in the Hollywood Wastewater Treatment Plant.

TABLE 5-1
POPULATION AND HOUSING ESTIMATES

	~~2006~~	~~2010~~	~~2015~~	2020	2025		2030	2035	2040	2045
Population	~~34,622~~	~~39,406~~	~~43,996~~	~~48,493~~	44,550	~~52,149~~	47,886	50,241	54,687	57,657
Housing Units	~~25,176~~	~~26,825~~	~~28,025~~	~~29,229~~	31,596	~~30,169~~	33,527	34,933	37,362	39,011

Source: Broward County and Municipal Population Forecast and Allocation Model (PFAM) (2024)

5.3.2 SOLID WASTE SYSTEM

5.3.2.1 SYSTEM DESCRIPTION

There are no public or private solid waste disposal facilities located in the City of Hallandale Beach.

The City of Hallandale Beach provides collection and then, via a contract, disposal service for most of the City's residents. In addition to the City provided services, there are 6 private companies that service private, commercial and multi-family accounts. The City collected approximately 26,800 tons of garbage in 2007. The private companies collected approximately 4,700 tons of garbage in 2007. In addition to garbage, approximately 3,500 tons of trash (primarily bulky waste) was collected in 2007.

The City has implemented a mandatory newspaper separation which impacts the waste tonnage by approximately 600 tons per year. The Sanitation Division collects newspapers and sells them directly to a recycling company. An estimated 650 tons of newspaper and office paper is diverted from the Reuter Recycling facility as a result of this program.

The City of Hallandale Beach has a fee (sanitation fee) supported system. The sanitation fees are included in the water and sewer bill. This has produced a single City "Utility Service Bill". The Sanitation Fund is an enterprise fund and is financed entirely by user charges.

Rather than joining the Broward County Interlocal Agreement group, the City entered into a Solid Waste Disposal Agreement with Reuter Recycling of Florida, Inc. (more recently acquired by Waste Management, Inc.), to accept and process its solid waste. This agreement will expire in 2011. If the City does not renew this contract, one result would be more flexibility in the operation of the Sanitation Division.

5.3.3 STORMWATER MANAGEMENT

5.3.3.1 SYSTEM DESCRIPTION

The City of Hallandale Beach's existing drainage system utilizes two primary types of systems to control stormwater runoff; positive drainage and a French drain filter bed drainage system. The positive drainage system consists of drainage lines that channel stormwater directly to nearby waterways, canals and lakes. This system is utilized extensively in the eastern sector of the City. The French drain filter bed system collects stormwater runoff and allows the water to drain slowly through perforated pipes or to dry wells where the water percolates into the soil. Figure 5-2 shows the current drainage system for the City of Hallandale Beach.

As the City is near the coast, many areas of the City, primarily in the eastern portion of the City, have older but adequate stormwater discharge features. Improvements were made in 1995-96 to install injection well systems in the northeast quadrant of the City. In the central and western areas, however, periodic flooding continues to occur. In the western areas, there are a number of lakes dug for fill when I-95 was built and as retention areas. However, the western areas of the City have low topographical elevations and I-95 acts as a dam. This area was one of a few in the county that did not have either an ocean outfall system or injection well system. Frequent flooding was common in the western areas until about 2000 when a major storm flooded the area, which led FDOT to acknowledge that I-95 was built without sufficient drainage and its design contributes to problems for the adjoining lands. FDOT, together with the City of Hallandale Beach and the Town of Pembroke Park west of I-95, jointly participated to design, building and operation of a major pumping facility. FDOT utilized the railroad corridor adjacent to I-95 to construct a force main to pump stormwater from the pumping station in the Town of Pembroke Park between Hallandale Beach Boulevard and Pembroke Road to the existing outfall canal at Hollywood Boulevard.

Much of the original system is undersized and inadequate for the volume of stormwater discharge needed and current water quality discharge requirements. SFWMD is pushing for deep well injection to store stormwater, rather than discharging directly to the Intracoastal Waterway and ocean. Increased pollution measures including NPDES permit regulations require pre-treatment prior to discharge.

FIGURE 5-2
STORM DRAINAGE SYSTEM

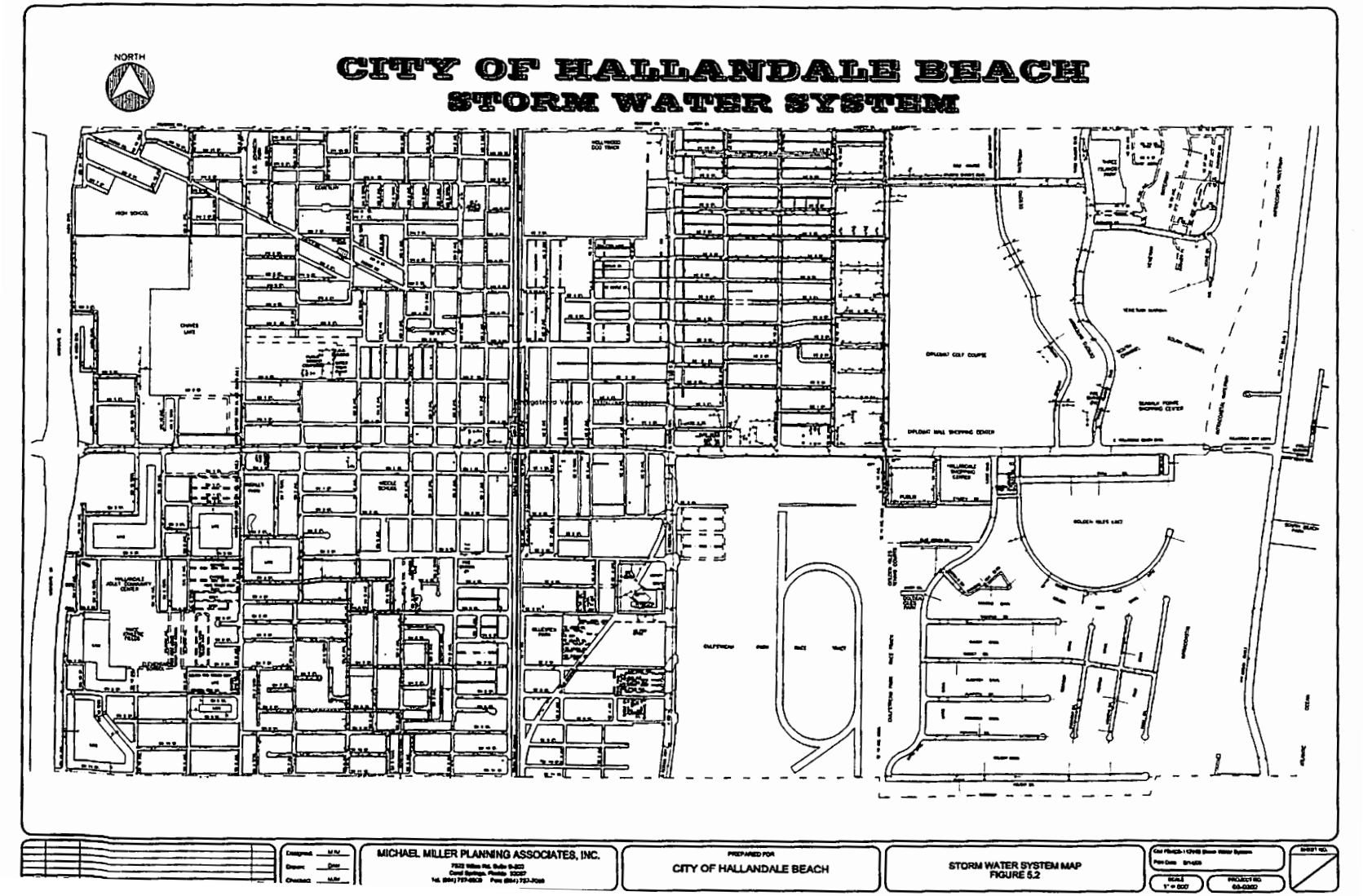
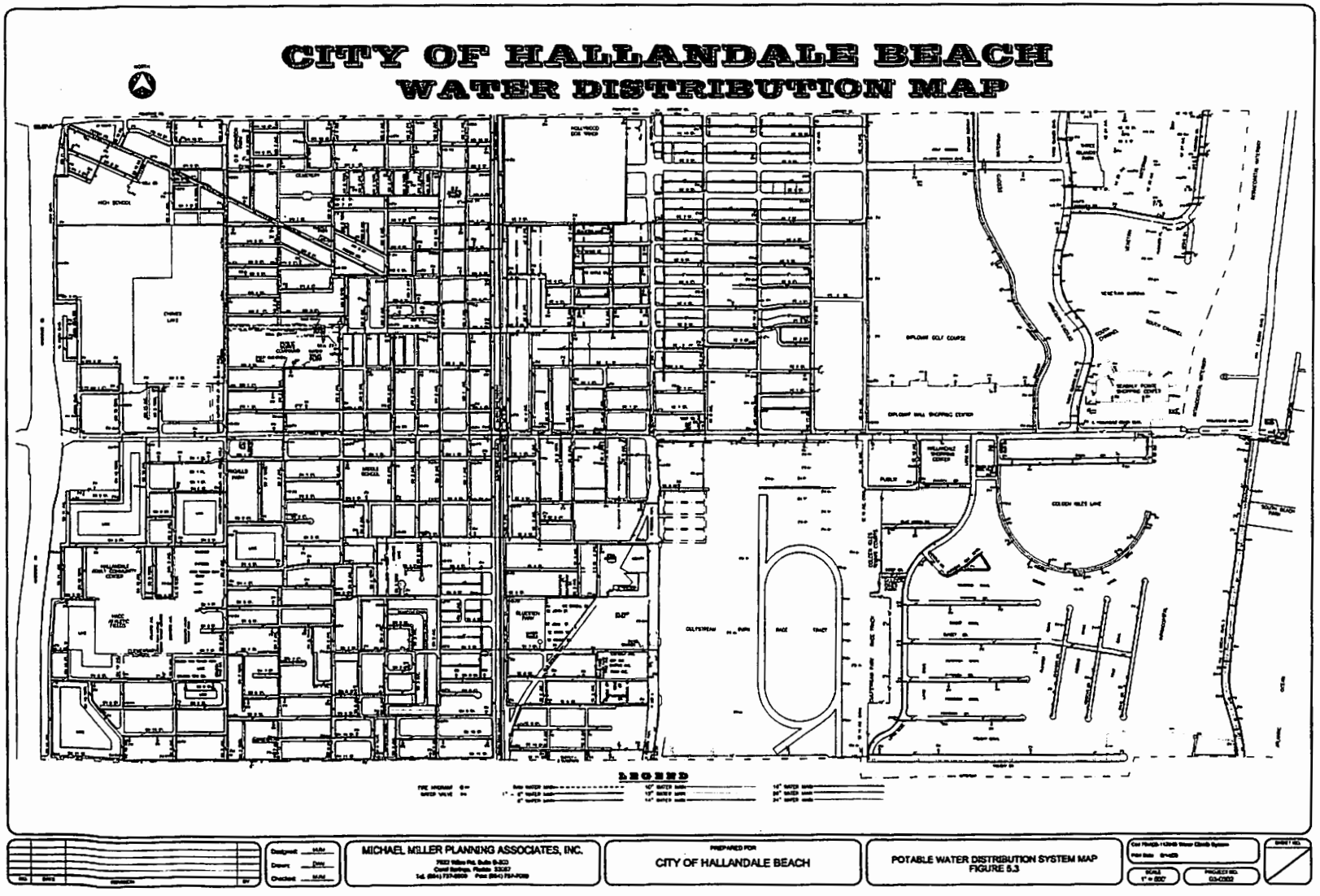


FIGURE 5-3
POTABLE WATER DISTRIBUTION SYSTEM



Beginning in 1996, the City installed several drainage wells to further relieve flooding, particularly in the northeast quadrants of the City. Major drainage improvement projects have been implemented since that time to address areas of particular concern. These projects have proven successful in the northwest, southwest and southeast quadrants of the City. Several drainage improvements have been undertaken in the northeast quadrant and additional major improvements are being designed and budgeted for implementation in the near future.

5.3.4 POTABLE WATER SYSTEM

5.3.4.1 SYSTEM DESCRIPTION

The City has five~~four~~ permitted water supply wells and a raw water supply connection from Broward County; a supplemental water supply; a water treatment plant; pumping facilities, elevated and ground storage facilities. The treatment plant utilizes two treatment technologies. The first treatment process utilizes the lime softening process with filtration and chlorination. The second utilizes nanofiltration membrane treatment. The distribution system consists of 80~~76.2~~ miles of piping which provides service for the entire City. The types of land uses served by City facilities are shown on the existing Land Use Map, a copy of which is included with the Plan.

Water Resources. Hallandale Beach currently utilizes City-owned well 9. Wells 3, 5, 7, and 8 are reserved for emergency purposes ~~two City-owned wells (#7 and #8) as raw water resources (Two wells, #3 and #5, are reserved for emergency purposes)~~. The South Florida Water Management District (SFWMD) has limited the withdrawal from these wells to 4.03~~3.5~~ mgd. Four City wells were decommissioned permanently because of potential saltwater intrusion and local wellfield protection ordinances. Water resources, in addition to the City wells, were acquired to supply the City's total demand for potable water ~~(approximately 5.27 mgd)~~. The additional resources consist of an interconnect with North Miami Beach, for an emergency supply of bulk treated water, and linkage to Broward County's Southern Regional Wellfield for supply of untreated well water. The synthesis of these three resources enables the City to supply its full demand. In February 2008, the City added a membrane treatment plant which enables treatment of exclusively Broward County wellfield water. These modifications allow the plant to treat the City's full demand for water and meet drinking water standards. The City of North Miami Beach inter-connect will be maintained as an emergency supply; however, the City is negotiating with NMB to purchase a set amount of finished water on a permanent basis (no final agreements have been reached). Additional water supply projects will be implemented, such as water conservation programs and constuction of Floridian Aquifer wells ~~reuse water~~ to ensure the City is fully capable of supplying water to future residents beyond a 10-year planning period. ~~Although the City's projections indicate that it is not necessary to pursue additional alternative water supply projects, the~~. The City of Hallandale Beach is taking all precautions to ensure it will be able to provide potable water to its residents even under the most extreme circumstances.

Softening Units. Water softening at the Hallandale Beach Water Treatment Plant is currently handled by two units, each with a 5.0 mgd capacity. The first softener, an EIMCO softener, was installed in 1968. The second, an Infilco unit, was installed in 1982. The two treatment units are used to soften and clarify raw water, and operate in basically the same way to accomplish this objective.

Filters. There are a total of 10 filters split into two filter banks. The capacity of all 10 filters is 10.0 mgd.

~~Fluoridation (Fluosilic Acid). The existing system supplements the natural level of fluoride in the water. The two feed pumps are positive displacement and each pump delivers flow to the effluent of one of the treatment units. It is functioning properly at the present time and there is no requirement to modify the system.~~

High Service Pumps. There are six existing high service pumps, four of which are driven by electric motors and two by diesel engines. The individual pump capacities and drive method are:

TABLE 5-2
EXISTING HIGH SERVICE PUMPING CAPACITY

Pump	Capacity		Drive	Drive Capacity	Speed (rpm)	VFD	Year Installed
	Flow (mgd)	TDH (ft)					
Pump 1	6.48	175	Electric	300-hp	1800	Yes	2020
Pump 2	6.48	175	Electric	300-hp	1800	Yes	2020
Pump 3	6.48	175	Electric	300-hp	1800	Yes	2020
Pump 4	6.48	175	Electric	300-hp	1800	Yes	2020
Outside Diesel	6.00	231	Diesel Engine	Unknown	2000	No	1973^d

~~Rated Capacity~~			
~~Pump No.~~	~~gpm~~	~~mgd~~	~~Drive Type~~
~~1~~	~~3,000~~	~~4.3~~	~~Diesel~~
~~2~~	~~3,000~~	~~4.3~~	~~Electric~~
~~3~~	~~3,000~~	~~4.3~~	~~Electric~~
~~4~~	~~1,500~~	~~2.2~~	~~Electric~~
~~5~~	~~500~~	~~0.7~~	~~Electric~~
~~6~~	~~4,200~~	~~6.0~~	~~Diesel (auxiliary)~~
~~TOTAL~~	~~15,200~~	~~21.8~~	

Firm pumping capacity, with one of the electric driven pumps out of service, is 25.4 mgd. The firm high service pumping capacity is adequate for meeting all demand through the year 2050.~~If we consider the condition when the largest unit is out of service, then the capacity of the remaining five units is 15.8 million gallons per day. Under conditions of an electric power outage, the two diesel driven pumping units could supply a flow rate of 10.3 million gallons per day at rated capacity.~~

Backwash and Transfer Pumps. There are three pumps used for backwashing of filters and transfer pumping to storage. Each pump can serve either purpose. The pumps were replaced in 2023. The capacity of the pumps are 4,760 gpm (6.8 mgd) each. ~~The three dual purpose pumps installed for backwash and transfer usage have the theoretical capability of transferring 10 to 12 mgd into storage with one pump out of service.~~

Ground Storage Facilities. The existing ground storage facilities consist of two 1.0 mg and one 2.0 mg prestressed (CROM type) concrete tanks. A transfer pump bypass around the storage reservoirs and directly to the high service pumps does exist and could be utilized during high flows or in case the reservoirs are out of service. During the bypass operation, the ground storage reservoir(s) will ride on the system and meet the storage function, but the flow will not pass through the reservoir(s).

Elevated Storage. The City has one elevated 500,000 gallon tank located at Hallandale Beach Boulevard and A1A. ~~two small elevated storage tanks. One older 200,000 gallon tank near S.E. 7th Street and S.E. 2nd Avenue, and a newer 500,000 gallon tank on the beach at Hallandale Beach Boulevard. Each tank has an altitude valve to control its operation.~~

Sludge and Backwash Facilities. Calcium carbonate precipitate from the lime softening treatment units is gravity purged to a concrete sludge basin containing two submersible pumps. The pumps transfer the sludge to a City owned lake 1/4 mile west of the water plant. ~~The lake has the capacity to receive approximately 150 years of Hallandale Beach generated carbonate sludge.~~

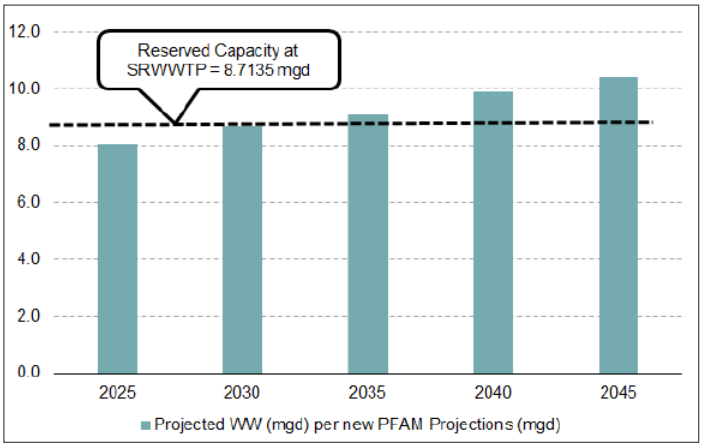
Water spent from filter backwashing is gravity fed to a concrete receiving basin. Approximately 85% of the backwash water is recovered the remainder is wasted to the sludge basin and pumped to the City-owned lake.

Distribution System. The City owns and operates its water distribution system to convey drinking water from the WTP to its customers. The piping amounts to approximately 80 miles. The City's water distribution system is aging. Approximately 30 percent of the City's piping is 70 years old or older. The City has initiated planned for renewal and replacement of aging pipes.~~Over the years there have been occasional difficulties in the distribution system. The existing system has been improved to address previous problems. It consists of piping from 3/4" service lines up to 20-inch diameter mains.~~ There are no consistently low pressure areas in the community during high use periods. ~~Major capital improvements have been completed to remedy this problem.~~ Figure 5-3 shows the distribution system for the City.

5.3.4.2 EXISTING POPULATION, FLOWS AND LEVELS OF SERVICE

Current Population. See Table 5-1.~~ Existing Conditions, Sanitary Sewer, Section 5.3.1.4, "Current Population".~~

Historical Water Production~~Current Flow~~. The figure below illustrates the historical flow from the water treatment plant from 2020 to 2024.~~Current flow is described as average daily flow (ADF). ADF is the average daily flow leaving the treatment plant. Table 5-2 shows the historical average daily flow for 2007. This value was dramatically reduced due to Phase III water restrictions imposed by the South Florida Water Management District. The ADF for this period was 5.38 mgd.~~



Existing Levels of Service. The existing demand was calculated by dividing the total system average daily flow by the total population of the Hallandale Beach service area. The existing average demand for the City of Hallandale Beach is 147.3~~146~~ gallons per capita per day. ~~Under maximum day conditions, the demand is estimated to be near 175 gpcd.~~ The maximum day demand is calculated at 1.27~~1.2~~ times the average day demand. The existing level of service is determined by the maximum day per capita of 187.1 gpcd. The City's existing infrastructure can meet this level of service standard while maintaining a minimum distribution system pressure of 35 psi or greater.~~maximum gallons per capita per day demand. The existing capacity level is 279 gallons per capita per day. The City of Hallandale Beach presently delivers a minimum of 40 psi static pressure at the meter for each customer.~~

~~TABLE 5-2~~
~~HALLANDALE BEACH WATER TREATMENT PLANT~~

~~Month~~	~~ADF (mgd)~~
~~01/07~~	~~6.18~~
~~02/07~~	~~5.28~~
~~03/07~~	~~6.10~~
~~04/07~~	~~5.53~~
~~05/07~~	~~4.99~~
~~06/07~~	~~4.81~~
~~07/07~~	~~4.73~~
~~08/07~~	~~5.16~~
~~09/07~~	~~5.02~~
~~10/07~~	~~5.16~~
~~11/07~~	~~5.47~~
~~12/07~~	~~5.73~~

~~Yearly Average Daily Flow: 5.38~~

Level of Service Required by Lawand Desired Level of Service. The current level of service required by law, based on static line pressure delivered, is 20 psi at any fire hydrant within the City's distribution system. In addition, the FDEP requires that the capacity of the treatment plant be greater than the demand of the population being served. In high growth areas, this level of service is maintained by initiating the design of a treatment plant expansion when the treatment plant is at 80 percent of its usable capacity. The treatment plant should be under construction when flows are at 90 percent of the plant capacity. Hallandale Beach currently meets all water capacity requirements.

It is the policy of the Hallandale Beach Department of Public Works and Utilities to maintain the current level of service of 35~~40~~ psi and to ensure that water plant production capacity complies with at least the minimum required by FDEP Rule 62-555, Florida Administrative Code.~~provide for a minimum of 200 gallons per capita per day at the water treatment plant.~~ It is also a policy of this utility to monitor the high quality of water that leaves the plant. The utility currently meets all primary and secondary effluent standards as required by the State of Florida~~ Health Department~~.

In addition to the City's system, the Gulfstream Park Racetrack has a small reverse osmosis plant that produces water for irrigation purposes at the facility and the Diplomat Country Club golf course is irrigated with reuse water received from the City of Hollywood.

5.3.5 NATURAL GROUNDWATER AQUIFER RECHARGE

5.3.5.1 BACKGROUND TERMS AND CONCEPTS

The City of Hallandale Beach, along with the majority of surrounding municipalities in Broward and Miami-Dade Counties, derives its potable water supply from the Biscayne Aquifer. There are no surface water supplies providing water directly to a treatment plant in Broward County and, therefore, 100 percent of potable water needs are met by utilizing local groundwater. The South Florida area is very fortunate to have access to the Biscayne Aquifer which is one of the most productive in the world. The Biscayne Aquifer is an unconfined aquifer with depths ranging from over 200 feet in eastern Broward County to less than 50 feet in the extreme western areas of the County. The high porosity and transmissivity of the aquifer are both beneficial and detrimental in that the aquifer is readily rechargeable, and at the same time easily penetrated by pollutants and saltwater intrusion from the ocean.

It is crucial that this aquifer be protected from contamination because it is the area's primary source of potable water. In addition to saltwater intrusion due to lowering of the water table, water quality is also threatened by chemical contamination from increased commercial and industrial development. In 1979, the EPA designated the Biscayne Aquifer to be a sole source water supply, thereby allowing more stringent regulation of the aquifer.

The 2023-2024 Lower East Coast Water Supply Plan Update was officially adopted by the SFWMD's Governing Board on September 23, 2024. The Lower East Coast region includes Palm Beach, Broward, Miami-Dade and parts of Monroe, Collier and Hendry counties, Florida. Local governments (including Hallandale Beach) within the Lower East Coast Region are required to amend their comprehensive plans and include an updated 10-year Water Supply Facilities Work Plan and related planning elements by March 23, 2026. The City completed drafting its 10-year Water Supply Facilities Work Plan in mid-December 2025.~~In February of 2007 the South Florida Water Management District (SFWMD) approved a Lower East Coast Water Supply Plan which identified current and future water supply needs. One of the key objectives of that plan is to maintain or reduce water withdrawal from the Biscayne Aquifer and require the use of water from the Floridan Aquifer, a deeper aquifer approximately 1,000 deep.~~

5.3.5.2 REGULATORY FRAMEWORK

Federal. In 1986, the Federal Safe Drinking Water Act (PL 93-523) was amended to strengthen protection of public water system wellfields and aquifers that are the sole source of drinking water for a community. The amendments for wellfield protection require states to work with local governments to map wellhead areas and develop land use controls that will provide long-term protection from contamination for these areas. The aquifer protection amendments require EPA

to develop criteria for selecting critical aquifer protection areas. The program calls for state and local governments to map these areas and develop protection plans, subject to EPA review and approval. Once a plan is approved, EPA may enter into an agreement with the local government to implement the plan.

State. In implementing the Florida State Safe Drinking Water Act (Ch. 403, F.S.), FDEP has developed rules classifying aquifers and regulating their use (Chapter 17-22, Part III, F.A.C.). These rules are currently being amended to strengthen protection of sole source aquifers and wellfields tapping them. FDEP has also established regulatory requirements for facilities which discharge to groundwater (Section 17-4.245, F.A.C.) and which inject materials directly underground (Chapter 17-28, F.A.C.).

The task of identifying the nature and extent of groundwater resources available within the state has been delegated to the various regional water management districts. Each district must prepare and make available to local governments a Groundwater Basin Resource Availability Inventory (GWBRAI), which the local governments are to use to plan for future development in a manner which reflects the limits of available resources. The criteria for the inventories, and legislative intent for their use, are found in Chapter 373, Florida Statutes, which reads:

Each water management district shall develop a groundwater basin resource availability inventory covering those areas deemed appropriate by the governing board. This inventory shall include, but not be limited to, the following:

1) A hydrogeologic study to define the groundwater basin and its associated recharge areas.

2) Site specific areas in the basin deemed prone to contamination or overdraft resulting from current or projected development.

3) Prime groundwater recharge areas.

4) Criteria to establish minimum seasonal surface and groundwater levels.

5) Areas suitable for future water resource development within the groundwater basin.

6) Existing sources of wastewater discharge suitable for reuse as well as the feasibility of integrating coastal wellfields.

7) Potential quantities of water available for consumptive uses.

Upon completion, a copy of the groundwater basin availability inventory shall be submitted to each affected municipality, county, and regional planning agency. This inventory shall be reviewed by the affected municipalities, counties, and regional planning agencies for consistency with the local government comprehensive plan and shall be considered in future revision of such plan. It is the intent of the Legislature that future growth and development reflect the limitations of the available groundwater or other available water supplies.

The Florida Legislature has also directed local governments to include topographic maps of areas designated by the water management districts as prime recharge areas for the Floridan or Biscayne Aquifers in local comprehensive plans, and to give special consideration to these areas in zoning and land use decisions.

Local. On August 24, 1984, the Broward County Board of County Commissioners enacted Ordinance No. 84-60 which recognizes the importance of protecting existing and future public utility potable water supply from contamination. On the same date, the Board enacted Resolution No. 84-2025, the Wellfield Protection Ordinance (WPO), which established wellfield protection rules and regulations. On July 9, 1985, the Board adopted a resolution which provided administrative procedures for the determination of compensation eligibility and for the application for special exemptions.

At the present time, Hallandale Beach has no special regulatory programs related to protection of natural groundwater aquifer recharge areas. Since Hallandale Beach is almost fully developed, there are no designated natural groundwater recharge areas within the City limits.

5.3.5.3 EXISTING RECHARGE AREAS

Percolation of rainfall into the aquifer is most important in recharging the groundwater. In spite of the relatively large amount of rainfall in the Broward County Area, only a small portion of that mean annual rainfall is readily available to use for potable water supply. The rainfall moves rapidly into the ground as infiltration, over land as surface runoff, and into the atmosphere through evaporation and transpiration. The urbanization of Broward County has resulted in large impervious areas, thus reducing recharge by rainfall. To help compensate for the loss of percolative areas, there is a regulation calling for retention of stormwater runoff. This requires a balance between,

- the need to recharge the aquifer by retaining as much rain as possible and,
- the necessity to control flooding. The retention of runoff during periods of low rainfalls is particularly vital.

During periods of inadequate rainfall, the Biscayne Aquifer is also replenished by a system of canals which divert water from Lake Okeechobee and the Conservation Areas to the County.

In Broward County, saltwater intrusion began early in the twentieth century when the first major drainage canals were excavated. These canals shifted groundwater discharge points inland and caused a lowering of piezometric head levels in the coastal portions of the Biscayne Aquifer. In addition, these canals allowed sea water to flow far inland during periods of low freshwater flows. The inland extent of saltwater in drainage canals has been reduced in certain areas of the county by the construction of salinity control structures in the canals. They not only prevent the movement of sea water into inland areas, but also help to maintain the levels of piezometric head in their vicinity above mean sea level. Operation is based on maintaining a freshwater elevation at the dams sufficiently above mean sea level to keep saltwater from entering the Biscayne Aquifer. A primary function of the Everglades Conservation Areas is maintaining the required water elevation behind the salinity barriers. The salinity barriers on the SFWMD canals, however, are located inland to the point that they do not provide protection to Hallandale Beach from saltwater intrusion. As a result, the six water supply wells near the Hallandale Beach Water Treatment Plant have shut down (two are available for emergency standby use). The closure of these six wells is due to threatened saltwater intrusion. Assuming that conditions continue as present, the advancing saltwater front will eventually contaminate the City's ~~two~~ remaining water supply wells. Because of the water transmitted from the Broward County South Regional Wellfield, some of the water supply can be replenished. However, recent State legislature limits the quantity of water that the City can draw from this wellfield. The City is making contingency plans in the event that the remaining wells will be shut down due to saltwater intrusion.

In Broward County, the use of hazardous chemicals in the zones of influence of water supply wells is now regulated by the Broward County Wellfield Protection Ordinance.

The City of Hallandale Beach has made ground water recharge a priority. By Ordinance all new development is required to provide on-site drainage improvements sufficient that the stormwater developed by a storm up to 5 year intensity is retained on-site and recharged to the aquifer. The City also installed large diameter class 5 drainage wells in portions of NE Hallandale Beach, east of US-1, where flash flooding presently can occur. These improvements will benefit the fresh water recharge of the aquifer and may slow down the rate of saltwater intrusion in the area.

5.4 DATA AND ANALYSIS

5.4.1 SANITARY SEWER

5.4.1.1 PROJECTED GROWTH, FLOWS, AND LEVELS OF SERVICE

Projected Flows. Flows were projected by multiplying the population projections by an average day per capita flow rate. This average day per capita flow rate was determined from the current flow rate and population within the Hallandale Beach collection system service area. The average per capita flow rate was determined to be 187~~190~~ gallons per capita per day. Table 5-3 shows the projected AADF sewage flow rates for 2025 through 2050 in five year increments. ~~2008, 2010, 2015, and 2018.~~

TABLE 5-3
PROJECTED AADF SANITARY SEWER FLOW RATES

Year	2025	2030	2035	2040	2045	2050
Population	44,550	47,886	50,241	54,687	57,657	60,569
Flow Rate (mgd)	8.1	8.7	9.1	9.9	10.4	11

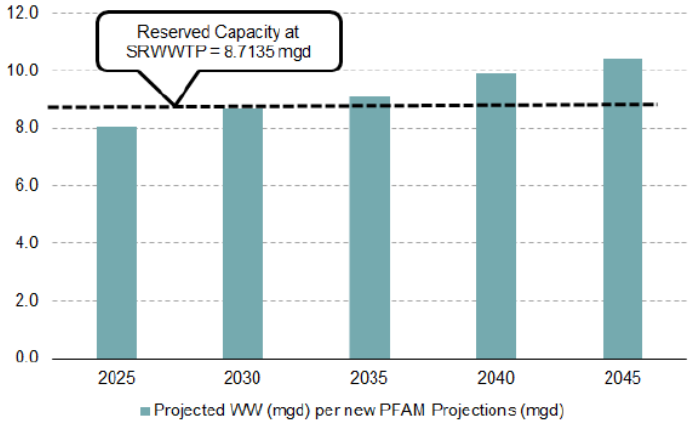
	~~2008~~	~~2010~~	~~2015~~	~~2018~~
~~Population~~	~~37,014~~	~~39,406~~	~~43,996~~	~~46,694~~
~~Flow Rate (mgd)~~	~~7.03~~	~~7.48~~	~~8.35~~	~~8.87~~

TABLE 5-4
PROJECTED LEVELS OF SERVICE

	~~2008~~	~~2010~~	~~2015~~	~~2018~~
~~Level of Service Provided gpcd)~~	~~398~~	~~374~~	~~335~~	~~315~~

5.4.1.2. PROJECTED FACILITY DEFICIENCIES OR SURPLUSES

The City of Hallandale Beach sanitary sewer and water force main system capacity is limited by capacities of the pump stations that transfer sewage flow to the Hollywood meters. ~~The combined capacity of these pump stations is 14.75 mgd. The current system capacity will be more than sufficient to meet future needs as illustrated by Table 5-4.~~



The Hollywood Large User Agreement currently reserves an average day capacity of 8.7135~~7.85~~ mgd for the City of Hallandale Beach. As illustrated by Table 5-3, projected sewer flows will surpass the current large user Reserved Capacity limit (8.7135 mgd) in approximately the year 2030. The City has initiated planning to increase sewage treatment and disposal capacity by evaluating the efficacy of the "Miami-Dade County - Sewer Trunk Line" project. In parallel, the City is exploring opportunities for purchase of additional reserve capacity with other utilities. ~~capacity limit of 7.85 mgd in late 2012. The Large User Committee is currently formulating a methodology to provide additional capacity from a pooled reserve of unused plant capacity; this methodology would provide Hallandale Beach with an additional 1.02 mgd of capacity bringing the City's capacity to 8.87 mgd.~~ In addition, Hallandale Beach is aggressively working to reduce I/I flows ~~which, once reduced, will lower average daily flow by as much a 1 mgd. With the additional large user capacity of 1.02 mgd combined with I/I reductions of~~

~~1 mgd, Hallandale Beach will have more than enough capacity to meet the demands through 2018.~~

5.4.1.3. CAPITAL IMPROVEMENTS PLANNED TO ENSURE SUFFICIENT WASTEWATER CAPACITY ~~EXPANSION/ REPLACEMENT RECOMMENDATIONS~~

Over the last five years the City has aggressively upgraded its wastewater lift station. Construction of upgrades to all City owned lift stations will be completed by 2028. Additionally, the City has budgeted $20.6 million in wastewater improvements in its "Adopted Capital Improvement Plan FY 2025-29". Selected wastewater capital improvement projects the City plans to design and construct over the next five years include the following:

1. 18-Inch Force Main Replacement along Layne Blvd.
2. 20-Inch Force Main Replacement on NE 7th St & NE 12th Ave.
3. 30-Inch Force Main Replacement Replacement at NE14th.
4. Dixie Hwy Force Main Improvements.

Additionally, the City has initiated the update of its wastewater lift station and force main network model. This model will be used to identify capacity limitations and identify if additional capital improvements are necessary. The City is committed to ensuring that its wastewater collection and transmission system is adequately sized to meet its customer growth forecast.

~~Due to future capacity requirements, a new 20" force main has been installed from the SE 5th Avenue lift station under the FEC Railroad to SW 2nd Avenue. This improvement was be completed in 2008. Another major capital improvement will be the installation of a new force main across the Intracoastal Waterway. This project is scheduled for 2009.~~

~~The City anticipates undertaking the following projects to meet the projected demands through the year 2018:~~

~~1. Provide rehabilitation for two collection system lift stations per year.~~

~~2. Locate and eliminate major sources of I/I in sewer system to prevent increase over present unmetered sewer flow to Hollywood Regional Treatment Plant (R.T.P.)~~

~~3. Replace existing 16" Intracoastal force main crossing with new 24" force main.~~

~~4. Collaboration with other large users for use of existing wastewater treatment plant capacity.~~

5.4.2. SOLID WASTE

5.4.2.1 PROJECTED DEMANDS

The projected volume of solid waste per capita is shown in Table 5-5, below, assuming per capita generation remains the same.

TABLE 5-5
PROJECTED SOLID WASTE GENERATION RATES

Year	Estimated Population	Solid Waste (tons/year)	Pounds per Capita per Day*
2010	39,406	33,944	4.72
2015	43,996	37,818	4.71
2020	48,493	41,595	4.70
2025	52,149	44,636	4.69

5.4.2.2 PROJECTED DEFICIENCIES/SURPLUSES

The City of Hallandale Beach operates a one-acre trash transfer station for in- house trash transfer of primarily vegetative materials. The transfer station is licensed by Broward County Environmental Protection Department. The operation of this facility enhances the efficiency and effectiveness of City operations. When the current contract with Waste Management expires in 2011, greater operational flexibility and efficiency is anticipated.

5.4.2.3. EXPANSION RECOMMENDATIONS

Plans are underway and funding has been budgeted to expand the city's recycling services in 2009 to include residential curbside recycling as well as condominium and commercial recycling.

5.4.3 DRAINAGE FACILITIES

The effectiveness of a drainage system is frequently measured by the extent to which it reduces damage and inconvenience from flooding. Except during periods of unusually high rainfall and/or hurricane conditions, the City's drainage facilities are adequate to prevent large-scale flooding and/or ponding of waters. There are still several small areas within the City, most notably in the northeast quadrant of the City, where localized ponding can and does occur. The City has developed a recommended approach for addressing these localized problems and is correcting them as they are brought to the City's attention.

Being a coastal community with a relatively low-lying, flat topography, the City would be subject to substantial flooding in the event of a hurricane, tropical storm, or very large rainfall storm. It may not be possible to completely prevent potential flooding from theses types of events due to the low level of many roads and structures. A thorough evaluation of the situation has been undertaken to establish possible mechanisms to reduce the extent of flooding and damage.

5.4.3.1 PROJECTED DEMANDS

Aside from infrequent, unusual weather conditions such as hurricanes and/or abnormal rainfall, the City's drainage system is adequate to serve current and projected demands. To address specific localized ponding of rainwaters, the City has developed criteria for stormdrain construction. Essentially, the criteria for whether or not the City should install additional stormdrains is as follows:

1. Ponding water must be primarily the result of street drainage and not caused by run-off from private property.
2. Ponding must substantially occupy a travel lane of a City of Hallandale Beach maintained public street. A storm drain will not be installed by the City adjacent to any property that does not have a proper swale as prescribed by City Code.
3. Water at least 1-inch deep must remain 12 hours of daylight following the end of a rainfall event.
4. At locations where drainage swales can be installed without destroying landscaping or sod, they will be constructed in lieu of stormdrains. However, such swales should drain within 24 hours. Areas holding water for longer than 24 hours will be equipped with drains.

5.4.3.2 PROJECTED DEFICIENCIES/SURPLUSES

Areas of the NE, SE and SW quadrants of the City are subject to flash flooding conditions during intense rainfall storms. Minor deficiencies that are brought to the attention of the City are being corrected in accordance with the adopted guidelines. Monies continue to be budgeted to deal with these localized problems.

5.4.3.3 EXPANSION RECOMMENDATIONS

The City has constructed extensive drainage improvements in areas in the NW, SW and SE quadrants of the City which have greatly improved drainage and reduced flooding. Drainage improvements in the NE have begun, but additional improvements are required. Major drainage projects are being planned, designed and funded in this quadrant which are anticipated to greatly improve drainage and reduce flooding.

5.4.4 POTABLE WATER

5.4.4.1 PROJECTED GROWTH, FLOWS AND LEVELS OF SERVICE PROJECTED POPULATION

Projected Flows. The average day per capita flow rate was determined by dividing the current population into the average day flow within the Hallandale Beach distribution

system. The average day capita flow rate was determined to be 147.3~~146~~ gallons per capita per day. The projected average day flow rates are shown in Table 5-6. Table 5-7 summarizes the projected water demand on an a maximum day basis from 2025 to 2050 in five year increments. ~~Based on previous evaluations, the maximum day demand is calculated at 1.2 times the average day demand. This results in a demand of 175 gallons per day, well below the plant capacity.~~

Projected Capacity Level. The projected maximum capacity available is shown in Table 5-7. It is calculated by dividing the current water softening treatment facility capacity (10.00 mgd) by the projected populations. With the recent completion of the nanofiltration membrane treatment plant, the level of service for treatment capacity has vastly increased from 10.0 mgd to 16.0 mgd. However, the 10.0 mgd is used in light of the overriding limitation in water supply.

TABLE 5-6
PROJECTED AVERAGE DAY POTABLE WATER FLOW RATES ~~PROJECTED POTABLE WATER FLOW RATES~~

Year	2025	2030	2035	2040	2045	2050
Population	44,550	47,886	50,241	54,687	57,657	60,569
Avg Day Flow Rate (mgd)	6.56	7.05	7.40	8.06	8.49	8.92

	~~2010~~	~~2015~~	~~2020~~	~~2025~~
~~Population~~	~~39,406~~	~~43,996~~	~~48,493~~	~~52,149~~
~~Flow Rate (mgd)~~	~~5.8~~	~~6.4~~	~~7.1~~	~~7.6~~

TABLE 5-7
PROJECTED MAXIMUM DAY POTABLE WATER FLOW RATES ~~PROJECTED MAXIMUM CAPACITY AVAILABLE~~

Year	2025	2030	2035	2040	2045	2050
Population	44,550	47,886	50,241	54,687	57,657	60,569
Max Day Flow Rate (mgd)	8.33	8.96	9.4	10.23	10.79	11.33

	~~2010~~	~~2015~~	~~2020~~	~~2025~~
~~Gallons per Capita per Day (gpcd)~~	~~253~~	~~227~~	~~206~~	~~192~~

5.4.4.2 TREATMENT PROCESSING~~WATER SUPPLY/WELLS~~

The Per- and Polyfluoroalkyl Substances (PFAS) National Primary Drinking Water Regulation (a.k.a., PFAS Rule) was promulgated in April 2024 (USEPA, 2024). This rule requires removal of PFAS from drinking water to four parts per trillion (ppt). The City's raw water contains PFAS, which lime softening cannot remove. To comply with the PFAS Rule, the City plans to switch entirely to membrane treatment and add capacity with a new Floridan aquifer source and RO treatment. Table 5-8 summarizes the City's plan.

TABLE 5-8
CHRONOLOGY OF CITY PLAN TO COMPLY WITH THE PFAS RULE

YEAR ACTION IS COMPLETED	ACTION
2026	Year that RO Skid 1 is fully available treating water from the BCSRW^2.
2026	Condict Optimal Corrosion Control Treatment Pilot Test to ensure compliance with Lead and Copper Rule. This project will define what is designed in the "Chemical Stabilization Improvements" project.
2027 to 2029	Design, permitting, bidding, and construction of Chemicla Stabilization Improvements.
2025 to 2029	Design, permitting, bidding, and construction of RO Skid 2 along with associated piping to supply raw water from City wells to RO Skids 1 and 2.
2026 to 2030	Design, permitting, bidding, construction and operational testing of Deep Injection Well (DIW) 2 along with associated piping, electrical and controls.
2026 to 2030	Design, permitting, bidding, and construction of Floridan aquifer wells 1 and 2, RO Skid 3, along with associated raw water piping
2026 to 2030	Design, permitting, bidding and construction of Generator 2.
2029	The designated year marks the commencement of operations for RO Skids 1 and 2 utilizing City wells. Concurrently, the lime softening facility will be permanently decommissioned. Following this transition, the City's water treatment process will consist exclusively of membrane technology.
2030	Year that the RO Skid 3 is available treating water from the Floridan aquifer. Additionally, DIW 2 and Generator 2 will be available by this year

The plan adds two new Floridan aquifer wells to the City's water supply. These infrastructure upgrades will enable the City to meet the projected 2050 population's water needs of 60,569 residents.

Water Treatment. With the completion of the membrane treatment plant in 2008, the present plant meets all presently adopted and anticipated standards for water treatment.

As the City is located near the coast, continued groundwater withdrawal is causing some saltwater intrusion to occur. In the 1990's the City was forced to cease using 4 wells because of saltwater intrusion and well field protection ordinances. Because water consumption continues to increase as well as saltwater intrusion, some municipalities are outsourcing water production / treatment or converting to reverse osmosis plants by taking brackish ground water and/or sea water to produce drinking water. This is anticipated to continue as demand is expected to increase. The State legislature for several years has set, but modified timeframes to plan for long-term water use. Although this has essentially occurred in the past when municipal water withdrawal permits are renewed by the South Florida Water Management District (SFWMD), a formal plan is now required. SFWMD has prepared its 10-year plan for the southeast basin area, which includes the City. All government agencies were required to prepare a municipal 10-year plan by August 15, 2008. The City has prepared and adopted a 10-year Water Supply Plan, as required (See Exhibit 5-1).

The greatest challenge currently facing the City's potable water utility is that of water supply. Recent legislation limits withdrawal of raw water from the Biscayne Aquifer. One of the options under consideration to meet future water supply entails withdrawal from the Floridan Aquifer and implementation of reverse osmosis technology.

Filters. The existing lime softening filters have been functioning satisfactorily and at rates less than 4 gpm/ft2. There is a possibility that the filters could be operated at slightly higher rates of 4 to 5 gpm/ft2 but the hydraulics and the turbidity would have to be closely monitored. The filters at 4 gpm/ft2 have a rating of 10 mgd. With the largest filter out of service and a 24-hour-a-day operation on the other filters, a 10.4 mgd volume can be filtered. If all filters are operating at 4 gpm/ft2, but for only 20 hours per day, 9.6 mgd will be produced. This will be easily sufficient to meet future demands, considering that no more than 3.5 mgd is anticipated.

5.4.4.3 CAPITAL IMPROVEMENTS PLANNED TO ENSURE SUFFICIENT WATER CAPACITY

Over the last five years, the City has aggressively upgraded its water treatment plant. Key recently completed water projects include the following:

1. New High Service Pump Station (completed 2020).
2. New Biscayne Aquifer Well 9 (completed 2023).
3. New Transfer Pump Station (completed 2023).
4. Reverse Osmosis Skid 1 (will be completed in early 2026)

Additionally, the City has budgeted $105 million in water improvements in its "Adopted Capital Improvement Plan FY 2025-29". Selected water capital improvement projects the City plans to design and construct over the next five years include the following:

1. Reverse Osmosis Skid 2
2. Reverse Osmosis Skid 3
3. Floridan Aquifer Wells 1 and 2
4. Deep Injection Well 2
5. Emergency Generator 2
6. Multiple water main replacement projects to ensure the long-term integrity of the City's existing infrastructure.

The City is committed to ensuring that its water system is adequately sized to meet its customer growth forecast. As indicated in the 10-Year Water Supply Facilities Work Plan 2026 Update, implementing the above-described projects over the next five years ensures the City will meet water demand and current quality regulations through the year 2050.

~~High Service Pumps. The high service pumps that exist can meet the peak demands on the system and the plant. The pressure at the plant will drop 5 to 10 psi at such peak~~

demand periods. With a 5 to 10 psi drop in plant pressure, the high service pumps will pump over 18 mgd with the largest pump (#6) out of service. If the largest pump (#6) is in service and one of the other large pumps is out of service (#3, #4 or #5) the pumping capability will be 21 mgd.

In the distant past the maximum hourly flow has peaked at 2.1 times average of peak days flow (1972). In 1990's this peaking factor has been normally in the 1.4 to 1.8 range. With the fact that peaking factors generally diminish as the system size increases, it is felt that the high service capability should be sufficient to meet future needs. A peaking factor of 1.35 is sufficient for future calculations.

An item of concern is that the connections to the distribution system are concentrated in one location at the front of the plant. Consideration should be given to improving the piping system and valving from the high service pumps to the 24-inch main located in N.W. 6th Avenue at the southeast corner of the plant. A second connection would improve the long range reliability.

Backwash and Transfer Pumps. The backwash and transfer pumps installed have sufficient capacity to meet the rated lime softening plant capacity of 10.0 mgd. With the last storage tank addition, the transfer head loss was reduced such that these pumps could probably transfer in the range of 12 mgd; more than sufficient to handle the future plant needs.

Storage Reservoirs. The City has 4.0 mg of ground storage and 0.7 mg of elevated storage. This is about normal storage capacity for this area of the Country. While generally more storage is preferable, the City has the major Federal Highway interconnect with North Miami Beach, another small interconnect with North Miami Beach, and a small interconnect with the City of Hollywood. With these storage reservoirs and emergency interconnects, Hallandale Beach should have adequate backup to meet most circumstances. Furthermore, the City is negotiating with the City of Hollywood to construct additional interconnects.

Distribution System. Hallandale Beach has implemented several Capital Improvement Projects in order to update its potable water system. The City has been aggressively planning and constructing larger pumps and lines to serve the growing areas of the community. A new 16" water main is planned to extend from the mainland under the Intracoastal Waterway to the beach area near Hallandale Beach Boulevard and another further south to loop the system in the future to provide more and better pressure for the high-rise development on the barrier island. Also, improvements have been made to serve the Gulfstream Park expanded facility, including a new 16" water main extension under US 1 from the west to east side of the roadway and extending along the county line and connecting on SE 14th Avenue. There are still several areas where additional looping of mains, upsizing, or closing of gaps would improve the overall system. Future water main projects include:

- A 16" water main across the Intracoastal Waterway
- A 16" water main looping Golden Isles Drive to Oleander Drive.

5.4.5 NATURAL GROUNDWATER RECHARGE

5.4.5.1 NEEDS ASSESSMENT

The City realizes the importance of groundwater aquifer recharge and has required all new development to provide on-site drainage facilities to retain on- site and direct to the aquifer the stormwater run-off which would be developed by a storm up to 5 year frequency magnitude. Installation of exfiltration type drainage systems throughout Hallandale Beach has resulted in a combined mitigation of flooding and enhancement of aquifer supply. Additional utilization of this method is proposed for future projects.

Hazen



City of Hallandale Beach 10-Year Water Supply Facilities Work Plan 2026 Update

FINAL

February 12, 2026

Prepared By

Hazen and Sawyer
4000 Hollywood Blvd, Suite 750 N
Hollywood, FL 33021• 954.987.0066

Table of Contents

Executive Summary 1
Introduction 1
Background 1
Water Service Area 1
Population Forecast 3
Water Supply 3
Water Treatment 3
Changes to Water Treatment and Supply in Response to Changing Regulations 4
Water Storage and Distribution 6
Raw Water Demand Forecast 7
Finished Water Demand Forecast 8
Finished Water Production Capacity Meets Demand Through 2050 9
Capital Improvements Plan 10
Water System CIP FY2025 - FY2029 10
Water System CIP FY2030 - FY2034 10
1. Introduction 1-1
1.1 Overview 1-1
1.2 Scope of This Report 1-1
1.3 Statutory History: Why is this Planning Document Required? 1-2
1.4 Statutory Requirements 1-2
2. Water Service Area Overview 2-1
2.1 Introduction 2-1
2.2 Water Service Area 2-3
2.3 Areas of Self Supply 2-3
2.4 Summary of Existing Interlocal Water Supply Agreements 2-3
2.5 Description of the City's Water Supply System 2-3
2.6 Sector Plans 2-3
3. Summary of Existing Water Infrastructure 3-1
3.1 Introduction 3-1

Job No. 40623-025

3.2 Summary of Existing Water Supply Infrastructure 3-1
3.2.1 Introduction 3-1
3.2.2 City Biscayne Aquifer Raw Water Supply Wells 3-1
3.2.3 City Wells Location Map 3-2
3.2.4 City Biscayne Aquifer Water Use Permit 3-3
3.2.5 City Agreement with Broward County to Purchase Raw Water from the SRW 3-3
3.2.6 C-51 Reservoir Phase 1 3-3
3.3 Summary of Existing Water Treatment Infrastructure 3-3
3.4 Summary of Existing Treatment Byproduct Disposal Infrastructure 3-5
3.5 Summary of Existing Water Distribution System Infrastructure 3-5
3.5.1 Distribution System at a Glance 3-5
3.5.2 Finished Water Storage Capacity is Adequate Through 2050 3-6
3.5.3 Water Import 3-6
3.5.4 Distribution System Interconnects 3-6
3.6 Summary of Historical Distribution System Water Losses 3-7
3.7 Summary of Outstanding Compliance Issues 3-8
4. Population and Water Demand Projections 4-1
4.1 Introduction 4-1
4.2 Historical Population 4-1
4.3 Population Forecast 4-1
4.4 Areas of Self Supply 4-2
4.5 Water Service Area 4-2
4.6 Hallandale Beach Areas Served by Other Utilities 4-4
4.7 Potable Water Level-of-Service Standards 4-4
4.8 Historical Biscayne Aquifer Raw Water Used 4-5
4.9 Historical Finished Water Used 4-5
4.10 City Strategy to Comply with the PFAS Rule and Meet Buildout Population Water Demand 4-6
4.11 Water Demand Forecast 4-7
4.12 Finished Water Production Capacity is Adequate to Meet Demand 4-8
4.13 Biscayne Aquifer Raw Water Demand Forecast 4-9
4.14 Floridan Aquifer Raw Water Demand Forecast 4-10

Job No. 40623-025

5. Capital Improvements Plan 5-1
5.1 Introduction 5-1
5.2 Water System CIP FY2025 - FY2029 5-1
5.3 Water System CIP FY2030 - FY2034 5-4
5.4 Distribution System Projects Needed Beyond the Five-Year CIP 5-4
6. Conservation and Reuse Efforts 6-1
6.1 Introduction 6-1
6.2 Broward Water Partnership 6-1
6.3 ConservationPay$ Program 6-1
6.4 NatureScape Irrigation Services 6-1
6.5 Conservation Rate Structure 6-2
6.6 Water Shortage Restrictions 6-2
6.7 Florida-Friendly Landscaping™ 6-2
6.8 Rain Sensor Device Ordinance 6-3
6.9 Permanent Irrigation Ordinance 6-3
6.10 Leak Detection Program 6-3
6.11 Ultra-Low Volume Plumbing Fixture Ordinance 6-3
6.12 Long-Term Potable Water Consumption Rate Reduction Goal 6-3
6.13 Reuse 6-3
6.13.1 Introduction 6-3
6.13.2 Wastewater Goes to the City of Hollywood 6-4
6.13.3 Completed Reuse Projects 6-4
6.13.4 Planned Reuse Project 6-5
6.13.5 Identify any Local Financial Responsibilities 6-5
7. Regional Issues 7-1
7.1 Introduction 7-1
7.2 Climate Change 7-1
7.3 Regional Climate Action Plan and Broward County Climate Action Plan 7-2
7.4 Extreme Weather Events 7-3
7.5 Sea Level Rise 7-4
7.6 Biscayne Aquifer Saltwater Intrusion 7-4

Job No. 40623-025

7.7 Regional Water Availability Rule 7-2
7.8 C-51 Reservoir 7-2
7.9 The Central and Southern Florida Flood Resiliency Project 7-3
7.10 Lake Okeechobee System Operating Manual 7-3
7.11 Comprehensive Everglades Restoration Projects in Broward County 7-2
7.12 East Coast Floridan Model 7-3
7.13 Conclusions of the ECFM May Not Represent the Actual Risk of Future Water Quality Degradation 7-4
7.14 Wellfield Management to Prevent Undesirable Changes in Floridan Aquifer Water Quality 7-4
8. Goals, Objections and Policies 8-1
8.1 Introduction 8-1
8.2 Intergovernmental Coordination 8-1
8.2.1 Introduction 8-1
8.2.2 Coordination with the Agencies That Supply Finished Water 8-1
8.2.3 Coordination with the Agencies That Supply Raw Water 8-1
8.2.4 The City Actively Coordinates with the SFWMD During LECWSP Updates 8-2
9. References 9-1

Executive Summary 1
Introduction 1
Background 1
Water Service Area 1
Population Forecast 3
Water Supply 3
Water Treatment 3
Changes to Water Treatment and Supply in Response to Changing Regulations 4
Water Storage and Distribution 6
Raw Water Demand Forecast 7
Finished Water Demand Forecast 8
Finished Water Production Capacity Meets Demand Through 2050 9

Job No. 40623-025

Capital Improvements Plan 10
Water System CIP FY2025 - FY2029 10
Water System CIP FY2030 - FY2034 10
1. Introduction 1-1
1.1 Overview 1-1
1.2 Scope of This Report 1-1
1.3 Statutory History: Why is this Planning Document Required? 1-2
1.4 Statutory Requirements 1-2
2. Water Service Area Overview 2-1
2.1 Introduction 2-1
2.2 Water Service Area 2-3
2.3 Areas of Self Supply 2-3
2.4 Summary of Existing Interlocal Water Supply Agreements 2-3
2.5 Description of the City's Water Supply System 2-3
2.6 Sector Plans 2-3
3. Summary of Existing Water Infrastructure 3-1
3.1 Introduction 3-1
3.2 Summary of Existing Water Supply Infrastructure 3-1
3.2.1 Introduction 3-1
3.2.2 City Biscayne Aquifer Raw Water Supply Wells 3-1
3.2.3 City Wells Location Map 3-2
3.2.4 City Biscayne Aquifer Water Use Permit 3-3
3.2.5 City Agreement with Broward County to Purchase Raw Water from the SRW 3-3
3.2.6 C-51 Reservoir Phase 1 3-3
3.3 Summary of Existing Water Treatment Infrastructure 3-3
3.4 Summary of Existing Treatment Byproduct Disposal Infrastructure 3-5
3.5 Summary of Existing Water Distribution System Infrastructure 3-5
3.5.1 Distribution System at a Glance 3-5
3.5.2 Finished Water Storage Capacity is Adequate Through 2050 3-6
3.5.3 Water Import 3-6
3.5.4 Distribution System Interconnects 3-6

Job No. 40623-025

3.6 Summary of Historical Distribution System Water Losses 3-7
3.7 Summary of Outstanding Compliance Issues 3-8
4. Population and Water Demand Projections 4-1
4.1 Introduction 4-1
4.2 Historical Population 4-1
4.3 Population Forecast 4-1
4.4 Areas of Self Supply 4-2
4.5 Water Service Area 4-2
4.6 Hallandale Beach Areas Served by Other Utilities 4-4
4.7 Potable Water Level-of-Service Standards 4-4
4.8 Historical Biscayne Aquifer Raw Water Used 4-5
4.9 Historical Finished Water Used 4-5
4.10 City Strategy to Comply with the PFAS Rule and Meet Buildout Population Water Demand 4-6
4.11 Water Demand Forecast 4-7
4.12 Finished Water Production Capacity is Adequate to Meet Demand 4-8
4.13 Biscayne Aquifer Raw Water Demand Forecast 4-9
4.14 Floridan Aquifer Raw Water Demand Forecast 4-10
5. Capital Improvements Plan 5-1
5.1 Introduction 5-1
5.2 Water System CIP FY2025 - FY2029 5-1
5.3 Water System CIP FY2030 - FY2034 5-4
5.4 Distribution System Projects Needed Beyond the Five-Year CIP 5-4
6. Conservation and Reuse Efforts 6-1
6.1 Introduction 6-1
6.2 Broward Water Partnership 6-1
6.3 ConservationPay$ Program 6-1
6.4 NatureScape Irrigation Services 6-1
6.5 Conservation Rate Structure 6-2
6.6 Water Shortage Restrictions 6-2
6.7 Florida-Friendly Landscaping™ 6-2
6.8 Rain Sensor Device Ordinance 6-3

Job No. 40623-025

6.9 Permanent Irrigation Ordinance....6-3
6.10 Leak Detection Program....6-3
6.11 Ultra-Low Volume Plumbing Fixture Ordinance....6-3
6.12 Long-Term Potable Water Consumption Rate Reduction Goal....6-3
6.13 Reuse....6-3
6.13.1 Introduction....6-3
6.13.2 Wastewater Goes to the City of Hollywood....6-4
6.13.3 Completed Reuse Projects....6-4
6.13.3.1 Introduction....6-4
6.13.3.2 Diplomat Golf Course Reuse Irrigation....6-4
6.13.3.3 Three Islands Reuse Irrigation Pipeline Phase I....6-4
6.13.3.4 Three Islands Reuse Irrigation Pipeline Phase II....6-4
6.13.4 Planned Reuse Project....6-5
6.13.4.1 Introduction....6-5
6.13.4.2 Three Islands Reuse Irrigation Pipeline Phase III....6-5
6.13.4.3 Encouraging Greywater Reuse....6-5
6.13.4.4 Promoting Rainwater Harvesting....6-5
6.13.5 Identify any Local Financial Responsibilities....6-5
7. Regional Issues....7-1
7.1 Introduction....7-1
7.2 Climate Change....7-1
7.3 Regional Climate Action Plan and Broward County Climate Action Plan....7-2
7.4 Extreme Weather Events....7-3
7.5 Sea Level Rise....7-4
7.6 Biscayne Aquifer Saltwater Intrusion....7-4
7.7 Regional Water Availability Rule....7-2
7.8 C-51 Reservoir....7-2
7.9 The Central and Southern Florida Flood Resiliency Project....7-3
7.10 Lake Okeechobee System Operating Manual....7-3
7.11 Comprehensive Everglades Restoration Projects in Broward County....7-2
7.12 East Coast Floridan Model....7-3

Job No. 40623-025

7.13 Conclusions of the ECFM May Not Represent the Actual Risk of Future Water Quality Degradation 7-4
7.14 Wellfield Management to Prevent Undesirable Changes in Floridan Aquifer Water Quality ... 7-4
8. Goals, Objections and Policies 8-1
8.1 Introduction 8-1
8.2 Intergovernmental Coordination 8-1
8.2.1 Introduction 8-1
8.2.2 Coordination with the Agencies That Supply Finished Water 8-1
8.2.3 Coordination with the Agencies That Supply Raw Water 8-1
8.2.4 The City Actively Coordinates with the SFWMD During LECWSP Updates 8-2
9. References 9-1

List of Tables

Table ES-1: Chronology of City Plan to Comply with PFAS Rule 5
Table 3-1: Inventory of Existing Wells 3-2
Table 3-2: Interconnects 3-7
Table 4-1: Water System Level-of-Service Standards 4-4
Table 4-2: Historical Biscayne Aquifer Raw Water Used 4-5
Table 4-3: Historical Finished Water Used 4-5
Table 4-4: Chronology of City Plan to Comply with PFAS Rule 4-6
Table 4-5: Water Demand Forecast 4-7
Table 5-1: Water Projects CIP FY 2025 to FY 2029 5-2
Table 5-2: Water Projects CIP FY 2030 to FY 2034 5-4
Table 6-1: City of Hallandale Beach NatureScape Program Water Savings 6-2
Table 6-2: City of Hallandale Beach Water and Sewer Service Rates 6-2
Table 7-1: Water Supply Recommendations of the 2022 RCAP 7-2

List of Figures

Figure ES-1: Water Service Area 2
Figure ES-2: Water Service Area Population Forecast in Five Year Increments 3
Figure ES-3: Simplified WTP Process Diagram 4
Figure ES-4: Water Distribution System at a Glance 6
Figure ES-5: Biscayne Aquifer Raw Water Demand Forecast 7
Figure ES-6: Floridan Aquifer Raw Water Demand Forecast 8
Figure ES-7: Finished Water Demand Forecast 8
Figure ES-8: Max Day Finished Water Demand vs Water Production Capacity 9
Figure 2-1: Future Land Use Map 2-2

Job No. 40623-025

Figure 2-2: City of Hallandale Beach Water Service Area 2-4
Figure 3-1: City Wells Location Map 3-2
Figure 3-2: Simplified WTP Process Diagram 3-4
Figure 3-3: Deep Injection Well 3-5
Figure 3-4: Water Distribution System at a Glance 3-5
Figure 3-5: Finished Water Storage Capacity Analysis 3-6
Figure 3-6: Location of City Interconnects 3-7
Figure 3-7: Annual Average Percent Water Loss 3-8
Figure 4-1: Water Service Area Population FY 2020 to FY 2025 4-1
Figure 4-2: Water Service Area Population Forecast in Five Year Increments 4-2
Figure 4-3: Hallandale Beach Water Service Area Map 4-3
Figure 4-4: Finished Water Demand Forecast in Five-Year Increments 4-7
Figure 4-5: Max Day Finished Water Demand vs Water Production Capacity 4-8
Figure 4-6: Biscayne Aquifer Raw Water Demand Forecast in Five-Year Increments 4-9
Figure 4-7: Floridan Aquifer Raw Water Demand Forecast in Five-Year Increments 4-10
Figure 7-1: Sea Level Rise 7-4
Figure 7-2: Approximate Inland Extent of Saltwater Intrusion in Hallandale Beach 7-5
Figure 7-3: Monitoring Wells Location Map 7-6
Figure 7-4: Chloride Concentration in City Water Supply Wells 7-2
Figure 7-5: East Coast Floridan Model Layers 7-3

List of Appendices

Appendix A: Large User Raw Water Agreement Between Broward County and City of Hallandale Beach

Appendix B: Interconnect Agreement with the City of North Miami Beach

Appendix C: Agreement for Capacity Allocation in Phase 1 of the C-51 Reservoir

Job No. 40623-025

List of Acronyms

Acronym	Definition
AAD	Annual Average Day
APPZ	Avon Park Permeable Zone
ASR	Aquifer Storage and Recovery
AWS	Alternative Water Supply
BCCAP	Broward County Climate Action Plan
BCSRW	Broward County South Regional Wellfield
BCWPA	Broward County Water Preserve Areas
BLS	Below Land Surface
CAA	Capacity Allocation Agreement
C&SF	Central and Southern Florida
CERP	Comprehensive Everglades Restoration Plan
CIP	Community Investment Plan
DIW	Deep Injection Well
FAC	Florida Administrative Code
FAS	Floridan Aquifer System
FDEP	Florida Department of Environmental Protection
F.S.	Florida Statutes
GPCD	Gallons per Capita Day
GPM	Gallons per Minute
LEC	Lower East Coast
LOSOM	Lake Okeechobee System Operating Manual
MFL	Minimum Flow and Minimum Water Level
MG	Million Gallons
MGD	Million Gallons per Day
MGY	Million Gallons per Year
MW	Monitoring Well

Job No. 40623-025

Acronym	Definition
NF	Nanofiltration
NIS	NatureScape Irrigation Service
NGVD-29	National Geodetic Vertical Datum of 1929
PFAM	Population Forecast and Allocation Model
PWS	Public Water System
RCAP	Regional Climate Action Plan
RO	Reverse Osmosis
RWA	Regional Water Availability
SFWMD	South Florida Water Management District
SWMW	Saltwater Monitor Well
SWR	South Regional Wellfield
TAZ	Traffic Analysis Zones
TDS	Total Dissolved Solids
UFA	Upper Floridan Aquifer
USACE	United States Army Corps of Engineers
USGS	United States Geological Survey
VCF	Vertical Collapse Feature
WRDA	Water Resources Development Act
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant
WUP	Water Use Permit

Job No. 40623-025

Executive Summary

Introduction

This executive summary provides the key findings in the City of Hallandale Beach Water Supply Facilities Work Plan 2026 Update. This document is an update to the City's year 2019 Water Supply Facilities Work Plan.

Background

Chapter 163, Part II, Florida Statutes (F.S.), requires local governments to prepare and adopt 10-Year Water Supply Facilities Work Plans into their comprehensive plans within 18 months after the South Florida Water Management District (SFWMD) approves a regional water supply plan or its update. The 2023-2024 Lower East Coast Water Supply Plan Update (2023-2024 LEC Plan Update) was adopted by the District's Governing Board on September 23, 2024. Therefore, local governments within the Lower East Coast Region are required to amend their comprehensive plans and include an updated 10-year Water Supply Facilities Work Plan and related planning elements by February 22, 2026.

The State of Florida requires that the 10-year Water Supply Facilities Work Plan 2026 Update address the development of traditional and alternative water supplies and management strategies, including conservation and reuse. The data and analyses, including population projections and water demands must span at least a 10-year planning period and be consistent with the 2023-2024 LEC Plan Update. The data presented herein are for the planning period through the year 2050.

Water Service Area

The City provides potable water to all areas within the City Limits except the Diplomat Golf Course, which is irrigated with reuse water from the City of Hollywood. There are no areas of the City served by private domestic self-supply systems. The City does not provide raw or finished water to any area outside of its water service area. Figure ES-1 illustrates the City's water service area.



Figure ES-1: Water Service Area

Population Forecast

Figure ES-2 summarizes the forecasted population for the City's water service area for FY 2025 to 2050.

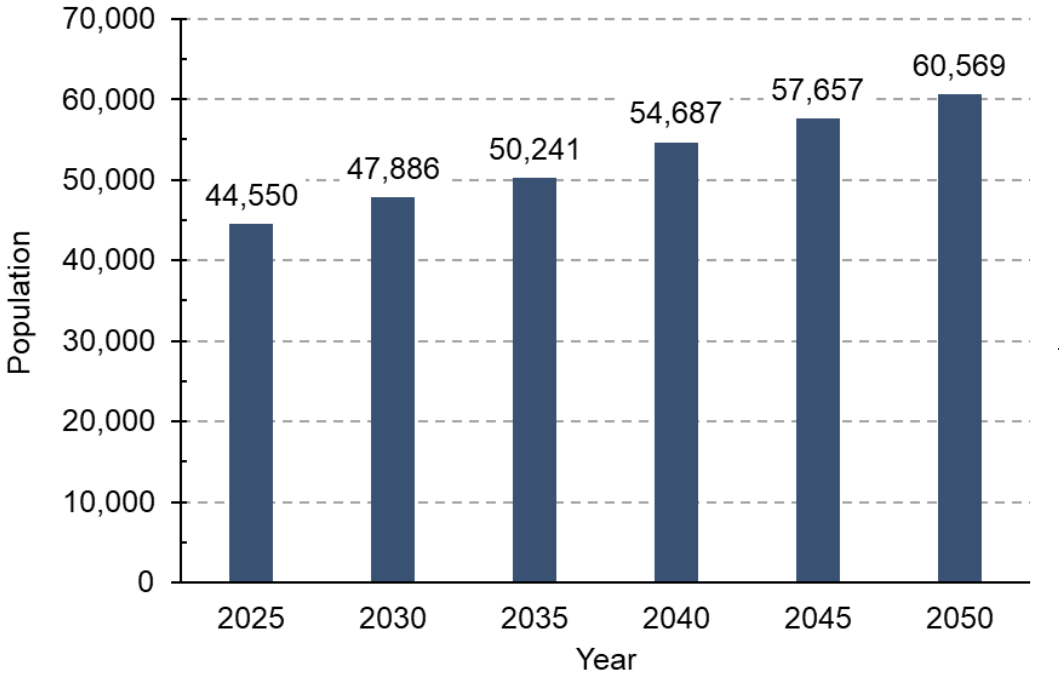


Figure ES-2: Water Service Area Population Forecast in Five Year Increments

Water Supply

The City's traditional source of water is the Biscayne aquifer. The City's withdrawals from the Biscayne aquifer are governed by its water use permit (WUP), issued by the SFWMD; permit number 06-00138-W. The City also has an agreement with Broward County to purchase up to 3.26 million gallons per day (MGD) from the Broward County South Regional Wellfield (SRW). The City has also entered a capacity allocation agreement with Palm Beach Aggregates LLC to receive 1.0 MGD of offset water from the C-51 Reservoir, Phase 1. This offset water is also withdrawn via the Broward County SRW and pumped to the City's WTP. As a result, the City can use up to 4.26 MGD of Biscayne aquifer water from the Broward County SRW.

Water Treatment

The City operates the Hallandale Beach Water Treatment Plant (WTP), at 630 NW 2nd Street, Hallandale Beach, FL 33009. The WTP includes both lime softening (LS) and membrane softening (nanofiltration (NF) and reverse osmosis (RO)) treatment technology. Raw water from the City's wells is treated at the lime softening facility and raw water from the Broward County SRW is treated at the membrane facility.

The lime softening facility has a finished water capacity of 10 MGD. The membrane facility currently consists of two 3.0 MGD nanofiltration (NF) skids and one 2.0 MGD reverse osmosis (RO) skid. Figure ES-3 provides a simplified process diagram of the WTP.

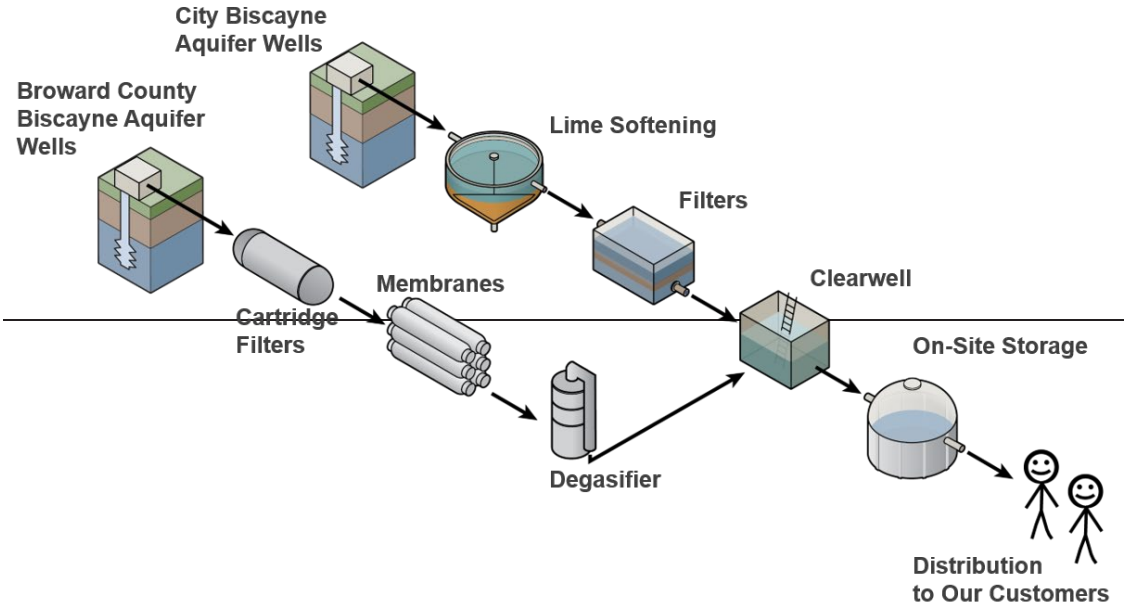


Figure ES-3: Simplified WTP Process Diagram

Changes to Water Treatment and Supply in Response to Changing Regulations

The Per- and Polyfluoroalkyl Substances (PFAS) National Primary Drinking Water Regulation (a.k.a., PFAS Rule) was promulgated in April 2024 (USEPA, 2024). This rule requires removal of PFAS from drinking water to four parts per trillion (ppt). The City's raw water contains PFAS, which lime softening cannot remove. To comply with the PFAS Rule, the City plans to switch entirely to membrane treatment and add capacity with a new Floridan aquifer source and RO treatment. Table ES-1 summarizes the City's plan.

Table ES-1: Chronology of City Plan to Comply with PFAS Rule

Year Action is Completed[1]	Action
2026	Year that RO Skid 1 is fully available treating water from the BCSRW[2].
2026	Conduct Optimal Corrosion Control Treatment Pilot Test to ensure compliance with Lead and Copper Rule. This project will define what is designed in the "Chemical Stabilization Improvements" project.
2027 to 2029	Design, permitting, bidding, and construction of Chemical Stabilization Improvements
2025 to 2029	Design, permitting, bidding and construction of RO Skid 2 along with associated piping to supply raw water from City wells to RO Skids 1 and 2.
2026 to 2030	Design, permitting, bidding, construction and operational testing of Deep Injection Well (DIW) 2 along with associated piping, electrical and controls.
2026 to 2030	Design, permitting, bidding and construction of Floridan aquifer wells 1 and 2, RO Skid 3, along with associated raw water piping.
2026 to 2030	Design, permitting, bidding and construction of Generator 2.
2029	The designated year marks the commencement of operations for RO Skids 1 and 2 utilizing City wells. Concurrently, the lime softening facility will be permanently decommissioned. Following this transition, the City's water treatment process will consist exclusively of membrane technology.
2030	Year that RO Skid 3 is available treating water from the Floridan aquifer. Additionally, DIW 2 and Generator 2 will be available by this year.

The plan adds two new Floridan aquifer wells to the City's water supply. These infrastructure upgrades will enable the City to meet the projected 2050 population's water needs of 60,569 residents.

[1] The dates in this table are planned dates based on the best available information currently available. The actual dates may vary based on numerous factors.

[2] RO Skid 1 was installed in 2025 and construction will be finalized in early 2026. RO Skid 1 is currently supplied with water from Broward County. The addition of RO Skid 1 will not increase the finished water production capacity of the WTP until raw water can be supplied from the City's wells to this skid. The City has moved forward with including the required yard piping modifications as part of the installation of RO Skid 2, allowing RO Skid 1 to receive raw water from the City's wells.

Water Storage and Distribution

The treated water from the lime softening and the membrane facilities are blended prior to storage on-site. The finished water is stored in two (2) 1-million gallons and one (1) 2-million-gallon ground level storage tanks located at the WTP prior to distribution. The City also has one additional off-site storage tank, the Beach Tower. Based on typical operating values the usable volume of storage (for all tanks) is estimated at 4.03 million gallons (MG). The volume of storage is sufficient to comply with Rule 62-555.320(19), Florida Administrative Code (FAC) through the year 2050.

The City's water distribution system consists of approximately 80 miles of water mains that convey the finished water from the treatment plant to the individual customers. Figure ES-4 summarizes key attributes of the overall water distribution system.

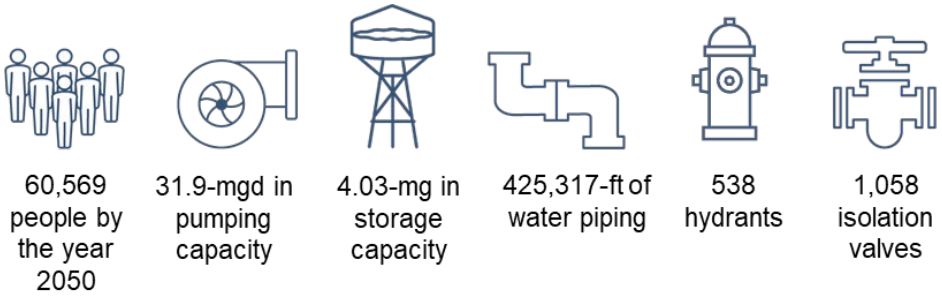


Figure ES-4: Water Distribution System at a Glance

Raw Water Demand Forecast

Figure ES-5 illustrates the Biscayne aquifer raw water demand in bar chart format in five-year increments through 2050.

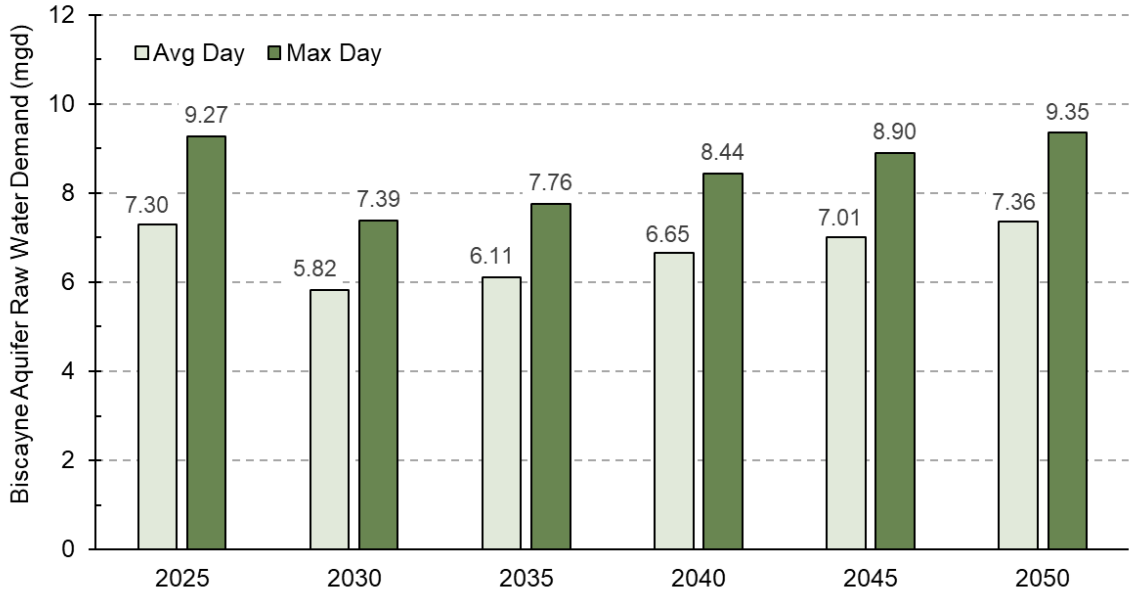


Figure ES-5: Biscayne Aquifer Raw Water Demand Forecast

Figure ES-6 illustrates the Floridan aquifer raw water demand in bar chart format in five-year increments through 2050.

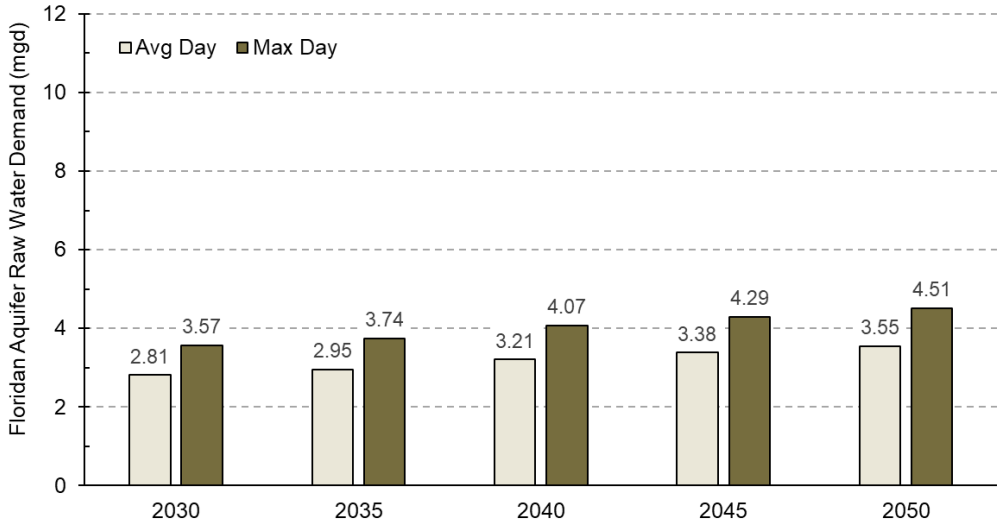


Figure ES-6: Floridan Aquifer Raw Water Demand Forecast

Finished Water Demand Forecast

Figure ES-7 illustrates the finished water demand in bar chart format in five-year increments through 2050.

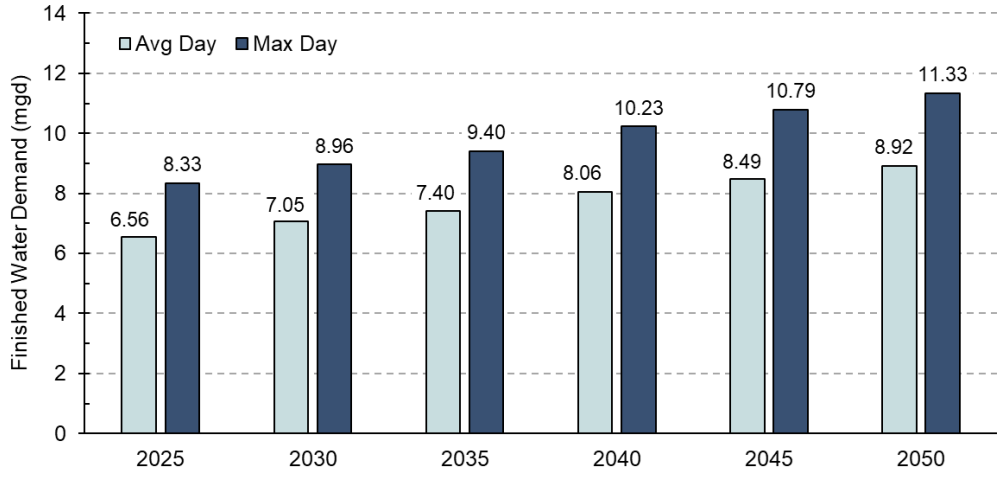


Figure ES-7: Finished Water Demand Forecast

Finished Water Production Capacity Meets Demand Through 2050

Figure[3] ES-8 illustrates that water treatment plant finished water production capacity is adequate to meet demand through the year 2050.

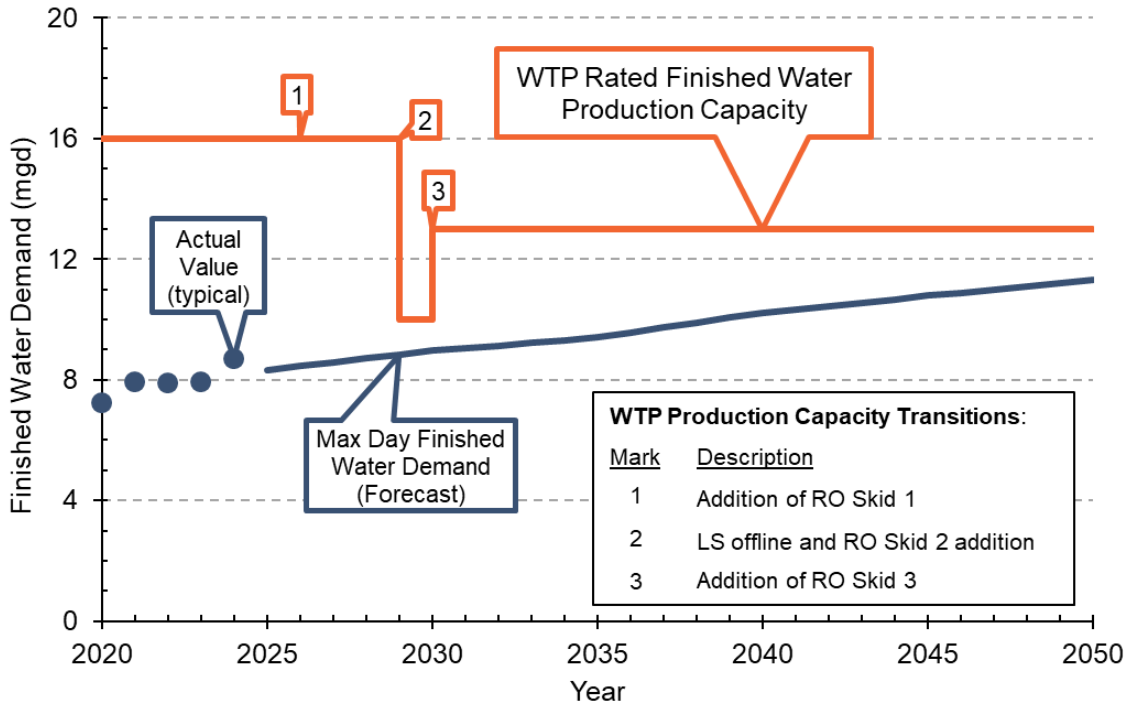


Figure ES-8: Max Day Finished Water Demand vs Water Production Capacity

The following comments are offered relative to the line marked "WTP Rated Finished Water Production Capacity":

- At "Mark 1," adding RO Skid 1 (2.0 mgd design) increases treatment units but not output due to water supply limits.
- At "Mark 2" in 2029, LS (10 mgd) is removed for PFAS Rule compliance. That year, RO Skid 2 (2.0 mgd) is added, and yard piping changes eliminate RO Skid 1's supply limit. This results in a temporary capacity drop to 10 mgd. If the EPA extends the PFAS Rule deadline to 2031, the City may delay "Mark 2" to avoid this short-term reduction, transitioning instead directly from 16 mgd to a final 13 mgd.
- At "Mark 3" (~2030), adding RO Skid 3 (3.0 mgd) raises WTP capacity to 13.0 mgd.

[3] Figure ES-8 is built upon certain assumptions on the timeframe of planned treatment plant modifications. These assumptions will likely be impacted by future EPA regulatory action and many other factors. Hence, the actual timeframes of planned treatment plant modifications may differ from that presented in this document.

Capital Improvements Plan

Section 5 of this report outlines the City of Hallandale Beach's Capital Improvements Plan (CIP) for its water system. The CIP is designed to ensure the City's water infrastructure meets regulatory requirements, adapts to future population growth, and transitions to advanced treatment technologies to comply with the PFAS Rule. The CIP is broken down into two ranges: 1) Water System CIP FY2025 – 2029 and 2) Water System CIP FY2030 - FY2034. The subsections below summarize these CIPs

Water System CIP FY2025 - FY2029

The City's CIP for FY 2025 – 2029 totals $104.9 million. This CIP is based upon the City's document titled "Adopted Capital Improvement Plan FY 2025-29" available for download at the following link: CIP Link FY2025-29. The City's CIP for FY 2025 – 2029 focuses on traditional water supply (i.e., Biscayne aquifer), conventional treatment (i.e., filters and lime softening), and distribution system infrastructure projects. Additionally, projects are included for Alternative Water Supply (AWS) type projects related to Floridan aquifer water supply and RO treatment.

Water System CIP FY2030 - FY2034

The City has not conducted detailed planning for water system CIP for FY 2030 – 2034. The City understands that it requires additional investment in its water infrastructure over the next ten years to support its transition to 100% membrane treatment. The City has initiated the necessary planning to identify CIP budgets and schedules that support the City's goals of 100% membrane treatment and implementation of AWS.

1. Introduction

1.1 Overview

This section provides the following:

- Description of the scope of this report
- Statutory History: Why is this Planning Document Required?
- A summary of the statutory requirements

1.2 Scope of This Report

The City's 10-year Water Supply Facilities Work Plan 2026 Update identifies water supply sources, availability and facilities needed to serve existing and new development within the local government's jurisdiction. Chapter 163, Part II, Florida Statutes (F.S.), requires local governments to prepare and adopt 10-Year Water Supply Facilities Work Plans into their comprehensive plans within 18 months after the South Florida Water Management District (SFWMD) approves a regional water supply plan or its update.

The 2023-2024 Lower East Coast Water Supply Plan Update (2023-2024 LEC Plan Update or Plan Update) was officially adopted by the SFWMD's Governing Board on September 23, 2024. Therefore, local governments within the Lower East Coast Region are required to amend their comprehensive plans and include an updated 10-year Water Supply Facilities Work Plan and related planning elements by March 23, 2026.

The State of Florida requires that the City's 10-year Water Supply Facilities Work Plan 2026 Update addresses the development of traditional and alternative water supplies and management strategies, including conservation and reuse. The data and analyses, including population projections, water demands, and service areas must cover at least a 10-year planning period and be consistent with the 2023-2024 LEC Plan Update and the updated comprehensive plan amendment.

The City's 10-year Water Supply Facilities Work Plan 2026 Update is divided into nine sections:

1. Introduction
2. Water Service Area Overview
3. Summary of Existing Water Infrastructure
4. Population and Water Demand Projections
5. Capital Improvements Program
6. Conservation and Reuse Efforts
7. Regional Issues

8. Goals, Objections and Policies
9. References

1.3 Statutory History: Why is this Planning Document Required?

The Florida Legislature enacted bills during the 2002, 2004, 2005, 2011, 2012, 2015, and 2016 sessions to address the state's water supply needs. These bills, including Senate Bills 360 and 444 (2005 legislative session), significantly changed Chapters 163 and 373, Florida Statutes (F.S.), by strengthening the statutory links between the regional water supply plans prepared by the water management districts and the comprehensive plans prepared by local governments. In addition, these bills established the basis for improving coordination between local land use and water supply planning.

Chapter 163, F.S. (Community Planning Act) requires that each local government amend its comprehensive plan to include a Water Supply Facilities Work Plan covering at least a 10-year planning period. Chapter 373, F.S. (Water Resources Act) requires that local governments must align their 10-year Water Supply Facilities Work Plan with the regional plans prepared by the water management district.

1.4 Statutory Requirements

The City of Hallandale Beach has considered the following statutory provisions in updates to this 10-year Water Supply Facilities Work Plan.

1. Coordinate appropriate aspects of its comprehensive plan with the 2023-2024 LEC Plan Update [163.3177(4) (a), F.S.].
2. Ensure the future land use plan is based upon availability of adequate water supplies and public facilities and services [s.163.3177 (6) (a), F.S.]. Data and analysis demonstrating that adequate water supplies and associated public facilities will be available to meet projected growth demands must accompany all proposed Future Land Use Map amendments submitted for review.
3. Ensure that adequate water supplies and potable water facilities are available to serve new development no later than the issuance by the local government of a certificate of occupancy or its functional equivalent and consult with the applicable water supplier to determine whether adequate water supplies will be available to serve the development by the anticipated issuance date of the certificate of occupancy [s.163.3180 (2), F.S.].
4. Revision of the related comprehensive planning elements within 18 months after the water management district approves an updated regional water supply plan, to:
    a. Identify and incorporate the alternative water supply project(s) selected by the local government from projects identified in the 2023-2024 LEC Plan Update, or alternative project(s) proposed by the local government under s. 373.709(8)(b), F.S. [s. 163.3177(6)(c), F.S.];

b. Identify the traditional and alternative water supply projects and the conservation and reuse programs necessary to meet water needs identified in the 2023-2024 LEC Plan Update [s. 163.3177(6)(c)3, F.S.]; and

c. Update the 10-year Water Supply Facilities Work Plan for at least a 10-year planning period for constructing the public, private, and regional water supply facilities identified in the element as necessary to serve existing and new development [s. 163.3177(6)(c)3. and (5), F.S.].

5. Revise the Five-Year Schedule of Capital Improvements to include water supply, reuse, and conservation projects and programs to be implemented during the five-year period [s. 163.3177(3)(a)4, F.S.].

6. To the extent necessary to maintain internal consistency after making changes described in Paragraph 1 through 5 above, revise the Conservation Element to assess projected water needs and sources for at least a 10-year planning period, considering the 2023-2024 LEC Plan Update, as well as applicable consumptive use permit(s) [s.163.3177 (6) (d), F.S.]. The plan must address the water supply sources necessary to meet and achieve the existing and projected water use demand for the established planning period, considering the 2023-2024 LEC Plan Update [s.163.3167(9), F.S.].

7. To the extent necessary to maintain internal consistency after making changes described in Paragraphs 1 through 5 above, revise the Intergovernmental Coordination Element to ensure coordination of the comprehensive plan with the 2023-2024 LEC Plan Update [s.163.3177 (6) (h) 1., F.S.].

8. While an Evaluation and Appraisal Report is not required, local governments are encouraged to comprehensively evaluate, and as necessary, update comprehensive plans to reflect changes in local conditions. The evaluation could address the extent to which the local government has implemented the need to update their 10-year Water Supply Facilities Work Plan, including the development of alternative water supplies, and determine whether the identified alternative water supply projects, traditional water supply projects, and conservation and reuse programs are meeting local water use demands [s.163.3191 (3), F.S.].

2. Water Service Area Overview

2.1 Introduction

The City of Hallandale Beach was founded in 1927 and is one of the oldest communities in Broward County. The City is characterized by its many medium and high-rise residential structures, primarily along the beach area and by two pari-mutuel facilities called Gulfstream Park and Mardi Gras Gaming Center. The City is a full-service community offering police service, fire/rescue protection, public works, water and sewer utilities, community development, code enforcement, and parks and recreation services.

The City is currently over 95 percent built out, as is the case with most municipalities in Broward County. Development in the City is primarily high-density residential and commercial buildings on the City's east side, while the west side of the City has remained relatively low density residential and commercial. There has been a development trend in the western portion of the City including infill development of vacant single-family, multi-family and commercial lots and the redevelopment of underutilized properties. It is noted that continued redevelopment is expected within the Regional Activity Center (RAC), where the City anticipates that the majority of future population and residential units will be established. Water demand growth over the next 20 years will be guided by future land use designations for residential development, including some commercial areas, as illustrated in Figure 2-1.

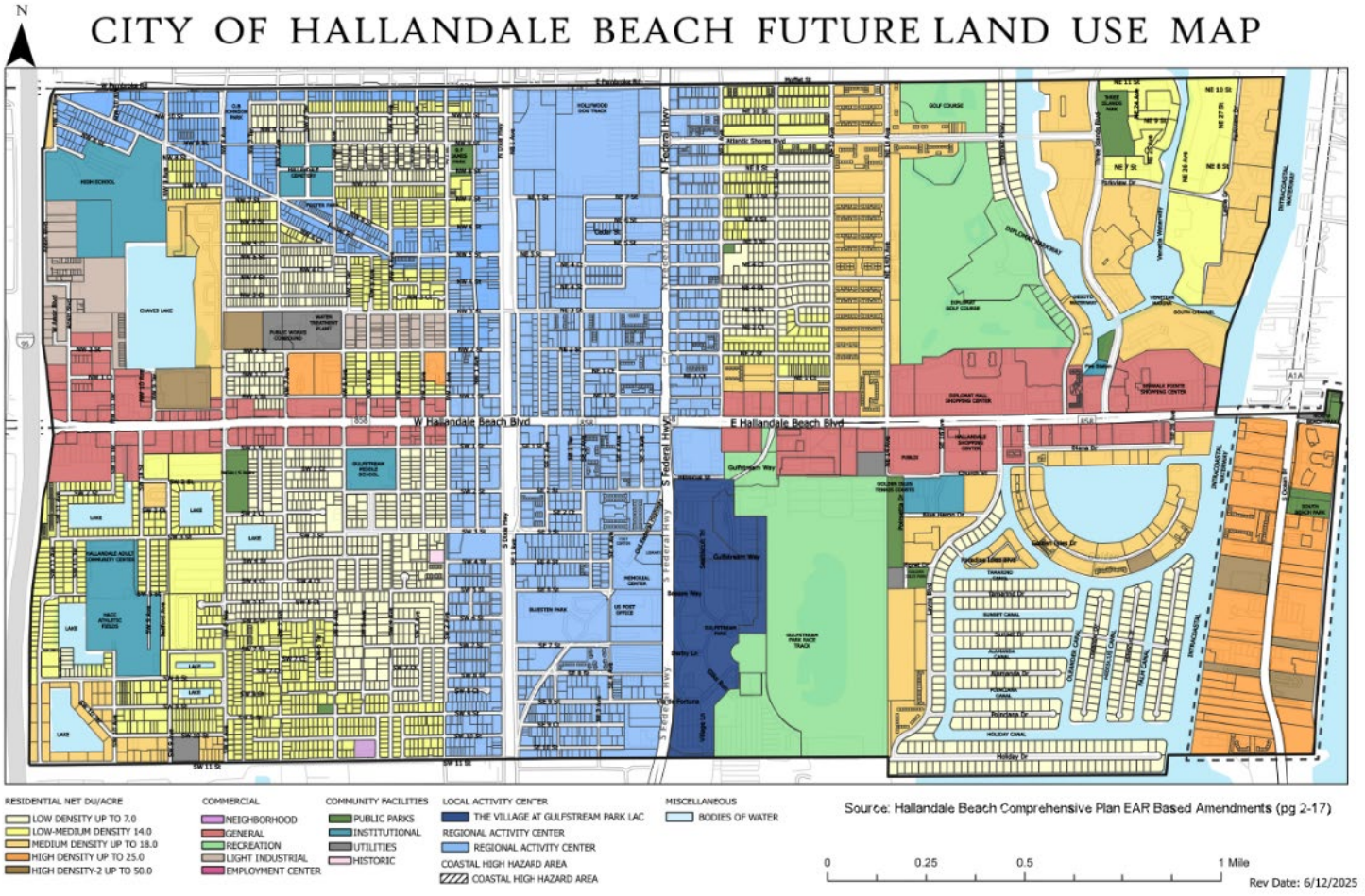


Figure 2-1: Future Land Use Map

2.2 Water Service Area

The City provides potable water to all areas within the City Limits (approximately 2,800 acres) except the Diplomat Golf Course, which is irrigated with reuse water from the City of Hollywood. Currently, the City has no plans to provide raw or finished water to any other municipality or area outside of its jurisdiction. Figure 2-2 depicts the water service area (inclusive of all retail and wholesale customers).

2.3 Areas of Self Supply

There are no areas of the City served by private domestic self-supply systems or potable water wells.

2.4 Summary of Existing Interlocal Water Supply Agreements

The City has three key interlocal agreements related to water supply, as follows:

- Raw Water Agreement with Broward County: The City has an agreement with Broward County to import raw water from the South Regional Wellfield (SRW). Appendix A contains a copy of this agreement.
- Emergency Interconnect Agreement with North Miami Beach: The City has an agreement with North Miami Beach to import finished water through an emergency interconnect. Appendix B contains a copy of this agreement.
- Agreement for Capacity Allocation in Phase 1 of the C-51 Reservoir with Palm Beach Aggregates, LLC: The City has an agreement with Palm Beach Aggregates, LLC to supply raw water from Phase 1 of the C-51 Reservoir. Raw water is pumped from the Broward County SRW and transported to the City through Broward's pipeline. Appendix C contains a copy of this agreement.

2.5 Description of the City's Water Supply System

The City of Hallandale Beach owns water supply wells that draw water from the Biscayne Aquifer. The City also sources raw water from the Broward County SRW. The water is treated at the Hallandale Beach Water Treatment Facility and the finished water is pumped into the distribution system. Section 3 of this report provides a detailed summary of the City's existing water infrastructure.

2.6 Sector Plans

This section only applies to local governments that have adopted a Sector Plan consistent with the requirements of Section 163.3245, F.S. This section is not aplicable to the City of Hallandale Beach.

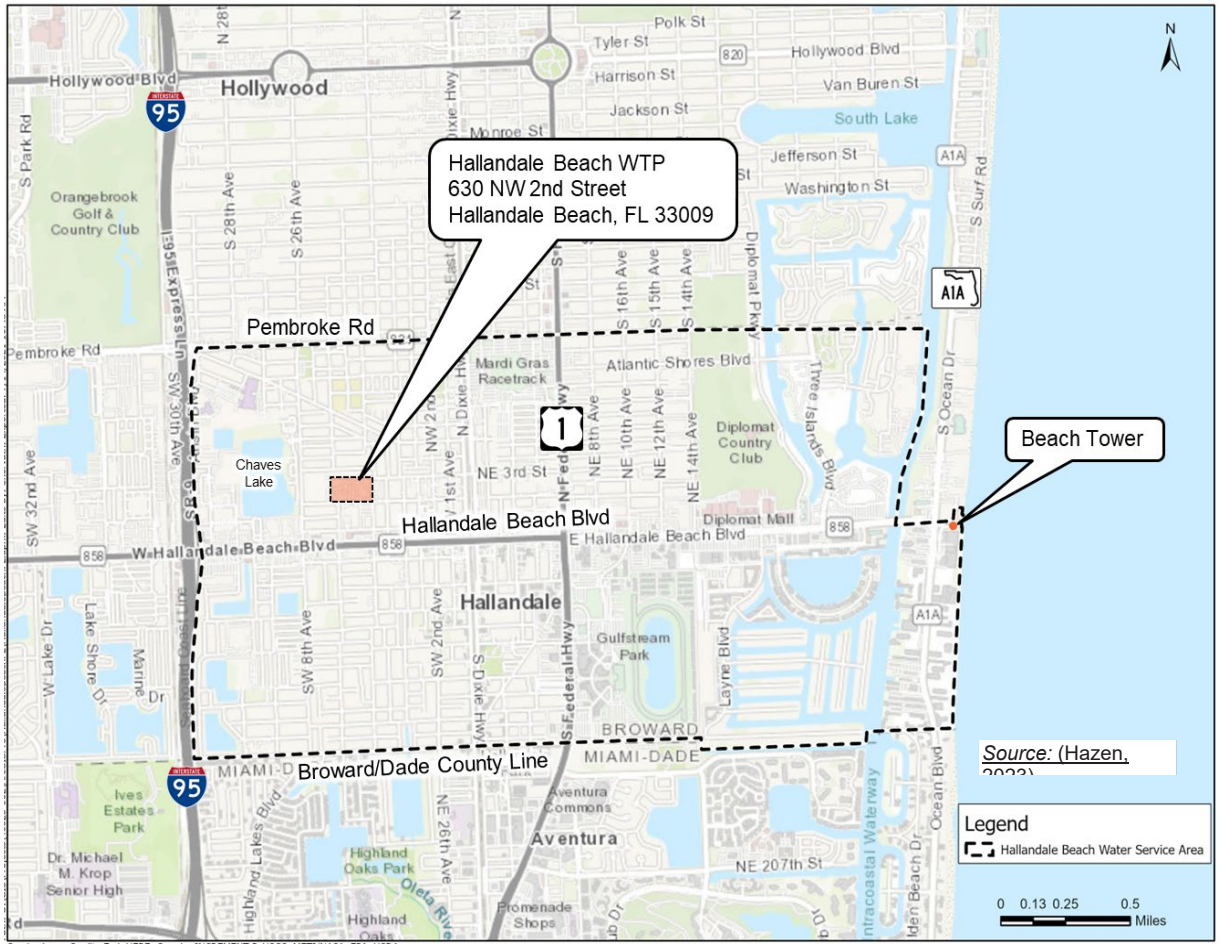


Figure 2-2: City of Hallandale Beach Water Service Area

3. Summary of Existing Water Infrastructure

3.1 Introduction

This section provides the following:

- Summary of Existing Water Supply Infrastructure
- Summary of Existing Water Treatment Infrastructure
- Summary of Existing Treatment Byproduct Disposal Infrastructure
- Summary of Existing Water Distribution System Infrastructure
- Summary of Historical Distribution System Water Losses
- Summary of Outstanding Compliance Issues

3.2 Summary of Existing Water Supply Infrastructure

3.2.1 Introduction

The City obtains its water from the Biscayne Aquifer. The City currently has three Biscayne aquifer supplies as follows:

- City Biscayne Aquifer Water Supply Wells
- Broward County South Regional Wellfield (Broward County SRW)
- C-51 Reservoir Phase 1

The following subsections summarize these water sources.

3.2.2 City Biscayne Aquifer Raw Water Supply Wells

The City owns five existing Biscayne aquifer wells. Table 3-1 summarizes key data on these wells. The well depths vary but are generally screened between 40 feet and 107 feet. Two of these wells, PW-8 and PW-9, are the primary production wells for the City. The remaining three wells are backup wells that are only used on occasion when one of the primary wells is taken offline.

Table 3-1: Inventory of Existing Wells

Well Number	Well ID Number	Diameter (inch)	Total Depth (feet)	Casing Depth (feet)	Capacity (gpm)	Status
PW-3	20878	20	81	60.6	1,529	Standby
PW-5	20880	20	68	40	1,041	Standby
PW-7	20882	20	97	66	2,083	Standby
PW-8	20883	20	107	101	2,083	Primary
PW-9	279320	24	100	80	2,200	Primary

3.2.3 City Wells Location Map

Figure 3-1 illustrates the location of the City-owned water supply wells.

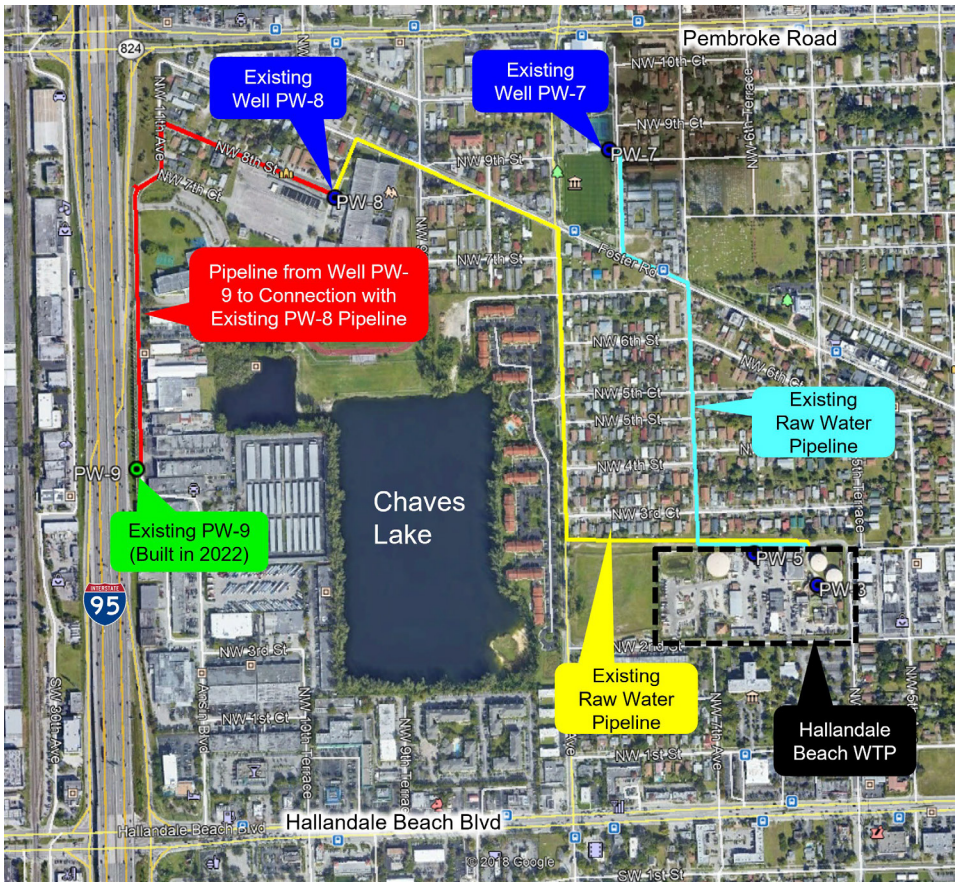


Figure 3-1: City Wells Location Map

3.2.4 City Biscayne Aquifer Water Use Permit

The City's water use permit (WUP), number 06-00138-W, was issued in January 2019 and will expire in January 2039. The permit allows the City to withdraw up to 1,472.41 million gallons per year (MGY) from its Biscayne aquifer wells. Additionally, there is a monthly withdrawal limit of 130.06 million gallons (MGM) from these wells. The City's annual Biscayne withdrawal average must not exceed 4.03 MGD, but this is not a daily limit; on any day, the City may withdraw as much water from City wells as needed to meet demand.

3.2.5 City Agreement with Broward County to Purchase Raw Water from the SRW

The City purchases Biscayne aquifer water from the Broward County SRW (WUP 06-01474-W). A copy of the City's agreement with Broward County is included in Appendix A. This agreement allows the City to purchase up to 3.26 MGD from the Broward County SRW. This allocation is prior to the C-51 Reservoir (described in the following subsection) offset becoming available.

3.2.6 C-51 Reservoir Phase 1

The City of Hallandale Beach entered into a capacity allocation agreement with Palm Beach Aggregates LLC in October 2018 to receive 1.0 MGD of offset water from the C-51 Reservoir, Phase 1. A copy of the agreement (along with the first two amendments) is included in Appendix C. Water from the C-51 Reservoir, Phase 1, is withdrawn by Broward County at its SRW and pumped to the City's membrane WTP. As a result, the City can use up to 4.26 MGD of Biscayne aquifer water from the Broward County SRW.

3.3 Summary of Existing Water Treatment Infrastructure

The Hallandale Beach Water Treatment Plant (WTP) includes a lime softening facility and a membrane softening facility. The City treats water from two sources: 1) City wells and 2) Broward County SRW. Figure 3-1 depicts a simplified process diagram of the WTP. The WTP is regulated by the Florida Department of Environmental Protection (FDEP). FDEP has assigned the Public Water System (PWS) identification number 4060573 to the City's water facilities.

The original plant was built as a lime softening facility with a finished water capacity of 3 MGD in 1951 and was expanded to a 10 MGD facility in 1968. Raw water from the City's wells is treated at the lime softening facility, which has a current finished water capacity of 10 MGD.

The WTP capacity increased in 2008 by the construction of a membrane softening facility utilizing nanofiltration (NF) technology. The original membrane plant included two 3.0 mgd finished water capacity NF skids, designated NF Skid 1 and NF Skid 2. The membranes in the NF Skids were replaced in 2020. Raw water from Broward County SRW is treated via the NF skids.

In 2025, reverse osmosis (RO) skid (RO Skid 1)[4] was installed. RO Skid 1 has a finished water capacity of 2.0 MGD. The City is currently designing RO Skid 2. The City is planning to initiate the design for RO Skid 3 in the near-term.

The treated water from the lime softening and the membrane facilities are blended prior to storage on-site. The finished water is stored in two 1-million-gallon (MG) and one 2 MG ground level storage tanks prior to distribution. Additionally, the clearwell has approximately 0.21 MG of available storage. The City also owns off-site storage at the 0.5 MG Beach Tower. Based on typical operating values, the usable[5] volume of storage (for all tanks including clearwell) is estimated at 4.03 MG.

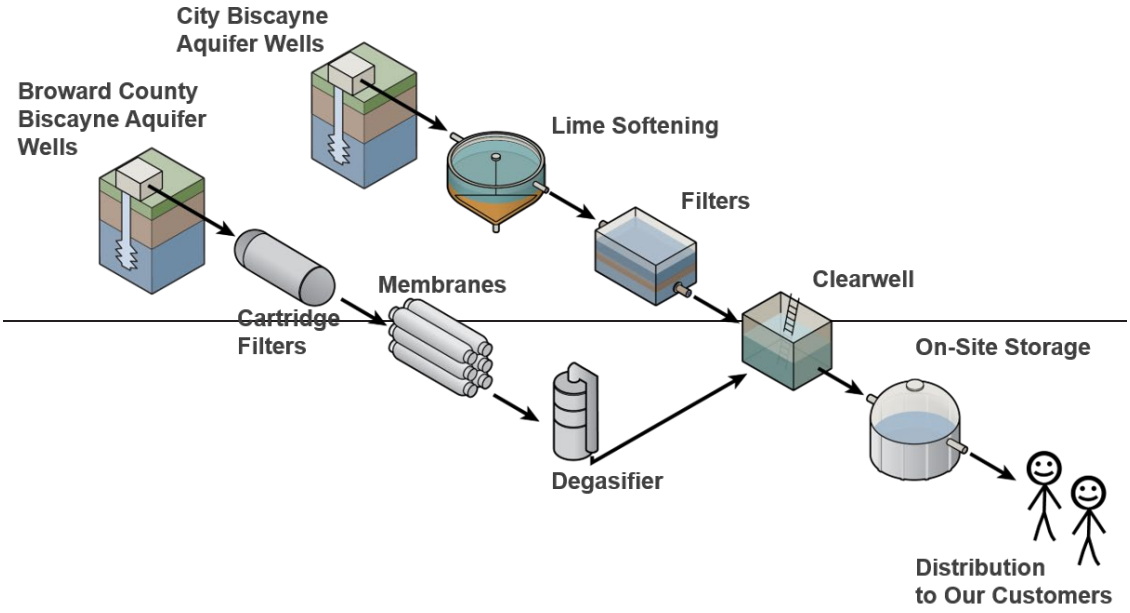


Figure 3-2: Simplified WTP Process Diagram

[4] RO Skid 1 was installed in 2025 and construction will be finalized in early 2026. RO Skid 1 is currently supplied with raw water from the Broward County SRW. The addition of RO Skid 1 will not increase the finished water production capacity of the Water Treatment Plant (WTP) until raw water can be supplied from the City's wells to this skid. The City has moved forward with including the required yard piping modifications as part of the installation of RO Skid 2 (currently being designed). Once this yard piping is installed it will allow RO Skid 1 to receive raw water from the City's wells.

[5] The difference between the available storage and usable storage is referred to as "dead storage". Dead storage is not a usable volume. Usable volume for the 2 MG ground storage tank was assumed to be 84.5% of available storage. Usable volume for the 1 MG ground storage tanks was assumed to be 85.0% of available storage. Usable volume for the Beach Tower was assumed to be 100% of available storage. Usable volume for the clearwell was assumed to be 67% of available storage. Hence, available storage = 0.845(2) + 0.85(2) + 0.5 + 0.67(0.21) = 4.03 MG.

3.4 Summary of Existing Treatment Byproduct Disposal Infrastructure

Each water treatment technology creates a byproduct. Lime softening treatment produces lime softening residuals. The City pumps the lime softening residuals into Chaves Lake located approximately 0.25 miles west of the WTP. This is a typical disposal method in South Florida for lime softening residuals. Membrane treatment produces a brine solution referred to as "concentrate". The City pumps this brine solution deep underground via its deep injection well (DIW). Figure 3-3 illustrates the DIW.

The FDEP assigned identification for the DIW is WACS ID No: 94244; UIC Permit No: 227805-005-UO/1X. The City will renew its DIW operating permit in 2026.



Figure 3-3: Deep Injection Well

3.5 Summary of Existing Water Distribution System Infrastructure

3.5.1 Distribution System at a Glance

The City's water distribution system consists of approximately 80 miles of water mains that convey the finished water from the treatment plant to the individual customers. Figure 3-4 summarizes key attributes of the overall water distribution system.

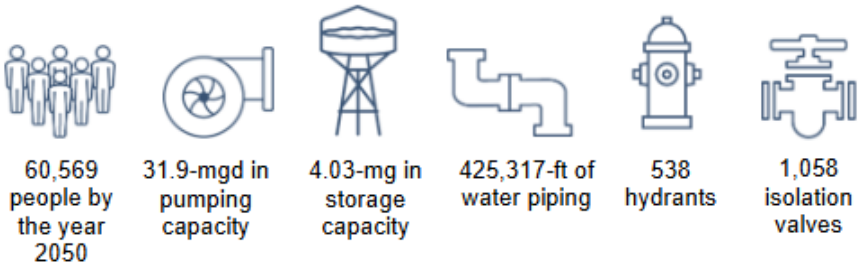
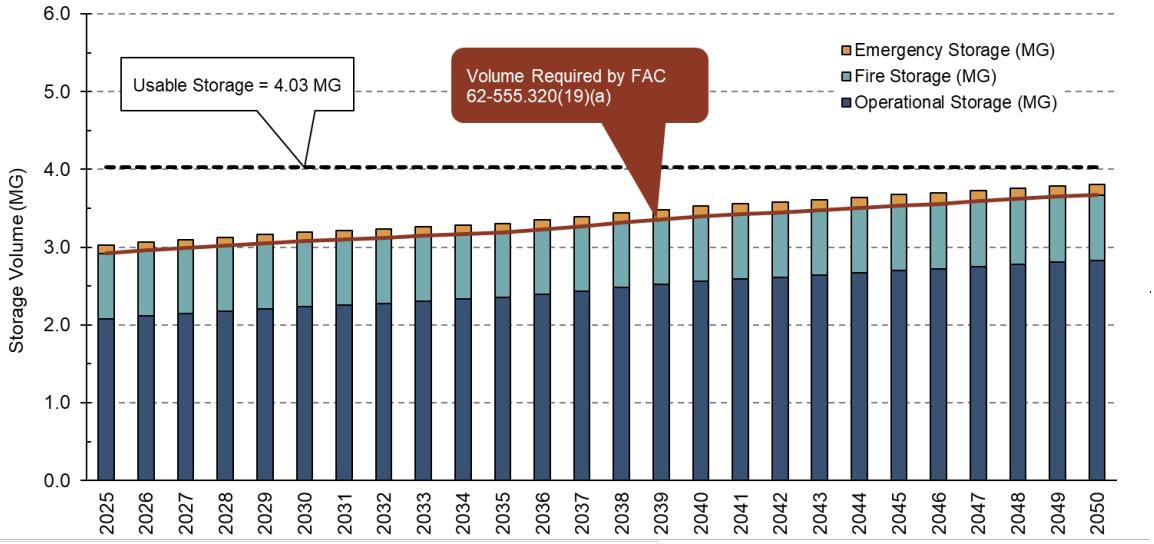


Figure 3-4: Water Distribution System at a Glance

3.5.2 Finished Water Storage Capacity is Adequate Through 2050

The WTP includes three aboveground pre-stressed concrete storage tanks. Additionally, the City owns the Beach Tower storage tank. Based on typical operating values the usable volume of storage (for all tanks) is estimated at 4.03 MG.

Rule 62-555.320(19), FAC defines the minimum required storage in a water system. It is based upon 25-percent of the maximum day finished water demand plus the needed fire flow. The City's existing storage volume exceeds the minimum volume required by FAC 62-555.320(19) through the year 2050 as illustrated in Figure 3-5.



Source: Excel spreadsheet titled "HB Demand Forecast for 2025 WSP FINAL.xlsx"

Figure 3-5: Finished Water Storage Capacity Analysis

3.5.3 Water Import

The City imports raw water from Broward County as described above. The City has the capability to import finished water from North Miami Beach under emergency conditions.

3.5.4 Distribution System Interconnects

The City maintains two (2) distribution system interconnects with North Miami Beach (NMB) as summarized in Table 3-2 and illustrated in Figure 3-6. The isolation valves on all interconnects are closed. The City has the capability to activate the "SE 7th Street Pump Station" which boosts the pressure of the NMB interconnect No. 1.

Table 3-2: Interconnects

No.	Location	Size	Meter	Utility Connection	Comment
1	US-1 and SE 11th St	20"	Yes	City of NMB	SE 7th Street Pump Station
2	A1A (at the Broward / Dade line)	Unknown	Unknown	City of NMB	Location was not confirmed by City



Figure 3-6: Location of City Interconnects

3.6 Summary of Historical Distribution System Water Losses

The City submits a report to the SFWMD titled "Annual Water Balance Summary." This report includes monthly water loss percentages in its distribution system. Water losses stem from unauthorized use, meter errors, leaks in mains, leaks in service connections, storage leaks, and data mishandling issues. Figure 3-7 shows that water loss has increased from 2016 to 2024, indicating the need to investigate the reasons behind this rise.

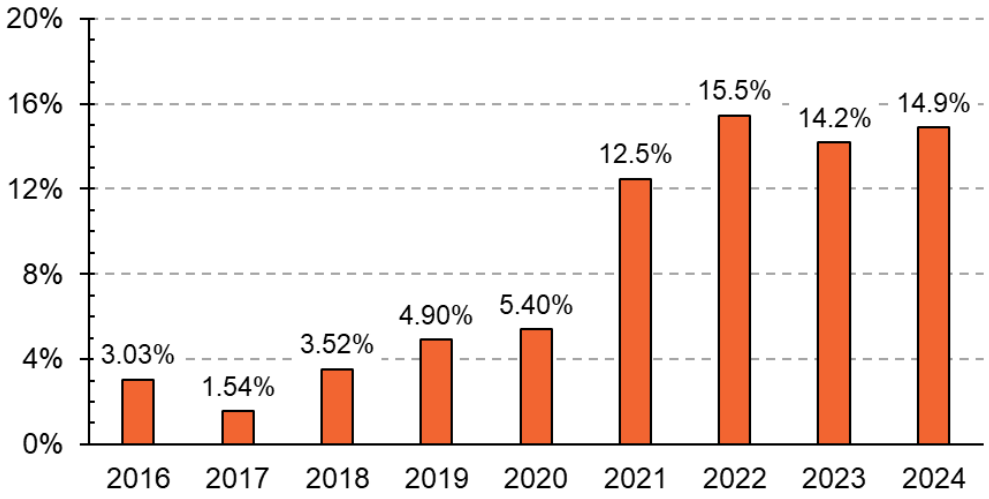


Figure 3-7: Annual Average Percent Water Loss

In accordance with Section 2.3.2.F.2.c of the SFWMD's Applicant's Handbook for Water Use Permit Applications (Applicant's Handbook), a utility with unaccounted use greater than 10 percent is required to address the reduction of such use through the formation of a formal leak detection program (SFWMD, 2022). Section 4.1.2 of the Applicant's Handbook requires implementation of leak detection programs by utilities with unaccounted-for water losses of greater than 10 percent.

3.7 Summary of Outstanding Compliance Issues

The City has no outstanding compliance issues.

4. Population and Water Demand Projections

4.1 Introduction

This section summarizes historical and forecasted population along with historical and forecasted water demand.

4.2 Historical Population

Figure 4-1 summarizes the forecasted population for the City's water service area for fiscal years (FY) 2020 to 2025. The source of the 2020 and 2025 values is the Broward County Population Forecast Allocation Model (PFAM) issued in 2024 (Broward County, 2024). These data were provided by the City Hallandale Beach in an email on June 11, 2024. The values from 2021 through 2024 are calculated values using the Microsoft Excel forecast function.

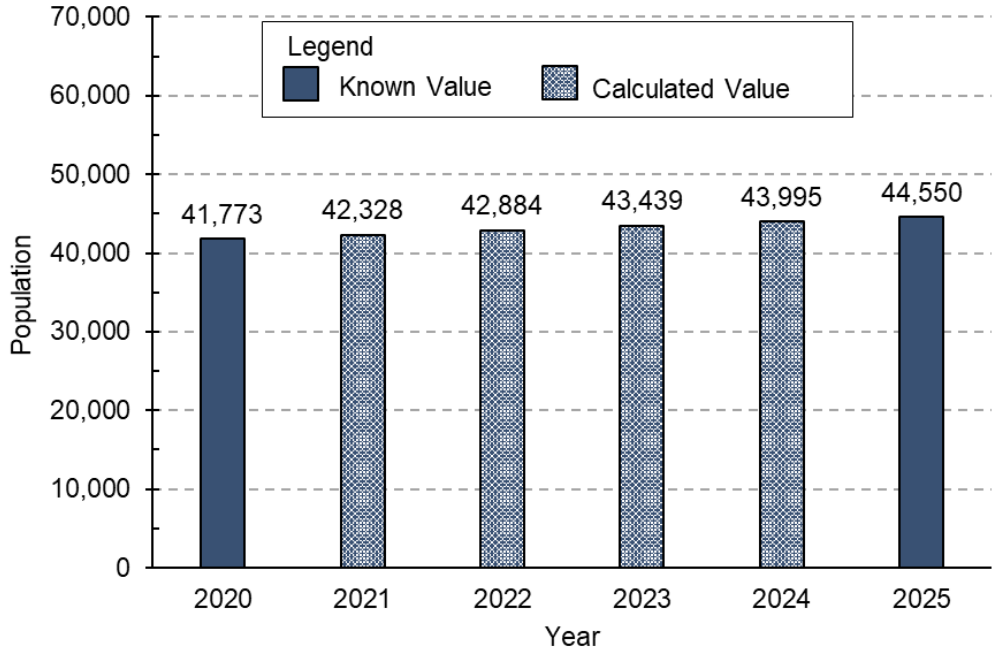


Figure 4-1: Water Service Area Population FY 2020 to FY 2025

4.3 Population Forecast

Figure 4-2 summarizes the forecasted population for the City's water service area for FY 2025 to 2050. The source of the population forecast is the Broward County Population Forecast Allocation Model (PFAM) issued in 2024 (Broward County, 2024). These data were provided by the City Hallandale Beach

in an email on June 11, 2024 and updated in November 2025 based on review of County's PFAM report. The year 2050 population of 60,569 represents build-out of the City's land available for development.

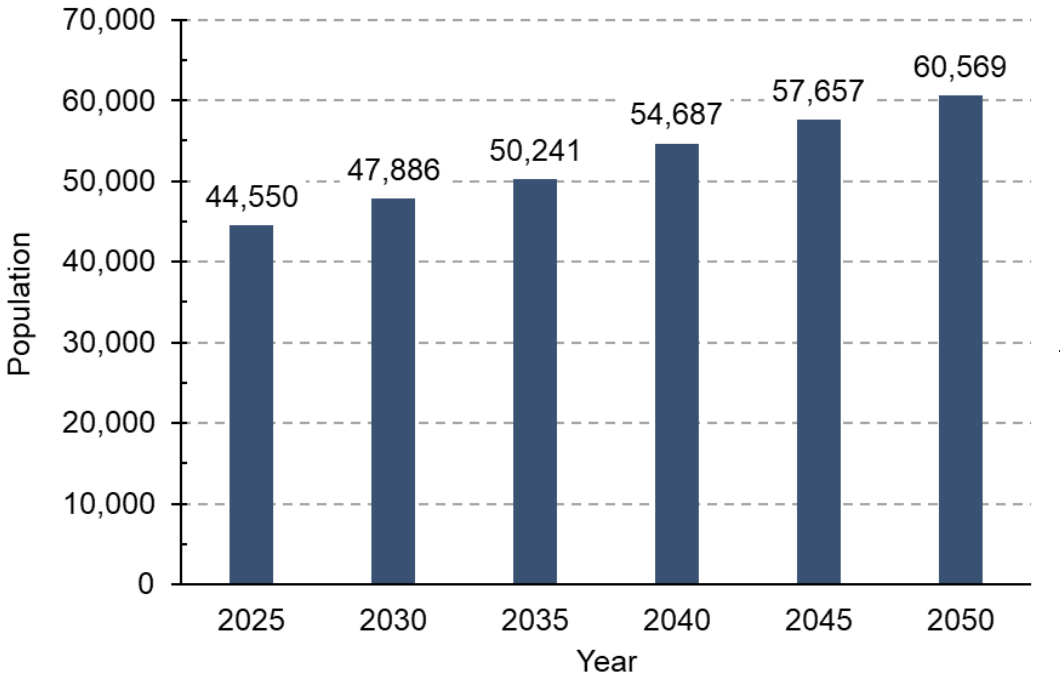


Figure 4-2: Water Service Area Population Forecast in Five Year Increments

4.4 Areas of Self Supply

There are no existing areas within the City's water service area that self-supply potable water. There are no plans for future domestic self-supplied systems.

4.5 Water Service Area

Figure 4-3 illustrates the City of Hallandale Beach's water service area map. It encompasses the entirety of the City's municipal boundary. The City supplies all the drinking water to customers within the water service area. During emergencies, the City of Hallandale Beach can also be supplied with water from an interconnect with the City of North Miami Beach. The map illustrates the location of the WTP along with the location of the Beach Tower. The Beach Tower is a 0.5-million-gallon elevated water tank constructed in 1967.

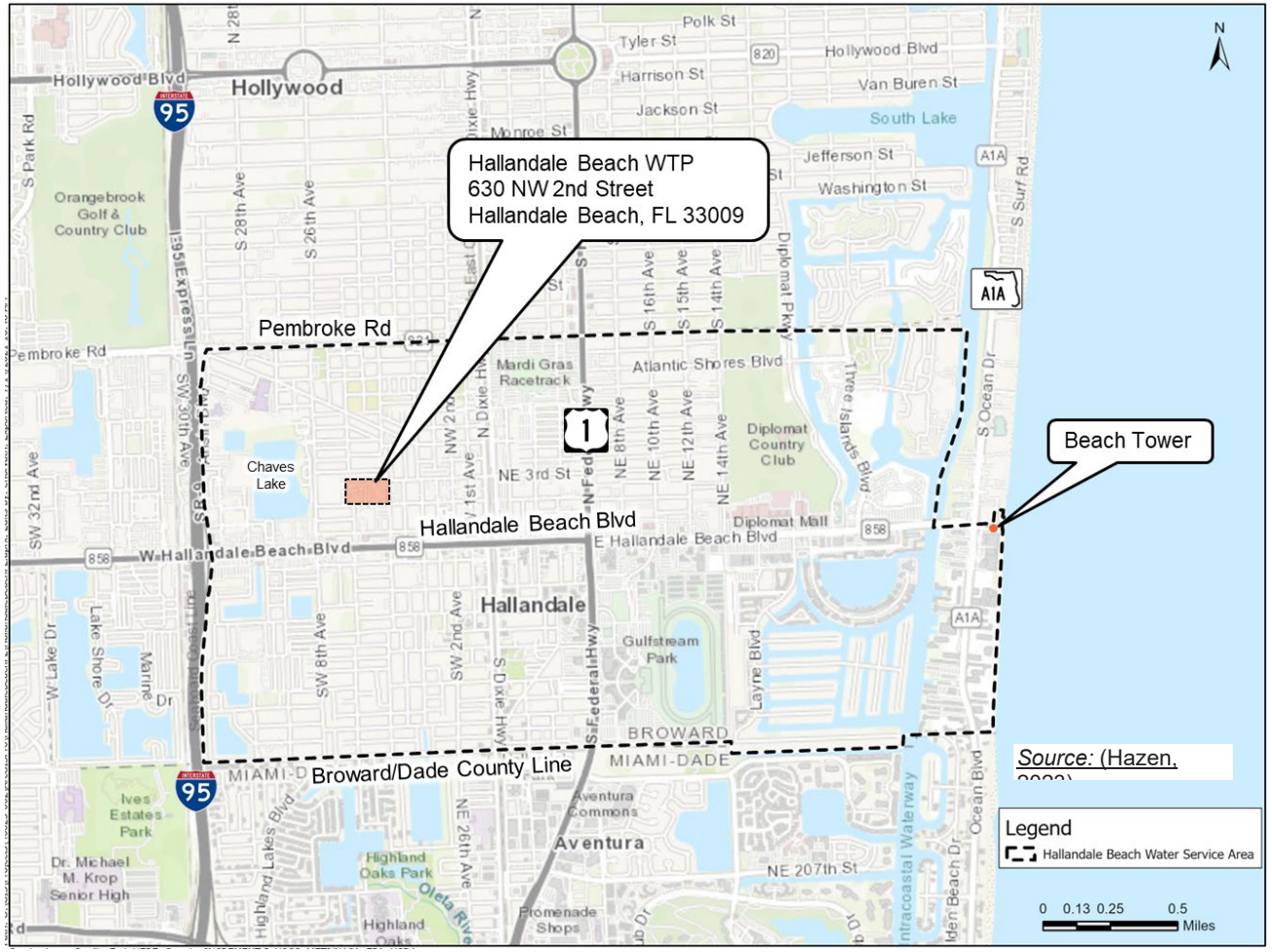


Figure 4-3: Hallandale Beach Water Service Area Map

4.6 Hallandale Beach Areas Served by Other Utilities

There are no areas of Hallandale Beach that are supplied with raw water or finished water by other utilities.

4.7 Potable Water Level-of-Service Standards

Table 4-1 summarizes the City's potable water level-of-service (LOS) standards. The City established its potable water LOS standards in its Water Distribution System Master Plan (Hazen, 2023). The LOS standards were based on applicable regulations such as the Florida Administrative Code (FAC) and the "Recommend Standards for Waterworks" (a.k.a., 10 State Standards). Additionally, the LOS standards presented herein meet commonly accepted engineering practice.

Table 4-1: Water System Level-of-Service Standards

Component	Level-of-Service Standard / Goal	Does the City meet this LOS Goal?
Raw Water Supply	Sufficient to meet demand of the water service area.	Yes
Minimum Treatment Capacity	Maximum day demand with all units in service. Source: Florida Administrative Code, Rule 62-555.	Yes
Minimum distribution pressure during maximum day demand with no fire flow	Greater than or equal to 35 psi Source: City of Hallandale Beach Water Distribution System Master Plan, Table 7-2.	Yes
Maximum flow velocity in pipe during peak hour demand during normal operations (no fire)	8 ft/sec Source: City of Hallandale Beach Water Distribution System Master Plan, Table 7-2.	Yes
Fire hydrant capacity during steady-state maximum day flow conditions	Provide a minimum of 500 gallons-per-minute (gpm) at 25 pounds-per-square-inch (psi) residual system pressure. Source: City of Hallandale Beach Water Distribution System Master Plan, Section 7.12.3.	Yes
Finished Water Storage	Comply with FAC 62-555.320(19): minimum requirement of 25 percent of maximum day demand plus maximum fire flow volume with all tanks in service. Maximum fire flow storage based upon 3,500 gallons per minute (gpm) fire over a four-hour period. Source: Florida Administrative Code, Rule 62-555.320(19).	Yes
Maximum Distribution System Water Loss	10 Percent of Finished Water Pumped Source: (SFWMD, 2022); Article 4.1.2.	No[6]

[6] Water loss for 2021 through 2024 averaged 14.3%. Article 4.1.2 of the Applicant's Handbook for Water Use Permit Applications requires implementation of leak detection programs by utilities with unaccounted-for water losses of greater than 10 percent.

4.8 Historical Biscayne Aquifer Raw Water Used

Table 4-2 presents historical raw water use from the Biscayne aquifer from 2020 to 2024. These data include City's wells along with the supply from the Broward County South Regional Wellfield. This period also includes information on historical per capita water usage and maximum day peaking factors. From 2020 to 2024, the average raw water usage per person was 165.2 gallons per capita per day (gpcd). The raw water max day factor, average of 2022 to 2024, is 1.29.

Table 4-2: Historical Biscayne Aquifer Raw Water Used

Year	Water Service Area Population	Biscayne Aquifer Raw Water Demand					
		Annual Withdrawal (MGY)	Avg Day Demand (MGD)	Avg Day Per Capita (gpcd)	Max Day Factor	Max Day Demand (MGD)	Max Day Per Capita (GPCD)
2020	41,773	2,467.93	6.74	161.86	1.194	8.05	192.7
2021	42,328	2,602.60	7.13	168.45	1.260	8.99	212.3
2022	42,884	2,526.66	6.98	161.42	1.295	9.04	210.8
2023	43,439	2,540.94	7.08	160.26	1.269	8.98	206.8
2024	43,995	2,791.14	7.63	173.82	1.294	9.87	224.2

4.9 Historical Finished Water Used

Table 4-3 presents the historical finished water demand for the City's water service area from 2020 to 2024. From 2020 to 2024, the average finished water use was 147.3 gpcd. Finished water max day factor, average from 2022 to 2024, is 1.27.

Table 4-3: Historical Finished Water Used

Year	Water Service Area Population	Finished Water Demand					
		Annual Finished Water Production (MGY)	Avg Day Demand (MGD)	Avg Day Per Capita (GPCD)	Max Day Factor	Max Day Demand (MGD)	Max Day Per Capita (GPCD)
2020	41,773	2,224.02	6.08	145.86	1.191	7.24	173.3
2021	42,328	2,322.60	6.36	150.33	1.245	7.92	187.1
2022	42,884	2,258.84	6.24	144.31	1.266	7.90	184.2
2023	43,439	2,272.23	6.34	143.31	1.255	7.95	183.0
2024	43,995	2,452.69	6.70	152.74	1.298	8.70	197.8

4.10 City Strategy to Comply with the PFAS Rule and Meet Buildout Population Water Demand

The City's raw water contains Per- and Polyfluoroalkyl Substances (PFAS), which lime softening cannot remove. To comply with the PFAS Rule (USEPA, 2024), the City plans to switch entirely to membrane treatment and add capacity with a new Floridan aquifer source and reverse osmosis (RO) treatment. Table 4-4 summarizes the City's plan.

Table 4-4: Chronology of City Plan to Comply with PFAS Rule

Year Action is Completed[7]	Action
2026	Year that RO Skid 1 is fully available treating water from the BCSRW[8].
2026	Conduct Optimal Corrosion Control Treatment Pilot Test to ensure compliance with Lead and Copper Rule. This project will define what is designed in the "Chemical Stabilization Improvements" project.
2027 to 2029	Design, permitting, bidding, and construction of Chemical Stabilization Improvements
2025 to 2029	Design, permitting, bidding and construction of RO Skid 2 along with associated piping to supply raw water from City wells to RO Skids 1 and 2.
2026 to 2030	Design, permitting, bidding, construction and operational testing of Deep Injection Well (DIW) 2 along with associated piping, electrical and controls.
2026 to 2030	Design, permitting, bidding and construction of Floridan aquifer wells 1 and 2, RO Skid 3, along with associated raw water piping.
2026 to 2030	Design, permitting, bidding and construction of Emergency Generator 2.
2029	The designated year marks the commencement of operations for RO Skids 1 and 2 utilizing City wells. Concurrently, the lime softening facility will be permanently decommissioned. Following this transition, the City's water treatment process will consist exclusively of membrane technology.
2030	Year that RO Skid 3 is available treating water from the Floridan aquifer. Additionally, DIW 2 and Generator 2 will be available by this year.

The plan adds two new Floridan aquifer wells to the City's water supply. These infrastructure upgrades will enable the City to meet the projected 2050 population's water needs of 60,569 residents.

[7] The dates in this table are planned dates based on the best available information currently available. The actual dates may vary based on numerous factors.

[8] RO Skid 1 was installed in 2025 and construction will be finalized in early 2026. RO Skid 1 is currently supplied with water from Broward County. The addition of RO Skid 1 will not increase the finished water production capacity of the Water Treatment Plant (WTP) until raw water can be supplied from the City's wells to this skid. The City has moved forward with including the required yard piping modifications as part of the installation of RO Skid 2, allowing RO Skid 1 to receive raw water from the City's wells.

4.11 Water Demand Forecast

Table 4-5 summarizes the raw and finished water demand forecasts on an annual average day and maximum day basis for the City's water service area for FY 2025 to 2050 in five-year increments.

Table 4-5: Water Demand Forecast

Year	Water Service Area Population	Finished Water Demand (MGD)		Biscayne Aquifer Raw Water Demand (MGD)		Floridan Aquifer Raw Water Demand (MGD)	
		Avg Day	Max Day	Avg Day	Max Day	Avg Day	Max Day
2025	44,550	6.56	8.33	7.30	9.27	NA	NA
2030	47,886	7.05	8.96	5.82	7.39	2.81	3.57
2035	50,241	7.40	9.40	6.11	7.76	2.95	3.74
2040	54,687	8.06	10.23	6.65	8.44	3.21	4.07
2045	57,657	8.49	10.79	7.01	8.90	3.38	4.29
2050	60,569	8.92	11.33	7.36	9.35	3.55	4.51

Figure 4-4 illustrates the finished water demand in bar chart format in five-year increments through 2050.

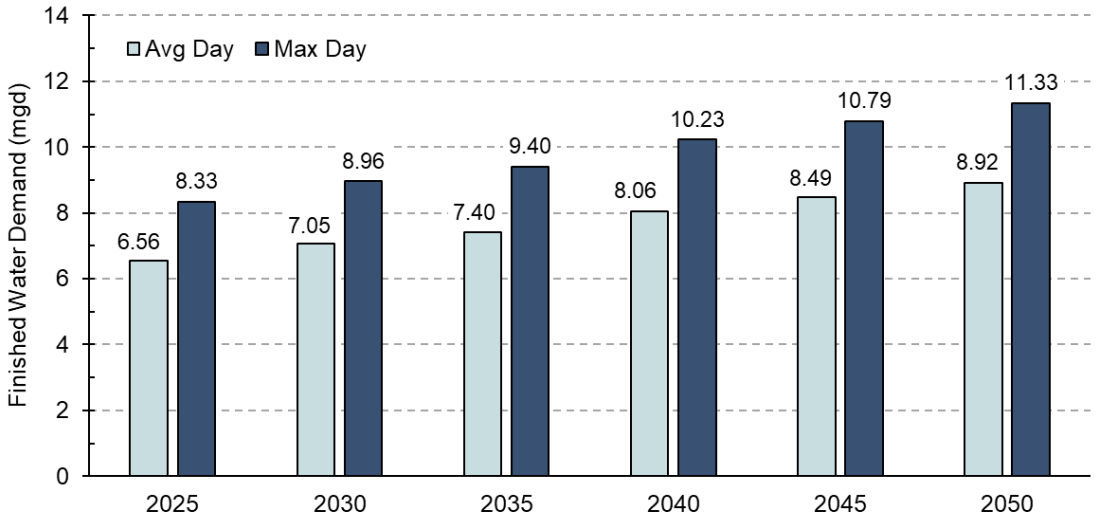


Figure 4-4: Finished Water Demand Forecast in Five-Year Increments

4.12 Finished Water Production Capacity is Adequate to Meet Demand

Figure 4-5 illustrates that water treatment plant finished water production capacity[9] is adequate to meet demand through the year 2050.

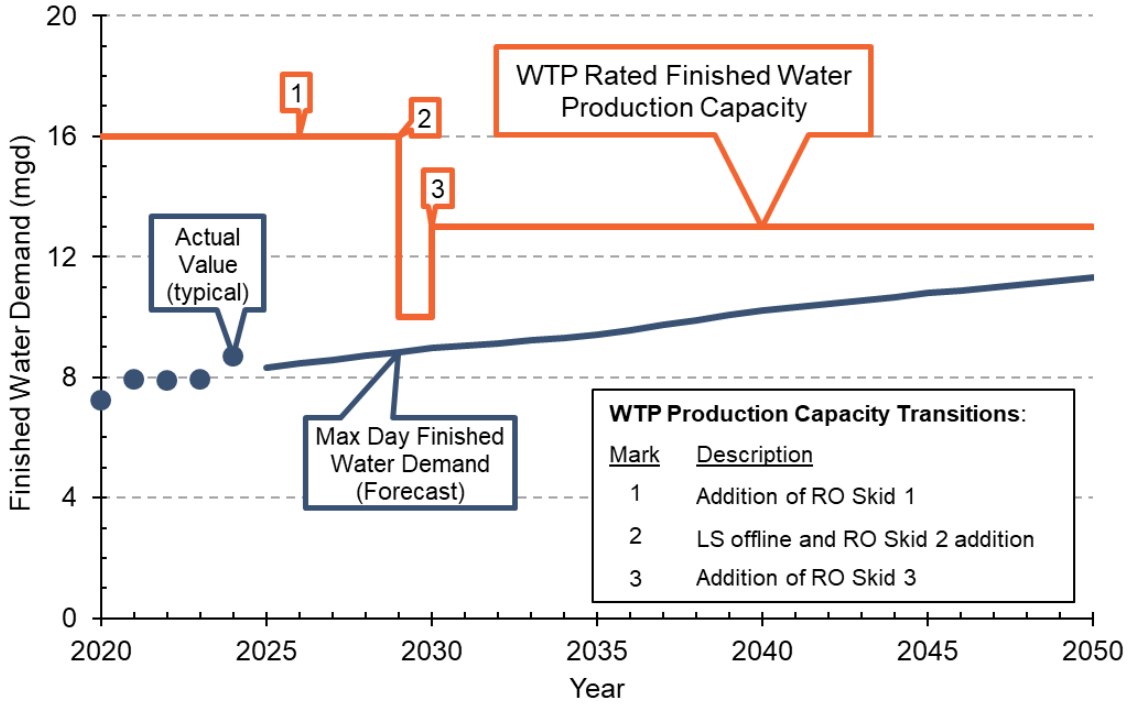


Figure 4-5: Max Day Finished Water Demand vs Water Production Capacity

The above figure is based upon the planned infrastructure improvements defined in Table 4-4. The following comments are offered relative to the line marked "WTP Rated Finished Water Production Capacity":

- At "Mark 1," adding RO Skid 1 (2.0 mgd design) increases treatment units but not output due to water supply limits.
- At "Mark 2" in 2029, LS (10 mgd) is removed for PFAS Rule compliance. That year, RO Skid 2 (2.0 mgd) is added, and yard piping changes eliminate RO Skid 1's supply limit. This results in a temporary capacity drop to 10 mgd. If the EPA extends the PFAS Rule deadline to 2031, the City may delay "Mark 2" to avoid this short-term reduction, transitioning instead directly from 16 mgd to a final 13 mgd.

[9] Figure 4-5 is built upon certain assumptions on the timeframe of planned treatment plant modifications. These assumptions will likely be impacted by future EPA regulatory action and many other factors. Hence, the actual timeframes of planned treatment plant modifications may differ from that presented in this document.

- At "Mark 3" (~2030), adding RO Skid 3 (3.0 mgd) raises WTP capacity to 13.0 mgd.

4.13 Biscayne Aquifer Raw Water Demand Forecast

Figure 4-6 illustrates the Biscayne aquifer raw water demand (from Table 4-5) in bar chart format in five-year increments through 2050.

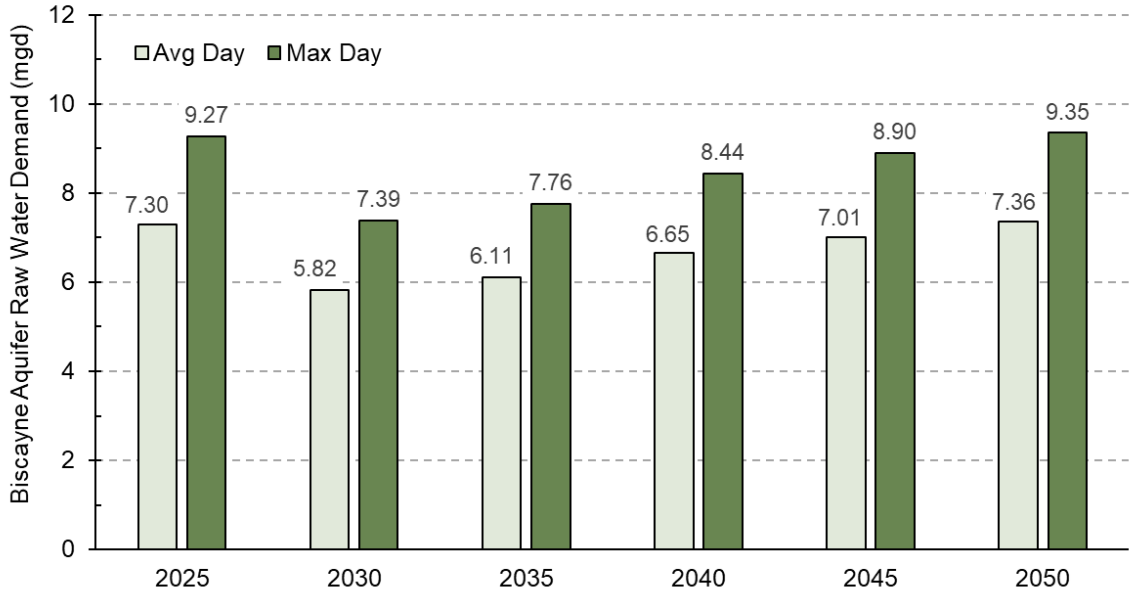


Figure 4-6: Biscayne Aquifer Raw Water Demand Forecast in Five-Year Increments

4.14 Floridan Aquifer Raw Water Demand Forecast

Figure 4-7 illustrates the Floridan aquifer raw water demand (from Table 4-5) in bar chart format in five-year increments through 2050.

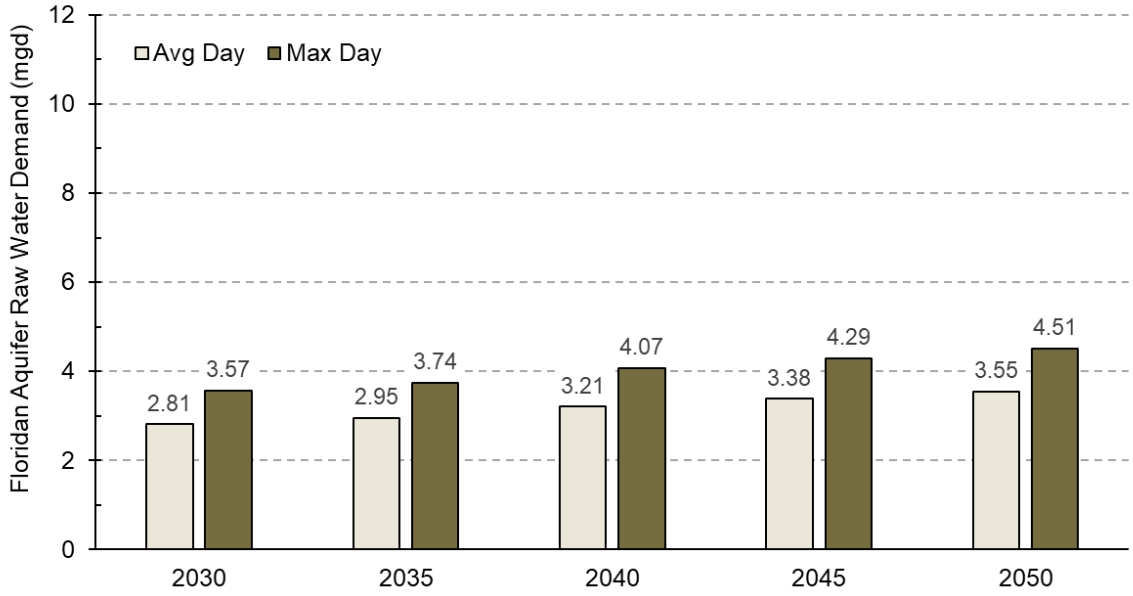


Figure 4-7: Floridan Aquifer Raw Water Demand Forecast in Five-Year Increments

5. Capital Improvements Plan

5.1 Introduction

This section provides a brief description of the City of Hallandale Beach's Capital Improvements Plan (CIP) related to its water system. Unless otherwise indicated, the data presented herein are based upon the City's document titled "Adopted Capital Improvement Plan FY 2025-29" available for download at the following link: CIP Link FY2025-29.

5.2 Water System CIP FY2025 - FY2029

Table 5-1 presents the City's water system CIP for FY 2025 – 2029. The CIP schedule includes traditional water supply (i.e., Biscayne aquifer), conventional treatment (i.e., filters and lime softening), and distribution system infrastructure projects. Projects in this category are marked with the term "Water" in the relevant column. The table also includes Alternative Water Supply (AWS) type projects related to Floridan aquifer water supply and RO treatment. Projects in this category are marked with the term "AWS" in the relevant column.

The CIP costs include engineering services along with construction costs. This CIP budgets to achieve the following goals:

- Transition to 100% membrane treatment to comply with the PFAS Rule
- Add Floridan aquifer water supply and expand RO treatment to support a projected 2050 population of 60,569

The next subsection outlines planned water system improvements scheduled after FY 2029.

Table 5-1: Water Projects CIP FY 2025 to FY 2029

Project Title	Project No.	Category	FY2025	FY2026	FY2027	FY2028	FY2029	Total
Dixie Hwy 12" Water Main	P2415	Water	$0	$6,706,800	$0	$0	$0	$6,706,800
Federal Highway 16" Water Main	CIP 1000	Water	$0	$0	$9,031,200	$0	$0	$9,031,200
Floridan Aquifer Water Supply	P2301	AWS	$500,000	$10,994,000	$0	$0	$0	$11,494,000
Holiday Drive WM Improvements	P2208	Water	$6,700,618	$0	$0	$0	$0	$6,700,618
Lime Plant Air Compressor Replacement	P2503	Water	$97,000	$0	$0	$0	$0	$97,000
Membrane & Generator Building Degasifier Structure	CIP 1018	Water	$400,000	$0	$0	$0	$0	$400,000
Membrane and Generator AC Units	CIP 1017	Water	$200,000	$0	$0	$0	$0	$200,000
Membrane Plant Chemical Pump Replacement	CIP 1015	Water	$3,150,000	$0	$0	$0	$0	$3,150,000
Nano Filtration Skid 3 and Reverse Osmosis Skid 2	CIP 1019	AWS	$0	$13,393,000	$0	$0	$0	$13,393,000
NE 7th&NE 8th	P2128	Water	$949,000	$0	$0	$0	$0	$949,000
Parkview Dr. 16-inch Watermain Improvements	P2213	Water	$7,130,000	$0	$0	$0	$0	$7,130,000
Polymer & Sodium Hex Storage	CIP 1009	Water	$815,000	$0	$0	$0	$0	$815,000
Raw Water Piping Improvements	CIP 1003	AWS	$0	$800,000	$0	$0	$0	$800,000
Raw Water Well 3,5,7 and 8 Redevelopment	P2405	Water	$2,424,000	$0	$0	$0	$0	$2,424,000

Table 5-1: Water Projects CIP FY 2025 to FY 2029

Project Title	Project No.	Category	FY2025	FY2026	FY2027	FY2028	FY2029	Total
Raw Water Well 3,5,7and 8 Upgrade and Pump Replacement	P2404	Water	$8,390,000	$0	$0	$0	$0	$8,390,000
Raw Water Well R&R	CIP 1006	Water	$0	$0	$0	$1,500,000	$0	$1,500,000
S Ocean Dr 16" Water Main	CIP 1002	Water	$0	$0	$3,560,400	$0	$0	$3,560,400
Safe System for Membrane Cleaning	P2504	Water	$75,000	$0	$0	$0	$0	$75,000
Sodium Hypochlorite Feed Storage	CIP 1011	Water	$500,000	$0	$0	$0	$0	$500,000
Sodium Hypochlorite Feed System	CIP 1010	Water	$400,000	$0	$0	$0	$0	$400,000
SW 3rd St 10" Water Main	P2406	Water	$3,722,300	$0	$0	$0	$0	$3,722,300
Telemetry Upgrades	P2125	Water	$1,209,750	$0	$0	$0	$0	$1,209,750
Treatment Units 2 and 3 Rehab	CIP 1008	Water	$0	$3,560,000	$0	$0	$0	$3,560,000
Water Treatment Plant Raw Meter Vault Improvement	CIP 1007	Water	$400,000	$0	$0	$0	$0	$400,000
WTP Diesel Driven Pump and Fuel	CIP 1023	Water	$0	$600,000	$0	$0	$0	$600,000
WTP Disinfection Improvements	CIP 1027	Water	$2,000,000	$0	$0	$0	$0	$2,000,000
WTP Emergency Power Generator	CIP 1016	Water	$750,000	$0	$0	$0	$0	$750,000
WTP Filters 1-6 Rehab	CIP 1013	Water	$0	$0	$8,990,000	$0	$0	$8,990,000
WTP Filters 7-10 Rehab	CIP 1012	Water	$0	$5,995,000	$0	$0	$0	$5,995,000
Water Projects Total			**$39,812,668**	**$42,048,800**	**$21,581,600**	**$1,500,000**	**$0**	**$104,943,068**

5.3 Water System CIP FY2030 - FY2034

The City has not conducted detailed planning for water system CIP for FY 2030 – 2034. The City understands that it requires additional investment in its water infrastructure over the next ten years to support its transition to 100% membrane treatment. The City has initiated the necessary planning to identify CIP budgets and schedules that support the City's goals of 100% membrane treatment and implementation of AWS.

Table 5-2 identifies water system project that supports the City's goals of 100% membrane treatment, implementation of AWS, and compliance with the PFAS Rule. Budgets and schedules have not yet been established for these projects.

Table 5-2: Water Projects CIP FY 2030 to FY 2034

Project Title
Optimal Corrosion Control Treatment Pilot Test[10]
Chemical Stabilization Improvements Engineering and Construction
Deep Injection Well 2 Engineering and Construction
Decommissioning of Lime Softening Systems/Buildings Engineering and Construction

The City is preparing planning documents to estimate costs and schedules for the projects listed in Table 5-2. Some of these projects may need to start before FY 2030. Therefore, the City might reallocate funds from Table 5-1 for projects listed in Table 5-2. For instance, with the shift to 100% membrane softening, the "WTP Filters 7-10 Rehab" budget could be redirected to expedite certain Table 5-2 projects. This planning is ongoing and will likely be completed in late 2026.

5.4 Distribution System Projects Needed Beyond the Five-Year CIP

The City developed the "Water Distribution System Master Plan" in 2023 (Hazen, 2023), which established a comprehensive 20-year strategy for capital improvements related to the water distribution network. This plan incorporated a hydraulic model to evaluate future system capacity requirements. The City intends to update this hydraulic model in the near term utilizing the population projections provided herein. The refined model will subsequently inform a reassessment of the conclusions and recommendations set forth in the 2023 Water Distribution System Master Plan. The outcome of this process will be an updated CIP.

[10] This project will define what is designed in the "Chemical Stabilization Improvements" project.

6. Conservation and Reuse Efforts

6.1 Introduction

The City of Hallandale Beach has been promoting water conservation for more than 30 years. Conservation is a proven strategy for delaying implementation of expensive alternative water supply technologies. The City is committed to conservation through its participation in the programs summarized in the subsections below.

6.2 Broward Water Partnership

The City of Hallandale Beach is a member of the Broward Water Partnership (BWP). BWP is a partnership of local governments, including 16 municipalities and water utilities who have come together to collaborate on water conservation implementation. The BWP offers rebates up to $125 each for eligible toilet replacements. BWP also offers eligible residents free water-efficient shower heads and low-flow faucet aerators, while commercial kitchens can get pre-rinse spray valves via the ConservationPays program.

6.3 ConservationPay$ Program

The City of Hallandale Beach participates in a water conservation incentive program through an interlocal agreement (ILA) with Broward County marketed under the program name “Conservation Pays”. The program provides rebates and free water-conserving devices to qualifying water customers, and it has a focused outreach and education component. Rebate dollars are used for the replacement of older, wasteful toilets in addition to the distribution of other water efficient fixtures and devices such as aerators and commercial pre-rinse spray valves. A consistent marketing and media campaign advances water conservation efforts. The program goal is to reach a sustained minimum 10 percent reduction in water use county-wide over 20 years.

6.4 NatureScape Irrigation Services

Broward County’s NatureScape Irrigation Service (NIS) program promotes the use of Florida-Friendly landscapes that require less watering, provide habitat for native and migratory wildlife, and minimize the use of common pollutants such as fertilizers and pesticides. The City participates in the NIS program. Table 6-1 illustrates the historical annual water savings from the NatureScape program in millions of gallons over the last three years.

Table 6-1: City of Hallandale Beach NatureScape Program Water Savings

Fiscal Year	Water Saved (gallons)	Water Saved (MG)
FY 2023	2,144,272	2.1
FY 2024	1,137,331	1.1
FY 2025	3,294,724	3.3
Total	**6,576,327**	**6.6**

The County established the Residential Irrigation Rebate Program ("RIR Program") through its NIS Program. The County performs irrigation system efficiency inspections and facilitates rebates to residents to offset costs to upgrade water-efficient irrigation system components within each Participant's water service area. Additional information on the RIR Program is available at the following link: RIR Program.

6.5 Conservation Rate Structure

The City of Hallandale Beach maintains a utility (water / sewer) rate structure supporting economic incentives for water conservation (progressively higher rates as water usage increases). Table 6-2 shows how water and sewer rates increase with increasing usage.

Table 6-2: City of Hallandale Beach Water and Sewer Service Rates

Tier	Usage in Gallons	Water Rate per 1,000 Gallons	Sewer Rate per 1,000 Gallons
1	0 – 2,000	$1.10	$4.13
2	2,001 – 5,000	$1.17	$4.27
3	5,001 – 10,000	$1.53	$4.46
4	10,001 – 25,000	$2.41	$4.95
5	25,001 and up	$2.63	$5.21

6.6 Water Shortage Restrictions

The City has adopted FAC Ch. 40E-21 by reference through Section 30-103 of its Code of Ordinances. Chapter 20E-21 is the Rules of the South Florida Water Management District Water Shortage Plan. City Ordinance, Chapter 30 – Utilities, Article III, Division 3 – Water Shortage provides additional details on the City's enforcement of the SFWMD's Water Shortage Plan (City of Hallandale Beach, 2025b).

6.7 Florida-Friendly Landscaping™

Per Section 32-381 of the City's Code of Ordinances, it is the City's policy to encourage use of Florida-friendly drought resistant plants and trees within the City. Following Florida-Friendly Landscaping™ principles, conservation of 40 to 60 percent of the water that traditional landscapes require may be feasible. The City's Code of Ordinances requires Florida-Friendly Landscaping™ for new development and re-development (City of Hallandale Beach, 2025b).

6.8 Rain Sensor Device Ordinance

The City adopted a Rain Sensor Device Ordinance (Section 30-133(f)), whereby the City requires any person applying for an irrigation system permit to install, operate and maintain rain sensor devices or to provide for automatic switching mechanisms that will stop the irrigation system with the occurrence of adequate rainfall (City of Hallandale Beach, 2025b).

6.9 Permanent Irrigation Ordinance

City Ordinance, Chapter 30 – Utilities, Article III, Division 4 – Conservation (Sec. 30-131 to Sec. 30-135), provides for enforcement of the restriction of the watering of landscaping to two days a week (City of Hallandale Beach, 2025b).

6.10 Leak Detection Program

The City's Public Works Department maintains a Water Utility Leak Detection Program, whereby all water meters are replaced on a regular schedule, and the large meters are checked and calibrated for accuracy annually. In addition, Public Works also maintains a Water Distribution System Leakage Program, whereby the monthly reports for the water piping distribution system are examined to compare the water pumped versus the water billed and identify any excessive unaccounted volumes. Historically, the City's water distribution system has unaccounted water losses of less than six percent, considerably less than the 10 percent the SFWMD allows for coastal communities.

6.11 Ultra-Low Volume Plumbing Fixture Ordinance

The City adopted an Ultra-Low-Volume Plumbing Fixture Ordinance — City Ordinance Chapter 8, Article 1, Section 8-31, recognizing the Florida Building Code as the enforceable Building Code for the City and codifying the Building Code requirements for ultra—low-volume plumbing fixtures on all new construction (City of Hallandale Beach, 2025b).

6.12 Long-Term Potable Water Consumption Rate Reduction Goal

The City's 2018 Sustainability Action Plan set a goal to cut potable water use by 40% from 2016 levels by 2040 (City of Hallandale Beach, 2018, p. 27). The City is dedicated to this target and will pursue capital projects and development code updates to achieve it. It is likely this goal will be achieved through existing conservation efforts described in the subsections above, along with new conservation efforts and the implementation of reuse projects as described in the subsection below.

6.13 Reuse

6.13.1 Introduction

Florida law supports water reuse efforts. Florida's utilities, local governments, and water management districts lead the nation in the quantity of reclaimed water reused and in public acceptance of reuse

programs. Section 373.250(1) F.S. states that "the encouragement and promotion of water conservation and reuse of reclaimed water, as defined by the department, are state objectives and considered to be in the public interest." In addition, Section 403.064(1), F.S., states "reuse is a critical component of meeting the state's existing and future water supply needs while sustaining natural systems" (Florida Senate, 2025).

6.13.2 Wastewater Goes to the City of Hollywood

The City of Hallandale Beach currently transmits the wastewater generated throughout its boundaries to the Southern Regional Wastewater Treatment Plant in the City of Hollywood. The Southern Regional Wastewater Treatment Plant treats the wastewater to create reuse water (a.k.a., reclaimed water).

The utilization of reuse water assists the environment by creating a climate independent water source that is dependable, locally controlled, and generally beneficial to the environment. Utilizing reuse water allows municipalities to reduce potable water consumption.

6.13.3 Completed Reuse Projects

6.13.3.1 Introduction

This subsection summarizes key reuse projects constructed in the City. The City implements these projects to achieve its Sustainability Action Plan (City of Hallandale Beach, 2018) goal to reduce its portable water consumption. Alternative water supplies, such as reuse irrigation (a.k.a., reclaimed water), are important to the City for conserving existing potable water supplies and meeting future demand.

6.13.3.2 Diplomat Golf Course Reuse Irrigation

The Diplomat Country Club golf course is irrigated with reuse water received from the City of Hollywood. The agreement between the City of Hollywood and the Diplomat Country Club golf course to deliver reclaimed water for irrigation was executed in 1995.

6.13.3.3 Three Islands Reuse Irrigation Pipeline Phase I

The Three Islands Reuse Irrigation Pipeline Phase I project was completed on April 13, 2018, by Close Construction, LLC (City of Hallandale Beach, 2023). This project constructed a reuse pipeline from the City of Hollywood at Wiley Street to Joseph Scavo Park located at 900 Three Islands Boulevard Hallandale Beach, FL 33009. This project provides reuse irrigation water for the medians located at north, south and west of the intersection of Three Islands Boulevard and Atlantic Shores Blvd, and residential areas west of Three Islands Boulevard between NE 11th Street and Parkview Drive (City of Hallandale Beach, 2018, p. 28).

6.13.3.4 Three Islands Reuse Irrigation Pipeline Phase II

The Three Islands Reuse Irrigation Pipeline Phase II project was completed on June 06, 2025, by Southern Underground Industries, Inc. This project included the installation of 3,910 linear feet of 8-inch

reuse irrigation pipeline from the existing phase I pump station to certain medians within the Three Islands Neighborhood. The reuse water pipeline construction limits include a portion of Three Islands Boulevard (median just south of Atlantic Shores Boulevard to median just south of Parkview Drive intersection), and the entire lengths of Parkview Drive and Leslie Drive roadways (City of Hallandale Beach, 2025a).

6.13.4 Planned Reuse Project

6.13.4.1 Introduction

This subsection summarizes key reuse projects that have been identified in City planning documents but have not yet been implemented. The City is committed to the goal of meaningful reduction in potable water consumption rates through the implementation of reuse and conservation projects as described below.

6.13.4.2 Three Islands Reuse Irrigation Pipeline Phase III

The Three Islands Reuse Irrigation Pipeline Phase III project is currently a conceptual plan. If implemented, this project would likely include a reuse irrigation pipeline extension from Three Islands Boulevard/East Hallandale Beach Boulevard westward along East Hallandale Beach Boulevard to Federal Highway. This project remains in the conceptual planning phase while the City focuses on implementing other critical capital projects.

6.13.4.3 Encouraging Greywater Reuse

Greywater is domestic wastewater from sinks, showers, baths, and washing machines that can be safely reused for non-potable purposes such as irrigation. The City is committed to reviewing its land development regulations to reduce barriers for private implementation and use of greywater systems where environmentally sound and appropriate.

6.13.4.4 Promoting Rainwater Harvesting

Rainwater harvesting is the process of collecting rainwater from surfaces like rooftops for uses such as irrigation. Rainwater harvesting can be a key tool in helping to conserve potable water. The City is committed to reviewing its land development regulations to reduce barriers for implementation of rain water capture systems where environmentally sound and appropriate.

6.13.5 Identify any Local Financial Responsibilities

The City of Hallandale Beach does not have any financial responsibilities related to reuse. Hence, this section is not applicable to the City of Hallandale Beach

7. Regional Issues

7.1 Introduction

A description of regional water supply planning issues that impact the City, including the below, is presented in this section.

- Climate Change
- Regional Climate Action Plan and Broward County Climate Action Plan
- Extreme Weather Events
- Sea Level Rise
- Biscayne Aquifer Saltwater Intrusion
- Regional Water Availability Rule
- C-51 Reservoir
- The Central and Southern Florida Flood Resiliency Study
- Lake Okeechobee System Operating Manual
- Comprehensive Everglades Restoration Plan Projects in Broward County
- East Coast Floridan Aquifer System Groundwater Model
- Conclusions of the East Coast Floridan Aquifer System Groundwater Model May Not Represent the Actual Risk of Future Water Quality Degradation
- Wellfield Management to Prevent Undesirable Changes in Floridan Aquifer Water Quality

7.2 Climate Change

Investigations and evaluations conducted at the national, regional, and local levels have reinforced the need to plan for the predicted impacts of more frequent and severe drought and increases in tidal and storm-related flooding. To protect the City's water supply infrastructure, ongoing planning efforts should be flexible to adapt to these climate changes.

The City, together with its municipal and regional partners, understands that local governments and water utilities must integrate water supply and climate change considerations through coordinated planning efforts. The City works to provide relevant updates to the 10-year Water Supply Facilities Work Plan and to enhance the Goals, Objectives and Policies (GOPs) of its comprehensive plan.

The City is a leader in developing planning tools and identifying achievable and cost-effective goals that meet the needs of its community.

7.3 Regional Climate Action Plan and Broward County Climate Action Plan

Southeast Florida's unique geographic characteristics make it one of the most vulnerable regions to be impacted by climate change and sea level rise. These characteristics include low land elevations, flat topography, a porous geology, and dense coastal development. In combination, climate change and sea level rise are expected to present significant challenges relating to water resource planning, management, and infrastructure for communities throughout the region.

The Southeast Florida Regional Climate Change Compact (Compact) serves Broward, Miami-Dade, Monroe, and Palm Beach counties, inclusive of 109 municipal governments, including the City of Hallandale Beach , and the Miccosukee Tribe of Indians of Florida, encompassing a total regional population of more than 6.2 million people. The Compact is a collaborative regional approach to address climate change. Compact members are actively involved in implementing the Compact's goals and strategies. These goals and strategies are documented in the Regional Climate Action Plan (RCAP) and the recently updated Broward County Climate Action Plan (BCCAP). The RCAP and the BCCAP have been updated over the years. The most recent RCAP update was issued in 2022, titled "Climate Action Plan 3.0". The most recent BCCAP update was in 2025, titled "Broward County Climate Action Plan 2025."

The goal of the RCAP is to identify, develop, and implement integrated water management strategies and infrastructure improvements concurrently with existing and enhanced water conservation and alternative water supply source efforts to mitigate the adverse effects of climate change, including sea level rise on water resources systems and operations (Regional Climate Action Plan, 2022). The RCAP includes 17 recommendations that address "Water".

The water supply-related recommendations from the Regional Climate Action Plan 3.0 are summarized in Table 7-1. These recommendations are intended to advance water management strategies and infrastructure improvements needed to mitigate the adverse impacts of climate change and sea level rise.

Table 7-1: Water Supply Recommendations of the 2022 RCAP

Item	Recommendations
WS-1	Practice integrated water resources management and planning.
WS-2	Foster innovation, development and exchange of ideas for managing water.
WS-3	Foster scientific research for water resource management.
WS-4	Coordinate innovative regional investments in water management technologies.
WS-5	Expand the use of green infrastructure/nature-based and net zero solutions in water management.
WS-6	Ensure consistency in water resource scenarios used for policy and planning consideration of future climate conditions.
WS-7	Assess the potential of climate impacts on water infrastructure.
WS-8	Modernize infrastructure development standards in the region.

Table 7-1: Water Supply Recommendations of the 2022 RCAP

Item	Recommendations
WS-9	Address the resilience of the regional flood control system.
WS-10	Integrate combined surface and groundwater impacts into the evaluation of at-risk infrastructure and the prioritization of adaptation improvements.
WS-11	Implement strategies and capital projects to increase adaptive and resilient water infrastructure and improve water quality.
WS-12	Phase out septic systems where appropriate to protect public health and water quality.
WS-13	Coordinate saltwater intrusion mapping across Southeast Florida.
WS-14	Develop a spatial database of resilience projects for water infrastructure.
WS-15	Support the Comprehensive Everglades Restoration Plan (CERP).
WS-16	Expand regional surface water storage.
WS-17	Expand information and engagement with property owners to support adaptation on private property to contend with increased flooding and higher groundwater.

The water supply-related recommendations from the BCCAP are similar to the above table. These recommendations are intended to:

- Ensure existing water resources are protected and remain available through conservation and sustainable management.
- Promote integrated water resource management across all projects to optimize storage, recharge, treatment, reuse, and management as a single sustainable system.
- Preserve water capacity by diversifying source alternatives.
- Balance the water needs of natural systems and public use.

These recommendations are incorporated throughout this Water Supply Facilities Work Plan Update and related comprehensive planning element updates.

7.4 Extreme Weather Events

An increase in frequency and severity of extreme weather events may have an impact on climate change. Comprehensive planning should consider impacts and risks associated with drought, water shortages and reduced groundwater tables, all of which can hasten saltwater intrusion and exacerbate water supply deficits. Conversely, more intense rainfall will cause flooding, increased runoff, impacts to the natural systems and provide more recharge potential for wellfields. Integrated water resource management strategies will help to mitigate for these impacts, particularly those projects that can serve to provide additional long-term storage of stormwater runoff and redistribution of excess rainfall during dry periods and drought. Regional surface water reservoirs and below ground aquifer storage and recovery systems (ASR) are potentially viable alternative water supply projects and climate adaptation strategies

7.5 Sea Level Rise

Development of cost-effective sea level rise adaptation strategies to ensure the sustainability of the City's water supply is critical to all ongoing planning efforts. To facilitate planning, the Southeast Florida Regional Climate Change Compact developed the sea level rise graphic (Southeast Florida Regional Climate Change Compact, 2019) illustrated in Figure 6-1. The Southeast Florida Regional Climate Change Compact issued a statement in 2024 confirming continued use of the 2019 sea level rise graphic (Southeast Florida Regional Climate Change Compact, 2024). The 2019 sea level rise projection is being used as the basis for planning throughout the region.

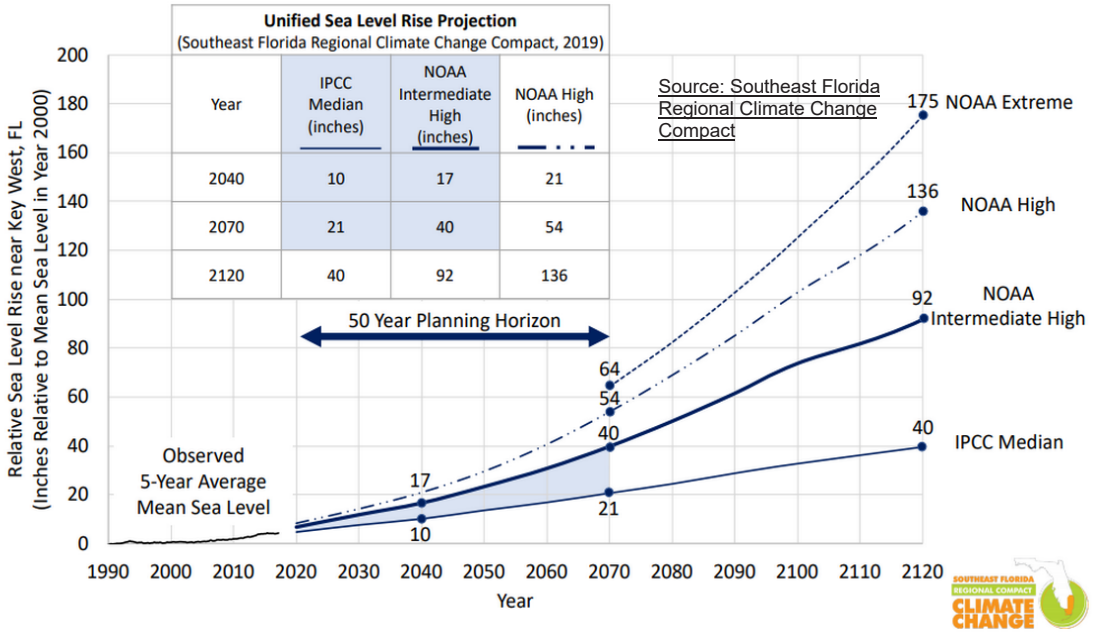


Figure 7-1: Sea Level Rise

Development of cost-effective sea level rise adaptation strategies to ensure the sustainability of the City's water supply is critical to all ongoing planning efforts. In terms of infrastructure, every aspect that is underground or touches the ground will need to be assessed for its vulnerability and, if necessary, protected. This includes basic services, such as provision of drinking water, sewage treatment, electricity and waste disposal.

7.6 Biscayne Aquifer Saltwater Intrusion

The Biscayne Aquifer serves as the City's primary water supply. It is a shallow, surficial, highly transmissive aquifer. Coastal saltwater intrusion of the aquifer has occurred in eastern parts of Broward County. The extent of saltwater intrusion is measured by the depth and location of the 250 mg/L chloride concentration (i.e. isochlor). The mapping of this saltwater intrusion front is supported by local governments throughout the region, the United States Geologic Survey (USGS), and the SFWMD. The

most recently published 250 mg/L isochlor, in addition to the previous 250 mg/L isochlor and the City boundary is illustrated in Figure 7-2.

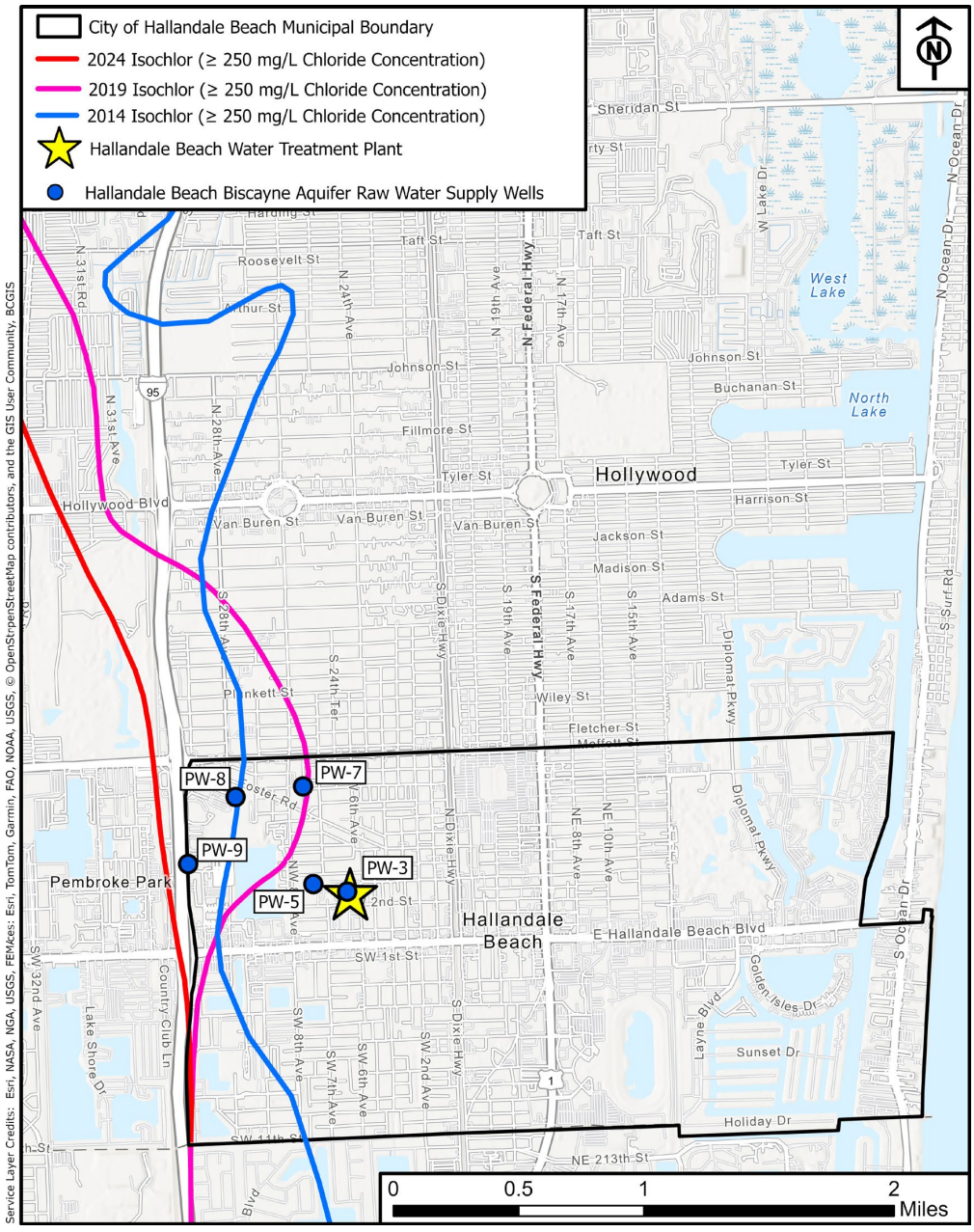


Figure 7-2: Approximate Inland Extent of Saltwater Intrusion in Hallandale Beach

The City monitors chloride concentrations monthly and submits the data to the SFWMD. Chloride concentrations are measured at the following USGS owned monitor wells:

- G-1435
- G-2294
- G-2409
- G-2410
- G-2477
- G-2478
- G-2965

In 2016 the City constructed three saltwater monitor wells (SWMW) with 4-inch diameter slotted casing to a depth of approximately 250 feet below land surface. Figure 7-3 illustrates the location of the City-owned monitor wells, USGS-owned monitor wells and the City's water supply wells.

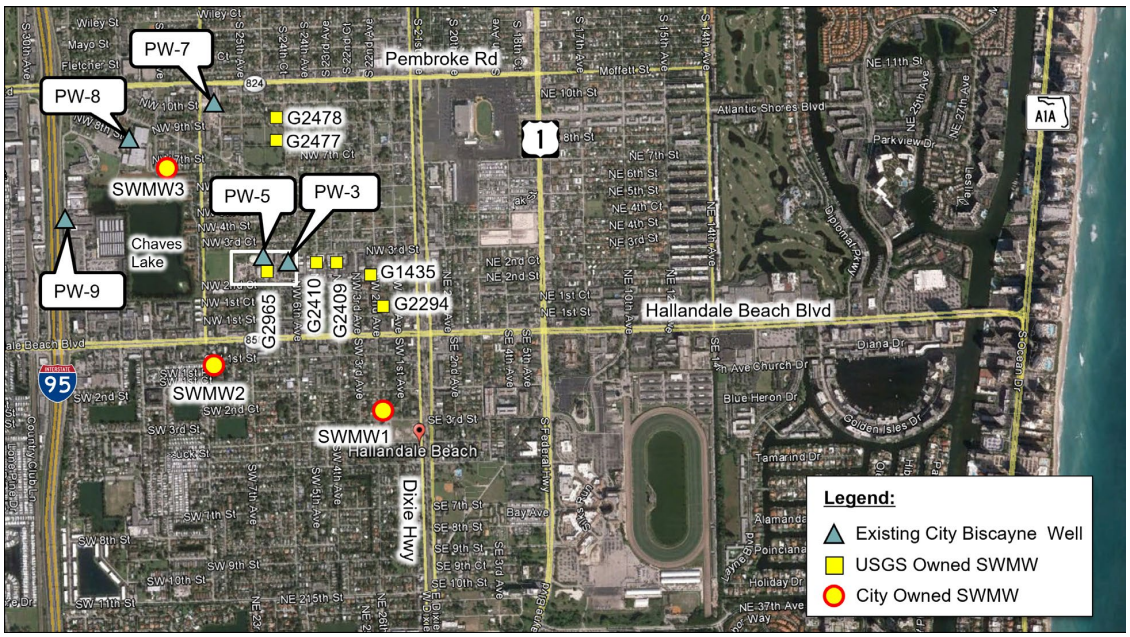


Figure 7-3: Monitoring Wells Location Map

There is no indication that the high salinity water has entered the City's production zone (approximately 100 feet below land surface) as evidenced by the data illustrated in Figure 7-4. The data range illustrated for well PW-8 is from January 2021 through December since PW-8 has been out of service for an extended period due to maintenance challenges.

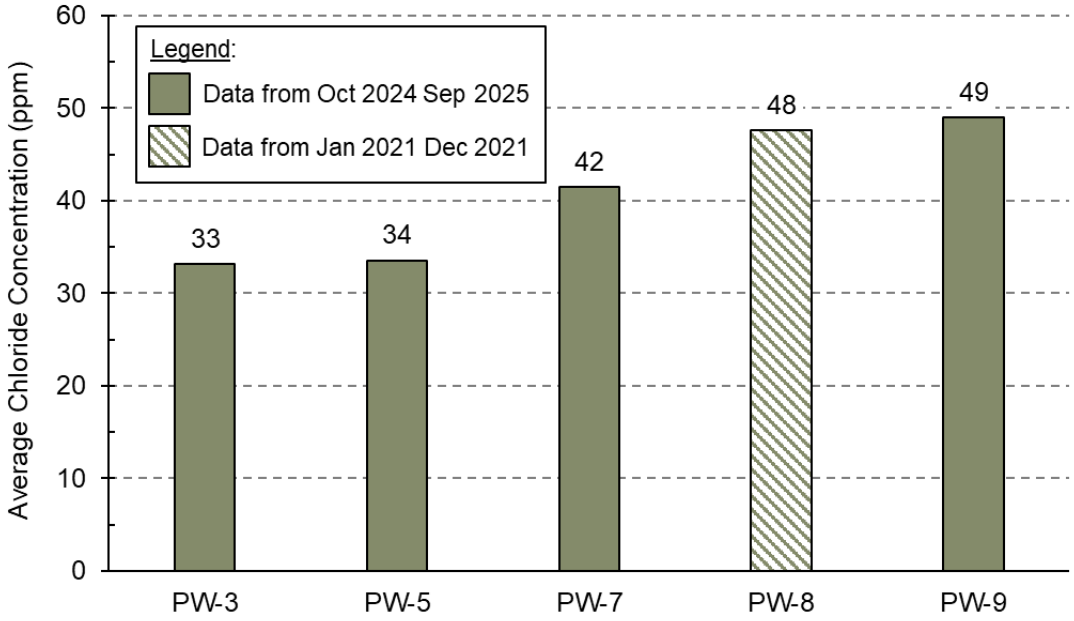


Figure 7-4: Chloride Concentration in City Water Supply Wells

The City recognizes that its wells will become impacted by saltwater intrusion at some point in the future. The City has planned for this challenge by constructing RO Skid 1. Furthermore, the City has started the design of RO Skid 2. These RO Skids can treat well water affected by saltwater intrusion with total dissolved solids up to approximately 5,000 mg/L.

7.7 Regional Water Availability Rule

The Regional Water Availability (RWA) Rule was adopted by the SFWMD on February 16, 2007. The RWA limits raw water withdrawals from the Biscayne Aquifer to the maximum quantity withdrawn during any consecutive five years preceding April 2006. Cities needing additional water supplies are required to seek sources that are not dependent upon the Everglades for recharge. These alternative water supply solutions include recycling water, using reclaimed water to recharge the Biscayne Aquifer, or drawing water from the deeper Floridan Aquifer.

7.8 C-51 Reservoir

The C-51 Reservoir, owned and operated by Palm Beach Aggregates (PBA), is an alternative water supply project in South Florida designed to support the Lower East Coast (LEC) Utilities in meeting long-term water demands while protecting the Everglades and other sensitive ecosystems. Developed in response to the 2007 Regional Water Availability Rule, the reservoir aims to store excess stormwater during wet seasons for use during dry periods. The project is planned in two phases, with a total storage capacity of 62,000 acre-feet. Phase 1 (operational as of April 2024) provides 16,000 acre-feet, and Phase 2 (if implemented) would add 46,000 acre-feet. The reservoir connects to the L-8 Reservoir and is

integrated into the SFWMD Regional System. It offers a cost-effective and environmentally sustainable alternative to other water supply methods like desalination or reverse osmosis. Participating utilities can use the reservoir to replace or supplement existing water supply projects, enhancing regional water security and resilience.

Water utilities have executed agreements with the property owner, PBA, to purchase storage capacity. To date, agreements have been executed for all 35 MGD of the Phase 1 storage capacity:

- City of Hallandale Beach – 1 MGD
- Miami-Dade County – 15 MGD
- Broward County – 6 MGD
- City of Sunrise – 5 MGD
- City of Fort Lauderdale – 3 MGD
- City of Margate – 2 MGD
- City of Pompano Beach – 2 MGD
- City of Dania Beach – 1 MGD

7.9 The Central and Southern Florida Flood Resiliency Project

The Central and Southern Florida Project (C&SF) was created by Congress as part of the Flood Control Act of 1948. Decades of construction by the U.S. Army Core of Engineers (USACE) began the following year, culminating into one of the largest flood control construction projects in the country. This project continues to evolve to this day through subsequent congressional authorizations through the Water Resources Development Act (WRDA).

With the support from the Florida Department of Environmental Protection (FDEP), Broward County, and other local partners, SFWMD and the USACE – Jacksonville District ("the project team") have been working to advance the Reach A - Broward Basins (Section 203) portion of the C&SF Flood Resiliency Study (SFWMD, 2025a). The goal of the Reach A – Broward Basins Project is to reduce flood damages and improve resiliency within the 420 square mile study area (encompassing the majority of Broward County and a portion of Palm Beach County) over a period of analysis spanning from 2035 to 2085. The SFWMD maintains an information portal for the Flood Resiliency Study at the following link: Central and Southern Florida Flood Resiliency Study South Florida Water Management District.

The Draft Tentatively Selected Plan (TSP) for the Reach A – Broward Basins Project was presented to the public on September 9, 2025. The SFWMD and USACE are currently working on finalizing the plan in time to request authorization (funding) to move forward with the project under the Water Resources Development Act of 2026 (WRDA 2026).

The City is within the study area of the Reach A – Broward Basins Project. The City continues to monitor the progress of C&SF projects and remains prepared to respond proactively to any resulting impacts.

7.10 Lake Okeechobee System Operating Manual

The Lake Okeechobee System Operating Manual (LOSOM) is the updated water management plan developed by the U.S. Army Corps of Engineers (USACE) to replace the 2008 Lake Okeechobee Regulation Schedule (LORS08). LOSOM supports the goals of the Comprehensive Everglades

Restoration Plan (CERP) by enabling more water to flow south into the Everglades. LOSOM went into effect as of August 12, 2024, and the Jacksonville District of the USACE implements the plan. A copy of the LOSOM plan is available at this link: 2024 LOSOM Water Control Plan. The USACE maintains a LOSOM information website at this link: USACE LOSOM Webpage.

If Lake Okeechobee's level drops below Zone D, the system enters the Water Shortage Management Band, which can trigger restrictions on water use (SFWMD, 2025b). This could reduce the amount of water available to recharge the Biscayne Aquifer. The City closely coordinates with the SFWMD to prepare for water supply restrictions during periods of limited rainfall.

7.11 Comprehensive Everglades Restoration Projects in Broward County

The Comprehensive Everglades Restoration Plan (CERP) is the largest ecosystem restoration project ever undertaken in the United States. The goals of the CERP are to restore water flows and rehydrate wetlands and coastal ecosystems, improve water quality, enhance flood protection, enhance the public water supply, and support endangered species and biodiversity. While the City is not responsible for CERP, it is in support of CERP and other restoration projects in the area. All current CERP projects within Broward County fall under the Broward County Water Preserve Areas (BCWPA) project. The three primary functions of the BCWPA project are as follows:

- Reduce seepage loss from WCA-3A/3B to developed areas (i.e., the C-11 and C-9 basins).
- Capture, store, and distribute surface water runoff from the western C-11 Basin; and,
- Restore wetlands, recharge groundwater, improve hydroperiods in WCA-3A/3B, and maintain flood protection.

The following major infrastructure features will be constructed as part of the project:

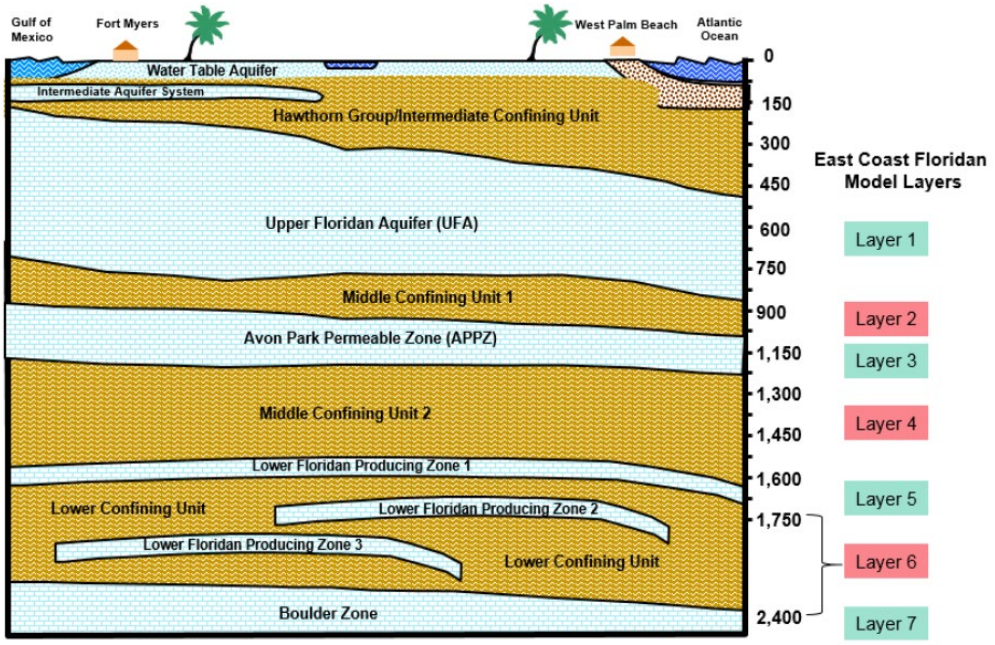
- C-11 Impoundment – A 1,168-acre impoundment to capture and store runoff from the C-11 Basin, reduce pumping of surface water into the WCAs, and provide releases for other regional uses.
- WCA-3A/3B Seepage Management Area – A 4,353-acre seepage management area that would establish a buffer to reduce seepage from WCA-3A/3B, connect the C-11 and C-9 impoundments via conveyance canal, and maintain flood protection.
- C-9 Impoundment – A 1,641-acre impoundment to capture and store surface runoff from the C-9 Basin, store C-11 Impoundment overflow, manage seepage, and provide releases for regional benefit.

These infrastructure features will provide various functions such as reducing seepage from WCA-3A, reducing phosphorus loading to WCA-3A, capturing stormwater otherwise lost to tide, and providing conveyance features for urban and natural system water deliveries. The preserved areas will benefit federally listed threatened and endangered species and many wading birds. This project provides water supplies identified in the Everglades MFL recovery strategy. The project received congressional authorization in 2014. Design efforts are under way for the C-11 Impoundment, and construction began in

October 2017 on a portion of the mitigation area. Construction of the C-11 Impoundment is expected to be completed in 2027. The WCA-3A/3B Seepage Management Area is anticipated to begin construction in 2027. Construction of the C-9 Impoundment is expected to begin in 2030. The City continues to monitor the status of environmental restoration projects in the LEC.

7.12 East Coast Floridan Model

The SFWMD developed the East Coast Floridan Model (ECFM) which is a peer-reviewed, calibrated regional FAS groundwater model. The ECFM is a density-dependent groundwater flow and solute transport model covering the Upper East Coast and Lower East Coast planning areas of the SFWMD. The ECFM simulates regional groundwater levels, flows, and quality changes (total dissolved solids) in the Floridan aquifer in response to withdrawals. The model was designed with seven layers as illustrated in Figure 7-5. Wells withdrawing from the FAS primarily pump from the Upper Floridan aquifer (UFA), while the Avon Park permeable zone and the Lower Floridan aquifer are not widely used as water supply sources in the region (SFWMD, 2018b).



Adapted from South Florida Water Management District Lower East Coast Water Supply Plan 2018 Update Figure D-52

Figure 7-5: East Coast Floridan Model Layers

The 2023-2024 LEC Plan Update page E-7 asserts that the ECFM findings presented in the 2018 LEC Plan Update for 2040 remain valid for 2045 (SFWMD, 2024). Key ECFM findings presented in the 2018 LEC Plan Update are summarized below (SFWMD, 2018a).

- The model predicted stable total dissolved solids (TDS) of 4,000 to 5,000-mg/L in the UFA in the vicinity of the City's WTP from 2016 through 2040.
- The model predicted stable total dissolved solids (TDS) of 8,000 to 10,000-mg/L in the Avon Park Permeable Zone (APPZ) in the vicinity of the City's WTP from 2016 through 2040.

While the modeling did not predict significant water quality degradation, the regional nature of the model limits the ability to account for specific wellfield operations used by utilities. Certain utilities have experienced significant water quality degradation in their Floridan aquifer wells. To avoid undesirable changes in Floridan aquifer water quality, it is critical that the wellfield be designed and operated to minimize the risk of upconing (vertical migration) of lower quality water from lower depths into the production zone.

7.13 Conclusions of the ECFM May Not Represent the Actual Risk of Future Water Quality Degradation

The conclusions of the ECFM prepared for the 2018 LEC Plan Update were based on Floridan aquifer withdrawals in year 2016 of 65-MGD and year 2040 of 146-MGD (SFWMD, 2018a). The SFWMD indicated that the Floridan aquifer withdrawal allocation is 212-MGD (SFWMD, 2018b). Hence, the model results presented in the 2018 LEC Plan Update do not include 66-MGD of potential Floridan aquifer withdrawals. If the 212-MGD of Floridan aquifer withdrawal allocation is fully realized it may result in increased Floridan aquifer water quality degradation and reduced water elevation with resultant risk of upward movement of lower quality water over the long-term.

It is recommended that the City continue to support all efforts to produce refined modeling results going forward along with regulatory policy to restrict Floridan aquifer withdrawals to protect utilities that invest in this resource from unexpected water quality changes. Additionally, it is recommended that the City support all efforts in collection of additional Floridan aquifer well construction, aquifer test and lithologic data from new and existing Floridan wells for the SFWMD to use in future refinements of its ECFM.

7.14 Wellfield Management to Prevent Undesirable Changes in Floridan Aquifer Water Quality

In southern Florida, the UFA is brackish however, it is still important to prevent upconing of even saltier water into the UFA or otherwise degrading the quality or quantity of this water supply source.

The SFWMD evaluates current and future water quality and water level trends in the FAS within the District with the Regional Floridan Groundwater (RFGW) monitoring network. This data is used to determine the long-term viability of the FAS as a water source and to monitor the effects of increasing use (Geddes et al., 2018).

Several Floridan aquifer wellfields in the LEC Planning Area have experienced some water quality degradation. The SFWMD asserts that water quality degradation risks can be managed by utilities through appropriate wellfield design and operating protocols. The SFWMD recommended the following risk reduction strategies (SFWMD, 2024):

1. Increasing well spacing between wells to more than 1,000 feet to minimize interference effects and to reduce stress on the Florida aquifer.
2. Rotating the operation of individual wells, thereby reducing overall pumping stress on the well's production zone.
3. Plugging and abandoning individual wells experiencing increases in chloride concentration and replacing them with new wells elsewhere within the wellfield area.
4. Reducing pumping rates at individual wells to minimize water level declines, which increases the potential for poor-quality water to enter the well's production zone from below (i.e., upconing).
5. Installing monitor wells to provide early warning of the need for changes to wellfield operations to minimize upconing or lateral movement of poor-quality water.
6. Utilities should use an incremental approach to install and test production wells due to geologic variability within the Florida aquifer. Wellfields should be designed and monitored to prevent over-stressing production zones and to minimize changes in water quality.
7. Public water supply utilities developing Florida aquifer sources are encouraged to share water quality, water level, and hydrologic data to increase understanding of the FAS and improve regional groundwater models.

The City recognizes the risks of changes in water quality and quantity in the Florida aquifer and will continue to factor this risk into its investment decision making process relative to alternative water supply opportunities.

8. Goals, Objections and Policies

8.1 Introduction

The City Comprehensive Plan addresses the needs and aspirations of the community. This has tremendous implications regarding the importance of community input in the development and implementation of the Comprehensive Plan.

The Comprehensive Plan also plays a significant role within Florida's growth management system. The Comprehensive Plan is required to be consistent with the State Comprehensive Plan (Chapter 187, Florida Statutes), and to be consistent with the Regional and County Comprehensive Plans. The Comprehensive Plan connects City, State of Florida, Regional, and Broward County plans. The Comprehensive Plan establishes long-term direction of goals as well as short-term objectives and policies to guide implementation efforts.

The City's comprehensive plan goals, objectives, and policies (GOPs) relevant to water supply have been reviewed and are consistent with the 10-year Water Supply Facilities Work Plan 2026 Update.

8.2 Intergovernmental Coordination

8.2.1 Introduction

This subsection describes the City's intergovernmental coordination activities with jurisdictions that Supply raw and finished water to the City. The City does not convey raw or finished water to communities outside of the City. Additionally, this subsection describes City coordination activities relative to long-range water supply planning with the SFWMD.

8.2.2 Coordination with the Agencies That Supply Finished Water

The City coordinates with the agencies that supply finished water to the City. As shown in Section 3 in the subsection 3.5.4 titled "Distribution System Interconnects", the City has the capability to import finished water from North Miami Beach via and emergency interconnect. The City coordinates with North Miami Beach on a regular basis on water supply planning issues.

8.2.3 Coordination with the Agencies That Supply Raw Water

The City coordinates with the agencies that supply raw water to the City. As described in Section 3, the City received raw water from the Broward County SRW. The City coordinates with Broward County on raw water supply on a regular basis.

8.2.4 The City Actively Coordinates with the SFWMD During LECWSP Updates

The City coordinates with the SFWMD during the LEC Plan Update process. City personnel participated in workshops, reviewed draft documents, and provided responses to the SFWMD's requests for information related to the LEC Plan Update.

9. References

Broward County. (2024). *Broward County and Municipal Population Forecast and Allocation Model (PFAM) 2024.* Retrieved November 7, 2025, from https://www.broward.org/Planning/Demographics/Documents/BrowardPFAM2024_Report_FINAL.pdf

City of Hallandale Beach. (2018). *Sustainability Action Plan.* Retrieved February 11, 2026, from City of Hallandale Beach: https://cohb.org/DocumentCenter/View/17535/City-of-Hallandale-Beach-Sustainability-Action-Plan

City of Hallandale Beach. (2023). *Resolution No. 2023 - 053.* Retrieved from City of Hallandale Beach: https://hallandalebeachfl.gov/DocumentCenter/View/31251/Reso-2023-053--Awarding-BID-No-FY2022-2023-005-Three-Island-Reuse-Pipeline-II

City of Hallandale Beach. (2025a). *Construction Completion Report for the Three Islands Reuse Irrigation Pipeline II Project CIP Project No. 1905.* Retrieved February 11, 2026, from City of Hallandale Beach: https://www.cohb.org/DocumentCenter/View/36266/Three-Island-Reuse-irrigation-Competition-Report-P1905

City of Hallandale Beach. (2025b). *municode*. Retrieved from Code of Ordinances: https://library.municode.com/fl/hallandale_beach/codes/code_of_ordinances

Florida Senate. (2025). *Florida Statutes*. Retrieved from https://www.flsenate.gov/Search/StatuteSearchTips

Hazen. (2023). *City of Hallandale Beach Water Distribution System Master Plan.*

SFWMD. (2018a). *2018 Lower East Coast Water Supply Plan Update - Planning Document.*

SFWMD. (2018b). *East Coast Floridan Model Overview and Results Lower East Coast Planning Region.*

SFWMD. (2022). *Applicant's Handbook for Water Use Permit Applications.* Retrieved from https://www.sfwmd.gov/sites/default/files/documents/wu_applicants_handbook.pdf

SFWMD. (2025a). *Central and Southern Florida Flood Resiliency Study*. Retrieved May 31, 2025, from https://www.sfwmd.gov/our-work/central-and-southern-florida-flood-resiliency-study

SFWMD. (2025b). *LOSOM Technical Summary April 7, 2025.* Retrieved May 26, 2025, from https://www.sfwmd.gov/sites/default/files/documents/LOSOM_outlook_04082025.pdf

Southeast Florida Regional Climate Change Compact. (2019). *Unified Sea Level Rise Projection 2019 Update*. Retrieved from https://southeastfloridaclimatecompact.org/wp-content/uploads/2023/10/2019-sea-level-projections.pdf

Southeast Florida Regional Climate Change Compact. (2024). *2024 Statement of Continued Use of the 2019 Southeast Florida Regionally Unified Sea Level Rise Projection.* Retrieved May 26, 2025, from https://southeastfloridaclimatecompact.org/wp-content/uploads/2024/12/2024-SLR-Statement_120924_FINAL.pdf

USEPA. (2024). U.S. Environmental Protection Agency. (2024). Per- and Polyfluoroalkyl Substances (PFAS) National Primary Drinking Water Regulation (NPDWR). Federal Register, 89(82), 32532–32757.

List of Appendices

Appendix A: Large User Raw Water Agreement Between Broward County and City of Hallandale Beach

Appendix B: Interconnect Agreement with the City of North Miami Beach

Appendix C: Agreement for Capacity Allocation in Phase 1 of the C-51 Reservoir

Appendix A: Large User Raw Water Agreement Between Broward County and City of Hallandale Beach

LARGE USER

RAW WATER

AGREEMENT

BETWEEN

BROWARD COUNTY

AND

CITY OF HALLANDALE

DATE: January 31, 1990

LARGE USER
RAW WATER
AGREEMENT
BETWEEN
BROWARD COUNTY
AND
CITY OF HALLANDALE

KNOW ALL MEN BY THESE PRESENTS: This Agreement is made and entered into in Broward County, Florida, between BROWARD COUNTY, a Political Subdivision of the State of Florida, hereinafter referred to as COUNTY, through its Board of County Commissioners, which term shall include its successors and assigns,

AND

CITY OF HALLANDALE, hereinafter referred to as CUSTOMER which term shall include its successors and assigns.

WITNESSETH, that for and in consideration of the mutual terms and conditions, promises, covenants and payments hereinafter set forth, COUNTY and CUSTOMER hereby agree as follows:

ARTICLE I

PREAMBLE

In order to establish the background, context, and frame of reference for this Agreement and to generally express the objectives and intentions of the respective parties herein, the following statements, representations, and explanations shall be accepted as predicates for the undertakings and commitments included within the provisions which follow and may be relied upon by the parties as essential elements of the mutual considerations upon which this Agreement is based.

1.1 The Board of County Commissioners through the enactment of Broward County Ordinance Number 84-40, have created a Water Supply Advisory Board, hereinafter referred to as WSAB, in November 1984. The purpose of WSAB is to assist in the development of a county-wide Water Supply Plan to assure future water supply needs.

1.2 COUNTY engaged the firm of James M. Montgomery, Consulting Engineers, Inc. (JMM) as the consultant to prepare the Water Supply Plan known as the Study of Water Supply and the Selection of Future Wellfield Sites in Broward County, Florida, hereinafter referred to as the STUDY, which was intended to satisfy the goals established by the COUNTY and WSAB.

1.3 The recommendations of the consulting engineer, JMM, were establishment of raw water delivery systems by the COUNTY to deliver raw water from centralized wellfields to the LARGE USERS, and related actions necessary for protection of the wellfields. The capital funding, as approved and defined by the Board of County Commissioners, for the Water Supply Program will be by the COUNTY. The OPERATION AND MAINTENANCE CHARGES and other necessary non-capital charges (renewal and replacement and administrative costs) associated with the system will be borne by the LARGE USERS.

1.4 The recommendations of the consulting engineer, JMM, were adopted by the Broward County Board of County Commissioners on December 9, 1986.

1.5 To the best of its ability, the COUNTY will have sufficient raw water transmission and

well capacity from the PROGRAM to furnish the projected raw water needs of CUSTOMER during the entire term of this Agreement, based upon the projected raw water flow schedules as provided by CUSTOMER.

1.6 CUSTOMER agrees to purchase raw water from COUNTY in accordance with the terms and conditions set forth in this Agreement.

1.7 The authority of this Agreement is by action of the Broward County Board of County Commissioners.

1.8 Broward County's Water Supply Program, hereinafter referred to as the PROGRAM, is the future water supply plan for Broward County as defined in The Study of Water Supply and The Selection of Future Wellfield Sites in Broward County, June 1986, as approved by the County Commission, including any and all approved amendments. Amendments must be approved by the WSAB and the County Commission in the same manner as initial approval of the Program.

1.9 It is recognized that any existing public water utility, by showing a demonstrated need to join the raw water supply system, may make application to the Water Supply Advisory Board (WSAB) for inclusion in the system.

1.10 Based on expected needs the PROGRAM has been phased. Phase I includes anticipated Customers as follows: City of Dania, City of Hallandale, Broward County System 3A, City of Deerfield Beach (East) and Broward County System 2A and possibly a portion of the City of Hollywood. Phase II includes anticipated Customers as follows: City of Hollywood, City of Hillsboro Beach, and additional wells and/or pipelines to meet any additional needs of Phase I Customers.

ARTICLE 2

DEFINITIONS

Unless the context specifically indicates otherwise, the following words and phrases used in this Agreement shall have the following meanings:

2.1 Words and terms related to water and wastewater shall have the definitions listed in the "Glossary - Water and Wastewater Control Engineering, 1981", published by AWWA.

a. "COUNTY"

When used herein shall mean Broward County, a political subdivision of the State of Florida as represented by the Broward County Board of County Commissioners.

b. "COUNTY FACILITIES"

This term shall mean those facilities owned or operated, or both, by COUNTY and approved by Water Supply Advisory Board as a part of the PROGRAM and ratified by COUNTY for the purpose of providing for raw water from the Biscayne Aquifer (wells) and transmitting raw water from these wells through the POINT OF CONNECTION to CUSTOMER as shown on Exhibit "A" attached hereto.

c. "CUSTOMER'S SERVICE AREA"

This term shall mean the geographic boundaries for which the COUNTY'S RAW WATER is ultimately supplied by CUSTOMER as potable water as shown on Exhibit "B".

d. "CUSTOMER'S SYSTEM"

This term shall mean the entire water supply system of CUSTOMER including wells, raw water mains, treatment facilities, storage, transmission and distribution mains, services, and all appurtenances thereto downstream of the POINT OF CONNECTION to the COUNTY FACILITIES.

e. "LARGE USER"

This term shall include all users including Broward County's Office of Environmental Services, any municipality or other public entity which operates water treatment and distribution facilities which connect into COUNTY

FACILITIES for the purpose of receiving RAW WATER and who have entered into a LARGE USER AGREEMENT (LUA) with the COUNTY and for the purposes of each LARGE USER AGREEMENT an individual LARGE USER shall be designated as CUSTOMER.

f. "LARGE USER'S ADVISORY BOARD" (LUAB)

The term Large User Advisory Board shall mean the Board that is established and composed of representatives of LARGE USERS receiving raw water from COUNTY FACILITIES, and whose function is to serve in any advisory capacity to the Office of Environmental Services regarding rates, modification to the COUNTY FACILITIES and to perform other advisory tasks related to the use of COUNTY FACILITIES. Each LARGE USER shall be entitled to one representative on said Board.

g. "BCOES"

This term shall mean the Broward County Office of Environmental Services located at 2401 North Powerline Road, Pompano Beach, Florida 33069.

h. "OPERATION AND MAINTENANCE CHARGES"

Operation and Maintenance charges shall mean the COUNTY'S reasonable and necessary expenses of maintenance, repair, and operation of the COUNTY FACILITIES, and shall include, without limiting the generality of the foregoing, all ordinary and usual expenses of maintenance and repair, which may include expenses not annually recurring, COUNTY administrative expenses properly charged to the raw water system, and any reasonable charges for pension or retirement funds properly chargeable to the raw water systems, insurance premiums; engineering expenses relating to maintenance, repair and operation; raw water sampling cost; legal expenses, any taxes which may be lawfully imposed on the income or operations and reserves for such taxes, and any other expenses required to be paid by the COUNTY, all in accordance with the accrual method of accounting, but shall not include any deposits or transfers to renewal or replacement funds, except as provided for herein, or any deposits or transfers to the credit of the Sinking Fund, Loan Repayment Fund, and the General Reserve Fund. Each CUSTOMER shall pay a percentage of the expenses proportional to

the consumption divided by the total consumption of the COUNTY FACILITIES as defined herein.

i. "POINT OF CONNECTION"

This term shall mean the point where the CUSTOMER'S system connects to the COUNTY FACILITIES for the purpose of receiving raw water from the COUNTY FACILITIES; said POINT OF CONNECTION is described and set forth in Article 3.1 below and shown in Exhibit "A".

j. "PROGRAM"

This term shall mean the implemented recommendations for supply of raw water from COUNTY to LARGE USERS in the STUDY including amendments approved by the Water Supply Advisory Board and approved by the COUNTY.

k. "PROGRAM CUSTOMER CAPACITY"

This term shall refer to the Maximum Daily Raw Water Demand in million of gallons per day (MGD) in the year 2020 as shown in Table 3-9 of the STUDY or the modification thereof or such other flow demand substantiated by records from the CUSTOMER'S water treatment plant and operations or substantiated by growth pattern projections approved by the WSAB and approved by the COUNTY; less the permitted or desired maximum daily raw water demand supplied by the CUSTOMER'S own existing wells and shown in the year 2020 of the CUSTOMER'S initial raw water flow projections provided in Section 3.5 hereof. Said year 2020 projection should indicate CUSTOMER'S expected ultimate raw water flow needs from the PROGRAM at build-out of CUSTOMER'S SERVICE AREA.

l. "RAW WATER"

This term shall mean the untreated water extracted from the Biscayne Aquifer.

m. "RENEWAL AND REPLACEMENT FUND"

The Renewal and Replacement Fund shall be used, when necessary, for the purpose of paying the cost of upgrading or improvements to, or the significant replacement or renewal of capital assets of the COUNTY FACILITIES, or the

extraordinary repairs of said COUNTY FACILITIES. Except as provided below any amounts collected by COUNTY shall be used only for upgrading, repair, renewal, and replacements to COUNTY FACILITIES. In the event that the amount of the Renewal and Replacement Fund exceeds the amount necessary for the purposes of the Renewal and Replacement Fund as certified by a Consulting Engineer, or as provided in Section 5.1.2. such amount in excess thereof shall be used to offset OPERATION AND MAINTENANCE CHARGES.

n. "RESERVED CAPACITY"

This term shall refer to the Annual Maximum Daily Flow projection of Raw Water in MGD of the CUSTOMER'S Raw Water Flow Projections provided in Section 3.5 hereof. Such flow projection shall be as identified for year 1 of the then current CUSTOMER'S PROGRAM RAW WATER FLOW PROJECTIONS table in Section 3.5; provided, however, that flow projection must be (with the exception of the first three (3) years of projections) less than or equal to the volume shown in the fourth year projection three (3) years prior to the current table. This shall provide COUNTY a period of three (3) years to supply any increase in demand projections submitted by CUSTOMER as a revision in the raw water flow projections.

o. "STUDY"

"The Study of Water Supply and the Selection of Future Wellfield Sites in Broward County, Florida", and approved amendments thereto.

p. "TECHNICAL ADVISORY COMMITTEE"

The Water Supply Advisory Board (WSAB) may establish a "Technical Advisory Committee" consisting of members with technical and operation expertise. Each LARGE USER would have one person to serve on the Technical Advisory Committee (TAC). Such TAC member would typically be a City Engineer, Utilities Director, Public Works Director, or of similar level and background. The WSAB may also add other public agency representatives to the TAC as may be prudent and beneficial. Such members could be from South Florida Water Management District (SFWMD), United States Geologic Service

(USGS), Florida Department of Environmental Regulation (FDER) or of similar regulatory or public agency.

q. "WATER SUPPLY ADVISORY BOARD" (WSAB)
As defined in Broward County's Ordinance 84-40.

r. "WATER SUPPLY PROGRAM"
See PROGRAM

ARTICLE 3

PROVISIONS PERTAINING TO CONNECTION

TO THE COUNTY RAW WATER TRANSMISSION SYSTEM

3.1 "POINT OF CONNECTION"

Both parties agree that the POINT OF CONNECTION and meter location shall be as indicated in the attached Exhibit "A".

3.2 "TRANSFER OF LAND AT POINT OF CONNECTION"

COUNTY may locate the POINT OF CONNECTION and meter location and necessary transmission facilities on property now being used by CUSTOMER for raw water transmission or treatment facilities. CUSTOMER will convey at no cost to COUNTY either the fee simple title or appropriate easement to the property needed by COUNTY for the POINT OF CONNECTION, meter location, pump stations, transmission facilities, and such interest in property as is necessary to provide ingress and egress to COUNTY to said POINT OF CONNECTION. Such property shall be of sufficient magnitude to allow for future projected expansion. Such POINT OF CONNECTION location shall be mutually acceptable and be provided by acceptable legal instrument in a form approved by both COUNTY and CUSTOMER.

3.3 "MAINTENANCE OF CUSTOMER'S SYSTEM"

Except as provided elsewhere herein, CUSTOMER agrees to construct where necessary, and to operate and properly maintain at its own cost and expense, all water mains, treatment facilities and other required appurtenances related and directly attributable to the acceptance of COUNTY-delivered RAW WATER downstream of the POINT OF CONNECTION that are necessary to properly accept raw water from the POINT OF CONNECTION to the CUSTOMER'S SYSTEM at such elevation, pressure, and not-to-exceed flow rates as described in Sections 3.5, 3.6, and 3.7 herein.

3.4 "CUSTOMER'S SERVICE AREA"

CUSTOMER agrees that it will not provide potable water outside its CUSTOMER SERVICE AREA, (Exhibit "B"), except in the case of public health, safety, welfare or emergency, (and as provided in interlocal Agreements) unless CUSTOMER receives prior approval by the COUNTY, with such approval being the subject of a written

supplemental agreement attached hereto and made a part hereof. It is agreed that such approval will not be unreasonably withheld and it is further agreed that disclosure of all contract obligations has been made by the CUSTOMER.

3.5 "CUSTOMER'S FUTURE FLOW PROJECTION"

CUSTOMER agrees that it shall annually review its needs for raw water supply and transmission service, and, with the advice and counsel of a professional engineer, project its future needs to the best of its knowledge and ability, in the format shown below.

PROGRAM RAW WATER FLOW PROJECTIONS****

Year	Annual Avg. Daily Flow (mgd)	Max. Month Avg. Daily Flow (mgd)	Annual Max. Day Daily Flow (mgd)	Peak Hourly Flow (mgd)
1*	2.4	2.8	3.4**	4.1
2	2.5	2.9	3.5	4.2
3	2.5	2.9	3.5	4.2
4	6.0	7.0	8.4**	10.1
5	6.1	7.1	8.5	10.2
10	6.1	7.1	8.5	10.2
15	6.2	7.2	8.7	10.4
20	6.3	7.3	8.8	10.6
2020	6.5	7.5	9.1***	10.9

* October 1, 1990 through September 30, 1991

** RESERVED CAPACITY

*** PROGRAM CUSTOMER CAPACITY

**** SEE ATTACHMENT 1

These projections shall serve as a reasonable estimate of the future needs of CUSTOMER and shall be used by COUNTY for the purpose of planning expansion, construction, modification, or alteration of said COUNTY FACILITIES and shall be so used by COUNTY in determining transmission and well capacity requirements attributable to CUSTOMER in COUNTY FACILITIES. In determining when to expand or modify its

facilities, COUNTY will consider recommendations of the individual CUSTOMERS, the LARGE USER'S ADVISORY BOARD, and the TECHNICAL ADVISORY COMMITTEE. COUNTY is obligated to furnish service to CUSTOMER under this Agreement which shall be limited to a PROGRAM CUSTOMER CAPACITY as established in Table 3-9 of the STUDYor the modification thereof, as substantiated either by records from the CUSTOMER'S water treatment plant operations or substantiated by growth pattern projections approved by the WSAB and approved by the COUNTY; less the permitted or desired maximum daily raw water demand supplied by CUSTOMER'S own existing wells. Said PROGRAM CUSTOMER CAPACITY shall be that shown on the CUSTOMER'S initial "Raw Water Flow Projections" as provided in Section 3.5 With the single exception of the capital funding referenced in Section 1.3, all obligations referred to as COUNTY obligations shall mean obligations fulfilled by COUNTY with the cost borne by the LARGE USERS through charges accrued by the PROGRAM. COUNTY shall have all right and power by suit or other such proceedings at law or in equity to enforce the limitation of its obligations hereunder and to prohibit CUSTOMER or its officers, agents or employees from extracting RAW WATER from COUNTY FACILITIES which exceeds the amount of demand projections indicated in the above table. CUSTOMER agrees to furnish this projection to BCOES at the time of contract execution and thereafter no later than the first day of January of each year.

3.6 "RESERVED CAPACITY"

COUNTY'S annual obligation to furnish service to CUSTOMER under this Agreement shall be limited to the RESERVED CAPACITY as established in the table in Section 3.5 hereof. COUNTY is obligated to implement PROGRAM to provide CUSTOMER with approved RESERVED CAPACITY. This term shall refer to the Annual Maximum Daily Flow Projection of RAW WATER in MGD of the CUSTOMER'S Raw Water Flow Projections provided in Section 3.5 hereof. Such flow projection shall be as identified for year 1 of the then current CUSTOMER'S RAW WATER FLOW PROJECTIONS table in Section 3.5; provided, however, that flow projection must be (with the exception of the first three (3) years of projections) less than or equal to the volume shown in the fourth year projection three (3) years prior to the current table. This shall provide COUNTY a period of three years to supply any increase in demand projection submitted by CUSTOMER as a revision in the raw water flow projections in accordance with Section 3.5

3.7 "PRESSURES AT POINT OF CONNECTION"

COUNTY agrees that, under all operating conditions, except as provided in Article 7.6 of this Agreement, the minimum pressure in COUNTY transmission main at the POINT OF CONNECTION shall be adequate to provide the RESERVED CAPACITY to the CUSTOMER'S POINT OF CONNECTION; however, such pressure shall not exceed 30 pounds per square inch. The pressure shall be agreed to by CUSTOMER and COUNTY to fit the technical situation that exists at and downstream of the POINT OF CONNECTION.

3.8 "EQUALIZATION OF DEMAND"

CUSTOMER agrees, through the use of generally acceptable utility methods, to receive a raw water flow from the COUNTY FACILITIES through the POINT OF CONNECTION, not to exceed the RESERVED CAPACITY. In the event the CUSTOMER exceeds the RESERVED CAPACITY or Peak Hourly Flow set forth in Section 3.5, then COUNTY may impose a compensatory charge to the monthly billing to CUSTOMER as provided in Section 5.2.

3.9 "COUNTY TO INSTALL METERS"

COUNTY agrees to furnish and install a raw water metering device, housing, accessories and appurtenances of a type and design selected by COUNTY sufficient to meet the CUSTOMER'S needs and to be located at the site or sites as defined in Exhibit "A" attached hereto. COUNTY shall retain ownership of the metering device, together with the housing, accessories and appurtenances thereto. In the event the capacity of the metering device becomes inadequate for the amount of flow delivered, COUNTY shall replace the meter or install such additional metering device or devices as may be necessary.

3.9.1. "COUNTY TO MAINTAIN METER"

COUNTY agrees to have an annual inspection and report prepared regarding the condition and accuracy of the metering device performed by a representative of the manufacturer or other competent entity. A copy of the annual report on meter inspection shall be furnished to CUSTOMER. CUSTOMER shall have the right to make its own meter inspection, or to have an independent meter manufacturer authorized company check the metering equipment at any time during normal business hours provided,

however, no such inspection shall be made unless CUSTOMER shall first give COUNTY written notice of its intent to have the inspection made nor shall any such inspection be made prior to forty-eight (48) hours, excluding Saturdays, Sundays, and holidays, subsequent to the receipt of said notice by COUNTY. All cost and expense of CUSTOMER'S interim inspection shall be borne by CUSTOMER unless the meter is found to be inaccurate beyond the manufacturer's guaranteed range of accuracy, in which case the cost and expense of such interim inspection shall be borne out of OPERATION AND MAINTENANCE CHARGES. Normal maintenance of the metering device shall be performed by COUNTY. All results of interim meter inspections shall be provided to the COUNTY.

3.9.2 "PAYMENT IN CASE OF METER INACCURACY"

Both parties agree that, should the metering equipment be found to be inaccurate beyond the manufacturer's range of accuracy, the meter will be assumed to be inaccurate since midway between the previous meter check and the discovered inaccuracy or for a period of three months, whichever time should be less, and that the following month's billing will be adjusted to show a credit or additional charge to CUSTOMER for that period based on the average daily flow of the thirty (30) day period prior to the previous meter check. An additional adjustment shall be made after the meter inaccuracy has been corrected. Said additional adjustment shall show a credit or additional charge to CUSTOMER for that period based on the average daily flow of the thirty (30) day periods prior to the previous meter check and immediately after the period of inaccurate operation.

3.9.3 "PAYMENT IN CASE OF METER FAILURE"

Both parties agree that, if at any time the metering system shall be inoperative or in any way fails to provide information with respect to the quantity of flow from the COUNTY'S FACILITIES, CUSTOMER shall pay to COUNTY a per day amount using the average flow of the thirty (30) day period immediately prior to the period the meter was inoperative.

ARTICLE 4

PROVISIONS RELATING TO RAW WATER QUALITY

4.1 "RAW WATER QUALITY"

The COUNTY does not guarantee the quality of RAW WATER supplies, but agrees to supply RAW WATER of reasonable treatable quality. If through changing finished water quality standards, decreasing RAW WATER quality, or other causes, the RAW WATER is no longer or may no longer be reasonably treatable, an engineering study may be commissioned by the WSAB, and approved by the COUNTY, as a cost to the system, to determine the most economical method of achieving finished water quality standards.

The CUSTOMER shall have the right to terminate this Agreement, at no penalty to the CUSTOMER, if the quality of the raw water supplied to the CUSTOMER by the COUNTY is such that either of the following conditions are met and "confirmed". "Confirmed" shall mean an independent evaluation of the situations (a) and/or (b) below by a consulting engineer or public agency acceptable to COUNTY and CUSTOMER, approved by the WSAB and approved by the COUNTY. All confirmation costs to be borne by CUSTOMER.

a. The CUSTOMER can purchase treated potable water meeting all standards imposed by local, state and federal authorities at 30 percent less cost than the total cost to the CUSTOMER to purchase raw water from the COUNTY under this Agreement and to treat said raw water in the CUSTOMER'S water treatment plant to meet the current standards of water quality required by local, state and federal authorities.

b. The CUSTOMER can supply or have supplied raw water from another permitted source and can treat said raw water at such cost that the combined cost of raw water supply and treatment to meet all then current required water quality standards of local, state and federal authorities is 30 percent less than the combined cost of raw water purchase and treatment of COUNTY supplied raw

water to meet all current required water quality standards of local, state and federal authorities.

4.2 "RAW WATER SAMPLING"

The COUNTY shall be entirely responsible for having all raw water sampling tests required by statutory authorities performed at the well sites and in the transmission mains up to the POINT OF CONNECTION. CUSTOMER and COUNTY shall establish a sampling point at a mutually agreeable location at or near the POINT OF CONNECTION so that both parties may obtain samples of the RAW WATER delivered by the COUNTY to the CUSTOMER.

COUNTY agrees to provide for such right-of-way or privilege upon properties within its control as may be necessary to allow CUSTOMER access to the sampling point. CUSTOMER shall have the right to obtain raw water samples during normal business hours provided, however, no such inspection shall be made until CUSTOMER shall first give COUNTY written notice of its intent to obtain samples and type of analysis or test proposed, nor shall any such samples be obtained within forty eight (48) hours, excluding Saturdays, Sundays, and holidays, subsequent to the receipt of said notice by COUNTY. All costs of collecting and testing CUSTOMER requested samples shall be borne by the CUSTOMER. The COUNTY reserves the right to collect duplicate samples with the CUSTOMER. The costs of said duplicate samples shall be part of the OPERATION AND MAINTENANCE CHARGES.

ARTICLE 5

PROVISIONS PERTAINING TO CHARGES

5.1 "BASIS OF CHARGES"

Both parties agree that COUNTY shall provide raw water supply services to CUSTOMER at fees, rates and charges constituting the full cost, not to include capital cost, of such services, which shall include OPERATION AND MAINTENANCE CHARGES. Such fees, rates and charges shall be just and equitable, and COUNTY shall set the same fees, rates and charges for all LARGE USERS that are within the PROGRAM. Such fees, rates and charges shall be adopted by the COUNTY, and it shall consider recommendations of the individual CUSTOMERS and the LARGE USER ADVISORY BOARD. The COUNTY shall hold public hearings on adjustments to the rates and charges in the manner provided by law and after thirty (30) days written notice to CUSTOMER of such public hearing.

The CUSTOMER shall pay a monthly charge to COUNTY for raw water supply services provided by the COUNTY. Such charges shall include the items provided in Section 5.1.1 and 5.1.2.

5.1.1 "OPERATION AND MAINTENANCE CHARGES"

OPERATION AND MAINTENANCE CHARGES are applicable to the raw water transmission mains and well operations and facilities and appurtenances thereto. The portion of the CUSTOMER'S monthly charge attributable to such OPERATION AND MAINTENANCE CHARGE shall be based upon the actual flow used by the CUSTOMER during the billing period. Such monthly charge shall be computed as a charge per 1000 gallons passing through the meter or meters serving CUSTOMER. The rate for such per 1000 gallons charge shall be computed by dividing the budgeted annual total OPERATION AND MAINTENANCE CHARGES for each of the COUNTY'S ensuing fiscal years ending September 30 by the number of thousands of gallons of raw water which is estimated to be delivered to all the LARGE USERS of the system for that year. After the close of the fiscal year, an annual adjustment will be computed which will be based upon the actual OPERATION AND MAINTENANCE CHARGES recorded for the COUNTY FACILITIES for that fiscal year divided by the actual number of thousands of

gallons of RAW WATER provided through the system for that fiscal year. Such adjustment will be made subject to final verification of OPERATIONS AND MAINTENANCE CHARGES by annual audit performed by a Certified Public Accountant. If the annual adjustment shows that an underpayment was made by CUSTOMER, the amount due and owing shall be paid by CUSTOMER in twelve (12) equal monthly payments and shown as a separate item on the monthly bills during the next twelve (12) months after the adjustment has been made. If the annual adjustment shows that an overpayment was made by CUSTOMER, the amount due and owing CUSTOMER shall be credited to CUSTOMER in twelve (12) equal monthly installments and shown separately on the monthly bills during the next twelve (12) months after the adjustment has been determined.

5.1.2 "RENEWAL AND REPLACEMENT FUND" (R&R FUND)

A charge representing a contribution to the RENEWAL AND REPLACEMENT FUND (R&R FUND) maintained by the COUNTY shall be a surcharge of up to ten percent (10%) on each monthly bill, with such sum being deposited in the R&R Fund, with the surcharge such that the R&R Fund will be maintained at a level not to exceed five percent (5%) of the replacement cost of the COUNTY FACILITIES based upon the annual engineering report. Any amounts collected by COUNTY shall be used only for upgrading, repair, renewal and replacements to the COUNTY'S FACILITIES (as defined in Section 2.1.m). Interest accruing and any gains realized from investment of R&R FUND shall be credited to the R&R FUND.

5.2 "CHARGE FOR EXCESSIVE FLOW"

In the event that a CUSTOMER'S peak daily flow for any month exceeds the CUSTOMER'S RESERVED CAPACITY as shown in year 1 in the table in Section 3.5 for two (2) successive days then the monthly charge to the CUSTOMER shall be increased by twice (2X) the percentage that the CUSTOMER exceeds its commitment for each day thereafter that its flow exceeds RESERVED CAPACITY as shown in the table in Section 3.5. Nothing in this section shall be construed to waive or rescind any rights that COUNTY shall have pursuant to Section 3.6 relating to the limitation of COUNTY'S

obligation to provide RESERVED CAPACITY to CUSTOMER only up to the amount CUSTOMER has reserved.

In the event that CUSTOMER'S peak hourly flow for any day of the month exceeds the CUSTOMER'S projected Peak Hourly Flow as shown in year 1 in the table in Section 3.5 for two (2) successive days then the monthly charge to the CUSTOMER shall be increased by twice (2X) the percentage that the CUSTOMER exceeds its peak hourly flow commitment for each day thereafter that its flow exceeds CUSTOMERS projected Peak Hourly Flow as shown in the table in Section 3.5. If both peak hourly flow and maximum daily flow are violated within the same month only the higher penalty of the two shall apply. Nothing in this section shall be construed to waive or rescind any rights that COUNTY shall have pursuant to Sections 3.5 and 3.6 relating to the limitation of COUNTY'S obligation to provide raw water RESERVED CAPACITY to CUSTOMER only up to the amount CUSTOMER has reserved.

5.3 "REVIEWS"

COUNTY agrees that reviews of the cost of providing raw water supply services shall be made annually, based on the COUNTY'S fiscal year. The fees, rates, and charges which will be effective during the succeeding fiscal year for all LARGE USERS will be developed by the COUNTY following such annual review. In developing such fees, rates, and charges for the succeeding fiscal year, the cost of providing raw water supply services during the current fiscal year, the audited costs for the preceding fiscal year, and the anticipated changes in costs in the succeeding fiscal year, will be the preliminary basis for establishing the fees, rates and charges for the succeeding fiscal year.

5.4 "PAYMENT AND PENALTIES FOR NONPAYMENT"

Both parties agree that COUNTY shall bill CUSTOMER for raw water supply services on a monthly basis in accordance with its standard billing procedures, CUSTOMER shall pay such billings within forty-five (45) days of the date of mailing the monthly bill. Should CUSTOMER not pay within the forty-five (45) day period, CUSTOMER shall pay an interest penalty on the unpaid balance at the maximum rate allowed by State statute. Should a billing or a portion of a billing be outstanding for a period of more than sixty (60) days from the date of the original billing, then the CUSTOMER shall be considered

in default and the COUNTY, in addition to all other rights and remedies, shall have the right and power, by suit, action, mandamus or other such proceedings at law or in equity, to protect, enforce, and compel performance by the CUSTOMER and any of the officers, officials, agents, or employees of said CUSTOMER to perform and carry out its and their duties and obligations under this Agreement or applicable law.

5.5 "CUSTOMER ACCESS TO COUNTY RECORDS"

COUNTY agrees to maintain accounting records for COUNTY FACILITIES, and to have said records audited annually. COUNTY will furnish to CUSTOMER a copy of the COUNTY'S annual audit, and the most recently adopted annual budget for review. COUNTY agrees to maintain information in sufficient detail to permit CUSTOMER to ascertain the cost, as defined in Section 5.7 of raw water supply services, separate and apart from the cost of other services of COUNTY. Upon reasonable notice given by CUSTOMER, COUNTY will make available to CUSTOMER, at COUNTY'S offices, its books and records regarding operation of the raw water facilities.

5.6 "COUNTY TO HAVE JURISDICTION"

Both parties agree that COUNTY has sole and exclusive authority and jurisdiction as to administration, operation, and maintenance of COUNTY FACILITIES; establishing the annual budget, establishing and amending service fees, rates, and other charges as provided in the Broward County Code; for efficient operation and maintenance of COUNTY FACILITIES. However, with the exception of challenges to charges, COUNTY agrees to evaluate and consider implementation of the recommendations that it receives from the LUAB and TAC before making decisions in areas in which the LARGE USERS and the LUAB have an interest.

Both CUSTOMER and COUNTY agree that any LARGE USER or the LUAB may challenge the propriety of expenses charged to the operation and maintenance of the COUNTY FACILITIES through normal COUNTY budget process. However, if unsatisfied with results via the normal budget process, the LUAB may present their challenge to the Water Supply Advisory Board for their action at a public meeting and their (WSAB) recommendation to the COUNTY.

5.7 "ANNUAL AUDIT AND ENGINEERING ESTIMATES"

COUNTY shall provide raw water service to CUSTOMER at fees, rates and charges constituting the full cost, set forth herein, direct or indirect, of such services. Such cost shall include, but not be limited to, labor, material, equipment, fuel, utilities, chemicals, transportation and travel expenses, administrative expenses (including interdepartmental service costs, such as amounts attributable to services of the Finance Division, Purchasing Division, County Attorney, etc.), billing expenses, supplies, rent, insurance, employee benefits, liability and workers compensation, outside services, and any other costs of operation, maintenance, and repair to said COUNTY FACILITIES. Such fees, rates and charges shall be adopted or amended by the COUNTY only after public hearing in the manner provided by law. It is intended that fees, rates and charges to the CUSTOMER shall be based on the most recent actual or anticipated costs; however, from time to time as costs change, and as actual costs replace estimated costs, the COUNTY intends to annually review the basis upon which the prevailing fees, rates and charges have been determined.

Subsequent reviews of the cost of providing raw water supply services shall be made annually, not later than ninety (90) days prior to the end of the current fiscal year. The fees, rates and charges which will be effective during the succeeding fiscal year to the CUSTOMER, and LARGE USERS will be developed by the COUNTY following such annual review. In developing such fees, rates and charges for the succeeding fiscal year, the costs, as defined herein, during the current fiscal year, and the anticipated changes in costs in the succeeding fiscal year, will be the preliminary basis for establishing the fees, rates and charges for the succeeding fiscal year. The COUNTY shall give the CUSTOMER at least thirty (30) days notice prior to the effective date of any changes in such fees, rates or other charges. COUNTY agrees to provide the CUSTOMER with a copy of the annual audit, the annual engineering report and estimates, and the most recently approved annual budget for the COUNTY FACILITIES for review as soon as possible after completion. Upon reasonable notice given by CUSTOMER, COUNTY will make available to CUSTOMER at COUNTY'S offices, its books and records regarding operation of the COUNTY FACILITIES.

ARTICLE 6

PROVISIONS PERTAINING TO ADDITIONAL OBLIGATIONS

OF BOTH PARIES UNDER THIS AGREEMENT

6.1 "COUNTY TO EXPAND RAW WATER CAPACITY"

COUNTY agrees to provide whatever expansion to COUNTY'S FACILITIES as may be reasonably necessary to provide for CUSTOMER'S future projected demand, as established herein in Section 3.5 and 3.6, provided that upon the COUNTY'S review, a facilities expansion is determined to be appropriate. Toward this objective COUNTY will make application where feasible for appropriate financial assistance from federal, state, and local programs under which said facilities and the project may be eligible. Further, COUNTY agrees to apply applicable portions of any such assistance which may be received to offset capital costs of the COUNTY system.

6.2 "CUSTOMER TO RECEIVE RAW WATER RESERVED"

CUSTOMER agrees, during the term of this Agreement, to receive up to the raw water demand projected in Section 3.5 first, prior to utilizing any other sources, with the exception of the regulatory permitted withdrawal volume from the CUSTOMER'S own wellfield(s) existing at the effective date of this Agreement. Raw water flow demands shall not exceed amounts set forth herein in Section 3.5 and 3.6, as existing or as hereafter amended, for the length of this Agreement; and COUNTY agrees to deliver such raw water demand not exceeding amounts set forth herein in Section 3.5 and 3.6, as existing or as hereafter amended, for the length of this Agreement in accordance with PROGRAM and subsequent amendments thereto, approved by the WSAB and approved by the COUNTY. It shall be incumbent upon CUSTOMER to utilize the COUNTY FACILITIES to accept raw water. CUSTOMER shall accept a minimum flow on an annual average basis of twenty (20) percent of the PROGRAM CUSTOMER CAPACITY; however such minimum flow requirement shall not exceed 2.0 MGD nor be less than 0.5 MGD on an annual average basis. Should CUSTOMER'S annual usage be less than twenty (20) percent of PROGRAM CUSTOMER CAPACITY or 0.5 MGD, whichever is greater, CUSTOMER shall be obligated to pay charges and fees as though the RAW WATER was actually provided; however, such payment shall be limited to a maximum of 2.0 MGD on an annual basis. Said payment for minimum flow be considered as an

underpayment and shall be paid by CUSTOMER as provided in Section 5.1.1.

6.3 "CHANGES IN RESERVED CAPACITY AND PROGRAM CUSTOMER CAPACITY"

If proposed flows in the table in Section 3.5 exceed the Maximum Daily Raw Water Demand as depicted in Table 3-9 of the Study said increases in RESERVED CAPACITY and PROGRAM CUSTOMER CAPACITY must have prior approval of the WATER SUPPLY ADVISORY BOARD and of the COUNTY.

6.3.1 "CHANGES BY OUTSIDE AGENCIES"

COUNTY may revise the PROGRAM RAW WATER FLOW PROJECTIONS shown in Section 3.5 if any federal, state, or local agency promulgates regulations that require a change in scheduling or flows as defined in 3.5. If there is a determination by either party that regulations requiring change in scheduling or flows are unreasonable, either party reserves the right to challenge said regulations in court.

6.3.2 "CHANGES BEYOND COUNTY'S CONTROL"

COUNTY may revise the flow schedule for such periods as are reasonable and necessary if anticipated construction is delayed for any reason beyond the control of COUNTY. The reasons for delay may be, but are not limited to, contractor delays beyond completion date or lack of acceptance or approval by regulatory agencies.

6.4 "CUSTOMER AGREES TO PAY"

CUSTOMER agrees to establish and maintain service charges or other means of obtaining funds within its CUSTOMER'S SERVICE AREA sufficient to provide monthly payments to COUNTY for raw water supply services, and that such means shall be revised as may be required from time to time to provide sufficient funds to pay any sums due COUNTY under the terms of this Agreement.

6.5 "GRANT INFORMATION"

CUSTOMER and COUNTY agree to provide each other with all necessary information pertinent to CUSTOMER'S SYSTEM and CUSTOMER'S SERVICE AREA or COUNTY'S FACILITIES which any federal, state, or local agencies shall require in an application for financial assistance in the construction of COUNTY'S FACILITIES or CUSTOMER'S SYSTEM. Further, CUSTOMER and COUNTY agree to adopt such

regulations, execute such Agreements and do such work as said federal, state, or local agencies may require as part of COUNTY'S or CUSTOMER'S application for funds.

ARTICLE 7

PROVISIONS PERTAINING TO VIOLATIONS AND

EXCEPTIONS TO THE TERMS OF THIS AGREEMENT

7.1 "AGREEMENT NOT TO BE CANCELLED"

Both parties agree that each is undertaking a major obligation in that the COUNTY is providing a portion of CUSTOMER'S existing and future raw water flow requirements, and therefore each agrees with the other that this Agreement will not be cancelled on any conditions except as provided for herein in Section 4.1 or by a mutual cancellation agreement between the parties hereto, which will be a written document executed with the same formality and of equal dignity herewith.

7.2 "NOTICE OF VIOLATION"

COUNTY shall serve CUSTOMER with written notice stating the nature of any violation of this Agreement by CUSTOMER. Except as otherwise provided, said notice shall provide a reasonable time for the satisfactory correction thereof. CUSTOMER shall, within the period of time stated in such notice, permanently cease or correct all violations. CUSTOMER shall take necessary corrective action in accordance with the provisions of this Agreement and standard operating and administrative procedures. CUSTOMER shall serve COUNTY with written notice of any violation of this Agreement by COUNTY. Except as otherwise provided, said notice shall provide a reasonable time for the satisfactory correction thereof. COUNTY shall, within the period of time stated in such notice, permanently cease or correct all violations. COUNTY shall take necessary corrective action in accordance with the provisions of this Agreement and standard operating procedures.

If at any time CUSTOMER shall create any condition which COUNTY should determine destructive or damaging to any part of the COUNTY'S FACILITIES, COUNTY shall give ten (10) days written notice to CUSTOMER to discontinue such harmful operation or practice, within which period CUSTOMER agrees to comply. If any damages result to COUNTY FACILITIES the entire cost of such damages, judgments or both, resulting

therefrom shall be paid by CUSTOMER. In any event, proper, thorough, demonstrable proof of condition and damage must be provided by COUNTY to CUSTOMER in said written notice.

If at any time COUNTY shall create any condition which CUSTOMER should determine destructive or damaging to any part of CUSTOMER SYSTEM, CUSTOMER shall give ten (10) days written notice to COUNTY to discontinue such harmful operation or practice, within which period COUNTY agrees to comply. If any damages result to CUSTOMER SYSTEM, the entire cost of such damages, judgments or both, resulting therefrom shall be paid by COUNTY. In any event: proper, thorough, demonstrable proof of condition and damage must be provided by CUSTOMER to COUNTY in said written notice.

Both parties agree that no provisions contained herein shall be construed as preventing any agreement or arrangement between COUNTY and CUSTOMER whereby an unusual or uncharacteristic situation may be addressed by CUSTOMER and COUNTY.

7.3 "DISPUTE OVER CHARGES"

CUSTOMER agrees that, in the event of any continuing violations or disputes, or if the parties do not agree within thirty (30) days from the billing date upon the amount invoiced, or if the matter or a dispute continues unresolved for thirty (30) days from the billing date, the CUSTOMER shall automatically deliver to the COUNTY the amount billed. However, the amount of the bill that is legitimately in dispute shall be deposited for the payment of the invoice or invoices in escrow in an interest-bearing bank account in a banking institution designated by the COUNTY during such continuing claimed violation or dispute.

7.4 "FORCE MAJEURE"

Both parties agree that any restriction of raw water supply services, including COUNTY ability to supply and the ability of CUSTOMER to accept, resulting from an Act of God, fire, strikes, accidents, casualty, breakdown of or injury to machinery, pumps or pipe lines, insurrection or riot, or civil or military authority, shall not constitute a breach of

this Agreement on the part of the COUNTY or CUSTOMER and neither COUNTY nor CUSTOMER shall be liable to the other for any damages resulting from such restriction.

COUNTY agrees to provide maintenance such that the COUNTY FACILITIES are kept in reasonable operating condition. Until a written notice to the contrary may be received from federal, state, or local agencies, both parties agree to keep this Agreement in effect to the degree physically possible for the COUNTY to supply and the CUSTOMER to accept necessary quantities of RAW WATER regardless of pressure or quality.

Both parties agree that any increase in CUSTOMER demand for raw water supply services resulting from an Act of God, fire, strikes, casualty, breakdown of or injury to machinery, pumps or pipe lines, insurrection or riot, or civil or military authority, shall not constitute a breach of this Agreement on the part of the COUNTY or CUSTOMER and neither COUNTY nor CUSTOMER shall be liable to the other for any penalties or damage resulting from such demand increase until a written notice to the contrary may be received from federal, state, or local agencies.

7.5 "JURISDICTION OF OTHER AGENCIES"

Both parties agree that certain federal, state, and local agencies have some jurisdiction and control over water supply matters and should any such agency, excluding the Board of County Commissioners of Broward County, Florida, issue legally enforceable laws, regulations, mandates, or orders that may alter any of the terms and conditions of this Agreement, there shall be no liability on either party because of such action, provided that COUNTY shall not be precluded from making a necessary adjustment to the fees, rates and charges. It is further agreed that if any such agency shall request a change in the provisions of this Agreement that both parties will, by mutual agreement, make every effort to comply with such request. However, the terms of this section shall not preclude administrative or judicial challenge, or both, of such order by either or both parties hereto. This provision shall not be construed so as to permit CUSTOMER to terminate this Agreement.

7.6 "CUSTOMER WATER CONSERVATION PROGRAM"

CUSTOMER agrees to participate in any regulation by the Water Supply Advisory Board and approved by the COUNTY or any governmental agency including but not limited to South Florida Water Management District (SFWMD) as deemed necessary for the conservation of water.

Should COUNTY be requested or mandated to reduce volume and/or pressure of raw water supply in response to official regulatory requests or mandates, COUNTY may do so without constituting a violation of this Agreement. Also, no surcharging of fees as provided in Section 5.2 nor payment of fees for failure to accept minimum flows shall apply to CUSTOMER as a result of said regulatory requests or mandates. Each CUSTOMER shall respond to said official regulatory requests and mandates in proportion to the flow volumes prevailing at the time of said request or mandate.

Should CUSTOMER not respond to mandated reduction in flows per official regulatory requirements, COUNTY shall charge said CUSTOMER a surcharge to the entire flow volume. Said flow volume will be evaluated on a weekly basis and said charges shall be applied on a weekly basis. Said surcharge shall be triple (3) the degree to which CUSTOMER fails to adhere to the mandated cutback. For example, if a 15 percent cutback is mandated by the SFWMD and CUSTOMER'S demand is reduced by only 5 percent, a surcharge of (15%-5%)(3) = 30 percent would be applied to the entire flow volume taken by the CUSTOMER.

The disposition of such surcharge revenue shall be: first, to offset operation and maintenance charges to those CUSTOMERS who have met said mandated reduction in flows; second, only in the case where no LARGE USER meets said mandated reduction in flows, said surcharge funds shall go to offset operation and maintenance costs of BCOES.

ARTICLE 8

PROVISIONS PERTAINING TO THE

ADMINISTRATION OF THIS AGREEMENT

8.1 "DATE OF BEGINNING"

Both parties agree to be bound by this Agreement as of the date of its execution. COUNTY agrees that the COUNTY FACILITIES from which CUSTOMER will receive raw water pursuant to this Agreement shall be operational within a reasonable period of time. Should CUSTOMER, through no fault of COUNTY, not avail itself of the COUNTY facilities when such facilities are available, it shall pay the applicable standby charges, as defined and described in Article 8.1.2 below.

8.1.1 "DATE OF CUSTOMER CONNECTING TO COUNTY FACILITIES"

COUNTY will keep CUSTOMER informed as to the construction schedules of those facilities necessary to serve CUSTOMER. The COUNTY shall give CUSTOMER notice of the completion date as certified by its Engineer of the construction of all COUNTY FACILITIES necessary to serve CUSTOMER and CUSTOMER shall be prepared to connect CUSTOMER system to the POINT OF CONNECTION on this completion date or within sixty (60) days of the date of this notice, whichever date is later. If construction is completed at the time of execution of this Agreement, COUNTY shall given written notice thereof to CUSTOMER who shall connect to the system within thirty (30) days of receipt of written notice. Notwithstanding whether CUSTOMER accepts its allotment of RAW WATER, it shall pay standby charges which shall commence no later than 60 days from the date of notice that RAW WATER is available to the CUSTOMER.

8.1.2 "BASIS OF STANDBY CHARGES"

Should CUSTOMER fail to accept its allotment of RAW WATER on the date above agreed upon, then COUNTY will bill and CUSTOMER will pay the monthly charges set forth in Article 5 hereof as if CUSTOMER was receiving 75 percent of its Annual Average Daily Flow as projected in Article 3.5. These revenues will remain in the appropriate Fund.

8.2 "TERMINATION AND EXTENSION OF AGREEMENT"

Both parties agree that this Agreement shall begin and bind the parties as set forth in Article 8.1 hereof and shall terminate and extend as provided for in Article 7.1.

8.3 "INVALIDITY OF AGREEMENT"

Both parties agree that the invalidity of any section, clause, sentence, or provision of this Agreement shall not affect the validity of any other part of this Agreement which can be given effect without such invalid part or parts.

8.4 "BINDING ON SUCCESSORS"

Both parties agree that this Agreement shall be binding upon the successors and assigns of the parties hereto and may be enforced by appropriate action in court, or courts, of competent jurisdiction.

8.5 "LEGAL REQUIREMENTS"

Both parties agree that all legal requirements for execution of this Agreement have been performed, and each party hereto agrees to exchange with the other certified copies of the official records of its governing body which authorize the execution of this Agreement.

8.6 "GIVING OF NOTICE"

Any notice required to be given hereunder shall be considered to have been properly given if the same has been set in writing by certified or registered mail to the following:

COUNTY:

Board of County Commissioners
C/O County Administrator
4th Floor, Broward County
Governmental Center
115 South Andrews Avenue
Fort Lauderdale, Florida 33301

BCOES:

Office of Environmental Services
2401 North Powerline Road
Pompano Beach, Florida 33069

CUSTOMER:

City Manager
City of Hallandale
308 South Dixie Highway
Hallandale, FL 33009

8.7 "ALL PRIOR AGREEMENTS SUPERSEDED"

This document supersedes all prior negotiations, correspondence, conversations, agreements, or understandings applicable to the matters contained herein and the parties agreed that there are no commitments, agreements, or understanding concerning the subject matter of this Agreement that are not contained in this document. Accordingly, it is agreed that no deviation from the terms hereof shall be predicated upon any prior representations or agreements, whether oral or written. It is further agreed that no modification, amendment, or alteration in the terms or conditions contained herein shall be effective unless contained in a written document executed with the same formality and of equal dignity.

8.8 "EXECUTION"

This Agreement shall be executed in five (5) copies, each of which shall be deemed an original. CUSTOMER shall provide COUNTY with a copy of CUSTOMER'S Resolution or evidence of other action authorizing CUSTOMER to execute this Agreement, which Resolution or other document shall be attached hereto as Exhibit "C" and made a part hereof.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement on the respective dates under each signature: BROWARD COUNTY through its BOARD OF COUNTY COMMISSIONERS, signing by and through its Chairman, authorized to execute same by Board action on the 20 day of Feb, 19 90 and CITY OF HALLANDALE signing by and through its Mayor-Commissioner duly authorized to execute same.

COUNTY

ATTEST:

BROWARD COUNTY, through its
BOARD OF COUNTY COMMISSIONERS

By: _____
Scott I. Cowan, Chairman

County Administrator and Ex-Officio Clerk of the Board of County Commissioners of Broward County, Florida

20 day of Feb, 19 90

COUNTY COMMISSIONERS CREATED OCT. 1ST 1915 BROWARD COUNTY FLORIDA

Approved as to form by Broward County Attorney's Office JOHN J. COPELAN, JR. County Attorney; Governmental Center, Suite 423, 115 South Andrews Avenue, Fort Lauderdale, Florida 33301
Telephone: (305) 357-7600

By: _____
Michael J. Kerr
Assistant County Attorney

Date: 2/9/90

Print names of witnesses under their signatures.

WITNESSES:

_____
Witness Betty J. Lind

_____
Witness Ann H. Dagnon

_____
Witness

_____
Witness

CITY OF HALLANDALE

_____
Gilbert B. Stein, Mayor-Comm.

Date: 2-6-90

ATTEST:

_____
June W. Depp, City Clerk

Date: 2-6-90

(SEAL)

APPROVED AS TO LEGAL SUFFICIENCY

_____
Hallandale City Attorney

-31-

ATTACHMENT 1

WHEREAS: The City of Hallandale (hereinafter CITY) and Broward County (hereinafter COUNTY) have entered into the "Large User Raw Water Agreement"

and

WHEREAS: The CITY is desireous of using two of their own wells (wells 7 and 8) to the extent permitted

and

WHEREAS: The South Florida Water Management District (SFWMD) is the permitting agency for continued use of said existing CITY wells

and

WHEREAS: The duration of said continued permitted usage of CITY wells is unknown.

THEREFORE:

The CITY has proposed and the COUNTY accepted the PROGRAM RAW WATER FLOW PROJECTIONS in Section 3.5 of said Large User Agreement. However, should the SFWMD not continue to permit said existing CITY wells then revised PROGRAM RAW WATER FLOW PROJECTIONS attached hereto as page 2 of Attachment 1 shall be substituted within 18 months of the date of an official notification from SFWMD that existing CITY wells would have to cease operation. In the 18 month period mentioned above or in the event the SFWMD allows only limited or emergency use of the City wells, the COUNTY will use its best efforts to supply raw water from its two wells (with SFWMD concurrence) connected to CITY to meet the raw water needs projected in the PROGRAM RAW WATER FLOW PROJECTIONS on page 2 of Attachment 1. CITY will have to provide peaking capability and standby capability to meet the rest of its water needs.

Attachment 1 page 1

ATTACHMENT 1

PROGRAM RAW WATER FLOW PROJECTIONS

Year	Annual Avg. Daily Flow (mgd)	Max. Month Avg. Daily Flow (mgd)	Annual Max. Day Daily Flow (mgd)	Peak Hourly Flow (mgd)
1*	5.9	6.8	8.3	10.0
2	6.0	6.9	8.4	10.1
3	6.0	6.9	8.4	10.1
4	6.0	7.0	8.4 **	10.1
5	6.1	7.1	8.5	10.2
10	6.1	7.1	8.5	10.2
15	6.2	7.2	8.7	10.4
20	6.3	7.3	8.8	10.6
2020	6.5	7.5	9.1 ***	10.9

* October 1, 1990 through September 30, 1991

** RESERVED CAPACITY

*** PROGRAM CUSTOMER CAPACITY

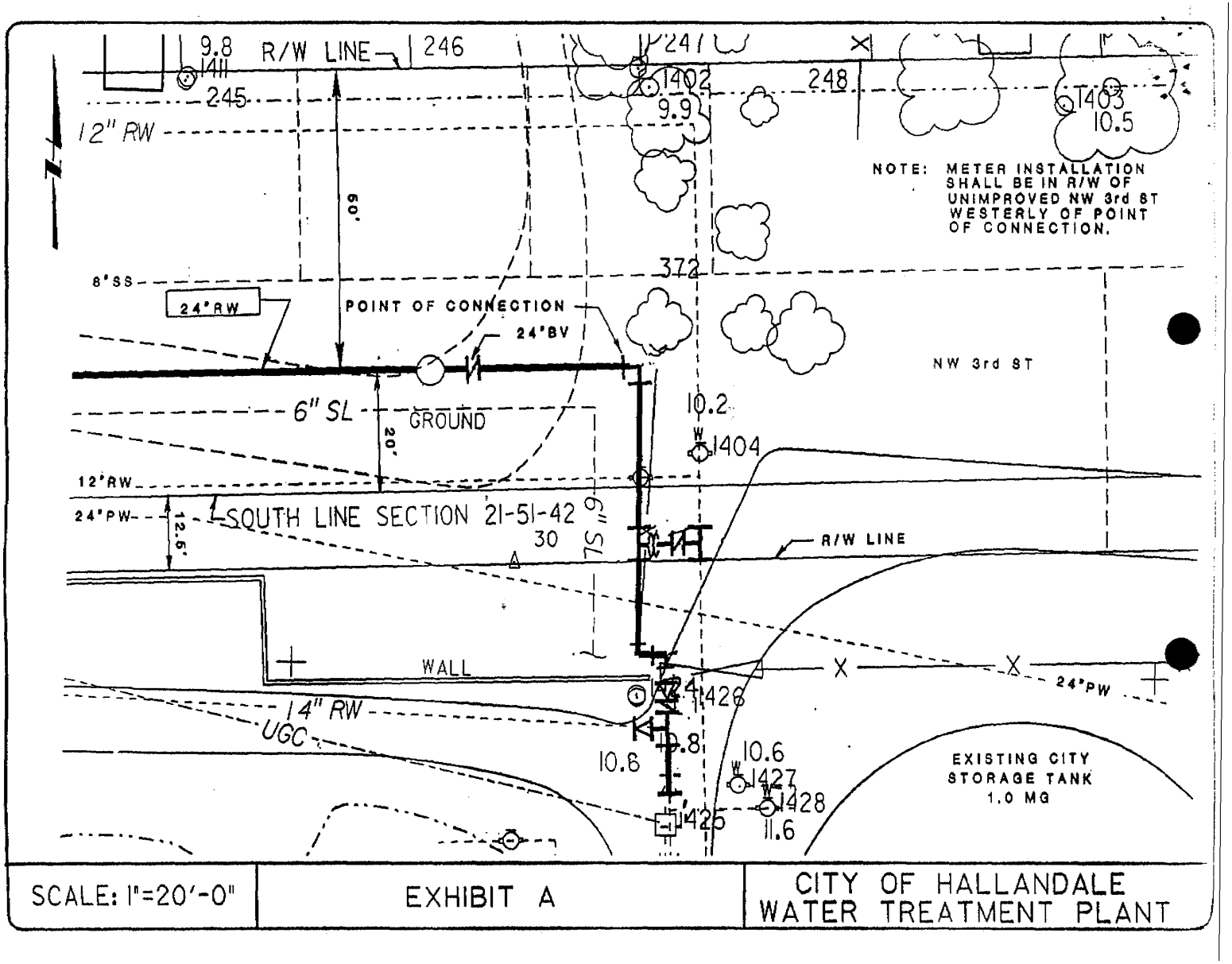

9.8
1411
R/W LINE
246
245
12" RW
60'
1402
9.9
248
1403
10.5
NOTE: METER INSTALLATION SHALL BE IN R/W OF UNIMPROVED NW 3rd ST WESTERLY OF POINT OF CONNECTION.
372
8"SS
24"RW
POINT OF CONNECTION
24"BV
NW 3rd ST
6" SL
GROUND
20'
10.2
1404
12"RW
24"PW
12.5'
SOUTH LINE SECTION 21-51-42
30
6" SL
R/W LINE
WALL
24"PW
14" RW
UGC
1426
10.8
10.6
1427
1428
11.6
1425
EXISTING CITY STORAGE TANK 1.0 MG
SCALE: 1"=20'-0"
EXHIBIT A
CITY OF HALLANDALE
WATER TREATMENT PLANT

Exhibit B

Map on hard copy

AW

City of Hallandale
FLORIDA

ADMINISTRATIVE OFFICES
308 S. DIXIE HWY.
HALLANDALE, FLORIDA 33009
PHONE 458-3251

I, JUNE W. DEPP, CITY CLERK OF THE CITY OF HALLANDALE, FLORIDA, DO HEREBY CERTIFY THE FOLLOWING TO BE A TRUE AND CORRECT COPY OF THE MOTION UNANIMOUSLY APPROVED (5/0) BY THE HALLANDALE CITY COMMISSION AT A REGULAR MEETING HELD ON TUESDAY, FEBRUARY 6, 1990, IN RE THE FOLLOWING AGENDA ITEM:

30. Consideration of approving Table 3.5 Flow Projections and Attachment 1 to the Broward County Large User Raw Water Agreement which have been proposed by County staff. CAD 52/85

"MOTION TO APPROVE TABLE 3.5 FLOW PROJECTIONS AND ATTACHMENT #1 TO THE BROWARD COUNTY LARGE USER RAW WATER AGREEMENT, SUBJECT TO THE CONDITION THAT STAFF IS TO STUDY
* TO SEE IF "(c)" IS NECESSARY; IF IT IS ADVANTAGEOUS TO THE CITY, STAFF WILL TRY TO GET THE COUNTY TO ADD IT TO THE AGREEMENT, IF POSSIBLE".

* (c) SUBSTANTIATE DECREASE IN CITY'S ABILITY TO SUPPLY RAW WATER AND/OR DECREASE IN THE AVAILABILITY OF TREATED WATER FROM NORTH MIAMI BEACH.

CITY OF HALLANDALE

June W. Depp

June W. Depp, CMC, City Clerk

DATED THIS 7TH DAY OF FEBRUARY, 1990.

EXHIBIT "C"

Appendix B: Interconnect Agreement with the City of North Miami Beach

City of North Miami Beach, Florida

CITY MANAGER

June 1, 2007

Mr. D. Mike Good, City Manager
City of Hallandale Beach
400 South Federal Highway
Hallandale Beach, Fl 33009

Re: Emergency Interconnect Agreement with the City of North Miami Beach
Notice of Interim Rate Change

Dear Mr. Good:

We would like to take this opportunity to notify you that our new alternative water supply facility is coming online this month. We will have an interim modification to our rates and charges which will be effective until our comprehensive rate and charge study can be accomplished for all of our customer classifications. We are changing the rate based upon the provisions in the March 3, 1981 agreement and Chapter 180.136 F.S. Table 1 attached hereto which provides the rates and charges that will take effect August 29, 2007.

Thank you for your time and attention to this matter.

Sincerely,

Keven R. Klopp
City Manager

Attachments

c: Kelvin L. Baker, Deputy City Manager
Miriam Bensinger, Esq., CNMB
Roz Weisblum, CNMB
Val Pagan, CPA, CNMB
Gerald C. Hartman, PE, BCEE, Hartman Consulting and Design

Table I

Interim Wholesale and Emergency Service Rate (1)

(Effective August 29, 2007 to the effective date of the next rate change)

Consumption Charge (per 1,000 gallons)

Actual Consumption (as metered)	Consumption Charge
	$1.86

(1) All other provisions of the rates as adopted and in effect October 1, 2006 shall apply.

Attachment "A"

City of North Miami Beach – Finance Department

October 1, 2006

Dear Customer,

The following are the water and sewer rates effective for all billings on or after October 1, 2006:

- The North Miami Beach water and sewer rates were increased by 2.74% (from the January 1, 2006 rates) as a result of the Annual Index Adjustment authorized by City Ordinance #2001-9.
- Homeland Security requirements and increased costs necessitated an increase of $.30 per billing unit in the Homeland Security Surcharge.
- The water conservation increments have been reduced to be more compatible with customers' actual consumption.
- Multi-unit water and NMB sewer account rates are no longer discounted and so have increased an additional 10% over the Annual Index Adjustment above.
- Single-family account rates now have a billing unit, determined by meter size, factored into the rate for water and sewer minimum charge and homeland security surcharge.

NORTH MIAMI BEACH WATER RATES

MINIMUM CHARGE (PER METER):

METER SIZE	EQUIVALENCY FACTOR	MINIMUM CHARGE
5/8"	1	$ 7.16
3/4"	1	$ 7.16
1"	2.5	$ 17.90
1-1/2"	5	$ 35.80
2"	8	$ 57.28
3"	16	$ 114.56
4"	25	$ 179.00
6"	50	$ 358.00
8"	80	$ 572.80
10"	115	$ 823.40
Metered Fireline (any size)	N/A	$ 13.32

CONSUMPTION CHARGE (PER 1,000 GALLONS):

	CONSUMPTION CHARGE
BASE CONSUMPTION: SINGLE FAMILY & NON-RESIDENTIAL 0 – 7,000 Gallons per Month MULTI-FAMILY 0 - 5,000 Gallons per Month per Unit	$1.86
FIRST CONSERVATION INCREMENT: SINGLE FAMILY & NON-RESIDENTIAL 8,000 – 12,000 Gallons per Month MULTI-FAMILY 6,000 – 9,000 Gallons per Month per Unit	$2.08
SECOND CONSERVATION INCREMENT: SINGLE FAMILY & NON-RESIDENTIAL Over 12,000 Gallons per Month MULTI-FAMILY Over 9,000 Gallons per Month per Unit	$2.58

over -

HOMELAND SECURITY CHARGE

METER SIZE	EQUIVALENCY FACTOR	HOMELAND SECURITY SURCHARGE
5/8"	1	$ 1.80
3/4"	1	$ 1.80
1"	2.5	$ 4.50
1-1/2"	5	$ 9.00
2"	8	$ 14.40
3"	16	$ 28.80
4"	25	$ 45.00
6"	50	$ 90.00
8"	80	$ 144.00
10"	115	$ 207.00

NORTH MIAMI BEACH SEWER RATES

MINIMUM CHARGE (PER METER):

METER SIZE	EQUIVALENCY FACTOR	MINIMUM CHARGE
5/8"	1	$ 12.78
3/4"	1	$ 12.78
1"	2.5	$ 31.95
1-1/2"	5	$ 63.90
2"	8	$ 102.24
3"	16	$ 204.48
4"	25	$ 319.50
6"	50	$ 639.00

CONSUMPTION CHARGE:

	CONSUMPTION CHARGE
Per 1,000 gallons	$3.76

MIAMI-DADE WASTEWATER (SEWER) DISPOSAL RATES

Monthly Rates		Quarterly Rates	
Base Facility Charge	$3.25	Base Facility Charge	$9.75
Flow Rate (per 1,000 gallons):		Flow Rate (per 1,000 gallons):	
0 to 4,000 gallons	$1.85	0 to 11,000 gallons	$1.85
4,001 to 13,000 gallons	$3.48	11,001 to 38,000 gallons	$3.48
Over 13,000 gallons	$4.50	Over 38,000 gallons	$4.50

Multi-Family Dwellings (MFD) – based on individual units for retail wastewater

Attachment "B"

Select Year: 2006 Go

The 2006 Florida Statutes

Title XII
MUNICIPALITIES

Chapter 180
MUNICIPAL PUBLIC WORKS

View Entire Chapter

180.136 Water or sewer utilities; notice.--Before a local government water or sewer utility increases any rate, charge, or fee for water or sewer utility service, the utility shall provide notice of the proposed increase to each customer of the utility through the utility's billing process. The notice shall state the date, time, and place of the meeting of the governing board of the local government at which such increase will be considered. The notice required in this section is in addition to any notice and public meeting requirements for ordinance adoption as provided by general law.

History.--s. 11, ch. 2000-350.

Copyright © 1995-2006 The Florida Legislature • Privacy Statement • Contact Us

CITY OF HALLANDALE BEACH
City of Choice

City of Hallandale Beach

400 South Federal Highway
Hallandale Beach, FL 33009-6433
Phone: (954) 458-3251
Fax: (954) 457-1342

DEC 10 2001

December 5, 2001

Ms. Jill A. Manning, P.E.
Hartman & Associates, Inc.
201 East Pine Street, Suite 1000
Orlando, FL 32801

Subject: Emergency Supply Water Service Agreement

Dear Ms. Manning:

Per your request, attached is a copy of the existing Hallandale Beach-North Miami Beach Emergency Interconnect Agreement.

Sincerely,

THE CITY OF HALLANDALE BEACH

David Pritchard

David M. Pritchard, Deputy Director,
DPW/Utilities & Engineering

DMP/sb

Attachment

cc: D. Mike Good, Director, DPW/Utilities & Engineering

WATERSUP.7/DMP

RESOLUTION NO. R81-23

A RESOLUTION APPROVING AN EMERGENCY INTERCONNECT AGREEMENT BETWEEN THE CITY OF NORTH MIAMI BEACH AND THE CITY OF HALLANDALE AND AUTHORIZING THE CITY ADMINISTRATION TO EXECUTE SAME.

WHEREAS, the City of North Miami Beach has in the past experienced situations whereby the City has required additional supplies of potable water on an emergency basis; and

WHEREAS, other municipalties in the area have experienced the same situation, specifically the City of Hallandale; and

WHEREAS, in a spirit of cooperation and in an effort to protect the public health and safety, the City of North Miami Beach and the City of Hallandale desire to enter into an emergency interconnect agreement to provide for emergency service of water in times of need through an already existing interconnect between the two City Water Systems; and

WHEREAS, the City Council of the City of Hallandale has already executed the agreement attached hereto.

NOW, THEREFORE,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF NORTH MIAMI BEACH, FLORIDA:

Section 1: That the foregoing recitals are true and correct.

Section 2: That the City Council hereby approves the agreement attached hereto for an emergency interconnect between the City of North Miami Beach and the City of Hallandale Water Systems.

Section 3: That the City Administration is hereby authorized to execute the attached document on behalf of the City of North Miami Beach.

APPROVED AND ADOPTED by the City Council of the City of North Miami Beach, Florida, in regular meeting assembled this 3rd day of March, 1981.

ATTEST:

CITY CLERK

(CITY SEAL)

MAYOR

APPROVED AS TO FORM:

CITY ATTORNEY

AGREEMENT

THIS AGREEMENT is made this 3RD day of MARCH, 1981 between the City of Hallandale and the City of North Miami Beach.

WHEREAS, the City of Hallandale is in the process of expanding its Water Plant to meet the demands resulting from the growth of the City, and

WHEREAS, the City of North Miami Beach desires to provide for emergency or unforeseen needs to meet demands upon its water supply system occasioned by emergency or unforeseen circumstances, and

WHEREAS, it is deemed in the best interests of the City of Hallandale to make provisions for supplemental water supply sources to insure that there is always a more than adequate supply of potable water to meet any demand that, however remote, might possibly arise, and

WHEREAS, it is deemed in the best interests of the City of North Miami Beach to make provisions for supplemental water supply sources to insure that there is always a more than adequate supply of potable water to meet any demand that, however remote, might possibly arise, and

WHEREAS, the City of North Miami Beach and the City of Hallandale, as neighboring Cities with existing facilities capable of furnishing potable water to each other are agreeable to entering into an agreement to furnish water to each other for the period prior to completion of the currently planned plant expansion program in Hallandale, and for any emergency or unforeseen needs of the City of North Miami Beach.

NOW THEREFORE, in consideration of the premises and other good and valuable consideration, it is agreed:

1. The City of North Miami Beach hereby agrees to supply to the City of Hallandale, potable water in such amounts as may be requested by Hallandale, from the surplus of potable water available to North Miami Beach produced by its water system over and above the needs and demands of the City of North Miami Beach and the customers of its water service area.

2. The City of Hallandale hereby agrees to supply to the

City of North Miami Beach, potable water in such amounts as may be requested by the City of North Miami Beach, from the surplus of potable water available to the City of Hallandale produced by its water system over and above the needs and demands of the City of Hallandale and the customers of its water service area.

3. Water shall be supplied through the existing inter-City connections and shall be charged for on a metered basis, at such rates as may be the prevailing bulk rate to existing bulk customers at the time of the furnishing of the water or at such rates as may be set by the Metropolitan Dade County Water and Sewer Board, or the City Council of North Miami Beach, or the City Commission of Hallandale, or such other appropriate regulatory agency having jurisdiction and authority to set rates at the time of consumption of the water. The cost of the meter and installation shall be borne by the City of Hallandale.

4. Meter or meters shall be read by the City of North Miami Beach or the City of Hallandale approximately the first of each month and payment by the user to the supplier for water consumed shall be within twenty (20) days after the furnishing of monthly bills and in the event of late payment, such penalties as are applicable to other users of the water service of the respective Cities shall apply.

5. This Agreement shall be in full force and effect until terminated upon sixty (60) days written notice by either party at its sole discretion after a determination that it is in the best interest of either respective City to terminate.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement on the respective dates under each signature.

CITY OF HALLANDALE,

BY: _____
Mayor-Commissioner

ATTEST:

_____
City Clerk

Approved as to form and Legal Sufficiency, City Attorney's Office:

BY: _____
City Attorney

CITY OF NORTH MIAMI BEACH,

BY: _____
City Manager

ATTEST:

_____
City Clerk

Approved as to form and Legal Sufficiency, City Attorney's Office:

BY: _____
City Attorney

-3-

CITY OF HALLANDALE
AND
CITY OF NORTH MIAMI BEACH, FLORIDA
PROVIDING FOR RENDITION OF WATER SERVICE

THIS CONTRACT, made and entered into this 26 day of NOVEMBER, 1986, by and between the CITY OF HALLANDALE, a political subdivision of the State of Florida, (hereinafter called "Hallandale"), party of the first part, and the CITY OF NORTH MIAMI BEACH, a political subdivision of the State of Florida, (hereinafter called the "CITY"), party of the second part;

W I T N E S S E T H:

WHEREAS, the CITY manufactures and purchases a potable water supply in excess of its daily needs for domestic and commercial consumption; and

WHEREAS, HALLANDALE desires to purchase from the CITY a supplemental supply of potable water for domestic and commercial consumption pursuant to the terms of this contract; and

WHEREAS, the CITY is willing to provide HALLANDALE with a potable water supply under the terms of this Contract;

NOW THEREFORE

IN CONSIDERATION of the covenants and agreements set forth herein to be observed and performed, the parties hereto hereby covenant and agree as follows:

SECTION I

The foregoing recitals are true and correct.

SECTION II

GENERAL PURPOSE

Insofar as it may be lawful to do so, CITY shall sell and deliver to HALLANDALE, and HALLANDALE shall purchase and receive from the CITY, a supplemental water supply which HAL-

LANDALE may elect to convert to a total supply, which shall be available for use and consumption by HALLANDALE in the amounts set forth in Section III, during the effective period of this Contract to blend with HALLANDALE'S total water supply to serve the service areas of HALLANDALE.

In addition, potable water obtained by HALLANDALE from the CITY may be utilized or blended with HALLANDALE'S total water supply to serve any additional areas which HALLANDALE may lawfully hereafter serve including, but not limited to, areas next to the CITY or service areas hereafter added in accordance with all lawful means.

In the event that, despite all reasonable diligence exercised by the CITY in developing and maintaining adequate sources of water supply, there should, at any time, be an insufficient supply of water available to fulfill the total requirements of all customers of the CITY, due to CITY water production furnishing insufficient quantities, CITY water source(s) of supply furnishing insufficient quantities, or prohibitions, restrictions, limitations or requirements of local, state or federal govenmental agencies including the Metropolitan Dade County Water and Sewer Authority having jurisdiction over such matters or due to any other cause beyond its control, the CITY shall be deemed to have fully performed its duties and to have discharged its obligations hereunder, if, in such circumstances, it shall furnish and deliver to HALLANDALE, its prorata share of such supply as is available, provided, however, that the CITY shall give expeditious notice to HALLANDALE whenever the CITY becomes aware of conditions which could reasonably lead to an outage or shortage. In this connection, the CITY agrees to use its utmost efforts and ability to meet the needs of HALLANDALE, as contemplated by this Contract; however, the CITY shall not apply preferential treatment to HALLANDALE as compared to all other CITY customers or consumers.

CITY and HALLANADALE agree that this Agreement is subject to all terms of the Memorandum of Understanding executed by CITY, HALLANDALE, Dade County and D.E.R.M., said Memorandum attached hereto as Exhibit "2".

In regard to Paragraph 2 of the Memorandum, HALLANDALE agrees to pay a proporationate share of any 40% surcharge imposed should CITY exceed 13.5 m.g.d. and should HALLANDALE exceed its maximum of 5 m.g.d. during any monthly billing period. This proportionate share shall be paid by HALLANDALE paying 40% of the prevailing WASA rate charge to CITY for all water purchased by HALLANDALE in excess of 5 m.g.d. during the monthly billing period of the surcharge.

In regard to Paragraph 7 of the Memorandum, HALLANDALE agrees to pay, in addition to such other rates and charges provided herin, an annual service fee equal to 2% of all bulk water purchased by HALLANDALE calculated at the rates established by the Authority pursuant to Section VII of its Agreement with CITY (Exhibit "1") subject to such future adjustments as may occur and subject to such meter adjustments as may occur pursuant to Section IV hereof. Said fee will be paid to CITY no later than November 15th of each year for remittance to the Authority. In no event is CITY responsible for the payment of any amount pursuant to the above-referenced Paragraph 7.

SECTION III

POINT OF DELIVERY AND METER READING

The water furnished hereunder will be delivered by the CITY, and will be accepted and received by HALLANDALE, at the following point of delivery listed below, and on or before the date listed. HALLANDALE agrees to provide the transmission main, as further described below, for delivery of the potable water supply contemplated by this Contract at the following point.

POINT OF DELIVERY	MAXIMUM DAILY FLOW AVAILABLE (GPD)	MINIMUM DAILY FLOW REQUIRED (GPD)	DATE OF AVAILABILITY
Biscayne Blvd. at County Line.	5 million gallons per day	-0-	Upon completion of construction

However, if there is an insufficient supply of water as set forth in Section II the CITY shall only be obligated to provide HALLANDALE with its pro-rata share and shall not be obligated to give preferential treatment to HALLANDALE over other CITY customers.

During the term of this Contract, HALLANDALE may request increases of the maximum allowable flow specified above and the CITY may endeavor to make available the increased flow, provided HALLANDALE has furnished ample notification to the CITY of its needs. Also during the term of this Contract, HALLANDALE may elect to purchase all its water needs from the CITY. In that event, the maximum flow indicated above shall no longer be applicable provided the CITY agrees to accommodate the request for increased gallonage.

The parties recognize that from time to time conditions may occur whereby responsible water management bodies may request or require curtailment of water and/or production. In the event any governmental regulatory agency having the duty or responsibility to issue requests or impose requirements to reduce water production and/or usage actually does so by setting a percentage reduction, either requested or ordered, the number of gallons HALLANDALE is to receive shall be reduced by the same percentage as the reduction requested or ordered, based on the average percentage reduction throughout the CITY'S service area. HALLANDALE shall be required to pay the CITY based upon the actual amount received. Upon revocation by the responsible governmental regulatory agency of the requested or required percentage reduction, the gallonage to be received by HALLANDALE as heretofore set forth shall be reinstated.

The point of delivery shall be effectuated by the construction of a 16" or larger transmission main running from the south city limit of Hallandale, south along the U.S. 1 right of way to an existing 16" water line. The entire cost associated with the construction of this transmission main, including but not limited to engineering design costs, actual construction costs, etc., shall be paid entirely by HALLANDALE. The CITY shall provide specifications relating to the safety and control devices required to be installed and paid for by HALLANDALE, and the CITY shall approve all engineering designs and specifications. HALLANDALE shall bear the entire cost and expense of obtaining such easements as may be needed and furnishing all necessary labor and materials, including the meter, required to connect with the CITY'S facilities, all in accordance with plans and specifications to be approved by the CITY. HALLANDALE will supply and install the meter at its cost and retain ownership thereof.

HALLANDALE shall convey to the CITY, by appropriate Bill of Sale, all of the right, title and interest of HALLANDALE in and to the transmission main, that is located in Dade County and the control valve at the point of delivery subject only to the refunding rights of HALLANDALE in accordance with the formula in Rule 19, Metro Dade Water and Sewer Board extension policy.

SECTION IV
METERING

HALLANDALE shall own, operate and maintain a metering system which will measure all potable water delivered by the CITY to HALLANDALE. The metering station shall be at a specific location at the above point of delivery and of a design acceptable to both parties. The meters shall be of standard make and type, pursuant to AWWA standards, installed in a readily accessible location with checking or calibration devices, and the meters shall indicate flow with an error not to exceed plus or minus two per-

cent of full scale reading. HALLANDALE, at its sole expense, shall have checked the accuracy of the metering devices once every twelve months, by a person or persons qualified to do so who shall certify as to their correctness. Such checking shall be at a reasonable time, mutually agreeable to HALLANDALE and the CITY. If found to be in error exceeding two percent of true accuracy, the meter shall be recalibrated to the satisfaction of the parties hereto at HALLANDALE'S expense. If such error of more than two percent is discovered, bills for the period following the prior meter accuracy check shall be adjusted to reflect the quantity of over-read or under-read exceeding two percent. In calculating such billing adjustment it will be assume that the meter inaccuracy existed for one-half the entire time interval between meter accuracy checks.

The billing adjustment shall be made at the same rate established in accordance with Section VII hereinafter, but the volume used in the billing calculations shall be adjusted as described above.

The CITY may request and HALLANDALE agrees to perform a meter accuracy check at any other reasonable time acceptable to both parties. If the meter is found to be in error exceeding two percent true accuracy, it shall be recalibrated as described above and the entire cost for such checking and recalibration shall be paid for by HALLANDALE. In the event the meter is found to be within the limits of accuracy described above, the cost for performing the meter accuracy check shall be paid for by the CITY.

Meters shall be read monthly by the CITY for billing purposes pursuant to Section VI below.

SECTION V

WATER PRESSURES

The water furnished by the CITY hereunder shall be delivered to HALLANDALE at the point of delivery, but the CITY shall not be responsible for water hammer in any of the pipelines of HALLANDALE nor shall the CITY be responsible for meeting any demands for water other than that required by the terms of this contract, subject, but not limited to, the provisions of Section II, IV and XII of this Contract. It shall be the obligation and duty of HALLANDALE to carry the water at its own expense from the point of delivery to the place or places of ultimate use and, in so doing, to supply and impart to the water such adequate pressure as may be necessary to provide adequate pressure at all points beyond such point of delivery, in consequence whereof the CITY shall not be responsible for insufficient pressure, occurring beyond any such point of delivery. HALLANDALE specifically agrees that it cannot draw water in such quantities as to reduce the pressure in the CITY's supply main, measured at point of delivery, to less than 44 p.s.i. In the event the pressure in the general City system falls below 44 p.s.i., the City will make its best efforts to provide a proportionate share of the total water available to Hallandale. Such share shall be at the sole discretion of the City.

SECTION VI

RATE AND AMOUNT TO BE PAID MONTHLY BY THE CITY

HALLANDALE shall pay to the CITY that rate as defined in Section VII of the Contract between the CITY and the Miami-Dade Water and Sewer Authority, dated February 25, 1982, said Section VII attached hereto as "Exhibit 1", plus the amount of fifteen (15%) percent above such rate. Further, HALLANDALE shall pay a two cents ($0.02) per thousand (1000) gallons demand charge in addition to said rate.

Payment by HALLANDALE shall be monthly and pursuant to all conditions and requirements of the Code of Ordinances of the CITY as existing at the execution of this contract and as may be amended, however, should Hallandale not concur in such amendments, it shall have the option to cancel this contract.

SECTION VII

RATES TO BE CHARGED BY HALLANDALE

HALLANDALE shall establish, impose, maintain and collect, or shall cause to be established, imposed, maintained and collected at all times throughout the effective period hereof, such rates and charges for water sold by it as will enable it to pay in full all amounts to which the CITY shall be entitled hereunder.

SECTION VIII

EFFECTIVE PERIOD OF CONTRACT

This Contract shall be and remain in full force and effect for and during a period of ten (10) years from and after its execution date; provided, however, that this Contract may be terminated at any time by Operation of Law or by mutual consent and agreement of the parties hereto. Upon termination, the parties may agree to its renewal by renogotiation unless terminated by Operation of Law. In addition, should the CITY be unable to comply with or meet any federal, state or local regulations, HALLANDALE may terminate this Agreement; provided however, the CITY shall have a reasonable amount of time to meet the requirements after being given notice of its failure to do so. Temporary failure shall not be grounds for termination.

After the term of this contract, unless a renegotiation has occurred, the transmission system built pursuant to this contract shall be part of the agreement of the parties dated March 3, 1981.

SECTION IX

MAIN EXTENSION ACT APPLICABILITY

To the extent applicable, the rules and regulations of the Metropolitan Dade County Code are recognized in this agreement and each party shall, to the extent required, comply with said rules. Insofar as the parties to this agreement are concerned and affected, the 8 (eight) year provision of the main extension Rule 19, Section 6 shall not be applicable, and there shall be no time limitation as to Hallandale's refunding rights. This Agreement is also subject to the Memorandum of Understanding between HALLANDALE and the Miami-Dade Water and Sewer Authority Department attached hereto as Exhibit "3".

SECTION X

FORCE MAJEURE

Any temporary or continuing cessation of the service by the CITY caused by an Act of God, fire, strike, casualty, necessary maintenance work, breakdown of or injuries to machinery, pumps or pipelines, civil or military authority, insurrection, riot, or any other causes, whether or not of the same kind as enumerated herein, shall not constitute a breach of the Contract on the part of the CITY, and the CITY shall not be liable to HALLANDALE for any damage resulting from such cessation of service. The CITY shall use due diligence in the operation and maintenance of its water supply and transmission facilities; however, the CITY shall not be responsible to HALLANDALE for any interruption of service due to causes beyond the CITY'S control not due to the negligence of the CITY. All of the provisions of this Section shall apply equally to obligations required by the City of HALLANDALE.

- 9 -

SECTION XI

ARBITRATION

It is agreed by and between the parties hereto that should any dispute arise concerning this Contract for service which the parties between themselves cannot adjust and reconcile, such dispute shall be settled by arbitration in this manner: either party may give to the other party the name of an arbitrator selected by it, in writing. Thereupon, within seven (7) days, such party shall designate its arbitrator, in writing, and the two so named shall then name a third, the three to hear the matter in dispute promptly; the parties agree to be bound by the decision of a majority of such three with no further action whatever. In the event that after being notified of the selection of an arbitrator the other party should fail within the time set forth to name its arbitrator, any Judge of the Eleventh Judicial Circuit of Dade County, not as such Judge but as an individual and acting unofficially, may name the arbitrator for such party, and the two so named shall then select a third and proceed as hereinbefore set forth, the parties agreeing to be bound by the findings of the arbitration.

SECTION XII

SEPARATE CONTRACT

It is understood that this Contract is separate and divisible from other existing Contracts which the CITY presently has with HALLANDALE or its predecessors and this Contract shall not effect the terms thereof unless specifically noted in this Contract.

SECTION XIII

CONTRACT BINDING UPON SUCCESSORS

This Contract shall inure to and be binding upon the successors of each of the parties hereto; provided, however, that in the event that, at any time during the effective period hereof HALLANDALE shall sell all or any portion

of its water distribution system, the purchaser thereof shall acquire no rights of any kind hereunder unless the CITY shall agree thereto in writing prior to the consummation of such sale, but all provision of this Contract shall continue to be in full force and effect and binding upon both parties hereto with respect to any or all portions of the water distribution system of HALLANDALE not covered by such sale, provided, however the foregoing provision shall not prevent lawful expansion or contraction of HALLANDALE'S water service area.

SECTION XIV

NOTICES

All notices required pursuant to this Contract shall be properly given if mailed by United States registered or certified mail addressed to the party to which notice is to be given at the following respective addresses:

City of Hallandale
308 City of Hallandale
308 South Dixie Highway
Hallandale, Florida 33009

Public Utilities Department
City of North Miami Beach
2080 Northeast 160th Street
North Miami Beach, Florida 33162

With copy to: City of North Miami Beach, City Attorney
17011 Northeast 19th Avenue
North Miami Beach, Florida 33162

The parties agree that each shall have thirty (30) days from the date of mailing of notice to correct any item in default to the satisfaction of the other.

SECTION XV

APPROVAL

This agreement shall be subject to the approval of the South Florida Water Management District. It shall be the responsibility of HALLANDALE to obtain such approval, and the CITY agrees to fully cooperate in obtaining such approval. This agreement shall be of no force and efect until and unless the approval of the South Florida Water Management

District is obtained.

IN WITNESS WHEREOF, the parties hereto have caused this instrument and an exact duplicate hereof to be executed in their names and their corporate seals affixed hereto and to said duplicate by their respective officers thereunto duly authorized, all as of the day and year hereinbefore first above written.

CITY OF HALLANDALE

ATTEST:

BY: Betty J. Lind (SEAL)
Deputy City Clerk

By: R J Intindola (SEAL)
City Manager
R. J. Intindola

STATE OF FLORIDA)
BROWARD) SS
COUNTY OF ~~DADE~~)

The foregoing instrument was acknowledged before me this 28th day of October, 1986, by R. J. Intindola, City Manager of the City of Hallandale.

Linda J. Salsberry
Notary Public - State of Florida
My Commission expires:
NOTARY PUBLIC STATE OF FLORIDA
MY COMMISSION EXP. APR 22,1990
BONDED THRU GENERAL INS. UND.

CITY OF NORTH MIAMI BEACH

ATTEST:

By: [illegible] (SEAL)
City Clerk

By: Michael Roberts (SEAL)
City Manager

STATE OF FLORIDA)
) SS
COUNTY OF DADE)

The foregoing instrument was acknowledged before me this 26th day of November, 1986, by [illegible] City Clerk, and Michael Roberts City Manager, respectively, of the City of North Miami Beach.

Marie J. Roman
Notary Public - State of Florida
My Commission expires:
Notary Public, State of Florida at Large
My Commission Expires January 29, 1988
Bonded thru Maynard Bonding Agency

Approved as to Legal Form and Sufficiency:

Richard Lorsa
Attorney of the City of Hallandale

Approved as to Legal Form and Sufficiency:

Darrel B. Maynard
Attorney of the City North Miami Beach

- 12 -

SECTION VII
RATE AND AMOUNT TO BE PAID MONTHLY BY THE CITY

The CITY shall pay to the AUTHORITY and the AUTHORITY shall accept from the CITY, as compensation for all water delivered to the CITY hereunder during each month of the effective period hereof, (1) flat monthly service charge of One Thousand, Two Hundred and Fifty Dollars ($1,250.00), and (2) the amount resulting from the multiplication of the total gallonage of water so delivered at all of the points of delivery during such month by a rate per thousand (1,000) gallons consisting of, and equal to, the sum of the following:

a. The amount of all operating and maintenance expenses experienced by the AUTHORITY during such month in connection with the operation of all property, real and personal, used or held for use for (i) the production of water from wells or other sources of supply, (ii) the pumping, transmission and storage of water prior to treatment, (iii) the treatment of water and all activities pertaining thereto, (iv) the storage of water at water treatment plants, and (v) the low pressure pumping of treated water for the purpose of sending the water from a water treatment plant through all water transmission mains leading therefrom, divided by the sum of (x) the number of thousands of gallons of treated water delivered during such month by all high pressure pumps included in the facilities described in sub-section (b) of this Section and (y) the number of thousand of gallons of water produced and treated during such month through the facilities described in this sub-section (a) for delivery to customers through facilities other than those described in said

sub-section (b) of this Section.

b. the amount of all operating and maintenance expenses experienced by the AUTHORITY during such month in connection with the operation of all property, real and personal, used or held for use for (i) the high pressure pumping of treated water for the purpose of sending the water from a water treatment plant through any water transmission main leading therefrom, (ii) the transmission of such treated water at high pressure from water treatment plants to the water distribution system of the AUTHORITY, and (iii) the transmission of treated water at low pressure from water treatment plants, the storage of such water prior to high pressure pumping, and the high pressure pumping of such water for delivery to the water distribution system of the AUTHORITY, divided by the number of thousands of gallons of treated water delivered during such month by all high pressure pumps included in such facilities.

c. a charge for interest and depreciation in an amount equal to eighty-one hundredths of one percent (0.81%) of the investment of the AUTHORITY as of the last day of such month in (i) all facilities described in sub-section (a) of this Section and (ii) all expansions, renewals, improvements and replacements of such facilities carried on the books of the AUTHORITY as "Work in Progress - Construction", divided by the sum of (x) the number of thousands of gallons of treated water delivered during such month by all high pressure pumps included in the facilities described in sub-section (b) of this

Section and (y) the number of thousands of gallons of water produced and treated during such month through the facilities other than those described in said sub-section (b) of this Section, it being agreed that the amount of the investment of the AUTHORITY in all facilities described in sub-section (a) of this Section was $59,001,170.24 as of December 31, 1980.

d. a charge for interest and depreciation in an amount equal to eight-one hundredths of one percent (0.81%) of the investment of the AUTHORITY as of the last day of such month in (i) all facilities described in sub-section (b) of this Section and (ii) all extensions, renewals, improvements and replacements of such facilities carried on the books of the Authority as "Work in Progress-Construction", divided by the number of thousands of gallons of treated water delivered during such month by all high pressure pumps included in such facilities, it being agreed that the amount of investment of the AUTHORITY in all facilities described in sub-section (b) of this Section was $29,218,433.01 as of December 31, 1980. At the end of each five (5) year period after the effective date of this contract, the AUTHORITY shall review its charge for interest and depreciation, taking into consideration costs experienced by the AUTHORITY for interest payments on future bond issues funding regional facilities, and the AUTHORITY hereby reserves the right and the CITY agrees to renegotiate the charge for interest and depreciation set forth herein to be paid by the CITY. Both parties to this Contract acknowledge that the initial interest

rate stated herein is formulated from and based upon the most recent bond sales for AUTHORITY Water Division facilities (County of Dade, Florida $26,000,000 Waterworks System Bonds, Series A, $48,000,000 Waterworks System Bonds, Series B, and $23,500,000 Waterworks Systems Bonds, Series C), having resulted in an average interest rate of 7.26%. Renegotiation of this charge for interest and depreciation on the AUTHORITY's facilities described in this sub-section and sub-section (c) above shall in no way affect the remaining portions of this Contract and shall not be construed as any right or privilege granted to the AUTHORITY to renegotiate the charges described in Section VII, sub-sections (a), (b) and (e) hereof. The AUTHORITY shall give written notice ninety (90) days in advance of the end of each five (5) year period after the effective date of this Contract to the CITY if the AUTHORITY should request such renegotiation.

e. the amount of Two Cents ($0.02) per thousand gallons of the value of the services rendered to the CITY by the AUTHORITY during such month in the partial use of the AUTHORITY's facilities for delivery of water to the CITY, in the readiness of the AUTHORITY to meet normal peak demands imposed by the CITY which are not provided for under sub-sections (a), (b), (c) and (d) of this Section in the operation, maintenance and reading of the meter or meters through which the CITY is supplied, and for other services not reflected by the partial rates developed under sub-sections (a) through (e) of this Section.

In the development of the partial rate under subsections (a), (b), (c) (d) and (e) of this Section, every main having as its primary purpose the carrying of water under high pressure from a water treatment plant to the water distribution system within the corporate limits of the City of Miami, shall be considered to be a part of the AUTHORITY's water transmission system between such water teatment plant and the point where such main shall first cross a corporate boundary of the City of Miami, and from such points to all other point within the corporate limits of the City of Miami such main shall be considered to be a part of the AUTHORITY's water distribution system. It is understood and agreed that each low pressure main is a transmission main, from its point of origin at the water treatment plant to its termination at the high-pressure pumping station wherever located.

Because the amounts of operating and maintenance expenses and of capital invested for each month during which service is rendered hereunder cannot be definitely ascertained by the AUTHORITY until about the middle of the following month, it will be necessary (i) to use, for the preparation of the monthly bill for service rendered by the AUTHORITY to the CITY hereunder, an initial rate developed through the use of the amount of operating and maintenance expenses and of capital invested for the month immediately preceeding the month during which such service is rendered, then (ii) to show on the next monthly bill the amount of adjustment required to give full effect to all provisions of subsections (a) to (e), both inclusive, of this Section. As soon as practicable, after the close of each month during which service is rendered to the CITY hereunder, the AUTHORITY shall prepare and submit to the CITY a statement showing the development of said initial rate and the amount of said adjustment, and the CITY shall have access to all accounting and engineering records and data employed by the AUTHORITY in the preparation of each such statement. The

amount shown by each such statement as due to the AUTHORITY for service rendered hereunder shall be paid by the CITY within thirty (30) days of receipt of such statement. Any bill unpaid after thirty (30) days will be rebilled to include an interest charge of eight percent (8%) per annum but not less than the legal rate of interest. Legal rate of interest is hereby defined as the rate of interest which must be paid in all cases where the law of the State of Florida allows interest without the assent of the debtor.

In each such statement all operating and maintenance expenses chargeable against the rendition of service hereunder shall be set forth in substantial conformity with the Uniform System of Accounts for Water Utilities prescribed by the National Association of Regulatory Utility Commissioners, with respect to appropriate sub-accounts included in the following entitled accounts:

1. Source of Supply Expenses
2. Pumping Expenses
3. Water Treatment Expenses
4. Transmission and Distribution
7. Administrative and General Expenses

of the "Operation and Maintenance Expense Accounts" shown in the 1976 publication for Class A and B Water Utilities of said system of accounts. For the purpose of ascertaining the amount of administrative and general expenses, including taxes assessed, if any, to be included in the operation and maintenance expenses described in sub-sections (a) and (b) hereof, the AUTHORITY shall at the end of each fiscal year determine what percentage of the total expenses, excluding administrative and general expenses, incurred by the AUTHORITY in the operation of it waterworks system during such fiscal year, was attributable to the operations described in it said subsection; shall apply such percentage each month during the ensuing fiscal year to all administrative and general expenses incurred by the AUTHORITY during such month in the operation of its waterworks system; and shall include the amount

EXHIBIT "A"

MIAMI-DADE WATER & SEWER AUTHORITY

WATER CONTRACT RATE TO NORTH MIAMI [redacted] FOR THE MONTH OF _____

AS PER CONTRACT DATED _____ BASED ON EXPENSES FOR THE MONTH OF JAN. 1981

Operation & Maintenance Expenses	OPERATION	MAINTENANCE	%
SECTION V (a)			
Source of Supply	49.09	1,267.46	
Power & Pumping	112,541.26	15,097.13	92%
Purification	299,894.30	145,784.83	
Total - Section V (a)	412,484.65	162,149.42	
		574,634.07	
SECTION V (b)			
Power & Pumping	⟨72,489.13⟩	37,980.94	
Transmission & Distribution	-0-	82,541.08	8%
	⟨72,489.13⟩	120,522.02	
Total - Section V (b)			
Total - Sections V (a) & V (b)	339,995.52	282,671.44	
		622,666.96	
Administrative & General			
Salaries		112,188.77	
Special Services		582.04	
Biological Survey		-0-	
Insurance		10,177.08	
Pension & Group Insurance		27,772.89	
Other		41,078.31	
Total Administrative & General Expenses		191,799.09	
Amount to be used 81 % 191,799.09 = 155,357.26			
Section V (a-1) 92 % of $ 155,357.26 =		142,928.68	
Section V (b-1) 8 % of $ 155,357.26 =		12,428.58	
Transmission & Distribution - Operation			
Supervision & Engineering - A/c 660 HL 662		-0-	
Supervision & Engineering - A/c 660 AO 662		-0-	
Operation - Transmission & Distribution System A/c 662 HL 663		-0-	
Operation - Transmission & Distribution System A/c 662 HP 663		-0-	
Operation - Transmission & Distribution System A/c 662 AO 663		-0-	
Transmission & Distribution - Maintenance			

SECTION V (c)		
Capital Investment	26,820,064.93	
Work In Progress	32,654,283.53	59,474
SECTION V (d)		
Capital Investment	13,516,029.25	
Work In Progress	15,863,558.33	29,379

WATER PUMPAGE

Total - Sections V (a) & V (c)	from High Pressure	7,119,053
	to Miami Springs	112,200
	to Hialeah	544,200
	to Medley Area	57,000
	7,832,453,000	
Total - Sections V (b) & V (d)	From High Pressure	7,119,053
	from High Pressure	7,119,053
	to Miami Springs	112,200
	to Hialeah	544,200
	to Medley Area	57,000
	from Other Plants	51,517.
	Purchased Water	77,170.
Total - Section V (a-1)	7,961,140,300	
	from High Pressure	7,119,053.
	from Other Plants	51,517.
	Purchased Water	77,170.
Total - Section V (b-1)	7,247,740,300	

Consumption

RATE:

V (a) 574,634.07 ÷ 7,832,453.0	.07
V (b) 48,032.89 ÷ 7,119,053.0	.006
V (a-1) 142,928.68 ÷ 7,961,140.3	.01
V (b-1) 12,428.58 ÷ 7,247,740.3	.001
V (c) 59,474,348.46 x .08 ÷ 12 ÷ 7,832,453.0	.05(
V (d) 29,379,587.58 x .08 ÷ 12 ÷ 7,119,053.0	.027

EXHIBIT II

MEMORANDUM OF UNDERSTANDING

The undersigned agree that, in addition to other pertinent terms set forth in contract documents, the following shall apply to the purchases of water and other matters set forth herein.

1. In connection with the February, 1982 water agreement as amended, between MDWASAD and the City of North Miami Beach, the City will limit water purchases to a minimum of 11.5 MGD prior to October 1, 1986 and 12.0 MGD on and after October 1, 1986, and a maximum of 13.5 MGD, except in emergency situations, for a four-year period from the date hereof or sooner if the County protection program is accomplished sooner and DERM allows the purchase of an unlimited amount.

2. If, for the reason indicated in item 1 above or another reason, the average water purchases by the City of North Miami Beach exceed 13.5 MGD during any monthly billing period, the City of North Miami Beach shall pay to Dade County a penalty surcharge of 40 percent. This penalty surcharge shall be in addition to any other rates indicated herein or in other pertinent agreement, but shall only apply to the purchase exceeding 13.5 MGD. These funds will be used to pay for additional monitoring of the Northwest Wellfield.

3. If for the reason indicated above in item 2 or another reason the average water purchases by North Miami Beach exceed 14.5 MGD during any monthly billing period, all sale of water by the City of North Miami Beach to the City of Hallandale shall be discontinued until the next billing period.

4. The 13.5 MGD indicated in Item 2 and the 14.5 MGD indicated in Item 3 will have no application in the event the City of North Miami Beach produces the legally allowed maximum output (17.6 MGD) at its Norwood-Oeffler plant. Other applicable portions of the water purchase agreement between MDWASAD and the City of North Miami Beach shall, however, remain in effect.

5. The minimum amount of water the City of North Miami Beach must buy from MDWASAD pursuant to the February, 1982 agreement as amended will be frozen at the level of 12.0 MGD from October 1, 1986 until the end of the above stated four year period (or less if

the County protection program is accomplished sooner and DERM allows the purchase of an unlimited amount). After the freeze is removed, the purchased water minimums will be as designated for the specified years in the aforesaid February, 1982 agreement.

6. In order to encourage Hallandale to develop an alternate source of water, the effective period of the agreement between Hallandale and the City of North Miami Beach will be limited to ten years from the date of execution.

7. The City of North Miami Beach shall collect from Hallandale and pay to the County a County annual service fee equal to 2% of all bulk water sales to Hallandale to cover the cost of providing certain environmental services and regulations associated with public utilities. The fee shall be based upon the sales of water for the period from the first of October through the thirtieth of September of the following year. The fee shall be due no later than the first of December of each year.

8. All County agencies will assist, to the extent possible, in any request by the City of North Miami Beach to relocate wells at the Norwood-Oeffler plant in accordance with sound sanitary engineering practices.

9. The terms of this Memorandum will remain in full force and effect on the condition that the proposed Hallandale water main extension in U. S. 1 is completed and placed into service prior to October 1, 1987. If that condition is not satisfied, the limits of purchased water specified herein shall be modified by an amendment of the terms of this Memorandum.

Sergio Pereira
County Manager, Dade County

for Buford Whitaker,
City Manager, North Miami Beach

Anthony J. Clemente
Director
Environmental Resources Management

R. J. Intindola
City Manager, Hallandale

MEMORANDUM OF UNDERSTANDING
BETWEEN THE CITY OF HALLANDALE (CITY)
AND THE MIAMI-DADE WATER AND SEWER AUTHORITY DEPARTMENT (WASAD)

The two parties hereby mutually agree to the following with respect to construction by the City of Hallandale of a 20-inch water main in the right-of-way of Biscayne Boulevard, from approximately N.E. 209th Street northward to a connection with the CITY water system.

1. The water main is being constructed by the CITY so that the CITY can obtain water service from the water system of the City of North Miami Beach.

2. At the joint request of the City of North Miami Beach and the WASAD, the construction by the CITY will include a 20 x 20 x 20 inch tee in the main and a 20-inch lateral, to be located at approximately N.E. 211th Street at a point selected by the WASAD. The lateral will extend from the main to the east right-of-way line of Biscayne Boulevard, and will include a 20-inch butterfly valve and 20-inch plug. It is understood that subsequent to Hallandale's construction, the WASAD and/or the City of North Miami Beach will remove the plug and construct facilities by which the WASAD will be able to receive water service from the water system of the City of North Miami Beach, through the main being constructed by the CITY.

3. The CITY will include in its construction contract a separate Bid Item, with separate Lump Sum Bid Price, for all labor, materials and other costs associated with constructing the 20-inch tee, lateral, valve and plug.

4. Within 30 days of the CITY making an award on its construction contract and the WASAD's receipt of a bill from the City, the WASAD will pay to the CITY a lump sum equal to the Bid Price for the 20-inch tee, lateral, valve and plug. All subsequent construction of any facilities to be connected to the lateral will be accomplished at no expense to the CITY.

5. The WASAD agrees that in the future the CITY shall be entitled to Refunds, similar to those described in "Rule 19" of the Miami-Dade Water and Sewer Board Main Extension Policy, for the costs incurred by the CITY in constructing the 20-inch main. Such Refunds shall be in accordance with the following:

   a. All usage in this Memorandum of Understanding of the terms "The Original Applicant" and "The Utility" shall apply to the CITY and the WASAD, respectively, with the same meanings as those terms have in Rule 19.

   b. In this Memorandum of Understanding, the term "Subsequent Applicant" is defined to be any future customer of "The Utility" who meets both of the following criteria.

      (1) Has applied to "The Utility" for water service to property that has a Property Line which coincides with any portion

of t east right-of-way line of Bisc e Boulevard anywhere between the north boundary of Dade County and the northerly Property Line of the Menorah Chapels, 20955 Biscayne Boulevard.

(2) Will be the first recipient of water service for that property from a new hydraulic connection to a portion of the water system of "The Utility" that is connected to the 20-inch main constructed by the CITY.

c. It is mutually understood that the above definition of "Subsequent Applicant" differs from the corresponding Rule 19 definition. In particular, the above definition: is based solely upon location of the Property Line - not the location of the hydraulic connection to the water system of "The Utility"; and does not include any time limitation. On the other hand, the Rule 19 definition is limited solely to hydraulic connections made directly to the original main during the 8 years subsequent to construction of the original main.

d. Prior to any "Subsequent Applicant" being connected to the water system of "The Utilty", said applicant will pay to the CITY a Refund equal to an Amount per Linear Foot times the number of linear feet of Property Line that coincides with the right-of-way line of Biscayne Boulevard. The Amount per Linear Foot to be used for any given "Subsequent Applicant" shall be one half of the actual total project cost of the original main, less the amount paid by the WASAD under paragraph 4 herein, divided by the length of the original main. The actual total project cost, including engineering and ~~administration~~, inspection, shall be as submitted to the WASAD by the CITY. The Amount per Linear Foot shall be adjusted each year, as of the anniversary date of award of the Construction Contract, in accordance with the Engineering News Record Construction Cost Indices for month in which the contract was awarded.

e. Refunds shall be paid by "Subsequent Applicants" to the WASAD. The amounts collected shall then be reinbursed to the City. The WASAD will not provide water service to "Subsequent Applicants" unless refunds have been paid.

6. In the event that the WASAD should enter into an agreement with any other water system to the effect that the other system will provide water service to any existing or future "Subsequent Applicants" defined by this Letter of Understanding, then the WASAD shall ensure that said agreement includes a requirement that the other water main system shall assume the commitments of "The Utility", as established by this Letter of Understanding, with respect to such "Subsequent Applicants".

For the Miami Dade Water and Sewer Authority Department

Garrett Sloan, Director

For the City of Hallandale

R.J. Intindola, City Manager

(2)

EXHIBIT IV

MIAMI-DADE WATER AND SEWER AUTHORITY DEPARTMENT

P. O. BOX 330316
MIAMI, FLORIDA 33233-0316

Main Office
3575 S. LeJeune Road
Telephone 665-7471

July 23, 1986

'86 JUL 24 P3:08

CITY OF HALLANDALE
CITY MANAGER

Mr. R. J. Intindola
City Manager
City of Hallandale
308 S. Dixie Highway
Hallandale, Florida 33009

Re: Memorandum of Understanding

Dear Mr. Intindola:

Pursuant to Paragraph 5 e of our recently executed Memorandum of Understanding, it is WASAD's intent to reimburse the City the refunds paid by "Subsequent Applicants" within 45 days of WASAD's receipt of such payments.

Very truly yours,

R. B. Lichtenstein

R. B. Lichtenstein
Contracts Officer

RBL/sl

cc: Garrett Sloan
Diane Camacho

City of North Miami Beach, Florida

PUBLIC SERVICES

April 29, 1997

Mr. R. J. Intindola
City Manager
City of Hallandale
400 South Federal Highway
Hallandale, Fl. 33009-6433

Re: Water Service Contract

Dear Mr. Intindola:

Enclosed, please find a copy of the extension contract between the City of Hallandale and the City of North Miami Beach for water service.

Should you have any questions or wish to discuss this matter, please contact my office at the above number listed below.

Sincerely,

Kelvin L. Baker
Director of Public Services

KLB:rsd

Enclosure

c: Michael J. Roberto, City Manager
Rick Hedrick, Deputy City Manager
Miriam Bensinger, Asst. City Attorney

2080 N.E. 160th STREET, NORTH MIAMI BEACH, FLORIDA 33162-4900 PHONE: (305) 948-2967 FAX: (305) 940-3948

AGREEMENT EXTENDING CONTRACT BETWEEN THE CITY OF HALLANDALE AND THE CITY OF NORTH MIAMI BEACH FOR RENDITION OF WATER SERVICE

THIS AGREEMENT entered into this 25 day of February, 1997 by and between the **CITY OF NORTH MIAMI BEACH**, a Florida municipal corporation, hereinafter referred to as **"CITY"** and **THE CITY OF HALLANDALE**, a Florida municipal Corporation, hereinafter referred to as **"HALLANDALE"**.

WITNESSETH:

WHEREAS, CITY AND HALLANDALE entered into an Agreement on November 26, 1986, a copy of which is attached hereto and incorporated herein by reference, by which Agreement, **CITY** agreed to supply potable water to **HALLANDALE**; and

WHEREAS, CITY and **HALLANDALE** entered into an Agreement on November 26, 1996, extending the original agreement for a period of 90 days; and

WHEREAS, CITY AND HALLANDALE desire to extend the provisions of the Agreement, for an additional 90 days from February 24, 1997 to May 25, 1997 in order to renegotiate the Agreement in accordance with Section VIII of the Agreement entered into November 26, 1986.

NOW THEREFORE,

IN CONSIDERATION of the mutual covenants and agreements herein contained, it is hereby agreed by and between the parties as follows:

1. **CITY** agrees to continue to provide potable water for **HALLANDALE** in accordance with the terms and conditions set forth in the Agreement entered into November 26, 1986, and previously extended to February 24, 1997 for an additional period of 90 days, pending renegotiation of the Agreement.

2. All of the terms and conditions of the original Agreement for supply and delivery of potable water to **HALLANDALE** shall remain in full force and effect through May 25, 1997.

IN WITNESS WHEREOF, THE CITY OF NORTH MIAMI BEACH AND THE CITY OF HALLANDALE have caused these presents to be executed in their respective names by the proper officials the _____day of _____, 1997.

WITNESSES:

_____

CITY OF HALLANDALE

CITY MANAGER

APPROVED AS TO FORM:

CITY ATTORNEY

ATTEST:

CITY CLERK

(CITY SEAL)

CITY OF NORTH MIAMI BEACH

Sherry L. Cavaretta
Karen D. Estrado

CITY MANAGER

APPROVED AS TO FORM:

CITY ATTORNEY

ATTEST:

CITY CLERK

(CITY SEAL)

d222497I.DOC

Appendix C: Agreement for Capacity Allocation in Phase 1 of the C-51 Reservoir

C-51 Reservoir

Original Agreement

AGREEMENT FOR CAPACITY ALLOCATION
IN PHASE 1 OF THE C-51 RESERVOIR
HALLENDALE BEACH

THIS AGREEMENT FOR CAPACITY ALLOCATION IN PHASE 1 OF THE C-51 RESERVOIR ("Agreement") is made and entered into by and between Palm Beach Aggregates, LLC, a Florida limited liability company ("Company"), with its principal offices at 20125 State Road 80, P.O. Box 700, Loxahatchee, Florida 33470, and Hallendale Beach, Florida, ("Participant"), a municipality organized and existing under the laws of the State of Florida, whose address is _____. Company and Participant shall collectively herein be called the "Parties" and each be individually identified herein from time to time as a "Party."

WITNESSETH:

WHEREAS, since 2006, Broward County, Palm Beach County and other lower east coast area water providers ("LEC Utilities") have been collaborating in the development of the C-51 Reservoir, to serve as a regional alternative water supply by storing excess wet-season storm water runoff for later distribution and use during the dry season; and

WHEREAS, after extensive study and public discussion, the C-51 Reservoir has been advanced as an innovative public-private partnership whereby interested LEC Utilities and Company would jointly develop the project with clearly defined roles for each party including the pro rata contribution of capital costs by each of the participating LEC Utilities, and following construction, the pro rata contribution of operating and maintenance costs based upon their respective storage allocation and consumptive use permit; and

WHEREAS, Company will be constructing a series of interconnected reservoirs (collectively, the "C-51 Reservoir") capable of receiving and storing water from areas under the jurisdiction of the South Florida Water Management District ("SFWMD") in South Florida ("Region"), and discharging that water back to the Region as an alternative water supply; and,

WHEREAS, it is intended that the C-51 Reservoir will be constructed in two phases. Phase 1 of the C-51 Reservoir will consist of a reservoir with 14,000 acre-feet of storage capacity and appurtenant facilities and works (the "Phase 1 Reservoir"). The Second Phase, if developed, will consist of an anticipated additional 46,000 acre-feet of reservoir storage capacity and appurtenant facilities and works (the "Phase 2 Reservoir"); and

WHEREAS, Participant is a governmental entity that owns and operates a public water utility and desires to contribute its pro rata share of the capital costs and operating and maintenance costs in exchange for a contractual allocation of the permitted storage capacity in the Phase 1 Reservoir as an alternative water supply; and

WHEREAS, Company intends to transfer ownership of the Phase 1 Reservoir, and assign this Agreement, to C-51 Reservoir, Inc., a Florida not-for-profit corporation ("C-51 NFP") on or about the thirtieth (30th) day after the date on which commercial operation of the Phase 1 Reservoir is achieved;, and upon transfer to C-51 NFP, the term "Company" as used in this Agreement shall mean C-51 NFP; and

WHEREAS, because the operation of the Phase 1 Reservoir is dependent upon the SFWMD's regional system, SFWMD has agreed to operate, maintain, repair, replace, and rehabilitate the Phase 1 Reservoir and SFWMD facilities that benefit the Phase 1 Reservoir; and

WHEREAS, the 298 Districts, special districts governed by Florida Statutes, have or will agree to provide conveyance of water from the C-51 Reservoir to the South Florida regional water system, and from the South Florida regional water system to Participant's water supply withdrawal facilities,

NOW, THEREFORE, for mutual consideration, the Parties agree as follows

1. **DEFINITIONS** – As used in this Agreement, the following terms shall have the following meanings:

1.1 **298 District(s)** – shall mean a special district or districts governed by Chapter 298, Florida Statutes that provides for the conveyance of water from the C-51 Reservoir to the

conveyance system that are needed for participants to obtain new water use permit allocations from the SFWMD.

1.2 **298 District O&M Cost Share** – shall mean the 298 Districts' costs for the operation, maintenance, repair, replacement and rehabilitation of the system conveying water from the Phase 1 Reservoir pursuant to the Conveyance System Agreement(s).

1.3 **Administrative Cost Share** – shall mean the administrative expenses of C-51 NFP, including property and liability insurance premiums, the cost of clerical assistance for processing invoices and receipt of payments for participation in the C-51 Reservoir, the cost of processing invoices and payments to SFWMD and 298 Districts, legal fees, audit costs, costs of governing board meetings, postage, supplies, permit compliance costs, other ordinary and customary expenses of maintaining and administering the Phase 1 Reservoir and C-51 NFP, contingency and reasonable operating capital reserves.

1.4 **Affiliate** – shall mean, when used to indicate a relationship with a specific Person, another Person that directly or indirectly through one or more intermediaries or otherwise, controls, is controlled by, or is under common control with, such specific Person. A company shall be deemed to be an Affiliate of another company if one directly or indirectly controls the other or if each of them is directly or indirectly controlled by the same Person.

1.5 **Alternative Water Supply** – shall have the meaning set forth in Section 373.019, Florida Statutes and the Regional Water Availability Rule.

1.6 **Annual Operations Payment** – shall mean an annual payment to C-51 NFP, in advance, for C-51 NFP's, SFWMD's and 298 District's ongoing costs of operating and maintaining the Phase 1 Reservoir and conveyance system, and related facilities and work. The initial estimated Annual Operations Payment is Thirty-Six Thousand Five Hundred Fifty-One Dollars ($36,551) per MGD of Participant's Final Capacity Allocation (see current cost estimates in Appendix B, which will be updated by Company on or before the Commercial Operation Date), and consists of the following charges: (i) SFWMD O&M Cost Share, (ii) 298 District O&M Cost Share, and (iii) Administrative O&M Cost Share.

The Annual Operations Payment will include renewal and replacement costs as provided in both the SFWMD O&M Agreement and the Conveyance System Agreement(s).

1.7 **Applicant's Handbook** – shall mean Applicant's Handbook for Water Use Permit Applications within the South Florida Water Management District, effective September 7, 2015, as amended or re-designated from time to time, or any other applicable regulatory guidance for issuance of water use permits as may be promulgated by SFWMD from time to time.

1.8 **C-51 NFP –** shall mean the C-51 Reservoir, Inc., a Florida not-for-profit corporation, formed under the laws of Florida, governed by the C-51 NFP Bylaws, attached hereto and incorporated herein as Appendix C, and upon transfer of the Phase 1 Reservoir, controlled by the Participants, as more fully described in the C-51 NFP Bylaws.

1.9 **C-51 Reservoir** – shall have the meaning set forth in the Whereas clauses and as defined in the Reservoir ERP Permit and the Reservoir Water Use Permit.

1.10 **C-51 Allocation** – shall mean the allocation granted by SFWMD, pursuant to an application by a Participant, granting Participant a consumptive use permit allocation of water corresponding to the Participant's ISU Allocation of storage in the C-51 Reservoir, whether issued as a stand-alone water use permit in lieu or a modification of the Current WUP ("New WUP Allocation"), as determined by SFWMD and Participant.

1.11 **Capacity –** shall mean an amount of Water Storage Capacity in the C-51 Reservoir, or in Phase I or sub-Phase thereof, based upon 14,000 acre-feet of physical storage capacity and stated in MGDs that is capable of being delivered, from time to time, from the C-51 Reservoir to the Regional System pursuant to the Reservoir Water Use Permit.

1.12 **Capacity Allocation Agreement –** shall mean an agreement between the Company and Participant allocating a portion of the storage capacity in Phase 1.

1.13 **Capacity Cost Share** – shall mean the Participant's cost for Final Capacity Allocation in the Phase 1 Reservoir based on $4.60 per gallon of the Final Capacity Allocation. Based

on the Initial Committed Capacity of one (1) millions gallons per day, the initial Capacity Cost Share Payment will be $4,600,000.

1.14 **Commercial Operation** – shall mean the physical and operational condition, as determined by SFWMD, pursuant to the Reservoir Water Use Permit, whereby a particular Phase or sub-Phase of the construction of the C-51 Reservoir has been completed in all material respects and is capable of operating such that the Final Capacity Allocation is available for allocation to Participant.

1.15 **Commercial Operation Date** – shall mean the date upon which Commercial Operation has been achieved. SFWMD will conduct operational testing for two years after the Commercial Operation Date to identify any necessary or desirable Contractor Warranty and Manufacturers' Warranties repairs, but such operational testing will not extend the Commercial Operation Date.

1.16 **Construction Financing** – shall mean financing agreement(s) obtained by Company from Financing Party to fund the costs of construction of the Phase 1 Reservoir.

1.17 **Contractor Warranty –** shall mean the construction warranty from the general contractor for the Phase 1 Reservoir to the Company, in which the general contractor warrants to the Company that the Phase 1 Reservoir construction conforms to the requirements of the Phase 1 Reservoir construction plans and specifications and the Reservoir Water Use Permit and Reservoir ERP Permit and will be free from defects and fit for the purpose for which it was intended. The Contractor Warranty shall be assigned to C-51 NFP at the time of transfer of this Agreement to C-51 NFP.

1.18 **Conveyance System** – shall mean the pumping, inflow and outflow structures, and network of canals, waterways, and other water bodies that are capable of transporting water from the C-51 Reservoir to such parts of the Regional System as are necessary for Participant to obtain its New WUP Allocation.

1.19 **Conveyance System Agreement** – shall mean an agreement between the Company and a 298 District, wherein the 298 District agrees to provide for the conveyance of water from

the C-51 Reservoir to such parts of the Conveyance System as are necessary for Participant to obtain its New WUP Allocation.

1.20 **Current WUP** – shall mean the water use permit issued to Participant from SFWMD in effect at the time of execution of this Agreement.

1.21 **FDEP** – shall mean the Florida Department of Environmental Protection.

1.22 **Final Capacity Allocation** – shall mean either the C-51 Allocation, or Participant's Initial Committed Capacity if Participant waives the condition precedent of receiving a New WUP Allocation pursuant to § 12.1.(b) of this Agreement.

1.23 **Financing Documents** – shall mean all of those documents, instruments and agreements between Company or its Affiliates and any of the Financing Parties or otherwise related to the financing provided by the Financing Parties from time to time, including, but not limited to, promissory notes, bonds, commercial paper, mortgages, UCC filings, liens, security agreements, pledges, guarantees, sureties, letters of credit, and collateral assignments.

1.24 **Financing Party**– shall mean a lender, security holder, credit agency, multilateral institution, equity provider, bond holder, underwriter or other entity or any combination thereof, providing financing or refinancing to or on behalf of any of the financing parties or the company's successors and assigns, or any trustee or agent acting on behalf of any of the financing parties or the trustees or agents' successors and assigns.

1.25 **Force Majeure** – shall mean a hurricane, earthquake, or other casualty caused by nature, or labor strike, war, or law, order, proclamation, regulation, or ordinance of any governmental agency that prevents the performance of this Agreement, or any obligation hereunder.

1.26 **Initial Committed Capacity –** shall mean one (1) million gallons per day.

1.27 **ISU** – shall mean an Independent Secondary User, as defined in Section 2.0, Subsection 2.3.2, Subsection C of the Applicant's Handbook, or its equivalent under the Reservoir Water Use Permit as determined by SFWMD.

1.28 **Local Government Prompt Payment Act** – shall mean Section 218.70, et al., Florida Statutes.

1.29 **Manufacturers' Warranties** – shall mean the manufacturers' warranties for materials and equipment incorporated into the Phase 1 Reservoir construction, e.g., pumps, motors, gates, etc..

1.30 **MGD** – shall mean million gallons per day.

1.31 **Month or Monthly** – shall mean a period extending from 9:00 a.m. Eastern Time on the first Day of a calendar month and ending at 8:59 a.m. Eastern Time on the first Day of the succeeding calendar month, unless otherwise agreed to by the Parties.

1.32 **Operations Agreement** – shall mean the Operation and Maintenance Agreement between SFWMD and Company for the Phase 1 Reservoir.

1.33 **Phase or sub-Phase** – shall mean a particular phase of development and construction of a portion of the C-51 Reservoir, the Reservoir ERP Permit, and the Reservoir Water Use Permit.

1.34 **Phase 1 Reservoir** – shall mean the first Phase to be constructed on the Phase 1 Site, with an anticipated Capacity of approximately thirty-five (35) MGD, with actual capacity to be determined in the Reservoir Water Use Permit.

1.35 **Phase 1 Site** – shall mean an area owned by Company in Palm Beach County, Florida, that is located generally west of SFWMD L-8 Reservoir and north of State Road 80, all as described in Appendix A, upon which the Phase 1 Reservoir will be constructed.

1.36 **Phase 2 Reservoir** – shall mean the second Phase of the C-51 Reservoir to be constructed on adjacent Company property, the proposed capacity of which remains to be determined.

1.37 **Project Sanction Date** – shall mean the date that Company delivers Notice to Participant that it has sufficient permits, commitments, and financing to move forward with the construction of the Phase 1 Reservoir in accordance with this Agreement.

1.38 **Regional Water Availability Rule** – shall mean Section 3.2, Subsection 3.2.1, Restricted Allocation Areas, Subsection E, of the Applicant's Handbook, as amended from time to time.

1.39 **Regional System** – shall mean the SFWMD regional water system, as described in the Applicant's Handbook.

1.40 **Reservoir ERP Permit** – shall mean the Environmental Resource Permit No. EC 50-0301070-002 issued by FDEP to Company for the C-51 Reservoir, as such Reservoir ERP Permit may be amended and renewed from time to time.

1.41 **Reservoir Water Use Permit** – shall mean the Consumptive Use Permit No. EI 50-301070-003 issued by FDEP to Company for water use for the Phase 1 Reservoir, as such Reservoir Water Use Permit may be amended and renewed from time to time.

1.42 **SFWMD O&M Cost Share** – shall mean the cost for the operation, maintenance, repair, replacement and rehabilitation of Phase 1 by SFWMD pursuant to the Operations Agreement, as provided in Section 6.3 below.

1.43 **Shared Infrastructure Costs** – shall mean the capital costs incurred by Company during construction of the Phase 1 Reservoir that provide shared benefit with Phase 2 of the C-51 Reservoir if Phase 2 is constructed in the future, including the costs related to the construction of the connection between the L-8 Reservoir and the Phase 1 Reservoir.

1.44 **Total Allocated Capacity** – shall mean the Capacity in the Phase 1 Reservoir allocated from time to time by Company to all ISU's, including Participant.

1.45 **Water Availability Rule** – shall mean Section 3.2.1 E in the Applicant's Handbook.

1.46 **Water Storage Capacity** – shall mean the capacity of water from the Regional System that may be impounded in the Phase 1 Reservoir pursuant to the Reservoir Water Use Permit.

2. C-51 RESERVOIR

2.1 Company shall own and construct the Phase 1 Reservoir on the Phase 1 Site, pursuant to the Reservoir ERP Permit, and the Reservoir Water Use Permit with a Total Allocated Capacity sufficient to provide Participant the Final Capacity Allocation.

2.2 Company shall comply with the requirements of the Reservoir ERP Permit, and the Reservoir Water Use Permit.

3. TERM OF AGREEMENT; TERMINATION

3.1 **Term of Agreement.** The Term of this Agreement shall commence on date the last party executes the Agreement and shall extend for the earlier of (i) the useful life of the Phase 1 Reservoir, as may be extended through renewal and replacement, (ii) the term of the Reservoir Water Use Permit, as renewed from time to time, or (iii) the term of the C-51 Allocation, as renewed from time to time.

3.2 **Termination.** Upon delivery of written notice to Company, as defined by Article 15 below, Participant may terminate this Agreement:

3.2.1 If Company fails to notify Participant, on or before June 30, 2018, that it has sufficient permits, commitments, and financing to commence the construction of the Phase 1 Reservoir; or

3.2.2 Pursuant to the provisions of Section 12.2; or

3.2.3 If Company fails to achieve Commercial Operation within thirty (30) months after the Project Sanction Date, provided, however, that the deadline to achieve Commercial Operation shall be extended automatically for a period of six (6) additional months in the event a surety under any completion or

performance surety agreement exercises its surety rights to complete the Phase 1 Reservoir (the "Long-Stop Date").

3.3 If Participant has not terminated the Agreement pursuant to Section 3.2.1 or Section 3.2.2, then Participant may not terminate the Agreement prior to the Long-Stop Date or prior to payment of the Capacity Cost Share, except pursuant to Section 3.2.3 or in the event of Force Majeure (other than a change in law) that may delay payment.

4. ALLOCATION OF CAPACITY BY COMPANY

4.1 Participant shall apply to SFWMD for, and undertake reasonable efforts to obtain, a C-51 Allocation equal to or greater than the Initial Committed Capacity.

4.2 Commencing on the Commercial Operation Date, Company shall commit to provide to Participant Participant's Final Capacity Allocation in the Phase 1 Reservoir.

4.3 The Parties acknowledge that SFWMD shall be responsible for the operation, maintenance, repair, replacement, and rehabilitation of the Regional System necessary for conveyance of the water from the C-51 Reservoir to the Regional System and from the Regional System to Participant's water supply withdrawal facilities. Notwithstanding Company's commitment to provide the Final Capacity Allocation to Participant, Company shall not be responsible for, and undertakes no obligation to Participant for, physical delivery or conveyance of water from the Phase 1 Reservoir to Participant. Company's sole obligation to Participant shall be Company's continued compliance with this Agreement, the Reservoir ERP Permit, the Reservoir Water Use Permit.

5. CONVEYANCE SYSTEM AGREEMENTS

5.1 On or before the Commercial Operation Date, Company will use its best efforts to enter into or cause to be entered into one or more Conveyance System Agreements to meet the requirements of the C-51 Allocation

6. PAYMENT FOR CAPACITY ALLOCATION

6.1 Prior to the Commercial Operation Date, Participant shall not be required to make any payments to Company under this Agreement.

6.2 Company shall provide Participant Notice within ten (10) days after reaching the Commercial Operation Date.

6.2.1 Within thirty (30) days after receipt of the Notice of the Commercial Operation Date (the "Payment Date"), Participant shall pay Company for the Capacity Cost Share.

6.2.2 In the event Company or SFWMD receives any grants of public funds to offset or supplement the costs of development and construction of the Phase 1 Reservoir from any governmental entity (not including payments under a capacity allocation agreement, reservation for future users or other agreement for storage capacity to be used by SFWMD), then Company shall refund to Participant a proportionate share of the grants based on Participant's Final Capacity Allocation. Grants do not include in-kind benefits or services provided by the State of Florida, SFWMD, or other governmental entity.

6.2.3 In the event Company undertakes the development and construction of the Phase 2 Reservoir, in its sole discretion, then upon completion and placement into service of the Phase 2 Reservoir, Company will collect sufficient funds from the Phase 2 participants to refund to Participant a proportionate share of the Shared Infrastructure Costs determined as follows: Multiply the Shared Infrastructure Costs by a fraction, the numerator of which is the Water Storage Capacity and the denominator of which is the sum of the Water Storage Capacity and the water storage capacity of the Phase 2 Reservoir (resulting in the "Shared Infrastructure Cost Allocation"), and then multiply the Shared Infrastructure Cost Allocation by a fraction, the numerator of which is Participant's Final Capacity Allocation and the denominator of which is the Water Storage Capacity (resulting in the "Shared Infrastructure Reimbursement Amount"). The Shared Infrastructure Reimbursement Amount shall be reimbursed to Participant within ninety (90) days after Company delivers the Phase 2 Reservoir for use by the participants in the Phase 2 Reservoir.

6.2.4 In the event Company receives any grants to offset the costs of development and construction of the Phase 2 Reservoir, then Company shall request that the grants be allocated proportionately between the Phase 2 Reservoir and the Phase 1 Reservoir so that Phase 1 participants may receive the benefit of a proportionate share of the grants.

6.2.5 Company shall not charge or assess Participant for any costs related to or arising out of another person's reservation of capacity in the Phase 1 Reservoir.

6.3 In addition to the Capacity Cost Share Payment set forth in Section 6.2 above, on or before October 1 of each year beginning at least six (6) months after the Commercial Operation Date and continuing for the remainder of this Agreement, Participant shall make an Annual Operations Payment to C-51 NFP, in advance. On or before the Commercial Operation Date, Company will pre-fund with C-51 NFP the initial advance Annual Operations Payment.

6.4 The Annual Operations Payment will be automatically adjusted for the following year based on actual costs incurred by C-51 NFP, which costs will be passed through to the participants. In the event actual annual costs exceed or are reasonably anticipated to exceed the annual cost estimates, C-51 NFP shall submit to Participant an invoice detailing the amount by which the actual costs exceeded or are anticipated to exceed the annual cost estimates. In the event C-51 NFP's actual annual costs are lower than annual cost estimates (as determined after receipt of C-51 NFP's annual audit), C-51 NFP shall submit to Participant a notice detailing the amount by which the actual annual costs were lower than annual cost estimates, which amount will be credited against Participant's next Annual Operations Payment.

6.5 Company intends to enter into one or more financing transactions (and refinancing transactions from time to time) to fund the construction, completion, renewal, and replacement of the C-51 Reservoir, in which financing(s) Company intends to pledge Company's receipt of the Capacity Cost Share Payment and Annual Operations Payment by Participant under this Agreement as security to the Financing Party. Participant

consents to such pledge or pledges, and agrees to execute such Financing Documents, and make such representations and warranties, from time to time, as may be required by the Financing Party to confirm Participant's obligations under this Agreement. As part of financing transactions, Company may grant the Financing Party a mortgage or other security lien on the Phase 1 Site, and Participant consents to any such mortgage or other security lien. Participant agrees to reasonably cooperate with Company in customary due diligence, disclosure and rating processes in relation to financing transaction(s). In the event Company utilizes an underwritten bond issuance for Construction Financing, Company agrees to (i) retain an established bond trustee to receive bond proceeds and pay construction costs, and (ii) share any savings realized from any refinancing/refunding of such bonds equally with Participants (pro rata among the Participants based on percentage of Capacity reserved). Under no circumstances shall Participant pledge the full faith and credit of Participant to the Financing Party or otherwise guarantee or pledge Participant's assets or credit to secure any Company financing.

6.6 Participant acknowledges that entering into this Agreement and payment of Capacity Cost Share and Annual Operations Payment do not convey any ownership, equity, or property rights in the C-51 Reservoir, other than the Final Capacity Allocation as provided in Section 4.

7. BILLING AND PAYMENT

7.1 On an annual basis in advance, no later than August 1 of each year, Company shall provide Participant with an annual billing report (the "Annual Billing Report") of Participant's Annual Operations Payment, calculated in accordance with Section 6. The Annual Billing Report, to be provided to Participant by Company in both written and electronic form, shall contain at least the following information:

7.1.1 The total Annual Operations Payment;

7.1.2 The number of MGDs of Participant's Final Capacity Allocation;

7.1.3 The then-current SFWMD O&M Cost Share;

7.1.4 The then-current 298 District O&M Cost Share;

7.1.5 The then-current Administrative Cost Share; and

7.1.6 Such other information, data, or calculations as Participant or Company deems reasonably necessary to adequately calculate payment or credit amounts.

7.2 The Annual Operations Payment as set forth in the Annual Billing Report is due in advance on or before October 1st of each year. All payments due from Participant and not made within the time specified by the Local Government Prompt Payment Act shall bear interest at the rate and in accordance with the terms established from time to time in the Local Government Prompt Payment Act. In the event the Local Government Prompt Payment Act is repealed and no successor legislative act enacted, then payment shall be made by Participant within thirty (30) days of the due date, and all past due payments shall bear interest after the due date at the uncompounded rate of one percent (1%) per month on the unpaid balance. Company shall provide Participant a report of any interest accrued on a monthly basis. Unpaid interest is compounded monthly.

7.3 Within thirty (30) days after receipt of an Annual Billing Report, Participant shall review its contents and advise Company in writing of any known errors or misstatements contained therein. Failure of Participant to notify Company of any known errors or misstatements by 60 days after discovery shall extinguish Participant's right to any billing adjustment(s). Company shall provide Notice to Participant of any errors or misstatements contained in an Annual Billing Report discovered by Company within five (5) years of delivery of the Annual Billing Report to Participant.

7.4 Subject to Section 7.3 above, if any errors or misstatements should arise in connection with any portion of any Annual Billing Report and be discovered by either Participant or Company, the Parties agree to proceed in good faith to expeditiously seek to settle any such items. Adjustments to the Annual Operations Payment shall be added to, or credited against, the next Capacity Allocation Payment then due, or paid in full by the applicable

Party in the event adjustments have not been fully recovered before this Agreement expires or is terminated.

7.5 Currently, Company is not aware of any tax, assessment, or other impositions for which Participant may be liable in accordance with applicable law as a result of its purchase of Final Capacity Allocation in the Phase 1 Reservoir from Company, (*e.g.*, State of Florida sales tax. In the event of any material change in tax law(s), the Parties will enter into negotiations in an attempt to formulate an appropriate amendment to this Agreement. Participant shall not be responsible for payment of any of Company's local, state, or federal taxes, except as may be required by a material change in applicable law.

7.6 Participant acknowledges that the Annual Operations Payment is an operating expense of Participant. Participant shall fix, establish and maintain such rates, fees, and charges and shall collect such fees, rates, or other charges for the products, services, and facilities of Participant's utility system, and revise the same from time to time, whenever necessary, to ensure that its rates, fees, and charges are adequate at all times to pay in each fiscal year the Annual Operations Payment together with all other operating expenses of Participant's utility system.

8. OPERATION AND MAINTENANCE OF THE C-51 RESERVOIR

8.1 The Parties acknowledge that SFWMD will be responsible for operating and maintaining the Phase I Reservoir pursuant to the Operations Agreement. Notwithstanding Company's allocation of the Final Capacity Allocation to Participant, Participant acknowledges that Company shall not be responsible for and undertakes no obligation to operate and maintain the C-51 Reservoir. It shall not be a default of Company's obligations to Participant or a Force Majeure event if SFWMD issues water use restrictions or takes other actions pursuant to its regulatory authority that may impact the C-51 Allocation or the Current WUP, all of which are expected to be addressed in Participant's New WUP. But, if SFWMD provides ninety (90) days' written notice of its decision to elect not to maintain or operate the C-51 Reservoir under the Operations Agreement, Company shall seek to enter into an agreement with another entity to operate and maintain the C-51

Reservoir on substantially the same terms as the Operations Agreement within the ninety (90) days' notice period from the SFWMD.

8.2 Participant may, from time to time during regular business hours and with reasonable prior written notice to Company, have access to inspect the operation and maintenance of the C-51 Reservoir, provided that Participant's inspections shall not unreasonably interfere with SFWMD's operation or maintenance of the C-51 Reservoir.

8.3 Company shall use reasonable efforts to obtain and maintain any and all governmental permits, certifications or other authorizations which are required by applicable law as prerequisites for Company's engaging in the activities envisioned by this Agreement.

8.4 The Manufacturers' Warranties shall be assigned to C-51 NFP at the closing of the Reservoir transfer agreement between Company and C-51 NFP and transfer of this Agreement to C-51 NFP.

9. INSURANCE

9.1 Company shall provide and maintain, at a minimum, the following insurance coverage and limits at all times during this Agreement. Any policy or policies providing coverage on a claims-made basis shall remain in force for at least five (5) years after expiration of this Agreement. Proof of coverage shall be provided to Participant within five (5) days after a written request.

9.1.1 Commercial General Liability insurance with minimum limits of $10,000,000.00 per occurrence combined single limit for bodily injury or property damage and $10,000,000.00 per aggregate. Policy shall include coverage for: premises and construction operations; independent contractors; products and completed operations; explosion, collapse and underground hazards; broad form contractual liability; personal injury; non-owned watercraft as applicable; broad form property damage; broad form named insured endorsement, and non-owned aircraft as applicable. Policy shall be endorsed to include "Broward County and the Board of County Commissioners" as an additional insured.

9.1.2 Pollution Liability Insurance with minimum limits of $5,000,000.00 per claim. Policy shall include coverage for sudden and accidental events.

9.2 Each policy shall be endorsed to include Participant and its governing board as an additional insured. Any policy or policies providing coverage on a claims-made basis shall remain in force for at least 5 years after expiration of this Agreement. Proof of coverage shall be provided to Participant within 5 days of a written request.

10. LIMITATIONS OF LIABILITY

TO THE FULLEST EXTENT PERMITTED BY LAW, NEITHER PARTY, NOR ITS RESPECTIVE OFFICERS, DIRECTORS, AGENTS, EMPLOYEES, MEMBERS, PARENTS, SUBSIDIARIES OR AFFILIATES, SUCCESSORS OR ASSIGNS SHALL BE LIABLE TO THE OTHER PARTY OR THEIR RESPECTIVE OFFICERS, DIRECTORS, AGENTS, EMPLOYEES, MEMBERS, PARENTS, SUBSIDIARIES OR AFFILIATES, SUCCESSORS OR ASSIGNS, FOR CLAIMS, SUITS, ACTIONS OR CAUSES OF ACTION FOR INCIDENTAL, INDIRECT, SPECIAL, PUNITIVE, MULTIPLE OR CONSEQUENTIAL DAMAGES CONNECTED WITH OR RESULTING FROM PERFORMANCE OR NON-PERFORMANCE OF THIS AGREEMENT, OR ANY ACTIONS UNDERTAKEN IN CONNECTION WITH OR RELATED TO THIS AGREEMENT, INCLUDING WITHOUT LIMITATION, ANY SUCH DAMAGES WHICH ARE BASED UPON CAUSES OF ACTION FOR BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE AND MISREPRESENTATION), BREACH OF WARRANTY, STRICT LIABILITY, STATUTE, OPERATION OF LAW, UNDER ANY INDEMNITY PROVISION OR ANY OTHER THEORY OF RECOVERY. IF NO REMEDY OR MEASURE OF DAMAGES IS EXPRESSLY PROVIDED HEREIN, THE OBLIGOR'S LIABILITY SHALL BE LIMITED TO DIRECT DAMAGES ONLY, AND SUCH DIRECT DAMAGES SHALL BE THE SOLE AND EXCLUSIVE MEASURE OF DAMAGES AND ALL OTHER REMEDIES OR DAMAGES AT LAW OR IN EQUITY ARE WAIVED. THE PROVISIONS OF THIS SECTION SHALL APPLY REGARDLESS OF FAULT AND SHALL SURVIVE TERMINATION, CANCELLATION,

SUSPENSION, COMPLETION OR EXPIRATION OF THIS AGREEMENT, BUT SUCH SURVIVAL SHALL APPLY ONLY TO THOSE CAUSES OF ACTION, IF ANY, ARISING PRIOR TO TERMINATION, CANCELLATION, SUSPENSION, COMPLETION OR EXPIRATION OF THIS AGREEMENT. NOTHING CONTAINED IN THIS AGREEMENT SHALL BE DEEMED TO BE A WAIVER OF A PARTY'S RIGHT TO SEEK INJUNCTIVE RELIEF.

11. COMPANY CONDITIONS PRECEDENT TO AGREEMENT

11.1 All of Company's obligations under this Agreement are expressly made subject to all of the following conditions, which Company agrees to use its reasonable efforts to promptly pursue and satisfy, time being of the essence:

11.1.1 Execution of Capacity Allocation Agreements by Company for the Phase 1 Reservoir for a minimum of ninety percent (90%) of the Capacity of the Phase 1 Reservoir, which Capacity Allocation Agreements have become effective on or before June 30, 2018 (the "Minimum Reserved Capacity Date"). Company shall provide Participant with written notice of the Minimum Reserved Capacity Date within ten (10) days after its occurrence.

11.1.2 Company's securing Construction Financing for the Phase 1 Reservoir within ninety (90) days after the Minimum Reserved Capacity Date, with a closing date within ninety (90) days thereafter (the "Phase 1 Construction Finance Date"). On or before the tenth (10th) day after the Phase 1 Construction Finance Date, and at least forty-five (45) days before the closing date for Construction Financing, Company shall notify Participant in writing of the Phase 1 Construction Finance Date, as well as the anticipated closing date for Construction Financing.

11.1.3 Company's entering into a construction contract to construct the Phase 1 Reservoir, satisfactory to Financing Party for Construction Financing.

11.1.4 Company receiving all permits and government approvals to construct Phase 1 as required by Financing Party for Construction Financing.

11.1.5 Company's securing a completion and performance bond or other equivalent surety to assure completion of the Phase 1 Reservoir construction ("Completion Surety"), provided that Participant may terminate the Agreement if Company has not secured the Completion Surety before the time of closing on Construction Financing. Participant acknowledges that the Completion Surety shall run in favor of the Financing Party for Construction Financing, but not the Participant, and shall permit the Financing Party full discretion to exercise its rights under the Completion Surety, including, but not limited to, the right to replace the contractor of the Phase 1 Reservoir construction without the approval or consent of the Participant.

11.1.6 Company's entering into an Operations Agreement with SFWMD to operate the Phase 1 Reservoir.

11.1.7 Company's securing acceptable Conveyance Systems Agreements from 298 Districts, as applicable for the Phase 1 Reservoir.

11.1.8 298 District(s)'s securing modifications to current SFWMD permits, and securing additional permits or operational protocol letters, if determined necessary by SFWMD, for conveying water for the Phase 1 Reservoir.

11.1.9 Prior to the date of closing on Construction Financing, Participant adopt all required resolutions and other approvals necessary to pay the Capacity Cost Share.

11.2 If the conditions precedent set forth above have not been fully satisfied or waived on or before the applicable date specified, then Company may terminate this Agreement without liability or further liabilities or performance obligations to the other Party, by providing written notice of termination to the other Party before the closing on Construction Financing.

12. PARTICIPANT CONDITIONS PRECEDENT TO AGREEMENT

12.1 Participant's obligations under this Agreement are expressly made subject to all of the following conditions, which Participant agrees to use its reasonable efforts to promptly pursue and satisfy, time being of the essence:

12.1.1 Within thirty (30) days before the closing date for Construction Financing, as set forth in Company's notice provided in accordance with Section 11.1.2, Participant shall provide written notice to the Company that:

(a) Participant has received its C-51 Allocation; or

(b) Participant has waived this Condition Precedent to receive the C-51 Allocation; or

(c) Participant has not received its C-51 Allocation and terminates this Agreement.

12.1.2 The conditions precedent set forth in Section 11.1.3 through 11.1.9 have been met on or before the date that Company provides Notice to Participant of the closing on Construction Financing in accordance with Section 11.1.2.

12.2 If the conditions precedent set forth above have not been fully satisfied or waived on or before the applicable date specified, then the Participant may terminate this Agreement without liability or further liabilities or performance obligations to the other Party, by providing written notice of termination to the other Party before the closing on Construction Financing.

13. DEFAULT

13.1 Notwithstanding anything else to the contrary contained in this Agreement, the following shall each constitute an "Event of Default" regardless of any claim of Force Majeure as described in Section 13 herein or otherwise:

13.1.1 Company or Participant (i) files a voluntary petition in bankruptcy, (ii) is adjudicated bankrupt or insolvent, (iii) files any petition or answers seeking or acquiescing in any reorganization, composition, readjustment, liquidation, dissolution or similar relief for itself under any law relating to bankruptcy, insolvency or other relief of debtors, (iv) seeks or consents to or acquiesces in the appointment of any trustee, receiver, master, or liquidator of itself or of all or any substantial portion of its assets, (v) makes any admission in writing of its inability to pay its debts generally as they become due, or (vi) files or suffers involuntarily the filing of a petition in bankruptcy or otherwise seeking any reorganization, arrangement, composition, readjustment, liquidation, dissolution or similarly under any present or future federal, state or other statute, law or regulation relating to bankruptcy, insolvency, or other relief of debtors, which remains unvacated or unstayed for an aggregate of thirty (30) days, whether or not consecutive.

13.1.2 Any trustee, receiver, or liquidator of all or any substantial portion of their respective assets is appointed, which appointment shall remain un-vacated and un-stayed for an aggregate of thirty (30) days, whether or not consecutive.

13.1.3 Company or Participant defaults in the due and punctual performance of any other material covenants, conditions, agreements and provisions contained in this Agreement, and such default has not been cured as soon as possible with reasonable efforts, but in any case not more than thirty (30) days after notice from the other Party specifying such default; provided, however, if it is not feasible to correct such default within thirty (30) days after notice of such default has been delivered to the defaulting Party by the other, but it is and remains feasible to correct such default after such notice, it shall not constitute an Event of Default hereunder until the earliest feasible date when a cure could be effected so long as (i) corrective action by the defaulting Party is instituted within thirty (30) days of the date of such notice, (ii) such corrective action is diligently pursued with reasonable efforts, and (iii) the

defaulting Party provides to the other Party written reports each month as to the nature and progress of such corrective action.

13.2 If a Participant Event of Default should occur, all sums payable by the Participant under this Agreement shall at Company's election, become immediately due and payable (failure to exercise this option shall not constitute a waiver of the right to exercise the same in the event of any subsequent default), and Company may proceed, at Company's election, with any or all of the following remedies for such default: (i) retain any and all payments made by Participant to Company hereunder, and terminate this Agreement, (ii) seek payment of all sums due from Participant, (iii) seek specific performance from the Participant of Participant's obligations under this Agreement, (iv) notify SFWMD of such default and seek an administrative enforcement action by SFWMD suspending Participant's use of the C-51 Allocation during the pendency of the default; and (v) seek other equitable and legal remedies that may be available to Company to compel performance by Participant of its obligations under this Agreement. Notwithstanding any termination of this Agreement, any and all representations and indemnities of Participant set forth in this Agreement shall remain in full force and effect.

13.3 If a Company Event of Default should occur, then Participant may, as its sole remedy for such Event of Default against Company or its surety, seek either (i) specific performance of Company's obligations under this Agreement or (ii) in the alternative, seek direct damages against Company. Participant acknowledges and agrees that Participant's right to seek specific performance or, in the alternative, to seek direct damages shall, except as set forth in this Section below, be the sole remedy for any default by Company under this Agreement. In no event shall Participant place or record a lien, including, but not limited to, a judgment lien, against the C-51 Reservoir, any contracts or agreements referenced in this Agreement, or any revenues pledged as security for the payment of any financing for the C-51 Reservoir. Notwithstanding any termination of this Agreement, any and all representations and indemnities of Company set forth in this Agreement shall remain in full force and effect.

13.4 Termination of this Agreement shall not affect the limitations of liability contained in Article 10 or the application and survival on termination of Section 13.2 and 13.3, of either Party for obligations arising prior to such termination or for damages, if any, resulting from default under the Agreement.

13.5 It shall not be a default by Company in the event SFWMD, after issuance of the C-51 Allocation, revokes, terminates, modifies, amends, or fails to renew the C-51 Allocation, or otherwise limits or curtails, temporarily or permanently, Participant's ability to withdraw or use water pursuant to the C-51 Allocation, including, but not limited to, issuance of water use restrictions or emergency orders restricting withdrawals from the surficial aquifer ("SFWMD Subsequent Action"). But, if SFWMD, after issuance of the C-51 Allocation, unilaterally revokes, terminates, modifies, amends, or fails to renew the C-51 Allocation, or otherwise limits or curtails, permanently, Participant's ability to withdraw or use water pursuant to the C-51 Allocation, Participant may, in its sole discretion, terminate this Agreement upon thirty (30) days' notice.

14. FORCE MAJEURE

In the event of Force Majeure, the Party so affected, upon giving prompt notice to the other Party, shall be excused from such performance to the extent of such prevention, provided that the Party so affected shall first have taken reasonable steps to avoid and remove such cause of non-performance and shall continue to take reasonable steps to avoid and remove such cause, and shall promptly notify the other Party in writing and resume performance hereunder whenever such causes are removed; provided, however, that if such non-performance exceeds 60 days, the Party that is not prevented from performance by the force majeure event shall have the right to terminate this Agreement upon written notice to the party so affected. This section shall not supersede or prevent the exercise of any other right the parties may otherwise have to terminate this Agreement. Force Majeure shall not excuse Participant from payment of the Annual Operations Payment accrued prior to termination of the Agreement.

15. NOTICES

15.1 Any notices required in this Agreement must be in writing and be delivered in person, sent by certified mail, return receipt requested, sent by overnight delivery services, return receipt requested, and sent by electronic delivery system with receipt acknowledgment, as specified below:

To Company: 20125 State Road 80
P.O. Box 700
Loxahatchee, Florida 33470
Attn: Enrique Tomeu, President
etomeu@siboneycc.com
(561) 832-3110

With copy to: Greenberg Traurig, P.A.
777 So. Flagler Drive, Suite 300 East
Attn: Phillip C. Gildan
West Palm Beach, FL 33401

To Participant: Utility Director
_____
_____

With copy to: City Attorney
_____
_____

Notices shall be effective upon receipt.

15.2 Either Party, at any time, by notice to the other Party may designate any different person(s) or different addresses for receipt of notices and correspondence.

16. GENERAL APPLICATION

16.1 Until payment of the Capacity Cost Share, Participant may not assign any of its rights or obligations under this Agreement, except with the consent of Company and any Financing Party in its sole discretion. After payment of the Capacity Cost Share, Participant may assign any of its rights and obligations under this Agreement, including, but not limited to, transferring all or a portion of the Final Capacity Allocation to a third party, without the prior written consent of Company (subject to any applicable Financing Party's requirements). If Financing Documents are outstanding, Participant must provide

Company an opinion of a nationally or regionally recognized bond counsel that there will be no adverse tax consequences to any Financing Party as a result of the assignment. An assignment shall be evidenced by a written assignment in form and substance approved by Company. Company may transfer all or any part of its ownership rights in the C-51 Reservoir and assign its obligations under this Agreement without the consent of Participant, provided any assignee of Company agrees to assume all of Company's obligations under this Agreement. This Agreement shall remain in full force and effect notwithstanding any assignment by Company, change in control or ownership of Company, or exercise of any rights by a Financing Party, including, but not limited to, foreclosure of any mortgage or security interest and transfer of the foreclosed property to a third party. This Agreement shall be binding upon, and inure to the benefit of, the Parties, and the Parties' respective assigns, successors-in-interest and legal representatives. This Agreement constitutes the entire agreement and understanding between the Parties with respect to the subject matter hereof, and supersedes all prior agreements and understandings relating to this subject matter. No modification or waiver of any term of this Agreement, or any amendment of this Agreement, shall be effective unless it is in writing and signed by the Parties.

16.2 Should Company enter into any Capacity Allocation Agreement for the Phase 1 Reservoir with any other party which provides for a lower Capacity Cost Share more favorable than contained in this Agreement, then this Agreement shall be deemed to be modified to provide Participant with that more favorable Capacity Cost Share.

16.3 Any waiver by either Party of its rights with respect to a default (including Events of Default) under this Agreement, or with respect to any other matters arising in connection with this Agreement, shall not be deemed a waiver with respect to any subsequent default (including Events of Default).

16.4 The failure of either Party to enforce strict performance by the other Party of any of the provisions of this Agreement or to exercise any rights under this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to assert or rely upon any such provisions or rights in that or any other instance.

16.5 Nothing contained in this Agreement shall be construed to create an association, trust, partnership or joint venture between the Parties.

16.6 Section headings, titles and indexes appearing in this Agreement are inserted for convenience only and shall not be construed as interpretations of text.

16.7 Time is of the essence in the performance of this Agreement.

16.8 This Agreement is intended solely for the benefit of the Parties, and the Parties expressly disclaim any intent to create any rights in any other third party as a third-party beneficiary to this Agreement or for the services to be provided hereunder. Nothing in this Agreement nor any action taken hereunder shall be construed to create any duty, liability, or standard of care to any Person that is not a Party, and any Person that is not a Party shall have no rights or interest, direct or indirect, in this Agreement or the services to be provided hereunder, except that each Person identified as a Financing Party is an express third party beneficiary to this Agreement, with the right to enforce the Financing Party's rights and remedies against Participant on its own behalf.

16.9 Anything in this Agreement to the contrary notwithstanding, this Agreement shall be subordinate to any Construction Financing without the need to execute a subordination agreement and in the event of a foreclosure under any Financing Documents, Participant shall attorn to the Financing Party or purchaser at a foreclosure sale all interests that accedes to the interest of Company under this Agreement, and this Agreement shall continue in full force and effect.

16.10 In the event that the Reservoir or any part thereof is taken by the exercise of the power of eminent domain (or transferred to the holder of such power pursuant to a threatened taking) before the Commercial Operation Date, *i.e.* while title to the Reservoir is still owned by the Company, Participant shall have no right in or to the proceeds of any award made in such condemnation (or agreed consideration in the event of a transfer pursuant to a threatened taking). In the event that the Reservoir or any part thereof is taken by the exercise of the power of eminent domain (or transferred to the holder of such power pursuant to a threatened taking) after the Commercial Operation Date, *i.e.*, when title to

the Reservoir is owned by C-51 NFP, Participant shall have a right to claim an interest in the proceeds of any award made in such condemnation (or agreed consideration in the event of a transfer pursuant to a threatened taking).

16.11 This Agreement shall be governed by and construed in accordance with the laws of the State of Florida (regardless of Florida's or any other jurisdiction's choice of law rules).

16.12 All provisions of the Agreement that are expressly or by implication to come into or continue in force and effect after the expiration or termination of this Agreement shall remain in effect and be enforceable following such expiration or termination.

16.13 This Agreement may be executed in any number of counterparts and each counterpart shall represent a fully executed original as if executed by both Parties, with all such counterparts together constituting but one and the same instrument. Delivery hereof may be performed by facsimile of, or the electronic transmission of scanned, signature pages.

16.14 Each Party shall pay its own costs and expenses in relation to the negotiation, preparation, execution and carrying into effect of this Agreement. Each Party agrees to provide such information, execute and deliver any instruments and documents and to take such other actions as may be necessary or reasonably requested by the other Party (at the cost and expense of the other Party) in order to give full effect to this Agreement and to carry out the intent of this Agreement.

16.15 Pursuant to the Applicant's Handbook, Participant agrees (i) it will comply with water shortage restrictions imposed by SFWMD rule or order issued pursuant to Chapter 40E-21, F.A.C., (ii) it will comply with all applicable water conservation standards required in the Reservoir Water Use Permit, (iii) it will notify the Company of any changes in water use demands or sources; (iv) it will continue to evaluate the feasibility of using reclaimed water in accordance with the requirements contained within the Reservoir Water Use Permit, (v) it will mitigate harm to the resources or existing legal uses caused by Participant, (vi) if required by SFWMD, it will submit a map identifying Participant's system's location, irrigated acreage, and land use type and (vii) it will comply with the above stated conditions and applicable conditions within the Reservoir Water Use Permit

or be subject to potential SFWMD enforcement action pursuant to Chapter 373, Florida Statutes.

16.16 The Parties undertake to act fairly and in good faith in relation to the performance and implementation of this Agreement and to take such other reasonable measures as may be necessary for the realization of its purposes and objectives.

16.17 Participant acknowledges that Company or its Affiliates may borrow certain funds from the Financing Party and provide security interests to such Financing Party, including, but not limited to, mortgage security interests in the C-51 Reservoir and pledges of revenues from Participant under this Agreement, and that, as a condition to making loans to Company or its Affiliates, the Financing Party may from time to time require certain documents from, and agreements to be executed by, Participant. In connection therewith, Participant agrees to furnish to the Financing Party, such written information, certificates, copies of invoices and receipts, affidavits, estoppels, consents to assignment of the Agreement, subordination agreements and other like documents as the Financing Party may reasonably request. Upon the written request of the Financing Party, Participant shall state in writing whether or not it is satisfied with Company's performance to that date. Anything in this Agreement to the contrary notwithstanding, in the event of a foreclosure under any Financing Documents, the Participant will attorn to the Financing Party or purchaser at a foreclosure sale all interests that accedes to the interest of Company under this Agreement, and this Agreement will continue in full force and effect. Company shall request that the Financing Party provide a non-disturbance agreement with respect to Participant's rights under this Agreement in the event of a foreclosure or transfer in lieu of foreclosure under the Financing Documents, but failure of Financing Party to provide such non-disturbance agreement shall not in any way affect the subordination provided in Section 16.9.

16.18 At the time this Agreement is assigned to C-51 NFP, Participant will have the right, but not the obligation, during this Agreement, to appoint one (1) person to the Board of Directors of C-51 NFP by providing written Notice to C-51 NFP. As explained further in the C-51 NFP's Bylaws(Appendix C), once the Phase 1 Reservoir is acquired by, and this

Agreement is assigned to, the C-51 NFP, the number of directors on the C-51 NFP's Board of Directors shall be increased to equal the number of participants to the Board of Directors, together with any representative to the Board of Directors that may be appointed by a Phase 1 Reservoir 298 District; provided, however, that only participants with capacity reservation agreements that are governmental entities may appoint directors to the Board of Directors.

16.19 Unless otherwise required by the context in which any term appears: (a) capitalized terms used in this Agreement have the meanings specified in the Whereas clauses and Section 1; (b) the gender of all words used herein shall include the masculine, feminine and neuter and the singular shall include the plural; (c) unless otherwise specified, references to "Articles," "Sections," "Schedules," "Annexes," "Appendices" or "Exhibits" (if any) shall be to Articles, Sections, Schedules, Annexes, Appendices or Exhibits (if any) of this Agreement, as the same may be amended, modified, supplemented or replaced from time to time hereunder; (d) all references to a Person shall include a reference to such Person's successors and permitted assigns; (e) the words "herein," "hereof" and "hereunder" shall refer to this Agreement as a whole and not to any particular Section or Subsection of this Agreement; (f) all accounting terms not specifically defined herein shall be construed in accordance with generally accepted accounting principles in the United States of America, consistently applied; (g) references to this Agreement shall include a reference to all Articles, Sections, Schedules, Annexes, Appendices, and Exhibits hereto, as the same may be amended, modified, supplemented or replaced from time to time; (h) references to any agreement, document or instrument shall mean a reference to such agreement, document, or instrument as the same may be amended, modified, supplemented, or replaced from time to time; (i) the use of the word "including" in this Agreement to refer to specific examples shall be construed to mean "including, without limitation" or "including but not limited to" and shall not be construed to mean that the examples given are an exclusive list of the topics covered; (j) references to an applicable law shall mean a reference to such applicable law as the same may be amended, modified, supplemented or restated and be in effect from time to time; and (k) the headings contained herein are used solely for convenience and do not

constitute a part of this Agreement nor should they be used to aid in any manner to construe or interpret this Agreement. The Parties collectively have prepared this Agreement, and none of the provisions hereof shall be construed against one Party on the ground that such Party is the author of this Agreement or any part hereof.

17. MANDATORY DISPUTE RESOLUTION

17.1 Any controversy, dispute, claim, counterclaim or crossclaim (collectively, "Dispute") regarding, resulting from, arising out of or in way related to this Agreement, shall be governed by the mandatory dispute resolution procedures set forth below.

17.2 In the event that Company or Participant (each a "Claimant") has a Dispute that has not been, or could not possibly be, cured, pursuant to Section 13.1.3 above, the Claimant shall notify the other Party (the "Notified Party") in writing of the claim, which writing shall describe the nature of the dispute and any proposed remedy (the "Dispute Notice").

17.3 Within 10 days after receipt of the Dispute Notice, the Notified Party and the Claimant shall meet at Company's executive office to discuss the Dispute. The Parties shall negotiate in an attempt to resolve the Dispute.

17.4 If the Parties fail to resolve the Dispute by negotiation within thirty (30) days after delivery of the Dispute Notice, the Claimant shall submit the matter to mediation pursuant to the Mediation Rules of the American Arbitration Association applicable to such disputes (except as such procedures are modified by these provisions or such other mediation service selected by the Notified Party), on or before the thirty-first (31st) day after the date of delivery of the Dispute Notice. If the Claimant fails to timely submit the Dispute to mediation, then the Dispute shall be deemed waived and abandoned and the Parties shall be relieved and released from any and all liability relating to the Dispute. The Parties shall mutually agree on the selection of a mediator. No person shall serve as a mediator in any dispute in which the person has any financial or personal interest in the result of the mediation or any relationship with a Party, except by the written consent of the Parties. Prior to accepting any appointment, the prospective mediator shall disclose any circumstances likely to create a presumption of bias or to prevent a prompt commencement of the mediation process.

17.5 Within ten (10) days of the selection of the mediator, each Party may submit a brief memorandum setting forth its position with regard to the issues that need to be resolved. The mediator shall have the right to schedule a pre-mediation conference and the Parties shall attend unless otherwise agreed. The mediation shall be commenced within ten (10) days following the date for submittal of the memoranda, if any, and shall be concluded within fifteen (15) days from the commencement of the mediation unless the Parties mutually agree to extend the mediation period. The mediation shall be held at Company's executive office.

17.6 The mediator has discretion to conduct the mediation in the manner in which the mediator believes is most appropriate for reaching a settlement of the Dispute, consistent with the mediation rules applicable to the Dispute. The mediator is authorized to conduct joint and separate meetings with the Parties and to make oral and written recommendations for settlement. Whenever necessary, the mediator may also obtain expert advice concerning technical aspects of the Dispute, provided the Parties agree and assume the expenses of obtaining such advice. The mediator does not have the authority to impose a settlement on the Parties.

17.7 Any admissions, offers of compromise, settlement negotiations and communications and all confidential information disclosed to the mediator at the mediation shall be confidential and excluded in any litigation or subsequent dispute resolution forum to the extent permitted by applicable law.

17.8 Persons other than the Parties, their representatives and the mediator may attend mediation sessions only with the permission of both Parties and the consent of the mediator. There shall be no stenographic record of the mediation process.

17.9 All expenses of the mediation, including the fees and costs charged by the mediator, the expenses of any witnesses, and the cost of any proof or expert advice produced at the direct request of the mediator shall be borne equally by the Parties unless each Party agrees otherwise. Each Party to the mediation shall bear its own attorneys' fees and costs in connection with such mediation, including expert witnesses.

17.10 Should mediation not be successful in resolving any Dispute, then the Claimant shall have ten (10) days after the date of termination of the mediation or determination by the mediator of an impasse to file a court action on the Dispute. Each party shall bear its

own expenses of the court action, including attorneys' fees, court costs, and the expenses of any witnesses and experts.

18. AUDIT RIGHTS, AND RETENTION OF RECORDS.

18.1 Participant shall have the right to audit the books, records, and accounts of Company and its contractors that are related to the Annual Operations Payment. Company and its Contractors shall keep such books, records, and accounts as may be necessary in order to record complete and correct entries related to the Annual Operations Payments and performance thereunder. All books, records, and accounts of Company and its contractors shall be kept in written form, or in a form capable of conversion into written form within a reasonable time, and upon request to do so. Company or its Contractors, as applicable, shall make same available at no cost to Participant in written form.

18.2 Company and its contractors shall preserve and make available, at reasonable times at Company's place of business for examination and audit by Participant, all financial records, supporting documents, statistical records, and any other documents pertinent to the Annual Operations Payments for a minimum period of five (5) years after expiration or termination of this Agreement or until resolution of any audit findings, whichever is longer. Participant audits and inspections pursuant to this Section may be performed by any Participant representative (including any outside representative engaged by Participant). Participant reserves the right to conduct such audit or review at Company's place of business, if deemed appropriate by Participant, with seventy-two (72) hours' advance notice.

18.3 Any incomplete or incorrect entry in such books, records, and accounts shall be a basis for Participant's disallowance and recovery of any payment upon such entry. If an audit or inspection in accordance with this Section discloses overpricing or overcharges to Participant of any nature by the Company in excess of five percent (5%) of the total contract billings reviewed by Participant, the reasonable actual cost of the Participant's audit shall be reimbursed to Participant by Company in addition to making adjustments for the overcharges. Any adjustments or payments due as a result of such audit or inspection shall be made within thirty (30) days after presentation of Participant's findings to Company.

18.4 Company shall ensure that the requirements of this Section are included in all agreements with its Contractor(s).

19. LAW, WAIVER OF JURY TRIAL.

19.1 This Agreement shall be interpreted and construed in accordance with and governed by the laws of the state of Florida. **BY ENTERING INTO THIS AGREEMENT, COMPANY AND PARTICIPANT HEREBY EXPRESSLY WAIVE ANY RIGHTS EITHER PARTY MAY HAVE TO A TRIAL BY JURY OF ANY CIVIL LITIGATION RELATED TO THIS AGREEMENT. IF A PARTY FAILS TO WITHDRAW A REQUEST FOR A JURY TRIAL IN A LAWSUIT ARISING OUT OF THIS AGREEMENT AFTER WRITTEN NOTICE BY THE OTHER PARTY OF VIOLATION OF THIS SECTION, THE PARTY MAKING THE REQUEST FOR JURY TRIAL SHALL BE LIABLE FOR THE REASONABLE ATTORNEYS' FEES AND COSTS OF THE OTHER PARTY IN CONTESTING THE REQUEST FOR JURY TRIAL, AND SUCH AMOUNTS SHALL BE AWARDED BY THE COURT IN ADJUDICATING THE MOTION.**

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]
[SIGNATURES APPEAR ON FOLLOWING PAGE.]

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their respective duly authorized officers as of the date and year set forth above.

COMPANY:

PALM BEACH AGGREGATES, LLC,
a Florida limited liability company

WITNESSES:

_____

_____
Print Name

_____

_____
Print Name

By: _____
Name: Enrique Tomeu
Its: President
Date: _____

PARTICIPANT

ATTEST:

_____
City Clerk

HALLENDALE BEACH, FLORIDA

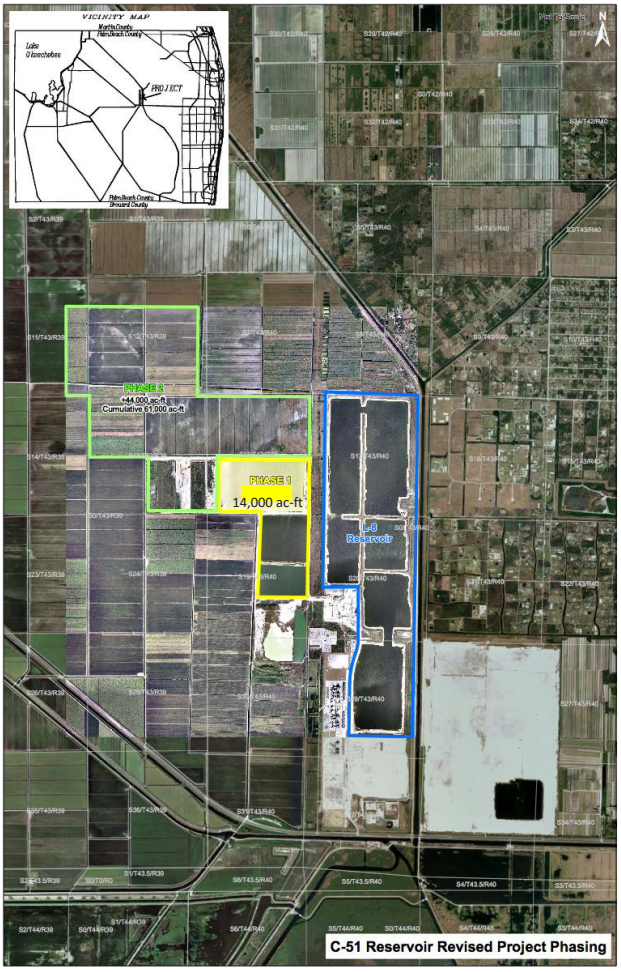
By_____
_____
____ day of June, 2018

Approved as to form by _____
City Attorney

_____
Date: _____

Appendix A

Phase 1 Site



B-1

Appendix B

ESTIMATED ANNUAL OPERATIONS AND MAINTENANCE COSTS

ANNUAL BUDGET REPORT OF PROJECTED COSTS - FY15
C-51 Reservoir Phase 1 O&M Agreement

	Annual Cost
Yearly C-51 Reservoir maintenance activities	$100,682.11
Pump Station from L-8 FEB to C-51 Reservoir	$99,525.83
Utilize S5A pump station to fill C-51 Reservoir for 39,204 acre ft (S5A to L8FEB)	$215,622.00
L8 FEB yearly operation	$252,246.98
Conveyance	$40,380.79
Water management (Control Room)	$55,981.35
Project management, quarterly reports, and Annual Financial Report (PM & reports)	$108,611.32
Replacement and Rehabilitation	$129,804.68
	$1,002,855.05
per month	$83,571.25
Total plus 13th month	**$1,086,426.31**

Notes

Conveyance

12.6 miles from L-8 FEB pump station to E-1 canal
19.5 miles from south of E-1 to west on Hillsboro then south on L-36 canal to S-125.
Total of 32.1 miles

Through structures L-8 Divide (G-541), S5AE, S155A, S38A, S38B, S38C and S125

Assume C-51 Reservoir flow of 35 mgs for 365 days = 39,204 acre-ft

Annual Operations & Maintenance Summary

Operations and Maintenance Costs Based on SFWMD and LWDD Detailed Costs	Totals	Components of Totals Reservoir Admin	SFWMD	LWDD
Annual Operating Costs	$1,222,458	$60,000	$1,086,426	$76,032
Additional Insurance Coverage Limits		$55,000		
Plus annual pumping fees				$1,842
Total	**$1,279,300**	**$115,000**	**$1,086,426**	**$77,874**
Annual O&M Costs per mgd of capacity	$36,551	$3,286	$31,041	$2,225
Annual O&M Costs per acre foot of capacity	$91.38	$8.21	$77.60	$5.56
days in year	365	365	365	365
gallons per day	35,000,000	35,000,000	35,000,000	35,000,000
total gallons per year	12,775,000,000	12,775,000,000	12,775,000,000	12,775,000,000
cost per 1000 gallons	$0.100	$0.009	$0.085	$0.006

Capital and Annual O&M Calculations for Different Storage Allocation Levels Measured in million gallons per day	One Time	Annual
Capital Cost is $4.60/mgd	Capital Total	O & M Total
1 mgd	$4,600,000	$36,551
2 mgd	$9,200,000	$73,103
3 mgd	$13,800,000	$109,654
4 mgd	$18,400,000	$146,206
5 mgd	$23,000,000	$182,757
6 mgd	$27,600,000	$219,309
7 mgd	$32,200,000	$255,860
8 mgd	$36,800,000	$292,411
9 mgd	$41,400,000	$328,963
10 mgd	$46,000,000	$365,514

Appendix C

BYLAWS
OF
C-51 RESERVOIR, INC.

ARTICLE I - OFFICES

1.01 Registered Office. The registered office of C-51 Reservoir Inc. (the "Corporation") in the State of Florida shall be located at One North Clematis Street, Suite 200, West Palm Beach, FL 33401, or such other location as may be determined from time to time by the Board of Directors.

1.02 Other Offices. The Corporation may also have other offices, both within and without the State of Florida, as the Board of Directors may from time to time determine or the business of the Corporation may require.

ARTICLE II - MEMBERSHIP

The Corporation initially shall have no members. The Board of Directors may admit members and amend the Corporation's Bylaws to regulate the classifications, qualifications, characteristics, rights, privileges, limitations and obligations of membership and the manner of admission.

ARTICLE III - DIRECTORS

3.01 Management. Corporate powers shall be exercised by or under the authority of, and the affairs of the Corporation shall be managed under the direction of, the Corporation's Board of Directors.

3.02 Number of Directors/Quorum/Voting. The initial number of directors of the Corporation shall be three (3) or such greater or lesser number as determined by the Board of Directors, from time to time; provided, however, that the Board of Directors shall consist of not less than three (3) directors and no decrease in the number of directors shall have the effect of shortening the term of an incumbent director.

3.02.1 After acquisition of Phase 1 of the C-51 Reservoir, the number of directors shall be increased to equal the number of participants with Capacity Reservation Agreements in Phase 1 that elect to appoint a participant to the Board of Directors, together with any representative to the Board of Directors that may be appointed by a Phase 1 298 District, or may be appointed by the South Florida Water Management District. In the event of the acquisition of subsequent Phases of the C-51 Reservoir, the number of directors shall be increased to equal the number of participants with Capacity Reservation Agreements in such subsequent Phases that do not already have an appointed director and that elect to appoint a participant to the Board of Directors, together with any representatives to the Board of Directors that may be appointed by a

subsequent Phase 298 District that does not already have an appointed director. In the event a participant with a Capacity Reservation Agreement, a 298 District or the South Florida Water Management District appoint a member to the Board of Directors, such party may remove the director so appointed without cause and may appoint a new director. If a vacancy occurs in a director seat, the party that originally appointed the director may appoint a new director to fill the vacant director seat. In the event a party that appointed a director elects to remove that director and further provides notice to the Corporation that it no longer elects to appoint a director, then the number of directors shall be decreased accordingly. Provided, however, only participants with Capacity Reservation Agreements that are governmental entities may appoint representatives to the Board of Directors. Participants with Capacity Reservation Agreements that are not governmental entities may appoint representatives with the right to notice of and to attend meetings of the Board of Directors, but such representatives shall have no voting rights and shall not be counted for quorum purposes. Any party with the right to appoint a member of the Board of Directors that elects not to appoint a director, may alternatively appoint a representative with the right to notice of and to attend meetings of the Board of Directors, but such representatives shall have no voting rights and shall not be counted for quorum purposes.

3.02.3 Voting of the members of the Board of Directors shall be by one (1) vote per director for administrative and parliamentary matters (an "Administrative Matter") including, but not limited to, operating budget approval (the "Equal Voting Percentages"). A majority of the quorum present at a meeting of the Board of Directors shall be required to approve an Administrative Matter.

3.02.4 Voting on matters involving the expenditure of capital, including, but not limited to, consultant selection and removal, award of construction contracts, change orders, and resolution of contractor and other third-party capital project related disputes (a "Capital Matter"), shall be weighted as follows (the "Weighted Voting Percentages"): the Weighted Voting Percentages of directors appointed (i) by a participant with a Capacity Reservation Agreement shall be calculated according to the relative weight of each party that appointed the director's respective capacity allocation in the C-51 Reservoir; and (ii) by a 298 District or the South Florida Water Management District shall each equal one percent (1%). A majority vote of greater than fifty percent (50%) of the Weighted Voting Percentage of all members of the Board of Directors shall be required to approve a Capital Matter. In addition, for a Capital Matter to pass, a minimum of three (3) members of the Board of Directors must vote in the majority.

3.02.5 A quorum for a meeting of the Board of Directors shall be members of the Board of Directors holding at least ten percent (10%) of the Weighted Voting Percentage, provided a minimum of three (3) members of the Board of Directors must be present for a quorum.

3.02.6 The Board members serve at the pleasure of the party by whom the Board member was appointed, and may be removed at any time by such party, without cause or requirement of hearing.

3.02.7 The Board members shall elect a Chair of the Board to serve on an annual basis until its successor is elected. The elected Chair shall set the agenda for meeting in accordance with the requests of the Board members. The Board members shall elect a Vice-Chair to serve in the Chair's absence.

3.02.8 The provisions of this Section 3.02 of the Bylaws may not be amended without the unanimous consent of the Board of Directors.

3.03 Term. Each person named in the Articles of Incorporation as a member of the initial Board of Directors shall hold office until such director's successor shall have been appointed or until such director's earlier resignation, removal from office or death. Each director shall hold office until his or her successor is appointed or until such director's earlier resignation, removal from office or death.

3.04 Qualification. Directors must be natural persons who are eighteen (18) years of age or older, but need not be residents of the State of Florida.

3.05 Compensation. No member of the Board of Directors shall receive any compensation from the Corporation; provided, however, that the directors may be reimbursed for any reasonable out-of-pocket expenses incurred in furtherance of their duties as directors, as determined by the Board of Directors.

3.06 Powers. The Board shall, subject to the limitations and reservations set forth in the Articles, have the powers reasonably necessary to manage, operate, maintain and discharge the duties of Corporation, including, but not limited to, the power to cause the Corporation to do the following:

3.06.1 General. Exercise all powers, duties and authority vested in or delegated to the Corporation by law and in these By-Laws and the Articles, including, without limitation, adopt budgets, and enter into contracts.

3.06.2 Declare Vacancies. Declare the office of a member of the Board to be vacant in the event such Board Member shall be absent from three (3) consecutive regular Board meetings.

3.06.3 Hire Employees/Contractors. Employ, on behalf of the Corporation, managers, independent contractors, or such other employees as it deems necessary, to prescribe their duties and delegate to such manager, contractor, or other person or entity, any or all of the duties and functions of the Corporation and/or its officers, including contracting with any party with a Capacity Reservation Agreement to perform any duties or functions of the Corporation as determined by the Board.

3.06.4 Property. Acquire, sell, operate, lease, manage and otherwise trade and deal with property, real and personal, and with any other matters involving the Corporation or the discharge of its duties, as may be necessary or convenient for the operation and management of the Corporation and in accomplishing the purposes set forth in the Articles.

3.06.05 C-51 Reservoir. Acquire and accept transfer of ownership of any phase of the C-51 Reservoir from Palm Beach Aggregates, LLC, or its successors and assigns, and assume obligations for contractual obligations attendant to such phases.

3.06.06 Granting of Interest. Grant licenses, easements, permits, leases, or privileges to any individual or entity, which affect Corporate properties and to alter, add to, relocate or

improve properties.

3.06.07 Financial Reports. Prepare all financial reports required by the Florida Statutes, and file any tax returns required by Federal or State law.

3.06.08 501(c)(3) Status. Do all things necessary to maintain the IRC 501(c)(3) status of the Corporation.

3.06.09 Borrow Funds. Borrow funds, issue bonds, mortgage assets of the Corporation, provide security for financings, and take all other actions related to providing funds for the Corporation.

3.07 Meetings. An annual meeting of the Board of Directors shall be held at the time and place designated, from time to time, by the Board of Directors. At the meeting, the Board of Directors shall elect officers and transact such business as may properly be brought before the meeting. Special meetings of the Board of Directors shall be held when called by the President or Vice President or the Board of Directors at such times as designated by the Board of Directors. At such special meetings, the Board of Directors shall transact all business as may be properly brought before the meeting. Directors may participate in regular or special meeting by, or conduct the meeting through the use of, any means of communication by which all directors participating may simultaneously hear each other during the meeting. A director participating in a meeting by this means is deemed to be present in person at the meeting.

3.08 Place of Meetings. Meetings of the Board of Directors, annual or special, may be held either within the State of Florida at such place or places as the Board of Directors may from time to time by resolution designate.

3.09 Presumption of Assent. A director of the Corporation who is present at a meeting of the Board of Directors or a committee of the Board of Directors where corporate action is taken is deemed to have assented to the action taken at such meeting unless such director objects at the beginning of the meeting (or promptly upon such director's arrival) to holding such meeting or transacting specified business at such meeting or such director votes against or abstains from the action taken.

3.10 Notice of Meetings. Regular meetings of the Board of Directors may be held without notice of the date, time, place or purpose of the meeting. Written notice of the date, time and place of special meetings of the Board of Directors shall be given to each director at least two (2) days before the meeting. Written notice may be given by electronic mail or by facsimile.

Notice of a meeting of the Board of Directors need not be given to any director who signs a waiver of notice either before or after the meeting. The attendance of a director at a meeting shall constitute a waiver of notice of such meeting and a waiver of any and all objections to the place of the meeting, the time of the meeting, or the manner in which the meeting has been called or convened, except when a director states, at the beginning of the meeting or promptly upon arrival at the meeting, any objection to the transaction of business because the meeting is not lawfully called or convened.

The purpose of any regular or special meeting of the Board of Directors need not be specified in the notice or waiver of notice of such meeting.

Meetings of the Board of Directors may be called by the President or Vice President of the Corporation or by any director.

3.11 Action without a Meeting. Any action required or permitted by the Articles of Incorporation, these Bylaws or applicable law to be taken at a Board of Directors meeting or a committee meeting, may be taken without a meeting if the action is taken by all members of the Board of Directors or of such committee. Such action must be evidenced by one or more written consents describing the action taken and signed by each director or committee member.

Action taken under this Section shall be effective when the last director signs the consent, unless the consent specifies a different effective date.

A consent signed under this Section has the same effect as a meeting vote and may be described as such in any document.

3.12 Removal of Directors. At a meeting of the Board of Directors called expressly for the purpose of removing one or more directors, any may be removed, without cause or requirement of hearing, by a unanimous vote of the Board of Directors, except for the director being removed. Upon removal of a director, the party by whom the removed director was appointed shall appoint a replacement director or elect not to appoint a replacement director

3.13 Vacancies. Any vacancy occurring on the Board of Directors, including a vacancy created by reason of an increase in the number of directors, may be filled by the affirmative vote of a majority of the Board of Directors. A director elected to fill a vacancy shall hold office only until the party by whom the vacant director was appointed appoints a new director or determines not to appoint a new director.

3.14 Duties of Directors. A director shall discharge such director's duties as a director, including such director's duties as a member of any committee of the Board of Directors on which such director may serve, in good faith, with the care an ordinarily prudent person in a like position would exercise under similar circumstances, and in a manner such director reasonably believes to be in the best interests of the Corporation.

In performing such director's duties, a director is entitled to rely on information, opinions, reports or statements, including financial statements and other financial data, prepared or presented by:

(a) one or more officers or employees of the Corporation whom the director reasonably believes to be reliable and competent in the matters presented;

(b) legal counsel, public accountants or other persons as to matters the director reasonably believes are in such person's professional or expert competence; or

(c) a committee of the Board of Directors of which such director is not a

member if the director reasonably believes such committee merits confidence.

A director shall not be deemed to be acting in good faith if such director has knowledge concerning the matter in question that makes reliance on the information, opinions, reports or statements, including financial statements and other financial data, of others, as described in this Section, unwarranted.

A director shall not be liable for any action taken as a director, or any failure to take any action, if such director has performed the duties of such director's office in compliance with the provisions of this Section.

3.15 Liability of Directors. The directors of this Corporation shall not be personally liable for money damages to any person for any statement, vote, decision, or failure to take an action, regarding organizational management or policy by an officer or director, or for the debts, liabilities, or other obligations of this Corporation unless:

(a) The director breached or failed to perform such director's duties as a director; and

(b) The director's breach of, or failure to perform, such director's duties constitutes:

(1) A violation of the criminal law, unless the director had reasonable cause to believe such director's conduct was lawful or had no reasonable cause to believe such director's conduct was unlawful;

(2) A transaction from which the director derived an improper personal benefit, either directly or indirectly; or

(3) Recklessness or an act or omission which was committed in bad faith or with malicious purpose or in a manner exhibiting wanton and willful disregard of human rights, safety or property.

3.16 Director Conflicts of Interest. The purpose of the conflicts of interest policy is to protect the interest of the Corporation and each of its affiliates when it is contemplating entering into a transaction or arrangement that might benefit the private interest of a trustee, director or officer of the Corporation. This policy is intended to supplement but not replace any applicable state laws governing conflicts of interest applicable to nonprofit and charitable corporations.

(a) Definitions.

(1) Interested Person. Any trustee, director, officer, or member of a committee with board delegated powers who has a direct or indirect financial interest, as defined below, is an interested person. If a person is an interested person with respect to any affiliate of the Corporation, he or she is an interested person with respect to the Corporation and all of its affiliates.

(2) Financial Interest. A person has a financial interest if the person has, directly or indirectly, through business, investment or family –

i. an ownership or investment interest in any entity with which the Corporation or any affiliate has a transaction or arrangement, or

ii. a compensation arrangement with the Corporation or an affiliate or with any entity or individual with which the Corporation or an affiliate has a transaction or arrangement, or

iii. a potential ownership or investment interest in, or compensation arrangement with, any entity or individual with which the Corporation or an affiliate is negotiating a transaction or arrangement.

(3) Compensation. Compensation includes direct and indirect remuneration as well as gifts or favors that are substantial in nature. A financial interest is not necessarily a conflict of interest. A person who has a financial interest may have a conflict of interest only if the appropriate board or committee decides that a conflict of interest exists.

(b) Procedures.

(1) Duty to Disclose. In connection with any actual or possible conflicts of interest, an interested person must disclose the existence of his or her financial interest and must be given the opportunity to disclose all material facts to the trustees, directors or members of committees with board delegated powers considering the proposed transaction or arrangement.

(2) Determining Whether a Conflict of Interest Exists. After disclosure of the financial interest and all material facts, and after any discussion with the interested person, he/she shall leave the meeting while the determination of a conflict of interest is discussed and voted upon. The remaining trustees or board or committee members shall decide if a conflict of interest exists.

(3) Procedures for Addressing the Conflict of Interest.

i. An interested person may make a presentation at the trustee, board or committee meeting, but after such presentation, he/she shall leave the meeting during the discussion of, and the vote on, the transaction or arrangement that results in the conflict of interest.

ii. The trustees or the chair of the board or committee shall, if appropriate, appoint a disinterested person or committee to investigate alternatives to the proposed transaction or arrangement.

iii. After exercising due diligence, the trustee, board or committee shall determine whether the Corporation or affiliate can obtain a more advantageous transaction or arrangement with reasonable efforts from a person or entity that would not give rise to a conflict of interest.

iv. If a more advantageous transaction or arrangement is not reasonably attainable

under circumstances that would not give rise to a conflict of interest, the trustees, board or committee shall determine by a majority vote of the disinterested members whether the transaction or arrangement is in the Corporation's best interest and for its own benefit and whether the transaction is fair and reasonable to the Corporation and shall make its decision as to whether to enter into the transaction or arrangement in conformity with such determination.

(4) Violations of the Conflicts of Interest Policy.

i. If the trustees, board or committee has reasonable cause to believe that a member has failed to disclose actual or possible conflicts of interest, it shall inform the member of the basis for such belief and afford the member an opportunity to explain the alleged failure to disclose.

ii. If, after hearing the response of the member and making such further investigation as may be warranted in the circumstances, the trustees, board or committee determines that the member has in fact failed to disclose an actual or possible conflict of interest, it shall take appropriate disciplinary and corrective action.

(c) Records of Proceedings.

The minutes of the trustees, board and all committee with board- delegated powers shall contain --

(1) Identification of Interested Parties. The names of the persons who disclosed or otherwise were found to have a financial interest in connection with an actual or possible conflict of interest, the nature of the financial interest, any action taken to determine whether a conflict of interest was present, and the decision as to whether a conflict of interest in fact existed.

(2) Parties Present for Actions. The names of the persons who were present for discussions and votes relating to the transaction or arrangement, the content of the discussion, including any alternatives to the proposed transaction or arrangement, and a record of any votes taken in connection therewith.

(d) Compensation.

(1) Director. A director who receives compensation, directly or indirectly, from the Corporation or affiliate for services is precluded from voting on matters pertaining to his or her compensation.

(2) Committee Member. A member of any committee whose jurisdiction includes compensation matters and who receives compensation, directly or indirectly, from the Corporation or affiliate for services is precluded from voting on matters pertaining to that member's compensation.

(e) Annual Statements.

Each trustee, director, principal officer and member of a committee with board delegated

powers shall annually sign a statement which affirms that such person --

i has received a copy of the conflicts of interest policy,

ii. as read and understands the policy,

iii. has agreed to comply with the policy, and

iv. understands that the Corporation is a charitable organization and that in order to maintain its federal tax exemption it must engage primarily in activities which accomplish one or more of its tax-exempt purposes.

3.17 Executive and Other Committees. The Board of Directors, by resolution adopted by a majority of the full Board of Directors, may designate from among its members an executive committee and one or more other committees each of which, to the extent provided in such resolution, shall have and may exercise all the authority of the Board of Directors, except that no such committee shall have the authority to:

(a) fill vacancies on any committee thereof; or

(b) adopt, amend or repeal the Bylaws.

The provisions of these Bylaws governing meetings, notice, waiver of notice and quorum and voting requirements for the Board of Directors shall also apply to executive and other committees and their members.

Each committee established pursuant to this Section must have two (2) or more committee members who shall serve at the pleasure of the Board of Directors. The Board of Directors by resolution adopted by a majority of the full Board of Directors, may designate one (1) or more directors as alternate committee members of any such committee who may act in the place and stead of any absent committee member or members at any meeting of such committee.

Neither the designation of any executive or other committee pursuant to this Section, the delegation thereto of authority, nor action by such committee pursuant to such authority, shall alone constitute compliance by any member of the Board of Directors who is not a member of such committee with such director's responsibility to act in good faith, in a manner such director reasonably believes is to be in the best interests of the Corporation, and with such care as an ordinarily prudent person in a like position would use under similar circumstances.

3.18 Post-Acquisition of Phase 1 of the C-51 Reservoir. Notwithstanding anything in Article III to the contrary, after acquisition of Phase 1 of the C-51 Reservoir, the Board of Directors, upon determination by counsel for the Board as to legal applicability to the Corporation, shall comply with any applicable requirements of Chapter 119, Florida Statutes, and Chapter 286, Florida Statutes.

ARTICLE IV - OFFICERS

4.01 Officers. The officers of the Corporation shall consist of a President and a Secretary, and may also consist of one or more Vice-Presidents, a Treasurer, one or more Assistant Secretaries or Treasurers and such other officers as the Board of Directors may from time to time consider necessary for the proper conduct of the business of the Corporation. The same person may simultaneously hold more than one office.

4.02 Election; Term of Office and Qualification. Each officer shall be elected by the Board of Directors. Each such officer (whether elected at an annual meeting of the Board of Directors or to fill a vacancy or otherwise) shall hold such office until the next annual meeting of the Board of Directors and until such officer's successor shall have been elected and qualified, or until such officer's death, resignation or removal.

4.03 Resignation. An officer may resign at any time by delivering notice to the Corporation. A resignation shall be effective when the notice is delivered unless the notice specifies a later effective date. If a resignation is made effective at a later date and the Corporation accepts the future effective date, the Board of Directors of the Corporation may fill the pending vacancy before the effective date if the Board of Directors provides the successor does not take office until such effective date.

4.04 Removal. The Board of Directors may remove any officer at any time with or without cause.

4.05 Vacancies. Any vacancy in any office occurring by reason of death, resignation, removal, disqualification, or any other cause shall be filled in the manner prescribed in these Bylaws for regular election or appointment to such office.

4.06 Contract Rights. The appointment of an officer does not itself create contract rights. An officer's removal does not affect the officer's contract rights, if any, with the Corporation, nor does an officer's resignation affect the Corporation's contract rights, if any, with such officer..

4.07 Duties of Officers.

(a) President. The President shall be the chief executive officer of the Corporation, shall have authority over the general and active management of the business and affairs of the Corporation subject to the direction of the Board of Directors, and shall preside at all meetings of the Board of Directors, and executive or other committees as established by the Board of Directors under the provisions of these Bylaws. The President may sign, with the Secretary or other officer duly authorized by the Board of Directors, any deeds, mortgages, bonds, contracts or other instruments the execution of which has been authorized by the Board of Directors, except in cases where the signing and execution thereof shall have been expressly delegated by the Board of Directors, by these Bylaws, or by law to some other officer or agent of the Corporation.

(b) Vice President. The Vice President, if one is elected, shall serve as

assistant to the President and shall perform such other duties and have such other authority and power as may be prescribed from time to time by the Bylaws, the Board of Directors or the President. In the absence or disability of the President, the Vice President shall perform the duties and have the authority and the power of the President.

(c) Secretary. The Secretary shall be responsible for the custody and maintenance of all corporate records except the financial records, shall record the minutes of all meetings of the Board of Directors, and executive and other committees, if any, shall send out all notices of meetings where required under these Bylaws or otherwise required by law, and shall perform such other duties and have such other authority and power as may be prescribed from time to time by the Board of Directors or the President.

(d) Assistant Secretary. The Assistant Secretary, if any, shall, in the absence or disability of the Secretary, perform the duties and have the authority and exercise the powers of the Secretary. The Assistant Secretary shall perform such other duties and have such other authority and power as may be prescribed from time to time by the Board of Directors or the President.

(e) Treasurer. The Treasurer, if any, shall have custody of all corporate funds and financial records, shall keep full and accurate records of receipts and disbursements and render accounts thereof whenever required by the Board of Directors or by the President, and shall perform such other duties and have such other authority and power as may be prescribed from time to time by the Board of Directors or the President. If so required by the Board of Directors, the Treasurer shall give a bend for the faithful discharge of such Treasurer's duties in such sum and with such surety or sureties as the Board of Directors may deem appropriate. If no Treasurer is elected by the Board of Directors, then the Secretary shall perform the duties of the Treasurer described in this Subparagraph 4.07(e).

(f) Assistant Treasurer. The Assistant Treasurer, if any, shall, in the absence or disability of the Treasurer, perform the duties and have the authority and exercise the powers of the Treasurer. The Assistant Treasurer shall perform such other duties and have such other authority and power as may be prescribed from time to time by the Board of Directors or the President.

4.08 Compensation. The Board of Directors may authorize payment of reasonable compensation to the officers of the Corporation for services rendered.

ARTICLE V - FUNDS' DEPOSITS AND CHECKS

5.01 Gifts and Contributions. The Board of Directors may accept on behalf of the Corporation any contribution, gift, bequest, or devise of any property whatsoever, for the general and special charitable purposes of the Corporation.

5.02 Deposits. All funds of the Corporation shall be deposited from time to time to the credit of the Corporation in such banks, trust companies, or other depositories as the Board of Directors may select.

5.03 Checks, Drafts, Orders for Payment. All checks, drafts, or orders for the payment of money, notes, or other evidences of indebtedness issued in the name of the Corporation shall be signed by such officer or officers, agent or agents of the Corporation and in such manner as the Board of Directors shall from time to time by resolution determine. In the absence of such determination, such instruments shall be signed by the President or a Vice President of the Corporation.

ARTICLE VI - BOOKS AND RECORDS

6.01 Corporate Records. The Corporation shall keep as permanent records, correct and complete books and records of account and shall keep minutes of the proceedings of its members, Board of Directors, and committees having any of the authority of the Board of Directors. The Corporation shall keep at its registered office in this state a copy of its Articles of Incorporation and its Bylaws and any amendments thereto. All books and records shall be kept in written form or in another form capable of conversion into written form within a reasonable time.

ARTICLE VII - INDEMNIFICATION

The Corporation shall indemnify any officer or director, or any former officer or director, to the full extent permitted under Section 617.0831 of the Florida Statutes.

ARTICLE VIII - MISCELLANEOUS

8.01 Corporate Seal. A corporate seal shall not be required to be attached to any instrument executed by or on behalf of the Corporation unless required by law, but if so required shall be of such shape and have such words thereon as may be described by law or by the Board of Directors. The seal may be used by impressing it or reproducing a facsimile thereof, or otherwise.

8.02 Amendment of Articles and Bylaws. The Board of Directors may amend or repeal the Corporation's Articles of Incorporation and Bylaws by majority vote of the Board of Directors, except where these Bylaws provide otherwise.

8.03 Relation to Articles of Incorporation. These Bylaws shall be subject to, and governed by, the Corporation's Articles of Incorporation.

C-51 Reservoir Agreement First Amendment

FIRST AMENDMENT TO
AGREEMENT FOR CAPACITY ALLOCATION
IN PHASE 1 OF THE C-51 RESERVOIR
CITY OF HALLANDALE BEACH

This First Amendment ("First Amendment") to the Agreement for Capacity Allocation in Phase 1 of the C-51 Reservoir (the "Agreement") is made and entered into by and between Palm Beach Aggregates, LLC ("Company"), a Florida limited liability company, with its principal offices at 20125 State Road 80, P.O. Box 700, Loxahatchee, Florida 33470, and the City of Hallandale Beach, Florida ("Participant"), a municipality organized and existing under the laws of the State of Florida, whose address is 440 South Federal Highway, Hallandale Beach, FL 33009. Company and Participant shall collectively herein be call the "Parties" and each be individually identified herein from time to time as a "Party."

Recitals

A. The Parties entered into the Agreement on October 18, 2018 to provide for surface water storage capacity in the proposed collaborative development project known as the C-51 Reservoir, as further described in the Agreement ("C-51 Reservoir"), which is intended to be constructed in two phases.

B. The Agreement provides for an allocation to Participant of one (1) million gallons per day of storage in Phase 1 of the C-51 Reservoir, as further described in the Agreement ("Phase 1 Reservoir").

C. Despite the best efforts of the Parties, it has taken longer than anticipated to satisfy certain conditions precedent set forth in the Agreement, and the Parties desire to amend the Agreement to extend the relevant time periods thereunder and to continue working together towards completion of the Phase 1 Reservoir project.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. The foregoing recitals are true and correct, and are incorporated herein by reference.

2. Unless otherwise stated, for paragraphs 3 – 4 below, words in ~~struck through~~ type are deletions from existing text and words in underline type (aside from previously included headings) are additions to existing text.

3. Section 3.2 of the Agreement is hereby amended, in part, as follows:

3.2 **Termination.** Upon delivery of written notice to Company, as defined by Article 15 below, Participant may terminate this Agreement:

3.2.1 If Company fails to notify Participant, on or before ~~June 30, 2018~~ November 30, 2019, that it has sufficient permits, commitments, and financing to commence the construction of the

Phase 1 Reservoir; or

. . . .

4. Section 11.1 of the Agreement is hereby amended, in part, as follows:

11.1 All of Company's obligations under this Agreement are expressly made subject to all of the following conditions, which Company agrees to use its reasonable efforts to promptly pursue and satisfy, time being of the essence:

. . . .

11.1.2 Company's securing full Construction Financing for the Phase 1 Reservoir ~~within ninety (90) days after the Minimum Reserved Capacity Date~~ on or before November 30, 2019, with a closing date within ninety (90) days thereafter (the "Phase 1 Construction Finance Date"). On or before the tenth (10th) day after the Phase 1 Construction Finance Date, and at least ~~forty-five (45)~~ sixty (60) days before the closing date for Construction Financing, Company shall notify Participant in writing of the Phase 1 Construction Finance Date, as well as the anticipated closing date for Construction Financing.

. . . .

5. The Agreement is hereby amended to include an Appendix D (C-51 Reservoir – Phase 1 Project Completion Schedule), attached hereto and incorporated herein. Company shall use its best efforts to achieve the project milestones listed in Appendix D within the time periods specified. If Company anticipates a delay in achieving any of the project milestones listed in Appendix D, Company shall promptly notify Participant in writing of such anticipated delay.

6. Except as modified herein, all terms and conditions of the Agreement shall remain in full force and effect. In the event of any conflict or ambiguity between this First Amendment and the Agreement, this First Amendment shall control.

7. This First Amendment is effective on the Effective Date, and may be executed by the Parties in counterparts which, when taken together, shall have the force and effect of an original binding document.

(Remainder of Page Intentionally Left Blank)

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their respective duly authorized officers as of the date and year set forth above.

PARTICIPANT

CITY OF HALLANDALE BEACH, FLORIDA

By: _____
Greg Chavarria
City Manager

14 day of October, 2019

AUTHENTICATION:

_____
City Clerk

(SEAL)

Approved as to form:

CITY ATTORNEY

By: _____
Jennifer Merino
City Attorney

COMPANY

WITNESSES:

PALM BEACH AGGREGATES, LLC, a Florida limited liability company

By: _____
Name: Enrique Tomeu
Title: President

Date: _____

_____

_____
Print Name

_____

_____
Print Name

Appendix D

C-51 Reservoir – Phase 1
Project Completion Schedule – Outside Dates
Revised June 18, 2019

Description	Milestone Dates
Construction Financing Commitment	November 30, 2019
Notice of Construction Financing Commitment	December 10, 2019
Closing on Construction Financing	February 28, 2020
Commencement of Construction	March 2020
Construction Substantial Completion	January 2022
Operational Testing	February 2022
Final Cleanup and Demobilization	February 2022
2021 Closing and Turnover to C-51 Reservoir, Inc.	March 2022
Commencement of Operations	March 2022

- Section 11.1.2 Company's securing full Construction Financing for the Phase 1 Reservoir ~~within ninety (90) days after the Minimum Reserved Capacity Date~~ on or before November 30, 2019, with a closing date within ninety (90) days thereafter (the "Phase 1 Construction Finance Date"). On or before the tenth (10th) day after the Phase 1 Construction Finance Date, and at least ~~forty-five (45)~~ sixty (60) days before the closing date for Construction Financing, Company shall notify Participant in writing of the Phase 1 Construction Finance Date, as well as the anticipated closing date for Construction Financing.

WHEREAS, City Administration recommends that the City Commission authorize the City Manager and City Attorney to negotiate and approve the First Amendment to Agreement for Capacity Allocation with Palm Beach Aggregates, LLC to extend certain milestone dates within the original Agreement for the allocation of one million gallons a day of raw water from Phase 1 of the C-51 Reservoir; and

WHEREAS, the Mayor and City Commission have determined that the City Administration's recommendations are in the best interest of the City and its residents.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND THE CITY COMMISSION OF THE CITY OF HALLANDALE BEACH, FLORIDA:

SECTION 1. The foregoing "Whereas" clauses are incorporated herein.

SECTION 2. City Manager Authorization. The Mayor and City Commission hereby authorize the City Manager to negotiate and approve a First Amendment to Agreement for Capacity Allocation with Palm Beach Aggregates, LLC to extend certain milestone dates, as indicated above, for the capacity allocation of one million gallons of water per day from Phase 1 of the C-51 reservoir at a capital cost of four million six hundred thousand dollars ($4,600,000) and an additional annual operations cost.

SECTION 3. Effective Date. This Resolution shall take effect immediately upon its passage and adoption.

APPROVED AND ADOPTED this 7th day of August, 2019.

JOY D. ADAMS
MAYOR

SPONSORED BY: CITY ADMINISTRATION

ATTEST:

JENORGEN M. GUILLEN, CMC
CITY CLERK

APPROVED AS TO LEGAL SUFFICIENCY AND FORM

JENNIFER MERINO
CITY ATTORNEY

FINAL VOTE ON ADOPTION

Mayor Adams	Yes
Vice Mayor Javellana	Yes
Commissioner Butler	Yes
Commissioner Lazarow	Yes
Commissioner Lima- Taub	Absent

C-51 Reservoir Agreement Second Amendment

SECOND AMENDMENT TO
AGREEMENT FOR CAPACITY ALLOCATION
IN PHASE 1 OF THE C-51 RESERVOIR
CITY OF HALLANDALE BEACH

This Second Amendment ("Second Amendment") to the Agreement for Capacity Allocation in Phase 1 of the C-51 Reservoir (the "Agreement") is made and entered into by and between Palm Beach Aggregates, LLC ("Company"), a Florida limited liability company, with its principal offices at 20125 State Road 80, P.O. Box 700, Loxahatchee, Florida 33470, and the City of Hallandale Beach, Florida ("Participant"), a municipality organized and existing under the laws of the State of Florida, whose address is 440 South Federal Highway, Hallandale Beach, FL 33009. Company and Participant shall collectively herein be call the "Parties" and each be individually identified herein from time to time as a "Party."

Recitals

A. The Parties entered into the Agreement on October 18, 2018, as amended by the First Amendment to the Agreement, to provide for surface water storage capacity in the proposed collaborative development project known as the C-51 Reservoir, as further described in the Agreement ("C-51 Reservoir"), which is intended to be constructed in two (2) phases.

B. The Agreemen provides for an allocation to Participant of one (1) million gallons per day of storage in Phase 1 of the C-51 Reservoir, as further described in the Agreement ("Phase 1 Reservoir").

C. Despite the best efforts of the Parties, it has taken longer than anticipated to satisfy certain conditions precedent set forth in the Agreement, and the Parties desire to amend the Agreement to extend the relevant time periods thereunder and to continue working together towards completion of the Phase 1 Reservoir project.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. The foregoing recitals are true and correct, and are incorporated herein by reference.

2. Unless otherwise stated, for paragraphs 3 – 4 below, words in ~~struck through~~ type are deletions from existing text and words in underline type (aside from previously included headings) are additions to existing text.

3.2 **Termination.** Upon delivery of written notice to Company, as defined by Article 15 below, Participant may terminate this Agreement:

3.2.1 If Company fails to notify Participant, on or before ~~November 30, 2019~~ May 31, 2020, that it has sufficient permits, commitments, and financing to commence the construction of the Phase 1 Reservoir; or

. . . .

3. Section 11.1 of the Agreement is hereby amended, in part, as follows:

11.1 All of Company's obligations under this Agreement are expressly made subject to all of the following conditions, which Company agrees to use its reasonable efforts to promptly pursue and satisfy, time being of the essence:

. . . .

11.1.2 Company's securing full Construction Financing for the Phase 1 Reservoir on or before ~~November 30, 2019~~ May 31, 2020, with a closing date within ninety (90) days thereafter (the "Phase 1 Construction Finance Date"). On or before the tenth (10th) day after the Phase 1 Construction Finance Date, and at least sixty (60) days before the closing date for Construction Financing, Company shall notify Participant in writing of the Phase 1 Construction Finance Date, as well as the anticipated closing date for Construction Financing.

. . . .

4. Appendix D (C-51 Reservoir – Phase 1 Project Completion Schedule) to the Agreement is hereby amended as set forth on Appendix D (C-51 Reservoir – Phase 1 Project Completion Schedule) attached hereto and incorporated herein.

5. Except as modified herein, all terms and conditions of the Agreement shall remain in full force and effect. In the event of any conflict or ambiguity between this Second Amendment and the Agreement, this Second Amendment shall control.

6. This Second Amendment is effective on the date when fully executed by the Parties, and may be executed by the Parties in counterparts which, when taken together, shall have the force and effect of an original binding document.

(Remainder of Page Intentionally Left Blank)

IN WITNESS WHEREOF, the Parties hereto have caused this Second Amendment to be executed by their respective duly authorized officers as of the date and year set forth above.

PARTICIPANT

CITY OF HALLANDALE BEACH, FLORIDA

By: _____
Greg Chavarria
City Manager

22 day of April, 2020

AUTHENTICATION:

_____
City Clerk

(SEAL)

Approved as to form:

CITY ATTORNEY

By: _____
Jennifer Merino
City Attorney

COMPANY

WITNESSES:

PALM BEACH AGGREGATES, LLC, a Florida limited liability company

By: _____

Name: Enrique Tomeu

Title: President

_____

Print Name

Date: _____

_____

_____

Print Name

Appendix D

C-51 Reservoir – Phase 1
Project Completion Schedule – Outside Dates
~~Revised June 2019~~

Description	**Milestone Dates**
Construction Financing Commitment	~~November 30, 2019~~May 31, 2020
Notice of Construction Financing Commitment	~~December 10, 2019~~June 11, 2020
Closing on Construction Financing	~~February 28~~August 31, 2020
Commencement of Construction	~~March~~ September 2020
Construction Substantial Completion	~~January~~ July 2022
Operational Testing	~~February~~ August 2022
Final Cleanup and Demobilization	~~February~~ August 2022
2021 Closing and Turnover to C-51 Reservoir, Inc.	~~March~~ September 2022
Commencement of Operations	~~March~~ September 2022

City of Hallandale Beach

10-Year Water Supply Facilities Work Plan – 2019 Update



~~CITY OF HALLANDALE BEACH 2008 WATER SUPPLY FACILITIES WORK PLAN~~



EXHIBIT 5-1

TABLE OF CONTENTS

STATUTORY REQUIREMENTS 1

BACKGROUND 3

Overview 3

Relevant Regional Issues 4

DATA AND ANALYSIS 4

Population Projections 4
Maps of Current and Future Areas Served 5

Population and Potable Water Demand Projections by Each Local Government or Utility 7
Water Supply Provided by Local Government 9

Historic Rates 10

Water Supply Provided by Other Entities 11
Broward County Water Facilities and Services Areas 11
North Miami Beach Water Facilities and Service Areas 13
Hollywood Water Treatment Facilities and Service Areas 14

ALTERNATIVE WATER SUPPLY SOURCES 18

Water Conservation 23

Alternative Suppliers 27
Aquifer Storage and Recovery 27

Reuse/Recharge Project 27

L-8 Reservoir Project 27

WATER SUPPLY CAPITAL IMPROVEMENTS 28

GOALS, OBJECTIVES, AND POLICIES 29

Future Land Use Element 29
Infrastructure Element 32

Conservation Element 36

Capital Improvements Element 37
Intergovernmental Coordination Element 40

EXHIBIT 5-1

~~TABLES AND FIGURES~~

~~Table 1- Citywide Existing Land Use ..... 3~~
~~Table 2- Population and Potable Water Projections ..... 8~~
~~Table 3- Raw Water Withdrawal Amount ..... 9~~
~~Table 4 Historic Water Consumption Rates ..... 10~~
~~Table 5- Recent Water Consumption Rates ..... 10~~
~~Table 6- Hollywood Reuse System ..... 15~~
~~Table 7- Hollywood Reuse Expansion ..... 16~~
~~Table 8- NatureScape Savings ..... 25~~
~~Table 9- Water Supply Capital Improvement Projects ..... 28~~

~~Figure 1-Current and Future Water Service Area ..... 6~~
~~Figure 2- South Regional Wellfield ..... 13~~
~~Figure 3- Hollywood Reuse Water Service Area ..... 17~~
~~Figure 4- Avg Day Raw Water Demand ..... 19~~
~~Figure 5- Avg Day Finished Water Demand ..... 20~~
~~Figure 6- Max Day Raw Water Demand ..... 21~~
~~Figure 7-Max Day Finished Water Demand ..... 22~~
~~Figure 8-Historic Water Consumption 12-Month Average ..... 24~~

EXHIBIT 5-1

~~STATUTORY REQUIREMENTS~~

~~The City of Hallandale Beach (City) is subject to the jurisdiction of the South Florida Water Management District (SFWMD). The SFWMD is one of four Florida water management districts that have concluded traditional water supply sources will not be sufficient to meet the demands of the growing population and needs of the environment, agriculture and industry over the next two decades. As this view has gained more prominence in recent years, the Florida Legislature enacted bills in 2002, 2004, and 2005 to more directly address the state's water supply needs by requiring more coordination between local land use planning and water supply planning.~~

~~The focus of the initial legislation was to add requirements to Chapter 163, Florida Statutes (FS), for local governments to prepare 10-year water supply facilities work plans and to incorporate the work plans into their comprehensive plans. The legislative change emphasized the need for local comprehensive plans to consider the applicable regional water supply plans prepared by the water management districts. In the case of the SFWMD, the applicable plan is the Lower East Coast Water Supply Plan (LEC Plan), most recently updated in 2005-2006.~~

~~In 2005, the Florida Legislature changed Chapters 163 and 373, FS, to improve the coordination between water supply and land use planning. Senate Bills 360 and 444 were designed to strengthen the statutory linkage between the regional water supply plans prepared by the water management districts and comprehensive plans prepared by the local governments, with the goal of ensuring that adequate water supplies and public facilities are available to serve the water supply demands of Florida's growing population.~~

~~Local governments subject to a regional water supply plan must prepare a minimum 10-year work plan for building public, private, and regional water supply facilities to serve existing and new development within the local government's jurisdiction. This work plan must be adopted into the comprehensive plan within 18 months after the water management district approves a regional water supply plan or its update. The work plan and the comprehensive plan amendment must address the development of traditional and alternative water supplies (AWS), bulk sales agreements, and conservation and reuse programs that are necessary to serve existing and new development for at least a 10-year planning period.~~

~~In addition to the water supply plan requirements, the following amendments to the comprehensive plan must be made:~~

- ~~Revise the Infrastructure Element within 18 months after the water management district approves an updated regional water supply plan to:~~

EXHIBIT 5-1

- ~~Identify and incorporate the alternative water supply projects selected by the local government~~
- ~~Identify the traditional and alternative water supply projects, bulk sales agreements, and the conservation and reuse programs necessary to meet current and future water use demands within the local government's jurisdiction.~~
- ~~Include a water supply facilities work plan for at least a 10 year planning periods for constructing the public, private, and regional water supply facilities identified in the element as necessary to serve existing and new development.~~

- ~~Revise the 5 year schedule of capital improvements to include any water supply, reuse, and conservation projects and programs to be implemented during the 5-year period;~~

- ~~Revise the Conservation Element to ensure that projected water needs and sources are for at least a 10 year planning period, considering the appropriate regional water supply plan(s) or, in the absence of an approved regional water supply plan, the applicable district water management plan;~~

- ~~Revise the Intergovernmental Coordination Element to ensure coordination of the comprehensive plan with the applicable regional water supply plans and regional water supply authorities.~~

EXHIBIT 5-1

BACKGROUND

Overview

The City of Hallandale Beach was founded in 1897 and is one of the oldest communities in Broward County. The City is located at the southeast corner of Broward County and is characterized by its many medium and high rise residential structures, primarily along the beach area and by the two pari-mutuel facilities (Gulfstream Park / Mardis Gras Gaming Center). The City is a full service community offering police service, fire/rescue protection, public works, water and sewer utilities, community development, code enforcement, and parks and recreation services.

The City is currently over 95% built-out, as is the case with most municipalities in Broward County. Development in the City has primarily consisted of high density residential and commercial buildings on the City's east side, while the west side of the City has remained relatively low density residential and commercial. However, there has been a development trend in the western portion of the City involving infill development of vacant single-family, multiple-family and commercial lots and the re-development of underutilized properties. The following is a breakdown of the of the land use areas in Hallandale Beach:

Table 1 Citywide Existing Land Use

FUTURE LAND USE MAP AREAS	2008	2008
	Acres	% of Total
Residential		
- Single Family	438.36	15.5%
- Two Family	133.44	4.7%
- Three & Four Family	37.85	1.3%
- Multi-Family	501.28	17.7%
- Mobile Homes	63.54	2.2%
SUBTOTAL	1,174.47	41.5%
Business and Commercial	274.37	9.7%
Local Activity Center	60.80	2.1%
Industrial	48.39	1.7%
Agricultural	0	0
Water	243.48	8.6%

EXHIBIT 5-1

FUTURE LAND USE MAP AREAS	2008	2008
	Acres	% of Total
Recreation	38.09	1.3%
- Public	291.80	10.3%
- Private		
SUBTOTAL	**329.89**	**11.6%**
Community Facilities		
- Public	103.70	3.7%
- Private	38.81	1.4%
- Historic	0.64	0.02%
SUBTOTAL	**143.15**	**5.1%**
Transportation		
- Streets	422.41	14.9%
- Railroad	17.87	0.6%
SUBTOTAL	**440.28**	**15.5%**
Vacant	116.0	4.1%
TOTAL	**2,830.83**	**100.0%**

Source: 2006 City of Hallandale Beach Evaluation and Appraisal Report

Relevant Regional Issues

As the state agency responsible for water supply in the Lower East Coast planning area, the South Florida Water Management District (SFWMD) plays a pivotal role in resource protection, through criteria used for Consumptive Use Permitting. As pressure increased on the Everglades ecosystem resource, the Governing Board initiated rule making to limit increased allocations dependent on the Everglades system. As a result, the Regional Water Availability Rule was adopted by the Governing Board on February 15, 2007 as part of the SFWMD's Consumptive Use Permit Program. This reduced reliance on the regional system for future water supply needs, mandates the development of alternative water supplies, and increases conservation and reuse.

DATA AND ANALYSIS

Population Projections

The City's existing and future population numbers are derived from data published by Broward County's Planning Services Division. The Broward County Population Forecasting Model (Model), developed by the Planning Services

~~Division (PSD), was approved by the State of Florida's Department of Community Affairs as part of the adoption of the Broward County Comprehensive Plan in 1989.~~

~~The Model provides details about Broward County's expected population. With the assistance of municipal partners in the Broward County Population Forecasting Roundtable, these projections are assigned to Broward County's 31 municipalities, 279 census tracts and 902 traffic analysis zones.~~

~~The Model uses the cohort-survival method to project future population and housing units, and is based on the concept that future population equals the present population plus natural increase and net migration. Natural increase equals the difference between the number of births and deaths each year. Net Migration equals the number of people moving into the County less those moving out each year. Net migration includes both domestic and international migration.~~

~~Output from this model is used by many County agencies, as well as the School Board of Broward County, the South Florida Water Management District, the Metropolitan Planning Organization, and the Broward Sheriff's Office. These agencies use projections to estimate the existing level of service demand and project facilities and programs to meet future service demand.~~

~~The model covers a thirty year forecast period beginning with the most recent census year (2000). An annual update of the model allows for calibration of the model in response to changing demographic trends between the census years.~~

~~According to the Broward County data, Hallandale Beach is projected to increase from 34,282 in 2000 to 37,014 in 2008. The population is expected to increase to 39,406 in 2010; 43,996 in 2015; 48,493 in 2020; and 52,149 in 2025. The City has very little vacant land available; therefore, the majority of the growth will be a result of redevelopment.~~

~~Maps of Current and Future Areas Served~~

~~The City of Hallandale Beach provides water to all areas within its City Limits with the exception of the Diplomat Golf Course, which is irrigated with reuse water from the City of Hollywood.~~

~~At this time, the City has no plans to provide raw or finished water to any other municipality or area outside of its jurisdiction. Figure 1 below depicts the water areas served.~~

EXHIBIT 5-1

~~**Figure 1-Current and Future Water Service Area**~~

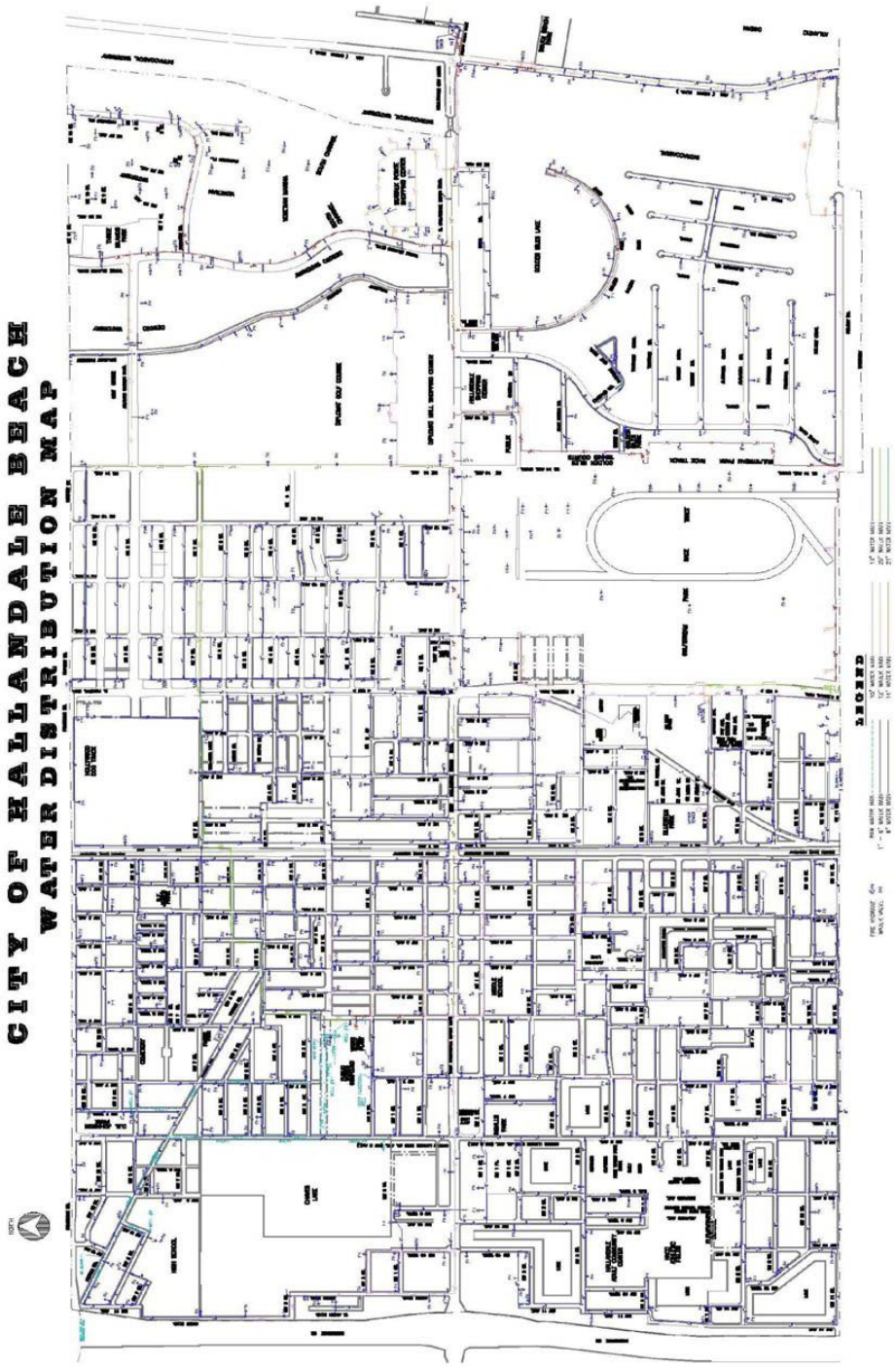


EXHIBIT 5-1

~~Population and Potable Water Demand Projections by Each Local Government or Utility~~

~~According to Broward County projections, the population in Hallandale Beach will continue to rise over the next 20 years. Table 2 shows the projected populations through 2028 and the estimated raw and finished water demand for average day and maximum day.~~

EXHIBIT 5-1

Table 2- Population and Potable Water Projections

CITY OF HALLANDALE BEACH							
Summary of Raw Water and Finished Water Requirements							
Based on Broward County Population Projections							
		Average Day			Maximum Day		
Year	Total Population[1]	FW[2] mgd	RW[3] mgd	RW Demand Not Met[4] mgd	FW[5] mgd	RW[3] mgd	RW Demand Not Met[4] mgd
2008	37014	5.4	6.5		6.5	7.6	
2009	38210	5.6	6.6		6.7	7.8	
2010	39406	5.8	6.8		6.9	8.0	
2011	40324	5.9	7.0		7.1	8.2	
2012	41242	6.0	7.1		7.2	8.4	
2013	42160	6.2	7.2		7.4	8.5	
2014	43078	6.3	7.4		7.5	8.7	
2015	43996	6.4	7.5		7.7	8.9	
2016	44895	6.6	7.7		7.9	9.0	
2017	45795	6.7	7.8		8.0	9.2	
2018	46694	6.8	7.9		8.2	9.4	
2019	47594	6.9	8.1		8.3	9.5	
2020	48493	7.1	8.2		8.5	9.7	
2021	49224	7.2	8.3		8.6	9.8	0.1
2022	49955	7.3	8.4		8.8	10.0	0.3
2023	50687	7.4	8.6		8.9	10.1	0.4
2024	51418	7.5	8.7		9.0	10.3	0.6
2025	52149	7.6	8.8		9.1	10.4	0.7
2026	52583	7.7	8.8		9.2	10.5	0.8
2027	53018	7.7	8.9		9.3	10.5	0.8
2028	53452	7.8	9.0		9.4	10.6	0.9
1 Population based on publication "Broward by the Numbers", March 2007 produced by Broward County Urban Planning and Redevelopment Department Planning Services Division.							
2 Calculated using the historical per capital consumption rate of 146 gallons per person per day (present level of service).							
3 Assumed 15% losses overall for the nanofiltration process and 5% losses for lime softening (historical).							
4 Calculations assume City well water is treatable (i.e., saline intrusion does not occur).							
5 Assumed maximum day demand =1.2 times average day demand							

EXHIBIT 5-1

~~Water Supply Provided by Local Government~~

~~The City of Hallandale Beach has two water treatment facilities. The original water plant was built in 1951 with a maximum capacity of 3 million gallons per day (mgd). In 1968, the facility was expanded to a 10 mgd capacity in anticipation of extensive development within the city.~~

~~In 2008, the City's new membrane treatment plant was put online and was designed with the capability of meeting the City's future water demand. The current capacity of the facility is 6.0 mgd; however, it is expandable to 15 mgd with the installation of additional skids (although there are no plans at this time).~~

~~The City is presently producing approximately 5.27 million gallons per day (mgd) of finished water through the nanofiltration and lime-softening process at its two water treatment facilities. The City can treat water from its existing wells through lime softening while the Broward County Regional Water Source (BCRWS) supply is treated through nanofiltration.~~

~~The current water supply source for the City of Hallandale Beach is the Biscayne Aquifer. The City's last Consumptive Use Permit (CUP # 06-00138-W) allocated~~
~~2.8 mgd of Biscayne Aquifer water to the City, through the Broward County Regional Water Supply (BCRWS) transmission system (Piccollo Wellfield). In 2007, the SFWMD allocated an increased allowance of 3.4 mgd for the City's recently constructed water treatment facility. In addition to the raw water received from Broward County, the City also draws 3.5 mgd of raw water from the City's three wells. The City has applied with the SFWMD for a renewal of the permit and is awaiting approval from the district. Hallandale Beach has had discussions with the SFWMD and anticipates its CUP will be renewed allocating the aforementioned 6.2 mgd from the County and 3.5 mgd from the City wells.~~

~~Table 3 Raw Water Withdrawal Amount~~

~~Current Raw Water Permitted Allocations~~	
~~Broward County (South Regional Wellfield)~~	~~2.8 mgd~~
~~• Additional allowance for new membrane treatment plant~~	~~3.4 mgd~~
~~Hallandale Beach City Wells~~	~~3.5 mgd~~
~~Total~~	~~9.7 mgd~~

EXHIBIT 5-1

Historic Rates

The historical water usage rates were analyzed using data from 2002-2007. As the population steadily increased each year so did the finished water demand, with the exception of 2007, which was a water conservation year. In 2007, the City experienced a 10% decrease in finished water demand.

Table 4-Historic Water Consumption Rates

Water Consumption Rates from Recent Years							
Year	Population	Raw Water Demand			Finished Water Supplied by WTP)	Finished Water Demand (includes purchases from North Miami Beach)	Finished Water Demand
		mg/year	(mgd)	(gpcd)	(mgd)	(mgd)	(gpcd)
2002	34856	2125.451	5.82	167	5.73	5.80	164
2003	35109	2125.613	5.82	166	5.76	5.81	164
2004	35362	2126.491	5.83	165	5.86	5.98	166
2005	35616	2131.433	5.84	164	5.67	5.79	159
2006	34622	2134.834	5.85	169	5.90	6.04	171
2007	35818	2125.379	5.82	163	5.37	5.43	150

The water consumption rates continued to decline between 2007 and 2008 as the Phase III restrictions continued to be effective. From June 2007 through May 2008, the City averaged 146 gallons per capita per day (gpcd).

Table 5- Recent Water Consumption Rates

Date	Water Use	X MM	12-Month Avg	Gallons per capita per day (gpcd)
M-08	149,327,500	149.3	158.2	**130**
A-08	166,505,000	166.5	159.2	**150**
M-08	163,028,200	163.0	161.3	**142**
F-08	174,929,600	174.9	162.0	**163**
J-08	164,416,600	164.4	163.6	**143**
D-07	153,485,400	153.5	165.4	**138**

EXHIBIT 5-1

Date	Water Use	X MM	12-Month Avg	Gallons per capita per day (gpcd)
N-07	153,161,000	153.2	165.3	143
O-07	153,443,492	153.4	167.6	138
S-07	167,504,600	167.5	167.0	156
A-07	149,503,900	149.5	168.7	135
J-07	144,840,600	144.8	170.5	130
J-07	158,472,400	158.5	171.1	147

Source: Hallandale Beach Finance Department- Water Billing Rates

Water Supply Provided by Other Entities

Broward County Water Facilities and Services Areas

Broward County is located along the lower east coast Florida, between Miami-Dade and Palm Beach Counties. It is made up of 31 municipalities, 28 utilities, and 22 drainage districts. The County has experienced significant population growth since 2000, which is expected to continue. The County's population is projected to increase thirty-one percent between 2005 and 2030, from 1.75 to 2.29 million. The County contains more than 1,225 square miles, however, only the eastern third of the county is urbanized. The remaining two-thirds is wetlands and constitutes a large part of the Everglades Water Conservation Areas.

In 1986, Broward County adopted the Regional Raw Water Supply Program, which called for inland wellfields safe from salt water intrusion to ensure a continual supply of potable water for Broward County. Under the program, new wellfields were constructed in the west to shift demand from the east to west. The new wellfields and raw water delivery systems were financed, constructed, and operated as a regional system, using general County revenues. Large Users Agreements were established with each entity receiving water from the wellfields and, at present, one such agreement is in place for the North Regional Wellfield (NRW) and four agreements for the South Regional Wellfield (SRW).

North Regional Wellfield

The NRW is located at Quiet Waters Park in Deerfield Beach. The NRW is comprised of 10 wells, each with a capacity of 2 million gallons per day, providing a total design capacity for the wellfield of 20 mgd and a firm capacity of 18 mgd with the largest well unit out of service. The anticipated maximum monthly and average annual daily withdrawals are 259.4 mgm and 7.1 mgd, respectively.

EXHIBIT 5-1

~~The NRW supplies raw untreated water to the City of Deerfield Beach under a large user raw water agreement. Per this agreement, the County is obligated to provide the City of Deerfield Beach with a minimum of 0.50 mgm and a maximum of 0.59 mgd annual average daily flow, a peak daily flow of 0.83 mgd, and a peak hourly flow of 2.0 mgd. Approximately 12% of current raw water withdraws from the NRW is pumped into the City of Deerfield Beach. The term of the agreement is endless and will continue in perpetuity unless there is mutual agreement for termination.~~

~~South Regional Wellfield~~

~~The South Regional Wellfield is located in the southern central portion of the County. The majority of the wells are located in Brian Piccolo Park. The SRW includes ten wells. Eight 4mgd wells and two 2mgd wells are currently in operation, providing a total design capacity for the wellfield of approximately 36 mgd and a firm capacity of 32 mgd with the largest unit out of service.~~

~~The SFWMD consumptive use permit for the SRW is currently being renewed. Based on the historically derived" base condition use" the anticipated maximum monthly withdrawal from the Biscayne Aquifer allowed from the SRW is 386.1 mgm and the average annual daily withdrawal is 15.2 mgd.~~

~~The SRW provides raw water to the City of Dania Beach, the City of Hallandale Beach, the City of Hollywood, and the Florida Power and Light Corporation under large raw water user agreements. The contractual agreements with each of the large users of the SRW run for an indefinite period with the exception of the City of Hollywood where their agreement has a four year term with an automatic renewal for four years. Figure 1 describes the breakdown of the Large User's raw water allocations.~~

EXHIBIT 5-1

~~**Figure 2 South Regional Wellfield**~~
~~**Base Conditions Water Use and Large User Allocations**~~

	SRW	Hallandale Beach	Hollywood	Dania Beach	FPL
	MGD	MGD	MGD	MGD	MGD
Base Condition Water Use (Wellfield Withdrawal)	11.84	2.87	5.99	1.13	1.85
Adjustment to Base Condition Use*	3.4	3.4	NA	NA	NA
Adjusted **Total Wellfield Withdrawal	15.24	6.27	5.99	1.13	1.85

* The water availability rule provides for an increase to the base condition water use to account for the additional volume used in Hallandale Beach's conversion of it's water treatment process. (SFWMD BOR, Section 3.2.1.E.(3)(a), page WU-BOR-64, September 2007.)
** Includes line flushing & water losses between withdrawal point and User's meter.
NA - Not Applicable

~~**Source: Broward County Water Supply Plan 2008**~~

~~North Miami Beach Water Facilities and Service Areas~~

~~The City of North Miami Beach is located in Miami-Dade County, just south of Hallandale Beach. NMB has approximately 42,000 residents and is 5.2 square miles in size.~~

~~The City of North Miami Beach's water system is the second largest in Miami-Dade County, with infrastructure of water supply, treatment, storage, transmission, and distribution. The water system provides services to approximately 32,800 metered connections in North Miami Beach, Sunny Isles, Miami Gardens, Aventura and portion of Northwest Miami-Dade, serving approximately a population base of over 180,000.~~

~~The Norwood Water Treatment Plant Expansion Program expanded the existing water treatment plant from a treatment capacity of approximately 16 million gallons per day to approximately 32 million gallons per day. This additional capacity will be used to replace water currently supplied by the Miami-Dade Water and Sewer Department.~~

~~Initial capacity for the membrane treatment system was 15 MGD, which includes 9 mgd of nanofiltration and 6 mgd of low pressure reverse osmosis treated water. The system is expandable to 20 MGD, with additional NF train of 3 mgd and additional RO membrane for 2 mgd. The permeate flow streams of the~~

membrane processes is combined for post treatment/stabilization and subsequently blended with finished water from the existing lime softening process and the filtered raw water blend. The blended finished water is then transferred to a new 4.2 million gallons (MG) and existing 2.0 MG ground storage tanks before it pumped out to the water distribution system.

The City of Hallandale Beach maintains an emergency interconnect with North Miami Beach (NMB). The City currently has an agreement with NMB to purchase bulk treated water during emergency conditions, which the City has recently utilized during preparations in opening the new water treatment plant. Below are the past purchases of bulk treated water:

- FY05/06: 15.450 million gallons
- FY06/07: 45.120 million gallons
- FY07/08(to date): 48.200 million gallons

Although Hallandale Beach is capable of providing an adequate supply of water to meet future water demands beyond the 10-year planning cycle, the City has been in discussions with the City of North Miami Beach regarding the possibility of entering into an agreement whereby the City would purchase a set amount of bulk treated water from NMB in the future, if necessary. At this time, no final agreements have been reached.

Hollywood Water Treatment Facilities and Service Areas

The City of Hollywood is located just north of Hallandale Beach. Hollywood covers approximately 29 square miles bound by the Atlantic Ocean to the east and surrounded by seven cities, one town, a Seminole reservation, and unincorporated areas. Except for Port Everglades, the City of Hollywood jurisdiction is supplied with finished water produced at the City of Hollywood Water Treatment Plant. Port Everglades is supplied by the City of Fort Lauderdale Public Works Department.

The Hollywood water treatment plant is operated by the City of Hollywood Department of Public Utilities. The Hollywood Water Treatment Plant supplies both a retail service area, extending over most of the City of Hollywood jurisdiction, and a wholesale service area, covering Broward County Water and Wastewater Services Districts 3A, 3B, and 3C.

In 2007, the Hollywood water treatment plant produced approximately 23 million gallons per day (mgd) of potable water, of which 16.3 mgd were served to nearly 40,000 connections in the retail area and the remaining 6.7 mgd were sold to the wholesale service area. All three BCWWS districts are served under an interlocal resale water agreement by which Broward County purchases potable water from The Hollywood DPU for resale to its customers.

EXHIBIT 5-1

~~The Hollywood DPU has implemented a reuse system by making use of treated effluent from Cooper City and the Town of Davie. The Hollywood-DPU delivers up to 4 mgd of reuse water for irrigation with chloride levels of 600 mg/liter or less to be within the salt tolerance of local turf grasses and ornamentals. Such reuse water flow offsets an otherwise potable water use. The existing reuse system serves primarily golf courses, schools, private developments, parks, and other entities that have a relatively large irrigation demand. These customers, classified as contract customers, are the most cost effective to serve.~~

~~Table 6 Hollywood Reuse System~~

~~Existing Reuse System Customers~~		
~~Site~~	***~~Area (Acres)~~***	***~~Demand (mgd)~~***
~~Diplomat Country Club*~~	~~115.4~~	~~0.446~~
~~Eco Grande Golf Course~~	~~28.2~~	~~0.109~~
~~Emerald Hills Country Club~~	~~173.7~~	~~0.671~~
~~Hillcrest Country Club~~	~~150.6~~	~~0.582~~
~~Hollywood Country Club~~	~~55.1~~	~~0.213~~
~~Orangebrook Country Club~~	~~229.8~~	~~0.888~~
~~Dowdy Field~~	~~7~~	~~0.027~~
~~Subtotal~~	**~~760~~**	**~~2.94~~**
~~* Portions Located in Hallandale Beach~~ ~~** Source: 2007 City of Hollywood Reuse Feasibility Study~~		

~~Hollywood plans to expand their existing reuse system in phases and the City of Hallandale Beach has been in discussions with Hollywood to reach an agreement increasing the amount of reuse water it currently receives from the city. The following Table-7 defines the likely phased expansion of Hollywood's existing system. Figure 4 also illustrates the coverage of the future reuse water service area.~~

~~The City has been communicating with the City of Hollywood and is anticipating receiving approximately 800,000 mgd of reuse water, although no final agreements have yet been reached.~~

EXHIBIT 5-1

Table 7- Hollywood Reuse Expansion

Expanded Reuse System Customers	
Site	***Demand (mgd)***
Existing System	2.94
Phase I Expansion	
TY Park	0.272
Rotary Park	0.035
Public Works Nursery	0.005
West Lake Park	0.210
Three Island Park*	0.583
Subtotal	1.11
Phase II Expansion	
Residential Customers	3.7
West Lake Village	0.089
Subtotal	**3.79**
System Total	**7.83**
* Portions Located in Hallandale Beach ** Source: 2007 Reuse Feasibility Study	

EXHIBIT 5-1

~~Figure 3 Hollywood Reuse Water Service Area~~

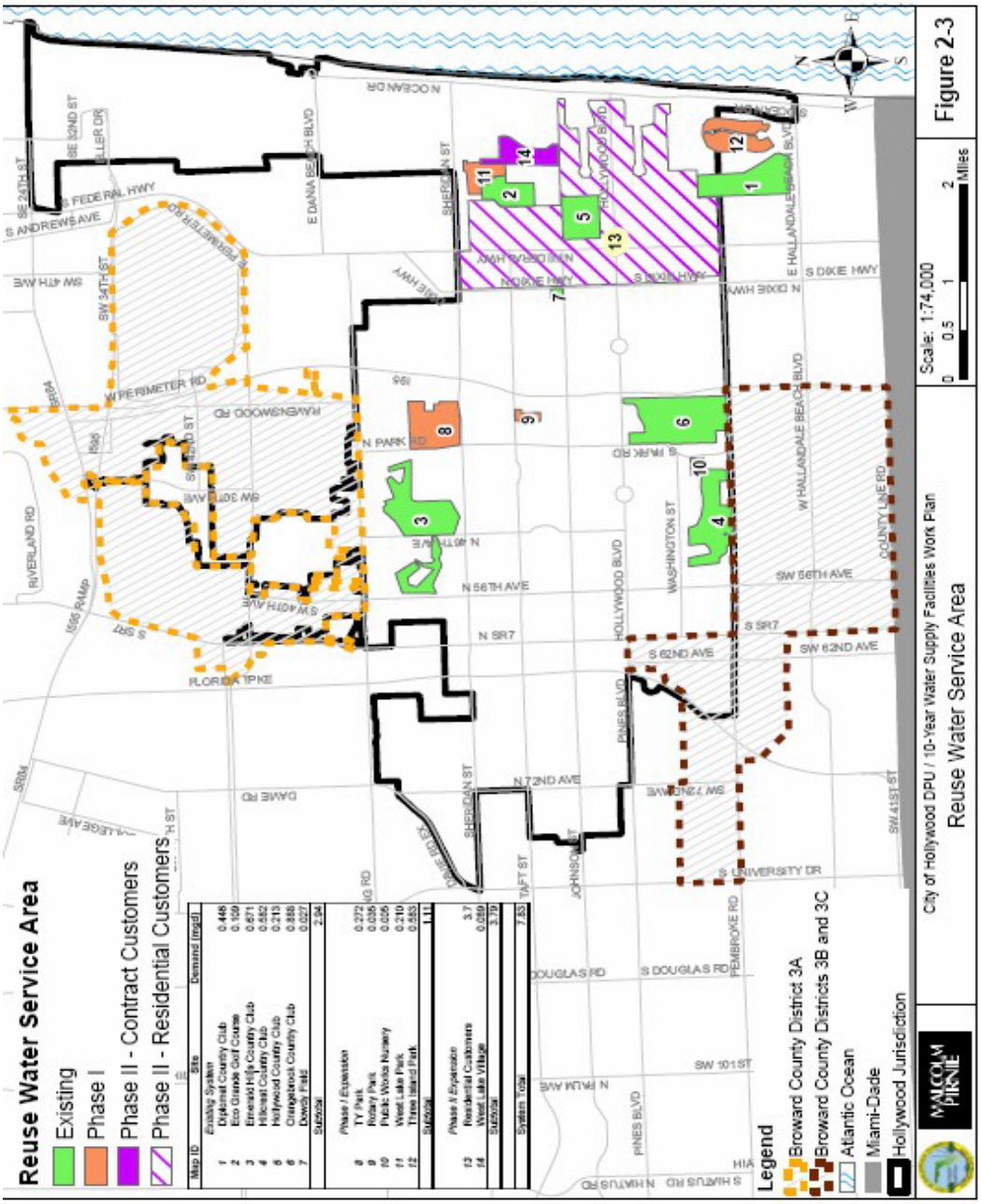


EXHIBIT 5-1

~~ALTERNATIVE WATER SUPPLY SOURCES~~

~~Since 2007, the South Florida Water Management District has been imposing Phase III water restrictions on Hallandale Beach. Under those restrictions, the City has experienced a tremendous reduction (13%) in its water consumption levels. According to the City's water billing records, the City had been consuming an average of 167 gallons per capita per day (gpcd). By May 2008, the City's gpcd had reached an average of 146 gallons per capita per day.~~

~~Based upon the City's current gallons per capita per day rate, the City will be capable of providing the raw water demand for future projections through 2020 on a maximum day demand (Figure 4) and beyond 2030 on an average day demand (Figure 6) without requiring the implementation of any additional alternative water supply (AWS) projects.~~

~~The City has determined that enhancing its water conservation efforts and implementing additional conservation programs will ensure that Hallandale Beach will have the necessary resources to provide water to current and future populations well beyond the required 10 year planning period.~~

~~Although it is not necessary at this time for Hallandale Beach to implement any additional AWS projects to meet current and future projections, City staff will continue to research alternative programs for the future.~~

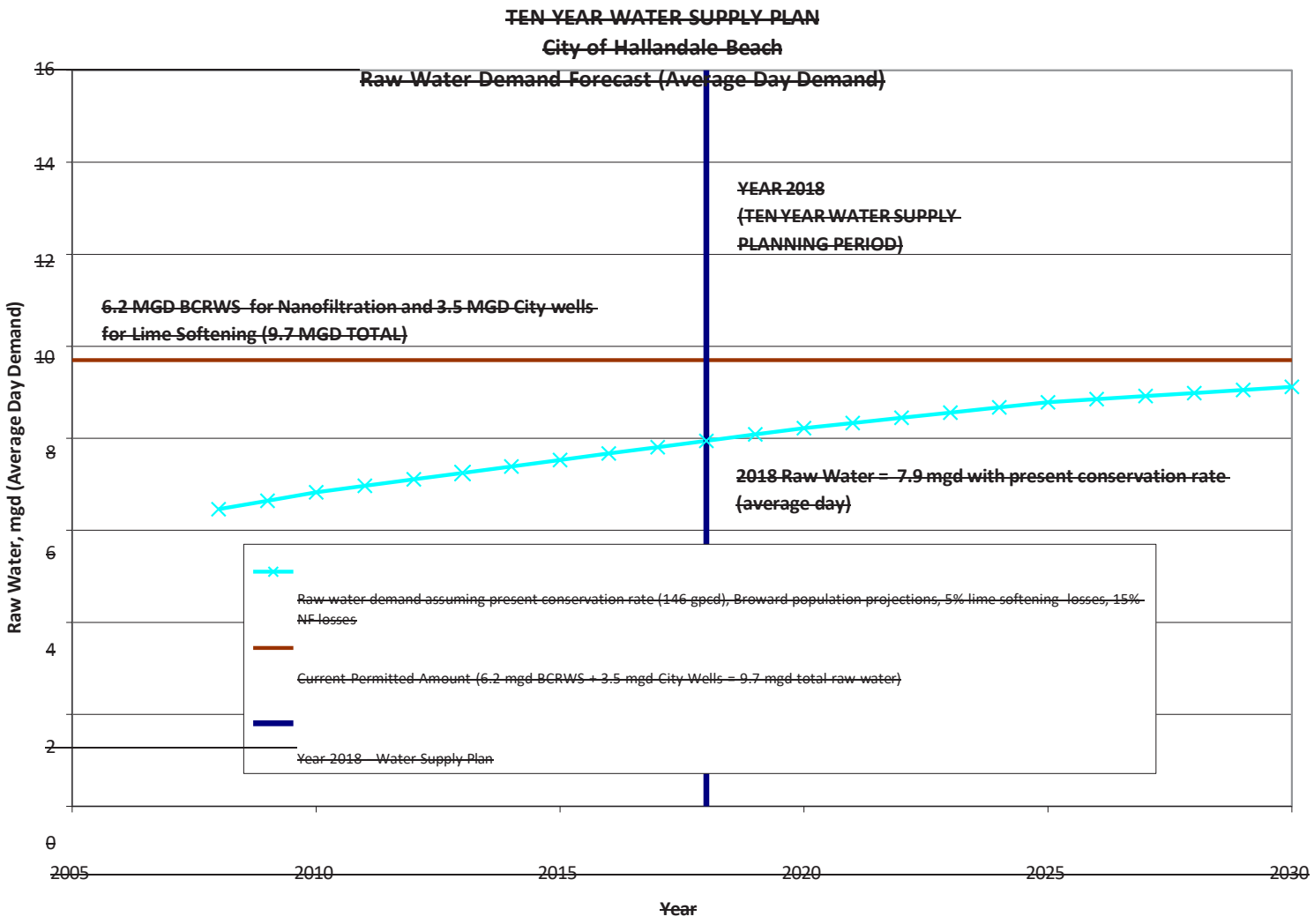


Figure 4-Avg Day Raw Water Demand

EXHIBIT 5-1

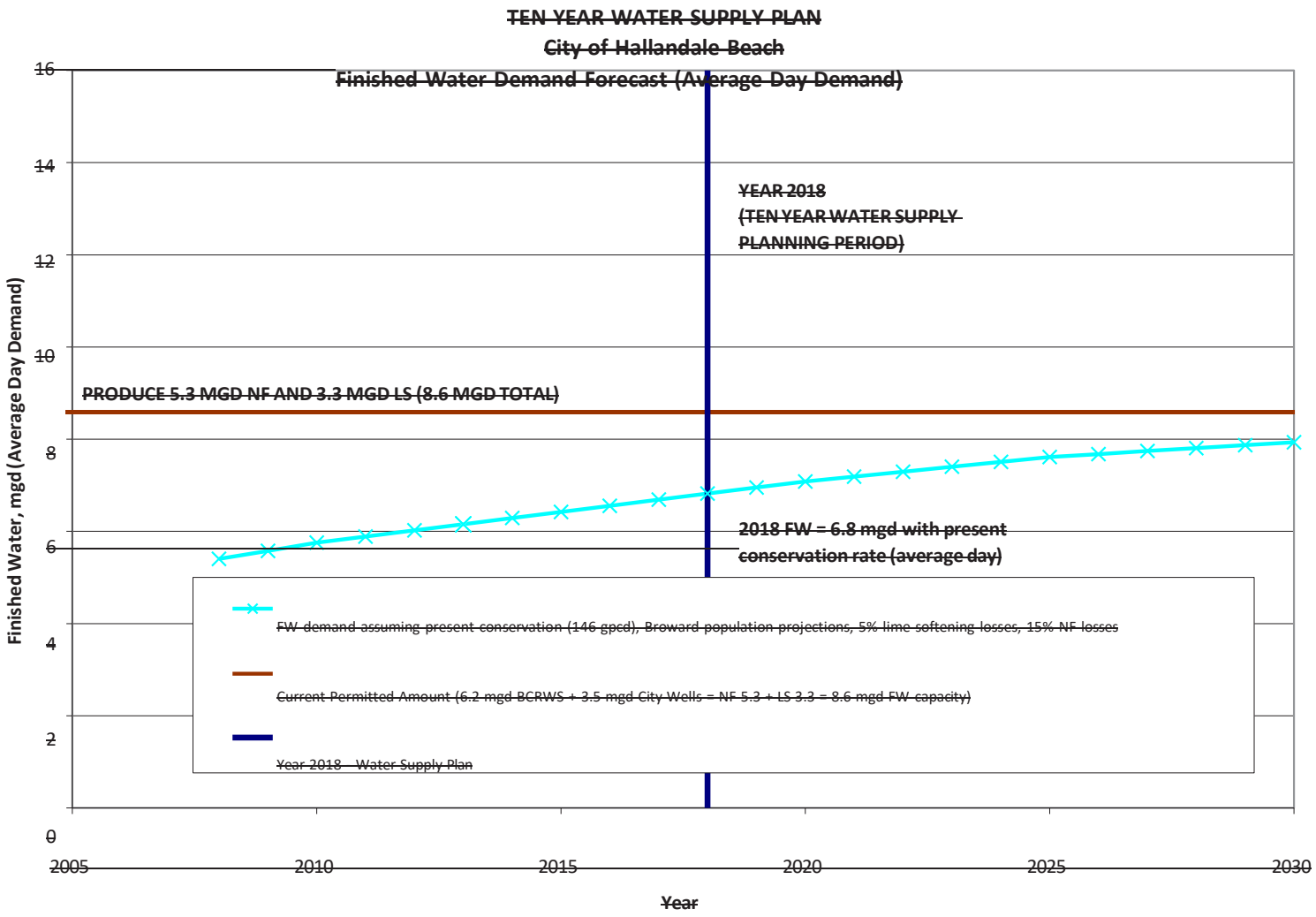


Figure 5- Avg Day Finished Water Demand

EXHIBIT 5-1

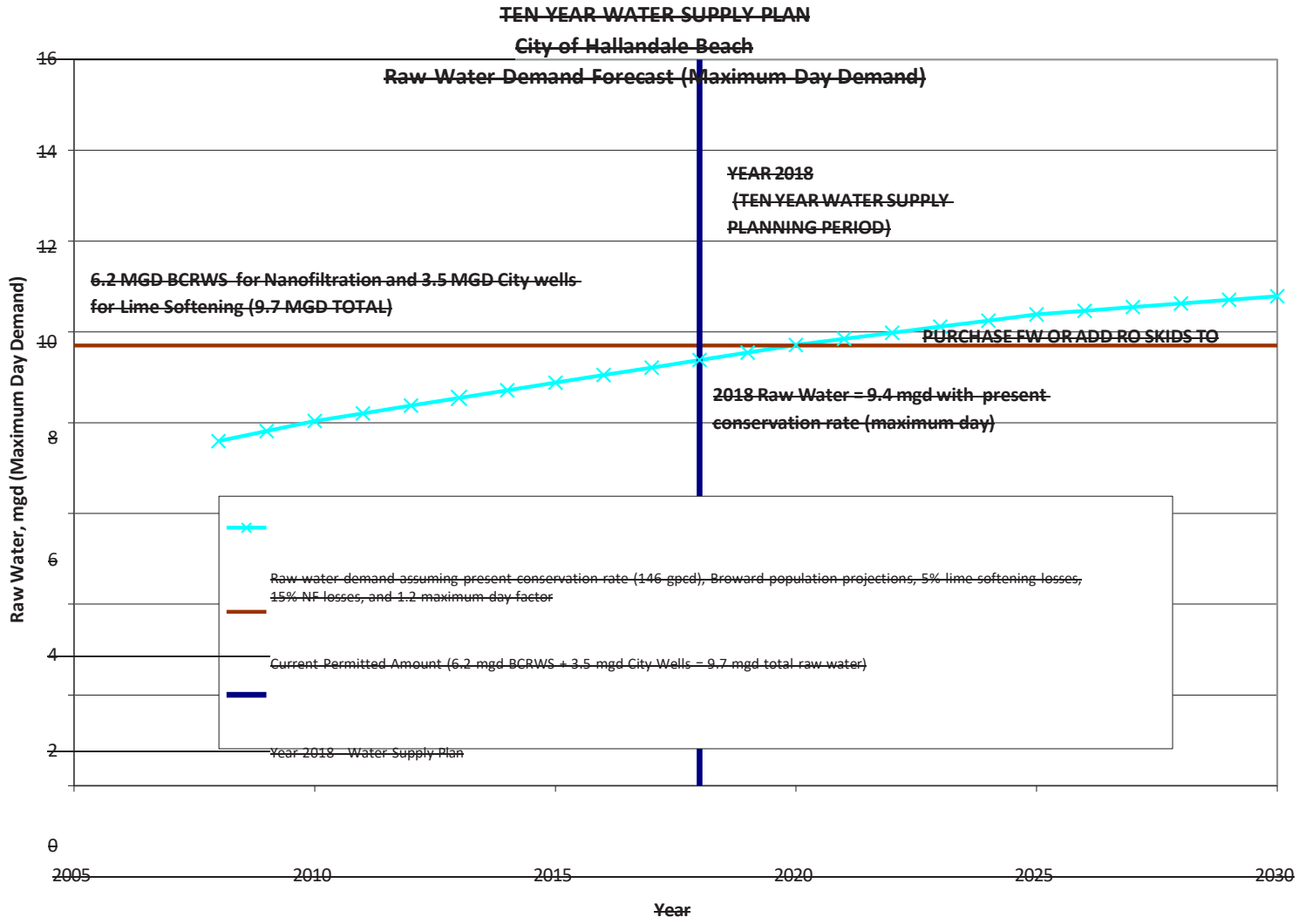


Figure 6- Max Day Raw Water Demand

EXHIBIT 5-1

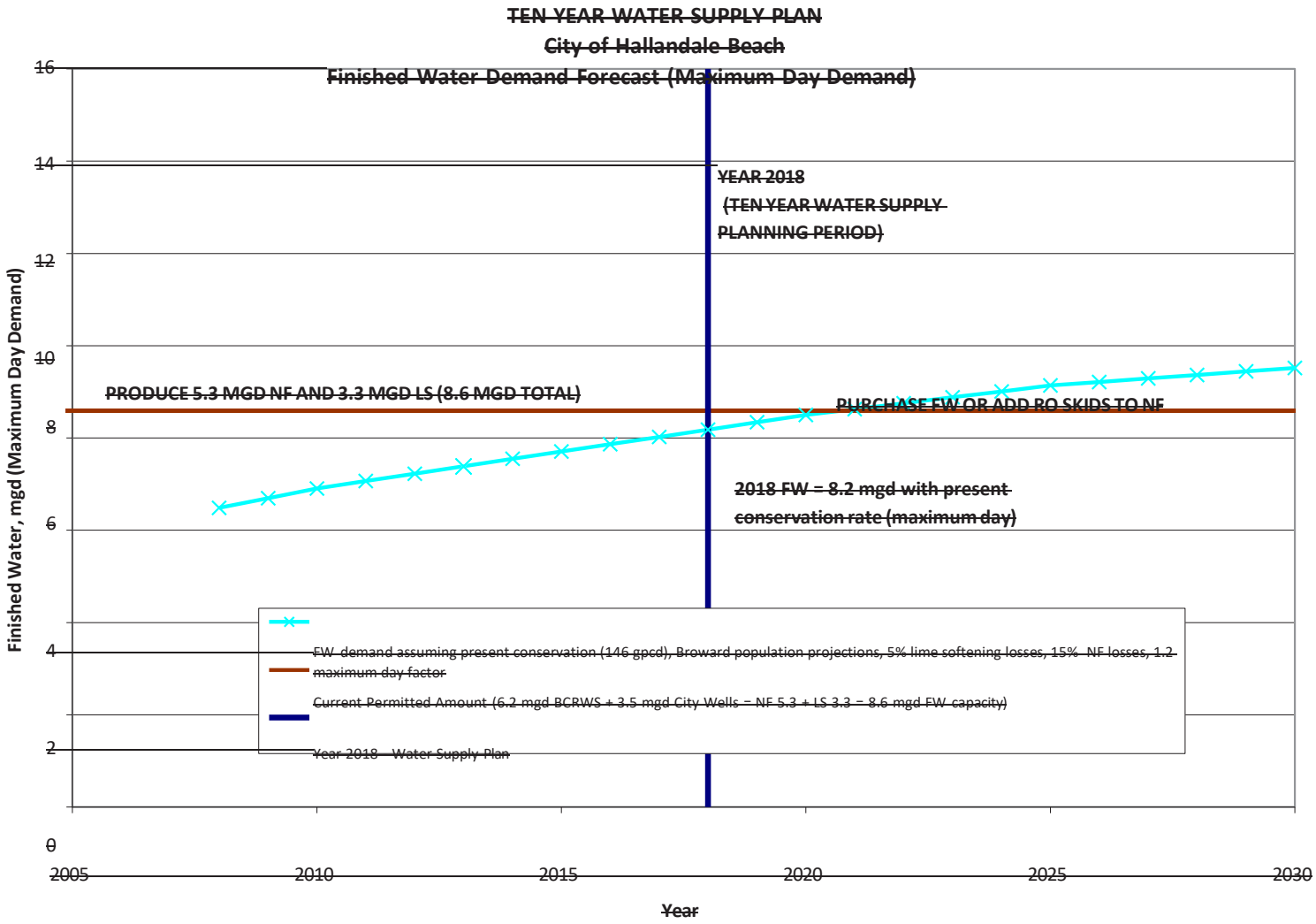


Figure 7-Max Day Finished Water Demand

EXHIBIT 5-1

EXHIBIT 5-1

~~The City is investigating the following alternative water supply methods in an effort to maximize water consumption efficiency:~~

~~1) Additional water conservation programs to reduce future demand~~

~~2) Preserve the life of City wells by monitoring salinity encroachment and implementing strategic improvements~~

~~3) Alternate water suppliers (Cities of Hollywood and North Miami Beach) to meet future demands~~

~~4) Relocation of City's wells to the west, to extend the life of the wells~~

~~5) Aquifer Storage and Recovery~~

~~6) Reuse/Recharge Project~~

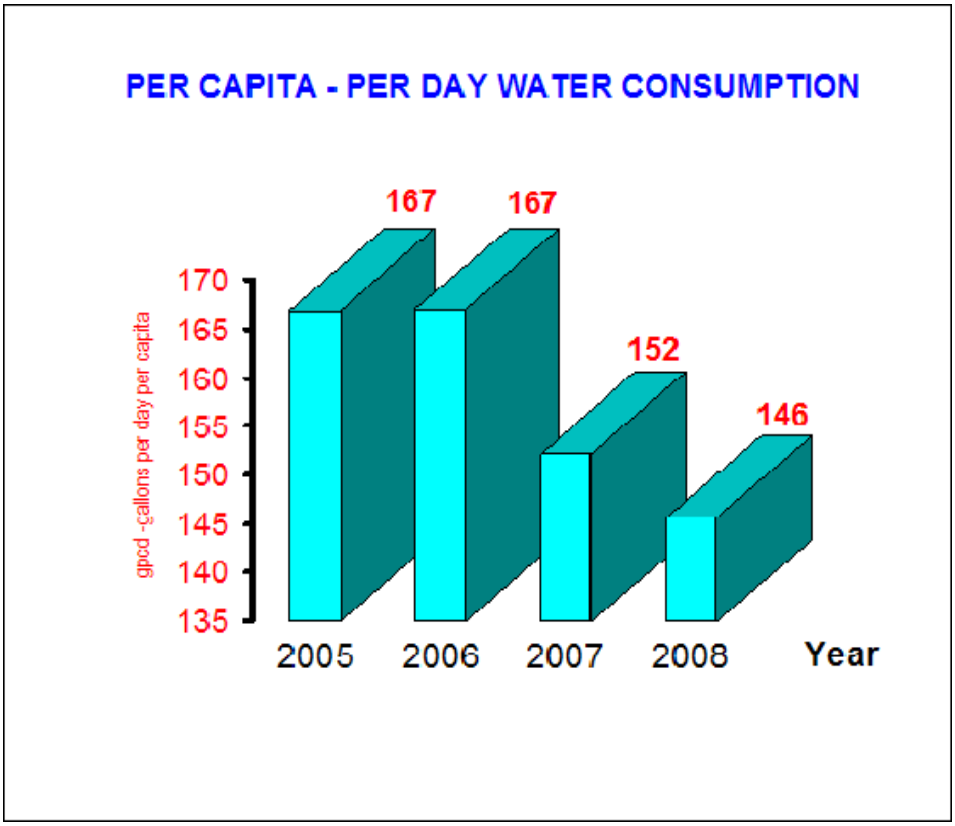
~~7) L-8 Reservoir Project to provide an increased Biscayne Aquifer allowance~~

~~Water Conservation~~

~~The South Florida Water Management District imposed water restrictions in 2007. Hallandale Beach was subject to those restrictions and as a result experienced a 13% decrease in the amount of Finished Water Demand for 2007/2008. Based on the amount of water saved as a result of the restrictions, the City will be able to provide the necessary water to meet future demands simply by continuing its current water conservation measures.~~

EXHIBIT 5-1

~~**Figure 8 Historic Water Consumption 12 Month Average**~~



~~Source: Hallandale Beach Finance Department, Water Billing Rates~~

~~Hallandale Beach has been pursuing water conservation measures for many years. The City currently has several water conservation programs already in place that have been effective in lowering water consumption rates. Listed below are the City's current and future conservation programs:~~

1. ~~The City has adopted an Irrigation Ordinance, City Ordinance 2007-04, Chapter 30 / Section 30-49, enforcing the South Florida Water Management District's (SFWMD) Phase I guidelines, which restricts the watering of landscaping to two days a week. The City has been following Phase III restrictions since 2007 which permits the watering of landscaping only once a week. The City will amend its Irrigation Ordinance to maintain the Phase III restrictions by December 2008.~~

2. ~~City Resolution 87-14 outlining the use of Xeriscape (not requiring additional irrigation) plants and landscaping design details to promote and expand its~~

use according to recommended landscaping planting guidelines intended to reduce or eliminate the need for supplemental irrigation.

3. The City has endorsed and proactively promoted Broward County's NatureScape Irrigation Program and concept, implementing environmentally sound landscaping practices to reduce the irrigation demands. To date the application of these irrigation best practices through NatureScape have generated water savings of close to 10 million gallons / year (every year) or the equivalent economic savings of $13,500 per year (every year) by applying the program recommendations to the City facilities and parks.

Table 8 NatureScape Savings

City Location	Savings (gal/year)	Savings ($/year)
City Hall	824,460	$1,607.70
Hallandale Beach Cemetery (South)	3,436,389	N/A
Hallandale Beach Cemetery (North)	1,525,680	$2,975.08
Cultural Center	556,920	$1,085.99
Bluesten Park	3,555,786	$7,644.94
Bluesten	71,308	$153.31
Community Center	N/A	$0.00
Foster Park	15,600	$33.54
	9,986,143	$13,500.56

Hallandale Beach is currently working with Broward County to registration as a NatureScape City through the National Wildlife Federation (NWF) to become a Certified Community Wildlife Habitat.

4. The City adopted a Rain Sensor Device Ordinance, whereby the City requires any person applying for an irrigation system permit to install, operate and maintain rain sensor devices or to provide for automatic switching mechanisms that will stop the irrigation system with the occurrence of adequate rainfall.

In fiscal year 2007/2008, the City obtained a matching grant from the SFWMD's Water Savings Initiative Programs (WaterSIP) to retrofit sprinkler systems with rain sensors able to suppress unnecessary watering when rain have satisfied the irrigation needs. This free rain sensor retrofit program is a direct incentive for all residents and businesses wishing to install approved rain sensor devices in their irrigation systems. If fully implemented, this program has the potential to conserve around 11.5 million gallons of water yearly.

5. The City adopted an Ultra-Low-Volume Plumbing Fixture Ordinance - City Ordinance Chapter 8, Article 1, Section 8-1, recognizing the Florida Building Code as the enforceable Building Code for the City and codifying the Building Code requirements for ultra-low-volume plumbing fixtures on all new construction.

   The City recently applied for a $50,000 matching grant under the SFWMD's WaterSIP for fiscal year 2009 to further water savings in areas where most opportunities exists, such as toilet flushing retrofits for selective volumes flushing by planning to retrofit 1,000 condominium unit toilets with the potential to save 10-million gallons of water per year. As part of this grant proposal, the City also plans to establish a water reuse infrastructure system for the City facilities, parks and street medians. The water reuse system is anticipated to save between 10,000-25,000 gallons of water per day.

6. The City of Hallandale Beach maintains a utilities (water / sewer) rate structure supporting economic incentives for water conservation. The basis for this financial inducement is to reward lower water users (2,000 gallons or less) with a lower utility rate of $3.86 and incrementally raise the per unit cost for larger users (above 25,000 gallons) to pay a water and sewer maximum rate of $5.87.

7. The City's Public Works Department maintains a Water Utility Leak Detection Program, whereby all water meters are replaced on a 5-year schedule and the large meters are checked and calibrated for accuracy annually.

   In addition, Public Works also maintains a Water Distribution System Leakage Programs, whereby the monthly reports for the water piping distribution system are examined to compare the water pumped vs. the water billed and identify any excessive unaccounted volumes. Historically, the City's water distribution system has unaccounted water losses averaging less than 4%, considerably less than the 10% the South Florida Water Management District allows for coastal communities.

8. The City has maintained a continuous water conservation informational program for its residents, whereby the City periodically issues water conservation messages through newsletters, such as Hallandale Happenings, the annual Water Quality Report, and other means available to convey the need and importance of water conservation.

9. The City has been working to reduce the amount of Inflow and Infiltration (I/I) for over two decades. Though not often highlighted as a means of water conservation, implementation of a strong I/I program also conserves water. Each day hundreds of thousands of gallons of water in the aquifer are lost to wastewater system inflow and infiltration. A strong I/I program can have a

~~dramatic impact on the amount of water saved and the City continues to improve this program to maximize the amount of water conservation.~~

~~For Fiscal Year 2008/2009, the City of Hallandale Beach has~~

~~Alternative Suppliers~~

~~The City of Hallandale Beach has recently been in contact with the City of Hollywood to discuss the possibility of expanding the reuse water system operated by Hollywood's wastewater treatment facility by supplying the City of Hallandale Beach with 800,000 gallons per day (gpd) of reuse water. Hollywood currently provides approximately 225,000 gpd of reuse water to Hallandale Beach for the irrigation of the Diplomat Golf Course which is located in both cities. Hollywood has included the reuse expansion plans in its Water Supply Plan. Under Phase 1 expansion (Figure 3), Hollywood is expected to provide over 500,000 gallons per day of reuse water for Scavo Park (Three Islands Park), located in the north eastern portion of Hallandale Beach.~~

~~In addition to the reuse water provided by Hollywood, Hallandale Beach would also like to pursue a possible water agreement with the City of North Miami Beach. The City has had discussions with NMB regarding the possibility of providing some water to the City on a permanent basis; however, at this time no final agreements have been reached.~~

~~Aquifer Storage and Recovery~~

~~Although there are no current plans to pursue this technology, the City would like to further research this process in the future.~~

~~Reuse/Recharge Project~~

~~The updated 2005-2006 Lower East Coast Water Supply Plan has identified Alternative Water Resource (AWS) options for each public water supply utility. Each utility is to choose an AWS project, or several, to plan for the future needs of its service area. The Cities of Hallandale Beach, Dania Beach and Hollywood and Florida Power & Light all draw water from the Broward County South Regional Wellfield (Piccolo Wellfield). The LEC Plan has recommended a highly treated reuse/recharge project for the Piccolo Wellfield which would require the cooperation of those who receive water from it. This project would provide recharge in sufficient quantities to allow for an increase in groundwater withdrawal.~~

~~L-8 Reservoir Project~~

EXHIBIT 5-1

The Western L-8 Reservoir Project is a potential means of AWS that several municipalities in Southeast Florida are investigating, including Hallandale Beach. The basis for the project involves the construction of a large reservoir in Palm Beach County to divert flow from the C-51 Canal which would ordinarily be lost to tide. Water stored in the reservoir would be used to offset the need for water deliveries from the water conservation areas, or the regional system, thereby allowing for increased recharge of surficial aquifers. It is anticipated that participating utilities would be granted access to a greater water allowance from the Biscayne Aquifer due to lessened demands from the regional system

Water Supply Capital Improvements

Table 9 below outlines the anticipated capital improvement projects the City will undertake to enhance its water conservation program. Although the City's projections indicate the current water conservation program is sufficient to meet all projected water demands beyond the 10-year planning period, the City has incorporated additional conservation programs into the Capital Improvements Schedule in an effort to further reduce water consumption throughout the City.

Table 9 Water Supply Capital Improvement Projects

* Water Supply CIP's	FY2008	FY2009	FY2010	FY2011	FY2012
1. Water Reuse Study, Design and construction	$100,000	$100,000	$100,000	$78,000	$78,000
2. SFWMD – WaterSIP Grant	$50,000	$50,000	$50,000	$50,000	$50,000
3. Water Conservation Incentive Programs	$30,000	$30,000	$30,000	$50,000	$50,000
4. Conservation Promotional Material	$10,000	$10,000	$13,000	$15,000	$15,000
5. Water Wise Fifth Grade Conservation Material	$7,000	$7,000	$7,000	$7,000	$7,000
6. NatureScape Certification	$3,000	$3,000	0	0	0
TOTAL	$200,000	$200,000.00	$200,000.00	$200,000.00	$200,000.00
OVERALL 5 YEAR CIP TOTAL= $1,000,000					

EXHIBIT 5-1

~~* Project Description~~

~~1. **Water Reuse Study, Design, and Construction**~~

~~Fund the Study, Design-Engineering and Initial Construction (Phase 1 of 3) of Water Reuse System to Encompass Rain Harvesting, Storm Water and/or Water Plant Concentrate (Reject Water) for All City Facilities and Street Medians~~

~~2. **SFWMD – WaterSIP Grant**~~

~~[Grant to Be Announced by Mid August 2008]~~
~~Commitment to match South Florida Water Management District grant to be used for:~~
~~1. Water Re-Use for City Facilities (Buildings / Medians)... Install Infrastructure~~
~~2. High Density-High Water Use / Circa 1970s Condominium Toilets... Retrofit Toilet (Use Bldgs Maintenance Crew)~~

~~3. **Water Conservation Incentive Programs**~~

~~Program to Encompass Rebates and Incentives Such as Water-Wise Rebate / Incentive, Ultra Low Flow Toilet Exchange, Plumbing Retrofits / Exchanges (Residential & Commercial), and Other Special Opportunity Incentive~~

~~4. **Conservation Promotional Material**~~

~~City Sponsored / Funded Water Conservation Literature and Small Value Conservation Promotional Materials Such As: Showerheads, Dye Tablets, Faucet Aerators, Conservation Kits, Etc.~~

~~5. **Water Wise Fifth Grade Conservation Material**~~

~~Fifth Grade Math and Science Curriculum Based Water Conservation Educational Classroom Material with Water Savings Kit for Home Retrofits as Homework / Report~~
~~Target: Hallandale Elementary 185 Students & Teachers~~

~~6. **NatureScape Certification**~~

~~Registration for NatureScape and Certification~~
~~Satisfy and Provide Requirements for Official Registration~~
~~Continue Process towards Certification by Satisfying and Providing Official Certification Requirements and Provide Support for Team Volunteers~~

~~Goals, Objectives, and Policies~~

~~Future Land Use Element~~

~~**GOAL**: To provide a coordinated and compatible mix of land uses which encourages a high quality of life meeting the social, economic and physical needs of the present and future population of Hallandale Beach, while insuring reasonable environmental protection and timely and efficient provision of services.~~

~~**OBJECTIVE 1.1**: Levels of Service: The City shall continue to condition approval of development applications upon maintaining the provision of services~~

EXHIBIT 5-1

TABLE OF CONTENTS

STATUTORY REQUIREMENTS 1

BACKGROUND 3

Overview 3

Relevant Regional Issues 4

DATA AND ANALYSIS 4

Population Projections 4
Maps of Current and Future Areas Served 5

Population and Potable Water Demand Projections by Each Local Government or Utility 7
Water Supply Provided by Local Government 9

Historic Rates 10

Water Supply Provided by Other Entities 11
Broward County Water Facilities and Services Areas 11
North Miami Beach Water Facilities and Service Areas 13
Hollywood Water Treatment Facilities and Service Areas 14

ALTERNATIVE WATER SUPPLY SOURCES 18

Water Conservation 23

Alternative Suppliers 27
Aquifer Storage and Recovery 27

Reuse/Recharge Project 27

L-8 Reservoir Project 27

WATER SUPPLY CAPITAL IMPROVEMENTS 28

GOALS, OBJECTIVES, AND POLICIES 29

Future Land Use Element 29
Infrastructure Element 32

Conservation Element 36

Capital Improvements Element 37
Intergovernmental Coordination Element 40

EXHIBIT 5-1

~~TABLES AND FIGURES~~

~~Table 1- Citywide Existing Land Use ..... 3~~
~~Table 2- Population and Potable Water Projections ..... 8~~
~~Table 3- Raw Water Withdrawal Amount ..... 9~~
~~Table 4 Historic Water Consumption Rates ..... 10~~
~~Table 5- Recent Water Consumption Rates ..... 10~~
~~Table 6- Hollywood Reuse System ..... 15~~
~~Table 7- Hollywood Reuse Expansion ..... 16~~
~~Table 8- NatureScape Savings ..... 25~~
~~Table 9- Water Supply Capital Improvement Projects ..... 28~~

~~Figure 1-Current and Future Water Service Area ..... 6~~
~~Figure 2- South Regional Wellfield ..... 13~~
~~Figure 3- Hollywood Reuse Water Service Area ..... 17~~
~~Figure 4- Avg Day Raw Water Demand ..... 19~~
~~Figure 5- Avg Day Finished Water Demand ..... 20~~
~~Figure 6- Max Day Raw Water Demand ..... 21~~
~~Figure 7-Max Day Finished Water Demand ..... 22~~
~~Figure 8-Historic Water Consumption 12-Month Average ..... 24~~

EXHIBIT 5-1

~~STATUTORY REQUIREMENTS~~

~~The City of Hallandale Beach (City) is subject to the jurisdiction of the South Florida Water Management District (SFWMD). The SFWMD is one of four Florida water management districts that have concluded traditional water supply sources will not be sufficient to meet the demands of the growing population and needs of the environment, agriculture and industry over the next two decades. As this view has gained more prominence in recent years, the Florida Legislature enacted bills in 2002, 2004, and 2005 to more directly address the state's water supply needs by requiring more coordination between local land use planning and water supply planning.~~

~~The focus of the initial legislation was to add requirements to Chapter 163, Florida Statutes (FS), for local governments to prepare 10-year water supply facilities work plans and to incorporate the work plans into their comprehensive plans. The legislative change emphasized the need for local comprehensive plans to consider the applicable regional water supply plans prepared by the water management districts. In the case of the SFWMD, the applicable plan is the Lower East Coast Water Supply Plan (LEC Plan), most recently updated in 2005-2006.~~

~~In 2005, the Florida Legislature changed Chapters 163 and 373, FS, to improve the coordination between water supply and land use planning. Senate Bills 360 and 444 were designed to strengthen the statutory linkage between the regional water supply plans prepared by the water management districts and comprehensive plans prepared by the local governments, with the goal of ensuring that adequate water supplies and public facilities are available to serve the water supply demands of Florida's growing population.~~

~~Local governments subject to a regional water supply plan must prepare a minimum 10-year work plan for building public, private, and regional water supply facilities to serve existing and new development within the local government's jurisdiction. This work plan must be adopted into the comprehensive plan within 18 months after the water management district approves a regional water supply plan or its update. The work plan and the comprehensive plan amendment must address the development of traditional and alternative water supplies (AWS), bulk sales agreements, and conservation and reuse programs that are necessary to serve existing and new development for at least a 10-year planning period.~~

~~In addition to the water supply plan requirements, the following amendments to the comprehensive plan must be made:~~

- ~~Revise the Infrastructure Element within 18 months after the water management district approves an updated regional water supply plan to:~~

EXHIBIT 5-1

- ~~Identify and incorporate the alternative water supply projects selected by the local government~~
- ~~Identify the traditional and alternative water supply projects, bulk sales agreements, and the conservation and reuse programs necessary to meet current and future water use demands within the local government's jurisdiction.~~
- ~~Include a water supply facilities work plan for at least a 10 year planning periods for constructing the public, private, and regional water supply facilities identified in the element as necessary to serve existing and new development.~~

- ~~Revise the 5 year schedule of capital improvements to include any water supply, reuse, and conservation projects and programs to be implemented during the 5-year period;~~

- ~~Revise the Conservation Element to ensure that projected water needs and sources are for at least a 10 year planning period, considering the appropriate regional water supply plan(s) or, in the absence of an approved regional water supply plan, the applicable district water management plan;~~

- ~~Revise the Intergovernmental Coordination Element to ensure coordination of the comprehensive plan with the applicable regional water supply plans and regional water supply authorities.~~

EXHIBIT 5-1

BACKGROUND

Overview

The City of Hallandale Beach was founded in 1897 and is one of the oldest communities in Broward County. The City is located at the southeast corner of Broward County and is characterized by its many medium and high rise residential structures, primarily along the beach area and by the two pari-mutuel facilities (Gulfstream Park / Mardis Gras Gaming Center). The City is a full service community offering police service, fire/rescue protection, public works, water and sewer utilities, community development, code enforcement, and parks and recreation services.

The City is currently over 95% built-out, as is the case with most municipalities in Broward County. Development in the City has primarily consisted of high density residential and commercial buildings on the City's east side, while the west side of the City has remained relatively low density residential and commercial. However, there has been a development trend in the western portion of the City involving infill development of vacant single-family, multiple-family and commercial lots and the re-development of underutilized properties. The following is a breakdown of the of the land use areas in Hallandale Beach:

Table 1 Citywide Existing Land Use

FUTURE LAND USE MAP AREAS	2008	2008
	Acres	% of Total
Residential		
- Single Family	438.36	15.5%
- Two Family	133.44	4.7%
- Three & Four Family	37.85	1.3%
- Multi-Family	501.28	17.7%
- Mobile Homes	63.54	2.2%
SUBTOTAL	1,174.47	41.5%
Business and Commercial	274.37	9.7%
Local Activity Center	60.80	2.1%
Industrial	48.39	1.7%
Agricultural	0	0
Water	243.48	8.6%

EXHIBIT 5-1

FUTURE LAND USE MAP AREAS	2008	2008
	Acres	% of Total
Recreation	38.09	1.3%
- Public	291.80	10.3%
- Private		
SUBTOTAL	**329.89**	**11.6%**
Community Facilities		
- Public	103.70	3.7%
- Private	38.81	1.4%
- Historic	0.64	0.02%
SUBTOTAL	**143.15**	**5.1%**
Transportation		
- Streets	422.41	14.9%
- Railroad	17.87	0.6%
SUBTOTAL	**440.28**	**15.5%**
Vacant	116.0	4.1%
TOTAL	**2,830.83**	**100.0%**

Source: 2006 City of Hallandale Beach Evaluation and Appraisal Report

Relevant Regional Issues

As the state agency responsible for water supply in the Lower East Coast planning area, the South Florida Water Management District (SFWMD) plays a pivotal role in resource protection, through criteria used for Consumptive Use Permitting. As pressure increased on the Everglades ecosystem resource, the Governing Board initiated rule making to limit increased allocations dependent on the Everglades system. As a result, the Regional Water Availability Rule was adopted by the Governing Board on February 15, 2007 as part of the SFWMD's Consumptive Use Permit Program. This reduced reliance on the regional system for future water supply needs, mandates the development of alternative water supplies, and increases conservation and reuse.

DATA AND ANALYSIS

Population Projections

The City's existing and future population numbers are derived from data published by Broward County's Planning Services Division. The Broward County Population Forecasting Model (Model), developed by the Planning Services

~~Division (PSD), was approved by the State of Florida's Department of Community Affairs as part of the adoption of the Broward County Comprehensive Plan in 1989.~~

~~The Model provides details about Broward County's expected population. With the assistance of municipal partners in the Broward County Population Forecasting Roundtable, these projections are assigned to Broward County's 31 municipalities, 279 census tracts and 902 traffic analysis zones.~~

~~The Model uses the cohort-survival method to project future population and housing units, and is based on the concept that future population equals the present population plus natural increase and net migration. Natural increase equals the difference between the number of births and deaths each year. Net Migration equals the number of people moving into the County less those moving out each year. Net migration includes both domestic and international migration.~~

~~Output from this model is used by many County agencies, as well as the School Board of Broward County, the South Florida Water Management District, the Metropolitan Planning Organization, and the Broward Sheriff's Office. These agencies use projections to estimate the existing level of service demand and project facilities and programs to meet future service demand.~~

~~The model covers a thirty year forecast period beginning with the most recent census year (2000). An annual update of the model allows for calibration of the model in response to changing demographic trends between the census years.~~

~~According to the Broward County data, Hallandale Beach is projected to increase from 34,282 in 2000 to 37,014 in 2008. The population is expected to increase to 39,406 in 2010; 43,996 in 2015; 48,493 in 2020; and 52,149 in 2025. The City has very little vacant land available; therefore, the majority of the growth will be a result of redevelopment.~~

~~Maps of Current and Future Areas Served~~

~~The City of Hallandale Beach provides water to all areas within its City Limits with the exception of the Diplomat Golf Course, which is irrigated with reuse water from the City of Hollywood.~~

~~At this time, the City has no plans to provide raw or finished water to any other municipality or area outside of its jurisdiction. Figure 1 below depicts the water areas served.~~

EXHIBIT 5-1

~~**Figure 1-Current and Future Water Service Area**~~

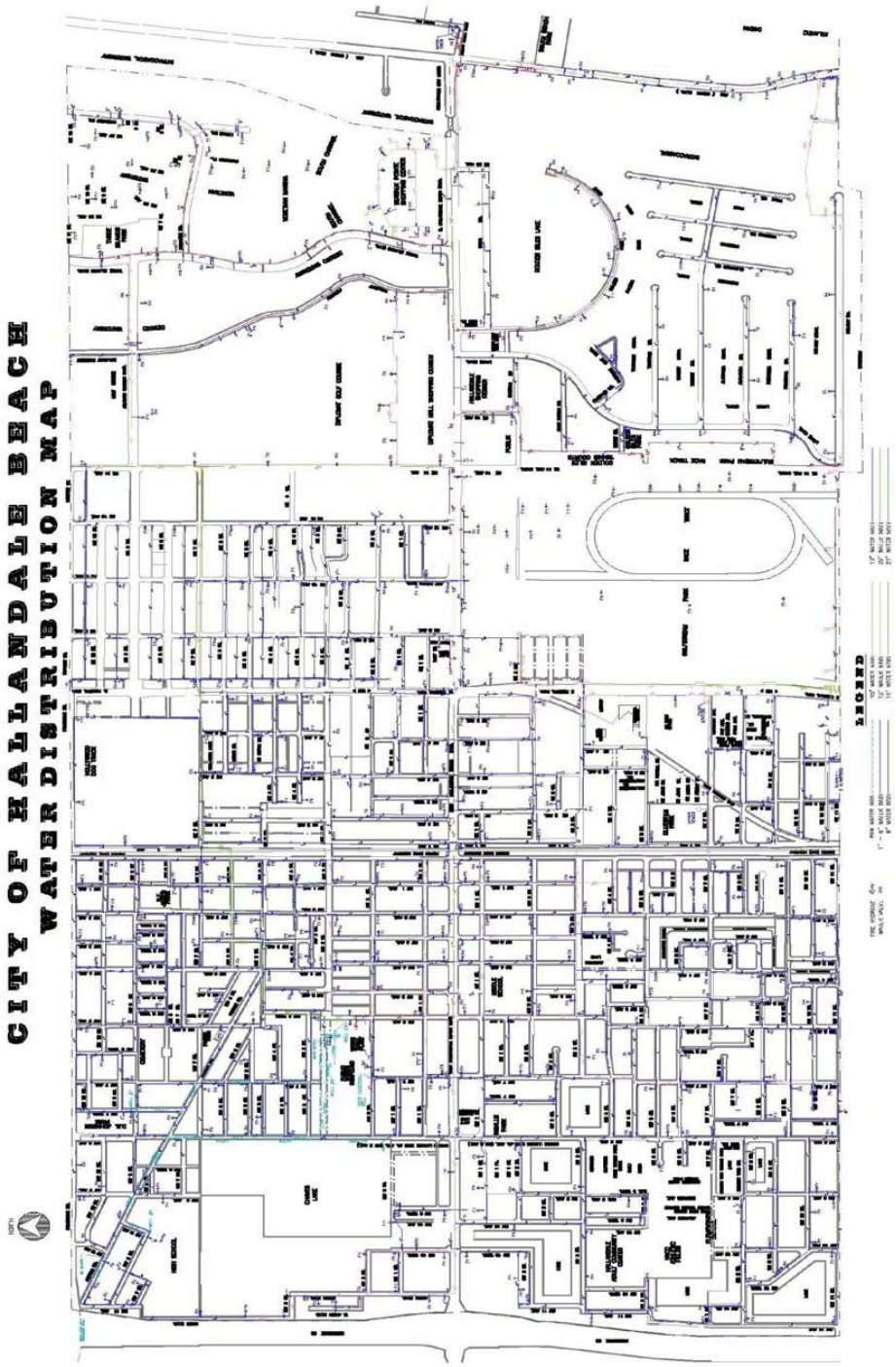


EXHIBIT 5-1

~~Population and Potable Water Demand Projections by Each Local Government or Utility~~

~~According to Broward County projections, the population in Hallandale Beach will continue to rise over the next 20 years. Table 2 shows the projected populations through 2028 and the estimated raw and finished water demand for average day and maximum day.~~

EXHIBIT 5-1

Table 2- Population and Potable Water Projections

CITY OF HALLANDALE BEACH							
Summary of Raw Water and Finished Water Requirements							
Based on Broward County Population Projections							
		Average Day			Maximum Day		
Year	Total Population[1]	FW[2] mgd	RW[3] mgd	RW Demand Not Met[4] mgd	FW[5] mgd	RW[3] mgd	RW Demand Not Met[4] mgd
2008	37014	5.4	6.5		6.5	7.6	
2009	38210	5.6	6.6		6.7	7.8	
2010	39406	5.8	6.8		6.9	8.0	
2011	40324	5.9	7.0		7.1	8.2	
2012	41242	6.0	7.1		7.2	8.4	
2013	42160	6.2	7.2		7.4	8.5	
2014	43078	6.3	7.4		7.5	8.7	
2015	43996	6.4	7.5		7.7	8.9	
2016	44895	6.6	7.7		7.9	9.0	
2017	45795	6.7	7.8		8.0	9.2	
2018	46694	6.8	7.9		8.2	9.4	
2019	47594	6.9	8.1		8.3	9.5	
2020	48493	7.1	8.2		8.5	9.7	
2021	49224	7.2	8.3		8.6	9.8	0.1
2022	49955	7.3	8.4		8.8	10.0	0.3
2023	50687	7.4	8.6		8.9	10.1	0.4
2024	51418	7.5	8.7		9.0	10.3	0.6
2025	52149	7.6	8.8		9.1	10.4	0.7
2026	52583	7.7	8.8		9.2	10.5	0.8
2027	53018	7.7	8.9		9.3	10.5	0.8
2028	53452	7.8	9.0		9.4	10.6	0.9
1 Population based on publication "Broward by the Numbers", March 2007 produced by Broward County Urban Planning and Redevelopment Department Planning Services Division.							
2 Calculated using the historical per capital consumption rate of 146 gallons per person per day (present level of service).							
3 Assumed 15% losses overall for the nanofiltration process and 5% losses for lime softening (historical).							
4 Calculations assume City well water is treatable (i.e., saline intrusion does not occur).							
5 Assumed maximum day demand =1.2 times average day demand							

EXHIBIT 5-1

~~Water Supply Provided by Local Government~~

~~The City of Hallandale Beach has two water treatment facilities. The original water plant was built in 1951 with a maximum capacity of 3 million gallons per day (mgd). In 1968, the facility was expanded to a 10 mgd capacity in anticipation of extensive development within the city.~~

~~In 2008, the City's new membrane treatment plant was put online and was designed with the capability of meeting the City's future water demand. The current capacity of the facility is 6.0 mgd; however, it is expandable to 15 mgd with the installation of additional skids (although there are no plans at this time).~~

~~The City is presently producing approximately 5.27 million gallons per day (mgd) of finished water through the nanofiltration and lime-softening process at its two water treatment facilities. The City can treat water from its existing wells through lime softening while the Broward County Regional Water Source (BCRWS) supply is treated through nanofiltration.~~

~~The current water supply source for the City of Hallandale Beach is the Biscayne Aquifer. The City's last Consumptive Use Permit (CUP # 06-00138-W) allocated~~
~~2.8 mgd of Biscayne Aquifer water to the City, through the Broward County Regional Water Supply (BCRWS) transmission system (Piccollo Wellfield). In 2007, the SFWMD allocated an increased allowance of 3.4 mgd for the City's recently constructed water treatment facility. In addition to the raw water received from Broward County, the City also draws 3.5 mgd of raw water from the City's three wells. The City has applied with the SFWMD for a renewal of the permit and is awaiting approval from the district. Hallandale Beach has had discussions with the SFWMD and anticipates its CUP will be renewed allocating the aforementioned 6.2 mgd from the County and 3.5 mgd from the City wells.~~

~~Table 3 Raw Water Withdrawal Amount~~

~~Current Raw Water Permitted Allocations~~	
~~Broward County (South Regional Wellfield)~~	~~2.8 mgd~~
~~• Additional allowance for new membrane treatment plant~~	~~3.4 mgd~~
~~Hallandale Beach City Wells~~	~~3.5 mgd~~
~~Total~~	~~9.7 mgd~~

EXHIBIT 5-1

Historic Rates

The historical water usage rates were analyzed using data from 2002-2007. As the population steadily increased each year so did the finished water demand, with the exception of 2007, which was a water conservation year. In 2007, the City experienced a 10% decrease in finished water demand.

Table 4-Historic Water Consumption Rates

Water Consumption Rates from Recent Years							
Year	Population	Raw Water Demand			Finished Water Supplied by WTP)	Finished Water Demand (includes purchases from North Miami Beach)	Finished Water Demand
		mg/year	(mgd)	(gpcd)	(mgd)	(mgd)	(gpcd)
2002	34856	2125.451	5.82	167	5.73	5.80	164
2003	35109	2125.613	5.82	166	5.76	5.81	164
2004	35362	2126.491	5.83	165	5.86	5.98	166
2005	35616	2131.433	5.84	164	5.67	5.79	159
2006	34622	2134.834	5.85	169	5.90	6.04	171
2007	35818	2125.379	5.82	163	5.37	5.43	150

The water consumption rates continued to decline between 2007 and 2008 as the Phase III restrictions continued to be effective. From June 2007 through May 2008, the City averaged 146 gallons per capita per day (gpcd).

Table 5- Recent Water Consumption Rates

Date	Water Use	X MM	12-Month Avg	Gallons per capita per day (gpcd)
M-08	149,327,500	149.3	158.2	**130**
A-08	166,505,000	166.5	159.2	**150**
M-08	163,028,200	163.0	161.3	**142**
F-08	174,929,600	174.9	162.0	**163**
J-08	164,416,600	164.4	163.6	**143**
D-07	153,485,400	153.5	165.4	**138**

EXHIBIT 5-1

Date	Water Use	X MM	12-Month Avg	Gallons per capita per day (gpcd)
N-07	153,161,000	153.2	165.3	143
O-07	153,443,492	153.4	167.6	138
S-07	167,504,600	167.5	167.0	156
A-07	149,503,900	149.5	168.7	135
J-07	144,840,600	144.8	170.5	130
J-07	158,472,400	158.5	171.1	147

Source: Hallandale Beach Finance Department- Water Billing Rates

Water Supply Provided by Other Entities

Broward County Water Facilities and Services Areas

Broward County is located along the lower east coast Florida, between Miami-Dade and Palm Beach Counties. It is made up of 31 municipalities, 28 utilities, and 22 drainage districts. The County has experienced significant population growth since 2000, which is expected to continue. The County's population is projected to increase thirty-one percent between 2005 and 2030, from 1.75 to 2.29 million. The County contains more than 1,225 square miles, however, only the eastern third of the county is urbanized. The remaining two-thirds is wetlands and constitutes a large part of the Everglades Water Conservation Areas.

In 1986, Broward County adopted the Regional Raw Water Supply Program, which called for inland wellfields safe from salt water intrusion to ensure a continual supply of potable water for Broward County. Under the program, new wellfields were constructed in the west to shift demand from the east to west. The new wellfields and raw water delivery systems were financed, constructed, and operated as a regional system, using general County revenues. Large Users Agreements were established with each entity receiving water from the wellfields and, at present, one such agreement is in place for the North Regional Wellfield (NRW) and four agreements for the South Regional Wellfield (SRW).

North Regional Wellfield

The NRW is located at Quiet Waters Park in Deerfield Beach. The NRW is comprised of 10 wells, each with a capacity of 2 million gallons per day, providing a total design capacity for the wellfield of 20 mgd and a firm capacity of 18 mgd with the largest well unit out of service. The anticipated maximum monthly and average annual daily withdrawals are 259.4 mgm and 7.1 mgd, respectively.

EXHIBIT 5-1

~~The NRW supplies raw untreated water to the City of Deerfield Beach under a large user raw water agreement. Per this agreement, the County is obligated to provide the City of Deerfield Beach with a minimum of 0.50 mgm and a maximum of 0.59 mgd annual average daily flow, a peak daily flow of 0.83 mgd, and a peak hourly flow of 2.0 mgd. Approximately 12% of current raw water withdraws from the NRW is pumped into the City of Deerfield Beach. The term of the agreement is endless and will continue in perpetuity unless there is mutual agreement for termination.~~

~~South Regional Wellfield~~

~~The South Regional Wellfield is located in the southern central portion of the County. The majority of the wells are located in Brian Piccolo Park. The SRW includes ten wells. Eight 4mgd wells and two 2mgd wells are currently in operation, providing a total design capacity for the wellfield of approximately 36 mgd and a firm capacity of 32 mgd with the largest unit out of service.~~

~~The SFWMD consumptive use permit for the SRW is currently being renewed. Based on the historically derived" base condition use" the anticipated maximum monthly withdrawal from the Biscayne Aquifer allowed from the SRW is 386.1 mgm and the average annual daily withdrawal is 15.2 mgd.~~

~~The SRW provides raw water to the City of Dania Beach, the City of Hallandale Beach, the City of Hollywood, and the Florida Power and Light Corporation under large raw water user agreements. The contractual agreements with each of the large users of the SRW run for an indefinite period with the exception of the City of Hollywood where their agreement has a four year term with an automatic renewal for four years. Figure 1 describes the breakdown of the Large User's raw water allocations.~~

EXHIBIT 5-1

~~**Figure 2 South Regional Wellfield**~~
~~**Base Conditions Water Use and Large User Allocations**~~

	SRW	Hallandale Beach	Hollywood	Dania Beach	FPL
	MGD	MGD	MGD	MGD	MGD
Base Condition Water Use (Wellfield Withdrawal)	11.84	2.87	5.99	1.13	1.85
Adjustment to Base Condition Use*	3.4	3.4	NA	NA	NA
Adjusted **Total Wellfield Withdrawal	15.24	6.27	5.99	1.13	1.85

* The water availability rule provides for an increase to the base condition water use to account for the additional volume used in Hallandale Beach's conversion of it's water treatment process. (SFWMD BOR, Section 3.2.1.E.(3)(a), page WU-BOR-64, September 2007.)
** Includes line flushing & water losses between withdrawal point and User's meter.
NA - Not Applicable

~~**Source: Broward County Water Supply Plan 2008**~~

~~North Miami Beach Water Facilities and Service Areas~~

~~The City of North Miami Beach is located in Miami-Dade County, just south of Hallandale Beach. NMB has approximately 42,000 residents and is 5.2 square miles in size.~~

~~The City of North Miami Beach's water system is the second largest in Miami-Dade County, with infrastructure of water supply, treatment, storage, transmission, and distribution. The water system provides services to approximately 32,800 metered connections in North Miami Beach, Sunny Isles, Miami Gardens, Aventura and portion of Northwest Miami-Dade, serving approximately a population base of over 180,000.~~

~~The Norwood Water Treatment Plant Expansion Program expanded the existing water treatment plant from a treatment capacity of approximately 16 million gallons per day to approximately 32 million gallons per day. This additional capacity will be used to replace water currently supplied by the Miami-Dade Water and Sewer Department.~~

~~Initial capacity for the membrane treatment system was 15 MGD, which includes 9 mgd of nanofiltration and 6 mgd of low pressure reverse osmosis treated water. The system is expandable to 20 MGD, with additional NF train of 3 mgd and additional RO membrane for 2 mgd. The permeate flow streams of the~~

membrane processes is combined for post treatment/stabilization and subsequently blended with finished water from the existing lime softening process and the filtered raw water blend. The blended finished water is then transferred to a new 4.2 million gallons (MG) and existing 2.0 MG ground storage tanks before it pumped out to the water distribution system.

The City of Hallandale Beach maintains an emergency interconnect with North Miami Beach (NMB). The City currently has an agreement with NMB to purchase bulk treated water during emergency conditions, which the City has recently utilized during preparations in opening the new water treatment plant. Below are the past purchases of bulk treated water:

- FY05/06: 15.450 million gallons
- FY06/07: 45.120 million gallons
- FY07/08(to date): 48.200 million gallons

Although Hallandale Beach is capable of providing an adequate supply of water to meet future water demands beyond the 10-year planning cycle, the City has been in discussions with the City of North Miami Beach regarding the possibility of entering into an agreement whereby the City would purchase a set amount of bulk treated water from NMB in the future, if necessary. At this time, no final agreements have been reached.

Hollywood Water Treatment Facilities and Service Areas

The City of Hollywood is located just north of Hallandale Beach. Hollywood covers approximately 29 square miles bound by the Atlantic Ocean to the east and surrounded by seven cities, one town, a Seminole reservation, and unincorporated areas. Except for Port Everglades, the City of Hollywood jurisdiction is supplied with finished water produced at the City of Hollywood Water Treatment Plant. Port Everglades is supplied by the City of Fort Lauderdale Public Works Department.

The Hollywood water treatment plant is operated by the City of Hollywood Department of Public Utilities. The Hollywood Water Treatment Plant supplies both a retail service area, extending over most of the City of Hollywood jurisdiction, and a wholesale service area, covering Broward County Water and Wastewater Services Districts 3A, 3B, and 3C.

In 2007, the Hollywood water treatment plant produced approximately 23 million gallons per day (mgd) of potable water, of which 16.3 mgd were served to nearly 40,000 connections in the retail area and the remaining 6.7 mgd were sold to the wholesale service area. All three BCWWS districts are served under an interlocal resale water agreement by which Broward County purchases potable water from The Hollywood DPU for resale to its customers.

EXHIBIT 5-1

~~The Hollywood DPU has implemented a reuse system by making use of treated effluent from Cooper City and the Town of Davie. The Hollywood-DPU delivers up to 4 mgd of reuse water for irrigation with chloride levels of 600 mg/liter or less to be within the salt tolerance of local turf grasses and ornamentals. Such reuse water flow offsets an otherwise potable water use. The existing reuse system serves primarily golf courses, schools, private developments, parks, and other entities that have a relatively large irrigation demand. These customers, classified as contract customers, are the most cost effective to serve.~~

~~Table 6 Hollywood Reuse System~~

~~Existing Reuse System Customers~~		
~~Site~~	***~~Area (Acres)~~***	***~~Demand (mgd)~~***
~~Diplomat Country Club*~~	~~115.4~~	~~0.446~~
~~Eco Grande Golf Course~~	~~28.2~~	~~0.109~~
~~Emerald Hills Country Club~~	~~173.7~~	~~0.671~~
~~Hillcrest Country Club~~	~~150.6~~	~~0.582~~
~~Hollywood Country Club~~	~~55.1~~	~~0.213~~
~~Orangebrook Country Club~~	~~229.8~~	~~0.888~~
~~Dowdy Field~~	~~7~~	~~0.027~~
~~Subtotal~~	**~~760~~**	**~~2.94~~**
~~* Portions Located in Hallandale Beach~~ ~~** Source: 2007 City of Hollywood Reuse Feasibility Study~~		

~~Hollywood plans to expand their existing reuse system in phases and the City of Hallandale Beach has been in discussions with Hollywood to reach an agreement increasing the amount of reuse water it currently receives from the city. The following Table-7 defines the likely phased expansion of Hollywood's existing system. Figure 4 also illustrates the coverage of the future reuse water service area.~~

~~The City has been communicating with the City of Hollywood and is anticipating receiving approximately 800,000 mgd of reuse water, although no final agreements have yet been reached.~~

EXHIBIT 5-1

Table 7- Hollywood Reuse Expansion

Expanded Reuse System Customers	
Site	***Demand (mgd)***
Existing System	2.94
Phase I Expansion	
TY Park	0.272
Rotary Park	0.035
Public Works Nursery	0.005
West Lake Park	0.210
Three Island Park*	0.583
Subtotal	1.11
Phase II Expansion	
Residential Customers	3.7
West Lake Village	0.089
Subtotal	**3.79**
System Total	**7.83**
* Portions Located in Hallandale Beach ** Source: 2007 Reuse Feasibility Study	

EXHIBIT 5-1

~~Figure 3 Hollywood Reuse Water Service Area~~

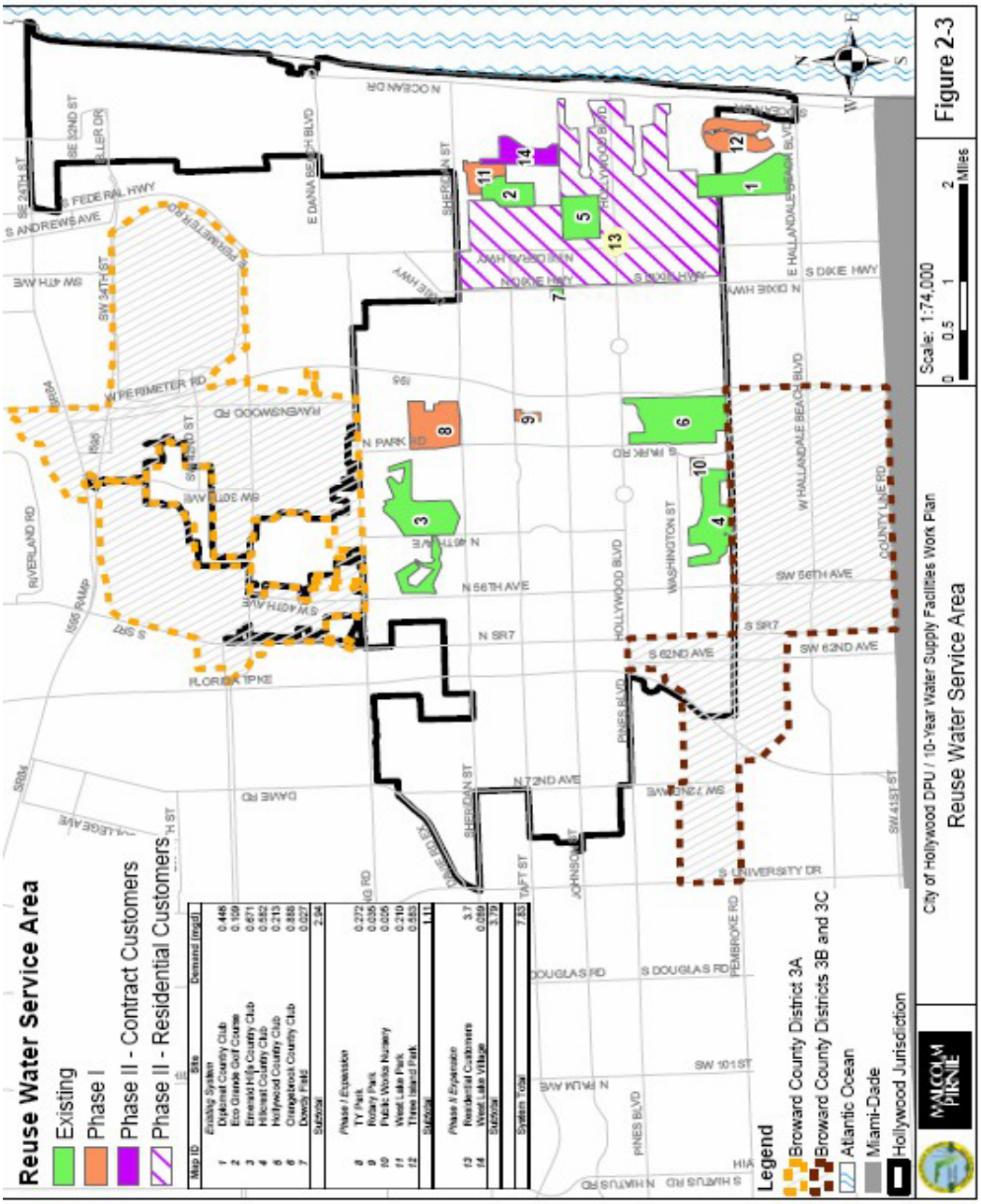


EXHIBIT 5-1

~~ALTERNATIVE WATER SUPPLY SOURCES~~

~~Since 2007, the South Florida Water Management District has been imposing Phase III water restrictions on Hallandale Beach. Under those restrictions, the City has experienced a tremendous reduction (13%) in its water consumption levels. According to the City's water billing records, the City had been consuming an average of 167 gallons per capita per day (gpcd). By May 2008, the City's gpcd had reached an average of 146 gallons per capita per day.~~

~~Based upon the City's current gallons per capita per day rate, the City will be capable of providing the raw water demand for future projections through 2020 on a maximum day demand (Figure 4) and beyond 2030 on an average day demand (Figure 6) without requiring the implementation of any additional alternative water supply (AWS) projects.~~

~~The City has determined that enhancing its water conservation efforts and implementing additional conservation programs will ensure that Hallandale Beach will have the necessary resources to provide water to current and future populations well beyond the required 10 year planning period.~~

~~Although it is not necessary at this time for Hallandale Beach to implement any additional AWS projects to meet current and future projections, City staff will continue to research alternative programs for the future.~~

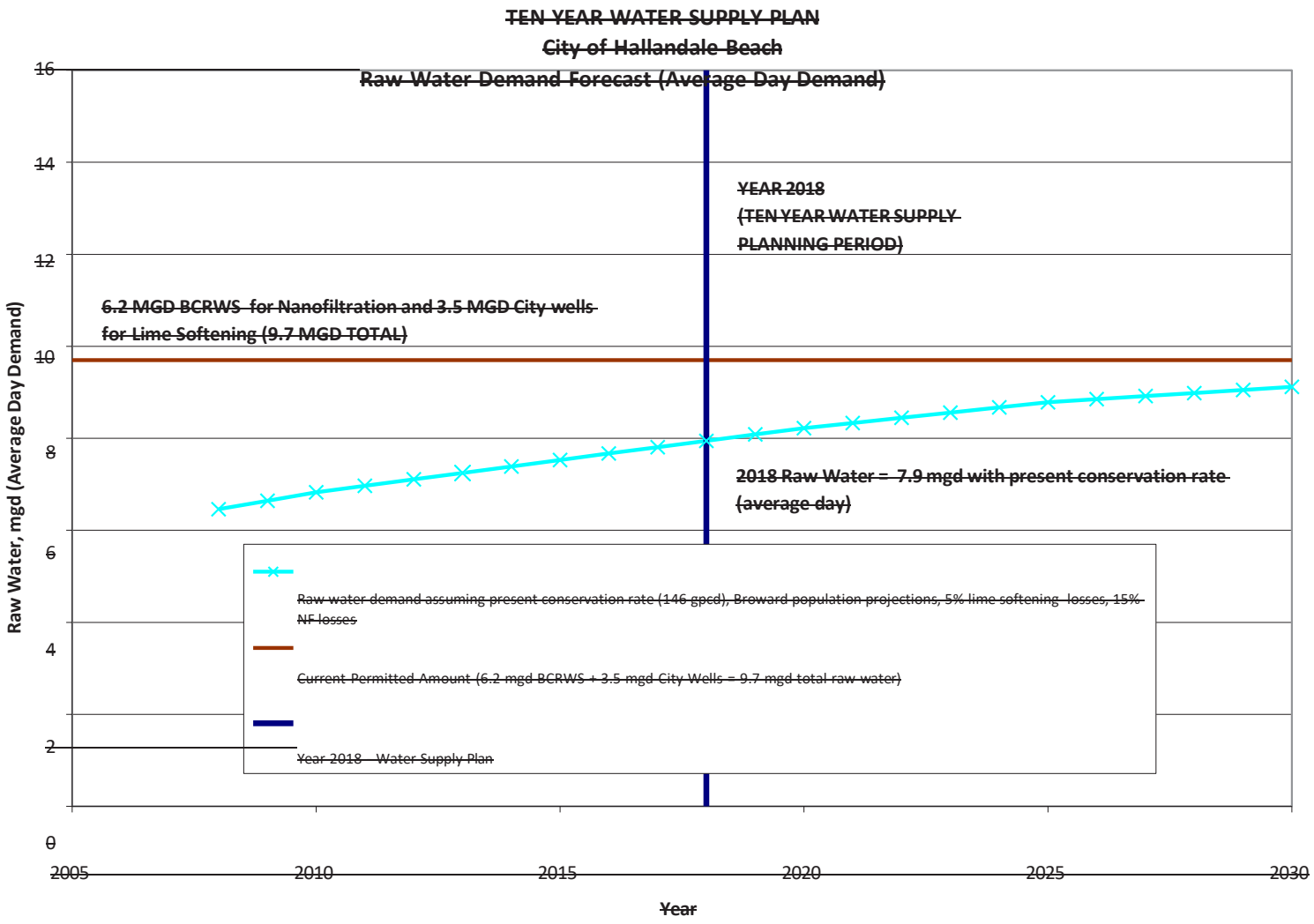


Figure 4-Avg Day Raw Water Demand

EXHIBIT 5-1

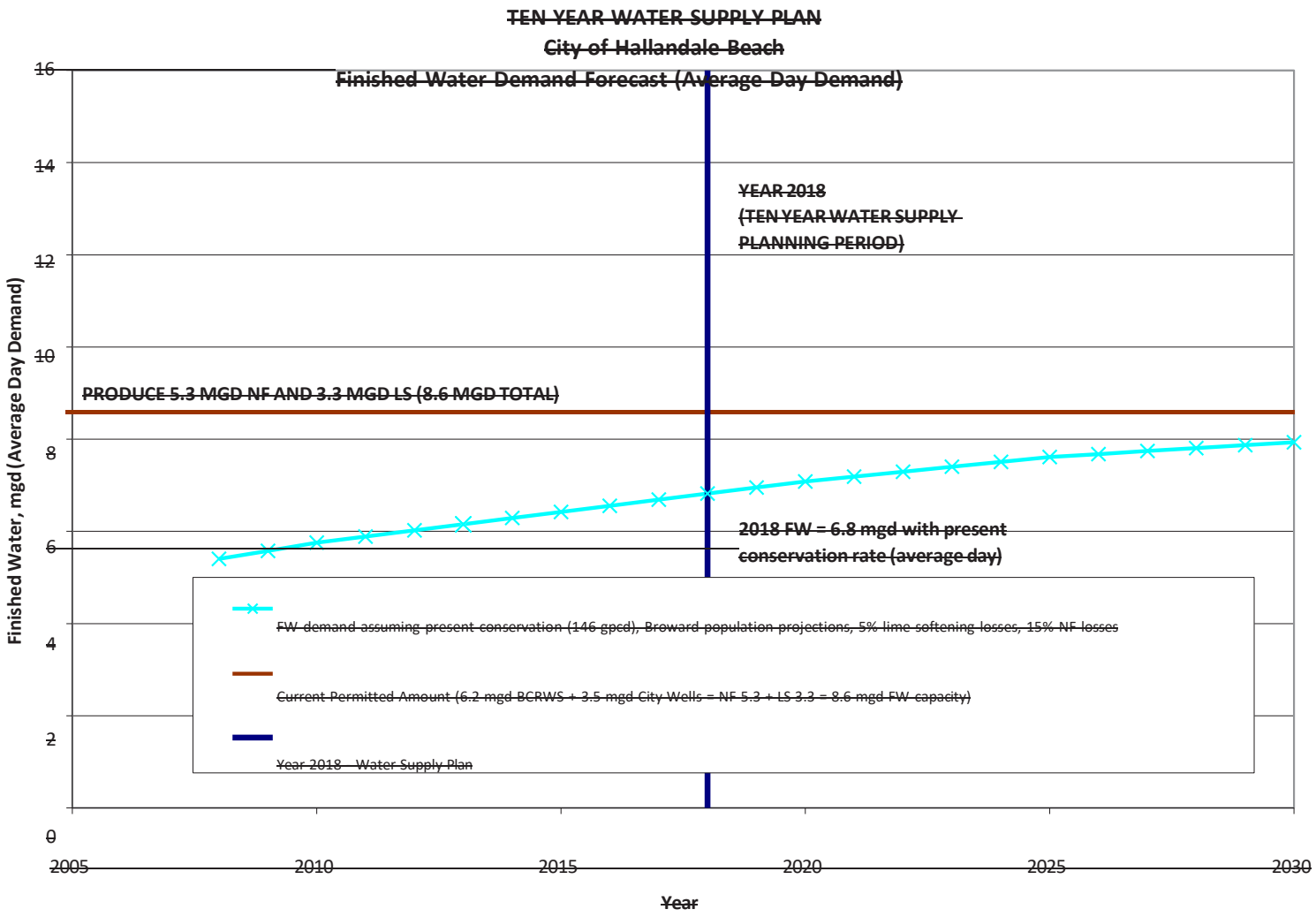


Figure 5- Avg Day Finished Water Demand

EXHIBIT 5-1

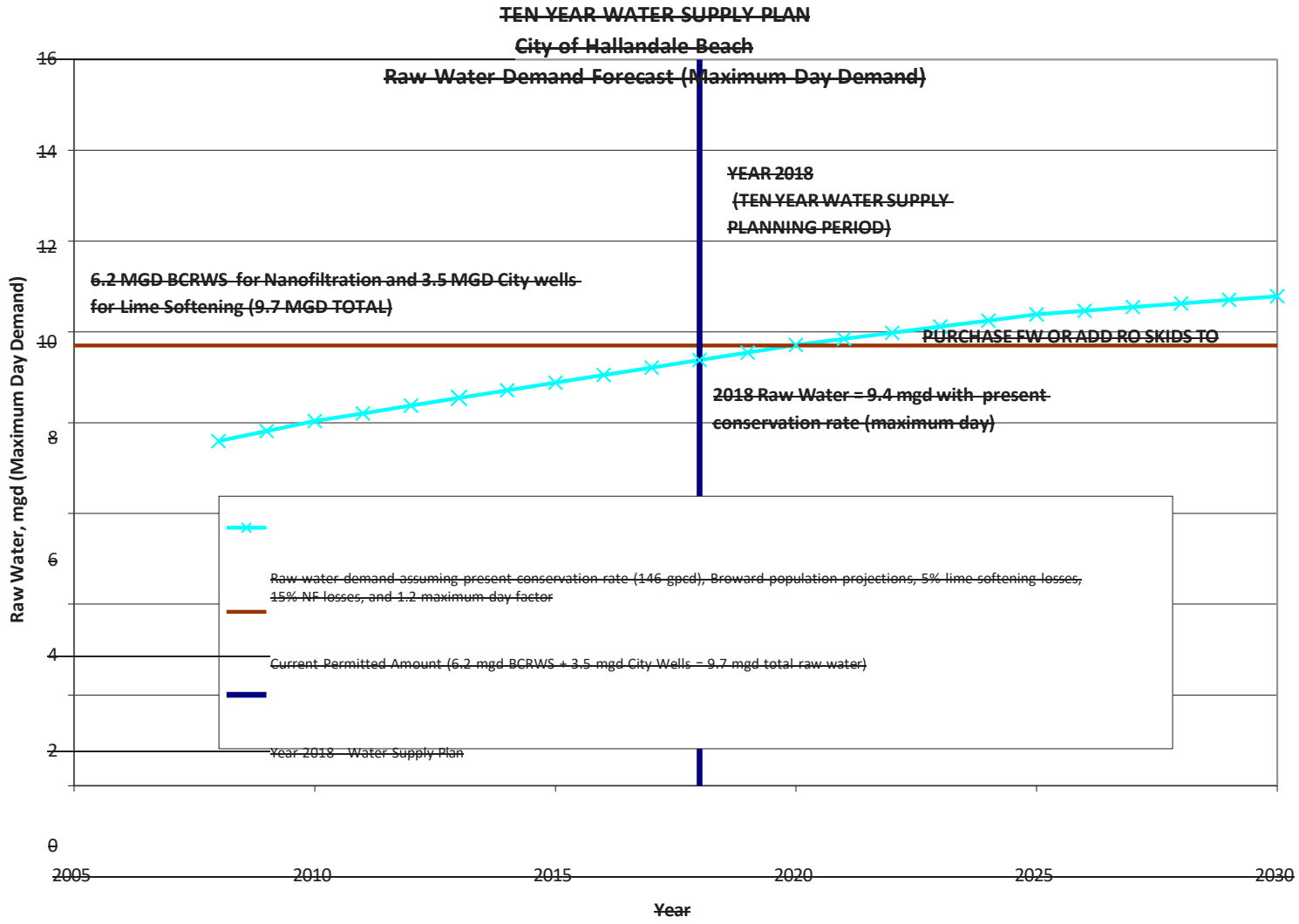


Figure 6- Max Day Raw Water Demand

EXHIBIT 5-1

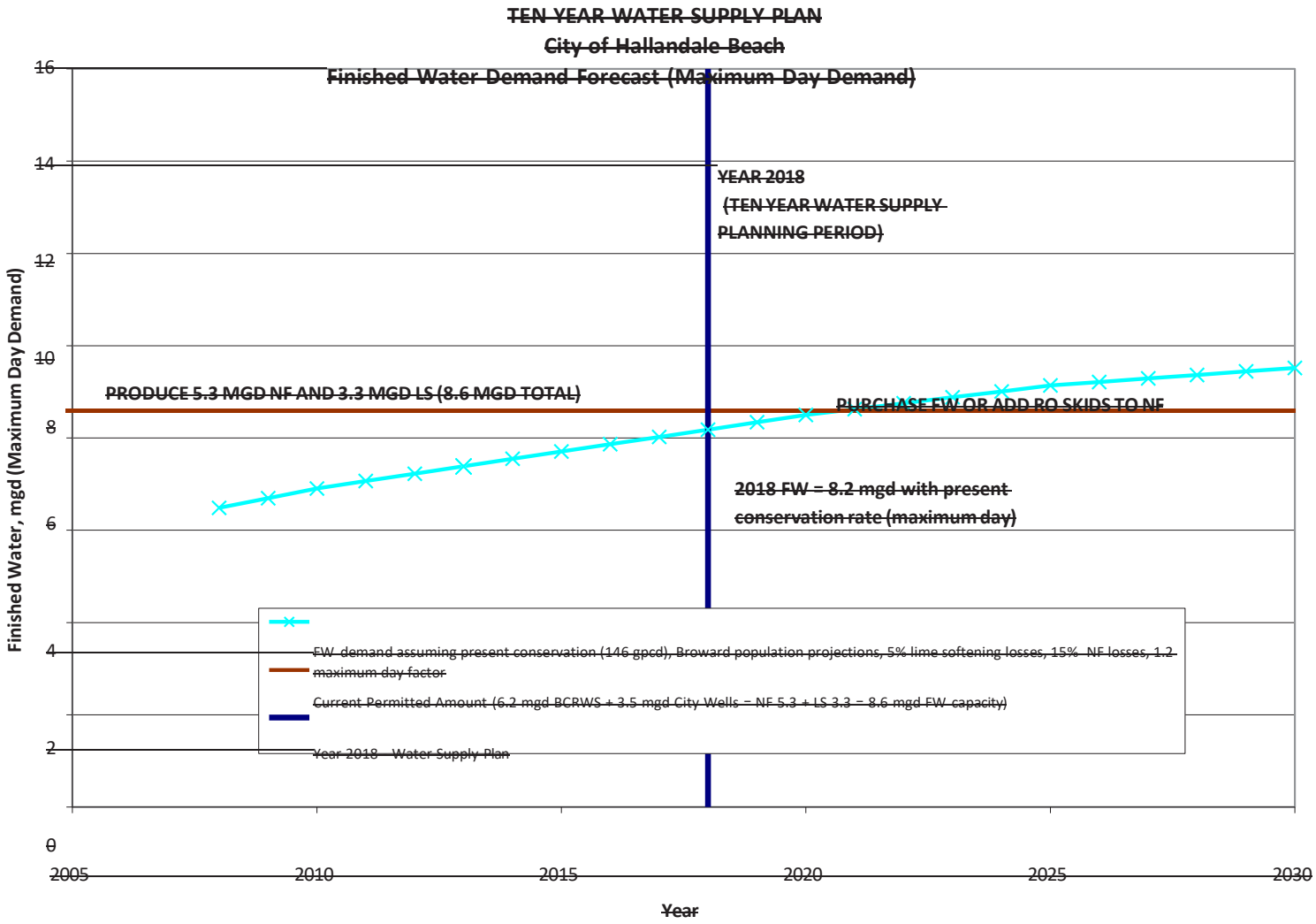


Figure 7-Max Day Finished Water Demand

EXHIBIT 5-1

EXHIBIT 5-1

~~The City is investigating the following alternative water supply methods in an effort to maximize water consumption efficiency:~~

~~1) Additional water conservation programs to reduce future demand~~

~~2) Preserve the life of City wells by monitoring salinity encroachment and implementing strategic improvements~~

~~3) Alternate water suppliers (Cities of Hollywood and North Miami Beach) to meet future demands~~

~~4) Relocation of City's wells to the west, to extend the life of the wells~~

~~5) Aquifer Storage and Recovery~~

~~6) Reuse/Recharge Project~~

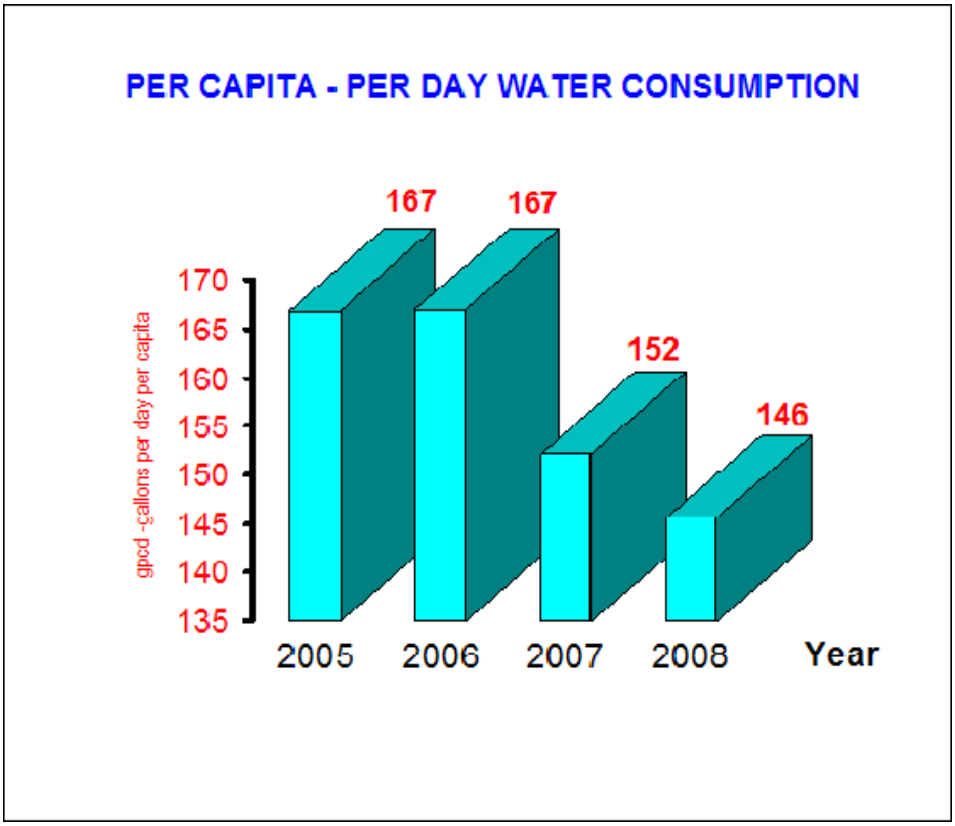
~~7) L-8 Reservoir Project to provide an increased Biscayne Aquifer allowance~~

~~Water Conservation~~

~~The South Florida Water Management District imposed water restrictions in 2007. Hallandale Beach was subject to those restrictions and as a result experienced a 13% decrease in the amount of Finished Water Demand for 2007/2008. Based on the amount of water saved as a result of the restrictions, the City will be able to provide the necessary water to meet future demands simply by continuing its current water conservation measures.~~

EXHIBIT 5-1

~~**Figure 8 Historic Water Consumption 12 Month Average**~~



~~Source: Hallandale Beach Finance Department, Water Billing Rates~~

~~Hallandale Beach has been pursuing water conservation measures for many years. The City currently has several water conservation programs already in place that have been effective in lowering water consumption rates. Listed below are the City's current and future conservation programs:~~

1. ~~The City has adopted an Irrigation Ordinance, City Ordinance 2007-04, Chapter 30 / Section 30-49, enforcing the South Florida Water Management District's (SFWMD) Phase I guidelines, which restricts the watering of landscaping to two days a week. The City has been following Phase III restrictions since 2007 which permits the watering of landscaping only once a week. The City will amend its Irrigation Ordinance to maintain the Phase III restrictions by December 2008.~~

2. ~~City Resolution 87-14 outlining the use of Xeriscape (not requiring additional irrigation) plants and landscaping design details to promote and expand its~~

use according to recommended landscaping planting guidelines intended to reduce or eliminate the need for supplemental irrigation.

3. The City has endorsed and proactively promoted Broward County's NatureScape Irrigation Program and concept, implementing environmentally sound landscaping practices to reduce the irrigation demands. To date the application of these irrigation best practices through NatureScape have generated water savings of close to 10 million gallons / year (every year) or the equivalent economic savings of $13,500 per year (every year) by applying the program recommendations to the City facilities and parks.

Table 8 NatureScape Savings

City Location	Savings (gal/year)	Savings ($/year)
City Hall	824,460	$1,607.70
Hallandale Beach Cemetery (South)	3,436,389	N/A
Hallandale Beach Cemetery (North)	1,525,680	$2,975.08
Cultural Center	556,920	$1,085.99
Bluesten Park	3,555,786	$7,644.94
Bluesten	71,308	$153.31
Community Center	N/A	$0.00
Foster Park	15,600	$33.54
	9,986,143	$13,500.56

Hallandale Beach is currently working with Broward County to registration as a NatureScape City through the National Wildlife Federation (NWF) to become a Certified Community Wildlife Habitat.

4. The City adopted a Rain Sensor Device Ordinance, whereby the City requires any person applying for an irrigation system permit to install, operate and maintain rain sensor devices or to provide for automatic switching mechanisms that will stop the irrigation system with the occurrence of adequate rainfall.

In fiscal year 2007/2008, the City obtained a matching grant from the SFWMD's Water Savings Initiative Programs (WaterSIP) to retrofit sprinkler systems with rain sensors able to suppress unnecessary watering when rain have satisfied the irrigation needs. This free rain sensor retrofit program is a direct incentive for all residents and businesses wishing to install approved rain sensor devices in their irrigation systems. If fully implemented, this program has the potential to conserve around 11.5 million gallons of water yearly.

5. The City adopted an Ultra-Low-Volume Plumbing Fixture Ordinance - City Ordinance Chapter 8, Article 1, Section 8-1, recognizing the Florida Building Code as the enforceable Building Code for the City and codifying the Building Code requirements for ultra-low-volume plumbing fixtures on all new construction.

   The City recently applied for a $50,000 matching grant under the SFWMD's WaterSIP for fiscal year 2009 to further water savings in areas where most opportunities exists, such as toilet flushing retrofits for selective volumes flushing by planning to retrofit 1,000 condominium unit toilets with the potential to save 10-million gallons of water per year. As part of this grant proposal, the City also plans to establish a water reuse infrastructure system for the City facilities, parks and street medians. The water reuse system is anticipated to save between 10,000-25,000 gallons of water per day.

6. The City of Hallandale Beach maintains a utilities (water / sewer) rate structure supporting economic incentives for water conservation. The basis for this financial inducement is to reward lower water users (2,000 gallons or less) with a lower utility rate of $3.86 and incrementally raise the per unit cost for larger users (above 25,000 gallons) to pay a water and sewer maximum rate of $5.87.

7. The City's Public Works Department maintains a Water Utility Leak Detection Program, whereby all water meters are replaced on a 5-year schedule and the large meters are checked and calibrated for accuracy annually.

   In addition, Public Works also maintains a Water Distribution System Leakage Programs, whereby the monthly reports for the water piping distribution system are examined to compare the water pumped vs. the water billed and identify any excessive unaccounted volumes. Historically, the City's water distribution system has unaccounted water losses averaging less than 4%, considerably less than the 10% the South Florida Water Management District allows for coastal communities.

8. The City has maintained a continuous water conservation informational program for its residents, whereby the City periodically issues water conservation messages through newsletters, such as Hallandale Happenings, the annual Water Quality Report, and other means available to convey the need and importance of water conservation.

9. The City has been working to reduce the amount of Inflow and Infiltration (I/I) for over two decades. Though not often highlighted as a means of water conservation, implementation of a strong I/I program also conserves water. Each day hundreds of thousands of gallons of water in the aquifer are lost to wastewater system inflow and infiltration. A strong I/I program can have a

~~dramatic impact on the amount of water saved and the City continues to improve this program to maximize the amount of water conservation.~~

~~For Fiscal Year 2008/2009, the City of Hallandale Beach has~~

~~Alternative Suppliers~~

~~The City of Hallandale Beach has recently been in contact with the City of Hollywood to discuss the possibility of expanding the reuse water system operated by Hollywood's wastewater treatment facility by supplying the City of Hallandale Beach with 800,000 gallons per day (gpd) of reuse water. Hollywood currently provides approximately 225,000 gpd of reuse water to Hallandale Beach for the irrigation of the Diplomat Golf Course which is located in both cities. Hollywood has included the reuse expansion plans in its Water Supply Plan. Under Phase 1 expansion (Figure 3), Hollywood is expected to provide over 500,000 gallons per day of reuse water for Scavo Park (Three Islands Park), located in the north eastern portion of Hallandale Beach.~~

~~In addition to the reuse water provided by Hollywood, Hallandale Beach would also like to pursue a possible water agreement with the City of North Miami Beach. The City has had discussions with NMB regarding the possibility of providing some water to the City on a permanent basis; however, at this time no final agreements have been reached.~~

~~Aquifer Storage and Recovery~~

~~Although there are no current plans to pursue this technology, the City would like to further research this process in the future.~~

~~Reuse/Recharge Project~~

~~The updated 2005-2006 Lower East Coast Water Supply Plan has identified Alternative Water Resource (AWS) options for each public water supply utility. Each utility is to choose an AWS project, or several, to plan for the future needs of its service area. The Cities of Hallandale Beach, Dania Beach and Hollywood and Florida Power & Light all draw water from the Broward County South Regional Wellfield (Piccolo Wellfield). The LEC Plan has recommended a highly treated reuse/recharge project for the Piccolo Wellfield which would require the cooperation of those who receive water from it. This project would provide recharge in sufficient quantities to allow for an increase in groundwater withdrawal.~~

~~L-8 Reservoir Project~~

EXHIBIT 5-1

The Western L-8 Reservoir Project is a potential means of AWS that several municipalities in Southeast Florida are investigating, including Hallandale Beach. The basis for the project involves the construction of a large reservoir in Palm Beach County to divert flow from the C-51 Canal which would ordinarily be lost to tide. Water stored in the reservoir would be used to offset the need for water deliveries from the water conservation areas, or the regional system, thereby allowing for increased recharge of surficial aquifers. It is anticipated that participating utilities would be granted access to a greater water allowance from the Biscayne Aquifer due to lessened demands from the regional system

Water Supply Capital Improvements

Table 9 below outlines the anticipated capital improvement projects the City will undertake to enhance its water conservation program. Although the City's projections indicate the current water conservation program is sufficient to meet all projected water demands beyond the 10-year planning period, the City has incorporated additional conservation programs into the Capital Improvements Schedule in an effort to further reduce water consumption throughout the City.

Table 9 Water Supply Capital Improvement Projects

* Water Supply CIP's	FY2008	FY2009	FY2010	FY2011	FY2012
1. Water Reuse Study, Design and construction	$100,000	$100,000	$100,000	$78,000	$78,000
2. SFWMD – WaterSIP Grant	$50,000	$50,000	$50,000	$50,000	$50,000
3. Water Conservation Incentive Programs	$30,000	$30,000	$30,000	$50,000	$50,000
4. Conservation Promotional Material	$10,000	$10,000	$13,000	$15,000	$15,000
5. Water Wise Fifth Grade Conservation Material	$7,000	$7,000	$7,000	$7,000	$7,000
6. NatureScape Certification	$3,000	$3,000	0	0	0
TOTAL	$200,000	$200,000.00	$200,000.00	$200,000.00	$200,000.00
OVERALL 5 YEAR CIP TOTAL= $1,000,000					

EXHIBIT 5-1

~~* Project Description~~

~~1. **Water Reuse Study, Design, and Construction**~~

~~Fund the Study, Design-Engineering and Initial Construction (Phase 1 of 3) of Water Reuse System to Encompass Rain Harvesting, Storm Water and/or Water Plant Concentrate (Reject Water) for All City Facilities and Street Medians~~

~~2. **SFWMD – WaterSIP Grant**~~

~~[Grant to Be Announced by Mid August 2008]~~
~~Commitment to match South Florida Water Management District grant to be used for:~~
~~1. Water Re-Use for City Facilities (Buildings / Medians)... Install Infrastructure~~
~~2. High Density-High Water Use / Circa 1970s Condominium Toilets... Retrofit Toilet (Use Bldgs Maintenance Crew)~~

~~3. **Water Conservation Incentive Programs**~~

~~Program to Encompass Rebates and Incentives Such as Water-Wise Rebate / Incentive, Ultra Low Flow Toilet Exchange, Plumbing Retrofits / Exchanges (Residential & Commercial), and Other Special Opportunity Incentive~~

~~4. **Conservation Promotional Material**~~

~~City Sponsored / Funded Water Conservation Literature and Small Value Conservation Promotional Materials Such As: Showerheads, Dye Tablets, Faucet Aerators, Conservation Kits, Etc.~~

~~5. **Water Wise Fifth Grade Conservation Material**~~

~~Fifth Grade Math and Science Curriculum Based Water Conservation Educational Classroom Material with Water Savings Kit for Home Retrofits as Homework / Report~~
~~Target: Hallandale Elementary 185 Students & Teachers~~

~~6. **NatureScape Certification**~~

~~Registration for NatureScape and Certification~~
~~Satisfy and Provide Requirements for Official Registration~~
~~Continue Process towards Certification by Satisfying and Providing Official Certification Requirements and Provide Support for Team Volunteers~~

~~Goals, Objectives, and Policies~~

~~Future Land Use Element~~

~~**GOAL**: To provide a coordinated and compatible mix of land uses which encourages a high quality of life meeting the social, economic and physical needs of the present and future population of Hallandale Beach, while insuring reasonable environmental protection and timely and efficient provision of services.~~

~~**OBJECTIVE 1.1**: Levels of Service: The City shall continue to condition approval of development applications upon maintaining the provision of services~~

MEMORANDUM OF UNDERSTANDING
BETWEEN THE CITY OF HALLANDALE (CITY)
AND THE MIAMI-DADE WATER AND SEWER AUTHORITY DEPARTMENT (WASAD)

The two parties hereby mutually agree to the following with respect to construction by the City of Hallandale of a 20-inch water main in the right-of-way of Biscayne Boulevard, from approximately N.E. 209th Street northward to a connection with the CITY water system.

1. The water main is being constructed by the CITY so that the CITY can obtain water service from the water system of the City of North Miami Beach.

2. At the joint request of the City of North Miami Beach and the WASAD, the construction by the CITY will include a 20 x 20 x 20 inch tee in the main and a 20-inch lateral, to be located at approximately N.E. 211th Street at a point selected by the WASAD. The lateral will extend from the main to the east right-of-way line of Biscayne Boulevard, and will include a 20-inch butterfly valve and 20-inch plug. It is understood that subsequent to Hallandale's construction, the WASAD and/or the City of North Miami Beach will remove the plug and construct facilities by which the WASAD will be able to receive water service from the water system of the City of North Miami Beach, through the main being constructed by the CITY.

3. The CITY will include in its construction contract a separate Bid Item, with separate Lump Sum Bid Price, for all labor, materials and other costs associated with constructing the 20-inch tee, lateral, valve and plug.

4. Within 30 days of the CITY making an award on its construction contract and the WASAD's receipt of a bill from the City, the WASAD will pay to the CITY a lump sum equal to the Bid Price for the 20-inch tee, lateral, valve and plug. All subsequent construction of any facilities to be connected to the lateral will be accomplished at no expense to the CITY.

5. The WASAD agrees that in the future the CITY shall be entitled to Refunds, similar to those described in "Rule 19" of the Miami-Dade Water and Sewer Board Main Extension Policy, for the costs incurred by the CITY in constructing the 20-inch main. Such Refunds shall be in accordance with the following:

   a. All usage in this Memorandum of Understanding of the terms "The Original Applicant" and "The Utility" shall apply to the CITY and the WASAD, respectively, with the same meanings as those terms have in Rule 19.

   b. In this Memorandum of Understanding, the term "Subsequent Applicant" is defined to be any future customer of "The Utility" who meets both of the following criteria.

      (1) Has applied to "The Utility" for water service to property that has a Property Line which coincides with any portion

of t east right-of-way line of Bisc e Boulevard anywhere between the north boundary of Dade County and the northerly Property Line of the Menorah Chapels, 20955 Biscayne Boulevard.

(2) Will be the first recipient of water service for that property from a new hydraulic connection to a portion of the water system of "The Utility" that is connected to the 20-inch main constructed by the CITY.

c. It is mutually understood that the above definition of "Subsequent Applicant" differs from the corresponding Rule 19 definition. In particular, the above definition: is based solely upon location of the Property Line - not the location of the hydraulic connection to the water system of "The Utility"; and does not include any time limitation. On the other hand, the Rule 19 definition is limited solely to hydraulic connections made directly to the original main during the 8 years subsequent to construction of the original main.

d. Prior to any "Subsequent Applicant" being connected to the water system of "The Utilty", said applicant will pay to the CITY a Refund equal to an Amount per Linear Foot times the number of linear feet of Property Line that coincides with the right-of-way line of Biscayne Boulevard. The Amount per Linear Foot to be used for any given "Subsequent Applicant" shall be one half of the actual total project cost of the original main, less the amount paid by the WASAD under paragraph 4 herein, divided by the length of the original main. The actual total project cost, including engineering and ~~administration~~, inspection, shall be as submitted to the WASAD by the CITY. The Amount per Linear Foot shall be adjusted each year, as of the anniversary date of award of the Construction Contract, in accordance with the Engineering News Record Construction Cost Indices for month in which the contract was awarded.

e. Refunds shall be paid by "Subsequent Applicants" to the WASAD. The amounts collected shall then be reinbursed to the City. The WASAD will not provide water service to "Subsequent Applicants" unless refunds have been paid.

6. In the event that the WASAD should enter into an agreement with any other water system to the effect that the other system will provide water service to any existing or future "Subsequent Applicants" defined by this Letter of Understanding, then the WASAD shall ensure that said agreement includes a requirement that the other water main system shall assume the commitments of "The Utility", as established by this Letter of Understanding, with respect to such "Subsequent Applicants".

For the Miami Dade Water and Sewer Authority Department

Garrett Sloan, Director

For the City of Hallandale

R.J. Intindola, City Manager

(2)

EXHIBIT IV

MIAMI-DADE WATER AND SEWER AUTHORITY DEPARTMENT

P. O. BOX 330316
MIAMI, FLORIDA 33233-0316

Main Office
3575 S. LeJeune Road
Telephone 665-7471

July 23, 1986

'86 JUL 24 P3:08

CITY OF HALLANDALE
CITY MANAGER

Mr. R. J. Intindola
City Manager
City of Hallandale
308 S. Dixie Highway
Hallandale, Florida 33009

Re: Memorandum of Understanding

Dear Mr. Intindola:

Pursuant to Paragraph 5 e of our recently executed Memorandum of Understanding, it is WASAD's intent to reimburse the City the refunds paid by "Subsequent Applicants" within 45 days of WASAD's receipt of such payments.

Very truly yours,

R. B. Lichtenstein

R. B. Lichtenstein
Contracts Officer

RBL/sl

cc: Garrett Sloan
Diane Camacho

City of North Miami Beach, Florida

PUBLIC SERVICES

April 29, 1997

Mr. R. J. Intindola
City Manager
City of Hallandale
400 South Federal Highway
Hallandale, Fl. 33009-6433

Re: Water Service Contract

Dear Mr. Intindola:

Enclosed, please find a copy of the extension contract between the City of Hallandale and the City of North Miami Beach for water service.

Should you have any questions or wish to discuss this matter, please contact my office at the above number listed below.

Sincerely,

Kelvin L. Baker
Director of Public Services

KLB:rsd

Enclosure

c: Michael J. Roberto, City Manager
Rick Hedrick, Deputy City Manager
Miriam Bensinger, Asst. City Attorney

2080 N.E. 160th STREET, NORTH MIAMI BEACH, FLORIDA 33162-4900 PHONE: (305) 948-2967 FAX: (305) 940-3948

AGREEMENT EXTENDING CONTRACT BETWEEN THE CITY OF HALLANDALE AND THE CITY OF NORTH MIAMI BEACH FOR RENDITION OF WATER SERVICE

THIS AGREEMENT entered into this 25 day of February, 1997 by and between the **CITY OF NORTH MIAMI BEACH**, a Florida municipal corporation, hereinafter referred to as **"CITY"** and **THE CITY OF HALLANDALE**, a Florida municipal Corporation, hereinafter referred to as **"HALLANDALE"**.

WITNESSETH:

WHEREAS, CITY AND HALLANDALE entered into an Agreement on November 26, 1986, a copy of which is attached hereto and incorporated herein by reference, by which Agreement, **CITY** agreed to supply potable water to **HALLANDALE**; and

WHEREAS, CITY and **HALLANDALE** entered into an Agreement on November 26, 1996, extending the original agreement for a period of 90 days; and

WHEREAS, CITY AND HALLANDALE desire to extend the provisions of the Agreement, for an additional 90 days from February 24, 1997 to May 25, 1997 in order to renegotiate the Agreement in accordance with Section VIII of the Agreement entered into November 26, 1986.

NOW THEREFORE,

IN CONSIDERATION of the mutual covenants and agreements herein contained, it is hereby agreed by and between the parties as follows:

1. **CITY** agrees to continue to provide potable water for **HALLANDALE** in accordance with the terms and conditions set forth in the Agreement entered into November 26, 1986, and previously extended to February 24, 1997 for an additional period of 90 days, pending renegotiation of the Agreement.

2. All of the terms and conditions of the original Agreement for supply and delivery of potable water to **HALLANDALE** shall remain in full force and effect through May 25, 1997.

IN WITNESS WHEREOF, THE CITY OF NORTH MIAMI BEACH AND THE CITY OF HALLANDALE have caused these presents to be executed in their respective names by the proper officials the _____day of _____, 1997.

WITNESSES:

_____

CITY OF HALLANDALE

CITY MANAGER

APPROVED AS TO FORM:

CITY ATTORNEY

ATTEST:

CITY CLERK

(CITY SEAL)

CITY OF NORTH MIAMI BEACH

Sherry L. Cavaretta
Karen D. Estrado

CITY MANAGER

APPROVED AS TO FORM:

CITY ATTORNEY

ATTEST:

CITY CLERK

(CITY SEAL)

d222497I.DOC

Appendix C: Agreement for Capacity Allocation in Phase 1 of the C-51 Reservoir

C-51 Reservoir

Original Agreement

AGREEMENT FOR CAPACITY ALLOCATION
IN PHASE 1 OF THE C-51 RESERVOIR
HALLENDALE BEACH

THIS AGREEMENT FOR CAPACITY ALLOCATION IN PHASE 1 OF THE C-51 RESERVOIR ("Agreement") is made and entered into by and between Palm Beach Aggregates, LLC, a Florida limited liability company ("Company"), with its principal offices at 20125 State Road 80, P.O. Box 700, Loxahatchee, Florida 33470, and Hallendale Beach, Florida, ("Participant"), a municipality organized and existing under the laws of the State of Florida, whose address is _____. Company and Participant shall collectively herein be called the "Parties" and each be individually identified herein from time to time as a "Party."

WITNESSETH:

WHEREAS, since 2006, Broward County, Palm Beach County and other lower east coast area water providers ("LEC Utilities") have been collaborating in the development of the C-51 Reservoir, to serve as a regional alternative water supply by storing excess wet-season storm water runoff for later distribution and use during the dry season; and

WHEREAS, after extensive study and public discussion, the C-51 Reservoir has been advanced as an innovative public-private partnership whereby interested LEC Utilities and Company would jointly develop the project with clearly defined roles for each party including the pro rata contribution of capital costs by each of the participating LEC Utilities, and following construction, the pro rata contribution of operating and maintenance costs based upon their respective storage allocation and consumptive use permit; and

WHEREAS, Company will be constructing a series of interconnected reservoirs (collectively, the "C-51 Reservoir") capable of receiving and storing water from areas under the jurisdiction of the South Florida Water Management District ("SFWMD") in South Florida ("Region"), and discharging that water back to the Region as an alternative water supply; and,

WHEREAS, it is intended that the C-51 Reservoir will be constructed in two phases. Phase 1 of the C-51 Reservoir will consist of a reservoir with 14,000 acre-feet of storage capacity and appurtenant facilities and works (the "Phase 1 Reservoir"). The Second Phase, if developed, will consist of an anticipated additional 46,000 acre-feet of reservoir storage capacity and appurtenant facilities and works (the "Phase 2 Reservoir"); and

WHEREAS, Participant is a governmental entity that owns and operates a public water utility and desires to contribute its pro rata share of the capital costs and operating and maintenance costs in exchange for a contractual allocation of the permitted storage capacity in the Phase 1 Reservoir as an alternative water supply; and

WHEREAS, Company intends to transfer ownership of the Phase 1 Reservoir, and assign this Agreement, to C-51 Reservoir, Inc., a Florida not-for-profit corporation ("C-51 NFP") on or about the thirtieth (30th) day after the date on which commercial operation of the Phase 1 Reservoir is achieved;, and upon transfer to C-51 NFP, the term "Company" as used in this Agreement shall mean C-51 NFP; and

WHEREAS, because the operation of the Phase 1 Reservoir is dependent upon the SFWMD's regional system, SFWMD has agreed to operate, maintain, repair, replace, and rehabilitate the Phase 1 Reservoir and SFWMD facilities that benefit the Phase 1 Reservoir; and

WHEREAS, the 298 Districts, special districts governed by Florida Statutes, have or will agree to provide conveyance of water from the C-51 Reservoir to the South Florida regional water system, and from the South Florida regional water system to Participant's water supply withdrawal facilities,

NOW, THEREFORE, for mutual consideration, the Parties agree as follows

1. **DEFINITIONS** – As used in this Agreement, the following terms shall have the following meanings:

1.1 **298 District(s)** – shall mean a special district or districts governed by Chapter 298, Florida Statutes that provides for the conveyance of water from the C-51 Reservoir to the

conveyance system that are needed for participants to obtain new water use permit allocations from the SFWMD.

1.2 **298 District O&M Cost Share** – shall mean the 298 Districts' costs for the operation, maintenance, repair, replacement and rehabilitation of the system conveying water from the Phase 1 Reservoir pursuant to the Conveyance System Agreement(s).

1.3 **Administrative Cost Share** – shall mean the administrative expenses of C-51 NFP, including property and liability insurance premiums, the cost of clerical assistance for processing invoices and receipt of payments for participation in the C-51 Reservoir, the cost of processing invoices and payments to SFWMD and 298 Districts, legal fees, audit costs, costs of governing board meetings, postage, supplies, permit compliance costs, other ordinary and customary expenses of maintaining and administering the Phase 1 Reservoir and C-51 NFP, contingency and reasonable operating capital reserves.

1.4 **Affiliate** – shall mean, when used to indicate a relationship with a specific Person, another Person that directly or indirectly through one or more intermediaries or otherwise, controls, is controlled by, or is under common control with, such specific Person. A company shall be deemed to be an Affiliate of another company if one directly or indirectly controls the other or if each of them is directly or indirectly controlled by the same Person.

1.5 **Alternative Water Supply** – shall have the meaning set forth in Section 373.019, Florida Statutes and the Regional Water Availability Rule.

1.6 **Annual Operations Payment** – shall mean an annual payment to C-51 NFP, in advance, for C-51 NFP's, SFWMD's and 298 District's ongoing costs of operating and maintaining the Phase 1 Reservoir and conveyance system, and related facilities and work. The initial estimated Annual Operations Payment is Thirty-Six Thousand Five Hundred Fifty-One Dollars ($36,551) per MGD of Participant's Final Capacity Allocation (see current cost estimates in Appendix B, which will be updated by Company on or before the Commercial Operation Date), and consists of the following charges: (i) SFWMD O&M Cost Share, (ii) 298 District O&M Cost Share, and (iii) Administrative O&M Cost Share.

The Annual Operations Payment will include renewal and replacement costs as provided in both the SFWMD O&M Agreement and the Conveyance System Agreement(s).

1.7 **Applicant's Handbook** – shall mean Applicant's Handbook for Water Use Permit Applications within the South Florida Water Management District, effective September 7, 2015, as amended or re-designated from time to time, or any other applicable regulatory guidance for issuance of water use permits as may be promulgated by SFWMD from time to time.

1.8 **C-51 NFP –** shall mean the C-51 Reservoir, Inc., a Florida not-for-profit corporation, formed under the laws of Florida, governed by the C-51 NFP Bylaws, attached hereto and incorporated herein as Appendix C, and upon transfer of the Phase 1 Reservoir, controlled by the Participants, as more fully described in the C-51 NFP Bylaws.

1.9 **C-51 Reservoir** – shall have the meaning set forth in the Whereas clauses and as defined in the Reservoir ERP Permit and the Reservoir Water Use Permit.

1.10 **C-51 Allocation** – shall mean the allocation granted by SFWMD, pursuant to an application by a Participant, granting Participant a consumptive use permit allocation of water corresponding to the Participant's ISU Allocation of storage in the C-51 Reservoir, whether issued as a stand-alone water use permit in lieu or a modification of the Current WUP ("New WUP Allocation"), as determined by SFWMD and Participant.

1.11 **Capacity –** shall mean an amount of Water Storage Capacity in the C-51 Reservoir, or in Phase I or sub-Phase thereof, based upon 14,000 acre-feet of physical storage capacity and stated in MGDs that is capable of being delivered, from time to time, from the C-51 Reservoir to the Regional System pursuant to the Reservoir Water Use Permit.

1.12 **Capacity Allocation Agreement –** shall mean an agreement between the Company and Participant allocating a portion of the storage capacity in Phase 1.

1.13 **Capacity Cost Share** – shall mean the Participant's cost for Final Capacity Allocation in the Phase 1 Reservoir based on $4.60 per gallon of the Final Capacity Allocation. Based

on the Initial Committed Capacity of one (1) millions gallons per day, the initial Capacity Cost Share Payment will be $4,600,000.

1.14 **Commercial Operation** – shall mean the physical and operational condition, as determined by SFWMD, pursuant to the Reservoir Water Use Permit, whereby a particular Phase or sub-Phase of the construction of the C-51 Reservoir has been completed in all material respects and is capable of operating such that the Final Capacity Allocation is available for allocation to Participant.

1.15 **Commercial Operation Date** – shall mean the date upon which Commercial Operation has been achieved. SFWMD will conduct operational testing for two years after the Commercial Operation Date to identify any necessary or desirable Contractor Warranty and Manufacturers' Warranties repairs, but such operational testing will not extend the Commercial Operation Date.

1.16 **Construction Financing** – shall mean financing agreement(s) obtained by Company from Financing Party to fund the costs of construction of the Phase 1 Reservoir.

1.17 **Contractor Warranty –** shall mean the construction warranty from the general contractor for the Phase 1 Reservoir to the Company, in which the general contractor warrants to the Company that the Phase 1 Reservoir construction conforms to the requirements of the Phase 1 Reservoir construction plans and specifications and the Reservoir Water Use Permit and Reservoir ERP Permit and will be free from defects and fit for the purpose for which it was intended. The Contractor Warranty shall be assigned to C-51 NFP at the time of transfer of this Agreement to C-51 NFP.

1.18 **Conveyance System** – shall mean the pumping, inflow and outflow structures, and network of canals, waterways, and other water bodies that are capable of transporting water from the C-51 Reservoir to such parts of the Regional System as are necessary for Participant to obtain its New WUP Allocation.

1.19 **Conveyance System Agreement** – shall mean an agreement between the Company and a 298 District, wherein the 298 District agrees to provide for the conveyance of water from

the C-51 Reservoir to such parts of the Conveyance System as are necessary for Participant to obtain its New WUP Allocation.

1.20 **Current WUP** – shall mean the water use permit issued to Participant from SFWMD in effect at the time of execution of this Agreement.

1.21 **FDEP** – shall mean the Florida Department of Environmental Protection.

1.22 **Final Capacity Allocation** – shall mean either the C-51 Allocation, or Participant's Initial Committed Capacity if Participant waives the condition precedent of receiving a New WUP Allocation pursuant to § 12.1.(b) of this Agreement.

1.23 **Financing Documents** – shall mean all of those documents, instruments and agreements between Company or its Affiliates and any of the Financing Parties or otherwise related to the financing provided by the Financing Parties from time to time, including, but not limited to, promissory notes, bonds, commercial paper, mortgages, UCC filings, liens, security agreements, pledges, guarantees, sureties, letters of credit, and collateral assignments.

1.24 **Financing Party**– shall mean a lender, security holder, credit agency, multilateral institution, equity provider, bond holder, underwriter or other entity or any combination thereof, providing financing or refinancing to or on behalf of any of the financing parties or the company's successors and assigns, or any trustee or agent acting on behalf of any of the financing parties or the trustees or agents' successors and assigns.

1.25 **Force Majeure** – shall mean a hurricane, earthquake, or other casualty caused by nature, or labor strike, war, or law, order, proclamation, regulation, or ordinance of any governmental agency that prevents the performance of this Agreement, or any obligation hereunder.

1.26 **Initial Committed Capacity –** shall mean one (1) million gallons per day.

1.27 **ISU** – shall mean an Independent Secondary User, as defined in Section 2.0, Subsection 2.3.2, Subsection C of the Applicant's Handbook, or its equivalent under the Reservoir Water Use Permit as determined by SFWMD.

1.28 **Local Government Prompt Payment Act** – shall mean Section 218.70, et al., Florida Statutes.

1.29 **Manufacturers' Warranties** – shall mean the manufacturers' warranties for materials and equipment incorporated into the Phase 1 Reservoir construction, e.g., pumps, motors, gates, etc..

1.30 **MGD** – shall mean million gallons per day.

1.31 **Month or Monthly** – shall mean a period extending from 9:00 a.m. Eastern Time on the first Day of a calendar month and ending at 8:59 a.m. Eastern Time on the first Day of the succeeding calendar month, unless otherwise agreed to by the Parties.

1.32 **Operations Agreement** – shall mean the Operation and Maintenance Agreement between SFWMD and Company for the Phase 1 Reservoir.

1.33 **Phase or sub-Phase** – shall mean a particular phase of development and construction of a portion of the C-51 Reservoir, the Reservoir ERP Permit, and the Reservoir Water Use Permit.

1.34 **Phase 1 Reservoir** – shall mean the first Phase to be constructed on the Phase 1 Site, with an anticipated Capacity of approximately thirty-five (35) MGD, with actual capacity to be determined in the Reservoir Water Use Permit.

1.35 **Phase 1 Site** – shall mean an area owned by Company in Palm Beach County, Florida, that is located generally west of SFWMD L-8 Reservoir and north of State Road 80, all as described in Appendix A, upon which the Phase 1 Reservoir will be constructed.

1.36 **Phase 2 Reservoir** – shall mean the second Phase of the C-51 Reservoir to be constructed on adjacent Company property, the proposed capacity of which remains to be determined.

1.37 **Project Sanction Date** – shall mean the date that Company delivers Notice to Participant that it has sufficient permits, commitments, and financing to move forward with the construction of the Phase 1 Reservoir in accordance with this Agreement.

1.38 **Regional Water Availability Rule** – shall mean Section 3.2, Subsection 3.2.1, Restricted Allocation Areas, Subsection E, of the Applicant's Handbook, as amended from time to time.

1.39 **Regional System** – shall mean the SFWMD regional water system, as described in the Applicant's Handbook.

1.40 **Reservoir ERP Permit** – shall mean the Environmental Resource Permit No. EC 50-0301070-002 issued by FDEP to Company for the C-51 Reservoir, as such Reservoir ERP Permit may be amended and renewed from time to time.

1.41 **Reservoir Water Use Permit** – shall mean the Consumptive Use Permit No. EI 50-301070-003 issued by FDEP to Company for water use for the Phase 1 Reservoir, as such Reservoir Water Use Permit may be amended and renewed from time to time.

1.42 **SFWMD O&M Cost Share** – shall mean the cost for the operation, maintenance, repair, replacement and rehabilitation of Phase 1 by SFWMD pursuant to the Operations Agreement, as provided in Section 6.3 below.

1.43 **Shared Infrastructure Costs** – shall mean the capital costs incurred by Company during construction of the Phase 1 Reservoir that provide shared benefit with Phase 2 of the C-51 Reservoir if Phase 2 is constructed in the future, including the costs related to the construction of the connection between the L-8 Reservoir and the Phase 1 Reservoir.

1.44 **Total Allocated Capacity** – shall mean the Capacity in the Phase 1 Reservoir allocated from time to time by Company to all ISU's, including Participant.

1.45 **Water Availability Rule** – shall mean Section 3.2.1 E in the Applicant's Handbook.

1.46 **Water Storage Capacity** – shall mean the capacity of water from the Regional System that may be impounded in the Phase 1 Reservoir pursuant to the Reservoir Water Use Permit.

2. C-51 RESERVOIR

2.1 Company shall own and construct the Phase 1 Reservoir on the Phase 1 Site, pursuant to the Reservoir ERP Permit, and the Reservoir Water Use Permit with a Total Allocated Capacity sufficient to provide Participant the Final Capacity Allocation.

2.2 Company shall comply with the requirements of the Reservoir ERP Permit, and the Reservoir Water Use Permit.

3. TERM OF AGREEMENT; TERMINATION

3.1 **Term of Agreement.** The Term of this Agreement shall commence on date the last party executes the Agreement and shall extend for the earlier of (i) the useful life of the Phase 1 Reservoir, as may be extended through renewal and replacement, (ii) the term of the Reservoir Water Use Permit, as renewed from time to time, or (iii) the term of the C-51 Allocation, as renewed from time to time.

3.2 **Termination.** Upon delivery of written notice to Company, as defined by Article 15 below, Participant may terminate this Agreement:

3.2.1 If Company fails to notify Participant, on or before June 30, 2018, that it has sufficient permits, commitments, and financing to commence the construction of the Phase 1 Reservoir; or

3.2.2 Pursuant to the provisions of Section 12.2; or

3.2.3 If Company fails to achieve Commercial Operation within thirty (30) months after the Project Sanction Date, provided, however, that the deadline to achieve Commercial Operation shall be extended automatically for a period of six (6) additional months in the event a surety under any completion or

performance surety agreement exercises its surety rights to complete the Phase 1 Reservoir (the "Long-Stop Date").

3.3 If Participant has not terminated the Agreement pursuant to Section 3.2.1 or Section 3.2.2, then Participant may not terminate the Agreement prior to the Long-Stop Date or prior to payment of the Capacity Cost Share, except pursuant to Section 3.2.3 or in the event of Force Majeure (other than a change in law) that may delay payment.

4. ALLOCATION OF CAPACITY BY COMPANY

4.1 Participant shall apply to SFWMD for, and undertake reasonable efforts to obtain, a C-51 Allocation equal to or greater than the Initial Committed Capacity.

4.2 Commencing on the Commercial Operation Date, Company shall commit to provide to Participant Participant's Final Capacity Allocation in the Phase 1 Reservoir.

4.3 The Parties acknowledge that SFWMD shall be responsible for the operation, maintenance, repair, replacement, and rehabilitation of the Regional System necessary for conveyance of the water from the C-51 Reservoir to the Regional System and from the Regional System to Participant's water supply withdrawal facilities. Notwithstanding Company's commitment to provide the Final Capacity Allocation to Participant, Company shall not be responsible for, and undertakes no obligation to Participant for, physical delivery or conveyance of water from the Phase 1 Reservoir to Participant. Company's sole obligation to Participant shall be Company's continued compliance with this Agreement, the Reservoir ERP Permit, the Reservoir Water Use Permit.

5. CONVEYANCE SYSTEM AGREEMENTS

5.1 On or before the Commercial Operation Date, Company will use its best efforts to enter into or cause to be entered into one or more Conveyance System Agreements to meet the requirements of the C-51 Allocation

6. PAYMENT FOR CAPACITY ALLOCATION

6.1 Prior to the Commercial Operation Date, Participant shall not be required to make any payments to Company under this Agreement.

6.2 Company shall provide Participant Notice within ten (10) days after reaching the Commercial Operation Date.

6.2.1 Within thirty (30) days after receipt of the Notice of the Commercial Operation Date (the "Payment Date"), Participant shall pay Company for the Capacity Cost Share.

6.2.2 In the event Company or SFWMD receives any grants of public funds to offset or supplement the costs of development and construction of the Phase 1 Reservoir from any governmental entity (not including payments under a capacity allocation agreement, reservation for future users or other agreement for storage capacity to be used by SFWMD), then Company shall refund to Participant a proportionate share of the grants based on Participant's Final Capacity Allocation. Grants do not include in-kind benefits or services provided by the State of Florida, SFWMD, or other governmental entity.

6.2.3 In the event Company undertakes the development and construction of the Phase 2 Reservoir, in its sole discretion, then upon completion and placement into service of the Phase 2 Reservoir, Company will collect sufficient funds from the Phase 2 participants to refund to Participant a proportionate share of the Shared Infrastructure Costs determined as follows: Multiply the Shared Infrastructure Costs by a fraction, the numerator of which is the Water Storage Capacity and the denominator of which is the sum of the Water Storage Capacity and the water storage capacity of the Phase 2 Reservoir (resulting in the "Shared Infrastructure Cost Allocation"), and then multiply the Shared Infrastructure Cost Allocation by a fraction, the numerator of which is Participant's Final Capacity Allocation and the denominator of which is the Water Storage Capacity (resulting in the "Shared Infrastructure Reimbursement Amount"). The Shared Infrastructure Reimbursement Amount shall be reimbursed to Participant within ninety (90) days after Company delivers the Phase 2 Reservoir for use by the participants in the Phase 2 Reservoir.

6.2.4 In the event Company receives any grants to offset the costs of development and construction of the Phase 2 Reservoir, then Company shall request that the grants be allocated proportionately between the Phase 2 Reservoir and the Phase 1 Reservoir so that Phase 1 participants may receive the benefit of a proportionate share of the grants.

6.2.5 Company shall not charge or assess Participant for any costs related to or arising out of another person's reservation of capacity in the Phase 1 Reservoir.

6.3 In addition to the Capacity Cost Share Payment set forth in Section 6.2 above, on or before October 1 of each year beginning at least six (6) months after the Commercial Operation Date and continuing for the remainder of this Agreement, Participant shall make an Annual Operations Payment to C-51 NFP, in advance. On or before the Commercial Operation Date, Company will pre-fund with C-51 NFP the initial advance Annual Operations Payment.

6.4 The Annual Operations Payment will be automatically adjusted for the following year based on actual costs incurred by C-51 NFP, which costs will be passed through to the participants. In the event actual annual costs exceed or are reasonably anticipated to exceed the annual cost estimates, C-51 NFP shall submit to Participant an invoice detailing the amount by which the actual costs exceeded or are anticipated to exceed the annual cost estimates. In the event C-51 NFP's actual annual costs are lower than annual cost estimates (as determined after receipt of C-51 NFP's annual audit), C-51 NFP shall submit to Participant a notice detailing the amount by which the actual annual costs were lower than annual cost estimates, which amount will be credited against Participant's next Annual Operations Payment.

6.5 Company intends to enter into one or more financing transactions (and refinancing transactions from time to time) to fund the construction, completion, renewal, and replacement of the C-51 Reservoir, in which financing(s) Company intends to pledge Company's receipt of the Capacity Cost Share Payment and Annual Operations Payment by Participant under this Agreement as security to the Financing Party. Participant

consents to such pledge or pledges, and agrees to execute such Financing Documents, and make such representations and warranties, from time to time, as may be required by the Financing Party to confirm Participant's obligations under this Agreement. As part of financing transactions, Company may grant the Financing Party a mortgage or other security lien on the Phase 1 Site, and Participant consents to any such mortgage or other security lien. Participant agrees to reasonably cooperate with Company in customary due diligence, disclosure and rating processes in relation to financing transaction(s). In the event Company utilizes an underwritten bond issuance for Construction Financing, Company agrees to (i) retain an established bond trustee to receive bond proceeds and pay construction costs, and (ii) share any savings realized from any refinancing/refunding of such bonds equally with Participants (pro rata among the Participants based on percentage of Capacity reserved). Under no circumstances shall Participant pledge the full faith and credit of Participant to the Financing Party or otherwise guarantee or pledge Participant's assets or credit to secure any Company financing.

6.6 Participant acknowledges that entering into this Agreement and payment of Capacity Cost Share and Annual Operations Payment do not convey any ownership, equity, or property rights in the C-51 Reservoir, other than the Final Capacity Allocation as provided in Section 4.

7. BILLING AND PAYMENT

7.1 On an annual basis in advance, no later than August 1 of each year, Company shall provide Participant with an annual billing report (the "Annual Billing Report") of Participant's Annual Operations Payment, calculated in accordance with Section 6. The Annual Billing Report, to be provided to Participant by Company in both written and electronic form, shall contain at least the following information:

7.1.1 The total Annual Operations Payment;

7.1.2 The number of MGDs of Participant's Final Capacity Allocation;

7.1.3 The then-current SFWMD O&M Cost Share;

7.1.4 The then-current 298 District O&M Cost Share;

7.1.5 The then-current Administrative Cost Share; and

7.1.6 Such other information, data, or calculations as Participant or Company deems reasonably necessary to adequately calculate payment or credit amounts.

7.2 The Annual Operations Payment as set forth in the Annual Billing Report is due in advance on or before October 1st of each year. All payments due from Participant and not made within the time specified by the Local Government Prompt Payment Act shall bear interest at the rate and in accordance with the terms established from time to time in the Local Government Prompt Payment Act. In the event the Local Government Prompt Payment Act is repealed and no successor legislative act enacted, then payment shall be made by Participant within thirty (30) days of the due date, and all past due payments shall bear interest after the due date at the uncompounded rate of one percent (1%) per month on the unpaid balance. Company shall provide Participant a report of any interest accrued on a monthly basis. Unpaid interest is compounded monthly.

7.3 Within thirty (30) days after receipt of an Annual Billing Report, Participant shall review its contents and advise Company in writing of any known errors or misstatements contained therein. Failure of Participant to notify Company of any known errors or misstatements by 60 days after discovery shall extinguish Participant's right to any billing adjustment(s). Company shall provide Notice to Participant of any errors or misstatements contained in an Annual Billing Report discovered by Company within five (5) years of delivery of the Annual Billing Report to Participant.

7.4 Subject to Section 7.3 above, if any errors or misstatements should arise in connection with any portion of any Annual Billing Report and be discovered by either Participant or Company, the Parties agree to proceed in good faith to expeditiously seek to settle any such items. Adjustments to the Annual Operations Payment shall be added to, or credited against, the next Capacity Allocation Payment then due, or paid in full by the applicable

Party in the event adjustments have not been fully recovered before this Agreement expires or is terminated.

7.5 Currently, Company is not aware of any tax, assessment, or other impositions for which Participant may be liable in accordance with applicable law as a result of its purchase of Final Capacity Allocation in the Phase 1 Reservoir from Company, (*e.g.*, State of Florida sales tax. In the event of any material change in tax law(s), the Parties will enter into negotiations in an attempt to formulate an appropriate amendment to this Agreement. Participant shall not be responsible for payment of any of Company's local, state, or federal taxes, except as may be required by a material change in applicable law.

7.6 Participant acknowledges that the Annual Operations Payment is an operating expense of Participant. Participant shall fix, establish and maintain such rates, fees, and charges and shall collect such fees, rates, or other charges for the products, services, and facilities of Participant's utility system, and revise the same from time to time, whenever necessary, to ensure that its rates, fees, and charges are adequate at all times to pay in each fiscal year the Annual Operations Payment together with all other operating expenses of Participant's utility system.

8. OPERATION AND MAINTENANCE OF THE C-51 RESERVOIR

8.1 The Parties acknowledge that SFWMD will be responsible for operating and maintaining the Phase I Reservoir pursuant to the Operations Agreement. Notwithstanding Company's allocation of the Final Capacity Allocation to Participant, Participant acknowledges that Company shall not be responsible for and undertakes no obligation to operate and maintain the C-51 Reservoir. It shall not be a default of Company's obligations to Participant or a Force Majeure event if SFWMD issues water use restrictions or takes other actions pursuant to its regulatory authority that may impact the C-51 Allocation or the Current WUP, all of which are expected to be addressed in Participant's New WUP. But, if SFWMD provides ninety (90) days' written notice of its decision to elect not to maintain or operate the C-51 Reservoir under the Operations Agreement, Company shall seek to enter into an agreement with another entity to operate and maintain the C-51

Reservoir on substantially the same terms as the Operations Agreement within the ninety (90) days' notice period from the SFWMD.

8.2 Participant may, from time to time during regular business hours and with reasonable prior written notice to Company, have access to inspect the operation and maintenance of the C-51 Reservoir, provided that Participant's inspections shall not unreasonably interfere with SFWMD's operation or maintenance of the C-51 Reservoir.

8.3 Company shall use reasonable efforts to obtain and maintain any and all governmental permits, certifications or other authorizations which are required by applicable law as prerequisites for Company's engaging in the activities envisioned by this Agreement.

8.4 The Manufacturers' Warranties shall be assigned to C-51 NFP at the closing of the Reservoir transfer agreement between Company and C-51 NFP and transfer of this Agreement to C-51 NFP.

9. INSURANCE

9.1 Company shall provide and maintain, at a minimum, the following insurance coverage and limits at all times during this Agreement. Any policy or policies providing coverage on a claims-made basis shall remain in force for at least five (5) years after expiration of this Agreement. Proof of coverage shall be provided to Participant within five (5) days after a written request.

9.1.1 Commercial General Liability insurance with minimum limits of $10,000,000.00 per occurrence combined single limit for bodily injury or property damage and $10,000,000.00 per aggregate. Policy shall include coverage for: premises and construction operations; independent contractors; products and completed operations; explosion, collapse and underground hazards; broad form contractual liability; personal injury; non-owned watercraft as applicable; broad form property damage; broad form named insured endorsement, and non-owned aircraft as applicable. Policy shall be endorsed to include "Broward County and the Board of County Commissioners" as an additional insured.

9.1.2 Pollution Liability Insurance with minimum limits of $5,000,000.00 per claim. Policy shall include coverage for sudden and accidental events.

9.2 Each policy shall be endorsed to include Participant and its governing board as an additional insured. Any policy or policies providing coverage on a claims-made basis shall remain in force for at least 5 years after expiration of this Agreement. Proof of coverage shall be provided to Participant within 5 days of a written request.

10. LIMITATIONS OF LIABILITY

TO THE FULLEST EXTENT PERMITTED BY LAW, NEITHER PARTY, NOR ITS RESPECTIVE OFFICERS, DIRECTORS, AGENTS, EMPLOYEES, MEMBERS, PARENTS, SUBSIDIARIES OR AFFILIATES, SUCCESSORS OR ASSIGNS SHALL BE LIABLE TO THE OTHER PARTY OR THEIR RESPECTIVE OFFICERS, DIRECTORS, AGENTS, EMPLOYEES, MEMBERS, PARENTS, SUBSIDIARIES OR AFFILIATES, SUCCESSORS OR ASSIGNS, FOR CLAIMS, SUITS, ACTIONS OR CAUSES OF ACTION FOR INCIDENTAL, INDIRECT, SPECIAL, PUNITIVE, MULTIPLE OR CONSEQUENTIAL DAMAGES CONNECTED WITH OR RESULTING FROM PERFORMANCE OR NON-PERFORMANCE OF THIS AGREEMENT, OR ANY ACTIONS UNDERTAKEN IN CONNECTION WITH OR RELATED TO THIS AGREEMENT, INCLUDING WITHOUT LIMITATION, ANY SUCH DAMAGES WHICH ARE BASED UPON CAUSES OF ACTION FOR BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE AND MISREPRESENTATION), BREACH OF WARRANTY, STRICT LIABILITY, STATUTE, OPERATION OF LAW, UNDER ANY INDEMNITY PROVISION OR ANY OTHER THEORY OF RECOVERY. IF NO REMEDY OR MEASURE OF DAMAGES IS EXPRESSLY PROVIDED HEREIN, THE OBLIGOR'S LIABILITY SHALL BE LIMITED TO DIRECT DAMAGES ONLY, AND SUCH DIRECT DAMAGES SHALL BE THE SOLE AND EXCLUSIVE MEASURE OF DAMAGES AND ALL OTHER REMEDIES OR DAMAGES AT LAW OR IN EQUITY ARE WAIVED. THE PROVISIONS OF THIS SECTION SHALL APPLY REGARDLESS OF FAULT AND SHALL SURVIVE TERMINATION, CANCELLATION,

SUSPENSION, COMPLETION OR EXPIRATION OF THIS AGREEMENT, BUT SUCH SURVIVAL SHALL APPLY ONLY TO THOSE CAUSES OF ACTION, IF ANY, ARISING PRIOR TO TERMINATION, CANCELLATION, SUSPENSION, COMPLETION OR EXPIRATION OF THIS AGREEMENT. NOTHING CONTAINED IN THIS AGREEMENT SHALL BE DEEMED TO BE A WAIVER OF A PARTY'S RIGHT TO SEEK INJUNCTIVE RELIEF.

11. COMPANY CONDITIONS PRECEDENT TO AGREEMENT

11.1 All of Company's obligations under this Agreement are expressly made subject to all of the following conditions, which Company agrees to use its reasonable efforts to promptly pursue and satisfy, time being of the essence:

11.1.1 Execution of Capacity Allocation Agreements by Company for the Phase 1 Reservoir for a minimum of ninety percent (90%) of the Capacity of the Phase 1 Reservoir, which Capacity Allocation Agreements have become effective on or before June 30, 2018 (the "Minimum Reserved Capacity Date"). Company shall provide Participant with written notice of the Minimum Reserved Capacity Date within ten (10) days after its occurrence.

11.1.2 Company's securing Construction Financing for the Phase 1 Reservoir within ninety (90) days after the Minimum Reserved Capacity Date, with a closing date within ninety (90) days thereafter (the "Phase 1 Construction Finance Date"). On or before the tenth (10th) day after the Phase 1 Construction Finance Date, and at least forty-five (45) days before the closing date for Construction Financing, Company shall notify Participant in writing of the Phase 1 Construction Finance Date, as well as the anticipated closing date for Construction Financing.

11.1.3 Company's entering into a construction contract to construct the Phase 1 Reservoir, satisfactory to Financing Party for Construction Financing.

11.1.4 Company receiving all permits and government approvals to construct Phase 1 as required by Financing Party for Construction Financing.

11.1.5 Company's securing a completion and performance bond or other equivalent surety to assure completion of the Phase 1 Reservoir construction ("Completion Surety"), provided that Participant may terminate the Agreement if Company has not secured the Completion Surety before the time of closing on Construction Financing. Participant acknowledges that the Completion Surety shall run in favor of the Financing Party for Construction Financing, but not the Participant, and shall permit the Financing Party full discretion to exercise its rights under the Completion Surety, including, but not limited to, the right to replace the contractor of the Phase 1 Reservoir construction without the approval or consent of the Participant.

11.1.6 Company's entering into an Operations Agreement with SFWMD to operate the Phase 1 Reservoir.

11.1.7 Company's securing acceptable Conveyance Systems Agreements from 298 Districts, as applicable for the Phase 1 Reservoir.

11.1.8 298 District(s)'s securing modifications to current SFWMD permits, and securing additional permits or operational protocol letters, if determined necessary by SFWMD, for conveying water for the Phase 1 Reservoir.

11.1.9 Prior to the date of closing on Construction Financing, Participant adopt all required resolutions and other approvals necessary to pay the Capacity Cost Share.

11.2 If the conditions precedent set forth above have not been fully satisfied or waived on or before the applicable date specified, then Company may terminate this Agreement without liability or further liabilities or performance obligations to the other Party, by providing written notice of termination to the other Party before the closing on Construction Financing.

12. PARTICIPANT CONDITIONS PRECEDENT TO AGREEMENT

12.1 Participant's obligations under this Agreement are expressly made subject to all of the following conditions, which Participant agrees to use its reasonable efforts to promptly pursue and satisfy, time being of the essence:

12.1.1 Within thirty (30) days before the closing date for Construction Financing, as set forth in Company's notice provided in accordance with Section 11.1.2, Participant shall provide written notice to the Company that:

(a) Participant has received its C-51 Allocation; or

(b) Participant has waived this Condition Precedent to receive the C-51 Allocation; or

(c) Participant has not received its C-51 Allocation and terminates this Agreement.

12.1.2 The conditions precedent set forth in Section 11.1.3 through 11.1.9 have been met on or before the date that Company provides Notice to Participant of the closing on Construction Financing in accordance with Section 11.1.2.

12.2 If the conditions precedent set forth above have not been fully satisfied or waived on or before the applicable date specified, then the Participant may terminate this Agreement without liability or further liabilities or performance obligations to the other Party, by providing written notice of termination to the other Party before the closing on Construction Financing.

13. DEFAULT

13.1 Notwithstanding anything else to the contrary contained in this Agreement, the following shall each constitute an "Event of Default" regardless of any claim of Force Majeure as described in Section 13 herein or otherwise:

13.1.1 Company or Participant (i) files a voluntary petition in bankruptcy, (ii) is adjudicated bankrupt or insolvent, (iii) files any petition or answers seeking or acquiescing in any reorganization, composition, readjustment, liquidation, dissolution or similar relief for itself under any law relating to bankruptcy, insolvency or other relief of debtors, (iv) seeks or consents to or acquiesces in the appointment of any trustee, receiver, master, or liquidator of itself or of all or any substantial portion of its assets, (v) makes any admission in writing of its inability to pay its debts generally as they become due, or (vi) files or suffers involuntarily the filing of a petition in bankruptcy or otherwise seeking any reorganization, arrangement, composition, readjustment, liquidation, dissolution or similarly under any present or future federal, state or other statute, law or regulation relating to bankruptcy, insolvency, or other relief of debtors, which remains unvacated or unstayed for an aggregate of thirty (30) days, whether or not consecutive.

13.1.2 Any trustee, receiver, or liquidator of all or any substantial portion of their respective assets is appointed, which appointment shall remain un-vacated and un-stayed for an aggregate of thirty (30) days, whether or not consecutive.

13.1.3 Company or Participant defaults in the due and punctual performance of any other material covenants, conditions, agreements and provisions contained in this Agreement, and such default has not been cured as soon as possible with reasonable efforts, but in any case not more than thirty (30) days after notice from the other Party specifying such default; provided, however, if it is not feasible to correct such default within thirty (30) days after notice of such default has been delivered to the defaulting Party by the other, but it is and remains feasible to correct such default after such notice, it shall not constitute an Event of Default hereunder until the earliest feasible date when a cure could be effected so long as (i) corrective action by the defaulting Party is instituted within thirty (30) days of the date of such notice, (ii) such corrective action is diligently pursued with reasonable efforts, and (iii) the

defaulting Party provides to the other Party written reports each month as to the nature and progress of such corrective action.

13.2 If a Participant Event of Default should occur, all sums payable by the Participant under this Agreement shall at Company's election, become immediately due and payable (failure to exercise this option shall not constitute a waiver of the right to exercise the same in the event of any subsequent default), and Company may proceed, at Company's election, with any or all of the following remedies for such default: (i) retain any and all payments made by Participant to Company hereunder, and terminate this Agreement, (ii) seek payment of all sums due from Participant, (iii) seek specific performance from the Participant of Participant's obligations under this Agreement, (iv) notify SFWMD of such default and seek an administrative enforcement action by SFWMD suspending Participant's use of the C-51 Allocation during the pendency of the default; and (v) seek other equitable and legal remedies that may be available to Company to compel performance by Participant of its obligations under this Agreement. Notwithstanding any termination of this Agreement, any and all representations and indemnities of Participant set forth in this Agreement shall remain in full force and effect.

13.3 If a Company Event of Default should occur, then Participant may, as its sole remedy for such Event of Default against Company or its surety, seek either (i) specific performance of Company's obligations under this Agreement or (ii) in the alternative, seek direct damages against Company. Participant acknowledges and agrees that Participant's right to seek specific performance or, in the alternative, to seek direct damages shall, except as set forth in this Section below, be the sole remedy for any default by Company under this Agreement. In no event shall Participant place or record a lien, including, but not limited to, a judgment lien, against the C-51 Reservoir, any contracts or agreements referenced in this Agreement, or any revenues pledged as security for the payment of any financing for the C-51 Reservoir. Notwithstanding any termination of this Agreement, any and all representations and indemnities of Company set forth in this Agreement shall remain in full force and effect.

13.4 Termination of this Agreement shall not affect the limitations of liability contained in Article 10 or the application and survival on termination of Section 13.2 and 13.3, of either Party for obligations arising prior to such termination or for damages, if any, resulting from default under the Agreement.

13.5 It shall not be a default by Company in the event SFWMD, after issuance of the C-51 Allocation, revokes, terminates, modifies, amends, or fails to renew the C-51 Allocation, or otherwise limits or curtails, temporarily or permanently, Participant's ability to withdraw or use water pursuant to the C-51 Allocation, including, but not limited to, issuance of water use restrictions or emergency orders restricting withdrawals from the surficial aquifer ("SFWMD Subsequent Action"). But, if SFWMD, after issuance of the C-51 Allocation, unilaterally revokes, terminates, modifies, amends, or fails to renew the C-51 Allocation, or otherwise limits or curtails, permanently, Participant's ability to withdraw or use water pursuant to the C-51 Allocation, Participant may, in its sole discretion, terminate this Agreement upon thirty (30) days' notice.

14. FORCE MAJEURE

In the event of Force Majeure, the Party so affected, upon giving prompt notice to the other Party, shall be excused from such performance to the extent of such prevention, provided that the Party so affected shall first have taken reasonable steps to avoid and remove such cause of non-performance and shall continue to take reasonable steps to avoid and remove such cause, and shall promptly notify the other Party in writing and resume performance hereunder whenever such causes are removed; provided, however, that if such non-performance exceeds 60 days, the Party that is not prevented from performance by the force majeure event shall have the right to terminate this Agreement upon written notice to the party so affected. This section shall not supersede or prevent the exercise of any other right the parties may otherwise have to terminate this Agreement. Force Majeure shall not excuse Participant from payment of the Annual Operations Payment accrued prior to termination of the Agreement.

15. NOTICES

15.1 Any notices required in this Agreement must be in writing and be delivered in person, sent by certified mail, return receipt requested, sent by overnight delivery services, return receipt requested, and sent by electronic delivery system with receipt acknowledgment, as specified below:

To Company: 20125 State Road 80
P.O. Box 700
Loxahatchee, Florida 33470
Attn: Enrique Tomeu, President
etomeu@siboneycc.com
(561) 832-3110

With copy to: Greenberg Traurig, P.A.
777 So. Flagler Drive, Suite 300 East
Attn: Phillip C. Gildan
West Palm Beach, FL 33401

To Participant: Utility Director
_____
_____

With copy to: City Attorney
_____
_____

Notices shall be effective upon receipt.

15.2 Either Party, at any time, by notice to the other Party may designate any different person(s) or different addresses for receipt of notices and correspondence.

16. GENERAL APPLICATION

16.1 Until payment of the Capacity Cost Share, Participant may not assign any of its rights or obligations under this Agreement, except with the consent of Company and any Financing Party in its sole discretion. After payment of the Capacity Cost Share, Participant may assign any of its rights and obligations under this Agreement, including, but not limited to, transferring all or a portion of the Final Capacity Allocation to a third party, without the prior written consent of Company (subject to any applicable Financing Party's requirements). If Financing Documents are outstanding, Participant must provide

Company an opinion of a nationally or regionally recognized bond counsel that there will be no adverse tax consequences to any Financing Party as a result of the assignment. An assignment shall be evidenced by a written assignment in form and substance approved by Company. Company may transfer all or any part of its ownership rights in the C-51 Reservoir and assign its obligations under this Agreement without the consent of Participant, provided any assignee of Company agrees to assume all of Company's obligations under this Agreement. This Agreement shall remain in full force and effect notwithstanding any assignment by Company, change in control or ownership of Company, or exercise of any rights by a Financing Party, including, but not limited to, foreclosure of any mortgage or security interest and transfer of the foreclosed property to a third party. This Agreement shall be binding upon, and inure to the benefit of, the Parties, and the Parties' respective assigns, successors-in-interest and legal representatives. This Agreement constitutes the entire agreement and understanding between the Parties with respect to the subject matter hereof, and supersedes all prior agreements and understandings relating to this subject matter. No modification or waiver of any term of this Agreement, or any amendment of this Agreement, shall be effective unless it is in writing and signed by the Parties.

16.2 Should Company enter into any Capacity Allocation Agreement for the Phase 1 Reservoir with any other party which provides for a lower Capacity Cost Share more favorable than contained in this Agreement, then this Agreement shall be deemed to be modified to provide Participant with that more favorable Capacity Cost Share.

16.3 Any waiver by either Party of its rights with respect to a default (including Events of Default) under this Agreement, or with respect to any other matters arising in connection with this Agreement, shall not be deemed a waiver with respect to any subsequent default (including Events of Default).

16.4 The failure of either Party to enforce strict performance by the other Party of any of the provisions of this Agreement or to exercise any rights under this Agreement shall not be construed as a waiver or relinquishment to any extent of such Party's right to assert or rely upon any such provisions or rights in that or any other instance.

16.5 Nothing contained in this Agreement shall be construed to create an association, trust, partnership or joint venture between the Parties.

16.6 Section headings, titles and indexes appearing in this Agreement are inserted for convenience only and shall not be construed as interpretations of text.

16.7 Time is of the essence in the performance of this Agreement.

16.8 This Agreement is intended solely for the benefit of the Parties, and the Parties expressly disclaim any intent to create any rights in any other third party as a third-party beneficiary to this Agreement or for the services to be provided hereunder. Nothing in this Agreement nor any action taken hereunder shall be construed to create any duty, liability, or standard of care to any Person that is not a Party, and any Person that is not a Party shall have no rights or interest, direct or indirect, in this Agreement or the services to be provided hereunder, except that each Person identified as a Financing Party is an express third party beneficiary to this Agreement, with the right to enforce the Financing Party's rights and remedies against Participant on its own behalf.

16.9 Anything in this Agreement to the contrary notwithstanding, this Agreement shall be subordinate to any Construction Financing without the need to execute a subordination agreement and in the event of a foreclosure under any Financing Documents, Participant shall attorn to the Financing Party or purchaser at a foreclosure sale all interests that accedes to the interest of Company under this Agreement, and this Agreement shall continue in full force and effect.

16.10 In the event that the Reservoir or any part thereof is taken by the exercise of the power of eminent domain (or transferred to the holder of such power pursuant to a threatened taking) before the Commercial Operation Date, *i.e.* while title to the Reservoir is still owned by the Company, Participant shall have no right in or to the proceeds of any award made in such condemnation (or agreed consideration in the event of a transfer pursuant to a threatened taking). In the event that the Reservoir or any part thereof is taken by the exercise of the power of eminent domain (or transferred to the holder of such power pursuant to a threatened taking) after the Commercial Operation Date, *i.e.*, when title to

the Reservoir is owned by C-51 NFP, Participant shall have a right to claim an interest in the proceeds of any award made in such condemnation (or agreed consideration in the event of a transfer pursuant to a threatened taking).

16.11 This Agreement shall be governed by and construed in accordance with the laws of the State of Florida (regardless of Florida's or any other jurisdiction's choice of law rules).

16.12 All provisions of the Agreement that are expressly or by implication to come into or continue in force and effect after the expiration or termination of this Agreement shall remain in effect and be enforceable following such expiration or termination.

16.13 This Agreement may be executed in any number of counterparts and each counterpart shall represent a fully executed original as if executed by both Parties, with all such counterparts together constituting but one and the same instrument. Delivery hereof may be performed by facsimile of, or the electronic transmission of scanned, signature pages.

16.14 Each Party shall pay its own costs and expenses in relation to the negotiation, preparation, execution and carrying into effect of this Agreement. Each Party agrees to provide such information, execute and deliver any instruments and documents and to take such other actions as may be necessary or reasonably requested by the other Party (at the cost and expense of the other Party) in order to give full effect to this Agreement and to carry out the intent of this Agreement.

16.15 Pursuant to the Applicant's Handbook, Participant agrees (i) it will comply with water shortage restrictions imposed by SFWMD rule or order issued pursuant to Chapter 40E-21, F.A.C., (ii) it will comply with all applicable water conservation standards required in the Reservoir Water Use Permit, (iii) it will notify the Company of any changes in water use demands or sources; (iv) it will continue to evaluate the feasibility of using reclaimed water in accordance with the requirements contained within the Reservoir Water Use Permit, (v) it will mitigate harm to the resources or existing legal uses caused by Participant, (vi) if required by SFWMD, it will submit a map identifying Participant's system's location, irrigated acreage, and land use type and (vii) it will comply with the above stated conditions and applicable conditions within the Reservoir Water Use Permit

or be subject to potential SFWMD enforcement action pursuant to Chapter 373, Florida Statutes.

16.16 The Parties undertake to act fairly and in good faith in relation to the performance and implementation of this Agreement and to take such other reasonable measures as may be necessary for the realization of its purposes and objectives.

16.17 Participant acknowledges that Company or its Affiliates may borrow certain funds from the Financing Party and provide security interests to such Financing Party, including, but not limited to, mortgage security interests in the C-51 Reservoir and pledges of revenues from Participant under this Agreement, and that, as a condition to making loans to Company or its Affiliates, the Financing Party may from time to time require certain documents from, and agreements to be executed by, Participant. In connection therewith, Participant agrees to furnish to the Financing Party, such written information, certificates, copies of invoices and receipts, affidavits, estoppels, consents to assignment of the Agreement, subordination agreements and other like documents as the Financing Party may reasonably request. Upon the written request of the Financing Party, Participant shall state in writing whether or not it is satisfied with Company's performance to that date. Anything in this Agreement to the contrary notwithstanding, in the event of a foreclosure under any Financing Documents, the Participant will attorn to the Financing Party or purchaser at a foreclosure sale all interests that accedes to the interest of Company under this Agreement, and this Agreement will continue in full force and effect. Company shall request that the Financing Party provide a non-disturbance agreement with respect to Participant's rights under this Agreement in the event of a foreclosure or transfer in lieu of foreclosure under the Financing Documents, but failure of Financing Party to provide such non-disturbance agreement shall not in any way affect the subordination provided in Section 16.9.

16.18 At the time this Agreement is assigned to C-51 NFP, Participant will have the right, but not the obligation, during this Agreement, to appoint one (1) person to the Board of Directors of C-51 NFP by providing written Notice to C-51 NFP. As explained further in the C-51 NFP's Bylaws(Appendix C), once the Phase 1 Reservoir is acquired by, and this

Agreement is assigned to, the C-51 NFP, the number of directors on the C-51 NFP's Board of Directors shall be increased to equal the number of participants to the Board of Directors, together with any representative to the Board of Directors that may be appointed by a Phase 1 Reservoir 298 District; provided, however, that only participants with capacity reservation agreements that are governmental entities may appoint directors to the Board of Directors.

16.19 Unless otherwise required by the context in which any term appears: (a) capitalized terms used in this Agreement have the meanings specified in the Whereas clauses and Section 1; (b) the gender of all words used herein shall include the masculine, feminine and neuter and the singular shall include the plural; (c) unless otherwise specified, references to "Articles," "Sections," "Schedules," "Annexes," "Appendices" or "Exhibits" (if any) shall be to Articles, Sections, Schedules, Annexes, Appendices or Exhibits (if any) of this Agreement, as the same may be amended, modified, supplemented or replaced from time to time hereunder; (d) all references to a Person shall include a reference to such Person's successors and permitted assigns; (e) the words "herein," "hereof" and "hereunder" shall refer to this Agreement as a whole and not to any particular Section or Subsection of this Agreement; (f) all accounting terms not specifically defined herein shall be construed in accordance with generally accepted accounting principles in the United States of America, consistently applied; (g) references to this Agreement shall include a reference to all Articles, Sections, Schedules, Annexes, Appendices, and Exhibits hereto, as the same may be amended, modified, supplemented or replaced from time to time; (h) references to any agreement, document or instrument shall mean a reference to such agreement, document, or instrument as the same may be amended, modified, supplemented, or replaced from time to time; (i) the use of the word "including" in this Agreement to refer to specific examples shall be construed to mean "including, without limitation" or "including but not limited to" and shall not be construed to mean that the examples given are an exclusive list of the topics covered; (j) references to an applicable law shall mean a reference to such applicable law as the same may be amended, modified, supplemented or restated and be in effect from time to time; and (k) the headings contained herein are used solely for convenience and do not

constitute a part of this Agreement nor should they be used to aid in any manner to construe or interpret this Agreement. The Parties collectively have prepared this Agreement, and none of the provisions hereof shall be construed against one Party on the ground that such Party is the author of this Agreement or any part hereof.

17. MANDATORY DISPUTE RESOLUTION

17.1 Any controversy, dispute, claim, counterclaim or crossclaim (collectively, "Dispute") regarding, resulting from, arising out of or in way related to this Agreement, shall be governed by the mandatory dispute resolution procedures set forth below.

17.2 In the event that Company or Participant (each a "Claimant") has a Dispute that has not been, or could not possibly be, cured, pursuant to Section 13.1.3 above, the Claimant shall notify the other Party (the "Notified Party") in writing of the claim, which writing shall describe the nature of the dispute and any proposed remedy (the "Dispute Notice").

17.3 Within 10 days after receipt of the Dispute Notice, the Notified Party and the Claimant shall meet at Company's executive office to discuss the Dispute. The Parties shall negotiate in an attempt to resolve the Dispute.

17.4 If the Parties fail to resolve the Dispute by negotiation within thirty (30) days after delivery of the Dispute Notice, the Claimant shall submit the matter to mediation pursuant to the Mediation Rules of the American Arbitration Association applicable to such disputes (except as such procedures are modified by these provisions or such other mediation service selected by the Notified Party), on or before the thirty-first (31st) day after the date of delivery of the Dispute Notice. If the Claimant fails to timely submit the Dispute to mediation, then the Dispute shall be deemed waived and abandoned and the Parties shall be relieved and released from any and all liability relating to the Dispute. The Parties shall mutually agree on the selection of a mediator. No person shall serve as a mediator in any dispute in which the person has any financial or personal interest in the result of the mediation or any relationship with a Party, except by the written consent of the Parties. Prior to accepting any appointment, the prospective mediator shall disclose any circumstances likely to create a presumption of bias or to prevent a prompt commencement of the mediation process.

17.5 Within ten (10) days of the selection of the mediator, each Party may submit a brief memorandum setting forth its position with regard to the issues that need to be resolved. The mediator shall have the right to schedule a pre-mediation conference and the Parties shall attend unless otherwise agreed. The mediation shall be commenced within ten (10) days following the date for submittal of the memoranda, if any, and shall be concluded within fifteen (15) days from the commencement of the mediation unless the Parties mutually agree to extend the mediation period. The mediation shall be held at Company's executive office.

17.6 The mediator has discretion to conduct the mediation in the manner in which the mediator believes is most appropriate for reaching a settlement of the Dispute, consistent with the mediation rules applicable to the Dispute. The mediator is authorized to conduct joint and separate meetings with the Parties and to make oral and written recommendations for settlement. Whenever necessary, the mediator may also obtain expert advice concerning technical aspects of the Dispute, provided the Parties agree and assume the expenses of obtaining such advice. The mediator does not have the authority to impose a settlement on the Parties.

17.7 Any admissions, offers of compromise, settlement negotiations and communications and all confidential information disclosed to the mediator at the mediation shall be confidential and excluded in any litigation or subsequent dispute resolution forum to the extent permitted by applicable law.

17.8 Persons other than the Parties, their representatives and the mediator may attend mediation sessions only with the permission of both Parties and the consent of the mediator. There shall be no stenographic record of the mediation process.

17.9 All expenses of the mediation, including the fees and costs charged by the mediator, the expenses of any witnesses, and the cost of any proof or expert advice produced at the direct request of the mediator shall be borne equally by the Parties unless each Party agrees otherwise. Each Party to the mediation shall bear its own attorneys' fees and costs in connection with such mediation, including expert witnesses.

17.10 Should mediation not be successful in resolving any Dispute, then the Claimant shall have ten (10) days after the date of termination of the mediation or determination by the mediator of an impasse to file a court action on the Dispute. Each party shall bear its

own expenses of the court action, including attorneys' fees, court costs, and the expenses of any witnesses and experts.

18. AUDIT RIGHTS, AND RETENTION OF RECORDS.

18.1 Participant shall have the right to audit the books, records, and accounts of Company and its contractors that are related to the Annual Operations Payment. Company and its Contractors shall keep such books, records, and accounts as may be necessary in order to record complete and correct entries related to the Annual Operations Payments and performance thereunder. All books, records, and accounts of Company and its contractors shall be kept in written form, or in a form capable of conversion into written form within a reasonable time, and upon request to do so. Company or its Contractors, as applicable, shall make same available at no cost to Participant in written form.

18.2 Company and its contractors shall preserve and make available, at reasonable times at Company's place of business for examination and audit by Participant, all financial records, supporting documents, statistical records, and any other documents pertinent to the Annual Operations Payments for a minimum period of five (5) years after expiration or termination of this Agreement or until resolution of any audit findings, whichever is longer. Participant audits and inspections pursuant to this Section may be performed by any Participant representative (including any outside representative engaged by Participant). Participant reserves the right to conduct such audit or review at Company's place of business, if deemed appropriate by Participant, with seventy-two (72) hours' advance notice.

18.3 Any incomplete or incorrect entry in such books, records, and accounts shall be a basis for Participant's disallowance and recovery of any payment upon such entry. If an audit or inspection in accordance with this Section discloses overpricing or overcharges to Participant of any nature by the Company in excess of five percent (5%) of the total contract billings reviewed by Participant, the reasonable actual cost of the Participant's audit shall be reimbursed to Participant by Company in addition to making adjustments for the overcharges. Any adjustments or payments due as a result of such audit or inspection shall be made within thirty (30) days after presentation of Participant's findings to Company.

18.4 Company shall ensure that the requirements of this Section are included in all agreements with its Contractor(s).

19. LAW, WAIVER OF JURY TRIAL.

19.1 This Agreement shall be interpreted and construed in accordance with and governed by the laws of the state of Florida. **BY ENTERING INTO THIS AGREEMENT, COMPANY AND PARTICIPANT HEREBY EXPRESSLY WAIVE ANY RIGHTS EITHER PARTY MAY HAVE TO A TRIAL BY JURY OF ANY CIVIL LITIGATION RELATED TO THIS AGREEMENT. IF A PARTY FAILS TO WITHDRAW A REQUEST FOR A JURY TRIAL IN A LAWSUIT ARISING OUT OF THIS AGREEMENT AFTER WRITTEN NOTICE BY THE OTHER PARTY OF VIOLATION OF THIS SECTION, THE PARTY MAKING THE REQUEST FOR JURY TRIAL SHALL BE LIABLE FOR THE REASONABLE ATTORNEYS' FEES AND COSTS OF THE OTHER PARTY IN CONTESTING THE REQUEST FOR JURY TRIAL, AND SUCH AMOUNTS SHALL BE AWARDED BY THE COURT IN ADJUDICATING THE MOTION.**

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]
[SIGNATURES APPEAR ON FOLLOWING PAGE.]

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their respective duly authorized officers as of the date and year set forth above.

COMPANY:

PALM BEACH AGGREGATES, LLC,
a Florida limited liability company

WITNESSES:

_____

_____
Print Name

_____

_____
Print Name

By: _____
Name: Enrique Tomeu
Its: President
Date: _____

PARTICIPANT

ATTEST:

_____
City Clerk

HALLENDALE BEACH, FLORIDA

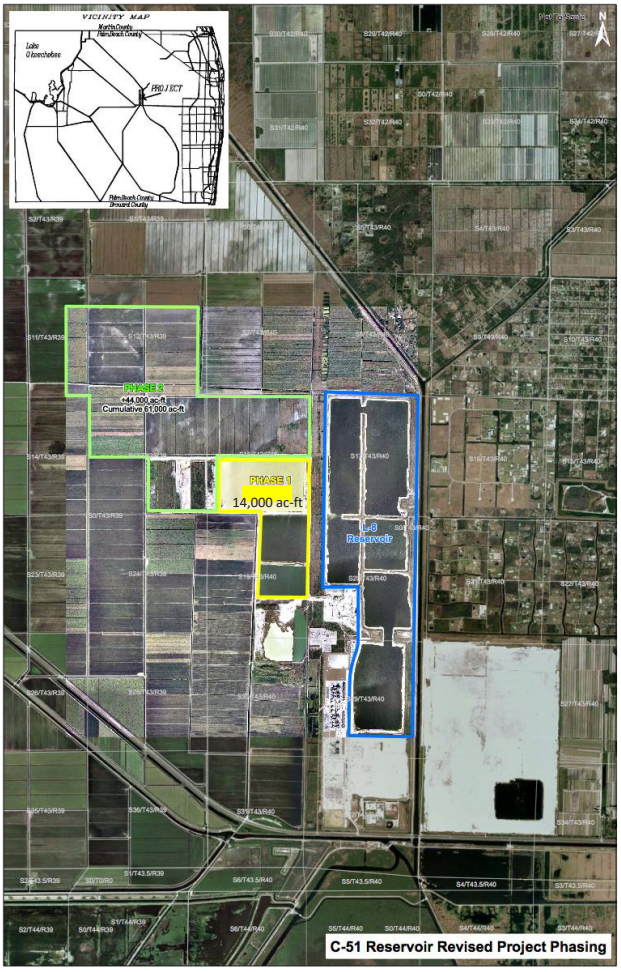
By_____
_____
____ day of June, 2018

Approved as to form by _____
City Attorney

_____
Date: _____

Appendix A

Phase 1 Site



B-1

Appendix B

ESTIMATED ANNUAL OPERATIONS AND MAINTENANCE COSTS

ANNUAL BUDGET REPORT OF PROJECTED COSTS - FY15
C-51 Reservoir Phase 1 O&M Agreement

	Annual Cost
Yearly C-51 Reservoir maintenance activities	$100,682.11
Pump Station from L-8 FEB to C-51 Reservoir	$99,525.83
Utilize S5A pump station to fill C-51 Reservoir for 39,204 acre ft (S5A to L8FEB)	$215,622.00
L8 FEB yearly operation	$252,246.98
Conveyance	$40,380.79
Water management (Control Room)	$55,981.35
Project management, quarterly reports, and Annual Financial Report (PM & reports)	$108,611.32
Replacement and Rehabilitation	$129,804.68
	$1,002,855.05
per month	$83,571.25
Total plus 13th month	**$1,086,426.31**

Notes

Conveyance

12.6 miles from L-8 FEB pump station to E-1 canal
19.5 miles from south of E-1 to west on Hillsboro then south on L-36 canal to S-125.
Total of 32.1 miles

Through structures L-8 Divide (G-541), S5AE, S155A, S38A, S38B, S38C and S125

Assume C-51 Reservoir flow of 35 mgs for 365 days = 39,204 acre-ft

Annual Operations & Maintenance Summary

Operations and Maintenance Costs Based on SFWMD and LWDD Detailed Costs	Totals	Components of Totals Reservoir Admin	SFWMD	LWDD
Annual Operating Costs	$1,222,458	$60,000	$1,086,426	$76,032
Additional Insurance Coverage Limits		$55,000		
Plus annual pumping fees				$1,842
Total	**$1,279,300**	**$115,000**	**$1,086,426**	**$77,874**
Annual O&M Costs per mgd of capacity	$36,551	$3,286	$31,041	$2,225
Annual O&M Costs per acre foot of capacity	$91.38	$8.21	$77.60	$5.56
days in year	365	365	365	365
gallons per day	35,000,000	35,000,000	35,000,000	35,000,000
total gallons per year	12,775,000,000	12,775,000,000	12,775,000,000	12,775,000,000
cost per 1000 gallons	$0.100	$0.009	$0.085	$0.006

Capital and Annual O&M Calculations for Different Storage Allocation Levels Measured in million gallons per day	One Time	Annual
Capital Cost is $4.60/mgd	Capital Total	O & M Total
1 mgd	$4,600,000	$36,551
2 mgd	$9,200,000	$73,103
3 mgd	$13,800,000	$109,654
4 mgd	$18,400,000	$146,206
5 mgd	$23,000,000	$182,757
6 mgd	$27,600,000	$219,309
7 mgd	$32,200,000	$255,860
8 mgd	$36,800,000	$292,411
9 mgd	$41,400,000	$328,963
10 mgd	$46,000,000	$365,514

Appendix C

BYLAWS
OF
C-51 RESERVOIR, INC.

ARTICLE I - OFFICES

1.01 Registered Office. The registered office of C-51 Reservoir Inc. (the "Corporation") in the State of Florida shall be located at One North Clematis Street, Suite 200, West Palm Beach, FL 33401, or such other location as may be determined from time to time by the Board of Directors.

1.02 Other Offices. The Corporation may also have other offices, both within and without the State of Florida, as the Board of Directors may from time to time determine or the business of the Corporation may require.

ARTICLE II - MEMBERSHIP

The Corporation initially shall have no members. The Board of Directors may admit members and amend the Corporation's Bylaws to regulate the classifications, qualifications, characteristics, rights, privileges, limitations and obligations of membership and the manner of admission.

ARTICLE III - DIRECTORS

3.01 Management. Corporate powers shall be exercised by or under the authority of, and the affairs of the Corporation shall be managed under the direction of, the Corporation's Board of Directors.

3.02 Number of Directors/Quorum/Voting. The initial number of directors of the Corporation shall be three (3) or such greater or lesser number as determined by the Board of Directors, from time to time; provided, however, that the Board of Directors shall consist of not less than three (3) directors and no decrease in the number of directors shall have the effect of shortening the term of an incumbent director.

3.02.1 After acquisition of Phase 1 of the C-51 Reservoir, the number of directors shall be increased to equal the number of participants with Capacity Reservation Agreements in Phase 1 that elect to appoint a participant to the Board of Directors, together with any representative to the Board of Directors that may be appointed by a Phase 1 298 District, or may be appointed by the South Florida Water Management District. In the event of the acquisition of subsequent Phases of the C-51 Reservoir, the number of directors shall be increased to equal the number of participants with Capacity Reservation Agreements in such subsequent Phases that do not already have an appointed director and that elect to appoint a participant to the Board of Directors, together with any representatives to the Board of Directors that may be appointed by a

subsequent Phase 298 District that does not already have an appointed director. In the event a participant with a Capacity Reservation Agreement, a 298 District or the South Florida Water Management District appoint a member to the Board of Directors, such party may remove the director so appointed without cause and may appoint a new director. If a vacancy occurs in a director seat, the party that originally appointed the director may appoint a new director to fill the vacant director seat. In the event a party that appointed a director elects to remove that director and further provides notice to the Corporation that it no longer elects to appoint a director, then the number of directors shall be decreased accordingly. Provided, however, only participants with Capacity Reservation Agreements that are governmental entities may appoint representatives to the Board of Directors. Participants with Capacity Reservation Agreements that are not governmental entities may appoint representatives with the right to notice of and to attend meetings of the Board of Directors, but such representatives shall have no voting rights and shall not be counted for quorum purposes. Any party with the right to appoint a member of the Board of Directors that elects not to appoint a director, may alternatively appoint a representative with the right to notice of and to attend meetings of the Board of Directors, but such representatives shall have no voting rights and shall not be counted for quorum purposes.

3.02.3 Voting of the members of the Board of Directors shall be by one (1) vote per director for administrative and parliamentary matters (an "Administrative Matter") including, but not limited to, operating budget approval (the "Equal Voting Percentages"). A majority of the quorum present at a meeting of the Board of Directors shall be required to approve an Administrative Matter.

3.02.4 Voting on matters involving the expenditure of capital, including, but not limited to, consultant selection and removal, award of construction contracts, change orders, and resolution of contractor and other third-party capital project related disputes (a "Capital Matter"), shall be weighted as follows (the "Weighted Voting Percentages"): the Weighted Voting Percentages of directors appointed (i) by a participant with a Capacity Reservation Agreement shall be calculated according to the relative weight of each party that appointed the director's respective capacity allocation in the C-51 Reservoir; and (ii) by a 298 District or the South Florida Water Management District shall each equal one percent (1%). A majority vote of greater than fifty percent (50%) of the Weighted Voting Percentage of all members of the Board of Directors shall be required to approve a Capital Matter. In addition, for a Capital Matter to pass, a minimum of three (3) members of the Board of Directors must vote in the majority.

3.02.5 A quorum for a meeting of the Board of Directors shall be members of the Board of Directors holding at least ten percent (10%) of the Weighted Voting Percentage, provided a minimum of three (3) members of the Board of Directors must be present for a quorum.

3.02.6 The Board members serve at the pleasure of the party by whom the Board member was appointed, and may be removed at any time by such party, without cause or requirement of hearing.

3.02.7 The Board members shall elect a Chair of the Board to serve on an annual basis until its successor is elected. The elected Chair shall set the agenda for meeting in accordance with the requests of the Board members. The Board members shall elect a Vice-Chair to serve in the Chair's absence.

3.02.8 The provisions of this Section 3.02 of the Bylaws may not be amended without the unanimous consent of the Board of Directors.

3.03 Term. Each person named in the Articles of Incorporation as a member of the initial Board of Directors shall hold office until such director's successor shall have been appointed or until such director's earlier resignation, removal from office or death. Each director shall hold office until his or her successor is appointed or until such director's earlier resignation, removal from office or death.

3.04 Qualification. Directors must be natural persons who are eighteen (18) years of age or older, but need not be residents of the State of Florida.

3.05 Compensation. No member of the Board of Directors shall receive any compensation from the Corporation; provided, however, that the directors may be reimbursed for any reasonable out-of-pocket expenses incurred in furtherance of their duties as directors, as determined by the Board of Directors.

3.06 Powers. The Board shall, subject to the limitations and reservations set forth in the Articles, have the powers reasonably necessary to manage, operate, maintain and discharge the duties of Corporation, including, but not limited to, the power to cause the Corporation to do the following:

3.06.1 General. Exercise all powers, duties and authority vested in or delegated to the Corporation by law and in these By-Laws and the Articles, including, without limitation, adopt budgets, and enter into contracts.

3.06.2 Declare Vacancies. Declare the office of a member of the Board to be vacant in the event such Board Member shall be absent from three (3) consecutive regular Board meetings.

3.06.3 Hire Employees/Contractors. Employ, on behalf of the Corporation, managers, independent contractors, or such other employees as it deems necessary, to prescribe their duties and delegate to such manager, contractor, or other person or entity, any or all of the duties and functions of the Corporation and/or its officers, including contracting with any party with a Capacity Reservation Agreement to perform any duties or functions of the Corporation as determined by the Board.

3.06.4 Property. Acquire, sell, operate, lease, manage and otherwise trade and deal with property, real and personal, and with any other matters involving the Corporation or the discharge of its duties, as may be necessary or convenient for the operation and management of the Corporation and in accomplishing the purposes set forth in the Articles.

3.06.05 C-51 Reservoir. Acquire and accept transfer of ownership of any phase of the C-51 Reservoir from Palm Beach Aggregates, LLC, or its successors and assigns, and assume obligations for contractual obligations attendant to such phases.

3.06.06 Granting of Interest. Grant licenses, easements, permits, leases, or privileges to any individual or entity, which affect Corporate properties and to alter, add to, relocate or

improve properties.

3.06.07 Financial Reports. Prepare all financial reports required by the Florida Statutes, and file any tax returns required by Federal or State law.

3.06.08 501(c)(3) Status. Do all things necessary to maintain the IRC 501(c)(3) status of the Corporation.

3.06.09 Borrow Funds. Borrow funds, issue bonds, mortgage assets of the Corporation, provide security for financings, and take all other actions related to providing funds for the Corporation.

3.07 Meetings. An annual meeting of the Board of Directors shall be held at the time and place designated, from time to time, by the Board of Directors. At the meeting, the Board of Directors shall elect officers and transact such business as may properly be brought before the meeting. Special meetings of the Board of Directors shall be held when called by the President or Vice President or the Board of Directors at such times as designated by the Board of Directors. At such special meetings, the Board of Directors shall transact all business as may be properly brought before the meeting. Directors may participate in regular or special meeting by, or conduct the meeting through the use of, any means of communication by which all directors participating may simultaneously hear each other during the meeting. A director participating in a meeting by this means is deemed to be present in person at the meeting.

3.08 Place of Meetings. Meetings of the Board of Directors, annual or special, may be held either within the State of Florida at such place or places as the Board of Directors may from time to time by resolution designate.

3.09 Presumption of Assent. A director of the Corporation who is present at a meeting of the Board of Directors or a committee of the Board of Directors where corporate action is taken is deemed to have assented to the action taken at such meeting unless such director objects at the beginning of the meeting (or promptly upon such director's arrival) to holding such meeting or transacting specified business at such meeting or such director votes against or abstains from the action taken.

3.10 Notice of Meetings. Regular meetings of the Board of Directors may be held without notice of the date, time, place or purpose of the meeting. Written notice of the date, time and place of special meetings of the Board of Directors shall be given to each director at least two (2) days before the meeting. Written notice may be given by electronic mail or by facsimile.

Notice of a meeting of the Board of Directors need not be given to any director who signs a waiver of notice either before or after the meeting. The attendance of a director at a meeting shall constitute a waiver of notice of such meeting and a waiver of any and all objections to the place of the meeting, the time of the meeting, or the manner in which the meeting has been called or convened, except when a director states, at the beginning of the meeting or promptly upon arrival at the meeting, any objection to the transaction of business because the meeting is not lawfully called or convened.

The purpose of any regular or special meeting of the Board of Directors need not be specified in the notice or waiver of notice of such meeting.

Meetings of the Board of Directors may be called by the President or Vice President of the Corporation or by any director.

3.11 Action without a Meeting. Any action required or permitted by the Articles of Incorporation, these Bylaws or applicable law to be taken at a Board of Directors meeting or a committee meeting, may be taken without a meeting if the action is taken by all members of the Board of Directors or of such committee. Such action must be evidenced by one or more written consents describing the action taken and signed by each director or committee member.

Action taken under this Section shall be effective when the last director signs the consent, unless the consent specifies a different effective date.

A consent signed under this Section has the same effect as a meeting vote and may be described as such in any document.

3.12 Removal of Directors. At a meeting of the Board of Directors called expressly for the purpose of removing one or more directors, any may be removed, without cause or requirement of hearing, by a unanimous vote of the Board of Directors, except for the director being removed. Upon removal of a director, the party by whom the removed director was appointed shall appoint a replacement director or elect not to appoint a replacement director

3.13 Vacancies. Any vacancy occurring on the Board of Directors, including a vacancy created by reason of an increase in the number of directors, may be filled by the affirmative vote of a majority of the Board of Directors. A director elected to fill a vacancy shall hold office only until the party by whom the vacant director was appointed appoints a new director or determines not to appoint a new director.

3.14 Duties of Directors. A director shall discharge such director's duties as a director, including such director's duties as a member of any committee of the Board of Directors on which such director may serve, in good faith, with the care an ordinarily prudent person in a like position would exercise under similar circumstances, and in a manner such director reasonably believes to be in the best interests of the Corporation.

In performing such director's duties, a director is entitled to rely on information, opinions, reports or statements, including financial statements and other financial data, prepared or presented by:

(a) one or more officers or employees of the Corporation whom the director reasonably believes to be reliable and competent in the matters presented;

(b) legal counsel, public accountants or other persons as to matters the director reasonably believes are in such person's professional or expert competence; or

(c) a committee of the Board of Directors of which such director is not a

member if the director reasonably believes such committee merits confidence.

A director shall not be deemed to be acting in good faith if such director has knowledge concerning the matter in question that makes reliance on the information, opinions, reports or statements, including financial statements and other financial data, of others, as described in this Section, unwarranted.

A director shall not be liable for any action taken as a director, or any failure to take any action, if such director has performed the duties of such director's office in compliance with the provisions of this Section.

3.15 Liability of Directors. The directors of this Corporation shall not be personally liable for money damages to any person for any statement, vote, decision, or failure to take an action, regarding organizational management or policy by an officer or director, or for the debts, liabilities, or other obligations of this Corporation unless:

(a) The director breached or failed to perform such director's duties as a director; and

(b) The director's breach of, or failure to perform, such director's duties constitutes:

(1) A violation of the criminal law, unless the director had reasonable cause to believe such director's conduct was lawful or had no reasonable cause to believe such director's conduct was unlawful;

(2) A transaction from which the director derived an improper personal benefit, either directly or indirectly; or

(3) Recklessness or an act or omission which was committed in bad faith or with malicious purpose or in a manner exhibiting wanton and willful disregard of human rights, safety or property.

3.16 Director Conflicts of Interest. The purpose of the conflicts of interest policy is to protect the interest of the Corporation and each of its affiliates when it is contemplating entering into a transaction or arrangement that might benefit the private interest of a trustee, director or officer of the Corporation. This policy is intended to supplement but not replace any applicable state laws governing conflicts of interest applicable to nonprofit and charitable corporations.

(a) Definitions.

(1) Interested Person. Any trustee, director, officer, or member of a committee with board delegated powers who has a direct or indirect financial interest, as defined below, is an interested person. If a person is an interested person with respect to any affiliate of the Corporation, he or she is an interested person with respect to the Corporation and all of its affiliates.

(2) Financial Interest. A person has a financial interest if the person has, directly or indirectly, through business, investment or family –

i. an ownership or investment interest in any entity with which the Corporation or any affiliate has a transaction or arrangement, or

ii. a compensation arrangement with the Corporation or an affiliate or with any entity or individual with which the Corporation or an affiliate has a transaction or arrangement, or

iii. a potential ownership or investment interest in, or compensation arrangement with, any entity or individual with which the Corporation or an affiliate is negotiating a transaction or arrangement.

(3) Compensation. Compensation includes direct and indirect remuneration as well as gifts or favors that are substantial in nature. A financial interest is not necessarily a conflict of interest. A person who has a financial interest may have a conflict of interest only if the appropriate board or committee decides that a conflict of interest exists.

(b) Procedures.

(1) Duty to Disclose. In connection with any actual or possible conflicts of interest, an interested person must disclose the existence of his or her financial interest and must be given the opportunity to disclose all material facts to the trustees, directors or members of committees with board delegated powers considering the proposed transaction or arrangement.

(2) Determining Whether a Conflict of Interest Exists. After disclosure of the financial interest and all material facts, and after any discussion with the interested person, he/she shall leave the meeting while the determination of a conflict of interest is discussed and voted upon. The remaining trustees or board or committee members shall decide if a conflict of interest exists.

(3) Procedures for Addressing the Conflict of Interest.

i. An interested person may make a presentation at the trustee, board or committee meeting, but after such presentation, he/she shall leave the meeting during the discussion of, and the vote on, the transaction or arrangement that results in the conflict of interest.

ii. The trustees or the chair of the board or committee shall, if appropriate, appoint a disinterested person or committee to investigate alternatives to the proposed transaction or arrangement.

iii. After exercising due diligence, the trustee, board or committee shall determine whether the Corporation or affiliate can obtain a more advantageous transaction or arrangement with reasonable efforts from a person or entity that would not give rise to a conflict of interest.

iv. If a more advantageous transaction or arrangement is not reasonably attainable

under circumstances that would not give rise to a conflict of interest, the trustees, board or committee shall determine by a majority vote of the disinterested members whether the transaction or arrangement is in the Corporation's best interest and for its own benefit and whether the transaction is fair and reasonable to the Corporation and shall make its decision as to whether to enter into the transaction or arrangement in conformity with such determination.

(4) Violations of the Conflicts of Interest Policy.

i. If the trustees, board or committee has reasonable cause to believe that a member has failed to disclose actual or possible conflicts of interest, it shall inform the member of the basis for such belief and afford the member an opportunity to explain the alleged failure to disclose.

ii. If, after hearing the response of the member and making such further investigation as may be warranted in the circumstances, the trustees, board or committee determines that the member has in fact failed to disclose an actual or possible conflict of interest, it shall take appropriate disciplinary and corrective action.

(c) Records of Proceedings.

The minutes of the trustees, board and all committee with board- delegated powers shall contain --

(1) Identification of Interested Parties. The names of the persons who disclosed or otherwise were found to have a financial interest in connection with an actual or possible conflict of interest, the nature of the financial interest, any action taken to determine whether a conflict of interest was present, and the decision as to whether a conflict of interest in fact existed.

(2) Parties Present for Actions. The names of the persons who were present for discussions and votes relating to the transaction or arrangement, the content of the discussion, including any alternatives to the proposed transaction or arrangement, and a record of any votes taken in connection therewith.

(d) Compensation.

(1) Director. A director who receives compensation, directly or indirectly, from the Corporation or affiliate for services is precluded from voting on matters pertaining to his or her compensation.

(2) Committee Member. A member of any committee whose jurisdiction includes compensation matters and who receives compensation, directly or indirectly, from the Corporation or affiliate for services is precluded from voting on matters pertaining to that member's compensation.

(e) Annual Statements.

Each trustee, director, principal officer and member of a committee with board delegated

powers shall annually sign a statement which affirms that such person --

i has received a copy of the conflicts of interest policy,

ii. as read and understands the policy,

iii. has agreed to comply with the policy, and

iv. understands that the Corporation is a charitable organization and that in order to maintain its federal tax exemption it must engage primarily in activities which accomplish one or more of its tax-exempt purposes.

3.17 Executive and Other Committees. The Board of Directors, by resolution adopted by a majority of the full Board of Directors, may designate from among its members an executive committee and one or more other committees each of which, to the extent provided in such resolution, shall have and may exercise all the authority of the Board of Directors, except that no such committee shall have the authority to:

(a) fill vacancies on any committee thereof; or

(b) adopt, amend or repeal the Bylaws.

The provisions of these Bylaws governing meetings, notice, waiver of notice and quorum and voting requirements for the Board of Directors shall also apply to executive and other committees and their members.

Each committee established pursuant to this Section must have two (2) or more committee members who shall serve at the pleasure of the Board of Directors. The Board of Directors by resolution adopted by a majority of the full Board of Directors, may designate one (1) or more directors as alternate committee members of any such committee who may act in the place and stead of any absent committee member or members at any meeting of such committee.

Neither the designation of any executive or other committee pursuant to this Section, the delegation thereto of authority, nor action by such committee pursuant to such authority, shall alone constitute compliance by any member of the Board of Directors who is not a member of such committee with such director's responsibility to act in good faith, in a manner such director reasonably believes is to be in the best interests of the Corporation, and with such care as an ordinarily prudent person in a like position would use under similar circumstances.

3.18 Post-Acquisition of Phase 1 of the C-51 Reservoir. Notwithstanding anything in Article III to the contrary, after acquisition of Phase 1 of the C-51 Reservoir, the Board of Directors, upon determination by counsel for the Board as to legal applicability to the Corporation, shall comply with any applicable requirements of Chapter 119, Florida Statutes, and Chapter 286, Florida Statutes.

ARTICLE IV - OFFICERS

4.01 Officers. The officers of the Corporation shall consist of a President and a Secretary, and may also consist of one or more Vice-Presidents, a Treasurer, one or more Assistant Secretaries or Treasurers and such other officers as the Board of Directors may from time to time consider necessary for the proper conduct of the business of the Corporation. The same person may simultaneously hold more than one office.

4.02 Election; Term of Office and Qualification. Each officer shall be elected by the Board of Directors. Each such officer (whether elected at an annual meeting of the Board of Directors or to fill a vacancy or otherwise) shall hold such office until the next annual meeting of the Board of Directors and until such officer's successor shall have been elected and qualified, or until such officer's death, resignation or removal.

4.03 Resignation. An officer may resign at any time by delivering notice to the Corporation. A resignation shall be effective when the notice is delivered unless the notice specifies a later effective date. If a resignation is made effective at a later date and the Corporation accepts the future effective date, the Board of Directors of the Corporation may fill the pending vacancy before the effective date if the Board of Directors provides the successor does not take office until such effective date.

4.04 Removal. The Board of Directors may remove any officer at any time with or without cause.

4.05 Vacancies. Any vacancy in any office occurring by reason of death, resignation, removal, disqualification, or any other cause shall be filled in the manner prescribed in these Bylaws for regular election or appointment to such office.

4.06 Contract Rights. The appointment of an officer does not itself create contract rights. An officer's removal does not affect the officer's contract rights, if any, with the Corporation, nor does an officer's resignation affect the Corporation's contract rights, if any, with such officer..

4.07 Duties of Officers.

(a) President. The President shall be the chief executive officer of the Corporation, shall have authority over the general and active management of the business and affairs of the Corporation subject to the direction of the Board of Directors, and shall preside at all meetings of the Board of Directors, and executive or other committees as established by the Board of Directors under the provisions of these Bylaws. The President may sign, with the Secretary or other officer duly authorized by the Board of Directors, any deeds, mortgages, bonds, contracts or other instruments the execution of which has been authorized by the Board of Directors, except in cases where the signing and execution thereof shall have been expressly delegated by the Board of Directors, by these Bylaws, or by law to some other officer or agent of the Corporation.

(b) Vice President. The Vice President, if one is elected, shall serve as

assistant to the President and shall perform such other duties and have such other authority and power as may be prescribed from time to time by the Bylaws, the Board of Directors or the President. In the absence or disability of the President, the Vice President shall perform the duties and have the authority and the power of the President.

(c) Secretary. The Secretary shall be responsible for the custody and maintenance of all corporate records except the financial records, shall record the minutes of all meetings of the Board of Directors, and executive and other committees, if any, shall send out all notices of meetings where required under these Bylaws or otherwise required by law, and shall perform such other duties and have such other authority and power as may be prescribed from time to time by the Board of Directors or the President.

(d) Assistant Secretary. The Assistant Secretary, if any, shall, in the absence or disability of the Secretary, perform the duties and have the authority and exercise the powers of the Secretary. The Assistant Secretary shall perform such other duties and have such other authority and power as may be prescribed from time to time by the Board of Directors or the President.

(e) Treasurer. The Treasurer, if any, shall have custody of all corporate funds and financial records, shall keep full and accurate records of receipts and disbursements and render accounts thereof whenever required by the Board of Directors or by the President, and shall perform such other duties and have such other authority and power as may be prescribed from time to time by the Board of Directors or the President. If so required by the Board of Directors, the Treasurer shall give a bend for the faithful discharge of such Treasurer's duties in such sum and with such surety or sureties as the Board of Directors may deem appropriate. If no Treasurer is elected by the Board of Directors, then the Secretary shall perform the duties of the Treasurer described in this Subparagraph 4.07(e).

(f) Assistant Treasurer. The Assistant Treasurer, if any, shall, in the absence or disability of the Treasurer, perform the duties and have the authority and exercise the powers of the Treasurer. The Assistant Treasurer shall perform such other duties and have such other authority and power as may be prescribed from time to time by the Board of Directors or the President.

4.08 Compensation. The Board of Directors may authorize payment of reasonable compensation to the officers of the Corporation for services rendered.

ARTICLE V - FUNDS' DEPOSITS AND CHECKS

5.01 Gifts and Contributions. The Board of Directors may accept on behalf of the Corporation any contribution, gift, bequest, or devise of any property whatsoever, for the general and special charitable purposes of the Corporation.

5.02 Deposits. All funds of the Corporation shall be deposited from time to time to the credit of the Corporation in such banks, trust companies, or other depositories as the Board of Directors may select.

5.03 Checks, Drafts, Orders for Payment. All checks, drafts, or orders for the payment of money, notes, or other evidences of indebtedness issued in the name of the Corporation shall be signed by such officer or officers, agent or agents of the Corporation and in such manner as the Board of Directors shall from time to time by resolution determine. In the absence of such determination, such instruments shall be signed by the President or a Vice President of the Corporation.

ARTICLE VI - BOOKS AND RECORDS

6.01 Corporate Records. The Corporation shall keep as permanent records, correct and complete books and records of account and shall keep minutes of the proceedings of its members, Board of Directors, and committees having any of the authority of the Board of Directors. The Corporation shall keep at its registered office in this state a copy of its Articles of Incorporation and its Bylaws and any amendments thereto. All books and records shall be kept in written form or in another form capable of conversion into written form within a reasonable time.

ARTICLE VII - INDEMNIFICATION

The Corporation shall indemnify any officer or director, or any former officer or director, to the full extent permitted under Section 617.0831 of the Florida Statutes.

ARTICLE VIII - MISCELLANEOUS

8.01 Corporate Seal. A corporate seal shall not be required to be attached to any instrument executed by or on behalf of the Corporation unless required by law, but if so required shall be of such shape and have such words thereon as may be described by law or by the Board of Directors. The seal may be used by impressing it or reproducing a facsimile thereof, or otherwise.

8.02 Amendment of Articles and Bylaws. The Board of Directors may amend or repeal the Corporation's Articles of Incorporation and Bylaws by majority vote of the Board of Directors, except where these Bylaws provide otherwise.

8.03 Relation to Articles of Incorporation. These Bylaws shall be subject to, and governed by, the Corporation's Articles of Incorporation.

C-51 Reservoir Agreement First Amendment

FIRST AMENDMENT TO
AGREEMENT FOR CAPACITY ALLOCATION
IN PHASE 1 OF THE C-51 RESERVOIR
CITY OF HALLANDALE BEACH

This First Amendment ("First Amendment") to the Agreement for Capacity Allocation in Phase 1 of the C-51 Reservoir (the "Agreement") is made and entered into by and between Palm Beach Aggregates, LLC ("Company"), a Florida limited liability company, with its principal offices at 20125 State Road 80, P.O. Box 700, Loxahatchee, Florida 33470, and the City of Hallandale Beach, Florida ("Participant"), a municipality organized and existing under the laws of the State of Florida, whose address is 440 South Federal Highway, Hallandale Beach, FL 33009. Company and Participant shall collectively herein be call the "Parties" and each be individually identified herein from time to time as a "Party."

Recitals

A. The Parties entered into the Agreement on October 18, 2018 to provide for surface water storage capacity in the proposed collaborative development project known as the C-51 Reservoir, as further described in the Agreement ("C-51 Reservoir"), which is intended to be constructed in two phases.

B. The Agreement provides for an allocation to Participant of one (1) million gallons per day of storage in Phase 1 of the C-51 Reservoir, as further described in the Agreement ("Phase 1 Reservoir").

C. Despite the best efforts of the Parties, it has taken longer than anticipated to satisfy certain conditions precedent set forth in the Agreement, and the Parties desire to amend the Agreement to extend the relevant time periods thereunder and to continue working together towards completion of the Phase 1 Reservoir project.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. The foregoing recitals are true and correct, and are incorporated herein by reference.

2. Unless otherwise stated, for paragraphs 3 – 4 below, words in ~~struck through~~ type are deletions from existing text and words in underline type (aside from previously included headings) are additions to existing text.

3. Section 3.2 of the Agreement is hereby amended, in part, as follows:

3.2 **Termination.** Upon delivery of written notice to Company, as defined by Article 15 below, Participant may terminate this Agreement:

3.2.1 If Company fails to notify Participant, on or before ~~June 30, 2018~~ November 30, 2019, that it has sufficient permits, commitments, and financing to commence the construction of the

Phase 1 Reservoir; or

. . . .

4. Section 11.1 of the Agreement is hereby amended, in part, as follows:

11.1 All of Company's obligations under this Agreement are expressly made subject to all of the following conditions, which Company agrees to use its reasonable efforts to promptly pursue and satisfy, time being of the essence:

. . . .

11.1.2 Company's securing full Construction Financing for the Phase 1 Reservoir ~~within ninety (90) days after the Minimum Reserved Capacity Date~~ on or before November 30, 2019, with a closing date within ninety (90) days thereafter (the "Phase 1 Construction Finance Date"). On or before the tenth (10th) day after the Phase 1 Construction Finance Date, and at least ~~forty-five (45)~~ sixty (60) days before the closing date for Construction Financing, Company shall notify Participant in writing of the Phase 1 Construction Finance Date, as well as the anticipated closing date for Construction Financing.

. . . .

5. The Agreement is hereby amended to include an Appendix D (C-51 Reservoir – Phase 1 Project Completion Schedule), attached hereto and incorporated herein. Company shall use its best efforts to achieve the project milestones listed in Appendix D within the time periods specified. If Company anticipates a delay in achieving any of the project milestones listed in Appendix D, Company shall promptly notify Participant in writing of such anticipated delay.

6. Except as modified herein, all terms and conditions of the Agreement shall remain in full force and effect. In the event of any conflict or ambiguity between this First Amendment and the Agreement, this First Amendment shall control.

7. This First Amendment is effective on the Effective Date, and may be executed by the Parties in counterparts which, when taken together, shall have the force and effect of an original binding document.

(Remainder of Page Intentionally Left Blank)

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their respective duly authorized officers as of the date and year set forth above.

PARTICIPANT

CITY OF HALLANDALE BEACH, FLORIDA

By: _____
Greg Chavarria
City Manager

14 day of October, 2019

AUTHENTICATION:

_____
City Clerk

(SEAL)

Approved as to form:

CITY ATTORNEY

By: _____
Jennifer Merino
City Attorney

COMPANY

WITNESSES:

PALM BEACH AGGREGATES, LLC, a Florida limited liability company

By: _____
Name: Enrique Tomeu
Title: President

Date: _____

_____

_____
Print Name

_____

_____
Print Name

Appendix D

C-51 Reservoir – Phase 1
Project Completion Schedule – Outside Dates
Revised June 18, 2019

Description	Milestone Dates
Construction Financing Commitment	November 30, 2019
Notice of Construction Financing Commitment	December 10, 2019
Closing on Construction Financing	February 28, 2020
Commencement of Construction	March 2020
Construction Substantial Completion	January 2022
Operational Testing	February 2022
Final Cleanup and Demobilization	February 2022
2021 Closing and Turnover to C-51 Reservoir, Inc.	March 2022
Commencement of Operations	March 2022

- Section 11.1.2 Company's securing full Construction Financing for the Phase 1 Reservoir ~~within ninety (90) days after the Minimum Reserved Capacity Date~~ on or before November 30, 2019, with a closing date within ninety (90) days thereafter (the "Phase 1 Construction Finance Date"). On or before the tenth (10th) day after the Phase 1 Construction Finance Date, and at least ~~forty-five (45)~~ sixty (60) days before the closing date for Construction Financing, Company shall notify Participant in writing of the Phase 1 Construction Finance Date, as well as the anticipated closing date for Construction Financing.

WHEREAS, City Administration recommends that the City Commission authorize the City Manager and City Attorney to negotiate and approve the First Amendment to Agreement for Capacity Allocation with Palm Beach Aggregates, LLC to extend certain milestone dates within the original Agreement for the allocation of one million gallons a day of raw water from Phase 1 of the C-51 Reservoir; and

WHEREAS, the Mayor and City Commission have determined that the City Administration's recommendations are in the best interest of the City and its residents.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND THE CITY COMMISSION OF THE CITY OF HALLANDALE BEACH, FLORIDA:

SECTION 1. The foregoing "Whereas" clauses are incorporated herein.

SECTION 2. City Manager Authorization. The Mayor and City Commission hereby authorize the City Manager to negotiate and approve a First Amendment to Agreement for Capacity Allocation with Palm Beach Aggregates, LLC to extend certain milestone dates, as indicated above, for the capacity allocation of one million gallons of water per day from Phase 1 of the C-51 reservoir at a capital cost of four million six hundred thousand dollars ($4,600,000) and an additional annual operations cost.

SECTION 3. Effective Date. This Resolution shall take effect immediately upon its passage and adoption.

APPROVED AND ADOPTED this 7th day of August, 2019.

JOY D. ADAMS
MAYOR

SPONSORED BY: CITY ADMINISTRATION

ATTEST:

JENORGEN M. GUILLEN, CMC
CITY CLERK

APPROVED AS TO LEGAL SUFFICIENCY AND FORM

JENNIFER MERINO
CITY ATTORNEY

FINAL VOTE ON ADOPTION

Mayor Adams	Yes
Vice Mayor Javellana	Yes
Commissioner Butler	Yes
Commissioner Lazarow	Yes
Commissioner Lima- Taub	Absent

C-51 Reservoir Agreement Second Amendment

SECOND AMENDMENT TO
AGREEMENT FOR CAPACITY ALLOCATION
IN PHASE 1 OF THE C-51 RESERVOIR
CITY OF HALLANDALE BEACH

This Second Amendment ("Second Amendment") to the Agreement for Capacity Allocation in Phase 1 of the C-51 Reservoir (the "Agreement") is made and entered into by and between Palm Beach Aggregates, LLC ("Company"), a Florida limited liability company, with its principal offices at 20125 State Road 80, P.O. Box 700, Loxahatchee, Florida 33470, and the City of Hallandale Beach, Florida ("Participant"), a municipality organized and existing under the laws of the State of Florida, whose address is 440 South Federal Highway, Hallandale Beach, FL 33009. Company and Participant shall collectively herein be call the "Parties" and each be individually identified herein from time to time as a "Party."

Recitals

A. The Parties entered into the Agreement on October 18, 2018, as amended by the First Amendment to the Agreement, to provide for surface water storage capacity in the proposed collaborative development project known as the C-51 Reservoir, as further described in the Agreement ("C-51 Reservoir"), which is intended to be constructed in two (2) phases.

B. The Agreemen provides for an allocation to Participant of one (1) million gallons per day of storage in Phase 1 of the C-51 Reservoir, as further described in the Agreement ("Phase 1 Reservoir").

C. Despite the best efforts of the Parties, it has taken longer than anticipated to satisfy certain conditions precedent set forth in the Agreement, and the Parties desire to amend the Agreement to extend the relevant time periods thereunder and to continue working together towards completion of the Phase 1 Reservoir project.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. The foregoing recitals are true and correct, and are incorporated herein by reference.

2. Unless otherwise stated, for paragraphs 3 – 4 below, words in ~~struck through~~ type are deletions from existing text and words in underline type (aside from previously included headings) are additions to existing text.

3.2 **Termination.** Upon delivery of written notice to Company, as defined by Article 15 below, Participant may terminate this Agreement:

3.2.1 If Company fails to notify Participant, on or before ~~November 30, 2019~~ May 31, 2020, that it has sufficient permits, commitments, and financing to commence the construction of the Phase 1 Reservoir; or

. . . .

3. Section 11.1 of the Agreement is hereby amended, in part, as follows:

11.1 All of Company's obligations under this Agreement are expressly made subject to all of the following conditions, which Company agrees to use its reasonable efforts to promptly pursue and satisfy, time being of the essence:

. . . .

11.1.2 Company's securing full Construction Financing for the Phase 1 Reservoir on or before ~~November 30, 2019~~ May 31, 2020, with a closing date within ninety (90) days thereafter (the "Phase 1 Construction Finance Date"). On or before the tenth (10th) day after the Phase 1 Construction Finance Date, and at least sixty (60) days before the closing date for Construction Financing, Company shall notify Participant in writing of the Phase 1 Construction Finance Date, as well as the anticipated closing date for Construction Financing.

. . . .

4. Appendix D (C-51 Reservoir – Phase 1 Project Completion Schedule) to the Agreement is hereby amended as set forth on Appendix D (C-51 Reservoir – Phase 1 Project Completion Schedule) attached hereto and incorporated herein.

5. Except as modified herein, all terms and conditions of the Agreement shall remain in full force and effect. In the event of any conflict or ambiguity between this Second Amendment and the Agreement, this Second Amendment shall control.

6. This Second Amendment is effective on the date when fully executed by the Parties, and may be executed by the Parties in counterparts which, when taken together, shall have the force and effect of an original binding document.

(Remainder of Page Intentionally Left Blank)

IN WITNESS WHEREOF, the Parties hereto have caused this Second Amendment to be executed by their respective duly authorized officers as of the date and year set forth above.

PARTICIPANT

CITY OF HALLANDALE BEACH, FLORIDA

By: _____
Greg Chavarria
City Manager

22 day of April, 2020

AUTHENTICATION:

_____
City Clerk

(SEAL)

Approved as to form:

CITY ATTORNEY

By: _____
Jennifer Merino
City Attorney

COMPANY

WITNESSES:

PALM BEACH AGGREGATES, LLC, a Florida limited liability company

By: _____

Name: Enrique Tomeu

Title: President

_____

Print Name

Date: _____

_____

_____

Print Name

Appendix D

C-51 Reservoir – Phase 1
Project Completion Schedule – Outside Dates
~~Revised June 2019~~

Description	**Milestone Dates**
Construction Financing Commitment	~~November 30, 2019~~May 31, 2020
Notice of Construction Financing Commitment	~~December 10, 2019~~June 11, 2020
Closing on Construction Financing	~~February 28~~August 31, 2020
Commencement of Construction	~~March~~ September 2020
Construction Substantial Completion	~~January~~ July 2022
Operational Testing	~~February~~ August 2022
Final Cleanup and Demobilization	~~February~~ August 2022
2021 Closing and Turnover to C-51 Reservoir, Inc.	~~March~~ September 2022
Commencement of Operations	~~March~~ September 2022

City of Hallandale Beach

10-Year Water Supply Facilities Work Plan – 2019 Update



~~CITY OF HALLANDALE BEACH 2008 WATER SUPPLY FACILITIES WORK PLAN~~



EXHIBIT 5-1

TABLE OF CONTENTS

STATUTORY REQUIREMENTS 1

BACKGROUND 3

Overview 3

Relevant Regional Issues 4

DATA AND ANALYSIS 4

Population Projections 4
Maps of Current and Future Areas Served 5

Population and Potable Water Demand Projections by Each Local Government or Utility 7
Water Supply Provided by Local Government 9

Historic Rates 10

Water Supply Provided by Other Entities 11
Broward County Water Facilities and Services Areas 11
North Miami Beach Water Facilities and Service Areas 13
Hollywood Water Treatment Facilities and Service Areas 14

ALTERNATIVE WATER SUPPLY SOURCES 18

Water Conservation 23

Alternative Suppliers 27
Aquifer Storage and Recovery 27

Reuse/Recharge Project 27

L-8 Reservoir Project 27

WATER SUPPLY CAPITAL IMPROVEMENTS 28

GOALS, OBJECTIVES, AND POLICIES 29

Future Land Use Element 29
Infrastructure Element 32

Conservation Element 36

Capital Improvements Element 37
Intergovernmental Coordination Element 40

EXHIBIT 5-1

~~TABLES AND FIGURES~~

~~Table 1- Citywide Existing Land Use ..... 3~~
~~Table 2- Population and Potable Water Projections ..... 8~~
~~Table 3- Raw Water Withdrawal Amount ..... 9~~
~~Table 4 Historic Water Consumption Rates ..... 10~~
~~Table 5- Recent Water Consumption Rates ..... 10~~
~~Table 6- Hollywood Reuse System ..... 15~~
~~Table 7- Hollywood Reuse Expansion ..... 16~~
~~Table 8- NatureScape Savings ..... 25~~
~~Table 9- Water Supply Capital Improvement Projects ..... 28~~

~~Figure 1-Current and Future Water Service Area ..... 6~~
~~Figure 2- South Regional Wellfield ..... 13~~
~~Figure 3- Hollywood Reuse Water Service Area ..... 17~~
~~Figure 4- Avg Day Raw Water Demand ..... 19~~
~~Figure 5- Avg Day Finished Water Demand ..... 20~~
~~Figure 6- Max Day Raw Water Demand ..... 21~~
~~Figure 7-Max Day Finished Water Demand ..... 22~~
~~Figure 8-Historic Water Consumption 12-Month Average ..... 24~~

EXHIBIT 5-1

~~STATUTORY REQUIREMENTS~~

~~The City of Hallandale Beach (City) is subject to the jurisdiction of the South Florida Water Management District (SFWMD). The SFWMD is one of four Florida water management districts that have concluded traditional water supply sources will not be sufficient to meet the demands of the growing population and needs of the environment, agriculture and industry over the next two decades. As this view has gained more prominence in recent years, the Florida Legislature enacted bills in 2002, 2004, and 2005 to more directly address the state's water supply needs by requiring more coordination between local land use planning and water supply planning.~~

~~The focus of the initial legislation was to add requirements to Chapter 163, Florida Statutes (FS), for local governments to prepare 10-year water supply facilities work plans and to incorporate the work plans into their comprehensive plans. The legislative change emphasized the need for local comprehensive plans to consider the applicable regional water supply plans prepared by the water management districts. In the case of the SFWMD, the applicable plan is the Lower East Coast Water Supply Plan (LEC Plan), most recently updated in 2005-2006.~~

~~In 2005, the Florida Legislature changed Chapters 163 and 373, FS, to improve the coordination between water supply and land use planning. Senate Bills 360 and 444 were designed to strengthen the statutory linkage between the regional water supply plans prepared by the water management districts and comprehensive plans prepared by the local governments, with the goal of ensuring that adequate water supplies and public facilities are available to serve the water supply demands of Florida's growing population.~~

~~Local governments subject to a regional water supply plan must prepare a minimum 10-year work plan for building public, private, and regional water supply facilities to serve existing and new development within the local government's jurisdiction. This work plan must be adopted into the comprehensive plan within 18 months after the water management district approves a regional water supply plan or its update. The work plan and the comprehensive plan amendment must address the development of traditional and alternative water supplies (AWS), bulk sales agreements, and conservation and reuse programs that are necessary to serve existing and new development for at least a 10-year planning period.~~

~~In addition to the water supply plan requirements, the following amendments to the comprehensive plan must be made:~~

- ~~Revise the Infrastructure Element within 18 months after the water management district approves an updated regional water supply plan to:~~

EXHIBIT 5-1

- ~~Identify and incorporate the alternative water supply projects selected by the local government~~
- ~~Identify the traditional and alternative water supply projects, bulk sales agreements, and the conservation and reuse programs necessary to meet current and future water use demands within the local government's jurisdiction.~~
- ~~Include a water supply facilities work plan for at least a 10 year planning periods for constructing the public, private, and regional water supply facilities identified in the element as necessary to serve existing and new development.~~

- ~~Revise the 5 year schedule of capital improvements to include any water supply, reuse, and conservation projects and programs to be implemented during the 5-year period;~~

- ~~Revise the Conservation Element to ensure that projected water needs and sources are for at least a 10 year planning period, considering the appropriate regional water supply plan(s) or, in the absence of an approved regional water supply plan, the applicable district water management plan;~~

- ~~Revise the Intergovernmental Coordination Element to ensure coordination of the comprehensive plan with the applicable regional water supply plans and regional water supply authorities.~~

EXHIBIT 5-1

BACKGROUND

Overview

The City of Hallandale Beach was founded in 1897 and is one of the oldest communities in Broward County. The City is located at the southeast corner of Broward County and is characterized by its many medium and high rise residential structures, primarily along the beach area and by the two pari-mutuel facilities (Gulfstream Park / Mardis Gras Gaming Center). The City is a full service community offering police service, fire/rescue protection, public works, water and sewer utilities, community development, code enforcement, and parks and recreation services.

The City is currently over 95% built-out, as is the case with most municipalities in Broward County. Development in the City has primarily consisted of high density residential and commercial buildings on the City's east side, while the west side of the City has remained relatively low density residential and commercial. However, there has been a development trend in the western portion of the City involving infill development of vacant single-family, multiple-family and commercial lots and the re-development of underutilized properties. The following is a breakdown of the of the land use areas in Hallandale Beach:

Table 1 Citywide Existing Land Use

FUTURE LAND USE MAP AREAS	2008	2008
	Acres	% of Total
Residential		
- Single Family	438.36	15.5%
- Two Family	133.44	4.7%
- Three & Four Family	37.85	1.3%
- Multi-Family	501.28	17.7%
- Mobile Homes	63.54	2.2%
SUBTOTAL	1,174.47	41.5%
Business and Commercial	274.37	9.7%
Local Activity Center	60.80	2.1%
Industrial	48.39	1.7%
Agricultural	0	0
Water	243.48	8.6%

EXHIBIT 5-1

FUTURE LAND USE MAP AREAS	2008	2008
	Acres	% of Total
Recreation	38.09	1.3%
- Public	291.80	10.3%
- Private		
SUBTOTAL	**329.89**	**11.6%**
Community Facilities		
- Public	103.70	3.7%
- Private	38.81	1.4%
- Historic	0.64	0.02%
SUBTOTAL	**143.15**	**5.1%**
Transportation		
- Streets	422.41	14.9%
- Railroad	17.87	0.6%
SUBTOTAL	**440.28**	**15.5%**
Vacant	116.0	4.1%
TOTAL	**2,830.83**	**100.0%**

Source: 2006 City of Hallandale Beach Evaluation and Appraisal Report

Relevant Regional Issues

As the state agency responsible for water supply in the Lower East Coast planning area, the South Florida Water Management District (SFWMD) plays a pivotal role in resource protection, through criteria used for Consumptive Use Permitting. As pressure increased on the Everglades ecosystem resource, the Governing Board initiated rule making to limit increased allocations dependent on the Everglades system. As a result, the Regional Water Availability Rule was adopted by the Governing Board on February 15, 2007 as part of the SFWMD's Consumptive Use Permit Program. This reduced reliance on the regional system for future water supply needs, mandates the development of alternative water supplies, and increases conservation and reuse.

DATA AND ANALYSIS

Population Projections

The City's existing and future population numbers are derived from data published by Broward County's Planning Services Division. The Broward County Population Forecasting Model (Model), developed by the Planning Services

~~Division (PSD), was approved by the State of Florida's Department of Community Affairs as part of the adoption of the Broward County Comprehensive Plan in 1989.~~

~~The Model provides details about Broward County's expected population. With the assistance of municipal partners in the Broward County Population Forecasting Roundtable, these projections are assigned to Broward County's 31 municipalities, 279 census tracts and 902 traffic analysis zones.~~

~~The Model uses the cohort-survival method to project future population and housing units, and is based on the concept that future population equals the present population plus natural increase and net migration. Natural increase equals the difference between the number of births and deaths each year. Net Migration equals the number of people moving into the County less those moving out each year. Net migration includes both domestic and international migration.~~

~~Output from this model is used by many County agencies, as well as the School Board of Broward County, the South Florida Water Management District, the Metropolitan Planning Organization, and the Broward Sheriff's Office. These agencies use projections to estimate the existing level of service demand and project facilities and programs to meet future service demand.~~

~~The model covers a thirty year forecast period beginning with the most recent census year (2000). An annual update of the model allows for calibration of the model in response to changing demographic trends between the census years.~~

~~According to the Broward County data, Hallandale Beach is projected to increase from 34,282 in 2000 to 37,014 in 2008. The population is expected to increase to 39,406 in 2010; 43,996 in 2015; 48,493 in 2020; and 52,149 in 2025. The City has very little vacant land available; therefore, the majority of the growth will be a result of redevelopment.~~

~~Maps of Current and Future Areas Served~~

~~The City of Hallandale Beach provides water to all areas within its City Limits with the exception of the Diplomat Golf Course, which is irrigated with reuse water from the City of Hollywood.~~

~~At this time, the City has no plans to provide raw or finished water to any other municipality or area outside of its jurisdiction. Figure 1 below depicts the water areas served.~~

EXHIBIT 5-1

~~**Figure 1-Current and Future Water Service Area**~~

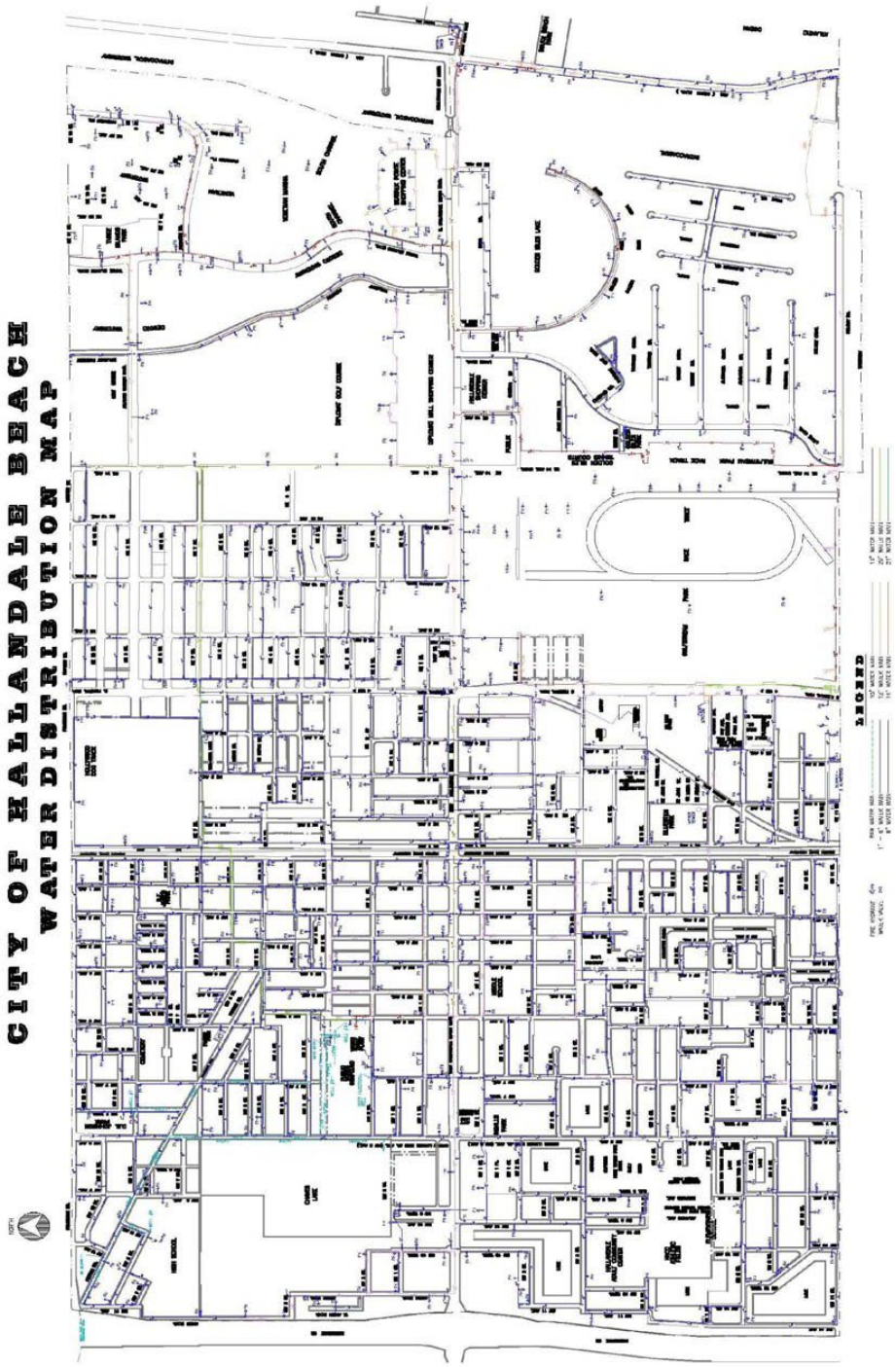


EXHIBIT 5-1

~~Population and Potable Water Demand Projections by Each Local Government or Utility~~

~~According to Broward County projections, the population in Hallandale Beach will continue to rise over the next 20 years. Table 2 shows the projected populations through 2028 and the estimated raw and finished water demand for average day and maximum day.~~

EXHIBIT 5-1

Table 2- Population and Potable Water Projections

CITY OF HALLANDALE BEACH							
Summary of Raw Water and Finished Water Requirements							
Based on Broward County Population Projections							
		Average Day			Maximum Day		
Year	Total Population[1]	FW[2] mgd	RW[3] mgd	RW Demand Not Met[4] mgd	FW[5] mgd	RW[3] mgd	RW Demand Not Met[4] mgd
2008	37014	5.4	6.5		6.5	7.6	
2009	38210	5.6	6.6		6.7	7.8	
2010	39406	5.8	6.8		6.9	8.0	
2011	40324	5.9	7.0		7.1	8.2	
2012	41242	6.0	7.1		7.2	8.4	
2013	42160	6.2	7.2		7.4	8.5	
2014	43078	6.3	7.4		7.5	8.7	
2015	43996	6.4	7.5		7.7	8.9	
2016	44895	6.6	7.7		7.9	9.0	
2017	45795	6.7	7.8		8.0	9.2	
2018	46694	6.8	7.9		8.2	9.4	
2019	47594	6.9	8.1		8.3	9.5	
2020	48493	7.1	8.2		8.5	9.7	
2021	49224	7.2	8.3		8.6	9.8	0.1
2022	49955	7.3	8.4		8.8	10.0	0.3
2023	50687	7.4	8.6		8.9	10.1	0.4
2024	51418	7.5	8.7		9.0	10.3	0.6
2025	52149	7.6	8.8		9.1	10.4	0.7
2026	52583	7.7	8.8		9.2	10.5	0.8
2027	53018	7.7	8.9		9.3	10.5	0.8
2028	53452	7.8	9.0		9.4	10.6	0.9
1 Population based on publication "Broward by the Numbers", March 2007 produced by Broward County Urban Planning and Redevelopment Department Planning Services Division.							
2 Calculated using the historical per capital consumption rate of 146 gallons per person per day (present level of service).							
3 Assumed 15% losses overall for the nanofiltration process and 5% losses for lime softening (historical).							
4 Calculations assume City well water is treatable (i.e., saline intrusion does not occur).							
5 Assumed maximum day demand =1.2 times average day demand							

EXHIBIT 5-1

~~Water Supply Provided by Local Government~~

~~The City of Hallandale Beach has two water treatment facilities. The original water plant was built in 1951 with a maximum capacity of 3 million gallons per day (mgd). In 1968, the facility was expanded to a 10 mgd capacity in anticipation of extensive development within the city.~~

~~In 2008, the City's new membrane treatment plant was put online and was designed with the capability of meeting the City's future water demand. The current capacity of the facility is 6.0 mgd; however, it is expandable to 15 mgd with the installation of additional skids (although there are no plans at this time).~~

~~The City is presently producing approximately 5.27 million gallons per day (mgd) of finished water through the nanofiltration and lime-softening process at its two water treatment facilities. The City can treat water from its existing wells through lime softening while the Broward County Regional Water Source (BCRWS) supply is treated through nanofiltration.~~

~~The current water supply source for the City of Hallandale Beach is the Biscayne Aquifer. The City's last Consumptive Use Permit (CUP # 06-00138-W) allocated~~
~~2.8 mgd of Biscayne Aquifer water to the City, through the Broward County Regional Water Supply (BCRWS) transmission system (Piccollo Wellfield). In 2007, the SFWMD allocated an increased allowance of 3.4 mgd for the City's recently constructed water treatment facility. In addition to the raw water received from Broward County, the City also draws 3.5 mgd of raw water from the City's three wells. The City has applied with the SFWMD for a renewal of the permit and is awaiting approval from the district. Hallandale Beach has had discussions with the SFWMD and anticipates its CUP will be renewed allocating the aforementioned 6.2 mgd from the County and 3.5 mgd from the City wells.~~

~~Table 3 Raw Water Withdrawal Amount~~

~~Current Raw Water Permitted Allocations~~	
~~Broward County (South Regional Wellfield)~~	~~2.8 mgd~~
~~• Additional allowance for new membrane treatment plant~~	~~3.4 mgd~~
~~Hallandale Beach City Wells~~	~~3.5 mgd~~
~~Total~~	~~9.7 mgd~~

EXHIBIT 5-1

Historic Rates

The historical water usage rates were analyzed using data from 2002-2007. As the population steadily increased each year so did the finished water demand, with the exception of 2007, which was a water conservation year. In 2007, the City experienced a 10% decrease in finished water demand.

Table 4-Historic Water Consumption Rates

Water Consumption Rates from Recent Years							
Year	Population	Raw Water Demand			Finished Water Supplied by WTP)	Finished Water Demand (includes purchases from North Miami Beach)	Finished Water Demand
		mg/year	(mgd)	(gpcd)	(mgd)	(mgd)	(gpcd)
2002	34856	2125.451	5.82	167	5.73	5.80	164
2003	35109	2125.613	5.82	166	5.76	5.81	164
2004	35362	2126.491	5.83	165	5.86	5.98	166
2005	35616	2131.433	5.84	164	5.67	5.79	159
2006	34622	2134.834	5.85	169	5.90	6.04	171
2007	35818	2125.379	5.82	163	5.37	5.43	150

The water consumption rates continued to decline between 2007 and 2008 as the Phase III restrictions continued to be effective. From June 2007 through May 2008, the City averaged 146 gallons per capita per day (gpcd).

Table 5- Recent Water Consumption Rates

Date	Water Use	X MM	12-Month Avg	Gallons per capita per day (gpcd)
M-08	149,327,500	149.3	158.2	**130**
A-08	166,505,000	166.5	159.2	**150**
M-08	163,028,200	163.0	161.3	**142**
F-08	174,929,600	174.9	162.0	**163**
J-08	164,416,600	164.4	163.6	**143**
D-07	153,485,400	153.5	165.4	**138**

EXHIBIT 5-1

Date	Water Use	X MM	12-Month Avg	Gallons per capita per day (gpcd)
N-07	153,161,000	153.2	165.3	143
O-07	153,443,492	153.4	167.6	138
S-07	167,504,600	167.5	167.0	156
A-07	149,503,900	149.5	168.7	135
J-07	144,840,600	144.8	170.5	130
J-07	158,472,400	158.5	171.1	147

Source: Hallandale Beach Finance Department- Water Billing Rates

Water Supply Provided by Other Entities

Broward County Water Facilities and Services Areas

Broward County is located along the lower east coast Florida, between Miami-Dade and Palm Beach Counties. It is made up of 31 municipalities, 28 utilities, and 22 drainage districts. The County has experienced significant population growth since 2000, which is expected to continue. The County's population is projected to increase thirty-one percent between 2005 and 2030, from 1.75 to 2.29 million. The County contains more than 1,225 square miles, however, only the eastern third of the county is urbanized. The remaining two-thirds is wetlands and constitutes a large part of the Everglades Water Conservation Areas.

In 1986, Broward County adopted the Regional Raw Water Supply Program, which called for inland wellfields safe from salt water intrusion to ensure a continual supply of potable water for Broward County. Under the program, new wellfields were constructed in the west to shift demand from the east to west. The new wellfields and raw water delivery systems were financed, constructed, and operated as a regional system, using general County revenues. Large Users Agreements were established with each entity receiving water from the wellfields and, at present, one such agreement is in place for the North Regional Wellfield (NRW) and four agreements for the South Regional Wellfield (SRW).

North Regional Wellfield

The NRW is located at Quiet Waters Park in Deerfield Beach. The NRW is comprised of 10 wells, each with a capacity of 2 million gallons per day, providing a total design capacity for the wellfield of 20 mgd and a firm capacity of 18 mgd with the largest well unit out of service. The anticipated maximum monthly and average annual daily withdrawals are 259.4 mgm and 7.1 mgd, respectively.

EXHIBIT 5-1

~~The NRW supplies raw untreated water to the City of Deerfield Beach under a large user raw water agreement. Per this agreement, the County is obligated to provide the City of Deerfield Beach with a minimum of 0.50 mgm and a maximum of 0.59 mgd annual average daily flow, a peak daily flow of 0.83 mgd, and a peak hourly flow of 2.0 mgd. Approximately 12% of current raw water withdraws from the NRW is pumped into the City of Deerfield Beach. The term of the agreement is endless and will continue in perpetuity unless there is mutual agreement for termination.~~

~~South Regional Wellfield~~

~~The South Regional Wellfield is located in the southern central portion of the County. The majority of the wells are located in Brian Piccolo Park. The SRW includes ten wells. Eight 4mgd wells and two 2mgd wells are currently in operation, providing a total design capacity for the wellfield of approximately 36 mgd and a firm capacity of 32 mgd with the largest unit out of service.~~

~~The SFWMD consumptive use permit for the SRW is currently being renewed. Based on the historically derived" base condition use" the anticipated maximum monthly withdrawal from the Biscayne Aquifer allowed from the SRW is 386.1 mgm and the average annual daily withdrawal is 15.2 mgd.~~

~~The SRW provides raw water to the City of Dania Beach, the City of Hallandale Beach, the City of Hollywood, and the Florida Power and Light Corporation under large raw water user agreements. The contractual agreements with each of the large users of the SRW run for an indefinite period with the exception of the City of Hollywood where their agreement has a four year term with an automatic renewal for four years. Figure 1 describes the breakdown of the Large User's raw water allocations.~~

EXHIBIT 5-1

~~**Figure 2 South Regional Wellfield**~~
~~**Base Conditions Water Use and Large User Allocations**~~

	SRW	Hallandale Beach	Hollywood	Dania Beach	FPL
	MGD	MGD	MGD	MGD	MGD
Base Condition Water Use (Wellfield Withdrawal)	11.84	2.87	5.99	1.13	1.85
Adjustment to Base Condition Use*	3.4	3.4	NA	NA	NA
Adjusted **Total Wellfield Withdrawal	15.24	6.27	5.99	1.13	1.85

* The water availability rule provides for an increase to the base condition water use to account for the additional volume used in Hallandale Beach's conversion of it's water treatment process. (SFWMD BOR, Section 3.2.1.E.(3)(a), page WU-BOR-64, September 2007.)
** Includes line flushing & water losses between withdrawal point and User's meter.
NA - Not Applicable

~~**Source: Broward County Water Supply Plan 2008**~~

~~North Miami Beach Water Facilities and Service Areas~~

~~The City of North Miami Beach is located in Miami-Dade County, just south of Hallandale Beach. NMB has approximately 42,000 residents and is 5.2 square miles in size.~~

~~The City of North Miami Beach's water system is the second largest in Miami-Dade County, with infrastructure of water supply, treatment, storage, transmission, and distribution. The water system provides services to approximately 32,800 metered connections in North Miami Beach, Sunny Isles, Miami Gardens, Aventura and portion of Northwest Miami-Dade, serving approximately a population base of over 180,000.~~

~~The Norwood Water Treatment Plant Expansion Program expanded the existing water treatment plant from a treatment capacity of approximately 16 million gallons per day to approximately 32 million gallons per day. This additional capacity will be used to replace water currently supplied by the Miami-Dade Water and Sewer Department.~~

~~Initial capacity for the membrane treatment system was 15 MGD, which includes 9 mgd of nanofiltration and 6 mgd of low pressure reverse osmosis treated water. The system is expandable to 20 MGD, with additional NF train of 3 mgd and additional RO membrane for 2 mgd. The permeate flow streams of the~~

membrane processes is combined for post treatment/stabilization and subsequently blended with finished water from the existing lime softening process and the filtered raw water blend. The blended finished water is then transferred to a new 4.2 million gallons (MG) and existing 2.0 MG ground storage tanks before it pumped out to the water distribution system.

The City of Hallandale Beach maintains an emergency interconnect with North Miami Beach (NMB). The City currently has an agreement with NMB to purchase bulk treated water during emergency conditions, which the City has recently utilized during preparations in opening the new water treatment plant. Below are the past purchases of bulk treated water:

- FY05/06: 15.450 million gallons
- FY06/07: 45.120 million gallons
- FY07/08(to date): 48.200 million gallons

Although Hallandale Beach is capable of providing an adequate supply of water to meet future water demands beyond the 10-year planning cycle, the City has been in discussions with the City of North Miami Beach regarding the possibility of entering into an agreement whereby the City would purchase a set amount of bulk treated water from NMB in the future, if necessary. At this time, no final agreements have been reached.

Hollywood Water Treatment Facilities and Service Areas

The City of Hollywood is located just north of Hallandale Beach. Hollywood covers approximately 29 square miles bound by the Atlantic Ocean to the east and surrounded by seven cities, one town, a Seminole reservation, and unincorporated areas. Except for Port Everglades, the City of Hollywood jurisdiction is supplied with finished water produced at the City of Hollywood Water Treatment Plant. Port Everglades is supplied by the City of Fort Lauderdale Public Works Department.

The Hollywood water treatment plant is operated by the City of Hollywood Department of Public Utilities. The Hollywood Water Treatment Plant supplies both a retail service area, extending over most of the City of Hollywood jurisdiction, and a wholesale service area, covering Broward County Water and Wastewater Services Districts 3A, 3B, and 3C.

In 2007, the Hollywood water treatment plant produced approximately 23 million gallons per day (mgd) of potable water, of which 16.3 mgd were served to nearly 40,000 connections in the retail area and the remaining 6.7 mgd were sold to the wholesale service area. All three BCWWS districts are served under an interlocal resale water agreement by which Broward County purchases potable water from The Hollywood DPU for resale to its customers.

EXHIBIT 5-1

~~The Hollywood DPU has implemented a reuse system by making use of treated effluent from Cooper City and the Town of Davie. The Hollywood-DPU delivers up to 4 mgd of reuse water for irrigation with chloride levels of 600 mg/liter or less to be within the salt tolerance of local turf grasses and ornamentals. Such reuse water flow offsets an otherwise potable water use. The existing reuse system serves primarily golf courses, schools, private developments, parks, and other entities that have a relatively large irrigation demand. These customers, classified as contract customers, are the most cost effective to serve.~~

~~Table 6 Hollywood Reuse System~~

~~Existing Reuse System Customers~~		
~~Site~~	***~~Area (Acres)~~***	***~~Demand (mgd)~~***
~~Diplomat Country Club*~~	~~115.4~~	~~0.446~~
~~Eco Grande Golf Course~~	~~28.2~~	~~0.109~~
~~Emerald Hills Country Club~~	~~173.7~~	~~0.671~~
~~Hillcrest Country Club~~	~~150.6~~	~~0.582~~
~~Hollywood Country Club~~	~~55.1~~	~~0.213~~
~~Orangebrook Country Club~~	~~229.8~~	~~0.888~~
~~Dowdy Field~~	~~7~~	~~0.027~~
~~Subtotal~~	**~~760~~**	**~~2.94~~**
~~* Portions Located in Hallandale Beach~~ ~~** Source: 2007 City of Hollywood Reuse Feasibility Study~~		

~~Hollywood plans to expand their existing reuse system in phases and the City of Hallandale Beach has been in discussions with Hollywood to reach an agreement increasing the amount of reuse water it currently receives from the city. The following Table-7 defines the likely phased expansion of Hollywood's existing system. Figure 4 also illustrates the coverage of the future reuse water service area.~~

~~The City has been communicating with the City of Hollywood and is anticipating receiving approximately 800,000 mgd of reuse water, although no final agreements have yet been reached.~~

EXHIBIT 5-1

Table 7- Hollywood Reuse Expansion

Expanded Reuse System Customers	
Site	***Demand (mgd)***
Existing System	2.94
Phase I Expansion	
TY Park	0.272
Rotary Park	0.035
Public Works Nursery	0.005
West Lake Park	0.210
Three Island Park*	0.583
Subtotal	1.11
Phase II Expansion	
Residential Customers	3.7
West Lake Village	0.089
Subtotal	**3.79**
System Total	**7.83**
* Portions Located in Hallandale Beach ** Source: 2007 Reuse Feasibility Study	

EXHIBIT 5-1

~~Figure 3 Hollywood Reuse Water Service Area~~

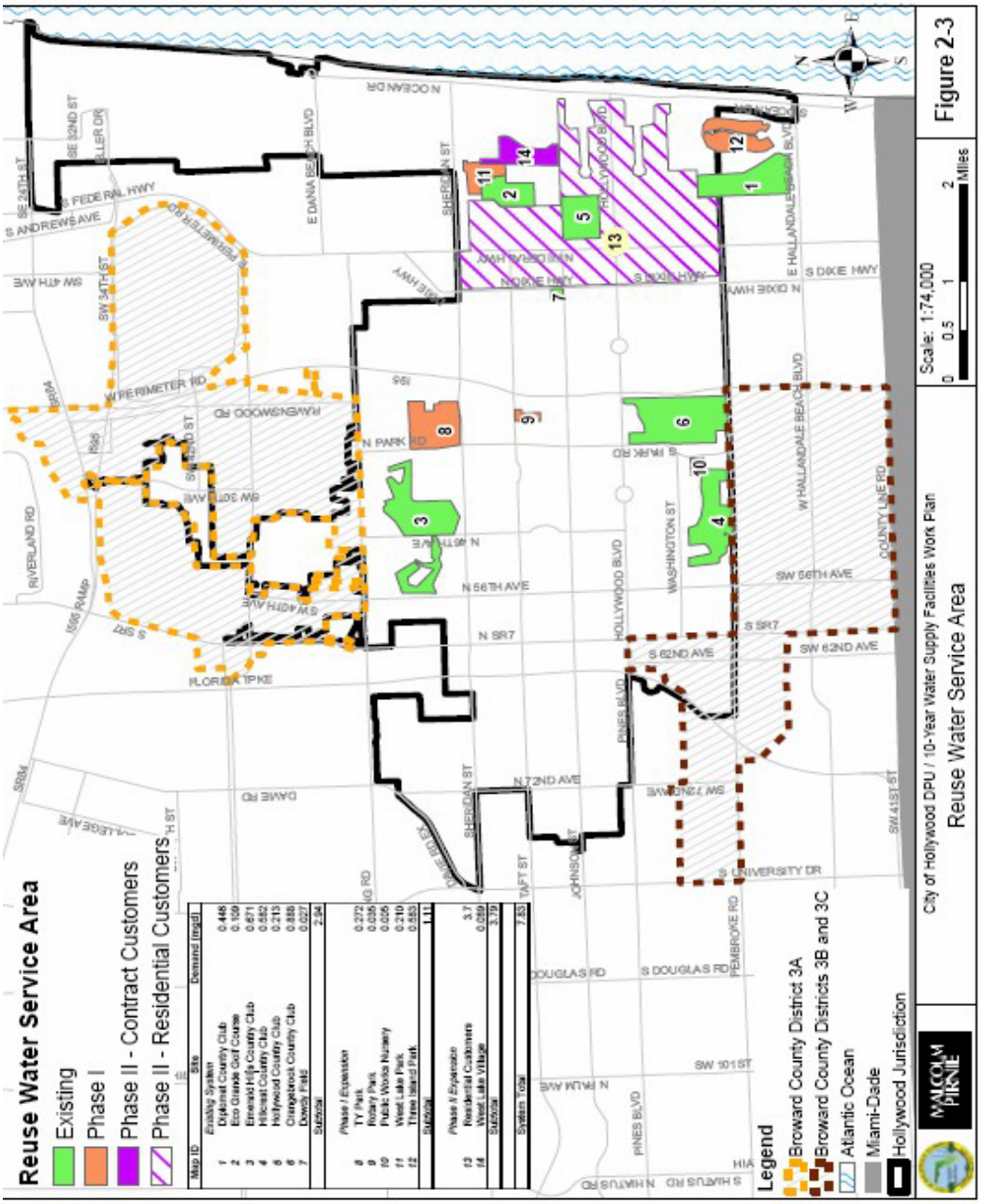


EXHIBIT 5-1

~~ALTERNATIVE WATER SUPPLY SOURCES~~

~~Since 2007, the South Florida Water Management District has been imposing Phase III water restrictions on Hallandale Beach. Under those restrictions, the City has experienced a tremendous reduction (13%) in its water consumption levels. According to the City's water billing records, the City had been consuming an average of 167 gallons per capita per day (gpcd). By May 2008, the City's gpcd had reached an average of 146 gallons per capita per day.~~

~~Based upon the City's current gallons per capita per day rate, the City will be capable of providing the raw water demand for future projections through 2020 on a maximum day demand (Figure 4) and beyond 2030 on an average day demand (Figure 6) without requiring the implementation of any additional alternative water supply (AWS) projects.~~

~~The City has determined that enhancing its water conservation efforts and implementing additional conservation programs will ensure that Hallandale Beach will have the necessary resources to provide water to current and future populations well beyond the required 10 year planning period.~~

~~Although it is not necessary at this time for Hallandale Beach to implement any additional AWS projects to meet current and future projections, City staff will continue to research alternative programs for the future.~~

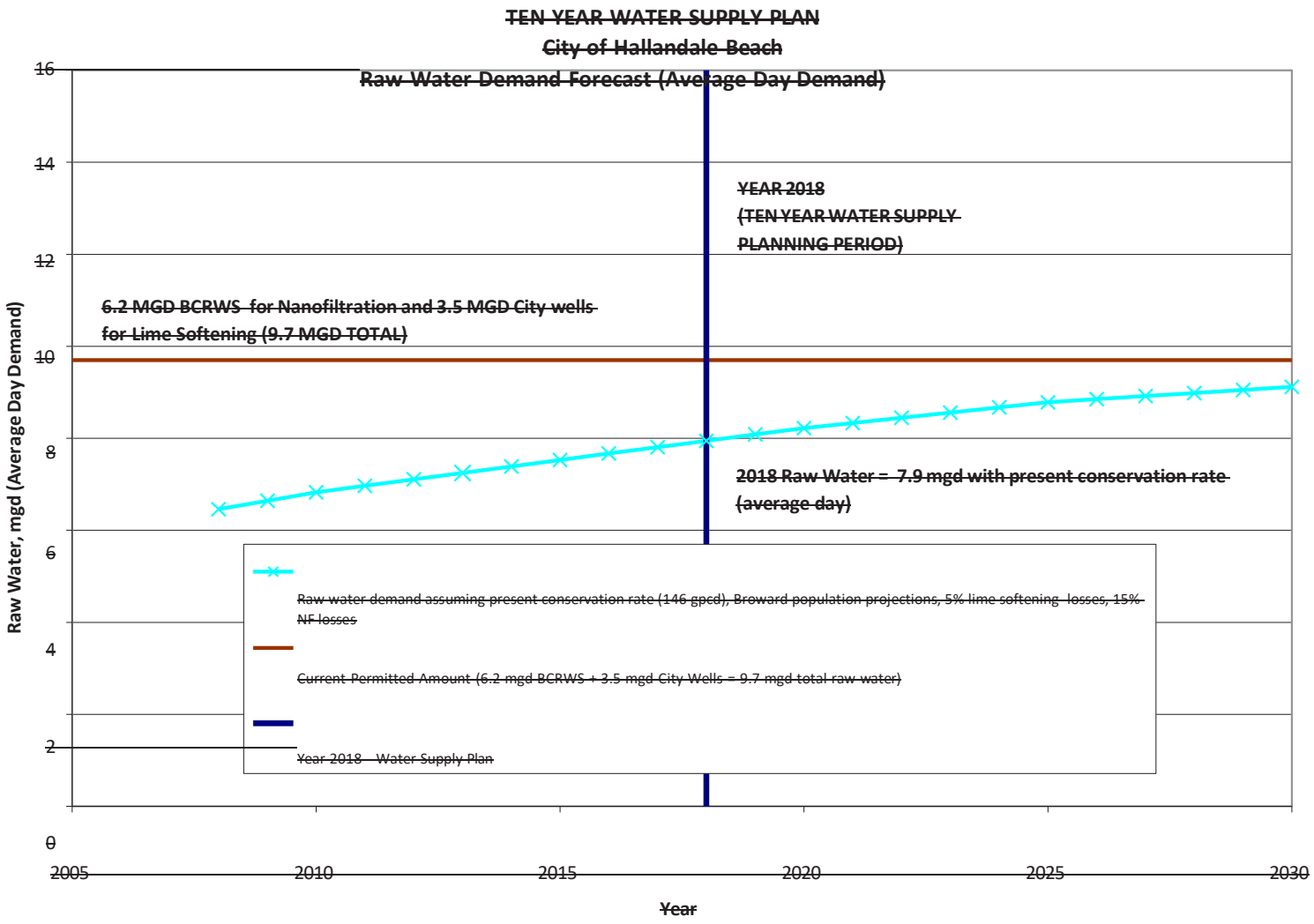


Figure 4-Avg Day Raw Water Demand

EXHIBIT 5-1

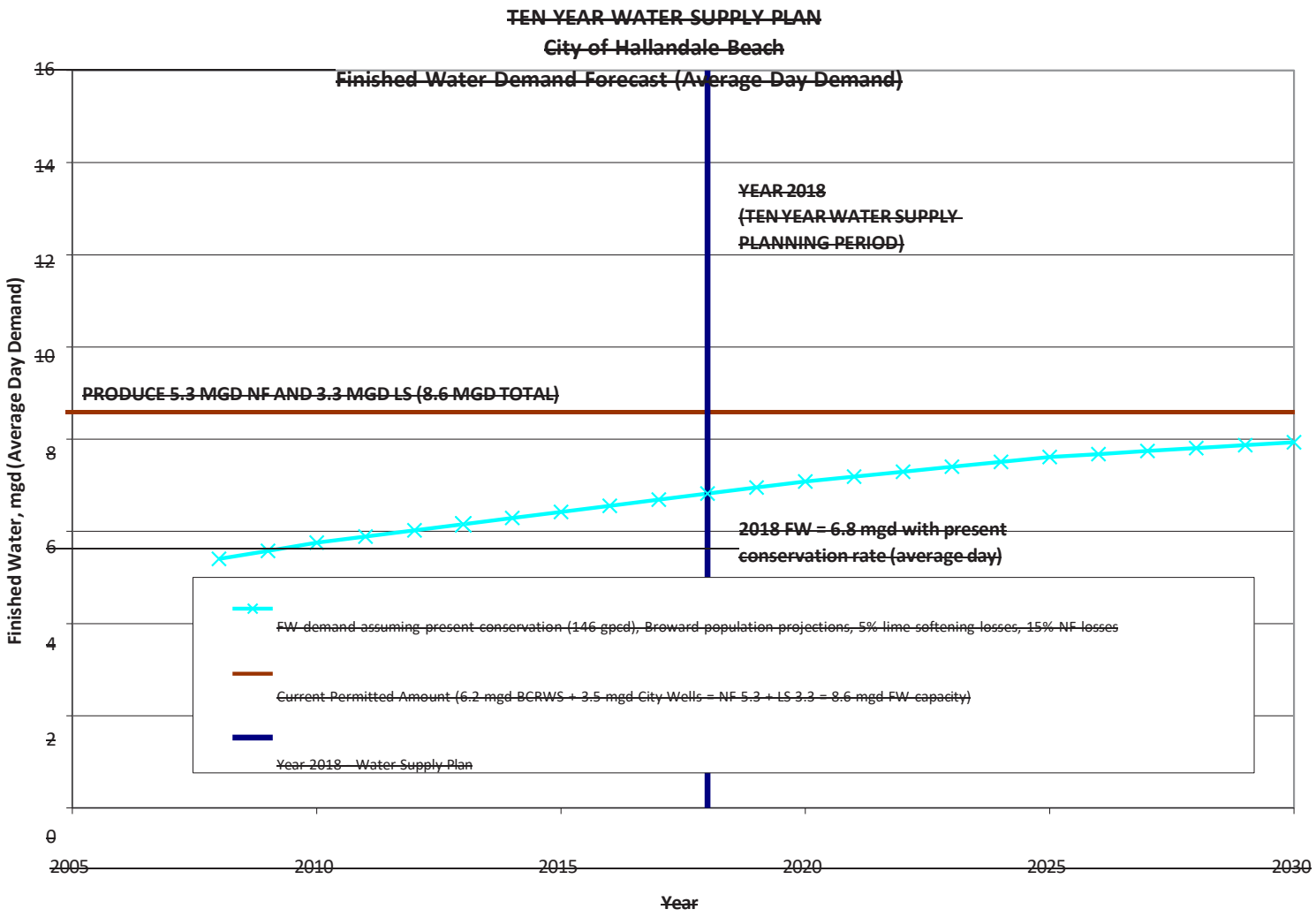


Figure 5- Avg Day Finished Water Demand

EXHIBIT 5-1

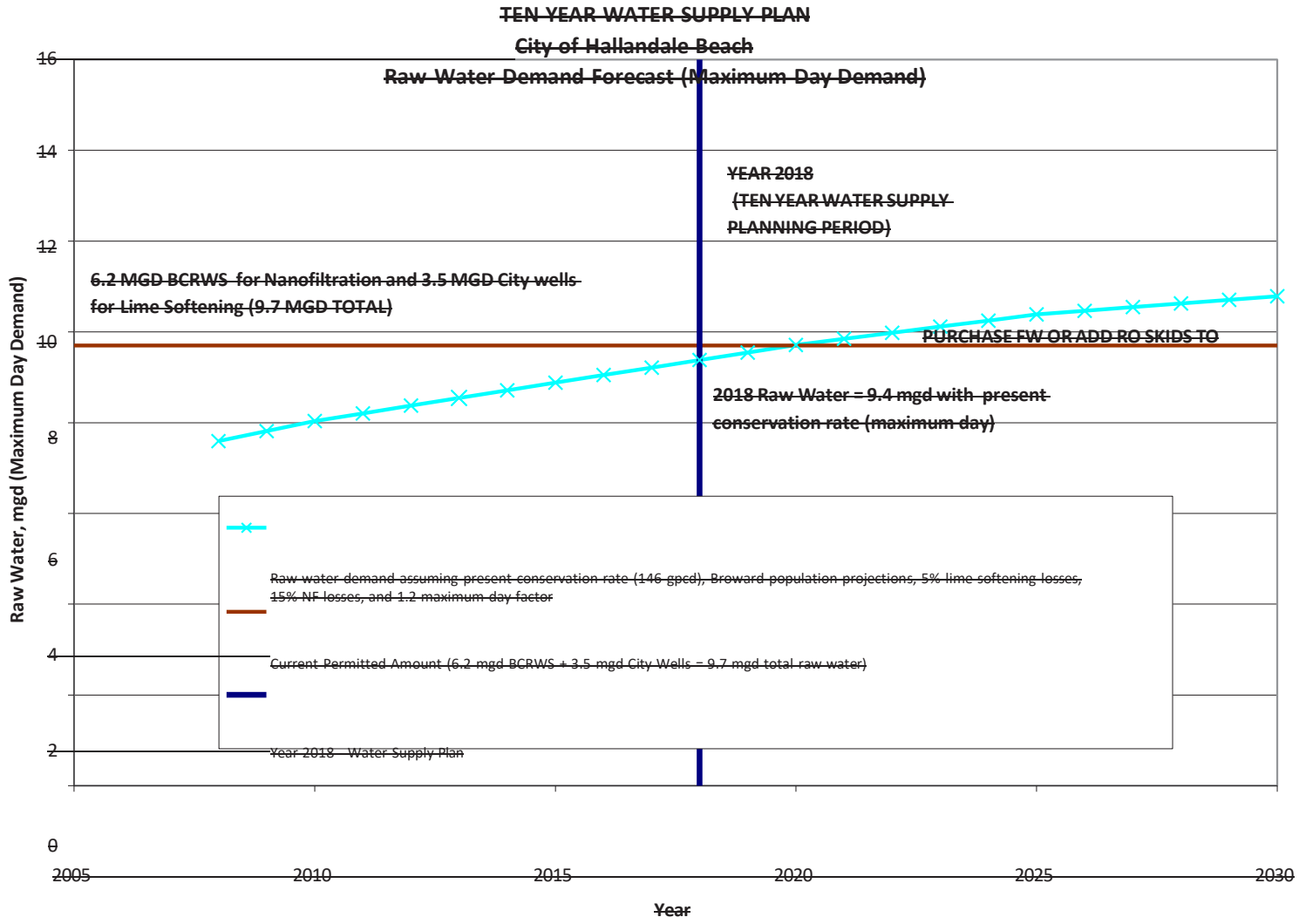


Figure 6- Max Day Raw Water Demand

EXHIBIT 5-1

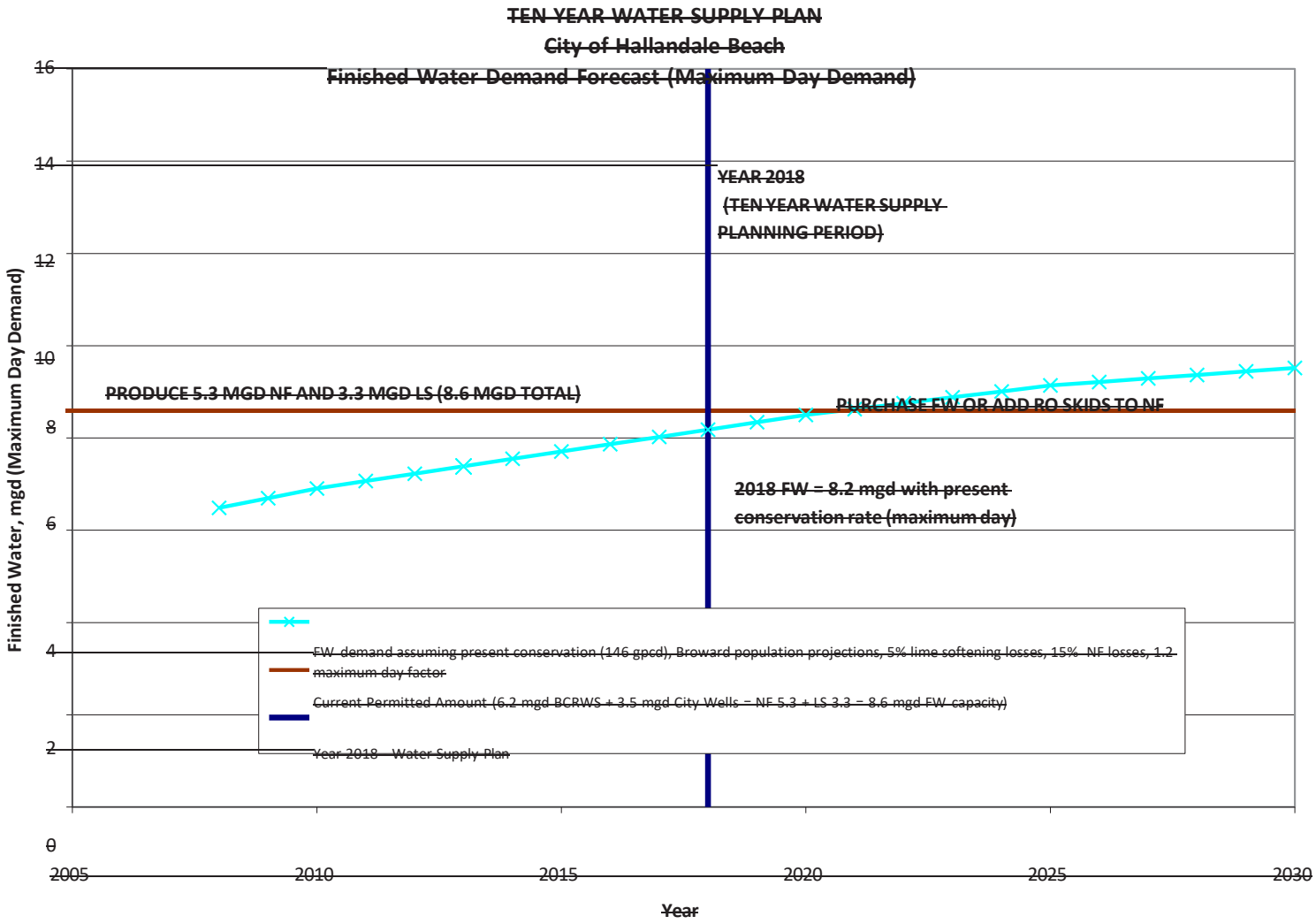


Figure 7-Max Day Finished Water Demand

EXHIBIT 5-1

EXHIBIT 5-1

~~The City is investigating the following alternative water supply methods in an effort to maximize water consumption efficiency:~~

~~1) Additional water conservation programs to reduce future demand~~

~~2) Preserve the life of City wells by monitoring salinity encroachment and implementing strategic improvements~~

~~3) Alternate water suppliers (Cities of Hollywood and North Miami Beach) to meet future demands~~

~~4) Relocation of City's wells to the west, to extend the life of the wells~~

~~5) Aquifer Storage and Recovery~~

~~6) Reuse/Recharge Project~~

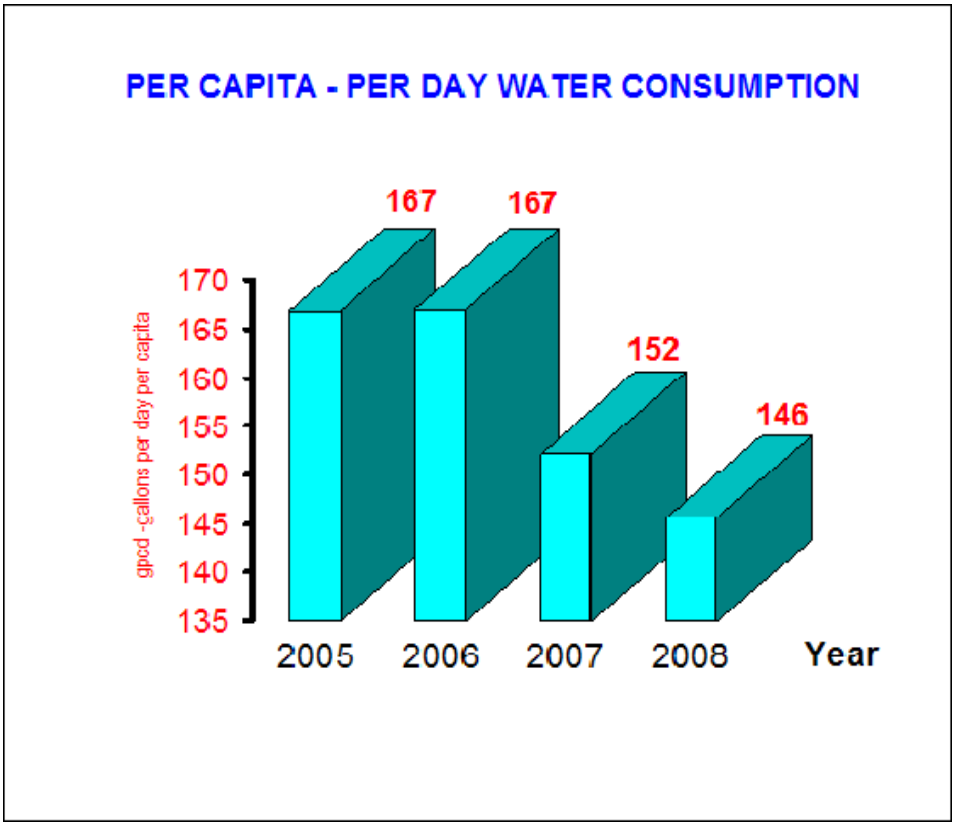
~~7) L-8 Reservoir Project to provide an increased Biscayne Aquifer allowance~~

~~Water Conservation~~

~~The South Florida Water Management District imposed water restrictions in 2007. Hallandale Beach was subject to those restrictions and as a result experienced a 13% decrease in the amount of Finished Water Demand for 2007/2008. Based on the amount of water saved as a result of the restrictions, the City will be able to provide the necessary water to meet future demands simply by continuing its current water conservation measures.~~

EXHIBIT 5-1

~~**Figure 8 Historic Water Consumption 12 Month Average**~~



~~Source: Hallandale Beach Finance Department, Water Billing Rates~~

~~Hallandale Beach has been pursuing water conservation measures for many years. The City currently has several water conservation programs already in place that have been effective in lowering water consumption rates. Listed below are the City's current and future conservation programs:~~

1. ~~The City has adopted an Irrigation Ordinance, City Ordinance 2007-04, Chapter 30 / Section 30-49, enforcing the South Florida Water Management District's (SFWMD) Phase I guidelines, which restricts the watering of landscaping to two days a week. The City has been following Phase III restrictions since 2007 which permits the watering of landscaping only once a week. The City will amend its Irrigation Ordinance to maintain the Phase III restrictions by December 2008.~~

2. ~~City Resolution 87-14 outlining the use of Xeriscape (not requiring additional irrigation) plants and landscaping design details to promote and expand its~~

use according to recommended landscaping planting guidelines intended to reduce or eliminate the need for supplemental irrigation.

3. The City has endorsed and proactively promoted Broward County's NatureScape Irrigation Program and concept, implementing environmentally sound landscaping practices to reduce the irrigation demands. To date the application of these irrigation best practices through NatureScape have generated water savings of close to 10 million gallons / year (every year) or the equivalent economic savings of $13,500 per year (every year) by applying the program recommendations to the City facilities and parks.

Table 8 NatureScape Savings

City Location	Savings (gal/year)	Savings ($/year)
City Hall	824,460	$1,607.70
Hallandale Beach Cemetery (South)	3,436,389	N/A
Hallandale Beach Cemetery (North)	1,525,680	$2,975.08
Cultural Center	556,920	$1,085.99
Bluesten Park	3,555,786	$7,644.94
Bluesten	71,308	$153.31
Community Center	N/A	$0.00
Foster Park	15,600	$33.54
	9,986,143	$13,500.56

Hallandale Beach is currently working with Broward County to registration as a NatureScape City through the National Wildlife Federation (NWF) to become a Certified Community Wildlife Habitat.

4. The City adopted a Rain Sensor Device Ordinance, whereby the City requires any person applying for an irrigation system permit to install, operate and maintain rain sensor devices or to provide for automatic switching mechanisms that will stop the irrigation system with the occurrence of adequate rainfall.

In fiscal year 2007/2008, the City obtained a matching grant from the SFWMD's Water Savings Initiative Programs (WaterSIP) to retrofit sprinkler systems with rain sensors able to suppress unnecessary watering when rain have satisfied the irrigation needs. This free rain sensor retrofit program is a direct incentive for all residents and businesses wishing to install approved rain sensor devices in their irrigation systems. If fully implemented, this program has the potential to conserve around 11.5 million gallons of water yearly.

5. The City adopted an Ultra-Low-Volume Plumbing Fixture Ordinance - City Ordinance Chapter 8, Article 1, Section 8-1, recognizing the Florida Building Code as the enforceable Building Code for the City and codifying the Building Code requirements for ultra-low-volume plumbing fixtures on all new construction.

   The City recently applied for a $50,000 matching grant under the SFWMD's WaterSIP for fiscal year 2009 to further water savings in areas where most opportunities exists, such as toilet flushing retrofits for selective volumes flushing by planning to retrofit 1,000 condominium unit toilets with the potential to save 10-million gallons of water per year. As part of this grant proposal, the City also plans to establish a water reuse infrastructure system for the City facilities, parks and street medians. The water reuse system is anticipated to save between 10,000-25,000 gallons of water per day.

6. The City of Hallandale Beach maintains a utilities (water / sewer) rate structure supporting economic incentives for water conservation. The basis for this financial inducement is to reward lower water users (2,000 gallons or less) with a lower utility rate of $3.86 and incrementally raise the per unit cost for larger users (above 25,000 gallons) to pay a water and sewer maximum rate of $5.87.

7. The City's Public Works Department maintains a Water Utility Leak Detection Program, whereby all water meters are replaced on a 5-year schedule and the large meters are checked and calibrated for accuracy annually.

   In addition, Public Works also maintains a Water Distribution System Leakage Programs, whereby the monthly reports for the water piping distribution system are examined to compare the water pumped vs. the water billed and identify any excessive unaccounted volumes. Historically, the City's water distribution system has unaccounted water losses averaging less than 4%, considerably less than the 10% the South Florida Water Management District allows for coastal communities.

8. The City has maintained a continuous water conservation informational program for its residents, whereby the City periodically issues water conservation messages through newsletters, such as Hallandale Happenings, the annual Water Quality Report, and other means available to convey the need and importance of water conservation.

9. The City has been working to reduce the amount of Inflow and Infiltration (I/I) for over two decades. Though not often highlighted as a means of water conservation, implementation of a strong I/I program also conserves water. Each day hundreds of thousands of gallons of water in the aquifer are lost to wastewater system inflow and infiltration. A strong I/I program can have a

~~dramatic impact on the amount of water saved and the City continues to improve this program to maximize the amount of water conservation.~~

~~For Fiscal Year 2008/2009, the City of Hallandale Beach has~~

~~Alternative Suppliers~~

~~The City of Hallandale Beach has recently been in contact with the City of Hollywood to discuss the possibility of expanding the reuse water system operated by Hollywood's wastewater treatment facility by supplying the City of Hallandale Beach with 800,000 gallons per day (gpd) of reuse water. Hollywood currently provides approximately 225,000 gpd of reuse water to Hallandale Beach for the irrigation of the Diplomat Golf Course which is located in both cities. Hollywood has included the reuse expansion plans in its Water Supply Plan. Under Phase 1 expansion (Figure 3), Hollywood is expected to provide over 500,000 gallons per day of reuse water for Scavo Park (Three Islands Park), located in the north eastern portion of Hallandale Beach.~~

~~In addition to the reuse water provided by Hollywood, Hallandale Beach would also like to pursue a possible water agreement with the City of North Miami Beach. The City has had discussions with NMB regarding the possibility of providing some water to the City on a permanent basis; however, at this time no final agreements have been reached.~~

~~Aquifer Storage and Recovery~~

~~Although there are no current plans to pursue this technology, the City would like to further research this process in the future.~~

~~Reuse/Recharge Project~~

~~The updated 2005-2006 Lower East Coast Water Supply Plan has identified Alternative Water Resource (AWS) options for each public water supply utility. Each utility is to choose an AWS project, or several, to plan for the future needs of its service area. The Cities of Hallandale Beach, Dania Beach and Hollywood and Florida Power & Light all draw water from the Broward County South Regional Wellfield (Piccolo Wellfield). The LEC Plan has recommended a highly treated reuse/recharge project for the Piccolo Wellfield which would require the cooperation of those who receive water from it. This project would provide recharge in sufficient quantities to allow for an increase in groundwater withdrawal.~~

~~L-8 Reservoir Project~~

EXHIBIT 5-1

The Western L-8 Reservoir Project is a potential means of AWS that several municipalities in Southeast Florida are investigating, including Hallandale Beach. The basis for the project involves the construction of a large reservoir in Palm Beach County to divert flow from the C-51 Canal which would ordinarily be lost to tide. Water stored in the reservoir would be used to offset the need for water deliveries from the water conservation areas, or the regional system, thereby allowing for increased recharge of surficial aquifers. It is anticipated that participating utilities would be granted access to a greater water allowance from the Biscayne Aquifer due to lessened demands from the regional system

Water Supply Capital Improvements

Table 9 below outlines the anticipated capital improvement projects the City will undertake to enhance its water conservation program. Although the City's projections indicate the current water conservation program is sufficient to meet all projected water demands beyond the 10-year planning period, the City has incorporated additional conservation programs into the Capital Improvements Schedule in an effort to further reduce water consumption throughout the City.

Table 9 Water Supply Capital Improvement Projects

* Water Supply CIP's	FY2008	FY2009	FY2010	FY2011	FY2012
1. Water Reuse Study, Design and construction	$100,000	$100,000	$100,000	$78,000	$78,000
2. SFWMD – WaterSIP Grant	$50,000	$50,000	$50,000	$50,000	$50,000
3. Water Conservation Incentive Programs	$30,000	$30,000	$30,000	$50,000	$50,000
4. Conservation Promotional Material	$10,000	$10,000	$13,000	$15,000	$15,000
5. Water Wise Fifth Grade Conservation Material	$7,000	$7,000	$7,000	$7,000	$7,000
6. NatureScape Certification	$3,000	$3,000	0	0	0
TOTAL	$200,000	$200,000.00	$200,000.00	$200,000.00	$200,000.00
OVERALL 5 YEAR CIP TOTAL= $1,000,000					

EXHIBIT 5-1

~~* Project Description~~

~~1. **Water Reuse Study, Design, and Construction**~~

~~Fund the Study, Design-Engineering and Initial Construction (Phase 1 of 3) of Water Reuse System to Encompass Rain Harvesting, Storm Water and/or Water Plant Concentrate (Reject Water) for All City Facilities and Street Medians~~

~~2. **SFWMD – WaterSIP Grant**~~

~~[Grant to Be Announced by Mid August 2008]~~
~~Commitment to match South Florida Water Management District grant to be used for:~~
~~1. Water Re-Use for City Facilities (Buildings / Medians)... Install Infrastructure~~
~~2. High Density-High Water Use / Circa 1970s Condominium Toilets... Retrofit Toilet (Use Bldgs Maintenance Crew)~~

~~3. **Water Conservation Incentive Programs**~~

~~Program to Encompass Rebates and Incentives Such as Water-Wise Rebate / Incentive, Ultra Low Flow Toilet Exchange, Plumbing Retrofits / Exchanges (Residential & Commercial), and Other Special Opportunity Incentive~~

~~4. **Conservation Promotional Material**~~

~~City Sponsored / Funded Water Conservation Literature and Small Value Conservation Promotional Materials Such As: Showerheads, Dye Tablets, Faucet Aerators, Conservation Kits, Etc.~~

~~5. **Water Wise Fifth Grade Conservation Material**~~

~~Fifth Grade Math and Science Curriculum Based Water Conservation Educational Classroom Material with Water Savings Kit for Home Retrofits as Homework / Report~~
~~Target: Hallandale Elementary 185 Students & Teachers~~

~~6. **NatureScape Certification**~~

~~Registration for NatureScape and Certification~~
~~Satisfy and Provide Requirements for Official Registration~~
~~Continue Process towards Certification by Satisfying and Providing Official Certification Requirements and Provide Support for Team Volunteers~~

~~Goals, Objectives, and Policies~~

~~Future Land Use Element~~

~~**GOAL**: To provide a coordinated and compatible mix of land uses which encourages a high quality of life meeting the social, economic and physical needs of the present and future population of Hallandale Beach, while insuring reasonable environmental protection and timely and efficient provision of services.~~

~~**OBJECTIVE 1.1**: Levels of Service: The City shall continue to condition approval of development applications upon maintaining the provision of services~~

6.1 INTRODUCTION

The City of Hallandale Beach is an urban environment predominated by a mixture of commercial and residential development. Intensive development has occurred because of the proximity to the Atlantic Ocean. Because of the high density of development, coastal management issues faced by the City in the future will emphasize maintenance, redevelopment or enhancement of existing urban environments rather than protection of natural systems. The Coastal Management Element has been developed to serve as a planning framework for guiding future coastal management decisions in the City of Hallandale Beach.

6.2 GOALS, OBJECTIVES, AND POLICIES

6.2.1 INTRODUCTION

The City's goals, objectives, and policies were generally derived from the evaluation of existing and projected conditions within the coastal area.

GOAL 1: The City of Hallandale Beach shall restrict development activities that would damage or destroy coastal resources.

OBJECTIVE 1.1: The City shall continue to protect and conserve remaining coastal wetlands, living marine resources, coastal barriers and wildlife habitat in conjunction with the Broward County Department of Environmental Protection (DEP).

a. The City shall limit the specific and cumulative impacts of development or redevelopment upon wetlands, water quality, water quantity, wildlife habitat, living marine resources and the beach dune system through the review of developments in conjunction with County and state DEP. Any material to be excavated seaward of the coastal construction control line (CCCL) as part of construction adjacent to the CCCL shall remain in and be placed as fill onsite seaward of the CCCL. Any necessary fill material shall be free of construction debris, rocks or other foreign matter. Any such construction shall result in net beneficial impacts to the beach/dune areas, nesting sea turtles, their hatchlings, and their habitat.

b. The City shall coordinate with DEP on the guidelines for local government implementation of sea turtle conservation programs developed in conjunction with the Florida Bureau of Marine Research.

c. The City shall coordinate with DEP in order to contribute to the enhancement and restoration of local fisheries and hardbottom communities.

POLICY 1.1.1: The City shall review potential impacts of development plans on public facilities, services and evacuation plans for sites within the City's Coastal area boundaries.

POLICY 1.1.2: The City shall restrict construction or redevelopment in areas controlled by State Coastal Construction Control Lines (CCCL) pursuant to the authority granted in Section 161.053, Florida Statutes.

POLICY 1.1.3: The City shall require that developers use construction methods which will minimize adverse environmental impacts and reduce the flood risk.

POLICY 1.1.4: The City shall continue to require building construction elevations consistent with minimum federal flood insurance regulations.

POLICY 1.1.5: The City shall continue to require building construction techniques consistent with, or more stringent than, the flood-resistant construction requirements in the Florida Building Code and applicable flood plain management regulations set forth in Title 44 C.F.R. Part 60.

POLICY 1.1.6: The City shall identify and catalog all existing resource protection plans applicable to it. A designated City representative will make contact with each agency regulating resource protection and formulate strategies to coordinate resource protection efforts to eliminate overlap.

OBJECTIVE 1.2: The City shall implement regulations, as needed, through the Unified Land Development Code, to maintain or improve estuarine environmental quality consistent with all applicable state and local regulations.

POLICY 1.2.1: The City shall continue to require that all new or refitted stormwater collection systems comply with applicable State and County codes.

POLICY 1.2.2: The City shall continue to monitor and abide by all NPDES requirements to reduce pollution and improve water quality in all City's water bodies.

POLICY 1.2.3: The City shall continue to implement its canal maintenance dredging, as needed, to improve overall water quality and tidal flushing characteristics.

POLICY 1.2.4: The City shall continue to coordinate with representatives of all local coastal governments which are within at least two miles of the boundaries of the Hallandale Beach Coastal area, including Dania Beach, Hollywood, Aventura, Golden Beach, and Sunny Isles, to discuss plans and strategies and the implementation of specific programs to ensure (1) adequate sites for water-dependent uses, (2) prevent estuarine pollution, (3) control surface water runoff, (4) protect living marine resources, (5) reduce exposure to natural hazards, and (6) ensure public access to the Intracoastal Waterway and Atlantic beaches.

POLICY 1.2.5: The City shall continue to require that developers incorporate design elements which will benefit the natural and urban environments of Hallandale Beach.

POLICY 1.2.6: The City shall promote the use of pervious pavement and native landscaping method in order to reduce the deleterious effects of runoff on adjacent ecosystems and property owners through land development regulations and incentive programs.

OBJECTIVE 1.3: The City shall provide criteria for prioritizing shoreline uses in the following manner:

a. Primary priority shall be afforded to water dependent uses including docking facilities, beach, beach easement accessways and residential small dock facilities.

b. Secondary priority shall be directed to water related uses involving parking facilities for shoreline access and residential structures in conformity with all applicable codes.

POLICY 1.3.1: The City shall coordinate with the Broward County Department of Environmental Protection (DEP) in the siting of water dependent uses, including all marina siting activities.

POLICY 1.3.2: The City will ensure measurability through consistency with the Land Development Regulations. Development of these uses will occur through innovative design and siting criteria incorporated into the Land Development Regulations. Building permits shall be used to regulate these activities.

OBJECTIVE 1.4: The City shall coordinate with Broward County's DEP in protecting and enhancing dunes and coastal biological communities.

a. Monitor and assist in the enforcement of State mandated construction standards which minimize the impacts of man-made structures on dunes.

b. The City shall participate in the revegetating of the City beach with County DEP, as needed.

POLICY 1.4.1: The City shall participate in Federal, State and County Beach Renourishment Programs to replace beach sand deposits lost to erosion.

OBJECTIVE 1.5: Protect sites with historic or cultural value during site planning, development or redevelopment activities in accordance with procedures developed during implementation of policies of the Housing Element's goals, objectives, and policies.

POLICY 1.5.1: The City shall require that development or redevelopment plans include an assessment of sites or structures of historical or cultural value. Development shall include sensitive reuse of historic resources as they are identified.

GOAL 2: The City of Hallandale Beach shall protect human health and safety in the coastal area.

OBJECTIVE 2.1: The City shall adopt the hurricane evacuation times developed by the South Florida Regional Planning Council listed in SFRPC's Regional Hurricane Evacuation Model Traffic Study.

All Scenarios 4-8 Hours

POLICY 2.1.1: The City shall participate with Broward County in the development of evacuation plans and strategies to provide adequate public transportation for residents during evacuation, with particular emphasis towards senior citizens and handicapped residents.

POLICY 2.1.2: The City shall request participation in the development of schedules for major construction and maintenance activities conducted by the State, County or Municipal transportation departments along primary evacuation routes. This is to avoid scheduling of major work during seasons of highest hurricane incidents which would hamper evacuation of the coastal area.

POLICY 2.1.3: The City will assist in the development and implementation of local public information programs to annually advise residents of high risk areas of evacuation routes and evacuation schedules.

POLICY 2.1.4: The City shall participate in regular reviews and revisions to Broward County's adopted Emergency Preparedness Plan.

POLICY 2.1.5: The City shall provide data regarding City evacuation facilities to the County to be used in the County's evacuation efforts for South Broward and North Miami-Dade County areas.

POLICY 2.1.6: The City shall require that proposed developments, which would result in a concentration of elderly and/or handicapped residents, provide plans and methods of evacuation as part of their development planning.

POLICY 2.1.7: The City shall require that development within the coastal area not impede traffic flow along the primary evacuation routes.

POLICY 2.1.8: The City shall follow the recommendations included in the hazard mitigation annex of the local peacetime emergency plan and applicable existing interagency hazard mitigation reports to reduce the exposure of human life and public and private property to natural hazards.

OBJECTIVE 2.2: The City shall direct populations away from High-Hazard Areas in concert with the established hazard mitigation strategies developed by Broward County.

POLICY 2.2.1: In the event of major destruction, the City shall enforce its present density standards. However, it may allow under certain conditions, densities which are no greater than those existing prior to the major destructive force.

POLICY 2.2.2: The Coastal High-Hazard Area (CHHA) is defined by Chapter 163.3178(2)(h) F.S. as the area below the elevation of the Category 1 storm surge line as established by a Sea, Lake, and Overland Surges from Hurricanes (SLOSH) computerized storm surge model. Application of mitigation and the application of development and redevelopment policies, pursuant to s. 380.27(2), F.S. and any rules adopted thereunder, shall be at the discretion of local government.

POLICY 2.2.3: The City shall continue to participate in the National Flood Insurance Program Community Rating System administered by the Federal Emergency Management Agency (FEMA) to achieve flood insurance premium discounts for its residents.

POLICY 2.2.4: New development and infrastructure in areas modeled to be within the CHHA and/or FEMA flood zones will be encouraged to use best practices to address sea level rise.

POLICY 2.2.5: The City shall incorporate Low-Impact Development (LID) techniques into all new public projects within FEMA flood zones and the CHHA when applicable, including infrastructure improvements proposed in the Basis of Design Report 2016). LID is defined as an ecologically-based stormwater management approach favoring soft engineering to manage rainfall on site through a vegetated treatment network (University of Arkansas Community Design Center, 2010).

OBJECTIVE 2.3: The City shall develop additional strategies to identify and address issues related to climate adaptation in cooperation with Broward County, the Broward County Planning Council, the Southeast Florida Regional Climate Change Compact, and other applicable Federal, State, and local agencies.

POLICY 2.3.1: Based on modeling of current and future sea-level rise, the City of Hallandale Beach shall continue to identify potential adverse impacts and map areas vulnerable to these impacts. This shall include the identification of existing, pending, and proposed development and infrastructure—including air conditioning units, water pumps, generators and any other ground-mounted electrical and mechanical equipment—that would be inappropriate or unsafe as a consequence of current and future flood hazard within the plan's long-range planning horizon.

POLICY 2.3.2: The City shall develop an Adaptation Action Area designation for those low-lying coastal zones that are experiencing coastal flooding due to extreme high-tides and storm surge and are vulnerable to the impacts of rising sea level, and consider policies within the Coastal Management Element to improve resilience to coastal flooding resulting from high-tide events, storm surge, flash floods, stormwater runoff, and related impacts of sea-level rise. Designating adaptation action areas should be done in coordination with Broward County, adjacent municipalities where applicable, Florida Department of Transportation, and other agencies that plan for or own, operate, and maintain public facilities/infrastructure within or crossing proposed adaptation action areas. Criteria for the adaptation action area may include, but need not be limited to, areas for which the land elevations are below, at, or near mean higher high water, which have a hydrologic connection to coastal waters, or which are designated as evacuation zones for storm surge.

POLICY 2.3.3: The City shall continue to include development and redevelopment principles, strategies, and engineering solutions that reduce flood risk in coastal areas which results from high-tide events, storm surge, flash floods, stormwater runoff, and the related impacts of sea-level rise.

POLICY 2.3.4: The City shall consider the effect of sea level rise when repairing and improving its stormwater management system with the intent of increasing the useful lifespan of the system under projected sea-level rise. The City shall utilize the unified sea-level-rise projections established by the Southeast Florida Regional Climate Change Compact.

GOAL 3: The City shall discourage or limit development in areas subject to destruction by natural disasters.

OBJECTIVE 3.1: The City shall continue to monitor established limits on levels of service and areas of service for infrastructure systems to existing levels of service within the high hazard area. The City on an on-going basis shall continue to monitor coastal infrastructure to ensure that coastal infrastructure capacities are not expanded beyond existing capacities.

POLICY 3.1.1: The City shall not expand capacity of utilities or other infrastructure serving high-hazard areas beyond existing levels but will only make improvements based on public safety, adaptation to sea level rise, and maintenance needs.

OBJECTIVE 3.2: The City shall continue to coordinate with Broward County in the development of ~~a~~ post-disaster redevelopment plans and adopt such plans by reference within one hundred twenty (120) days after the County submits their plan, if deemed compatible with City plans. If not, mediation will be sought to settle disputes.

POLICY 3.2.1: The City shall establish priorities for shoreline land uses as part of the Post-disaster redevelopment plan.

POLICY 3.2.2: As part of the City's Post-Disaster Plan, the City will develop a plan for the replacement of infrastructure in the CHHA that integrates additional innovative climate adaptation and mitigation to the extent financially feasible.

POLICY 3.2.3: The City shall prepare Post-Disaster Redevelopment Plans for the CHHA that identify strategies to reduce or eliminate the exposure of human life, public property, and private property to natural hazards by 2020.

POLICY 3.2.4: The City shall encourage the ~~begin~~ retrofitting and/or relocating public facilities out of flood zones and the CHHA following damage or destruction from natural disasters, tidal flooding, and/or Sea-Level Rise with the exception of water dependent uses such as beach access corridors.

POLICY 3.2.5: Following a declared natural emergency, the City shall permit the placement of temporary residential structures on private property for up to 36 months in accordance with state law and shall develop procedures for activating specialized building inspection teams and entering into interlocal agreements to expedite post-disaster recovery and ensure structural safety.

POLICY 3.2.6: Following a declared emergency, the City shall comply with Chapter 2025-190, Laws of Florida, and shall not adopt or enforce land development regulations, comprehensive plan amendments, or procedures that are more restrictive or burdensome than those in effect prior to the emergency, except as otherwise permitted by state law. The City shall prioritize timely permitting and recovery efforts to facilitate redevelopment.

OBJECTIVE 3.3: The City shall maintain the five existing public access walkways to the Beach between private developments and the accessibility to the beach at the two City-owned beach parks.

POLICY 3.3.1: The City will work with State, Federal and/or private business funding sources to provide matching funds or other incentives for coastal land acquisition for additional access corridors.

POLICY 3.3.2: The City will participate in monitoring bus routes in order to ensure adequate bus transit and bus stops for public access to beaches.

6.3 ENVIRONMENTAL SETTING

The coastal area of Hallandale Beach is defined as the area within the City lying east of U.S. Highway 1 (Federal Highway). The area is bounded on the north by the City of Hollywood (Moffitt Street extended), on the south by the Miami-Dade County/Broward County line, and on the east by the Atlantic Ocean. Hallandale Beach planning districts which are located within the coastal area include the Northeast Planning District, the Diplomat/Three Islands Planning District, and the Golden Isles/A1A Planning District, and about half of the Gulfstream Planning District.

6.3.1 EXISTING AND PROJECTED CONDITIONS

Along the coastal zone of Florida, the greatest potential for natural disaster is associated with hurricanes. The Broward County Hurricane Plan lists the following hazards anticipated to accompany hurricanes:

- Extremely strong winds
- Abnormally high tides and wind-driven waves
- High amounts of rainfall leading to flooding
- Storm surge effects

Preparation for and response to such hazards at the County and municipal level has been structured into five phases or stages.

1. Preparatory Stage: Year-round preparations include distribution of public information, emergency personnel assignment and training, and interagency coordination.

2. Phase I (Watch Stage): Hurricane watch conditions indicate that a hurricane may strike within a 24- to 48-hour period. Pre-storm preparations will include review of hurricane plans, assignment of personnel to fill vacancies in emergency staff, placement of staff on standby, preparation to activate emergency operations centers (EOCs), testing of communications systems, fueling of vehicles, and increased use of public information channels to alert the public of the storm conditions.

3. Phase II (Warning Phase): A hurricane warning advisory is issued by the National Hurricane Center when a hurricane strike is anticipated within 24 hours. Phase II activities will include pre-storm mobilization of emergency staff, EOCs, communications systems, emergency equipment, etc. As appropriate, evacuation efforts will be initiated.

4. Phase III (Impact Phase): During this phase, emergency forces would conduct emergency operations, and begin assessment of damages and the need for assistance and resources for recovery operations. The level of activity would be determined by the severity of the storm.

5. Phase IV (Recovery Phase): This phase would include continued emergency operations, with emphasis on high-priority rescues, repair of vital public service systems and facilities, and provision for public health and safety. The objective is to return public services to normal operations as quickly as possible.

6.3.1.1 HURRICANE EVACUATION PLANS

Hurricane evacuation plans for the City of Hallandale Beach are coordinated with Broward County and the South Florida Regional Planning Council (SFRPC) and are currently identified in the SFRPC's Regional Hurricane Evacuation Model Traffic Study. In addition, the City of Hallandale Beach Emergency Procedures Manual identifies hurricane-related emergency planning and operations to be conducted by the City. Both plans assign task responsibilities and outline general procedures to be followed in the event of a hurricane. The City's emergency procedures are reviewed annually to reflect changes in personnel assignments and other factors impacting the capability to respond to hurricane conditions.

Concurrently, two evacuation scenarios exist for the Hallandale Beach area. Plan A provides for evacuations for a Category 1 or 2 storm having winds of 74 to 110 miles per hours. Under this plan, residents of the barrier island would be advised to evacuate. With Category 3 to 5 storm intensities (110 miles per hour to greater than 155 miles per hour), Plan B would be implemented to evacuate residents of all Hallandale Beach areas east of Federal Highway in addition to residents of the barrier island.

6.3.1.2 HURRICANE VULNERABILITY ZONE

The hurricane vulnerability zone for Hallandale Beach includes areas within approximately 2 miles of the Atlantic Ocean that have been identified as within the zone likely to be flooded by a hurricane tide with a probability of occurrence about once in every 100 years. The area encompassed is approximately bounded on the west by Federal Highway.

(A) 58 percent of the population of the City of Hallandale Beach lived east of Federal Highway/US 1 in 2000.

(B) The exact number of persons requiring evacuation in the event of a hurricane is not known. If the percent of residents living east of Federal Highway has increased to 60 percent, a permanent population of around 20,500 persons could live in the hurricane vulnerability zone. Since the hurricane season runs from June through November, and the peak months for seasonal residents are December through April, seasonal residents are not likely to add to the affected population. In fact, because the proportion of seasonal residents is highest in the hurricane vulnerability zone. Therefore, the affected population could be somewhat less than the permanent population.

(C) In its Hazard Vulnerability Analysis (1984), the Broward County Emergency Preparedness Division noted that studies have shown a high degree of complacency among residents of high-risk areas, and that an estimated 25 percent of the residents of such areas would not evacuate prior to a hurricane. Thus, approximately 15,500 Hallandale Beach residents are estimated to participate in evacuation from the vulnerability areas.

Evacuation of residents from the adjacent communities along the southern end of Hollywood Beach and from Golden Beach will affect evacuation of residents from the intracoastal area of Hallandale Beach since a common evacuation route will be used (Hallandale Beach Boulevard).

6.3.1.3 HURRICANE SHELTERS

According to the current Broward County Hurricane Evacuation Map, the primary shelter designated to receive evacuees from the Hallandale Beach coastal area is Watkins Elementary School in the Town of Pembroke Park (3520 SW

52nd Avenue), approximately 1.5 miles west of the City's western boundary. In addition, the County has a total of 12 Regional Hurricane Shelters for City residents to utilize.

Evacuation shelter locations may be reviewed periodically, and changes will be publicized in conjunction with the County.

As with evacuation, the exact number of persons who will need assistance in finding shelter from a hurricane is not known. However, it is reasonable to assume that a large number of residents will find shelter with friends or relatives. If only half of the residents in the evacuation zone (east of North Federal Highway/ US 1) were able to provide their own shelter, approximately 10,000 people would need to be sent to the county shelters. In the event that additional shelter space was needed, other nearby schools (for example Hallandale Elementary School) would be likely sites for additional shelters.

6.3.1.4 EVACUATION ROUTES AND TIMES

Broward County Hurricane Evacuation Map indicates two different hurricane evacuation plans: Plan A and B. Plan A is typically used for a Category 1-2 storm and includes all areas east of the Intracoastal Waterway. Plan B is typically used for a Category 3 or higher storm and includes areas east of Federal Highway / US 1. Under either Plan A or B, Hallandale Beach Boulevard will serve as the primary evacuation route for areas lying within the City of Hallandale Beach between the beach and the Intracoastal Waterway. It will bear the majority of evacuees from areas between Federal Highway and the Intracoastal Waterway if those areas are evacuated under Plan B. Hallandale Beach Boulevard will also serve as the primary evacuation route for some residents of Hollywood Beach and Golden Beach.

The amount of time needed to evacuate the Hallandale Beach vulnerability zone is identified in the SFRPC's Regional Hurricane Evacuation Model Traffic Study. Under all SFRPC evacuation scenarios, all evacuees can clear the area within 4-8 hours.

6.3.1.5 POTENTIAL CONSTRAINTS OF EVACUATION ROUTES

The drawbridge across the Intracoastal Waterway is the primary constraint on use of Hallandale Beach Boulevard for evacuation of residents from the barrier island. Evacuation planning assumes bridge integrity. This bridge provides the primary avenue of departure for the barrier island residents. If for some reason the Hallandale Beach Boulevard Bridge was unusable, residents could travel to several other nearby Intracoastal Waterway bridge crossings including the William Lehmann Causeway (SR 856) located about 1.5 miles south of the City Limits connecting SR A1A in Sunny Isles Beach to the mainland in the City of Aventura, at Hollywood Boulevard (SR 820) located about 2 miles north of the City Limits connecting SR A1A to the mainland, Sheridan Street (SR 822) located about 4 miles north of the City Limits and Dania Beach Boulevard located about 6 miles north of the City Limits.

Similarly, there are a limited number of routes out of the Three Islands and Golden Isles areas. Orderly evacuation will require uninterrupted traffic flow over the bridges that connect these communities with the rest of Hallandale Beach.

Traffic congestion along Hallandale Beach Boulevard may be anticipated because of the large number of people that will be moving out of the evacuation area. Traffic control points have been designated along the primary evacuation route. The City of Hallandale Beach Police Department has developed contingency plans to assist traffic flow in the event evacuation is ordered.

6.3.1.6 SPECIAL EVACUATION NEEDS

Some residents of the areas to be evacuated may not have or be capable of providing independent transportation because of age or health limitations. When an evacuation is ordered Broward County Transit (BCT) buses will pick up riders along SR A1A (Ocean Boulevard) at regular bus stops under Evacuation Plan A and along SR A1A and Federal Highway (US 1) at regular bus stops under Evacuation Plan B. BCT buses can also be flagged down within the evacuation zone and the buses will continue as weather permits. Broward County Transit Paratransit Service section coordinates transportation of persons with disabilities to and from shelters (pre-registration is required).

Bus transportation would provide a means of evacuation

for some of those with special needs. Since many of the Hallandale Beach residents within the vulnerability zone are elderly, mass transit will be a particularly important means of resident evacuation from this area. After Hurricane Wilma in 2005, many lessons were learned that will enable emergency management response teams to better plan efforts. The City in conjunction with Broward County has established the Vulnerable Population Registration list to help assist those with special needs.

Due to the large number of elderly residents within the vulnerability zone, it is likely that many evacuees will have limited mobility. This may lengthen the amount of time needed to complete the evacuation. For this reason, Hallandale Beach will meet with Broward County's Emergency Management Agency to be sure that the County's plan recognizes the potential impacts of Hallandale Beach's demographic makeup. If changes to County plans need to be made, both the possibility of increasing the number of evacuation vehicles and the possibility of an earlier start of the evacuation will be considered.

6.3.1.7 IMPACT OF FUTURE LAND USE AND POPULATIONS

The coastal zone of Hallandale Beach is almost completely developed. Because very little vacant land is available, the projected impact of future development and associated population expansion on hurricane evacuation plans should be relatively low.

The effects of future development and population growth may be minimized through periodic re-evaluation of anticipated evacuation loads, and update of the local evacuation plans.

6.3.1.8 MEASURES TO MAINTAIN EVACUATION CAPABILITY

Evacuation capability is limited by two primary factors: evacuation route integrity and the efficiency and capacity of the mass transit system in evacuee transport. Route integrity should be protected to the extent possible by scheduling of potentially disruptive construction operations to avoid the peak (August-September) hurricane season. Special care should be taken during planning of activities in the immediate vicinity of the Hallandale Beach Boulevard Bridge.

Evacuation capability for those with special transportation needs could be improved by expanding the available bus service. Increased bus service in advance of population growth could reduce the time presently anticipated to be necessary to accomplish evacuation.

If evacuation capacity is merely to be maintained, increased transportation capacity will still be necessary as population expansion occurs. This assumes proportional growth by the transit-dependent population segment. The County should regularly evaluate the need to increase mass transit capability.

As populations increase, improved or maintained evacuation capability will require provision of additional refuge facilities. The County should identify additional shelters for Hallandale Beach evacuees.

6.3.1.9 POST DISASTER REDEVELOPMENT ANALYSIS

In its Hazard Vulnerability Analysis, the Broward County Emergency Preparedness Division (1984) stated that the entire county is vulnerable to hurricane wind damage and indicated that approximately 25 percent of the County's population resided in areas or dwellings considered to be within the coastal vulnerability zone.

The County's report presented a range of scenarios for vulnerability of buildings to hurricane winds of varying strengths. For Category 3-5 hurricanes (winds from 110 to over 155 miles per hour), wind-related damage would occur to 50-100 percent of all single unit residential buildings, to 40-80 percent of other residential buildings, and to approximately 30-67 percent of all nonresidential buildings. The potential for extensive storm-related damage is quite evident. Post-hurricane redevelopment needs similarly would be extensive.

The state legislation (Chapter 163.319(2)(m) F.S.) was changed to require analysis of private property rights in Coastal High Hazard Areas (CHHA) as a result of previously required development intensity decreases. Many older coastal buildings in the City were built at much higher

densities than are currently permitted on the current Future Land Use Map. If a natural disaster were to occur and damage to buildings occurred, consideration is to be made if the development could be built back to existing densities, despite current lower density allowances. The City under certain conditions may allow densities which are no greater than those existing prior to a major destructive force. In such a situation, the City must consider and evaluate if any past reduction in land use density may impair the property rights of current residents when redevelopment occurs. Property rights of current residents must be balanced with public safety considerations.

Broward County's Charter provides for County wide planning authority over all of Broward County including the municipalities. The County adopted a Land Use Plan for all of Broward County in 1977 that reduced maximum permitted density from up to 100 units per acre to a maximum of 50 units per acre. The day of the adoption a significant number of residential projects in Broward County and in particular Hallandale Beach became legal non-conforming uses as many of the residential projects were constructed at densities higher then 50 units to the acre. See the next section for a more detail discussion on property rights in the Coastal High Hazard Area of the City.

6.3.1.10 COASTAL HIGH-HAZARD ANALYSIS

Within the coastal high-hazard area (east of the Intracoastal Waterway), a variety of infrastructure elements could be damaged by a major hurricane. Key elements of the transportation system are the roadways. Ocean Drive (U.S. A1A), Hallandale Beach Boulevard, and adjacent roadways within the vulnerability zone are vulnerable to damage from storm surge or tidal flooding.

There are 12 bridges located in Hallandale Beach within a mile of the Atlantic Ocean. The Hallandale Beach Boulevard Bridge over the Intracoastal Waterway, the N.E. 9th Street and Three Islands Boulevard Bridges over DeSoto Waterway, and the Parkview Drive Bridge over Venetian Waterway are critical elements of the transportation infrastructure.

Additionally, there are 8 small bridges linking the Golden Isles residential communities with the rest of the City. Most of these small bridges are constructed at ground level making them susceptible to hurricane-related flooding. Potable water supply and sanitary sewer lines serving the waterfront communities accessed by these small bridges are suspended beneath the bridges. Utilities services within this area could be disrupted by hurricane-related flooding or tidal currents.

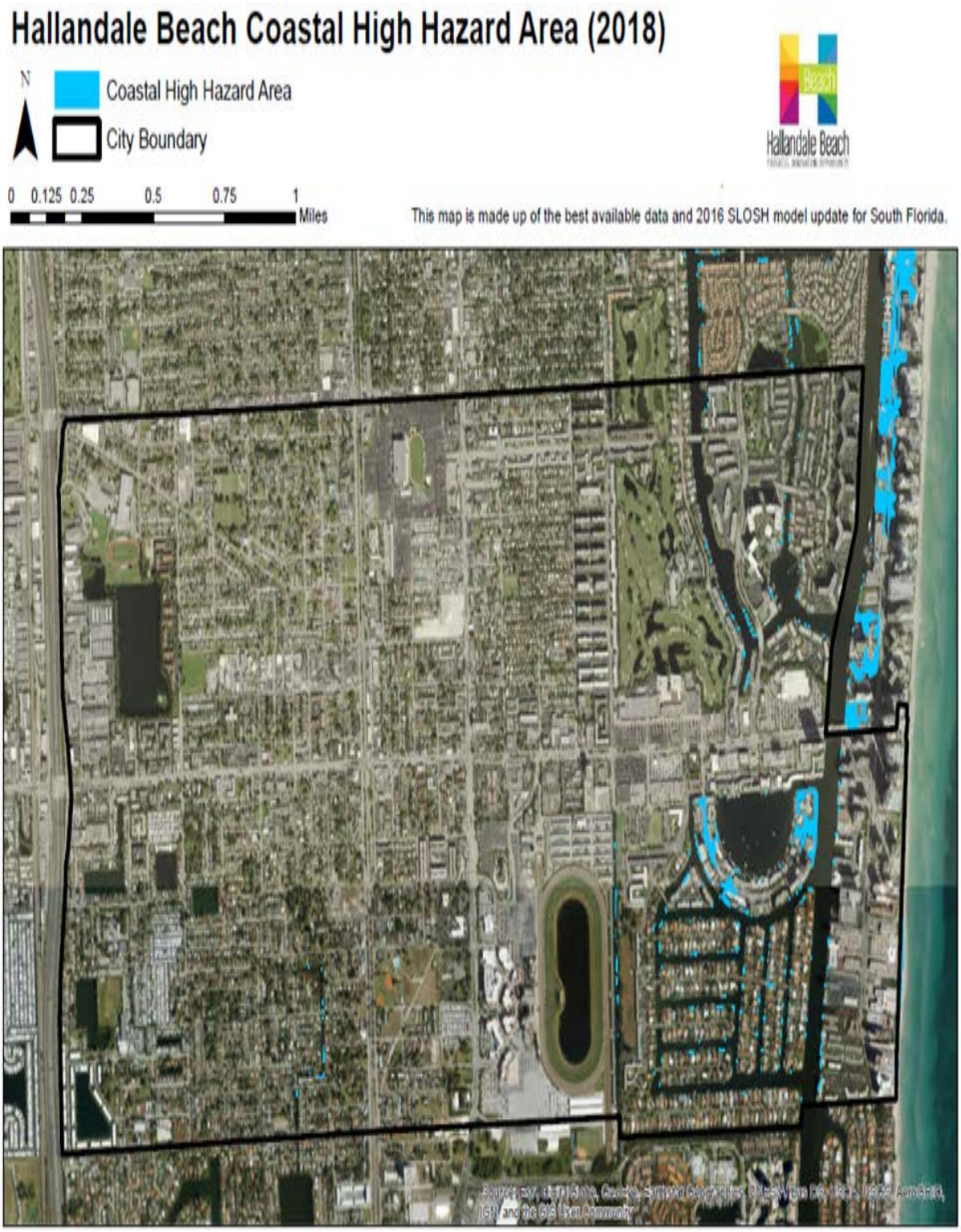
Two power transmission line crossings of the Intracoastal Waterway are present in the Hallandale Beach planning area. These lines, located at the Hallandale Beach Boulevard Bridge and at the southern margin of the City at the Intracoastal Waterway, are subaqueous crossings and therefore may escape major disruption. However, the shoreline areas where the lines enter and exit the water represent vulnerable points where the lines could suffer damage. Above-ground power distribution lines would likely be damaged by hurricane-force winds.

The beaches of Hallandale Beach will be directly impacted by hurricane-force winds and storm-related wave erosion. Beach impacts are likely to be significant, and storm damage to adjacent beachfront properties is anticipated. Post-hurricane beach renourishment may be necessary to restore existing facilities should significant erosion occur.

Some potential for developing less vulnerable infrastructure exists. For example, in new or redeveloped developments, consideration could be given to installation of power, cable television, and telephone lines below-ground to eliminate the potential for wind damage. Installation of such highly vulnerable systems below-ground could lower the risk of extended loss of public services because of hurricane damage.

The Coastal High-Hazard Area (CHHA) is defined by Chapter 163.3178 F.S. as the area below the elevation of the Category 1 storm surge line as established by a Sea, Lake, and Overland Surges from Hurricanes (SLOSH) computerized storm surge model. The SLOSH model for South Florida has not been finalized or adopted as of May 2009. Application of mitigation and the application of development and redevelopment policies, pursuant to s. 380.27(2), and any rules adopted thereunder, shall be at the discretion of local government.

FIGURE 6-1
COASTAL HIGH HAZARD AREA



Hallandale Beach Future Expansion of CHHA

N

2018 Coastal High Hazard Area

2040 CHHA (1 foot SLR)

2060 CHHA (2 feet SLR)

0 0.125 0.25 0.5 0.75 1 Miles

This map is made up of the best available data and 2016 SLOSH model update for South Florida.



Chapter 163.319(2)(m) F.S. requires all local governments located in a Coastal High Hazard Area (CHHA) to perform an evaluation on any past reduction in land use density that may impair the property rights of current residents following a natural disaster. Property rights of current residents must be balanced with public safety considerations. Coastal High Hazard Area means the area subject to high velocity waters caused by but not limited to hurricane wave wash. The area is designated on the current FIRM map as zone V1--30, VE or V. The area within the City that is within the CHHA is east of the Intracoastal Waterway (see Figure 6-1) and consists of approximately 98 acres with approximately 7,526 units. This equates to an average density of approximately 76.66 units per acre. The current FLUM designation for the majority of the area is 25 units to the acre with a few parcels having a FLUM designation of up to 50 units per acre. Many individual parcels or properties exceed the maximum land use designation of 50 units to the acre. Table 6-1 shows a listing of all development currently within this area and an estimate of the development density.

If a natural disaster were to occur and damage to buildings in the CHHA occurred, consideration is to be made if the development could be built back to existing densities, despite current lower density allowances. The City under certain conditions may allow densities which are no greater than those existing prior to a major destructive force. In such a situation, the City must consider and evaluate if any past reduction in land use density may impair the property rights of current residents when redevelopment occurs. Property rights of current residents must be balanced with public safety considerations. The City has included Policy 2.2.1 in the Goal, Objectives and Policies section of this Element for consideration in a post natural disaster situation.

TABLE 6-1
CITY OF HALLANDALE BEACH
COASTAL HIGH-HAZARD AREA CURRENT DWELLING UNITS AND DENSITY

Property Name Address	Number of Units	Acreage	Dwelling Units Per Acre
West Side of Ocean Drive			
Imperial Towers North 1801 South Ocean Drive	140	0.97 ac.	144 du/ac
Imperial Towers West 1817 South Ocean Drive	140	1.04 ac.	135 du/ac
Imperial Towers South 1825 South Ocean Drive	140	3.38 ac	41 du/ac
Plaza Towers North 1833 South Ocean Drive	204	2.3 ac.	89 du/ac
Plaza Towers South 1849 South Ocean Drive	210	2.13 ac.	99 du/ac
Prince George Condo 1865 South Ocean Drive	249	4.15 ac.	60 du/ac
The Islands – Bermuda 1889 South Ocean Drive	56	0.90 ac.	62 du/ac
The Islands – Jamaica 1891 South Ocean Drive	55	0.90 ac.	62 du/ac
The Islands – Martinique 1893 South Ocean Drive	116	1.68 ac.	69 du/ac

Property Name Address	Number of Units	Acreage	Dwelling Units Per Acre
West Side of Ocean Drive			
Chelsea Hall 1913 South Ocean Drive	154	2.90 ac.	53 du/ac
Ocean Marine Yacht Club 1945 South Ocean Drive	283	5.75 ac.	49 du/ac
The Hemispheres Bay N/S 1965-85 South Ocean Drive	584	6.88 ac.	85 du/ac
Golden Bay Lodge 2001 South Ocean Drive	60	1.53 ac.	39 du/ac
Avent Garde Condo W/E 2017- 2049 South Ocean Drive	279	4.13 ac.	68 du/ac
Ocean Plaza 2081 South Ocean Drive	134	1.37 ac.	25 du/ac
Ashleigh House Condo 3113 South Ocean Drive	90	1.84 ac.	49 du/ac
Ambassador North Co-op 3121 3127 South Ocean Drive	65	1.93 ac.	34 du/ac
Ambassador South Co-op 3129 3135 South Ocean Drive	75	2.03 ac.	37 du/ac
Clifton Condo 3161 South Ocean Drive	140	2.15 ac.	65 du/ac
Golden Bay Manor 3177 South Ocean Drive	87	2.21 ac.	39 du/ac
Golden View Condo 3181 3199 South Ocean Drive	96	2.06 ac.	47 du/ac
Golden Bay Towers Co-op 3209 South Ocean Drive	89	2.70 ac.	33 du/ac
Total West Side	3,446	54.93 acres	62.73 du/ac

East Side of Ocean Drive			
Beach Club Condos 1800-1850 South Ocean Drive	1230	9.0 ac.	136 du/ac
City Property	0	3.52 ac.	0.00 du/ac
La Mar Estates West 1880 1904 South Ocean Drive	444	3.58 ac.	124 du/ac
Malaga Towers 1920 South Ocean Drive	146	1.97 ac.	74 du/ac
Biltmore Mansions 1928 South Ocean Drive	22	1.22 ac.	18 du/ac
Taromínia Co-op 1936 South Ocean Drive	91	2.03 ac.	45 du/ac
The Hemispheres Ocean N/S 1950 1980 South Ocean Drive	667	5.81ac.	117 du/ac

Property Name Address	Number of Units	Acreage	Dwelling Units Per Acre
East Side of Ocean Drive			
Regency House Beach Club 2000 South Ocean Drive	74	1.31 ac.	56 du/ac
Parker Plaza Estates Condo 2030 South Ocean Drive	522	3.49 ac.	150 du/ac
Ocean Drive Condo (Riviera) 2080 South Ocean Drive	232	5.00 ac.	46 du/ac
Sea Edge Co-op 2076 South Ocean Drive	90	1.20 ac.	75 du/ac
Parker Tower Condo 3140 South Ocean Drive	276	2.32 ac.	119 du/ac
Parker Dorado Condo 3180 South Ocean Drive	286	2.79 ac.	103 du/ac
Total East Side	4,080	43.24 acres	94.35 du/ac

Total Net Developed Acres in Coastal High-Hazard Area – 98.17 +/- Acres
Total Dwelling Units- 7526
Total Dwelling Units per Acre – 76.66 DUA

6.3.2 LAND USES ISSUES

6.3.2.1 INVENTORY OF EXISTING LAND USE

The Planning Districts which are located within the coastal area include: Golden Isles/A1A, Diplomat/Three Islands, Northeast, and about half of Gulfstream. Existing land use is detailed in the Future Land Use Element. Approximately 39 percent of the coastal area is used for residential purposes. Other land uses representing over 10 percent of the total area include recreation (about 20 percent), transportation (about 12 percent), and water (about 11 percent).

6.3.2.2 WATER-DEPENDENT WATER-RELATED USE

Extensive waterfront development associated with the residential canal system of Golden Isles, the Three Islands area, and the Intracoastal Waterway is indicative of intensive recreational use of Hallandale Beach's intracoastal area. Water-dependent shoreline use in the Hallandale Beach coastal area includes private (residential) boat dockage facilities. Almost all of the Hallandale Beach shoreline within the Intracoastal and related waterways is used for recreational, water-dependent activity (Figure 6-2). Few commercial services are provided for boaters. The potential for expansion of water-dependent or water-related land use is limited by the shortage of vacant waterfrontage for further development.

Public and private use of beaches along the ocean side of the Hallandale Beach barrier island is a water-dependent activity which could expand in the future as population growth occurs. The beach of Hallandale Beach is developed and has five beach access easements off Ocean Drive (A1A).

No significant increase in the demand for water dependent and water related uses is anticipated since the City is build-out, so increases in population will have only a minimal impact on the demand for these uses.

6.3.2.3 CONFLICTS AMONG SHORELINE USES

Most Intracoastal waterfront property within the Hallandale Beach coastal planning area is dedicated to some form of shoreline development. Because undeveloped intracoastal waterfront is limited in the planning area, the potential for conflicting interests in shoreline use is relatively low.

Single family, waterfront homes are present in the Golden Isles development, and also along the west and northern

FIGURE 6-2
WATER DEPENDENT LAND USE

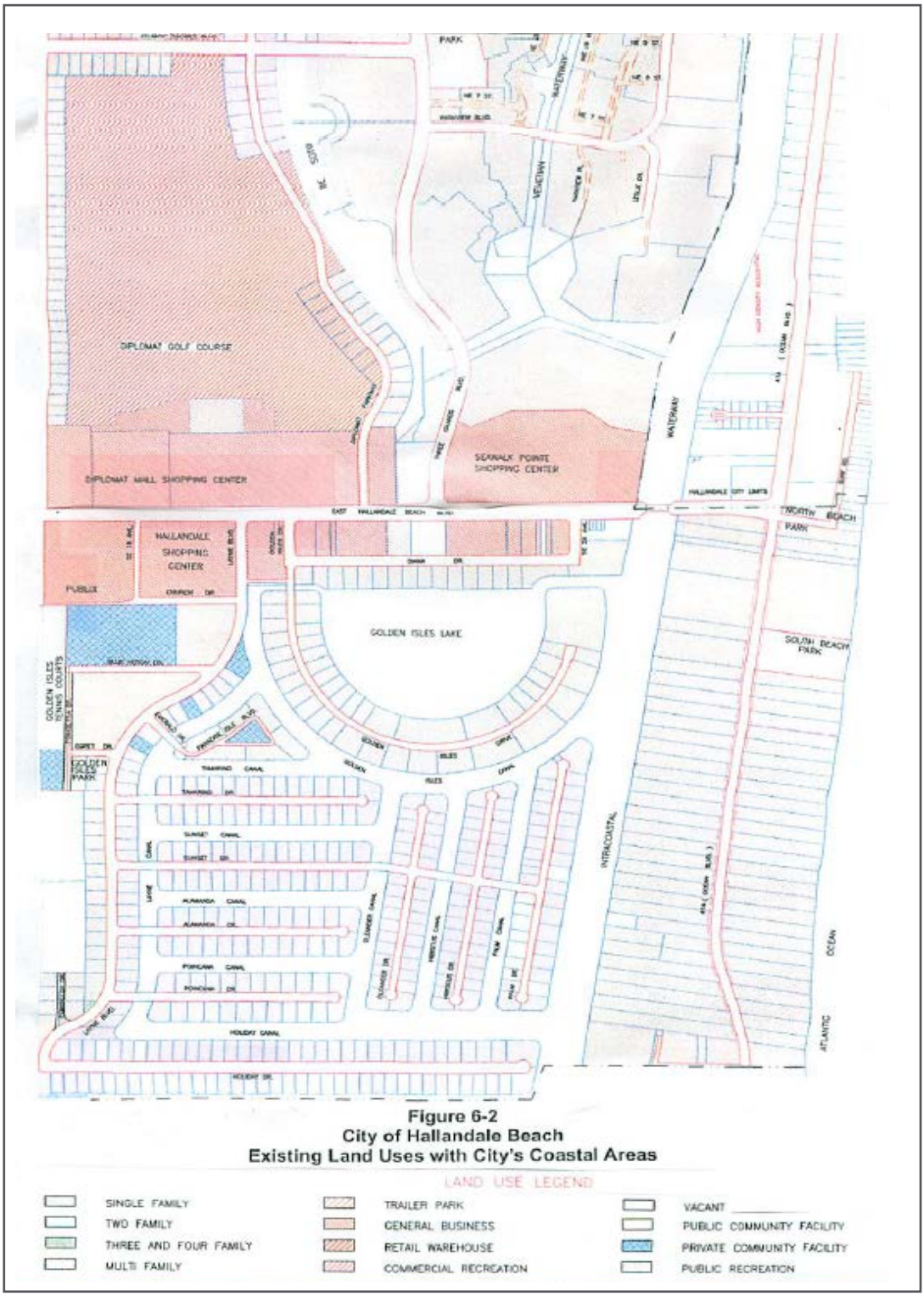


Figure 6-2
City of Hallandale Beach
Existing Land Uses with City's Coastal Areas

Source: MMPA and Developmet Services Department

margin of the Three Islands development. Some of the adjacent Miami-Dade County property (Sunny Isles Beach) is being developed as condominiums and as a marina, and the potential for conflicting interests will likely continue as further development proceeds. Areas north of the Three Islands area include primarily single and multiple-family residential development; inter-city shoreline use conflicts are not anticipated.

6.3.2.4 AREAS IN NEED OF REDEVELOPMENT

No redevelopment plans are needed for areas within the Hallandale Beach coastal area because of the relatively short period of time that has elapsed since the area was developed.

6.3.2.5 ECONOMIC BASE OF THE COASTAL AREA

The economic base of the coastal area consists of consumer oriented commercial development that is centered north and south along Hallandale Beach Boulevard and east and west along U.S. 1, Federal Highway. This economic base is supported by the entire City and surrounding communities but particularly by the more affluent residents of the Northeast, Diplomat/Three Island and Golden Isles/A1A Planning Districts.

The Future Land Use Element allows for additional commercial development in the coastal area provided necessary public facilities and services are available at the time that impacts from development occur.

6.3.3 NATURAL RESOURCES

6.3.3.1 DESCRIPTION OF BIOLOGICAL SYSTEMS

Vegetation: Development of the Hallandale Beach coastal area over time has eliminated natural vegetational communities. Dune systems formerly present on the barrier island were lost during beach front property development.

Wetlands which formerly existed in low-lying areas west of the barrier island have been replaced by residential/canal communities along the Intracoastal Waterway. Essentially the entire intracoastal and adjacent canal system shoreline is stabilized by bulkheads; no wetlands remain within the Hallandale Beach coastal area.

Wildlife: Because this area is so highly developed, no natural wildlife habitat remains. Wildlife in the Hallandale Beach area generally is limited to transient shorebirds.

No undisturbed natural areas remain to be developed within the coastal area of Hallandale Beach. Vacant lands have been cleared of native vegetation and are maintained in a managed (mowed) state. Development or redevelopment within this area will not impact natural wildlife habitats.

Living Marine Resources: On the ocean side of the barrier island, the intertidal and nearshore environment associated with sandy beaches represents a high-energy habitat likely to be utilized by a variety of fish and small invertebrates. These organisms are the prey items of shorebirds and gulls which forage along the beach margin.

Marine resources within the Intracoastal Waterway and associated canals and waterways dredged to accommodate residential development include fish and invertebrate communities. However, these resources are not likely to be diverse. Dredged residential canal systems are seldom well-flushed systems and frequently are characterized by degraded water quality. No direct connections of the Intracoastal Waterway to the Atlantic Ocean are nearby, further reducing the probability of intensive recruitment of organisms from the ocean.

Manatees are known to be present within the Intracoastal Waterway in this area. Manatee use of the area is for migration; no resident population is known. Additionally, while sea turtles are known to nest on beaches of this general area, nesting activity on the beach of Hallandale Beach is low. Further development of waterfront areas within the Hallandale Beach coastal area is limited by land availability. However, any expansion of waterfront facilities which leads to more intensive use of the Intracoastal Waterway and its associated side canals and waterways may reduce habitat suitability for use by resident fish and invertebrate populations.

6.3.3.2 AREAS OF SPECIAL LOCAL CONCERN

The following areas might be considered to be of particular concern:

1. The Intracoastal Waterway, associated canal systems, and Golden Isles Lake are sites of recreational boating, are vulnerable to environmental degradation, and are the habitats for marine communities having significant recreational value to man. These waterbodies need to be protected to ensure continued suitability for these functions.

2. The beaches of Hallandale Beach should be considered an area of special local concern because of its aesthetic and recreational value, vulnerability to further disturbance, importance in buffering the effects of storms, and economic value to the City as an attraction to tourists.

6.3.3.3 HISTORICAL RESOURCES

Resources of cultural or historical significance present in Hallandale Beach are described in the Housing Element. None of the sites currently considered of importance are located within the coastal area.

6.3.3.4 AREAS SUBJECT TO COASTAL FLOODING

The Broward County Coastal Zone Protection / Conservation Element (1981) indicated that within the Hallandale Beach planning area, areas within approximately 1 mile of the ocean were subject to coastal flooding due to hurricane tides likely to occur once every 100 years. This area has been used in loosely defining the boundary of the hurricane vulnerability zone described above.

6.3.4 ESTUARINE POLLUTION CONDITIONS

Local, Regional, State and Federal regulatory programs will be used to maintain or improve estuarine environmental quality to include the Department of Environmental Regulation's Coastal Management Grant Program.

6.3.4.1 SOURCES OF POLLUTANTS

There are no known point sources of polluted water or wastewaters within the Hallandale Beach coastal area. However, the effects of non-point source (stormwater) inputs to the intracoastal and associated waterways are likely to be considerable. Roads, parking lots, buildings and related impervious surfaces are located directly adjacent to much of the shoreline. These surfaces do not allow stormwater percolation but rather quickly deliver stormwater runoff to the intracoastal system via stormwater culverts. Stormwater drains to these waterways number in the hundreds and range in size from a few inches up to approximately 4-5 feet in diameter.

No quantitative estimates of stormwater volumes or pollutant loadings are available at this time. However, it may be presumed that such stormwater drainage carries a variety of pollutants such as oils and greases, heavy metals, nutrients, suspended particulates and turbidity, and oxygen-demanding substances all of which collectively degrade the receiving water's quality.

Recent attention has focused on the significant negative effects of non-point source pollutants on the nation's surface waters. In 1982, Chapter 17-25 of the Florida Administrative Code was established to define regulations governing new stormwater discharges to waters of the State of Florida. Permits are now required for new stormwater discharge facilities (not in existence on February 1, 1982) to ensure that such facilities manage stormwater discharges to minimize water quality impacts to receiving waters. The US EPA has sweeping authority under the recently enacted NPDES Stormwater Permit regulations requiring the monitoring of stormwater discharges and removal of pollutants from same.

For the Hallandale Beach coastal planning area, permitting of stormwater discharges has been delegated by the State (Florida Department of Environmental Protection) to the South Florida Water Management District (SFWMD). SFWMD has developed rules governing permitting of surface water management systems (Chapter 40E, Florida Administrative Code). Additionally, Broward County, supplementary to

the NPDES Stormwater Permit regulations, is developing regulations for county-administered stormwater system permitting and management (Chapter 36, Broward County Ordinances). There appears to be ample-levels of stormwater regulation.

One other potential source of pollutants is prevalent within Hallandale Beach. Recreational boats are potentially a significant source of water quality contamination due to inadvertent oil and gas discharges, bilge pumpout, and possible discharges from on-board sanitary facilities. While willful discharges of such contaminants are not likely to be widespread, these potential sources of pollutants are collectively an important element which should not be overlooked.

Estuarine pollution related to dredging of waterways is cooperatively regulated by federal and state agencies (U.S. Army Corps of Engineers and the Florida Department of Environmental Protection). The FDEP is the primary agency which coordinates dredge and fill regulation within the State.

These potential pollutant sources exist within the City of Hallandale Beach. However, it should be noted that intracoastal waters are also influenced by adjacent municipalities. Water quality issues related to the Intracoastal Waterway must be addressed on a regional as well as a local basis.

6.3.4.2 POTENTIAL EFFECTS FROM FUTURE DEVELOPMENT

Large-scale developments within the coastal area in the future may further decrease the availability of permeable surfaces for stormwater percolation resulting in increased non-point source pollutant loadings. While new discharges are regulated and should be better-planned than historical systems, total pollutant loads to the receiving waters will probably increase because of overall increases in stormwater runoff. Site planning should incorporate stormwater management techniques designed to reduce pollutant loads to receiving waters.

Any waterfront development accompanied by boat dockage or servicing facilities will also increase the probable effects of boat-related pollutant introduction into the estuarine waters. If commercial marinas with fueling facilities are developed in the Hallandale Beach area, designs should minimize impacts on localized circulation and flushing. Inevitable impacts associated with increased boating activity should be minimized.

6.3.5 BEACH AND DUNE SYSTEMS

Existing beach systems along the Hallandale Beach Atlantic coastline reflect the changes common to many of the barrier island systems along the southeast coast of Florida. Dune systems present prior to barrier island development are no longer existent; beach front condominiums were built over the dunes. However, in recent years beach revegetation projects have been successful in reestablishing dunes along the entire beach front of Hallandale Beach.

The City of Hallandale Beach's Atlantic beach is approximately 4,000 feet in length. Beach width has varied historically due to recurring beach erosion in the Hallandale Beach area. Beach management planning for the Hollywood/Hallandale Beach area has been coordinated by the Broward County Department of Environmental Protection, Biological Resources Division.

A past estimate of the rate of sand erosion from this area attributable to longshore sand transport and sea level rise was 15,000 cubic yards per year (Coastal Planning and Engineering, Inc., 1985). Additionally, past studies showed average annual offshore losses were estimated to be in the order of 130,000 cubic yards per year. The calculated annual erosion rate is approximately 5-6 percent. Sediment erosion and transport is a natural phenomenon that will continue if not increase (because of rising sea levels), and continued beach management will be required in the future if existing beach resources are to be maintained.

Beach management efforts in the past have included several beach renourishment projects. These efforts have been coordinated by the County's DEP for the beaches of Hollywood/Hallandale Beach as a single planning unit. In 1971, 4,000 feet of the beaches of Hollywood/Hallandale beach were restored by placement of 350,000 cubic yards of offshore sands on the beach. Another 1,980,685 cubic

yards of sand were dredged from offshore borrow sites and placed on the beaches of Hollywood/Hallandale Beach in 1979. Periodic re-nourishment continues.

Offshore borrow sites have been used in previous beach renourishment projects for the Hollywood/Hallandale Beach area. A total of 1,100,000 cubic yards of additional sands are estimated to be available at formerly used borrow sites for future beach restoration efforts. However, some of this material may not be suitable for use in beach restoration due to higher than desired rock and silt content. Alternative sources of sands under consideration for future beach reclamation include aragonite material to be imported from the Bahamas, sands dredged from the Intracoastal Waterway, and sands mined from upland borrow sites (Coastal Planning & Engineering, Inc., 1985).

A beach renourishment effort was completed in 1994-95. This effort replaced materials lost over the past decade. The project restored 5.2 miles of beach, approximately 0.75 miles of which is within the City of Hallandale Beach.

The most recent beach renourishment project was conducted in 2005-06 when the County completed a 6.2 mile restoration project know as Broward County Segment III Shore Protection Project. The project included beach areas from John Lloyd State Park south to the Miami-Dade county-line including the City of Hallandale Beach beachfront areas. The project involved moving approximately 1.7 million cubic yards of sand to the Segment III project area and was the first beach renourishment effort in over a decade.

Hallandale Beach has also taken an active role in sponsoring revegetation projects along the beaches of Hallandale Beach. With funding support through the Florida Department of Natural Resources, Erosion Control Trust Fund, the City was involved in a beach revegetation project to restore and protect dunes at the City's beach. The project included planting of native grasses, shrubs, and beach cover, construction of dune overwalks, and other related beach improvements.

This project was successfully completed, and similar efforts were recently completed at the new Beach Club Condominium Development.

6.3.6 PUBLIC ACCESS FACILITIES

Hallandale Beach's South City Beach is a 3.52 acre park that provides approximately 400 feet of beach front access for swimming. Facilities present include bath house/restrooms, picnic areas, life-guarded swimming areas, and a concession stand. Public transportation and handicapped services are available. Public parking facilities, however, are limited (approximately 80 metered spaces). The City also has an additional beach front park, North City Beach, which is a 1.09 acre park that includes limited parking, concessions, showers/restroom facilities, and life-guarded beach.

FIGURE 6-3
PUBLIC TRANSPORTATION, PARKING AND BEACH ACCESS



Source: City of Hallandale Beach Development Services.

The beaches of Hallandale Beach are also accessible to the public via five public easements (Figure 6-3). While no public parking facilities exist at the five access points, City mini-bus service and Miami-Dade and Broward County bus service provide transportation to these locations. The walkways also serve those residents living within walking distance of the beach. Public access to the beaches of Hallandale Beach is somewhat limited by availability of public parking.

Public access to the intracoastal system is limited because of the intensive shoreline use by single-family and multiple-dwelling residential developments. Most of the shoreline is privately owned and therefore unavailable for public use.

Marinas and other docking facilities are associated with private associations, condominium complexes, and private homeowners located along the Intracoastal Waterway and other canal systems in the Three Islands and Golden Isles areas. According to a 1984 Florida Department of Natural Resources inventory of multi-slip docking facilities in Florida, the existing marinas in Hallandale Beach do not provide any fueling services, and only one of the facilities listed indicated any capability to handle boat-related sewage. No public facilities exist in the Hallandale Beach coastal area for boating activities. However, the City is planning a public marina along the Desoto Waterway adjacent to the City Fire Station. The City has been coordinating the marina planning with Broward County.

6.3.7 ASSESSMENT OF COASTAL INFRASTRUCTURE

Significant development of coastal infrastructure has occurred over time in conjunction with the development of coastal properties. Existing infrastructure for the City of Hallandale Beach is described in the Sanitary Sewer, Solid waste, Drainage, Potable Water and Natural Groundwater Aquifer Recharge Element, and in the Transportation Element.

7.1 INTRODUCTION

The purpose of the Conservation Element is to describe the natural resources within the City of Hallandale Beach, and to establish policy direction for consideration of these natural resources in future environmental management activities. The policies contained in this element are designed to enhance the existing natural and physical environment of the community.

7.2 GOALS, OBJECTIVES, POLICIES

7.2.1 INTRODUCTION

This section presents the City's conservation goals, objectives, and policies. These items were derived from analysis of existing information, present conditions, and ongoing activities.

WATER RESOURCES

GOAL 1: The City shall provide and maintain an adequate quantity and quality supply of water for use while minimizing effects on the natural system.

OBJECTIVE 1.1: The City shall continue to provide safe quality potable water for residential, commercial and industrial uses within the City at a level of service standard of 187.1~~178~~ gallons per capita per day for facilities planning purposes and promote water conservation.

POLICY 1.1.1: The City, in order to provide safe potable water, shall continue working with other public agencies, such as the Department of Environmental Protection, South Florida Water Management District, and Broward County Health Department, to meet primary and secondary water quality standards mandated by Florida Water Statutes.

POLICY 1.1.2: The City shall continue to encourage installation of water saving devices in new buildings or, where possible, retrofit existing structures for water conservation.

POLICY 1.1.3: The City shall continue to expand water conservation practices to maintain a low per capita consumption of potable water by implementing the capital improvement projects identified in the 10-year Water Supply Facilities Plan including:

- Adopting water restriction ordinances;
- Implementing and enforcing environmentally sound landscaping practices to reduce irrigation demand;
- Expanding the City's water utility leak detection program and the water distribution system leakage programs; and
- Encouraging the expansion of the City's water reuse system.

POLICY 1.1.4: The City shall continue to implement adopted landscaping requirements in accord with the South Florida Water Management District regulations, which encourages planting materials which are low water users (xeriscape).

OBJECTIVE 1.2: The City shall encourage the use of grey water throughout the community.

POLICY 1.2.1: The City will work with the City of Hollywood (supplier of grey water) and large water users within the City to develop ways that grey water can be utilized to reduce overall water consumption.

POLICY 1.2.2: The City will utilize grey water use on public property as feasible.

POLICY 1.2.3: The City will review its land development regulations to reduce barriers for private implementation and use of grey water systems where environmentally sound and appropriate.

OBJECTIVE 1.3: The City shall protect the ground water aquifer within the cone of influence in conjunction with its agreements with Broward County Water Resources Management Division and the Broward County Wellfield Protection Ordinance.

POLICY 1.3.1: The City shall implement land development regulations to be consistent with its Storm Water Management Program, which Program shall be in compliance with the Florida Administrative Code (FAC) 62-40.432(1)-(4) and FAC Chapter 17-40, Water Policy.

POLICY 1.3.2: The City shall require proper water treatment and drainage for all new development, redevelopment areas, and major renovation projects.

OBJECTIVE 1.4: Development of alternative water supplies

POLICY 1.4.1: The City shall continue to explore the development of alternative water supplies to meet future water needs.

POLICY 1.4.2: The City shall utilize alternative water supply sources, if feasible, when improving or expanding the City's water system.

POLICY 1.4.3: The City will review its land development regulations to reduce barriers for implementation of rain water capture systems where environmentally sound and appropriate.

GOAL 2: The City shall encourage natural areas, where they exist, to be improved in larger scale developments or redevelopment situations (5 acres or more).

OBJECTIVE 2.1: The City shall continue to enforce the Tree Preservation Ordinance which requires that existing healthy trees of desirable species be retained on site and incorporated into the design plans for development projects.

POLICY 2.1.1: The City shall encourage saving trees which are not diseased, unreasonably restricting permitted use of property, endangering existing or proposed structures, creating unsafe vision clearance or otherwise interfering with provision of public services.

GOAL 3: The City shall protect, by regulation, acquisition and/or restoration, existing

NATURAL AREAS

OBJECTIVE 3.1: The City shall encourage the re-vegetation of properties in the community.

POLICY 3.1.1: The City shall implement adopted City policies which permit the removal of identified poisonous, obnoxious and harmful exotic plants.

POLICY 3.1.2: The City shall implement adopted landscaping guidelines which encourage use of native planting materials in all developments.

POLICY 3.1.3: The City shall continue to educate property owners about the importance of landscaping with drought-tolerant, native plants.

GOAL 4: The City shall preserve and enhance a beach dune and vegetation system for beaches within the City.

OBJECTIVE 4.1: The City, in cooperation with Broward County, shall preserve and when feasible, enhance the hazard mitigation system of dunes with native coastal vegetation and walk throughways to prevent dune and vegetative cover destruction.

POLICY 4.1.1: The City shall require implementation of beach dune and vegetative protection regulations.

POLICY 4.1.2: The City shall increase protection of natural resources and be more responsive to the potential for dune and vegetative destruction. Standards to protect beach dune and vegetation systems shall be incorporated into Land Development Regulations.

POLICY 4.1.3: The City shall pursue grant programs associated with dune reconstruction.

GOAL 5: The City shall require restoration and protection of native coastal vegetation.

OBJECTIVE 5.1: The City shall comply with Section 208 of the Federal Water Pollution Control Act, as well as the FDEP Stormwater Rule (Chapter 17-25, F.A.C.) to achieve the objective of removing 80 to 90 percent of stormwater pollutants before discharge to receiving

waters and will address stormwater run off and the requirement of treatment or detection and filtration in compliance with both Broward County EPD and SFWMD guidelines.

POLICY 5.1.1: The City shall protect native coastal vegetation and encourage restoration, through performance incentives.

GOAL 6: The City shall seek to lessen the degradation of habitats conducive to endangered or threatened species.

OBJECTIVE 6.1: The City shall coordinate annually with the Army Corps of Engineers, U.S. Coast Guard and other appropriate public agencies to distribute information which will advise the boating public on the Manatee's use of the Intracoastal Waterway during their migrations.

POLICY 6.1.1: The City shall review and analyze the placement of no wake speed in the Intracoastal Waterway and other Manatee habitats.

POLICY 6.1.2: The City shall discourage activities which could adversely alter the habitat of endangered or threatened species of special concern should such a habitat or species be identified in the City.

POLICY 6.1.3: The City shall coordinate with the Department of Environmental Protection (DEP) relative to Manatee protection zones and continue to enforce the maximum speed limits and slow speed limitations within 50 feet of either shore as mandated by DEP.

POLICY 6.1.4: The City shall maintain its commitment to environmental protection by coordinating with Broward County and state agencies to ensure continued operation and maintenance of its central sewer system, the eventual decommissioning of the remaining onsite sewage system at the Three Islands Fire Station, and support for the implementation of advanced wastewater treatment technologies where feasible and appropriate, consistent with ss.163.3177(3)(a), (6)(c), and (6)(c)(3), Florida Statutes.

GOAL 7: The City shall preserve and expand natural environments within the City.

OBJECTIVE 7.1: The City shall continually implement adopted landscaping regulations and guidelines which incorporate the use of drought resistant and/or native vegetation on pervious areas of public lands and areas of future development.

OBJECTIVE 7.2: The City shall continue to investigate the acquisition of additional public lands to increase viable open space for natural environments and passive community use.

POLICY 7.2.1: The City shall support proposals to acquire vacant tracts of land for public use.

POLICY 7.2.2: The City shall continue to enforce landscaping regulations with performance incentives for preserving and protecting major trees or stands of trees or significant vegetation coverage, as required by the City Land Development Regulations.

POLICY 7.2.3: The City shall enforce the tree preservation regulations of the City Code to decrease removal of groves or groupings or individual specimens.

OBJECTIVE 7.3: The City shall protect the minimum seasonal flows and levels of surface watercourses by lessening existing degradation of channelized waterways and their impact on natural waterways.

POLICY 7.3.1: The City shall protect marine habitats by establishing guidelines, through collaboration with other appropriate public agencies, under which dredging of water bodies and waterways will be conducted to ensure natural functioning and protection of existing marine habitats.

POLICY 7.3.2: When bridges in the City are replaced, they will be designed in a manner that will not inhibit tidal flushing of waterways.

GOAL 8: The City shall participate in regional mass transit programs and improvements of transportation network to

improve air quality levels.

OBJECTIVE 8.1: The City shall continue to support and participate in mass transit networks within the City.

POLICY 8.1.1: The City will ensure through its ordinances and coordination with other levels of government that both development and transportation systems are consistent with the maintenance of optimum air quality.

POLICY 8.1.2: The City shall continue to operate a City minibus with several intercity routes.

GOAL 9: The City shall encourage the reduction of dependence on fossil fuel energy sources and thereby reduce per capita consumption.

OBJECTIVE 9.1: The City shall work with other communities, FDOT and other appropriate agencies through a designated City representative to evaluate current public and private energy consumption and pursue reasonable alternatives to replace these nonrenewable resources.

POLICY 9.1.1: The City shall coordinate with Broward County and with other Broward County communities on the strategies and programs to recycle solid waste.

POLICY 9.1.2: The City shall coordinate with other communities to study and evaluate improved energy utilization in providing public facilities and services.

POLICY 9.1.3: The City shall actively investigate and implement energy efficiency improvements in all of its facilities.

POLICY 9.1.4: City shall continue to implement its energy-efficient "grid" Future Land Use Plan and discourage urban sprawl.

POLICY 9.1.5: The City shall continue to enforce the provisions of the most recent edition of the Florida Building Code, particularly the updated Energy Code (adopted 3/09) to achieve higher energy efficiency in buildings.

POLICY 9.1.6: The City shall require the use of low water use plumbing fixtures in new construction and continue to encourage the use of low water use plumbing fixtures in building renovations through periodic give-away toilet retrofit programs and encourage energy efficient electrical systems, such as retrofitting lighting fixtures in City buildings.

POLICY 9.1.7: The City shall continue to provide educational materials to its residents / property owners on energy saving strategies and water conservation methods such as domestic water use, rainwater recycling for irrigation, landscaping techniques, etc. The City will continue periodic give-away rain sensor retrofit programs for sprinkler systems. The City will continue to promote recycling to reduce the materials being sent to landfills (methane gas reduction).

POLICY 9.1.8: The City shall allow the use of alternative, renewable sources of energy including the use of solar panels. This shall not preclude the City from requiring proper installation locations and buffering.

POLICY 9.1.9: The City shall consider the availability of low emission or fuel efficient vehicles as the replacement of municipal vehicles is scheduled.

POLICY 9.1.10: The City shall continue to reduce the heat island effect by improving its green infrastructure (i.e. tree canopy / parks and open spaces / landscaped medians) and requiring private lands to comply as well. The City has previously adopted a Resolution to achieve a 30% tree canopy by 2030.

POLICY 9.1.11: The City shall initiate Comprehensive Plan amendments within one year of publication of approved Department of Community Affairs (DCA) guidelines (Rules) for implementing the 2008 statutory requirements for energy reduction and subsequently amend its Land Development Regulations to adopt specific standards and strategies that address Greenhouse Gas (GHG) emissions, energy efficient housing, and overall energy conservation, if deemed appropriate for the City and they are financially feasible.

GOAL 10: The City shall develop necessary regulations and programs to identify and require the proper containment

and safe disposal of hazardous / non-hazardous wastes.

OBJECTIVE 10.1: The City shall participate in and support the County's efforts in educating the public of hazardous wastes and their proper disposal. Periodic outreach efforts will be implemented by a yearly advertisement in the City and community newsletter.

POLICY 10.1.1: The City shall monitor all waste producers and other routine hazardous waste producers through the permitting process.

POLICY 10.1.2: The City will continue to enforce Federal, State and County regulations requiring special construction processes to ensure the containment and facilitate cleanup of any spill or leak where hazardous materials are to be used, stored, handled or generated.

POLICY 10.1.3: The City shall continue to discourage developments which may handle, generate or store hazardous material from locating within a cone of influence.

POLICY 10.1.4: The City shall promote brownfield redevelopment when possible sites are identified and require an environmental assessment and clean-up of the site as required by the County and Federal government prior to redevelopment.

GOAL 11: The City shall reduce solid waste and wastewater through recycling, recovery and reuse programs.

OBJECTIVE 11.1: The City shall continue to evaluate alternative solid waste treatment programs for solid waste disposal.

POLICY 11.1.1: The City and Waste Management, Inc. shall develop monitoring capabilities to verify the necessary capacity for solid waste disposal in approved landfill facilities.

OBJECTIVE 11.2: The City shall continue to restrict disposal materials collected in order to reduce solid waste flow to the disposal facility.

POLICY 11.2.1: The City shall continue to implement a recycling program of reusable materials.

POLICY 11.2.2: The City shall cooperate through a designated City representative, with public and nonprofit agencies to develop and distribute educational literature to promote voluntary reduction of solid waste products.

POLICY 11.2.3: The City Sanitation Division shall continue to make spot inspection of garbage containers scheduled for collection to ensure only approved waste materials are being collected.

POLICY 11.2.4: The City will establish a curbside recycling program for all City sanitation customers. Tonnage of recycled materials shall be tracked and recorded against total waste flows on a monthly basis.

7.3 DATA AND ANALYSIS

The Conservation Element Goals, Objectives and Policies are designed to react to the existing developed environment and limited natural systems in the City. This section of the Element brings together existing conditions with implementation strategies designed to allow for compatibility between the built and natural environments.

WATER RESOURCES

The water resources within the City of Hallandale Beach are inclusive of lakes, ground water, estuarine and marine systems. While presently drawing upon potable water from the underlying Biscayne Aquifer, the City has partially phased out its well system and a long term supply has been developed with Broward County, neighboring municipalities and SFWMD.

Implementation strategies designed to protect natural water resources in Hallandale Beach include:

- Cleansing of stormwater runoff before discharge into any city or nearby water systems through retrofitting existing systems and requiring cleansing systems in new development.

- Prevention of sewage or petroleum discharge from boats in the City's waters.
- Wake and turbidity control to maintain low silt levels.
- Protection of Wellfield Cone of Influence to protect the potable water supply.
- Use of alternative water supplies and low water usage planting for landscaped areas.
- Other water saving tactics which may be developed to preserve the aquifer from saltwater intrusion.

COASTAL AND MARINE

Hallandale Beach's intense urban development has concentrated along the Intracoastal Waterway and Atlantic Ocean. Throughout the non-coastal areas of the City are man- made lakes and several canals.

In order to protect and enhance the quality of these resources and maintain waterfront access, the City should:

- Pursue preservation of the dune and vegetative systems along the beach areas of Hallandale Beach.
- Continue the beach re-nourishment program to mitigate natural erosion of the beach. Beach vegetation will be installed to preserve re-nourished beach areas and protect landward development.

NATURAL SYSTEMS

Natural systems that once existed in the City either no longer exist, or are significantly reduced due to extensive development activities. In order to retain some vestiges of the natural environment, the City might encourage native vegetation or vegetation conducive to high saline content, to be used in landscaping of development projects in close proximity to the beach. Further investigation of this opportunity would need to be explored for consideration as a development code amendment.

Native drought resistant plantings should be encouraged for use by the general population (by ordinance). In order to encourage plantings of low water use species and native species the City should incorporate such materials in its landscaped medians and public facilities where appropriate.

AIR QUALITY

The quality of the air in the city is quite good. Proximity to the ocean allows for the ocean breezes and inland currents to dissipate locally generated pollutants. When possible, protection of or enhancement of air quality could be achieved by state or county programs to reduce or improve upon traffic within the city such as improved mass transit options, lessening curb cuts on arterial streets and improved signalization at intersections.

- Reduce and control vehicular traffic and other sources of airborne pollutants within the city.
- Actively participate to reduce the non-point and point source pollutant emissions from surrounding areas that affect the city.

ENERGY CONSERVATION (GREENHOUSE GAS REDUCTION STRATEGIES)

Climate change is largely attributed to the buildup of carbon dioxide gas (GHG) concentrations in the atmosphere. Global emissions of GHG from human activities, such as burning fossil fuels and deforestation, have increased by 70% between 1970 and 2004 according to the American Planning Association (APA). The April 2008 document published by APA entitled “Policy Guide on Planning and Climate Change” provides guidance for local governments toward the reduction of GHG emissions and on energy efficient land use decisions. The APA document indicates that actions to address GHG emissions should included a mix of education, incentives, subsidies and regulation. The APA has suggested strategies for local governments to facilitate a reduction in GHG emissions. These include mixed-use development, infill and redevelopment to utilize existing utilizes and service, providing employment opportunities near a range of housing opportunities, energy

efficient buildings, convenient intermodal transportation systems, and the reduction of heat island effects through green spaces.

In addition to the broad strategies listed above, every decrease in energy consumption reduces the carbon dioxide emissions from power plants and associated development to continue to expand the electric system; every diversion from a landfill increases the efficiency of curbside pick-up and the amount of debris placed in the landfill and ultimately the production of methane; every reduction in water use decreases the amount of energy required to produce potable water and to treat wastewater. Encouraging recycling, facilitating the capacity to bicycle and walk, retaining and increasing landscaping, and conserving potable water supplies are also effective strategies to achieve GHG emission reductions.

The City of Hallandale Beach has implemented a number of these strategies. There is a generally continuous pedestrian and bikeways network throughout the City, especially in close proximity to and abutting mass transit routes. The City is relatively compact and nearly built- out with the highest intensities of development located along major transportation routes (US 1/ Hallandale Beach Boulevard / Pembroke Road / SR A1A). Because of the lack of any large development parcels all new development is considered "infill". The City exists as a very "sustainable" community with many employment opportunities in close proximity to a wide variety of housing types. Florida has one of the toughest Building Energy Codes in the nation and recently made (effective 3/09) significant updates to require more energy efficient buildings of all types. Many of the new large-scale developments are proposed to be LEED certified or will incorporate such features. The City includes or is in close proximity to well- established multi-modal transportation systems (roadways / railways / airports / seaport / mass transit / pedestrian). The City has had a strict Landscape Code for many years and enforces tree canopy protection and new plantings on all land uses, including parking areas and around structures. In the past few years most of the new and/or re-development submittals have been for mixed-use. The City allows some of the highest residential densities in South Florida. This facilitates a decrease in the number of trips and drive times for residents conducting routine shopping trips or outings for dining or entertainment experiences.

Broward County monitors traffic signals on all arterial and collector roadways within the City. The City works with the County to minimize signal timing delays and idling on all arterial and collector roadways. The efficiency of the roadway system throughout the City allows rapid response to any problems that may arise, thereby decreasing idling times and unnecessary emissions and decreasing energy consumption through efficiency.

The pedestrian and bicycle facilities and the efficiency of the roadway system throughout the City each facilitate energy conservation. The City has significant open space and landscape requirements to diminish heat island effects. The City's Landscape Code implements xeriscape principles and requires native vegetation. All of those items help to diminish heat island effects but contribute to carbon dioxide uptake and oxygen production. The City has a landscape inspection program on all commercial and multi-family properties to ensure the maintenance and retention of required landscape materials.

Irrigation for public properties and right-of-ways includes rain sensors installed through the system. The City is implementing a program of switching the sprinkler heads to more efficient sprinklers. The City is also implementing strategies for more energy efficient lighting within the City. Voltage regulators are being installed on City-owned lighting systems that will reduce their energy cost by 20%-30%. Older style fluorescent lighting in all municipal buildings will also be replaced with a more efficient version that will reduce energy costs.

As a compact fixed-boundary built-out community with a defined footprint and density, the City will not contribute to the sprawl and continued expansion of utilities that has become a prominent development concern across the nation. The City is nearly built-out, and as such, nearly all future projects will be redevelopment projects with existing infrastructure available.

Air conditioning is a major use of electricity in the City. Reliance upon air conditioning is necessary to combat extreme temperatures and humidity levels prevalent in this

region. To economize on energy demands, building and land development codes improve the energy efficiency of various building designs and construction. Reduction of asphalt or shading of paved areas by landscape materials might be achieved through substitution of alternative methods of surfacing parking areas and aisleways to reduce heat retention at the ground surface.

The City is presently involved in a parking lot and landscape improvement program. This will increase the required percentage of permeable area for commercial properties to more than 15 percent of total site area, and require planting and maintenance of trees and other vegetation able to provide shade and reduce solar impact of non-permeable areas.

MINING

Hallandale Beach has some limestone and sand deposits. There had been some mining in the past, but the excavated areas have been incorporated into lakefront residential development. No disturbed areas for resource extraction exist in the City. No significant resource extraction activities are anticipated to occur in the foreseeable future. The City should pursue reclamation of sand dredge sites. Such areas have been generally incorporated into the surrounding residential environment.

HAZARDOUS AND NON-HAZARDOUS MATERIALS AND WASTE

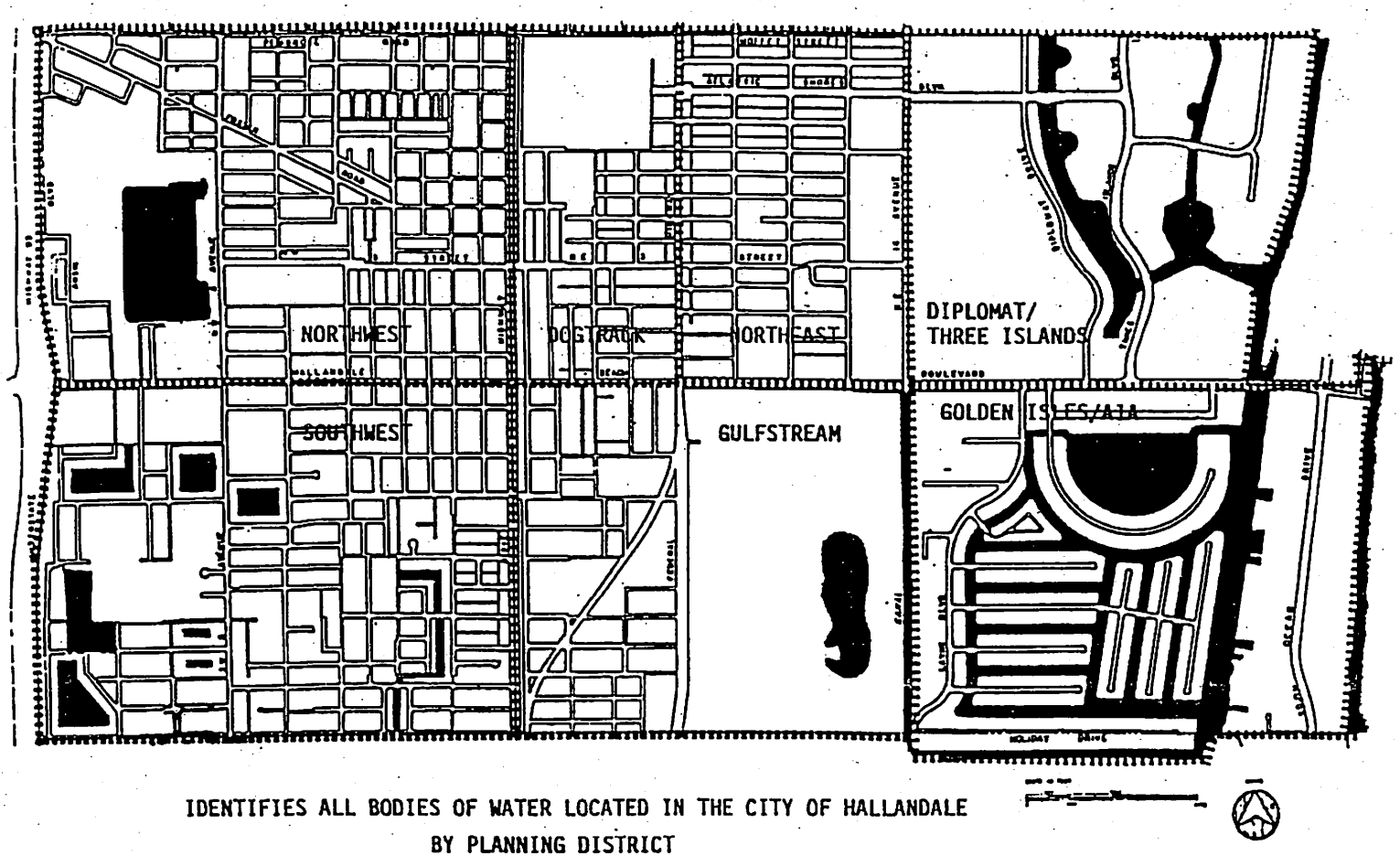
Disposal of hazardous waste in Broward County is monitored and regulated by regional, State, and Federal agencies. The City is not involved in these activities at this time. Separation of hazardous wastes and non-hazardous materials is essential to implementation of any program. The City in conjunction with other jurisdictions, may need to pursue the improved management practices for the collection, transport and disposal of such wastes by outside contractors.

7.4 INVENTORY

7.4.1 WATER RELATED RESOURCES

Figure 7-1 identifies all bodies of water located in the City.

FIGURE 7-1
BODIES OF WATER



IDENTIFIES ALL BODIES OF WATER LOCATED IN THE CITY OF HALLANDALE
BY PLANNING DISTRICT

Source: ~~City of Hallandale, Growth Management Department~~
City of Hallandale Beach, Department of Sustainable Development (DSD)

The eastern portion of the City is served by many waterways and canals which can be utilized by residents for boating and other recreational opportunities. In addition, the Southwest Planning District has several lakes and canals located in residential areas that are used for boating.

In the Northwest Planning District, there are two bodies of water remaining. Chaves Lake is owned by the City; it abuts industrial property to the west and south. Hallandale High School and residential properties are to the north and east. The City has improved the upland areas around the lake for municipal purposes.

The Gulfstream Planning District has a man-made lake in the center of the Gulfstream Race Track. The Mardi Gras Gaming Center and Northeast Districts have no water related resources.

Venetian and DeSoto Waterways, located in the Diplomat / Three Islands Planning District, are used for recreational boating and have access to the Intracoastal Waterway. The surrounding land use is residential and predominantly multi-family. A small number of single family homes are located on the northern portion of the DeSoto Waterway.

Golden Isles / A1A Planning District has one large lake named Golden Isles Lake with direct access to the Intracoastal Waterway. It is surrounded by multi-family structures and is used primarily for recreational boating. The remainder of Golden Isles is located on finger canals abutting all the lots. One small area is multiple family residential with the remainder in low density single family residential uses. The barrier island is bounded by the Intracoastal Waterway to the west and the Atlantic Ocean to the east.

7.4.2 FLOOD PLAINS

Hallandale Beach is located on the open coast and is subject to flooding from tidal surges associated with hurricanes. Among the most severe storms to pass through the area were those of September 1926, September 1928, September 1947 and August 1964. Severe damage was suffered due to tidal flooding.

Currently, the City requires that construction sites exceed the 100-year still-water and wave action elevation as defined by base flood elevations shown in the Federal Flood Insurance Rate Map (FIRM) for the City. These are minimum elevations for the first floor of new construction. Hallandale Beach should consider the additional hazards of storm surge and wave action, as many older buildings were constructed below the minimum standards for wave height. The potential for flood-related property damage to such structures is high.

In recent years, the City has adopted Article III, Flood Damage Prevention, of Chapter 8, Building & Construction, of the Hallandale Beach Code of Ordinances, which provides standards for design of construction in areas of special flood hazard. (The Florida Building Code provides for adoption by reference of Coastal High Hazard building standards.) These ordinances regulate construction in coastal high hazard areas and shallow flooding areas defined by the Federal Emergency Management Agency (FEMA) standards.

It has been predicted by the FEMA that Hallandale Beach (Community Panel #125110) may flood to US Highway #1 during a class three or 100 year storm. The elevation of stillwater will be approximately 8.5 feet with a wave crest of 13 feet for a class three hurricane or the 100 year storm.

The portion of the City which will be affected by wave action is difficult to determine. Wave heights at the beach are diminished at the beach face by the rising ground elevation. There is additional protection for some buildings by existing seawalls, some of which stand 8-10 feet above the beach surface. However, seawall integrity remains unknown, and in some waterfront areas the seawall is nominal protection at best. Some of the seawalls will be easily over-washed since they are only a foot or two higher than the existing beach surface.

Within Golden Isles Lake, one foot wave heights can be expected at the western shore of the lake. These heights will be quickly reduced by the ground elevation; the projected maximum wave crest will be 7 feet in the lake and at the

Miami-Dade County / Hallandale Beach border.

(Source: Flood Insurance Study, Wave Height Analysis for the City of Hallandale Beach, Federal Emergency Management Agency, (Community Panel #125110), July 6, 1982).

7.4.3 SOIL & SOIL EROSION

Hallandale Beach's entire eastern side is generally Udorthents-Urban Land-Pennsuco Soil Association. These are soils that have been modified by spreading mixed limestone fragments, sand, and shell fill material over the natural surface. Urban land, and very poorly drained, loamy soils are underlaid by limestone in swamps and lowlands. This area was naturally a low-lying swamp with the exception of a tropical hammock strip along the barrier island.

The soils in the US-1 area are Immokalee Urban Land Association. Poorly drained, nearly level, sandy soils that have dark subsoil is underlain by limestone at a depth of more than two inches; most areas have been modified for urban use.

Most of the city's western half consists of Dade-Urban Land Soil Association. The association is comprised of well drained, nearly level, sandy soil that varies greatly in depth to soft limestone, generally between 20 to 40 inches. Most have been modified for urban use.

A strip in the Southwest corner of the Southwest planning district is characterized by Arents-Urban Land Association. These are soils that have been modified for urban use by spreading sandy fill material over the natural soil surface.

(Source: Soil Survey of Broward County, Eastern Part, United States, Dept. of Agriculture, Soil Conservation Service, May 1984).

7.4.4 BEACHES AND SHORELINES

Beaches and shores within Hallandale Beach are described in the Coastal Zone Management Element. Coastal erosion is occurring at a rate of 6% per year. The City is now participating and has previously participated in beach restoration/re-nourishment projects to rebuild the eroded beaches with the Army Corps of Engineers, State Department of Environmental Protection, Broward County Environmental Protection Department and the Erosion Prevention Control District, and the City of Hollywood.

7.4.5 WILDLIFE HABITATS & VEGETATIVE COMMUNITIES

Tropical and low hammock areas were present on the barrier island and in the Southwest district. There were large mangrove areas on the coastal side of Hallandale Beach. The western side of the City was "scrub".

This area was first cultivated around the turn of the century and was subject to land development activities associated with the Halland Land Company (1897). Intensive development has essentially eliminated natural vegetative communities and wildlife habitats in the planning area.

Because there are no natural ecological areas remaining in Hallandale Beach, there are no areas containing habitat for endangered and threatened species of wildlife and vegetation, with the following possible exceptions:

a. The West Indian Manatee, (Trichechus manatus), may use the Intracoastal Waterway during its migration to and from more northern waters.

b. The Bald Eagle, (Haliaetus leucocephalus), with a range of the entire state, however it is highly unlikely the bald eagle nests or hunts in the City.

c. The Loggerhead Turtle, (Caretta caretta), is generally distributed in coastal waters, again no known nesting activity currently occurs on the beaches of Hallandale Beach.

(Source: Endangered & Threatened Wildlife & Plants, January 1, 1987, Dept. of the Interior, US Fish & Wildlife Service).

7.5 POLLUTION PROBLEMS

Hallandale Beach does not encourage heavy industry within the City limits, the heaviest zoning category is Industrial-Light, which permits light manufacturing and warehouse uses. As a result there are very few pollution permits for facilities within the city.

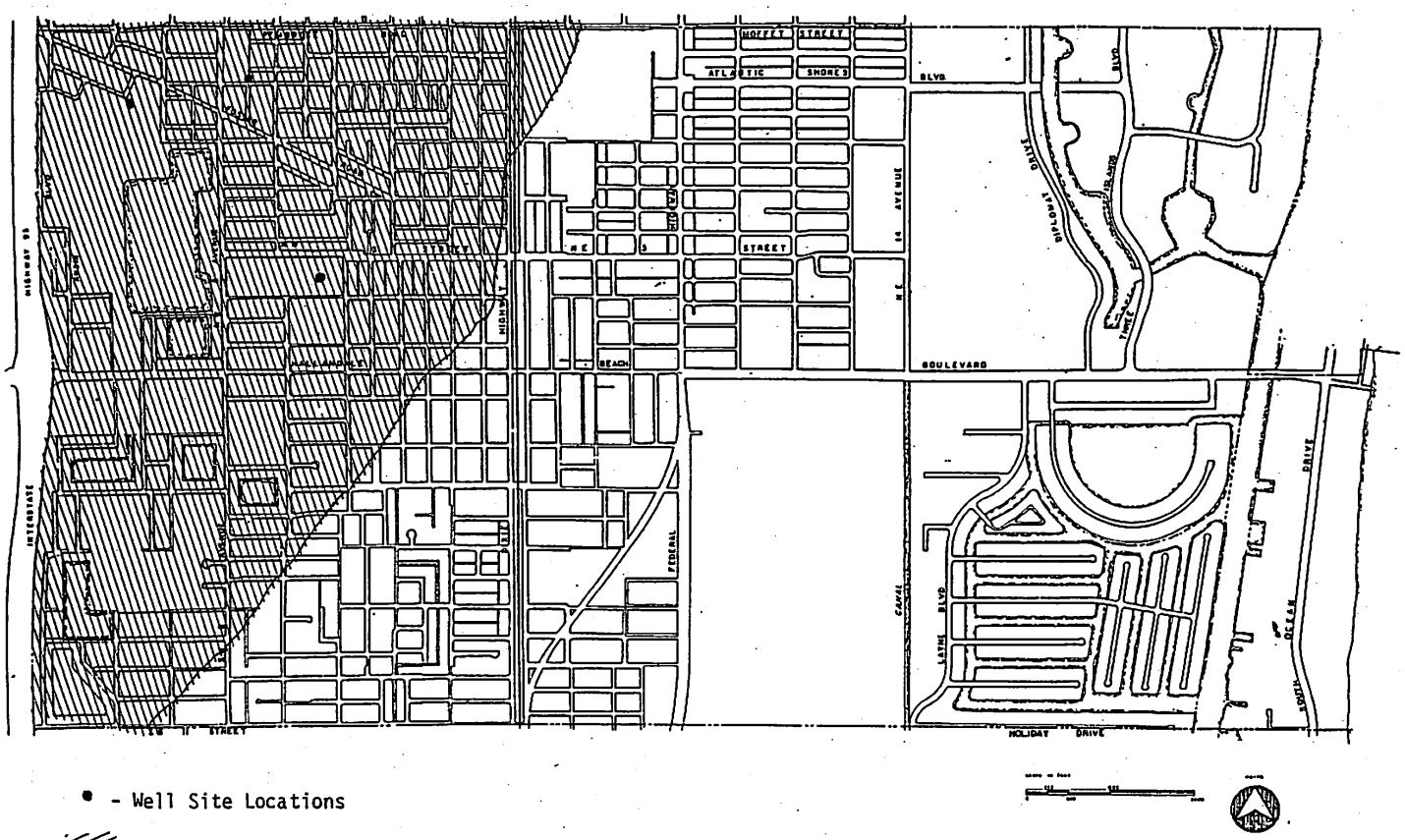
7.5.1 AIR POLLUTION

Non-point sources of air pollution include the intersections of I-95 and Hallandale Beach Boulevard, US Highway #1 and Hallandale Beach Boulevard and SR A1A and Hallandale Beach Boulevard. During peak traffic periods localized air quality is greatly affected by idling vehicles. The City completed a Transportation Master Plan in 2008. The Plan includes options for reducing traffic congestion.

7.5.2 WATER POLLUTION

The City had three water production well sites in N.W. Hallandale Beach, which included eight wells. Wells 1, 2, 4, and 6 were closed (August, 1988) due to salt water intrusion problems. Wells 3 and 5 are still used only in emergencies. The two remaining wells (7 and 8) are allowed to continue operation. The wellfield influence area and wells are regularly monitored by the Broward County Water Resources Management Division which is charged with the responsibility of regulating such pollution under the Broward County wellfield protection ordinance requirements. *For a map of the Wellfield Cone of Influence Area see Figure 7-2.

FIGURE 7-2
WELL FIELD CONE OF INFLUENCE



According to Broward County, saltwater intrusion is one of the County's more serious water quality issues. The saltwater intrusion area has increased in size over the past 40 50 years due primarily to drainage of freshwater wetlands and increased pumping in the Biscayne Aquifer for domestic and irrigation uses. The City of Hallandale Beach is within one of the ten major wellfields in Broward County which is impacted by saltwater intrusion.

The "1986 Florida Water Quality Assessment 305(b) Technical Report" identifies the estuarine waterways in Hallandale Beach as good (meets the designated use). Finger canals provide the waterways from adjacent developed areas to the Intracoastal Waterway. Water quality in these canal systems is strongly influenced by stormwater runoff.

7.5.3 MINERAL EXTRACTION

There are no active sand or limestone dredging sites within the City.

7.5.4 HAZARDOUS WASTE

Broward County regulates hazardous waste through their Environmental Quality Control Board. Presently, there are no regulations for residentially produced hazardous waste, such as: oil, paints, insecticides, cleaning fluids, etc. Commercial wastes are identified and disposed of at the Broward County Landfill.

7.6 CURRENT & PROJECTED WATER NEEDS AND RESOURCES

Water for the City of Hallandale Beach is obtained by pumping from the highly permeable Biscayne Aquifer. The aquifer is composed chiefly of permeable limestone, sandstone, and sand that extends from land surface to a depth of approximately 200 feet. The major source of recharge to the aquifer is rain that infiltrates to the water table. Consequently water levels in the aquifer are high during periods of high rainfall and low during periods of little rainfall.

The configuration of the water table is greatly influenced by the Intracoastal Waterway, the Oleta River, Snake Creek Canal, and municipal pumping. Groundwater level data indicate that the effect from municipal pumping is relatively small. The water-level gradient is gentle; east of the ridge area it is seaward, to the southeast it is toward the Oleta River, and to the southwest it is toward Snake Creek Canal.

Gradients west of the ridge area are nearly flat. During low-water periods, the well field is recharged by inflow from Snake Creek Canal. During high-water periods, water levels in Snake Creek Canal are regulated to aid in lowering water levels in the Hallandale Beach area.

Pumping-test data indicate that large quantities of water are available from the Biscayne aquifer in the area. The chemical quality of the ground water is generally good, the water is relatively hard.

Saltwater contamination of freshwater supplies in Hallandale Beach has been a long standing threat. The wellfield is 2.0 miles west of the Intracoastal Waterway, which is connected to the ocean. The salt front has moved inland, by direct intrusion of sea water, to 0.3 mile east of the well field. Freshwater levels maintained at an elevation above sea level would help to keep the saltwater from moving farther inland into the aquifer. During low-water periods, the freshwater level has been less than 0.8 foot above sea level in the vicinity of the wellfield. During critical dry periods, good management of the fresh water supplies is important in helping to keep saltwater from moving farther inland.

The City of Hallandale Beach is presently pumping an average of 1,277,000,000 gallons of water per year or about 105 million gallons per month from the two remaining wells.

The City supplements raw water from its own wells with raw water purchased from the Broward County Regional Raw Water Supply System and finished water from North Miami Beach to meet its potable water needs. Present water needs are approximately 5.27 million gallons per day of finished water, with a 2018 projection not to exceed 6.8 million gallons per day.

8.1 INTRODUCTION

The Recreation and Open Space Element identifies existing and projected public and private sites which are available to the public, analyses leisure trends and the nature, scope, and cause of any recreation and open space problems; and develops appropriate plans and program policies to achieve the required recreation and open space.

8.2 GOALS, OBJECTIVES, AND POLICIES

8.2.1 INTRODUCTION

The appearance and quality of City facilities can greatly impact the quality of life within the community. Because of the significant number of citizens who generally come in contact with the recreation program facilities, it is apparent that their condition and appearance will have a direct impact on their utilization. Therefore, in order to improve conditions and appearance of Parks and Recreation Facilities, the following goals, objectives and policies should be accomplished during the next five years.

GOAL 1: The City of Hallandale Beach shall continue to upgrade public park and recreation facilities in an effort to assure a positive quality of life for all residents of the City.

OBJECTIVE 1.1: The City shall establish a Parks and Recreation Improvement Plan in 2010 which explores the park and recreational needs of the community. This plan will be updated annually.

POLICY 1.1.1: The City shall institute parks and recreation facility planning which has been identified in the Parks and Recreation Improvement Plan to meet the needs of the community.

POLICY 1.1.2: The City shall maintain and enhance recreation and open space by implementing a recreation open space standard of 3.0 acres per 1,000 permanent residents as consistent with the Broward County Land Use Plan.

POLICY 1.1.3: The City shall continue to coordinate public and private resources to ensure the recreational and open space needs of all City residents are met.

POLICY 1.1.4: The City shall continue to only permit those uses within designated park and recreation areas that are identified in Section 2.3 of the Future Land Use Element for Public Parks.

OBJECTIVE 1.2: The City shall implement annually a comprehensive replacement program for parks and recreation related capital items and facilities.

POLICY 1.2.1: The City shall identify and then replace or renovate obsolete or deteriorated parks and recreation facilities within five years.

OBJECTIVE 1.3: The City shall continue to prepare manuals, checklists and schedules with standards for maintenance of parks and recreation facilities to ensure that facilities and capital items are continuously in working order.

POLICY 1.3.1: The City shall provide for recreation and open space programs within its five (5) year Capital Improvement Program.

OBJECTIVE 1.4: The City shall continue to enhance the amount and quality of recreational and open space areas and opportunities to provide for the existing and future needs of the community.

POLICY 1.4.1: The City shall pursue additional land areas for Recreation and Open Space uses, through either acquisition, redevelopment, lease arrangement, or acceptance of dedication.

POLICY 1.4.2: The City shall continue to explore the feasibility of bikeways, pathways, internal connections, and walkable streets that lead to and around park and recreation facilities within the City.

POLICY 1.4.3: Ample and secure bicycle parking shall be provided at schools, libraries and park and recreation facilities throughout the City.

POLICY 1.4.4: The City shall insure that park and recreation facilities are accessible to the elderly and persons with disabilities, consistent with the Americans with Disabilities Act (ADA).

OBJECTIVE 1.5: The City shall continue to maintain a computerized inventory and map of all public recreational lands and facilities.

POLICY 1.5: The City shall maintain a listing, including acreage information, of all privately owned and/or maintained, publicly accessible sites and facilities which have been provided for public use through appropriate mechanisms, and accepted by the City as such, as part of the parks system.

GOAL 2: The City shall continue to identify the recreational program needs of the community.

OBJECTIVE 2.1: The City shall continue to institute appropriate programs and add new programs as needed.

POLICY 2.1.1: The City shall identify new programs to meet the needs of City residents that are identified in the City's Strategic Planning Process.

OBJECTIVE 2.2: The City shall continue to promote public awareness of Parks and Recreation programs and activities through the distribution of public information highlighting park programs and facilities.

POLICY 2.2.1: The City shall develop and distribute brochures, and special event flyers to citizens, and utilize local news media to promote recreational programs.

GOAL 3: The City shall develop balanced and stable sources of revenue for park and recreation facilities.

OBJECTIVE 3.1: The City shall continue to implement an equitable system of fees and charges for use of public recreation and open space facilities.

POLICY 3.1.1: The City shall make periodic review of comparable services in the area (other local governments as well as the private sector) to determine recommended fees and charges.

OBJECTIVE 3.2: The City shall research alternative funding sources on an ongoing basis for recreation and open space.

POLICY 3.2.1: Donations and grants shall continue to be pursued to offset some of the costs for the purchase and/or development of new recreation and open space.

POLICY 3.2.2: The City shall continue to enforce through its Codes and Ordinances that development provide for or pay its fair share of the Cost of providing for the recreational needs of the City's residents through the development review process.

8.3 INVENTORY

EXISTING CONDITIONS

~~INVENTORY~~

PUBLIC FACILITIES

The City of Hallandale Beach owns or leases and maintains the following recreational areas:

1. Foster Park Plaza
2. O.B. Johnson Park
3. B.F. James Park
4. Joseph Scavo Park
5. North City Beach Park
6. South City Beach Park
7. Golden Isles Tennis Center
8. Golden Isles Park
9. Peter Bluesten Park and Municipal Pool
10. Ingalls Park
11. Hallandale Beach Cultural Community Center
12. Dedicated Public Waterways
13. Sunrise Park
14. Sunset Park
15. Hallandale Beach City Marina
16. Curci House/ Historic Village
17. Foster Park Plaza
18. Historic Hallandale School House
19. Hallandale Beach Cemetery

PUBLIC SCHOOLS

The City of Hallandale Beach has a Reciprocal Use Agreement

with the Broward County School Board for City use of the following school sites within the City:

1. Hallandale High School
2. Hallandale Adult Center/ Hallandale Elementary School
3 .Lanier-James Education Center

WATERWAYS

These waterways were included in the 1978 and 1997 certified Recreation and Open Space Plan and provide access to aquatic leisure opportunities for City residents. The following waterways are dedicated for public use.

1. Rolen Acres Canal
2. Schaffer Park Canal
3. Sunset Lake Park
4. Golden Isles Waterways (except Parcel K)
5. Diplomat Golf Estates (DeSoto Waterway)
6. Chaves Lake

CITY-WIDE

Hallandale Beach's required park and open space acreage is 119.6 acres as per the level of service standard adopted in the Broward County Land Use Plan of 3 acres per 1,000 permanent persons. Currently the City has 120 existing acres of public parks and open space, and 68.24 acres of public waterways, therefore, providing a total of 188.24 acres of recreational land for City residents, a surplus of 68.64 acres, based upon the 2020 U.S. Census population total for the City of 41,217 ~~39,866~~.

The inventory of existing facilities is described below by Neighborhood Planning District. The recreational areas in the city are shown on Figure 8-1.

FINAL INVENTORY	SIZE (SQUARE FEET)
Parks	
B.F. James Park	2.35
Bluesten Park and Municipal Pool	16.96
Chaves Lake Park	1.92
Curci House/ Moffit House	0.70
Hallandale Beach City Marina	1.39
Foster Park	1.82
Foster Park Plaza	0.70
Golden Isles Park	1.99
Golden Isles Tennis Center	6.02
Hallandale Beach Cultural Community Center	1.95
Ingalls Park	4.65
Joseph Scavo Park	7.00
North Beach	1.68

FINAL INVENTORY				SIZE (SQUARE FEET)
Parks				
O.B. Johnson Park				6.28
PBA Hall/ Old Schoolhouse				0.33
South Beach				3.52
Sunrise Park				2.43
Sunset Park				0.47
Hallandale Beach Cemetery				9.16
Diplomat Golf Course				21.66
Sub-Total				92.98
Broward County School Board Property				
Lanier-James Education Center				2.28
Hallandale Adult Center/Elementary School				6.50
Hallandale High School				18.24
Sub-Total				27.02
Total Dry Lands:				120
Public Waterways	Total Park Area	Rule/Formula	Acreage Counted	
Chaves Lake	35	Half of waterway	1	35.00
DeSoto Waterway	4.09	Half of waterway		4.09
Golden Isles Waterways	94.8	Half of waterway	0.3	28.44
Rolen Acres Canal	1.51	0.32 acres (52 lots x 2.02*) x (3/1000)	As adopted in previous ComPlan approval	0.32
Schaffer Park Canal	1.23	0.15 acres (25 lots x 2.02*) x (3/1000)	As adopted in previous ComPlan approva	0.15
Sunset Lake Park	5.05	0.24 acres (39 lots x 2.02*) x (3/1000)	As adopted in previous ComPlan approval	0.24
Total Waterways:	141.68		Total Waterways Counted:	68.24
Park Total Area:	~~240.58~~ ~~261.68~~		Total Park Acreage Counted:	188.24

8.4 DATA AND ANALYSIS

The table below gives the required acreage for projected future City populations.

RECREATION AND OPEN SPACE NEEDS

The existing recreation and open space needs are based on the U.S. Census population figures and the park standards as outlined on the Broward County Land Use Plan. Future recreation and open space needs are based on population projections for the City provided by Broward County Urban Planning and Redevelopment Department, Planning Services Division.

Year**	Population	Required Acreage at LOS 3.0	Surplus or Deficit Acreage at LOS 3:1,000	Achieved LOS
2010	37,113	111.34	76.90	5.07
2015	38,424	115.27	72.97	4.90
2017	38,746	116.24	72.00	4.86
2020	41,773 ~~39,866~~	123.65 ~~119.60~~	64.59 ~~68.64~~	4.51 ~~4.72~~
2025	44,550 ~~40,758~~	133.65 ~~122.27~~	54.59 ~~65.97~~	4.23 ~~4.62~~
2030	47,886 ~~42,629~~	143.66 ~~127.89~~	44.58 ~~60.35~~	3.93 ~~4.42~~
2035	50,241 ~~43,709~~	150.72 ~~131.13~~	37.52 ~~57.11~~	3.75 ~~4.31~~
2040	54,687 ~~44,430~~	164.06 ~~133.29~~	24.18 ~~54.95~~	3.44 ~~4.24~~
2045 (Build-out Population)	57,657	172.97	15.27	3.27

Source: Population and Forecast Allocation Model (PFAM) (2024) and The Corradino Group.

NORTHWEST PLANNING DISTRICT

FOSTER PARK

Foster Park is a 1.82-acre park located at 609 NW 6th Avenue. The current facilities at Foster Park include:

- City of Hallandale Beach's first LEED Certified building, the 9,000 square foot Foster Park Community Center is home to the African American/Caribbean Micro-Library with Computer Lab, and Historic Wing.
- Children's Playground
- Multi-bay swing set
- Walking trail with fitness equipment
- Open Green Space
- Bike racks, benches, receptacles, chess tables, picnic tables
- parking
- gazebo
- Water fountains
- Landscaping

FOSTER PARK PLAZA

Located at 610 NW 6th Avenue, Foster Park Plaza is a 0.70-acre open space facility. Specialty features of Foster Park Plaza include the following:

- a raised flagpole platform with service branch medallions
- raised platform utilized as a stage
- decorative privacy/ artwall
- walking path
- pedestrian lighting
- benches, bike racks, receptacles
- solar trash bins
- water fountain
- landscaping

O.B. JOHNSON PARK

O.B. Johnson Park site is a 6.28 acre neighborhood park, recreation center and human services center. O.B. Johnson Park and the recreation center are located at 1000 NW 8th Avenue. Administration offices for the Human Services Department are also housed within the facility. O.B. Johnson Park also offers youth athletic and camp programs and park facilities can be rented for private and special events and be used for community meetings. The current facilities at O.B. Johnson Park include:

- 41,984 SF community center/intergenerational facility including a basketball gymnasium, teen center with a recording studio, student classrooms, senior citizen area, computer lab, and a weight room.
- Children's playground
- Two outdoor tennis courts with lights
- /multi-purpose field with lights
- Fieldhouse with restrooms, athletic office, concessions, and storage
- Benches, bike racks, receptacles, picnic tables
- Landscaping
- water fountain
- parking

B.F. JAMES PARK

B.F. James Park is a 2.35-acre park located at 777 NW 1st Ave. The park facilities include:

- Children's playground
- a pavilion with 1 tables and seating for 8
- 2 basketball courts (with lights)
- Swimming Pool
- restroom facilities
- Walking trail with fitness equipment
- Benches, receptacles, bike racks
- landscaping
- parking

CHAVES LAKE PARK

Chaves Lake Park is a 1.92 acres outdoor recreational space adjacent to Chaves Lake. This park features:

- outdoor seating and open space
- a walking trail

PBA HALL/ HISTORIC HALLANDALE SCHOOLHOUSE

The Historical Hallandale Schoolhouse, located at 648 NW 2nd St, is a 0.33-acre historic building. The Schoolhouse was built in 1910 and is the oldest building in Broward County known to have been originally built as a schoolhouse. This facility includes:

- walking tours
- indoor and outdoor seating
- landscaping
- parking

HALLANDALE HIGH SCHOOL

Hallandale High School is an 18.24 acre school site located at 720 NW 9th Avenue which the City has a reciprocal use agreement with the School Board which allows the City to use the school's facilities during mutually agreed upon times. Hallandale High School's facilities include:

- athletic fields (with lights)
- running track
- gymnasium
- auditorium
- classroom/meeting room space

LANIER-JAMES EDUCATION CENTER

The Lanier-James Education Center is a school site located at 1050 NW 7th Court which has 2.28 available open space for public use. Available facilities include the following:

- classroom/meeting room space
- outdoor fields

HALLANDALE BEACH CEMETERY

The City Cemetery is located at 801 Northwest 6th Avenue, Hallandale Beach, FL 33009. Visiting hours are from 7:30am to Dusk daily. The Cemetery provides the following:

- walking path
- shade trees
- benches
- Parking

NORTHEAST PLANNING DISTRICT

SUNRISE PARK

Sunrise Park is a 2.43-acre recreational facility located at 800 NE 5 St. The park includes the following facilities:

- one story building housing bathroom facilities, electrical room, and storage
- shade structures
- game, picnic, and multi-use plazas
- children's playground
- covered outdoor fitness center
- walking trail
- butterfly garden
- open play area
- parking
- bike racks, benches, picnic tables, receptacles
- little free library
- landscaping
- electric vehicle charging

GOLDEN ISLES / A1A PLANNING DISTRICT

NORTH CITY BEACH PARK

The 1.68 acres of North City Beach Park is located at SR A1A and Hallandale Beach Boulevard. This beach is open to the public for swimming and attracts people from Broward County, Miami-Dade County, seasonal residents, and tourists. The facilities at the beach include:

- 4,000 square foot restaurant/ spa facility with lifeguard office and public restrooms (not City managed)
- outdoor showers
- Volleyball court
- Benches, bike rack, receptacle, water fountain
- lifeguard stand
- 6,000 square foot community center
- Parking
- landscaping

SOUTH CITY BEACH PARK

Stretching 3.52 acres, South City Beach is located just south of the Beach Club Condominium complex. It attracts people from Broward County and Miami-Dade County as well as seasonal residents and tourists. The facilities at this location include:

- 2,300 square foot restroom/ concession building Outdoor concession seating
- Three pavilions with 1 picnic table (seats 8 each)
- One pavilion with 4 picnic tables (seats 32)
- 2 bocce courts
- Children's playground
- outdoor showers
- lifeguard stand
- picnic tables, benches, bike racks, receptacles
- landscaping
- Parking

GOLDEN ISLES TENNIS CENTER

The Golden Isles Tennis Center is a 6.02 acre facility located at 600 Blue Heron Drive. This facility draws users citywide and from neighboring communities for its tennis tournaments, camps and lessons. The Tennis Complex includes the following facilities:

- 10 tennis courts – 6 hard, 4 clay (with lights)
- 2 bocce courts (with lights)
- 2 basketball courts (with lights)
- 3,500 sf building housing a pro shop, concession area, multipurpose room and office
- sheltered court viewing areas
- restroom, locker and shower facilities
- Maintenance facilities
- Bike racks, benches, receptacles, water fountains
- Landscaping
- Walking trail
- Parking
- Electric Vehicle Charging

GOLDEN ISLES PARK

Adjacent to the Golden Isles Tennis Complex is the Golden Isles Park located 500 Egret Drive which is 1.99 acres. The facilities at this park include:

- children's playground
- a pavilion with 4 tables and seating for 32
- walking trail
- parking
- off leash dog areas
- bike racks, benches, receptacles, water fountains
- covered outdoor fitness center
- restrooms

GULFSTREAM PLANNING DISTRICT

PETER BLUESTEN PARK AND MUNICIPAL POOL

Peter Bluesten Park is a 16.96 acre parcel of land located at 501 SE 1st Avenue and is the City's first LEED Gold facility. The park is home to the Hallandale Beach YMCA and the Hallandale Beach Police Athletic League and hosts many athletic rentals. The facilities at the Bluesten Park include:

- 46,716 sf community center
- 1,711 sf concession stand/field house with restroom facilities.
- 2,261 sf pool house with concession stand and restroom facilities.
- open air amphitheater
- two racquetball courts (with lights)
- YMCA facility
- two picnic pavilion with four tables each (seats 32 each)
- two outdoor basketball courts (with lights)
- Bank Shot basketball court (with lights)
- tee ball field (with lights)
- softball field (with lights)
- high school / senior baseball field (with lights)
- batting cages
- an open astro turf multi-purpose sports field for soccer, flag football or similar sports (with lights)
- children's playground
- two outdoor tennis courts (with lights)
- two surface parking lots with 224 parking spaces, perimeter parking for 93
- concrete sidewalks and pedestrian paths ranging from 10'-8" to 6'-6"in width along the perimeter and throughout the park.
- bike Racks, Benches, receptacles, water fountains
- landscaping
- Electric Vehicle Charging

HALLANDALE BEACH CULTURAL COMMUNITY CENTER

The Hallandale Beach Cultural Community Center is located at 410 SE 3rd Street. The Center is located on 1.95 acres and includes a 10,604 square foot, state of the art cultural community center, that offers programs and classes for the performing and visual arts, as well as entertainment and social events. The facility is available for rent for private events such as parties, weddings, meetings, dinners, dances, and other activities as requested. The administrative offices of the Parks and Recreation Department are also housed at this location. The facility includes the following:

- a 4,700 square foot auditorium that can be set up to seat 180 with tables and chairs or 400 in theatre style seating
- a full kitchen
- multipurpose room
- restroom facilities
- parking
- staff offices
- benches, picnic tables, bike racks, receptacles
- landscaping
- parking

SOUTHWEST PLANNING DISTRICT

INGALLS PARK

Ingalls Park is a 4.65 acre park located at 735 SW 1st Street. Ingalls Park is primarily a passive recreation facility with a multipurpose building. Park facilities can be rented for special events and community meetings. A detailed list of facilities include:

PARK

- Children's playground
- walking trail
- Covered Outdoor fitness center
- a large pavilion with 8 tables and seating for 64
- a small pavilion with 4 tables and seating for 32
- a gazebo
- a pond
- restroom facilities
- Benches, receptacles, bike rack, water fountains
- Landscaping
- Little free library
- parking

BUILDING

- 2836 square feet that can seat 96 with tables and chairs
- serving kitchen
- restrooms
- lobby

SUNSET PARK

Sunset Park is a 0.47-acre neighborhood park located at 814 SW 6 Avenue. The following are a list of features which can be experienced at Sunset Park:

- Children's playground
- walking trail
- pavilion with one table (seats 8)
- benches, bike rack, receptacles, water fountain
- landscaping

CURCI HOUSE/HISTORIC VILLAGE

The Curci House/ Historic Village is a 0.70-acre site, located at 324 SW 2nd Avenue. The site is a historic Hallandale Beach home, "Villa Providence," constructed in 1924, and is listed in the National Register of Historic Places. Additional features are:

- walking tours
- leisure open space
- ADA accessible facilities
- indoor venue rentals

GULFSTREAM ACADEMY SCHOOL

The Gulfstream Academy School is located on a combined site of 6.50 acres located at 900 SW 8th Street. The City has a reciprocal use agreement with the School Board which allows the City to use school facilities at mutually agreed upon times. School facilities include:

- classroom and meeting space
- auditoriums and gymnasiums
- athletic fields and play areas

DIPLOMAT/THREE ISLANDS PLANNING DISTRICT

JOSEPH SCAVO PARK

Located within the Three Islands Section is a 7.00 acre parcel of property that was deeded to the City for recreation use. The park is primarily a passive park and includes the following facilities:

- Children's playground
- walking trail with fitness equipment
- Off leash dog areas
- Restrooms
- Basketball court (not lit)
- Benches, bike racks, receptacles, water fountains
- On street parking
- Electric Vehicle Charging

HALLANDALE BEACH CITY MARINA

The Hallandale Beach City Marina, located at 101 Three Islands Boulevard, spans 1.39 acres and is the most southern dockage and pump out facility in Broward County. The Hallandale Beach City Marina offers annual and transient boat dockage as well as pump out facilities to the boaters in the Hallandale Beach area. The following features can be found at Hallandale Beach City Marina:

- 26 Premium Slips for Annual Lease

- 3 Transient Slips for Stays up to 30 days (5 days maximum if living aboard)
- Water, Electric and Wi-Fi
- Gated Security Entry & Security Cameras
- Restrooms with Outdoor Showers
- Pump out Services Available
- Gazebo with one picnic table (seats 8)
- Parking
- Benches, bike rack, receptacles, water fountain

EXISTING PRIVATELY OWNED FACILITIES

RESIDENTIAL

Privately owned facilities account for the majority number of available recreational areas in the eastern sector of the City. Private condominium developers have included recreational and open space facilities within their properties. The City has previously inventoried these facilities and are listed below:

The privately owned facilities in the Northeast, Diplomat / Three Islands, Golden Isles / A1A Planning Districts, include approximately:*

- 90 swimming pools
- 45 shuffleboard court facilities
- 80 recreational buildings
- 40 tennis court facilities

**Source: Hallandale Beach Planning Department, May 1988. Several new developments have been constructed since 1988 that have increased the total.*

Note: It should be noted that within the Golden Isles Planning District, many of the large single family homes have private swimming pools which provide recreational opportunities for those in the Golden Isles Planning District. (Not included in given total.)

COMMERCIAL RECREATION LAND

Within the City there are approximately 292 acres of privately owned commercial recreation land which provides additional open space and recreation opportunities to the residents of the city. This type of recreational land accounts for approximately 10.3% of the City's total land area. The major commercial recreation lands are shown in Figure 8-1.

GOLF COURSE AND COUNTRY CLUB FACILITIES

The Diplomat Country Club and Golf Course is located at 501 Diplomat Parkway and is approximately 96 ~~104.85~~ acres, although not deed restricted at this time, ~~and~~ is one of the major open space areas in the City. The golf course is semi-public. According to the Broward County Implementation Requirements, 15% of a municipalities total open space and parks acreage requirement can come from golf course acreage. Therefore, 21.66 acres of the Diplomat Golf Course are included in the City Parks Inventory.

RACETRACK AND CASINO FACILITIES

The Gulfstream Park Racetrack and Casino is a thoroughbred racing facility and Casino of approximately 140 acres. In 2006 with State and voter approval, Gulfstream Park added a casino to their venue. In addition, as part of a joint venture the City approved a Development of Regional Impact (DRI) in 2007 for the Village at Gulfstream Park- a 60 acre mixed-use “lifestyle center” on the west portion of their property abutting US 1. The Big Easy is located at 831 North Federal Highway on approximately 50 acres, and Gulfstream Park has added a casino to their property with State and voter approval. Both of these two major recreational facilities provide a unique and important function in the recreational activities and tourist economy for the City and Broward County. These facilities have provided and will continue to provide other recreational activities which benefit the residents of Hallandale Beach as well as other Broward County residents; for instance, art shows, concerts, carnivals, plant shows, etc.

WATERWAYS

Hallandale Beach has 141.68 total acres of public, dedicated waterways. Total acreage accounted for are the following:

1. Rolen Acres Canal- 0.32 acres
2. Schaffer Park Canal- 0.15 acres
3. Sunset Lake Park- 0.24 acres

4. Golden Isles Waterways- 28.44 acres (except Parcel K)
5. Diplomat Golf Estates- 4.09 acres (DeSoto Waterway)
6. Chaves Lake- 35.00 acres

EXISTING REGIONAL PARKS

The State of Florida, Broward County and Miami-Dade County have regional parks which provide open space and recreational opportunities for residents of southeast Florida including Hallandale Beach.

A regional park as defined by the State of Florida, Division of Recreation and Parks is a large, resource- based area that serves two or more communities or counties and is usually located within an hour's driving distance of the residents it serves and ranges in size from a minimum of 250 acres to as much as several thousand acres.

Below is a listing of Florida, Broward and Miami-Dade County Parks which meet the definitions.

STATE OF FLORIDA

1. Oleta River State Recreation Area- 1,043 acres
2. Big Baggs Cape Florida State Park- 400 acres
3. Dr. Von D. Mizell-Eula Johnson State Park- 310 acres
4. Hugh Taylor Birch State Park- 180 acres

BROWARD COUNTY

Broward County has seven (7) regional parks within an hour's driving distance for Hallandale Beach residents with a minimum of 250 acres each.

1. West Lake Park –65.4 acres
2. Markham Park & Target Range-669 acres
3. Tradewinds Park & Stables- 638.5 acres
4. Quiet Waters Park- 427 acres
5. C.B. Smith Park- 296.2 acres
6. Tree Tops Park- 243.3 acres
7. Fern Forest Nature Center- 247.1 acres

Broward County has also classified the following parks as regional even though they are less than 250 acres each. These parks are within an hour's drive for Hallandale Beach residents.

1. Brian Piccolo Park & Velodrome- 175.2 acres
2. T.Y (Topeekeegee Yugnee) Park- 150 acres
3. Miramar Pineland- 156.7 acres
4. North Beach Park- 56 acres
5. Snake Warrior's Island Natural Area- 54.4 acres
6. Hollywood North Beach Park 62.2 acres
7. Hawksbill Park- 0.7 acres

MIAMI-DADE COUNTY

Miami-Dade County has two (2) regional parks within an hour's driving distance of Hallandale Beach residents and a minimum of 250 acres each.

1. Crandon Park- 900 acres
2. Amelia Earhart Park- 515 acres

Miami-Dade County has also classified the following parks as regional, even though they are less than 250 acres. These parks are within an hour's drive for Hallandale Beach residents.

1. Greynolds Park- 249 acres
2. Haulover Park- 1.4 miles

Even though the state and county park acreage does not satisfy any of the requirements for Hallandale Beach recreation and open space, these sites are in proximity of Hallandale Beach and are utilized by Hallandale Beach residents. Hallandale Beach is a member of the South Broward Parks District. These facilities serve City residents and the City is taxed for them.

In addition to the State and County parks that serve the residents of Hallandale Beach, the City is fortunate to be in close proximity to three large national parks including the Everglades National Park, Big Cypress National Preserve and Biscayne National Park.

IMPLEMENTATION

Even though the State and County Park acreage does not satisfy any of the requirements for Hallandale Beach

recreation and open space, these sites are in close proximity of Hallandale Beach and are utilized by Hallandale Beach residents. Hallandale Beach is a member of the South Broward Parks District. These facilities serve City residents and the City is taxed for them.

Within the City there are approximately 292 acres of privately owned commercial recreation land which provides additional open space and recreation opportunities to the residents of the City. These include the Diplomat Country Club and Golf Course as well as the Racetrack and Casino Facilities. This type of recreational land accounts for approximately 10.3% of the City's total land area.

The City will continue to meet the park and recreation needs of the City residents by continuing to implement the Recreation and Open Space Element of the City's Comprehensive Plan. In addition, the City implemented a City-wide Strategic Plan and a City-wide Master Plan as well as a Citywide Parks Master Plan. These planning processes have helped the City formulate a park and recreation program for the City which offers a wide variety of facilities and programs for its current and future populations.

The City of Hallandale Beach embarked on the preparation of a comprehensive City-Wide Parks Master Plan in order to provide a community driven and professionally prepared roadmap to improve public recreation and leisure facilities throughout the community. In March 2012, the Citywide Parks Master Plan was adopted. Master Plan whole park improvements were completed on four parks within the first two years of adoption through general fund and community redevelopment agency funds.

In November 2014, a parks general obligation bond referendum was approved by voters. The approved GO Bond is currently funding park improvements at seven of the City's Master Planned parks. Five projects are done, and the final three are in various stages of completion.

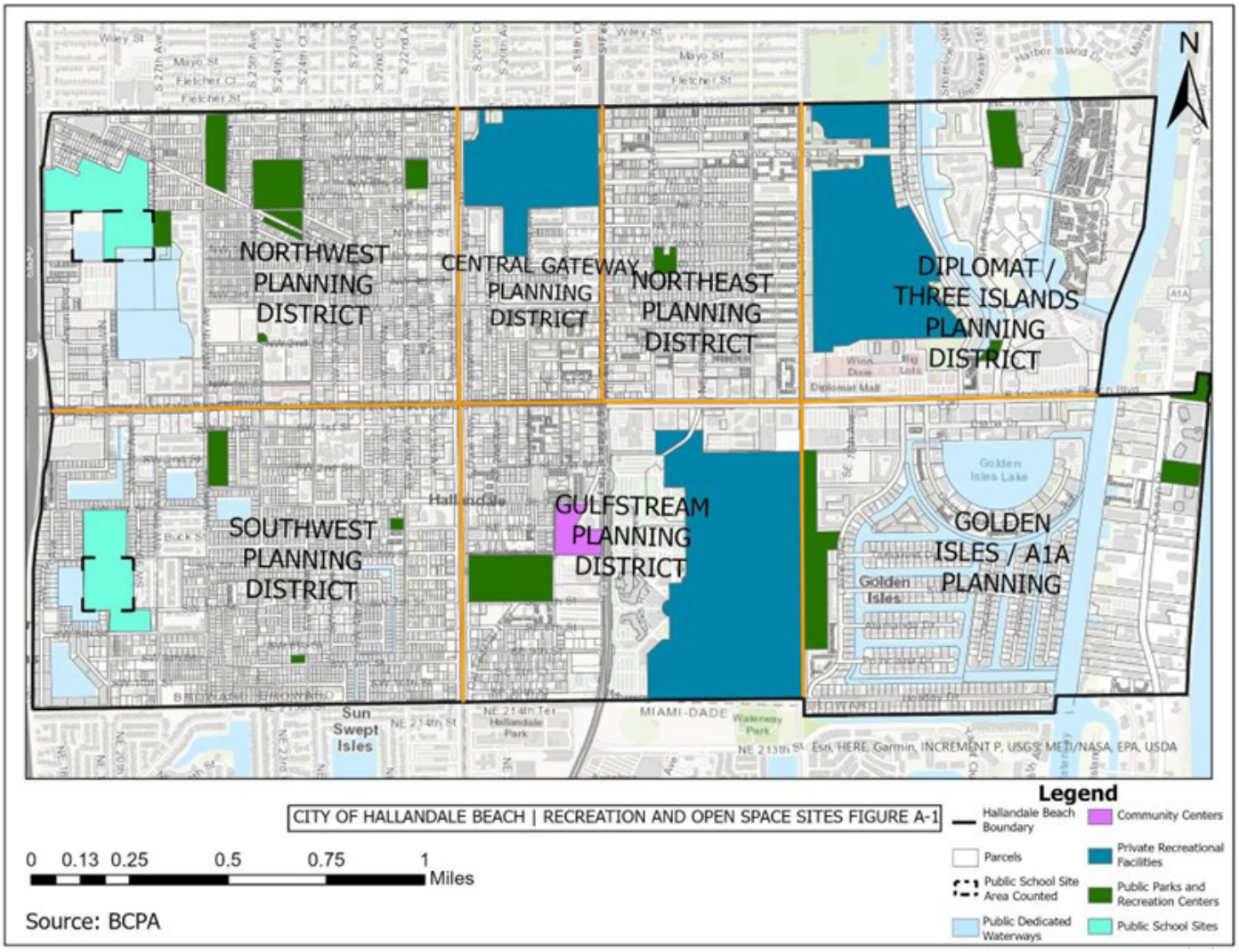
The City is also included in the Segment III Beach Renourishment scheduled to start in November 2023.

Important Park and recreation ideas and needs previously identified include: increasing the number of athletic facilities and fields; increasing the opportunity for neighborhood pocket parks; incorporating special features and trends into parks such as dog parks; teen facilities and programs; health and safety needs of park patrons; parking issues; beach re-nourishment; and green/environmental practices at parks.

The following opportunities for adding to the City's parks and open space are listed:

- F.E.C. Greenway – Creating a greenbelt running the entire length of the Florida East Coast Railroad Right-Of-Way in Hallandale Beach from north to south.
- Greenway on Atlantic Shores Blvd. – Designing and reconstructing this wide Right-Of-Way to include an active greenway from Federal Highway to the Desoto Waterway.
- SE 5th Street Greenway- This greenway would connect Bluesten Park to Federal Highway.
- Community Gardens and other Publicly Accessible Water Retention Areas.
- Transformation of the 10-acre parcel on the east side of Gulfstream Park's Track into an amenity accessible to the Public.
- The addition of other Greenways, Pedestrian Trails, and Bike Paths as envisioned by the Mobility Plan.
- Creation of mangrove area with a walking path along the De Soto waterway.

FIGURE 8-1-A
RECREATION AND OPEN SPACE SITES MAP



9.1 INTRODUCTION

The Capital Improvements Element presents goals, objectives, and policies to be adopted and implemented by the City of Hallandale Beach. These goals, objectives, and policies incorporate the use of sound fiscal principles to efficiently provide and maintain public services and facilities.

These statements present the City's approach toward implementing expansions and improvements to its public services and facilities. This approach ensures that Level of Service standards established in other elements of this comprehensive plan are not compromised by new development, inaction, or neglect.

9.2 GOALS, OBJECTIVES, POLICIES

GOAL 1: The City of Hallandale Beach shall plan and manage its fiscal responsibilities to ensure the timely and efficient provision of capital projects that adequately serve its existing and projected needs.

OBJECTIVE 1.1: A five-year schedule of Capital improvements will be maintained. The schedule will be oriented toward implementation of concurrency requirements of Chapter 163.F.S. that require public facilities and services be available, at levels of service consistent with those adopted in the Comprehensive Plan, when the impacts of development occur.

POLICY 1.1.1: The City will annually adopt a budget that contains funding for Capital improvements from the 5-year schedule of improvements, which identifies funded or unfunded projects and a given level of priority for funding, for projects necessary to ensure that any adopted level of service standards are achieved and maintained.

POLICY 1.1.2: The City shall determine the status and capabilities of existing and proposed facilities (including wastewater, solid waste, traffic, stormwater, and recreation/open space) to accommodate current, new, and redevelopment demands. Required improvements will be added to the 5-year Capital Improvements Plan. Future water supply needs and water requirements will be addressed in the City of Hallandale Beach 10-Year Water Supply Facilities Work Plan. The City shall update the Work Plan at least every 5 years, within 18 months after the Governing Board of the water management district approves an updated regional water supply plan which shall be adopted as part of the City's Comprehensive Plan.

POLICY 1.1.3: The Capital Improvements Plan shall be updated annually to include those projects identified in the first five years of the Water Supply Facilities Work Plan to ensure the potable water Level of Standard is maintained.

POLICY 1.1.4: Capital improvements needs for each individual element of the Comprehensive Plan will be aggregated and listed within the Capital Improvements Element (see Table 9-1). Prioritization of capital improvements projects will be based on their relative importance to achievement of the goals and objectives and implementation of the policies of the Comprehensive Plan. In particular, projects involving public safety and health issues will be of a higher priority than other projects. The five-year Schedule of Improvements will include funding for capital improvements which do not exceed the City's financial capacity to support such expenditures. Funding priorities will be reflected in the annual Five-Year Schedule of Improvements through the year in which they appear in the Schedule.

POLICY 1.1.5: Prioritization of funding capital improvements shall include consideration of the following criteria: eliminating public hazards; elimination of existing capacity deficits; City budget impacts; locational needs based on projected growth areas; accommodation of new development and redevelopment facility demands; and financial feasibility.

POLICY 1.1.6: Prioritization of funding capital improvements shall involve coordination with the comprehensive plans of adjacent incorporated communities, in addition to those of Broward County, South Florida Regional Planning Council, State, the Florida Department of Transportation, the South Florida Water Management District, and any other state agencies that provide public facilities in the City of Hallandale Beach.

POLICY 1.1.7: The City of Hallandale Beach will manage its long-term debt in such a manner that the ratio of the debt service millage to the City millage does not exceed 30 percent.

POLICY 1.1.8: Prioritization of capital improvements projects will consider the policies of the other comprehensive plan elements.

OBJECTIVE 1.2: Construction, improvement, or replacement of public facilities shall be provided at a level that maintains Level of Service standards as adopted in the Comprehensive Plan. Facilities necessary to maintain level of service will be included annually in the five-year Capital Improvement Plan.

POLICY 1.2.1: The Development Services Department shall evaluate impacts resulting from new developments to ensure that adequate facilities are either in place or planned so that Level of Service standards are not reduced.

POLICY 1.2.2: Land use decisions that impact the provision of public services or facilities shall be based upon the City's capability to maintain adequate service levels as described in the elements of the Comprehensive Plan.

POLICY 1.2.3: The City shall provide public facilities and services to serve developments for which development orders were issued prior to adoption of the City's Comprehensive Plan. The ability of facilities to serve new development at levels of service at or above adopted levels shall be established prior to issuance of a development order or permit.

POLICY 1.2.4: The City shall ensure that developments that benefit from the extension or provision of services or facilities shall share a cost of the extension of such service or facility, or make contributions to the City to offset the cost of that service or facility.

POLICY 1.2.5: The assessment of needed capital improvements shall be based on the Level of Service standards adopted in the Transportation, Sanitary Sewer, Solid Waste, Stormwater Management, Potable Water, and Natural Groundwater Aquifer Recharge, and Recreation and Open Space Elements of the Comprehensive Plan. These Level of Service standards include:

OBJECTIVE 1.3: Restrict public expenditures that subsidize development that is not well suited to environmental conditions, or that would not be in compliance with any

TRANSPORTATION	FDOT Design Manual (2026)- ~~FIHS – As per FDOT Guidelines (2002 Manual)~~
	Arterial Roadways – Broward County adopted Level of Service for Southeast Benefit District of Transportation Concurrency Management Area (TCMA). However, for the City's traffic impact analysis use LOS "E" for all arterial roadways.
	City Collector / Local Roads- Level of Service "D" for all City collector and local streets.
SANITARY SEWER	Collection and treatment capacity of 187 ~~190~~ gallons per capita per day (gpcd).
STORMWATER MANAGEMENT FREQUENCY	New Development: Design storm- five year frequency; one hour duration; 3.3 total inches. Existing Development: To meet Florida Building Code drainage standards.
SOLID WASTE	Ability to collect and dispose of 4.75 ~~5.65~~ pounds of so lidwaste per person per day, which includes nonresidential waste.
POTABLE WATER	Maximum day water consumption rate: 187.1 ~~148~~ gallons per capita per day (gpcd).
RECREATION/OPEN SPACE	Park Area Ratio 3.0 acres of park and open space per 1,000 permanent residents.

element of the Comprehensive Plan. In particular, restrict investment in coastal high hazard areas.

POLICY 1.3.1: The City shall not locate any new public facilities within coastal high hazard areas with the exception of recreational facilities and those required to maintain existing level of service standards.

POLICY 1.3.2: The City and/or property owners shall replace capital facilities which have been destroyed. This shall be accomplished in a manner which is in compliance with the Comprehensive Plan. Facilities in coastal high hazard areas that are destroyed due to natural disaster will be replaced at levels no greater than the previously existing level of service. This shall not be construed to limit the replacement and/or upsizing of antiquated facilities to meet modern design standards.

OBJECTIVE 1.4: Funding mechanisms necessary to meet the facilities requirements of the Comprehensive Plan shall be adopted and maintained.

POLICY 1.4.1: In order to adequately maintain adopted Level of Service standards, the City shall maintain an effective and appropriate schedule of user charges, such as the water and wastewater impact fees included in the City Ordinances and shall employ other appropriate means to properly collect necessary funds.

OBJECTIVE 1.5: Land use decisions and available resources will be coordinated within the five-year capital improvements plan. The Plan will be adopted annually.

POLICY 1.5.1: The City shall review changes to the land use plan for consistency with the five-year capital improvements plan.

OBJECTIVE 1.6: The City of Hallandale Beach, in coordination with the County and School Board shall ensure that public school facilities are available for current and future students consistent with available resources and the adopted level of service (LOS). Evaluation Measure Objective 1.6: Record of public school facilities being available at the adopted level of service concurrent with construction of residential development.

POLICY 1.6.1: Consistent with policies and procedures within the adopted Interlocal Agreement (ILA), the District Educational Facilities Plan (DEFP) shall contain a five (5) year financially feasible schedule of capital improvements to address existing deficiencies and achieve and maintain the adopted LOS in all Concurrency Service Areas (CSA). This financially feasible schedule shall be updated on an annual basis and adopted into the CIE.

POLICY 1.6.2: The uniform, district-wide LOS shall be 110 percent of the permanent Florida Inventory of School Housing (FISH) capacity for each public elementary, middle and high school.

POLICY 1.6.3: The adopted LOS shall be applied consistently by the City of Hallandale Beach, Broward County, and the School Board, district-wide to all schools of the same type.

POLICY 1.6.4: The School Board's DEFP, as adopted and amended by the School Board on or before September 30th of each year, is hereby adopted by reference into the CIE.

9.3 EXISTING CONDITIONS

This section summarizes the characteristics of existing public facilities and services as presented in the various elements which comprise this comprehensive plan.

9.3.1 CHARACTERISTICS OF MAJOR PUBLIC FACILITIES

9.3.1.1 PUBLIC EDUCATION FACILITIES

The City of Hallandale Beach is served by four Broward County public schools within the City limits. They are Hallandale High School located along Foster Road in the vicinity of N.W. 9th Avenue, Gulfstream Middle School, located on SW 4th Avenue, Hallandale Elementary School located on SW 8 Street and the South Area Alternative Center, located at 1050 NW 7 Court. In addition, there is the Hallandale Adult Community Center (Vocational, Technical, Adult Education) located on SW 3rd Street which is also administered by the Broward County Public Schools system.

9.3.1.2 PUBLIC HEALTH FACILITIES

There are no major health care facilities within the City limits of Hallandale Beach. The closest hospital to the City is Aventura Hospital, just south of the City limits. The City is also served by Memorial Hospital in Hollywood and Memorial Regional South Hospital.

9.3.1.3 TRANSPORTATION

Within Hallandale Beach are approximately 67 miles of public roadways. These roads can be characterized in the following manner:

- 59 miles of City-maintained streets and 8 miles of county and state maintained roads
- 57 miles of two-lane roads and 10 miles of multi-lane roads
- 10 miles of arterial roads, 17 miles of collector roads, and 40 miles of local roads

Public transportation consists of 3 systems. Broward County provides Hallandale Beach with 6 bus routes and a total of 264 scheduled stop times throughout the day from Monday through Friday. Broward County's Saturday and Sunday bus service offers the same 6 routes for public transit, but with less frequent stops throughout the day. Miami-Dade County maintains 2 bus routes which connect with those of Broward County. The City of Hallandale Beach maintains a minibus system with service primarily within City limits. The city's system consists of 4 minibus routes. The routes include stops at Aventura Hospital, Tri-Rail and the Memorial Health Center on Pembroke Road in Hollywood.

Sidewalks run along both sides of major roads within the City. There are designated bikeways on US1 and Hallandale Beach Boulevard east of US1. There are continuous undesignated bikeways on Hallandale Beach Boulevard from I-95 to US-1. Sidewalks and bikeways within the City of Hallandale Beach will be analyzed through the completion of a Basis of Design for a city-wide Complete Streets Master Plan.

One rail system, the FEC Railroad, passes through the City. The South Florida Rail Corridor (formerly CSX Railroad) runs adjacent to the west City limits (west of I-95 in the Town of Pembroke Park). There are no seaports or airports within City limits.

9.3.1.4 SANITARY SEWER FACILITIES

The City of Hallandale Beach's sanitary sewer system consists of collection facilities. The present collection system is composed of 71.6 miles of gravity sewer mains and 15 lift stations.

In 1966, Hallandale Beach entered into agreement with the City of Hollywood for wastewater treatment services. As a result of the agreement, Hallandale Beach abandoned its 1.0 million gallon per day capacity treatment plant in 1974 and began sending its wastewater to Hollywood's Southern Regional Wastewater Treatment Plant. This treatment plant has a capacity of 50.00 million gallons per day, of which 7.85 million gallons per day are reserved for Hallandale Beach. Wastewater flows from Hallandale Beach to the treatment facility averaged 7.0 million gallons per day. The treatment facility has a service area of 139,802 acres and provides service to several other municipalities. Treatment is accomplished utilizing an activated sludge secondary treatment process. Effluent disposal is accomplished through an ocean outfall located approximately 2 miles offshore at a depth of 90 feet, through deep well injection, and through reuse water. Under Florida law all existing ocean outfalls must cease operation by 2025.

9.3.1.5 POTABLE WATER FACILITIES

The City of Hallandale Beach's potable water supply system consists of water supply wells (two of which are authorized for daily use), a raw water supply connection from Broward County, a water treatment plant consisting of both a lime-softening treatment component and a nanofiltration membrane treatment component, pumping facilities, and elevated and ground storage facilities. The city's water distribution system consists of 78 miles of pipelines which provide potable supplies to all areas of the City.

The City's sources of water are its two operating wells, purchases of treated water from the City of North Miami Beach, and linkage with Broward County's Southern Regional Wellfield for supply of untreated well water. Demands for potable water are estimated to be 5.4 million gallons per day. Since the City's wells are limited to a production limit of 3.5 million gallons per day, Hallandale Beach's water supply agreement with Broward County provides the additional required capacity.

Previously, Hallandale Beach operated a wellfield consisting of 6 wells located at the City's DPW compound. With the exception of two wells, the wellfield was shut down following concerns expressed by the South Florida Water Management District about saltwater intrusion. Two additional wells can be utilized in emergency situations.

Currently, plans are underway to revitalize the City's existing wellfield. One aspect of this project entails the investigation of establishing a salinity barrier. Hallandale Beach's water facilities are designed to provide treatment consisting of lime softening, filtration, and chlorination. Storage facilities consist of two 1.0 million-gallon and one 2.0 million-gallon ground level concrete tanks, and one 200,000 gallon and one 500,000 gallon elevated storage tanks.

9.3.1.6 STORMWATER DRAINAGE FACILITIES

There are no distinguishable drainage basins within the City limits. Flood maps reveal that large areas of the City are subject to flooding during 100-year storm events. Hallandale Beach has undergone a high level of urbanization. Development activity has, over the years, resulted in a large amount of land paved with impermeable material. As well as reducing the land's natural drainage capability, this paving results in greater stormwater flows associated with each rainfall event and a need for a larger and more extensive stormwater drainage system than might otherwise be required.

In addition to roadside swales, the City of Hallandale Beach uses two primary systems for controlling stormwater runoff. The positive drainage system is composed of drainage lines that channel stormwater directly to nearby waterways, canals, and lakes. This system is utilized extensively in the eastern sector of the City. The French drain filter bed system collects stormwater runoff and allows it to either drain slowly through perforated pipes or drainage wells where the water percolates into the ground.

A third system for controlling stormwater runoff is the use of stormwater injection wells. Several injection wells were installed within the past 15 years. Currently, there is a construction project to install major injection well systems in the Northeast Quadrant of the City to vastly improve the stormwater drainage in this area. This project is estimated to be completed in FY 2013/2014. In addition, there are plans underway to perform a similar project in the Southwest Quadrant .

9.3.1.7 SOLID WASTE COLLECTION FACILITIES

The City of Hallandale Beach provides solid waste collection services, and through contract with a private company for disposal service for most City residents. The City Sanitation Division collected 24, 433 tons of solid waste, 1,977 tons of trash, and 1,038 tons of recycling material in FY 2013. Collection and disposal service is also provided to some residential and commercial locations by six private companies. These private companies collected 9,739 tons of solid waste in FY 2013.

There are no public or private solid waste disposal facilities located in the Hallandale Beach's City limits. The City is currently in the planning stages of the possible construction of a Compressed Natural Gas (CNG) fueling station. This would reduce the fueling cost in City vehicles, primarily sanitation trucks, indefinitely. Furthermore, utilization of CNG would be beneficial to the environment.

9.3.1.8 RECREATION FACILITIES

Publicly provided recreation facilities consist primarily of park and recreation areas owned and maintained by the City. These areas are:

FACILITY

B.F. James Park

Bluesten Park and Municipal Pool
Chaves Lake Park
Curci House/ Moffit House
Hallandale Beach City Marina
Foster Park
Foster Park Plaza
Golden Isles Park
Golden Isles Tennis Center
Hallandale Beach Cultural Community Center
Ingalls Park
Joseph Scavo Park North Beach
O.B. Johnson Park
PBA Hall/ Old Schoolhouse
South Beach
Sunrise Park Sunset Park
Hallandale Beach Cemetery
Lanier-James Education Center
Hallandale Adult Center/Elementary School
Hallandale High School

~~Foster Park~~
~~O.B. Johnson Park~~
~~B. F. James Park~~
~~Hallandale Beach City Marina~~
~~North City Beach~~
~~Golden Isles Tennis Complex~~
~~Bluesten Park~~
~~Ingalls Park~~
~~Golden Isles Park~~
~~Scavo Park~~
~~Sunset Park~~
~~Sunrise Park~~
~~Hallandale High School athletic fields~~
~~Historical Curci House~~
~~Public Waterways~~
~~Hallandale Adult Center athletic fields~~
~~South City Beach~~
~~Hallandale Beach Cultural Community Center~~
~~North Beach Community Center~~
~~Hallandale Beach Teen Center~~

The aforementioned public parks and recreation areas offer a wide range of facilities that include: swimming pools, baseball fields, bocce ball, tennis courts, an audinasium, paddleball courts, roller-skating, track event areas, volleyball fields, football fields, ping pong areas, historic preservation, and arts and crafts areas.

During FY 2011-12, the City adopted a City Wide Parks Master Plan which provides park and recreation development polices, programs, specific park designs, an inventoryof recreation lands and facilities a need assessment, development options and a phasing and financial plan.

Joseph Scavo Park, B. F. James Park and South Beach Park were selected as early action sites. Scavo Park reopened April 2014, and BF James Park followed with an opening in July 2014. Construction costs for both parks was $7.6 Million. South Beach Park is currently in the design phase with an estimated construction cost of $3.5 million.

9.3.2 LEVELS OF SERVICE PROVIDED BY MAJOR PUBLIC FACILITIES

This section summarizes results of the analyses of public facilities and services that were performed in the elements of the Comprehensive Plan. This information provides the basis for requirements and priorities of the City to ensure that its goals, objectives, and policies, and its Level of Service standards are reached and maintained.

9.3.2.1 TRANSPORTATION

Several existing problems were identified regarding traffic circulation within the City. These include:

- Hallandale Beach Boulevard's and Pembroke Road's predominant function is as regional arterial roadways serving north Miami-Dade County and south Broward County. However, the roads lack a well defined, sufficient support system of collector streets.

  This deficiency forces Hallandale Beach Boulevard and Pembroke Road to provide property access and to support local circulation, numerous pedestrian crossings and bus and minibus routes. These additional uses of Hallandale Beach Boulevard and Pembroke Road are inconsistent with their primary role and

inhibit their ability to function efficiently as regional arterial roadways.

- The types and frequency of traffic barriers within the City adversely affect traffic circulation, resulting in inadequate access and hindering continuous flow of traffic. These traffic barriers include bodies of water, railroad crossings, Interstate 95, large land areas, and political boundaries. In efforts to overcome these barriers, traffic is forced onto Hallandale Beach Boulevard and Pembroke Road adding to their problems as presented above.

- Traffic circulation is subject to delays caused by events at Gulfstream Racetrack and Casino and Mardi Gras Racetrack and Gaming Center, trains crossing roadways intersecting the FEC and CSX railroad tracks, and the opening of the Intracoastal Waterway Bridge to accommodate boat traffic.

- Land use within the cities of Hallandale Beach, Hollywood and Golden Beach is predominantly residential. Residents west of the Intracoastal Waterway in these communities must commute across the Intracoastal Waterway for many activities including shopping, employment, and medical care.

These traffic circulation problems within the City of Hallandale Beach combine to create effects including congestion, excessive delays, and safety hazards to motorists and pedestrians.

Hallandale Beach, as of 2024, currently meets or exceeds Level of Service D on all City roads except on the following corridors:

- I-95, North of Dade County Line to South of Hallandale Beach Blvd. (LOS E)

- I-95, North of Hallandale Beach Blvd. to South of Hallandale Beach Blvd. (LOS E)

- Federal Hwy, North of Hallandale Beach Blvd. to South of Pembroke Rd (LOS E)

- Pembroke Rd, East of I-95 to West of Dixie Hwy (LOS F)

- Hallandale Beach Blvd, East of I-95 to West of Dixie Hwy (LOS F)

- Hallandale Beach Blvd, East of Dixie Hwy to West of Federal Hwy (LOS F)

~~SW 8th Avenue, just south of Hallandale Beach Boulevard (LOS E), and NE 14th Avenue just north of Hallandale Beach Boulevard (LOS E). The congested intersections of Hallandale Beach Boulevard with US-1 and near I-95 sometimes fall to Level of Service F. A Master Transportation Plan has been adopted that includes recommendations for traffic improvements.~~

9.3.2.2 SANITARY SEWER FACILITIES

Although there are no problems at present regarding the capacity of the sanitary sewer facilities used by Hallandale Beach to collect, treat, and dispose of the wastewater it generates, capacity will become an issue with future redevelopment.

The City is aware of infiltration/inflow in its wastewater collection system. The City has taken actions to reduce infiltration/inflow rates by initiating repairs, purchasing necessary equipment, and funding studies to determine locations of significant flows through the Capital Improvement Project that is funded on an annual basis. Efforts are underway to apply for a State Revolving Fund Loan to further strengthen this program.

9.3.2.3 POTABLE WATER FACILITIES

There are no significant problems associated with the City's potable water facilities. Hallandale Beach's agreement with Broward County provides water which supplements the supplies from its two operating wells. In addition, the City has computerized and upgraded its water treatment plant.

The City completed construction of its new 6 MGD membrane softening water treatment plant. Construction was completed in February 2008 and the plant is operational.

Water from this facility is combined with water from the City's lime softening plant to provide potable water to the whole community.

The City is currently working on the installation of a new water main along SR A1A.With the completion of a water distribution upgrade in the Golden Isles area in 2011, there are currently no areas of the City with insufficient water pressure.

9.3.2.4 STORMWATER DRAINAGE FACILITIES

Over two-thirds of the City's area is designated by the National Flood Insurance Program as special flood hazard areas. These areas are statistically subject to flooding more frequently than once every 100 years. New flood maps in Broward County are currently being adopted. These maps significantly reduce the size of the special flood hazard areas in Hallandale Beach. To eliminate areas where severe ponding of water has occurred following more usual storm events, the City has over the past several years installed storm drains and drainage wells. Presently, almost all of the previously identified problem areas have had storm drains or other drainage structures installed. The City's stormwater drainage facilities are not designed, however, to accommodate rainfalls, storm surges, or storm tides of major intensities. Additionally, the City typically enhances its swales whenever it implements drainage improvements. This increases stormwater drainage capacity and decreases the potential for flooding.

Currently, there is a construction project to install major injection well systems in the Northeast Quadrant of the City to vastly improve the stormwater drainage in this area. This project is estimated to be completed in FY 2013-2014. In addition, there are plans underway to perform a similar project in scope to the Southwest Quadrant.

9.3.2.5 SOLID WASTE COLLECTION FACILITIES

The City currently provides collection and disposal service for most of the City's residents.

9.3.2.6 RECREATION/OPEN SPACE

The City of Hallandale Beach contains 68.24 ~~134.6~~ acres of public waterways and 98.34 ~~63.61~~ acres of public Parks and open spaces. The combination provides about 4.04 ~~5.36~~ acres per thousand permanent residents for recreation and open space based upon the City's 2020 ~~2010~~ US Census population figure of 41,217 ~~37,113~~.

9.3.3 EXISTING REVENUE SOURCES

Revenues to the City's General Fund come from five primary sources. Ad Valorem taxes supply the largest single portion, about 36.0% of total General Fund revenues. Franchise and Utility Taxes supply about 19.1% of the total. Fire special assessments are 10.8% of the total; State & County Revenues and Charges for Services supply about 8.5% and 13.2% respectively. six other line items make up the remaining revenues.

City staff expects Ad Valorem revenues to increase as a percent of total General Fund revenues to about 37% by FY 2018-2019. Other sources of revenue are expected to decrease as a percent of the total. Total General Fund revenues are projected to increase from about $59,544,284 in FY 2014-2015 to about $65,374,212in FY 2018-2019.

Sewer Fund revenues are anticipated to decrease from about $13,190,489 in FY 20142015 to approximately $12,060,000 in FY 2018-2019. User charges are expected to provide about 99.6% of the total in FY 2014-2015 and about 99.5% of the total in FY 2018-2019.

Water Fund revenues are anticipated to decrease from about $11,723,936 in FY 2014-2015 to approximately $12,313,534 in FY 2018-2019. User charges are expected to produce 92.8%of the total in FY 2014-2015 and 93.2% in FY 2018-2019.

9.3.4 LOCAL POLICIES AND PRACTICES

Hallandale Beach analyzes its capital improvements needs every year as a part of its annual budgeting process. Departments of City government indicate their needs and a citywide Capital Improvements Plan is developed. A five-year capital outlay schedule is used to provide long-term direction and coordination.

Level of Service standards are adopted in this Comprehensive Plan to provide additional guidance in the determination of the need for and timing of capital improvements. The level of service standards may affect the timing and location of development or redevelopment if there is a delay in the provision of necessary facilities and services.

9.3.5 NEED FOR AND TIMING OF CAPITAL IMPROVEMENTS

Capital improvements needs identified in the other elements of this comprehensive plan are listed in Table 9-1. Funds are expected to be spent during the year or years specified for each project. The table also indicates whether the project will remedy an existing deficiency, produce additional capacity, or replace current capital assets. The suggested source of funds is also indicated for each project.

The capital improvements identified in the other elements and summarized in this element are designed to support efficient land use in the City of Hallandale Beach as presented in the Future Land Use Element, although most of the capital improvements are not closely related to future land development. Scheduled capital improvements are designed to address the needs of the current population, as well as new residents and businesses resulting from redevelopment.

Florida Department of Transportation (FDOT) is the only state agency planning to provide additional public facilities in Hallandale Beach. One major FDOT project in FY 2014 entails improvements to State Road AIA, including resurfacing of asphalt, sidewalk repair, and curb enhancements. FDOT recently completed a study of lane modification at Hallandale Beach Boulevard and Dixie Highway which has improved traffic flow on Hallandale Beach Boulevard. FDOT is in the process of making these improvements permanent. Installation of sidewalks along Ansin Boulevard are planned by the City for FY 2013. Landscaping enhancements on A1A were completed in FY 2012. The City proposes to continue with its crosswalk enhancement program along Hallandale Beach Boulevard and Federal Highway. The South Florida Water Management District has no major facilities within Hallandale Beach, and has no plans to construct any in the future.

9.3.6 FISCAL IMPLICATIONS OF EXISTING PUBLIC FACILITY DEFICIENCIES, PRIORITIES OF NEED, AND COSTS OF MITIGATING DEFICIENCIES

Hallandale Beach intends to finance its Capital Improvements Plan using retained earnings, developer contributions, grants, loans and future operating revenues. The CIP will not place an excessive burden on the City's revenue generation capabilities. The City does not expect to increase ad valorem tax rates during each of the next five years to finance the 5-Year CIP. If this expectation is not met, the City will consider the removal of low priority projects from the 5-Year CIP, and the possibility of either debt financing or raising the millage rate.

The prioritization of the capital improvements is based on their relative importance to implementing the goals, objectives, and policies of the comprehensive plan. High priority improvements are to be funded earlier and lower priority improvements are to be funded in later years.

Capital improvement needs identified in each element of the Comprehensive Plan will be evaluated. If budget or other constraints exist, capital improvement needs identified in elements pertaining to public safety and welfare will be given priority over needs relating to local amenities, such as parks and recreation. The evaluation of capital improvement projects will include consideration of the following items: the elimination of public hazards and existing capacity deficits; the impact on the City's budget; financial feasibility; the demands created by any development or redevelopment, including related locational needs; and the plans of state agencies and the South Florida Water Management District.

9.4 ANALYSIS OF EXISTING CONDITIONS

9.4.1 NECESSITY FOR A CAPITAL IMPROVEMENTS PLAN TO PROVIDE REQUIRED LEVELS OF SERVICE

Most components of the capital improvements plan presented in section 9.5 of this element are not necessary to provide required levels of service in Hallandale Beach. Most projects in the plan are designed to enhance the

quality of the services provided for City residents, such as the proposed construction of a new fire station to replace the existing outdated Main Fire Station on SW 3 Street and SW 2 Avenue.

9.4.2 CITY'S ABILITY TO FINANCE CAPITAL IMPROVEMENTS

Hallandale Beach's legal debt limit is 10 percent of the total assessed value of all real property in the City. At the end of fiscal year 2012-13, the debt margin totaled $444,411,395 as detailed below:

Net Assessed Value	$3,873,147,661
Plus Exempt Property	$570,966,288
Total Assessed Value	$4,44,113,949
Debt Limit (10% of total assessed Value)	$444,411,395
Total Debt	$ 0
Legal Debt Margin	$444,411,395

Source: Broward County Form DR 403-AM FY 2012-2013

The City's estimate of the net assessed value of all real property in the City for FY 2013-2014 is $3,873,147,661 which represents an increase of about 6.7% over FY 2012-2013.

The City contains very little land which could support new development. In addition, the current economic downturn has negatively impacted redevelopment and property values in general. This figure is estimated to increase at a very low rate, and Hallandale Beach's projected debt capacity is expected to be only slightly higher than the current year, as follows:

Fiscal Year Ending	Debt Capacity
2015	$457,743,737
2016	$471,476,049
2017	$485,620,330
2018	$500,188,940
2019	$515,194,608

The City's long-term debt at September 30, 2013 consists of: Revenue Bonds Series 2005A, Revenue Bonds Series 2007A and Revenue Note Series 2012.

The Revenue Bonds, Series 2001A had been issued for the purpose of financing the acquisition and construction of a new membrane water treatment plant, construction and improvements to the stormwater drainage system and the sewer system. The bonds bore interest at rates ranging from 5.0 – 5.25%. The bonds were current refunded on August 3, 2012 through the issuance of a revenue note from JPMorgan Chase in the amount of $2,770,000 at 1.5% interest. The note matures on November 1, 2021.

The Revenue Bonds, Series 2005A were issued for the purpose of financing the acquisition and construction of a new membrane water treatment plant, construction and improvements to the stormwater drainage system, and construction and improvements to the sewer system. The bonds are not general obligation bonds of the City, bear interest at rates ranging from 3.25-5.0% and are to be repaid solely from water, sewer and stormwater fund net revenue. Principal is payable annually and the bonds mature on February 1, 2025.

The Revenue Bonds, Series 2007A were issued for the purpose of financing the acquisition of park land. The bonds are not general obligation bonds of the City, bear interest at rates ranging from 4.25-5.00% and are to be repaid solely from non-ad valorem revenue. Principal is payable annually and the bonds mature on October 1, 2027.

The Revenue Note, Series 2012 for $5,050,000 was issued for the purpose of financing the purchase of 63 vehicles.

The note is not a general obligation of the City, bears interest at 1.31% and is to be repaid solely from non-advalorem revenue. Principal is payable annually, and the note matures on October 1, 2019.

A summary of annual debt service requirements as of September 30, 2023 ~~2013~~ is as follows:

Governmental Activities												
Year Ending September 30,	Refunding Revenue Bonds Series 2016		HBCRA Redevelopment Revenue Note - Series 2015		General Obligation Bonds- Series 2016		HBCRA Redevelopment Revenue Note - Series 2020		Equipment Capital Lease Obligations		Subscription Librailities	
	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest
2024	$1,740,000	$548,163	$1,515,000	$126,888	$1,360,000	$1,719,756	$3,545,000	$233,730	$255,446	$25,741	$43,468	$2,548
2025	$1,835,000	$458,788	$1,555,000	$85,680	$1,425,000	$1,651,756	$3,900,000	$146,177	$246,575	$17,372	$44,912	$1,765
2026	$1,930,000	$364,663	$1,595,000	$43,384	$1,500,000	$1,580,506	$4,265,000	$50,156	$255,109	$8,841	$46,411	$961
2027	$2,025,000	$265,788	-	-	$1,570,000	$1,505,506	-	-	-	-	$15,180	$134
2028	$2,125,000	$172,663	-	-	$1,650,000	$1,427,006	-	-	-	-	-	-
2029 - 2033	$2,510,000	$501,844	-	-	$9,460,000	$5,928,831	-	-	-	-	-	-
2034 - 2038	$1,725,000	$81,600	-	-	$11,085,000	$4,302,431	-	-	-	-	-	-
2039 - 2043	-	-	-	-	$12,855,000	$2,536,781	-	-	-	-	-	-
2044 - 2046	-	-	-	-	$8,685,000	$548,438	-	-	-	-	-	-
	$13,890,000	$2,393,509	$4,665,000	$255,952	$49,590,000	$21,201,011	$11,710,000	$430,063	$757,130	$51,954	$149,971	$5,408

Business-Type Activities				
Year Ending September 30,	Revenue Note Series 2014		Direct Borrowing State Revolving Loan	
	Principal	Interest	Principal	Interest
2024	$585,000	$20,081	$201,073	$14,940
2025	$600,000	$6,750	$203,004	$13,008
2026	-	-	$204,955	$11,057
2027	-	-	$206,925	$9,087
2028	-	-	$208,914	$7,098
2029- 2033	-	-	$343,946	$16,026
2034- 2038	-	-	$133,121	$4,635
	$1,185,000	$26,831	$1,501,938	$75,851

Governmental Activities – Business Type Activities								
Year Ending September 30	Revenue Bonds Series 2007A		-		Revenue Note Series 2012		Revenue Bonds Series 2005A	
	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest
2014	$1,000,000	$965,000	$610,000	$62,159	$290,000	$39,375	$395,000	$277,390
2015	1,050,000	915,000	715,000	53,481	290,000	35,025	410,000	263,046
2016	1,105,000	862,500	725,000	44,049	300,000	30,600	425,000	247,221
2017	1,160,000	807,250	735,000	34,486	305,000	26,063	445,000	230,039
2018	1,220,000	749,250	745,000	24,791	310,000	21,450	460,000	209,750
2019-2023	7,030,000	2,835,875	1,520,000	19,978	1,275,000	38,737	2,685,000	668,875
2024-2027	7,015,000	898,500					1,280,000	64,750
	$19,580,000	$8,033,375	$5,050,000	$238,944	$2,770,000	$191,250	$6,100,000	$1,961,071

The City has no general obligation bonded debt outstanding. General long-term debt bonds and the notes are collateralized by multiple sources The City has pledged certain revenue to repay revenue bonds and the notes outstanding as of September 30, 2023 The following table reports the revenue, net of related operating expenses for business- type activities, pledged for each debt issue, the amounts of such revenue received in the current year, the current year principal and interest paid on the debt, the date through which the revenue is pledged under the debt agreement, and the total pledged future revenue for each debt, which is the amount of the remaining principal and interest on the bonds and notes at September 30, 2023:

Description of Bonds	Pledged Revenue	Revenue Received	Principal and Interest Paid	Percentage of Current Year Debt Service to Pledged Revenue	Outstanding Principal and Interest	Pledged Through
Governmental Activities						
Refunding Revenue Bonds-Series 2016	Non Ad Valorem	$30,498,090	$2,293,163	7.52%	$16,283,506	2036
General Obligation Bonds- Series 2016	Ad Valorem	$40,319,175	$3,079,506	7.64%	$70,791,013	2046
HBCRA Redevelopment Revenue Note- Series 2015	Tax Increment and Water Public Service Tax	$23,069,574	$1,642,008	7.12%	$4,920,952	2026
HBCRA Redevelopment Revenue Note- Series 2020	Tax Increment	$21,530,979	$3,502,934	16.27%	$12,140,036	2026
Business-Type Activities						
Revenue Note, Series 2014	Net revenues of water, sewer and stormwater utility	$7,587,468	$598,019	7.88%	$1,211,831	2025
State Revolving Fund Loan	New revenues of water and sewer utility, less payment of senior obligations	$2,932,940	$216,012	3.64%	$1,577,788	2038

On July 20, 2016, the City defeased a portion of the Series 2007A bonds through an advance refunding An advance refunding occurs by placing the proceeds of new bond issuances in an irrevocable trust with an escrow agent (third party financial institution),sufficient to provide for all future debt service requirements on the old bond issuance The defeasance of these bonds resulted in the City removing the assets placed in the trust and related debt from the City's financial statements. At September 30, 2023, $8,560,000 of bonds outstanding are considered defeased.

9.5 CAPITAL IMPROVEMENTS SCHEDULE

The Capital Improvements Plan presented in this section includes a listing of each project, the year or years in which the city's capital resources will be utilized to fund the improvement, sources of revenues to fund the proposed improvements, as well as the anticipated impacts of the improvements on operating costs and estimated city-wide revenues for the 5-year planning period.

This Capital Improvements Plan is primarily composed of projects that will enhance the quality of the services provided to City residents, rather than correct deficiencies in the levels of service. Currently, all specified levels of service in this comprehensive plan are being met by the City.

9.5.1 DESCRIPTION OF THE CIP, RESULTING LEVELS OF SERVICE

Capital cost estimates for each project in Hallandale Beach's Capital Improvements Plan for each of the next five years are shown in Table 9-2.

Cost estimates are derived by using various methods which include the experience of City Staff, consultant estimates and construction cost guides. Estimates are designed to include expected future inflation. Short titles of the projects appear in Table 9-2; greater detail for each project can be found in the element which identified the need for the project.

9.5.2 SOURCES OF FUNDS FOR PROPOSED CAPITAL IMPROVEMENTS

The projected expenditures for all proposed projects are aggregated in Table 9-3 by proposed source of funds. Annual projected costs of implementing the five-year CIP range from $8,531,795 in FY 2012-13 to $ 1,945,000 in FY 2016-17. All proposed projects were analyzed to determine their impact on the city's operating budget. The net impact of the proposed projects is a reduction in operating costs over the next five years with the notable exception of stormwater project. The largest single item is the savings expected to result from the Sanitary Sewer Rehabilitation project. This effort is expected to reduce inflow and infiltration into the wastewater system, thereby reducing flow-based treatment costs paid to the City to Hollywood. Operating cost savings are difficult to quantify but are shown to be significant every year. Additional cost savings are being realized through reduced emergency repairs and avoidance of health and environmental damage that could occur during a major system failure.

Projections of Hallandale Beach's tax base, millage rate, and the projected ad valorem revenue which results are shown in Table 9-4. The City has experienced an increase in its tax base of approximately 6.7% in valuation from tax year 2013 to tax year 2014, after deduction of new construction.

An additional source of capital improvements funding is the Transportation Fund. Capital improvements and other operating expenditures funded by the Transportation Fund, have been greater than the fund's anticipated revenues. Additional funds have been transferred into this fund from various other funds within the City in order to maintain existing programs. Sources of the fund are the City's portion of State revenue sharing, the County's local option gasoline tax, and interest on investments.

Table 9-5 presents projected revenues for the City's General Fund for FY 2014-2015 through FY 2018-19. Operations and maintenance expense and the total cost of the capital expenditures which will be funded out of the general fund are also shown.

Table 9-6 shows projected revenues, operations and maintenance and capital expense totals, and the resulting fund balance for the Sewer Fund for FY 2014-15 to FY 2018-19.

Table 9-7 contains projected revenues, operating and maintenance, and capital expenditures, and the resulting fund balances for the Water Fund for FY 2014-15 to FY 2018-19.

Tables 9-5, 9-6, and 9-7 demonstrate Hallandale Beach's ability to meet the obligations created by the Capital Improvements Plan.

9.6 SUMMARY AND CONCLUSIONS

This Capital Improvements Element of the City of Hallandale Beach's Comprehensive Plan is intended to demonstrate the feasibility and sufficiency of the capital improvement plan. The capital improvements in the CIP are based on the analyses in each element of the plan, and are therefore, scheduled to meet the growth projected by the City, and support the goals, objectives, and policies of this plan.

The City will implement the provisions in this element by adoption of the goals, objectives, and policies and execution of the capital improvements plan contained herein.

TABLE 9-2
CAPITAL IMPROVEMENT PROGRAM - 2024 THROUGH 2028
PROJECTS BY CATEGORY

Project Category	Project Number	Prior	2024	2025	2026	2027	2028	Future	Total
Facility Projects									
Fleet Building Roof Repair	P2402	$-	$107,000	$-	$-	$-	$-	$-	$107,000
Generator Pump Reroofing	P240I	$-	$22,000	$-	$-	$-	$-	$-	$22,000
Facility Projects Total		$-	$129,000	$-	$-	$-	$-	$-	$129,000
Fleet Projects									
Electric Charging Stations	P2412	$-	$800	$-	$-	$-	$-	$-	$800,000
Fleet Projects Total		$-	$800,000	$-	$-	$-	$-	$-	$800,000
Parks & Recreation Projects									
Scavo Park Dog Park Artificial Turf Project	PR775	$-	$256	$-	$-	$-	$-	$-	$256,000
Parks & Recreation Projects Total		$-	$256,000	$-	$-	$-	$-	$-	$256,000
Public Safety Projects									
Police Gym Locker-room Renovations	PD241	$	$175	$-	$-	$	$-	$-	$175,000
Public Safety Projects Total		$	$175,000	$-	$-	$	$-	$-	$175,000
Stormwater Projects									
Atlantic Shores Blvd 96 Trunk Line	CIP 1030	$-	$-	$10,598,400	$-	$-	$-	$-	$10,598,400
CDBG 48	P2112	$-	$340,227	$-	$-	$-	$-	$-	$340,227
CDBG 49	P2203	$-	$218,917	$-	$-	$-	$-	$-	$218,917
Diana Drive Roadway & Drainage Improvements Project	14412	$-	$-	$-	$-	$275,000	$3,989,137	$-	$4,264,137
Foster Road 60” Trunk Line	CIP 1024		$-	$1,566,000	$5,220,000	$5,220,000	$-	$-	$12,006,000

Project Category	Project Number	Prior	2024	2025	2026	2027	2028	Future	Total
N.W.3rd St 48" Trunk Line	CIP 1029		$-	$1,157,760	$-	$-	$3,859,200	$3,859,200	$8,876,160
N.W. 7th Ave 48" Trunk Line	CIP 1026	$-	$-	$-	$-	$-	$4,140,000	$4,140,000	$8,280,000
S.W.11th Ave 48" Trunk Line	CIP 1031	$-	$-	$-	$-	$3,924,720	$3,924,720	$-	$7,849,440
Stormwater Flap Gates-Golden Isles Outfalls	P2120	$-	$-	$-	$-	$-	$1,109,520	$1,109,520	$2,219,040
Stormwater Flap Gates-Three Islands Outfalls	P2120B	$-	$-	$-	$-	$-	$993,500	$993,500	$1,987,000
Stormwater Projects Total		$-	$559,144	$13,322,160	$5,220,000	$9,419,720	$18,016,077	$10,102,220	$56,639,321
Technology Projects									
Digital Display by Library	PR241	$-	$220,000	$-	$-	$-	$-	$-	$220,000
Technology Projects Total		$-	$220,000	$-	$-	$-	$-	$-	$220,000
Transportation & Mobility Projects									
Atlantic Shores Roadway Improvement	P1601	$-	$-	$-	$8,768,491	$4,768,490	$1,000,000	$-	$14,536,981
Bus Stop Digital Signage	M2104	$-	$513,600	$-	$-	$-	$-	$-	$513,600
Church Drive Complete Street Project	TAM-009	$-	$-	$-	$-	$207,777	$1,348,875	$-	$1,556,652
City-Wide Bus Shelter Improvements	M2103	$-	$1,335,890	$1,335,890	$-	$-	$-	$-	$2,671,780
City-Wide Replacing Existing Damaged Sidewalk	M2102	$-	$2,971,000	$-	$-	$-	$-	$-	$2,971,000
County Line Road/ SW 11th St Bicycle Path Improvements	TAM-018	$-	$-	$-	$33,000	$230,000	$-	$-	$263,000
Crosswalks Upgrades	M2101	$-	$286,924	$-	$-	$-	$-	$-	$286,924
Diana Drive Extension Project	TAM-008	$-	$-	$-	$250,000	$-	$3,937,920	$-	$4,187,920
Diplomat Parkway Bike Path Improvement	TAM-017	$-	$-	$ -	$110,000	$1,210,000	$-	$-	$1,320,000
Dixie Highway & NE/SE 1st Avenue Corridor from County Line to Pembroke Road. (Lane Repurposing & Complete Street Project)	TAM-005	$-	$-	$-	$-	$1,683,000	$14,125,650	$-	$15,808,650

Project Category	Project Number	Prior	2024	2025	2026	2027	2028	Future	Total
EV Fleet Facility	M2303	$-	$4,121,000	$-	$-	$-	$-	$-	$4,121,000
Golden Isles Safe Neighborhood District Roadway Improvement	TAM-028	$-	$-	$150,000	$1,000,000	$-	$-	$-	$1,150,000
Hallandale Beach & NE 14th Ave Dual Turn Lanes	TAM-022	$-	$-	$-	$-	$115,500	$3,681,315	$-	$3,796,815
Hibiscus Drive Roadway Improvement	TAM-025	$-	$-	$-	$660,000	$-	$10,549,000	$-	$11,209,000
NE 4th Court Median Opening	TAM-023	$-	$-	$-	$-	$107,525	$-	$869,688	$977,213
NW 3rd Street Complete Street Project (Dixie Hwy to 5th Terrace)	M2301	$-	$569,995	$-	$927,529	$2,745,575	$-	$-	$4,243,099
NW 3rd Street Expansion to NW 8th Ave. from NW 6th Ave	TAM-012	$-	$-	$830,000	$-	$2,851,200	$-	$-	$3,681,200
NW SW 8th Avenue	M2105	$-	$180,000	$-	$1,725,000	$1,725,000	$-	$-	$3,630,000
Old Federal Highway & SE 3rd Street Safety Project	TAM-013	$-	$-	$-	$-	$150,000	$1,649,500	$-	$1,799,500
Railroad Crossing Safety	P2403	$-	$2,384,458	$-	$-	$-	$-	$-	$2,384,458
SE 4th Street Facility Extension	TAM-015	$-	$-	$39,600	$356,400	$-	$-	$-	$396,000
SE 9th Street FEC Rail Crossing Realignment	TAM-016	$-	$-	$-	$284,048	$1,893,650	$-	$-	$2,177,698
SW SE 3RD STREET	D2206	$-	$100,000	$300,000	$-	$-	$-	$-	$400,000
Three Island Guard House and Traffic Calming Project		$-	$-	$1,800,000	$-	$-	$-	$-	$1,800,000
Transportation & Mobility Projects Total		$-	$12,462,867	$4,455,490	$14,114,468	$17,687,717	$36,292,260	$869,688	$85,882,490
Wastewater Projects									
18-Inch FM Replacement-Layne	P2129	$295,440	$1,844,169	$-	$-	$-	$-	$-	$2,139,609
20-Inch FM (NE 7th St & NE 12th Ave)	P2119	$444,806	$-	$1,954,851	$-	$-	$-	$-	$2,399,657
30-Inch FM Replacement-NE14th	P2121	$293,937	$2,857,046	$-	$-	$-	$-	$-	$3,150,983

Project Category	Project Number	Prior	2024	2025	2026	2027	2028	Future	Total
Dixie Hwy FM Improvements	P2408	$-	$750,000	$5,263,471	$-	$-	$-	$-	$6,013,471
Lift Station # 12 Replacement	P2132	$297,102	$-	$3,063,572	$-	$-	$-	$-	$3,360,674
Lift Station #1	P2002	$6,882,842	$-	$-	$-	$-	$-	$-	$6,882,842
Lift Station #1 FM	P2410	$-	$1,500,000	$-	$-	$-	$-	$-	$1,500,000
Lift Station # 10	P2136	$169,989	$1,115,345	$-	$-	$-	$-	$-	$1,285,334
Lift Station #11	P2137	$164,054	$1,121,280	$-	$-	$-	$-	$-	$1,285,334
Lift Station # 13 Rehabilitation	P2134	$203,636	$1,100,000	$987,000	$-	$-	$-	$-	$2,290,636
Lift Station # 14 Rehabilitation Project	P2122	$104,097	$1,230,000	$150,185	$-	$-	$-	$-	$1,484,282
Lift Station # 15	P2130	$169,989	$1,115,345	$-	$-	$-	$-	$-	$1,285,334
Lift Station #2	P2003	$1,747,070	$-	$-	$-	$-	$-	$-	$1,747,070
Lift Station #3	P2133	$2,496,307	$-	$-	$-	$-	$-	$-	$2,496,307
Lift Station #4 Rehabilitation	P2135	$204,410	$1,418,270	$-	$ -	$-	$-	$-	$1,622,680
Lift Station #6 Rehabilitation	P2018	$384,600	$2,314,000	$-	$-	$-	$-	$-	$2,698,600
Lift Station #7	P2409	$-	$1,500,000	$-	$-	$-	$-	$-	$1,500,000
Lift Station #9 Rehabilitation Project	P2131	$199,070	$-	$1,150,000	$-	$-	$-	$-	$1,349,070
Lift Station 5 Replacement	P2015	$318,845	$2,641,475	$-	$-	$-	$-	$-	$2,960,320
Telemetry Upgrades	P2125	$199,700	$1,209,750	$-	$-	$-	$-	$-	$1,409,450
Wastewater Projects Total		$14,575,894	$21,716,680	$12,569,079	$-	$-	$-	$-	$48,861,653
Water Projects									
10-inch WM Replacement-Layne	P2118	$2,129,320	$-	$-	$-	$-	$-	$-	$2,129,320
12-inch WM Replacement-	P2211	$227,310	$1,612,000	$-	$-	$-	$-	$-	$1,839,310
16-inch WM-Atlantic Shores	P2210	$141,120	$728,327	$-	$-	$-	$-	$-	$869,447
16-inch WM Replacement - HBB	P2209	$242,650	$1,671,200	$-	$-	$-	$-	$-	$1,913,850

Project Category	Project Number	Prior	2024	2025	2026	2027	2028	Future	Total
AMI Remediation Project	P2304	$-	$1,600,000	$-	$-	$-	$-	$-	$1,600,000
Dixie Hwy 12" Water Main	CIP 1028	$-	$-	$6,706,800	$-	$-	$-	$-	$6,706,800
Federal Highway 16" Water Main	CIP 1000	$-	$-	$-	$-	$9,031,200	$-	$-	$9,031,200
Floridan Aquifer Water Supply	P2301	$-	$-	$11,494,000	$-	$-	$-	$-	$11,494,000
Holiday Drive WM Improvements	P2208	$499,430	$-	$6,700,618	$-	$-	$-	$-	$7,000,048
Lime Plant Air Compressor Replacement	CIP 1014	$-	$-	$97,000	$ -	$-	$-	$-	$97,000
Membrane Building Degasifier	CIP 1018	$-	$-	$400,000	$-	$-	$-	$-	$400,000
Membrane and Generator AC Units	CIP 1017	$-	$-	$200,000	$-	$-	$-	$-	$200,000
Membrane Plant Chemical Pump Re	CIP 1015	$-	$-	$3,150,000	$-	$-	$-	$-	$3,150,000
NE 14th Avenue Water Main	P2212	$244,745	$2,820,527	$-	$-	$-	$-	$-	$3,065,272
NE 7th&NE8th	P2128	$4,374,600	$-	$-	$-	$-	$-	$-	$4,374,600
NF Skid 3 and RO Skid 2	CIP 1019	$-	$-	$6,696,500	$6,696,500	$-	$-	$-	$13,393,000
NMB Project Sheet	P2105	$1,754,112	$-	$-	$-	$-	$-	$-	$1,754,112
Porkview Dr. 16 inch Watermain Improvements	P2213	$950,000	$-	$7,130,000	$-	$-	$-	$-	$8,080,000
Polymer & Sodium Hex Storage	CIP 1009	$-	$-	$815,000	$-	$-	$-	$-	$815,000
Raw Water Piping Improvements	CIP 1003	$-	$-	$800,000	$-	$-	$-	$-	$800,000
Raw Water Well 3,5,7 (2)	P2405	$-	$2,424,000	$-	$-	$-	$-	$-	$2,424,000
Raw Water Well 3,5,7 and 8 Upgrade and Pump Replacement	P2404	$-	$3,500,000	$4,890,000	$-	$-	$-	$-	$8,390,000
Raw Water Well R&R	CIP 1006	$-	$-	$-	$-	$-	$1,500,000	$-	$1,500,000
Reverse Osmosis Skid	P2127	$5,195,114	$-	$-	$-	$-	$-	$-	$5,195,114
S OceanDr 16"WaterMain	CIP 1002	$-	$-	$-	$-	$3,560,400	$-	$-	$3,560,400

Project Category	Project Number	Prior	2024	2025	2026	2027	2028	Future	Total
Safe System for Membrane Cleaning	CIP 1020	$-	$-	$75,000	$-	$-	$-	$-	$75,000
Sodium Hypochlorite Feed Storage	CIP 1011	$-	$-	$500,000	$-	$-	$-	$-	$500,000
Sodium Hypochlorite Feed System	CIP 1010	$-	$-	$400,000	$-	$-	$-	$-	$400,000
SW 3rd St 10" Water Main (2)	P2406	$-	$3,722,300	$-	$-	$-	$-	$-	$3,722,300.00
Treatment Units 2 and 3 Rehab	CIP 1008	$-	$-	$-	$3,560,000	$-	$-	$-	$3,560,000
Water Interconnect to Hollywood	P2110	$-	$500,000	$-	$-	$-	$-	$-	$500,000
WTP Diesel Driven Pump and Fuel	CIP 1023	$-	$-	$600,000	$-	$-	$-	$-	$600,000
WTP Disinfection Improvements	CIP 1027	$-	$-	$2,000,000	$-	$-	$-	$-	$2,000,000
WTP Emergency Power Generator	CIP 1016	$-	$-	$750,000	$-	$-	$-	$-	$750,000
WTP Fillers 1-6 Rehab	CIP 1013	$-	$-	$-	$-	$8,990,000	$-	$-	$8,990,000
WTPFillers 7-10 Rehab	CIP1012	$-	$-	$5,995,000	$-	$-	$-	$-	$5,995,000
WTP Raw Meter Vault Improvement	CIP 1007	$-	$-	$400,000	$-	$-	$-	$-	$400,000
Water Projects Total		$15,758,401	$18,578,354	$59,799,918	$10,256,500	$21,581,600	$1,500,000	$-	$127,474,773
Total		$30,334,295	$54,897,045	$90,146,647	$29,590,968	$48,689,037	$55,808,337	$10,971,908	$320,438,237

TABLE 9-2
CAPITAL IMPROVEMENTS 5-YEAR PLAN BY TYPE
CITY OF HALLANDALE BEACH: FISCAL YEAR 2016-2017 TO 2020-2021

	FY16-17	FY17-I 8	FY 18-19	FY 19-20	FY 20-21	FUNDING SOURCES
RIGHT-OF-WAY PROJECTS						
City Complete Streets Design	$0	SS00,000	$800,000	$800,000	$800,000	CRA
A1A Bridge Improvements	$200,000	$0	so	$0	$0	DA
Layne Blvd. Improvements	$50,000	$0	so	$0	$0	TR
Crosswalk Upgrades	$0	$100,000	$100,000	$100,000	$100,000	DA
Wal-mart Swale Area Improvement	$100,000	$0	$0	so	$0	TR
TOTAL	$350,000	$900,000	$900,000	$900,000	$900,000	
FACILITIESIMPROVEMENTS						
Beach Renourishment/Revegetation	$0	$0	$0	so	$0	DA, GF, UT
Main Fire Station	$0	$0	$0	so	$0	CP
Enterprise Resource Planning	$0	$0	$0	$0	$0	GF, UT
Municipal Complex Improvements	$100,000	$0	$0	$0	$0	CP
TOTAL	$100,000	$0	$0	$0	$0	
PARKS AND RECREATION IMPROVEMENTS						
O.B. Johnson Park	$0	$0	$0	$0	$0	CRA
Bluesten Park	$11,932,655	$13,166,787	$8,263,000	$791,555	$0	GO
Golden Isles Tennis Center and Park	$1,045,444	$7,455,960	$0	$0	$0	GO
Ingalls Park	Sl,499,478	$364,100	$0	$0	$0	GO
Sunset Park	$535,801	$0	$0	$0	$0	GO
Historic Village	$707,816	$0	$0	$0	$0	GO
Chaves Lake Park	$122,610	$356,221	$3,231,882	$196,370	$0	GO
Sunrise Park	$86,789	$521,000	$2,238,000	$345,752	$0	GO
TOTAL	$15,930,593	$21,864,068	$13,732,882	$1,333,677	$0	
STORMWATER IMPROVEMENTS						
CDBG 42st Year	$50,000	$0	$0	$0	$0	SW
Hazard Mitigation-Stormwater Drainage	$200,000	$7,000,000	$250,000	$750,000	$660,635	GR, SW,UT
NE 14th Avenue Enhanced Landscaping	$668,578	$0	$0	$0	$0	CRA, SW,UT
TOTAL	$918,578	$7,000,000	$250,000	$750,000	$660,635	
UTILITY IMPROVEMENTS (WATER & SEWER)						
Water Distribution Upgrades	$150,000	$500,000	$500,000	$500,000	$500,000	UT
Public Works- Repair Operations Building	$100,000	$0	$0	so	$0	UT
Water Plant Filtration System Rehab	$1,316,000	$0	$0	$0	$0	UT
Water Treatment Plant Infrastructure	$46,144	$0	$0	$0	$0	UT
High Service Pumps and Transfer Pumps Replacement	$1,350,000	$1,650,000	$1,095,000	$0	$0	UT
Foster Road Lift Station	$135,000	$0	$0	$0	$0	UT
Foster Road Water Main Upgrades	$100,000	$400,000	$0	$0	$0	UT
Hibiscus-Sunset Drive Water Main	$25,000	$0	$0	$0	$0	UT
TOTAL	$3,222,144	$2,550,000	$1,595,000	$500,000	$500,000	
GRAND TOTAL	$20,521,315	S32,3I 4,068	$16,477,882	$3,483,677	$2,060,635	

LEGEND

CD - COMMUNITY DEVELOPMENT GRANTS/GRAND FUND
CE - CEMETERY FUND
CP - CAPITAL PROJECTS FUND
CRA - COMMUNITY REDEVELOPMENT AGENCY
DA - DEVEOPER AGREEMENT
SRF - STATE REDEVELOPING FUND LOAN
SW - STORMWATER DRAINAGE FUND
TF- TRANSPORTTION FUND
TI - THREE ISLANDS SAFE NEIGHBORHOOD DISTRICT
UT - UTILITY FUND

10.0 INTERGOVERNMENTAL COORDINATION ELEMENT

10.1 INTRODUCTION

The general purpose of the Intergovernmental Coordination Element is to assure that all localities coordinate their comprehensive plans and establish relationships with neighboring municipalities, County, Regional Planning Council, State and Federal jurisdictions as required for implementation of local plans. ~~Chapter 9J-5 of the Florida Administrative Code outlines two specific purposes for Intergovernmental Coordination:~~

- ~~To identify and resolve those incompatible goals, objectives, policies, and development proposed in the City's Comprehensive Plan that are not consistent or are at odds with the Comprehensive Plans of adjacent municipalities and regional and state agencies; and,~~

- ~~To determine and respond to the needs of various coordination processes and procedures with adjacent local governments, and regional and state agencies.~~

The City has developed this element to ensure consistency with FL Statutes Chapter 163 and to show existing and future areas of mutual concern for planning coordination with various agencies and jurisdictions. This element will be utilized to carry out the intent of the City's Comprehensive Plan.

The service area of concern for this element and the implementation of the City's Comprehensive Plan is multi-jurisdictional. The specific County and local governmental jurisdictions which the City will be coordinating with include but are not limited to:

1. The Cities of Hollywood and Aventura, and the Towns of Golden Beach and Pembroke Park, and,

2. Both Broward and Miami-Dade County governmental agencies as required or needed.

There are no designated areas of Critical State Concern within the City of Hallandale Beach; therefore, this element does not address coordination of the rules or principles for development pertaining thereto.

10.2 GOALS, OBJECTIVES AND POLICIES

10.2.1 INTRODUCTION

This section is included for the purpose of demonstrating that the City's Intergovernmental Coordination Element contains the goals, objectives, and policies which are consistent with and further the intent of the State of Florida, South Florida Regional Planning Council and the Broward County Comprehensive Plans.

GOAL 1: To maintain and/or improve existing mechanisms and to establish new ones as required to ensure coordination and cooperation between the City of Hallandale Beach and other units of local, County, Regional, State, and Federal governments regarding planning and development matters.

OBJECTIVE 1.1: The City shall use existing and establish new procedures as needed to ensure consistency and coordination between the City Comprehensive Plan, the State of Florida Comprehensive Plan, the Strategic Regional Policy Plan (SRPP) for South Florida, plans of adjacent municipalities, and plans of other units of local government which provide services within the City, but do not have regulatory authority.

POLICY 1.1.1: The City shall continue to use the Broward County Planning Services Division (BCPS) as a means to ensure consistency and coordination with the Broward County Land Use Plan, the State of Florida Comprehensive Plan, the Strategic Regional Policy Plan (SRPP) for South Florida and the Comprehensive Plans of adjacent municipalities.

POLICY 1.1.2: The City shall continue to use the resources of Broward County Planning Council (BCPC) to provide for consistency and coordination between the City's circulation plan and those of local, county, region and state units of government.

POLICY 1.1.3: The City shall continue to coordinate and cooperate with the Broward County Planning Council, South Florida Regional Planning Council, South Florida Water Management District, Florida Department of

Community Affairs, Florida Department of Transportation and other Federal, state, regional agencies through formal and informal means to carry out the goals, objectives and policies of the Comprehensive Plan.

POLICY 1.1.4: The City shall insure through coordination, that its Land Use Map Series is compatible with the Broward County Land Use Plan and Maps.

POLICY 1.1.5: The City shall continue to participate in the Broward County Planning Council Development Review process and the South Florida Regional Planning Council Development of Regional Impact Review process.

POLICY 1.1.6: The City Land Use Plan and amendments to the Plan shall be approved by the State Department of Community Affairs prior to certification or recertification by the Broward County Planning Council in accordance with Chapter 163, Florida Statutes.

OBJECTIVE 1.2: Use existing and establish new procedures as needed to ensure consistency, coordination and maintenance of levels of service established in the City's Comprehensive Plan with those of the County, Region and State, as well as, those of adjacent local governments having operations and maintenance responsibility for such facilities.

POLICY 1.2.1: The City shall continue to use the Broward County Metropolitan Planning Organization, South Florida Regional Planning Council and the Florida Department of Transportation to facilitate the planning, funding and scheduling of those improvements identified in the Transportation Element, Infrastructure Element and Recreation and Open Space Element of the plan.

POLICY 1.2.2: The City shall identify annually projects to be placed in the Broward County Metropolitan Planning Organizations 5-Year Transportation Improvement Program (TIP) for maintenance and improvement of trafficway levels of service.

POLICY 1.2.3: The City will continue to lobby County and State Agencies for funding and scheduling of those improvements identified in the plan.

POLICY 1.2.4: The City shall continue to work through established mechanisms to ensure that coordination, implementation and funding of the needed improvements identified in the Capital Improvement Element are accomplished.

POLICY 1.2.5: The City will continue to ensure that the highest standards and adopted levels of service for recreational and open space needs, as indicated in the plan, are maintained.

POLICY 1.2.6: The City hereby adopts by reference the City of Hallandale Beach 10-Year Water Supply Facilities Work Plan (Work Plan) for Hallandale Beach dated December 11, 2020, and adopted on February 17, 2021, for a planning period of not less than 10 years. The Work Plan addresses issues that pertain to water supply facilities and requirements needed to serve current and future development within the Hallandale Beach water service area. The City shall review and update the Work Plan at least every 5 years, within 18 months after the Governing Board of the water management district approves an updated regional water supply plan. Any changes affecting the Work Plan shall be included in the annual Capital Improvements Plan update to ensure consistency between the Potable Water sub-element and the Capital Improvements element.

POLICY 1.2.7: Updates to the City of Hallandale Beach 10-Year Water Supply Facilities Work Plan dated December 11, 20220, and adopted on February 17, 2021, shall coordinate with the most current Lower East Coast Water Supply Plan provided by the South Florida Water Management District.

OBJECTIVE 1.3: Encourage the use of interlocal agreements to improve coordination of local development and effective and efficient delivery of services in and between adjacent local municipalities and the City.

POLICY 1.3.1: Continue to use interlocal agreements to provide for services identified in the plan that cannot be provided economically by the City alone.

POLICY 1.3.2: Promote the use of interlocal agreements to provide for extra-jurisdictional service deliveries where efficiency and effectiveness can be enhanced.

POLICY 1.3.3: Pursuant to chapter 163.3177(h) F.S., the City of Hallandale Beach, Broward County and the School Board shall coordinate their planning and permitted processes consistent with the procedures established within the Interlocal Agreement (ILA) as follows:

1. Review and update of the annual DEFP containing the financially feasible schedule of capital improvements for school facilities needed to achieve and maintain the adopted level of service standards in all CSAs.

2. Coordinate County and City land use planning and permitting processes with the School Board's site selection and planning process to ensure future school facilities are consistent and compatible with land use categories and enable a close integration among existing and planned school facilities and the surrounding land uses.

3. Coordinate the preparation of County and City projections for future development with the School Board's school enrollment projections to ensure consistency between the County and City future land use maps and the long term school planning process.

4. Coordinate with the School Board through the Staff Working Group and Oversight Committees regarding the preparation of County and City annual comprehensive plan updates and the School Board's annual update of the DEFP to ensure consistency between the plans.

5. Coordinate with the School Board on the planning, siting, land acquisition, permitting and development of new school facilities to ensure the availability of public facilities, services and grounds, especially for purposes of exploring collocation opportunities.

6. Revise County and City land development codes and School Board policies to establish a county-wide public school concurrency system.

OBJECTIVE 1.4: Utilize established coordination mechanisms to ensure that the proposed population has adequate housing, recreation, shopping and related businesses as indicated in the City's Comprehensive Plan.

POLICY 1.4.1: Continue to work with County and State agencies to ensure that an adequate supply of affordable housing and a choice in housing opportunities is provided.

POLICY 1.4.2: Continue to work with County and State agencies to ensure that the future land use plan provides for adequate choices for housing, business and recreation, along with the required infrastructure facilities as indicated in the element of the Comprehensive Plan.

POLICY 1.4.3: The City shall use the informal mediation process of the South Florida Regional Planning Council to resolve issues and conflicts between the City and other units of local government.

OBJECTIVE 1.5: Coordinate with state, regional and local governments to plan for sea level rise and other issues unique to coastal cities.

POLICY 1.5.1: Pursuant to Coastal Management Policy 1.2.4, the City shall continue to coordinate with representatives of all local coastal governments which are within at least two miles of the boundaries of the Hallandale Beach Coastal area, including Dania Beach, Hollywood, Aventura, Golden Beach, and Sunny Isles, to discuss plans and strategies and the implementation of specific programs to ensure (1) adequate sites for water-dependent uses, (2) prevent estuarine pollution, (3) control surface water runoff, (4) protect living marine resources, (5) reduce exposure to natural hazards, and (6) ensure public access to the Intracoastal Waterway and Atlantic beaches.

POLICY 1.5.2: Pursuant to Coastal Management Policy 2.3.2, in designating adaptation action areas, the City should coordinate with Broward County, adjacent municipalities where applicable, Florida Department of Transportation, and other agencies that plan for or own, operate, and maintain public facilities/infrastructure within or crossing proposed adaptation action areas.



POLICY 1.5.3: The City shall maintain its commitment to environmental protection by coordinating with Broward County and state agencies to ensure continued operation and maintenance of its central sewer system, the eventual decommissioning of the remaining onsite sewage system at the Three Islands Fire Station, and support for the implementation of advanced wastewater treatment technologies where feasible and appropriate, consistent with ss.163.3177(3)(a), (6)(c), and (6)(c)(3), Florida Statutes.

10.3 INVENTORY

10.3.1 INVENTORY OF COORDINATING ENTITIES

Currently, the City of Hallandale Beach has either formal or informal coordination mechanisms with the following agencies or members of the private sector. In addition, City staff members are appointed to represent the City at various County-wide committees. The following list also includes a listing of agreements, by governmental jurisdiction, which the City is currently engaged in.

BROWARD COUNTY
School Board
Recreation Lease
Traffic Engineering Agreement
Emergency Medical Services
Metropolitan Planning Organization
Mutual Fire, Rescue, Emergency or Disaster Interlocal Agreement*
Housing Authority
Health Department
Senior Aides Program
Site Agreement- Human Services Network, Inc.
Adult Education Classes (BCC) (Verbal)
Alcohol and Drug Unit (Verbal)
Community Development Division (Grants)
Planning Services Division
Planning Council
Technical Advisory Committee
City/County Liaison Group
Development Review Committee
Intergovernmental Affairs Office
Tax Assessor's Office
Sheriff's Department
Environmental Quality Control Board
Parks- Dedication Fee Monies
Technical Coordinating Committee
Environmental Protection Department
Public Works Department

*All Broward County Fire Departments have Mutual Aid Agreements with the County and between respective cities.

CITY OF HOLLYWOOD
Department of Growth Management
Beach Restoration Project
Large User Agreement (Wastewater)

CITY OF AVENTURA
Department of Community Development
Mutual Police Assistance Agreement (Scheduled for Future Adoption)

TOWN OF GOLDEN BEACH
Mutual Police Assistance Agreement

CITY OF NORTH MIAMI BEACH
Water Supply Agreement (Purchase)

CITY OF DANIA BEACH
Wastewater Capacity Agreement (Sell Excess)

TOWN OF PEMBROKE PARK
Formalized Automatic Fire Aid Agreement
Stormwater Pump Station Agreement

STATE OF FLORIDA
Department of Environmental Protection
- Ingalls Park- 99 year lease
- B. F. James Park- Grant for development
- Beach revegetation/renourishment

Department of Transportation
Department of Community Affairs
Department of Environmental Protection
Department of State

REGIONAL
South Florida Regional Planning Council
South Florida Water Management District

MIAMI-DADE COUNTY
Planning Department
County Manager's Office
Public Works Department

PRIVATE ENTERPRISE
Florida Power and Light Company
AT&T
TECO Peoples Gas
Comcast Cable

NON-PROFIT ORGANIZATION
Hallandale Beach Community Redevelopment Agency

10.3.2 DESCRIPTION OF ENTITY FUNCTION

The following descriptions are offered to assist in understanding the functional relationships of some of the major entities that the City presently has mechanisms established with.

BC (C.C.L.G.): The Broward County City/County Liaison Group provides an opportunity for local elected officials to research, analyze, and develop solutions to problems affecting neighboring local governments.

BC (D.R.C.): The Broward County Development Review Committee (DRC) acts in both intra and intergovernmental coordination matters. In the intragovernmental coordination process, the DRC provides coordination for review of unincorporated area plats, rezonings, land use plan amendments, and site plans. In intergovernmental coordination, the DRC implements the provisions of the County's Land Development Code which requires review of plats located within each municipality.

BC(DEP): The Broward County Department of Environmental Protection (formerly Environmental Quality Control Board's) duties are vested by charter regarding pollution control. It also inherited other duties and responsibilities vested in it by various agencies of State and Federal governments as well as duties of Noise Control.

BC (I.A.O.): The Broward County Intergovernmental Affairs Office's (IAO) main purpose is to influence Florida legislative and executive decisions pertaining to revenue, policy, and other issues affecting the quality of life in Broward County. Also, the office coordinates with the municipalities of the County in matters of mutual concern.

BC (L.D.O.): The Broward County Legislative Delegation Office provides communication resources between Federal, State, and local governments and Broward County citizens.

BC (M.P.O.): The Broward County Metropolitan Planning Organization is established in order to qualify for federal transportation funds. They are responsible for coordinating efforts of local government regarding transportation plans, programs, and projects to insure compatibility with long-range plans and programs of the County.

BC (P.S.): The Broward County Planning Services Division functions include: being the Local Planning Agency (LPA) for the Broward County Comprehensive Plan, with the exception of the Charter Mandated Broward County Land Use Plan. It is also charged with the development and implementation of the planning programs of County government.

BC (P.C.): The Broward County Planning Council functions include: being the Local Planning Agency (LPA) for the Broward County Land Use Plan, maintenance of the Broward County Trafficways Plan, updating of the Broward County Land Use Plan, certification and recertification of Municipal Land Use Plans, and adoption of the administrative rules regarding said functions. It is also charged with the responsibilities of conducting hearings on long range land use issues and making recommendations to the Board of County Commissioners.

BC(T.A.C.): The Broward County Technical Advisory Committee is responsible for the coordination of technical elements of the Comprehensive Plan and to advise local planning agencies and local government bodies during the preparation of the Elements comprising the Comprehensive Plan.

BC (W.R.A.C.): The Broward County Water Resource Advisory Committee is responsible for hearing requests for special exemptions under the County's Wellfield Protection Program.

(S.F.R.P.C.): The South Florida Regional Planning Council functions as a facilitator, coordinator and informal mitigator on issues of regional scale issues affecting Broward, Dade, and Monroe Counties and their sixty municipalities.

10.4 DATA AND ANALYSIS

The following section outlines the intergovernmental coordination activities, entities, relationships, and existing and proposed mechanisms that are needed to insure the orderly implementation of the City's Comprehensive Plan. Furthermore, these relationships are analyzed and evaluated with respect to their effectiveness and possible improvement. The following definitions are offered to assist in understanding the terms used during the assessments of existing relationships between and among governmental and private entities.

ACTIVITIES

The Comprehensive Planning, management and service activities that are relevant to the Intergovernmental Coordination Element are divided into subjects or activities which are related to the other nine (9) elements of the City's Plan along with two (2) additional categories. These elements and categories are:

- Future Land Use
- Transportation
- Housing
- Sanitary Sewer, Solid Waste, Potable Water, Stormwater Management and Aquifer Recharge
- Coastal Management
- Conservation
- Recreation and Open Space
- Capital Improvements
- Public School Facilities
- *Consistency with other plans
- *Additional Category

These elements and activities are further subdivided into governmental levels; City, County, Regional, State, and Federal, as deemed applicable to the implementation of the City's Comprehensive Plan.

ENTITIES

The basic governmental entities involved in the activity concerning the City's Comprehensive Plan implementation are shown on Table 10-1 along with the agency or jurisdiction abbreviations used.

JURISDICTIONAL AGENCIES/ABBREVIATIONS BROWARD COUNTY GOVERNMENT

BC(BCC)	Broward County Board of County Commissioners
BC(PC)	Broward County Planning Council
BC(CCLG)	Broward County City/County Liaison Group
BC(PS)	Broward County Planning Services Division
BC(DRC)	Broward County Development Review Committee
BC(MPO)	Broward County Metropolitan Planning Organization
BC(TAC)	Broward County Technical Advisory Committee
BC(IAO)	Broward County Intergovernmental Affairs Office

BC(EQCB)	Broward County Environmental Quality Control Board
BC(CDD)	Broward County Housing and Community Development Division
BC(HA)	Broward County Housing Authority
BC(SB)	Broward County School Board
BC(BRA)	Broward County Board of Rules and Appeals
BC(EMA)	Broward County Emergency Management Agency

REGIONAL

SFBC	South Florida Building Code
SCOBCI	Senior Citizens of Broward County, Inc.
SFRPC	South Florida Regional Planning Council
SFWMD	South Florida Water Management District
SFRTA	South Florida Regional Transportation Authority

STATE OF FLORIDA

FDCA	Florida Department of Community Affairs
FDOS	Florida Department of State
FDOHR	Florida Department of State, Division of Historical Resources
FDOT	Florida Department of Transportation
FGFFC	Florida Game and Freshwater Fish Commission
FMP	Florida Marine Patrol
FDHRS	Florida Department of Health and Rehabilitative Services
FDEP	Florida Department of Environmental Protection

FEDERAL GOVERNMENT

UMTA	Urban Mass Transit Administration
USCG	United States Coast Guard
USEPA	United States Environmental Protection Agency
USHUD	United States Department of Housing and Urban Development
USDOT	United States Department of Transportation
USDA	United States Department of Agriculture
USACOE	United States Army Corps of Engineers

OTHER

HSNBCI	Human Service Network of Broward County, Inc.
LSFI	Limousines of South Florida, Inc.
FPL	Florida Power and Light
AT&T	AT&T
TECO	TECO Peoples Gas
CRA	Hallandale Beach Community Redevelopment Agency
LPA	Local Planning Agency - Hallandale Beach Planning and Zoning Board
ARC	American Red Cross

NATURE OF RELATIONSHIPS

The Nature of Relationships attempts to describe the basic division of responsibilities between the coordinating entities, where it exists.

EXISTING COORDINATING MECHANISMS

The means or methods of accomplishing each intergovernmental relationship is generalized as one or more of the following:

- Formal procedures prescribed by local, state, or federal laws or administrative regulations
- Interlocal, interagency agreements or contracts
- Joint coordination or participation in an activity
- Staff to staff relationships
- Informally or specially structured activities
- Informal meetings

CITY ENTITIES WITH BASIC RESPONSIBILITY

Within the City's organizational structure, one department, division or office usually has primary responsibility for intergovernmental coordination of a particular activity. These entities are shown on the City's organizational chart (Figure 10-1).

EFFECTIVENESS/CHANGES

The effectiveness of the existing relationships or mechanisms are summarized and, as appropriate, suggested recommendations for changes are highlighted. Most mechanisms were found to be satisfactory in their coordination performance and not in need of any change.

10.4.1 INVENTORY AND ANALYSIS

The following section (Table 10-2) details intergovernmental coordination activities, entities, existing mechanisms, and nature of relationships. Additionally, the effectiveness of those relationships are analyzed and evaluated with respect to possible change or improvement. The Inventory and Analysis is presented on each component of the Plan as well as on related services and is shown on Table 10-2. Formal agreements are referenced in the table by the symbol *.

TABLE 10-2
ANALYSIS OF INTERGOVERNMENTAL COORDINATION (INVENTORY)
CITY OF HALLANDALE BEACH

Subject / Activity	Entities	Existing Coordinating Mechanism	Nature of Relationship	Office with Primary Responsibility	Effectiveness / Changes
COMPREHENSIVE					
City-Wide Planning	County / Region / State	Informal Meetings, formal procedures via BCPC, BCPS, SFRPC and FDCA, Local Plan Compliance/Consistency	Review City's comp plan for consistency and compliance	Planning (LPA)	Satisfactory / No Change
Development Planning	County / Region	Informal Meetings, formal Review Procedures via BCDRC, SFRPC, LPA	Review/Comment on plats and Development of Regional Impact DRI	Planning (LPA)	Satisfactory / No Change
Region-Wide Planning	County / Region	Informal Meetings, formal procedures via BCPC, SFRPC	Prepare County / Regional Policy / Plans, comments on County, regional issues	Planning (LPA)	Satisfactory / No Change
Regional Comprehensive Planning	County / Region	Informal Meetings and procedures via BCPC, BCTAC, BCMPO, SFRPC	Work towards resolution of conflict	Planning (LPA)	Satisfactory / No Change
LAND USE					
City-Wide Planning	Cities/ County/ Region	Informal Meetings, formal procedures via BCPC, SFRPC and FDCA	Review City's Land Use Element/ Comment on Consistency/Compliance	Planning (LPA)	Satisfactory / No Change
Zoning / Plan Amendments	County	Informal Meetings, formal procedures via BCPC on Zoning/Plan Amendments	Review/Comment recommend on City's request for plan amendments via rezonings	Planning (LPA)	Satisfactory / No Change
Platting	County	Informal Meetings, formal procedures via BCPS/BCDRC	Review/comment on City's application for platting	Planning (LPA)	Satisfactory / No Change
TRAFFIC CIRCULATION					
City-Wide Road Planning	County/ Region/ State Others	Informal Meetings, formal procedures via BCPC, BCMPO, SFRPC, FDOT, USDOT, LPA, SFRTA	Review City's transportation element/ comment on consistency/ compliance	Planning (LPA)	Satisfactory / No Change

Subject / Activity	Entities	Existing Coordinating Mechanism	Nature of Relationship	Office with Primary Responsibility	Effectiveness / Changes
City-Wide Road Maintenance	County	Informal Meetings, formal procedures, Interlocal Agreement via BCBCC	*Through Traffic Engineering Agreement provide for some maintenance, signage and signals	Public Works Department	Satisfactory / No Change
County-Wide Transportation Planning	County and Other	Informal Meetings, formal procedures via BCMPO, USDOT (Member)	* Interlocal Agreement members to provide long-short range planning via Federal and State law or regulation	Planning (LPA)	Satisfactory / No Change
Community Redevelopment Area	County Federal	Informal Meetings, formal procedures via BCCDD	Provide CDBG funding for a variety of infrastructure improvements	Development Services Dept. Public Works Department	Satisfactory / No Change
City Transportation System	Private Co.	Informal Meetings, formal agreement via LSFI	* Provides minibus service, various locations in and around City	Public Works Dept.	Satisfactory / Adding to Routes
Trafficways Beautification	County	Informal meetings, formal procedures via BCBCC	* Agreement that County will design and install beautification items along sections of US1. City will maintain	Public Works Department	Satisfactory / No Change
HOUSING					
City-Wide Housing Planning	County/ Region/ State	Informal Meetings, formal procedures via BCP~~A~~C, SFRPC and FDCA, Local Plan compliance/consistency	Reviews City's Housing Element/ comments on consistency and compliance	Planning (LPA)	Satisfactory / No Change
Public Housing Assistance	County	Informal meetings, formal procedures via BCHA	* Provides Section 8 Certificates for low/mod. Renters	Human Resources Department	Satisfactory / No Change
Low/Mod. Housing Funding	County/ State	Informal meetings, formal procedures via BCCDD	Provides CDBG Grants to CRA to assist with providing housing	Development Services Department, CRA	Satisfactory / No Change
Low/Mod. Housing Funding	County	Informal meetings, formal procedures via BCCDD	County provides in coordination with City and CRA, a variety of housing programs	Development Services Department, CRA	Satisfactory / No Change

Subject / Activity	Entities	Existing Coordinating Mechanism	Nature of Relationship	Office with Primary Responsibility	Effectiveness / Changes
CONSERVATION					
City-Wide Conservation Planning	County/ Region/ State	Informal meetings, formal procedures via BCPC, BCPS, SFRPC and FDCA, FDOS, FDOT, FGFFG, FMP, local plan Consistency/compliance	Reviews City's Conservation Element/ comments on consistency	Planning (LPA)	Satisfactory / No Change
Tree Preservation	County	Informal meetings, formal procedures via BCDRC, BCPC for compliance	*Reviews City applications for compliance with Tree Preservation Ordinance	Planning (LPA)	Satisfactory / No Change
Surface Water Quality Management Aquifer Recharge	County/ Region	Informal meetings, formal procedures via BCEQCB and SFWMD	Administers, regulation for certain surface water quality permitting / City – pervious area requirement zoning ordinance	Planning (LPA)	Satisfactory / No Change
Air Quality Management	County/ State	Informal meetings, formal procedures via BCEQCB and FDEP for compliance	Administers regulation for certain air quality permitting	Planning (LPA) Also Building Division permitting	Satisfactory / No Change
Wellfield Siting and Protection	County/ Region	Informal meetings, formal procedures via BCEQCB and SFWMD for compliance	*Plans and administers regulation of all wellfields	Public Works and Utilities	Satisfactory / No Change
WATER/SEWER SOLID WASTE DISPOSAL					
City-Wide Water / Sewer/ Solid Waste Systems	County/ Region/ State	Informal meetings, formal procedures via BCPC/SFRPC and FDCA, local plan consistency and compliance	Review City's Water/Sewer/Solid Waste Element/ comments on consistency and compliance	Planning (LPA)	Satisfactory / No Change
City-Wide Potable Water Supply	Cities	Formal agreement / North Miami Beach	*Short term agreement to supply treated water to City	Public Works and Utilities	Satisfactory / No Change
City-Wide Potable Water Supply	County	Formal agreement BCBCC	* Long Term agreement to supply raw water from its wellfields to City	Public Works and Utilities	Satisfactory / No Change
City-Wide Sewer System	City	Formal agreement City of Hollywood	*Receive and treat City's raw sewage	Public Works and Utilities	Satisfactory / No Change

Subject / Activity	Entities	Existing Coordinating Mechanism	Nature of Relationship	Office with Primary Responsibility	Effectiveness / Changes
Solid Waste Disposal	County/ Region/ Others	Informal, individually structured procedures	Resolution of specific regional solid waste issues	City Manager / Public Works Department	Satisfactory / No Change
RECREATION / OPEN SPACE					
City-Wide Recreation / Open Space Planning	County/ Region/ State	Informal meetings, formal procedures via BCPC, SFRPC and FDCA, Local Plan Compliance/ Consistency	Reviews City's Recreation/Open Space Element/ comments on consistency and compliance	Planning (LPA)	Satisfactory / No Change
Joint School & Recreation Planning	County/ School Board	Informal Meetings, formal agreement via BCSB	* Coordinates Joint Use Agreement for School/Recreation Use to meet City Recreation needs through leasing	Parks	Satisfactory / No Change
Local Level Park Trust Fund	County	Informal meeting/formal agreement BCBCC	*Collects and distributes monies from the trust fund to the City	Finance (Parks)	Satisfactory / No Change
Park Development	State	Formal agreement via FDEP	* City agrees to develop park with park and state funds for recreation purposes	Parks	Satisfactory / No Change
Beach Planning and Preservation	State	Informal meetings, formal request and agreement via FDEP	* Plans and administers beach protection and restoration agreements a) Revegetation b) Renourishment	Planning (LPA)	Satisfactory / need additional funding to continue re-nourishment and beach restoration
COASTAL MANAGEMENT					
City-Wide Coastal Management Planning	County/ Region/ State	Informal Meetings, formal procedures via BCPC, SFRPC and FDCA, Local Plan Compliance/Consistency	Reviews City's Coastal Management Element/ comments on consistency and compliance	Planning (LPA)	Satisfactory / No Change

Subject / Activity	Entities	Existing Coordinating Mechanism	Nature of Relationship	Office with Primary Responsibility	Effectiveness / Changes
City-Wide Coastal Development Regulation	County/ Region/ Others	Informal Meetings, formal procedures via BCPC, SFRPC, FDEP, BCBRA, USCG and USEPA	Regulates shoreline development through permitting	Planning (LPA) Also Building Division permitting	Satisfactory / No Change
Coastal Planning Disaster Preparedness	County/ State	Informal meetings, formal procedures via BCEMA, and FDCA to coordinate local disaster preparedness plans	Review/ comment on City's Emergency Procedures Manual	Fire, Planning (LPA)	Satisfactory / No Change
CAPITAL IMPROVEMENT					
City-Wide Capital Improvement Planning	County/ Region/ State	Informal Meetings, formal procedures via BCPC, SFRPC and FDCA, Local Plan Compliance	Reviews City's Capital Improvement Element/ comments on consistency and compliance	Planning (LPA)	Satisfactory / No Change
County-Wide Capital Improvement Planning	County/ Cities	Informal Meetings, formal procedures via BCPC, SFRPC and FDCA, Local Plans (between Cities, County) for Compliance	Review City, other cities, and County Capital Improvement Elements as they impact on other for consistency and resolve conflicts	Planning (LPA)	Satisfactory / No Change
PUBLIC SCHOOLS					
County-Wide Public School Planning	County	Formal procedures via BCSB	City is party to the Interlocal Agreement to provide educational facilities for the residents of the City and coordination of development proposals for concurrency purposes	Planning (LPA) City Manager	Satisfactory / No Change
SERVICES					
Fire Service Mutual Aid	County	Informal meeting and exchange of information, formal procedures via BCBCC	* City is a party to the Interlocal Agreement to provide aid during emergency or disaster	Fire / Rescue	Satisfactory / No Change
Emergency Medical Services	County	Informal meeting and exchange of information, formal procedures via BCBCC	* City is a party to the Interlocal Agreement to provide Emergency Medical Services during emergencies or disaster	Fire / Rescue	Satisfactory / No Change

Subject / Activity	Entities	Existing Coordinating Mechanism	Nature of Relationship	Office with Primary Responsibility	Effectiveness / Changes
Summer Food Service Program for Children	State	Formal procedures via FDHRS	* City is a party to agreement to provide lunch and supplement meals to children in summer Program	Parks	Satisfactory / No Change
Health	State	Informal meetings, formal procedures via FDHRS	* City is a party to agreement to provide facilities in return for Health Services (2 Contracts)	Human Resources	Satisfactory / No Change
Human Service Programs	State	Informal meetings, formal procedures via FDCA	*City Administers Grant to provide a wide variety of Human Service Programs to the needy	Human Resources	Satisfactory / No Change
Nutrition Program for Seniors	Private	Informal meetings, formal procedures via HSNBCI	* City provides space for nutrition programs for seniors	Human Resources	Satisfactory / No Change
Senior Aides Program	Private	Informal meetings, formal procedures via SCOBC	*City agrees to use senior aides in their programs	Human Resources	Satisfactory / No Change
USDA Community Food Program	Private	Informal meetings, formal procedures via ARC and USDA	* City provides site, Agency delivers food for distribution to needy	Human Resources	Satisfactory / No Change
Adult Education Classes	Private	Informal agreement between City and Broward Community College	City provides space and senior citizen clients	Human Resources	Satisfactory / No Change
Alcohol and Drug Unit	County	Informal agreement via Broward County Alcohol and Rehabilitation Center	Provides counseling in drug and alcohol abuse	Human Resources	Satisfactory / No Change
Social Security Information to Seniors	Federal	Informal agreement via US Social Security Administration	Provides information to senior citizens regarding retirement	Human Resources	Satisfactory / No Change
Job Service	Federal	Informal agreement via US Department of Employment	City refers clients to Job Service for possible employment	Human Resources	Satisfactory / No Change

Subject / Activity	Entities	Existing Coordinating Mechanism	Nature of Relationship	Office with Primary Responsibility	Effectiveness / Changes
Criminal Justice Planning	County	Informal meeting, formal procedures via BCBCC	*Interlocal Agreement providing for membership on Planning Council to develop/improve Criminal Justice Program Systems, etc.	Police	Satisfactory / No Change
Federal Grants	Federal	Informal applications USHOD, USDOT, UMTA	City will make applications for grants from time to time	Development Services Department, City Manager	Satisfactory / No Change
Utilities	Private / AT&T/ Florida Power & Light	Formal agreement with City	Utility easement agreement with City	Department of Public Works	Satisfactory / No Change
Planning	Miami-Dade County	Meetings, written	Review Plans	Planning	Satisfactory / No Change
Traffic	Miami-Dade County	Meetings, written	Review Plans	Public Works	Satisfactory / No Change

11.1 INTRODUCTION

The Public School Facilities Element (PSFE) of the City of Hallandale Beach Comprehensive Plan establishes a coordinated framework for ensuring that adequate public school facilities are available to meet the needs of current and future students. Developed in collaboration with Broward County and the School Board of Broward County, the element aligns land use and development decisions with school capacity through a school concurrency system that ensures educational infrastructure is provided concurrent with residential growth. It requires annual updates to a financially feasible Five-Year District Educational Facilities Plan (DEFP), outlines standards for managing capacity and level of service (LOS), and provides a mechanism for proportionate share mitigation when capacity shortfalls exist. The element also emphasizes land use compatibility, infrastructure adequacy, and the integration of schools with surrounding communities through coordinated planning, siting, and co-location of public facilities. Ultimately, the PSFE supports quality education by promoting long-term planning, financial responsibility, and intergovernmental collaboration.

11.2 GOALS, OBJECTIVES, POLICIES

GOAL 1: PUBLIC SCHOOL CONCURRENCY

The City of Hallandale Beach City Commission, in collaboration with the Broward County Board of Commissioners and the School Board of Broward County shall ensure that public school facilities will be available for current and future students consistent with available financial resources and adopted level of service standards (LOS). This will be accomplished recognizing the School Board's statutory and constitutional responsibility to provide a uniform system of adequate public school facilities and the authority of the City of Hallandale Beach and Broward County for development permitting and comprehensive planning.

OBJECTIVE 11.1: FINANCIALLY FEASIBLE DISTRICT EDUCATIONAL FACILITIES PLAN

The School Board, pursuant to Chapters 163.3177 and 163.3180 F.S. and the Interlocal Agreement for Public School Facility Planning (ILA), shall prepare and annually update and adopt the Five-Year District Educational Facilities Plan (DEFP) which shall contain a five-year financially feasible schedule of capital improvements to address existing deficiencies and achieve and maintain the adopted level of service in all concurrency service areas (CSA's). The School Board shall also ensure that school facilities are planned to meet the long term planning period of the Public School Facilities Element (PSFE) of the City of Hallandale Beach and Broward County Comprehensive Plans.

EVALUATION MEASURE OBJECTIVE 11.1: Annual updates and adoption of the ILA and maintenance of adopted level of service in the CSA's pursuant to the five-year financially feasible schedule of capital improvements.

POLICY 11.1.1: The DEFP shall include a financially feasible schedule of capacity additions to existing schools and construction of new schools to eliminate existing level of service deficiencies and meet the needs of projected growth for the five-year planning period. This financially feasible schedule shall be annually adopted into the City of Hallandale Beach and Broward County Capital Improvements Elements. This adoption may either be by reference or by restatement of the relevant portions of the adopted DEFP, but in no event shall the city or county attempt to modify the adopted DEFP.

POLICY 11.1.2: The DEFP shall provide year-by-year projections of the capacity needed to achieve and maintain the adopted LOS within the CSA for each school for the five-year planning period. These projections are included in the supporting documents of the PSFE.

POLICY 11.1.3: The DEFP's five-year financially feasible schedule shall provide for the remodeling/renovation of existing schools to meet the identified needs of aging schools and replace worn facilities.

POLICY 11.1.4: The DEFP shall be amended on an annual basis to:

1. add a new fifth year;

2. reflect changes in estimated capital revenues, planned capital appropriation costs, planned capital facilities projects, CSA's and school usage; and

3. ensure the DEFP continues to be financially feasible for the five-year planning period.

POLICY 11.1.5: Annually adopted updates to the DEFP and CSA maps shall be coordinated with annual plan amendments to the CIE of the city and county comprehensive plans. The annual plan amendments shall ensure that the schedule of capital improvements within the respective elements continues to be financially feasible and the LOS will be achieved and maintained.

OBJECTIVE 11.2: CONCURRENCY MANAGEMENT SYSTEM

The City of Hallandale Beach shall adopt a county-wide public school concurrency management system as adopted by the county for implementation of public school concurrency to ensure that public school facilities are available at the adopted level of service standard concurrent with the impact of proposed residential development.

EVALUATION MEASURE OBJECTIVE 11.2: Record of adoption of LDR's to implement county-wide public school concurrency management system consistent with the ILA within 90 days after adoption of PSFE.

POLICY 11.2.1: The City will continue to implement and update when necessary land development regulations which ensure that all facilities will either meet the adopted level of service standards identified in the comprehensive plan elements and land development regulations, and are available concurrent with the impacts of development, or development orders and permits are specifically conditioned on the availability of the facilities and services necessary to serve the proposed development.

POLICY 11.2.2: The CSA's shall be the annually adopted school attendance boundaries for each elementary, middle and high school. The maps of the CSA's are maintained in the data and analysis section of the PSFE.

POLICY 11.2.3: Consistent with the adopted Third Amended and Restated Interlocal Agreement from Public School Facility Planning (TRILA), the uniform district-wide Level of Service Standard (LOS) is established for the following school types for the purpose of establishing a uniform district- wide LOS for public schools of the same type.

1. School Type A is a bounded elementary, middle, or high school that has the equivalent of at least 10% of its permanent Florida Inventory of School House (FISH) capacity available onsite in relocatable. The LOS for school Type A shall be 100% gross capacity (including relocatables).

2. School Type B is a bounded elementary, middle, or high school that has less than the equivalent of 10% of it's permanent (FISH) capacity available onsite in relocatables. The LOS for School Type B shall be 110% permanent (FISH) capacity.

POLICY 11.2.4: If adequate capacity is not available in a CSA for a proposed residential development, but capacity exists in one or more contiguous CSA, the development may proceed consistent with the provisions and procedures in the ILA and county and city LDR's.

POLICY 11.2.5: If adequate capacity is not available in a CSA or contiguous CSA for a proposed residential development, but capacity is scheduled in the DEFP to be available within 3 years after the issuance of final subdivision or site plan approval (or functional equivalent), development of the project may proceed in accordance with the provisions and procedures in the ILA and county and city LDR's.

POLICY 11.2.6: The City of Hallandale Beach shall not approve a residential plat or site plan (or functional equivalent) until the School Board has reported that the school concurrency requirement has been satisfied consistent with the provisions and procedures in the ILA and county and city LDR's.

POLICY 11.2.7: The CSA's shall be established and subsequently modified to maximize available school

capacity and make efficient use of new and existing public schools in accordance with level of service standards and the permanent capacity, taking into account special considerations such as core capacity, special programs, transportation costs, geographic impediments, diversity programs, and class size reduction requirements to prevent disparate enrollment levels among schools of the same type (elementary, middle and high) and provide an equitable distribution of student enrollment district-wide.

POLICY 11.2.8: The projected student impact of a proposed residential development shall be determined using the student generation rates approved by the School Board and adopted within the city and county land development (zoning) code. The student generation rates shall be reviewed and updated by the School Board at least every three years through coordination activities with the city and county.

POLICY 11.2.9: The public school concurrency approval for residential plats shall expire if development within the plat does not commence within 5 years following the date of county commission approval.

POLICY 11.2.10: The public school concurrency approval for residential site plans shall expire if development within the site plan does not commence within 5 years following the date of City Commission and/or Planning and Zoning Board final approval.

POLICY 11.2.11: The City of Hallandale Beach shall maintain a concurrency management system ensuring that public facilities and services, including transportation, potable water, wastewater, solid waste, drainage, and public schools, are available at adopted levels of service concurrent with the impacts of development, in accordance with Section 163.3180, Florida Statutes.

OBJECTIVE 11.3: PROPORTIONATE SHARE MITIGATION

The School Board, pursuant to chapter 163.3180 F.S., and the ILA shall adopt proportionate share mitigation alternatives which provide an option for residential developments unable to meet the public school concurrency requirement. Upon approval of a proportionate share mitigation alternative by the School Board and completion of necessary binding agreements, a development will be deemed to have met the public school concurrency requirement and may proceed.

EVALUATION MEASURE OBJECTIVE 11.3: Record of binding agreements for proportionate share mitigation alternatives.

POLICY 11.3.1: A residential development's proportionate share mitigation value shall be determined by multiplying the number of additional student stations needed to mitigate the impact of the proposed development on schools within the affected CSA(s) not meeting the adopted LOS standards, by the State cost per student station for each school type plus a land impact cost share. Pursuant to Section 163.3180~~(13) (e) (2)~~ (6)(h)(2)(b), F.S., the applicant's proportionate share mitigation obligation shall be credited toward any other impact fee imposed by local ordinance for the same need, on a dollar-for-dollar basis, at fair market value. The local government shall credit such a contribution, construction, expansion, or payment toward any other impact fee or exaction imposed by local ordinance for public educational facilities the same need, on a dollar-for-dollar basis at fair market value. The credit must be based on the total impact fee assessed and not on the impact fee for any particular type of school.

POLICY 11.3.2: Proportionate share mitigation shall enhance the capacity of the schools or provide for the construction of new schools serving the proposed residential development. The mitigation shall equate to at least one permanent classroom, which may be funded by one or more residential developments, or other identified funding sources. Mitigation that results in the need for school site(s) shall primarily be the dedication of land. Proportionate share mitigation shall include the following options, as further defined and subject to, procedures and requirements of the ILA:

1. Purchase or dedication of needed elementary, middle or high school sites;

2. Construction of capacity improvements identified in years four (4) or five (5) of the DEFP including

advancement of such improvements into the first three years of the DEFP;

3. Construction of previously unplanned schools, classroom additions, modular classrooms or similar facilities. Such facility capacity shall be included in the first three years of the DEFP through an amendment approved by the School Board;

4. Construction of the needed capacity at one or more charter schools; and

5. Other mitigation options approved by the School Board on a case by case basis contingent upon a finding by the School Board that the option mitigates the impact of the proposed development.

POLICY 11.3.3: Mitigation shall be assured by a legally binding agreement between the School Board, the applicant, the City of Hallandale Beach and Broward County (as applicable), which shall be executed prior to the issuance of final subdivision plat or site plan approval (or functional equivalent). If the School Board agrees to the mitigation, the School Board must commit in the agreement to placing the improvement required for mitigation in the first three years of the DEFP.

POLICY 11.3.4: The City shall support the collection and use of public-school impact fees that are proportionate, legally defensible, and exclusively allocated to capital improvements needed to accommodate new student enrollment, consistent with Section 163.31801, Florida Statutes.

POLICY 11.3.5: The City shall ensure that impact fees are legally defensible, proportionate, and used solely for capital improvements necessitated by new development, in compliance with Section 163.31801, Florida Statutes, and shall provide timely and transparent accounting of impact fee revenues and expenditures.

GOAL 2: COLABORATE AND COORDINATE TO MAXIMIZE QUALITY EDUCATION

Maximize collaboration and coordination between the City of Hallandale Beach, Broward County, and the School Board to effectively plan for public elementary and secondary school facilities to meet the current and future needs of Broward County's public school population. Pursuant to Chapter 163.3177 F.S., the City of Hallandale Beach and Broward County shall coordinate and cooperate to ensure the adopted public school facilities elements are consistent with each other.

OBJECTIVE 11. 4: LAND USE CONSISTENCY, COMPATIBILITY & ADEQUATE INFRASTRUCTURE

The City of Hallandale Beach, Broward County, and the School Board shall establish coordination mechanisms to ensure that the locations of existing and proposed school sites are compatible with and proximate to the existing and planned land uses they serve. Such coordination shall also ensure there is adequate public infrastructure available to serve existing and planned school sites including infrastructure which provides safe access to schools.

EVALUATION MEASURE OBJECTIVE 11.4.1: Record of School facility locations that are compatible with and proximate to the existing and planned land uses they serve and that adequate infrastructure is in place to serve the school facilities.

POLICY 11.4.2: The City of Hallandale Beach, Broward County, and the School Board will coordinate through the procedures established in the ILA and the city and county planning processes to ensure that existing and proposed public school facility sites are consistent and compatible with the land use categories, future land use maps and policies of the city and county comprehensive plans and enable a close integration between existing and planned schools and surrounding land uses.

POLICY 11.4.3: The City of Hallandale Beach, Broward County, and the School Board shall coordinate to prepare projections of future development and public school enrollment growth, and to ensure such projections are consistent with the city and county future land use maps as well as the School Board's Long Range Public School Facilities Map, consistent with the procedures and requirements identified in the ILA.

POLICY 11.4.4: ~~Consistent with Section 163.3177(12)(g), F.S., t~~The city ~~and county PSFE~~ shall include future condition maps showing existing and anticipated school facilities for the short term (5 year) and long term (10 year) planning time frames. Maps A ~~1~~ through I ~~12~~ (located in the county PSFE support document) depict the short and long-term existing and anticipated public school facilities ~~and ancillary plants~~.

POLICY 11.4.5: Consistent with provisions and procedures in the ILA, the School Board will advise the city and county of inconsistencies in comprehensive plans and plan amendments with the DEFP and Long Range Facilities Plan.

POLICY 11.4.6: The School Board shall monitor and participate in the city's plat, site plan, Development of Regional Impact, land use plan amendment, and other development order/permit processes that may have an impact on current or planned public educational facilities in Broward County.

POLICY 11.4.7: The City of Hallandale Beach, Broward County, and the School Board shall utilize the procedures identified within the ILA, including the Staff Working Group and Oversight Committee established by the ILA, to coordinate the annual review of school enrollment projections in addition to the preparation and annual reviews of public school facilities elements, and ensure that the elements are consistent with each other.

POLICY 11.4.8: The School Board shall annually update and adopt the DEFP and transmit it, including any supplemental amendments, to the city and county for amendment to their respective CIE's to incorporate the updated DEFP consistent with the provisions and procedures of the ILA.

POLICY 11.4.9: The City of Hallandale Beach, Broward County, and the School Board shall share and coordinate information through the plat, site plan, and school siting processes and procedures identified in the ILA to ensure the location, phasing, and development of public school facilities, including additions to existing facilities, is coordinated with the provision of necessary public infrastructure including water and sewer, roads, drainage, sidewalks, mass transit and other infrastructure required to support the public school facilities.

POLICY 11.4.10: The City of Hallandale Beach shall coordinate with the county and School Board through the school siting process identified in the ILA as well as county and city platting and site plan processes to implement strategies, consistent with Florida's Safe Ways to School Program, which reduces hazardous conditions and provides direct, unobstructed and safe access for pedestrian travel (including sidewalks, bicycle paths, signage and signalization) to existing and new school facilities.

OBJECTIVE 11.5: SCHOOL FACILITY SITING, COLLOCATION & DESIGN

The City of Hallandale Beach, Broward County, and the School Board, pursuant to the ILA, shall coordinate the location of public school facilities relative to the location of other public facilities such as parks, libraries and community centers, and promote schools to be focal points within the community.

EVALUATION MEASURE OBJECTIVE 11.5.1: Record of propose school facilities collocated with other public facilities such as parks, libraries and community centers.

POLICY 11.5.2: In the planning, siting, land acquisition, permitting and development of a new school facility or significant renovation or expansion, the School Board shall coordinate with Broward County and the City of Hallandale Beach on the availability of public facilities, services and grounds (especially for the purposes of collocating parks; libraries; ball fields; community centers; and public safety, parking, drainage and other appropriate facilities).

POLICY 11.5.3: The City of Hallandale Beach, Broward County, and the School Board shall pursue shared-use and co-location of school sites with city and county facilities having similar facility needs, such as libraries, parks, ball fields, and other recreation facilities. At a minimum, per the ILA, the city and county will look for opportunities to collocate and share use of their facilities when preparing

updates to the schedule of capital improvements within their comprehensive plans and planning and designing new or renovated facilities.

POLICY 11.5.4: Through the design of school facilities, establishment of school siting standards and pursuit of collocation opportunities, the School Board shall encourage school facilities to serve as community focal points.

POLICY 11.5.5: The City of Hallandale Beach will coordinate with the county and School Board in efforts to build new school facilities which are designed to serve as emergency shelters as required by Section 1013.372, F.S. The city, county and School Board will also collaborate and coordinate on emergency preparedness issues through the county's Emergency Operating Center.

11.3 MAP EXHIBITS

~~PUBLIC SCHOOL FACILITIES ELEMENT - LIST OF ADOPTION MAPS~~

FIGURE 11-1 – EXISTING PUBLIC SCHOOL FACILITIES MAP

FIGURE 11-2 ~~MAP NO.1~~ – FUTURE CONDITIONS – ELEMENTARY SCHOOLS – FIVE YEAR PLAN MAP

FIGURE 11-3 ~~MAP NO. 2~~ - FUTURE CONDITIONS – MIDDLE SCHOOLS – FIVE YEAR PLAN MAP

FIGURE 11-4 ~~MAP NO. 3~~ – FUTURE CONDITIONS – HIGH SCHOOLS – FIVE YEAR PLAN ~~MAP~~

FIGURE 11-5 ~~MAP NO. 4~~ – FUTURE CONDITIONS – CHARTER SCHOOLS – FIVE YEAR PLAN ~~MAP~~

~~MAP NO. 5 – FUTURE CONDITIONS – SPECIAL SCHOOLS – FIVE YEAR PLAN~~

~~MAP NO. 6 – FUTURE CONDITIONS – ANCILLARY PLANT LOCATIONS – FIVE YEAR PLAN~~

FIGURE 11-6 ~~MAP NO. 7~~ - FUTURE CONDITIONS – ELEMENTARY SCHOOLS – TEN YEAR PLAN ~~MAP~~

FIGURE 11-7 ~~MAP NO. 8~~ - FUTURE CONDITIONS – MIDDLE SCHOOLS – TEN YEAR PLAN ~~MAP~~

FIGURE 11-8 ~~MAP NO. 9~~ – FUTURE CONDITIONS – HIGH SCHOOLS – TEN YEAR PLAN ~~MAP~~

~~MAP NO. 10 – FUTURE CONDITIONS – CHARTER SCHOOLS – TEN YEAR PLAN~~

~~MAP NO. 11 – FUTURE CONDITIONS – SPECIAL SCHOOLS – TEN YEAR PLAN~~

~~MAP NO. 12 – FUTURE CONDITIONS – ANCILLARY PLANT LOCATIONS – TEN YEAR PLAN~~

FIGURE 11-9 – EMERGENCY SHELTERS MAP

FIGURE 11-1
EXISTING PUBLIC SCHOOL FACILITIES MAP

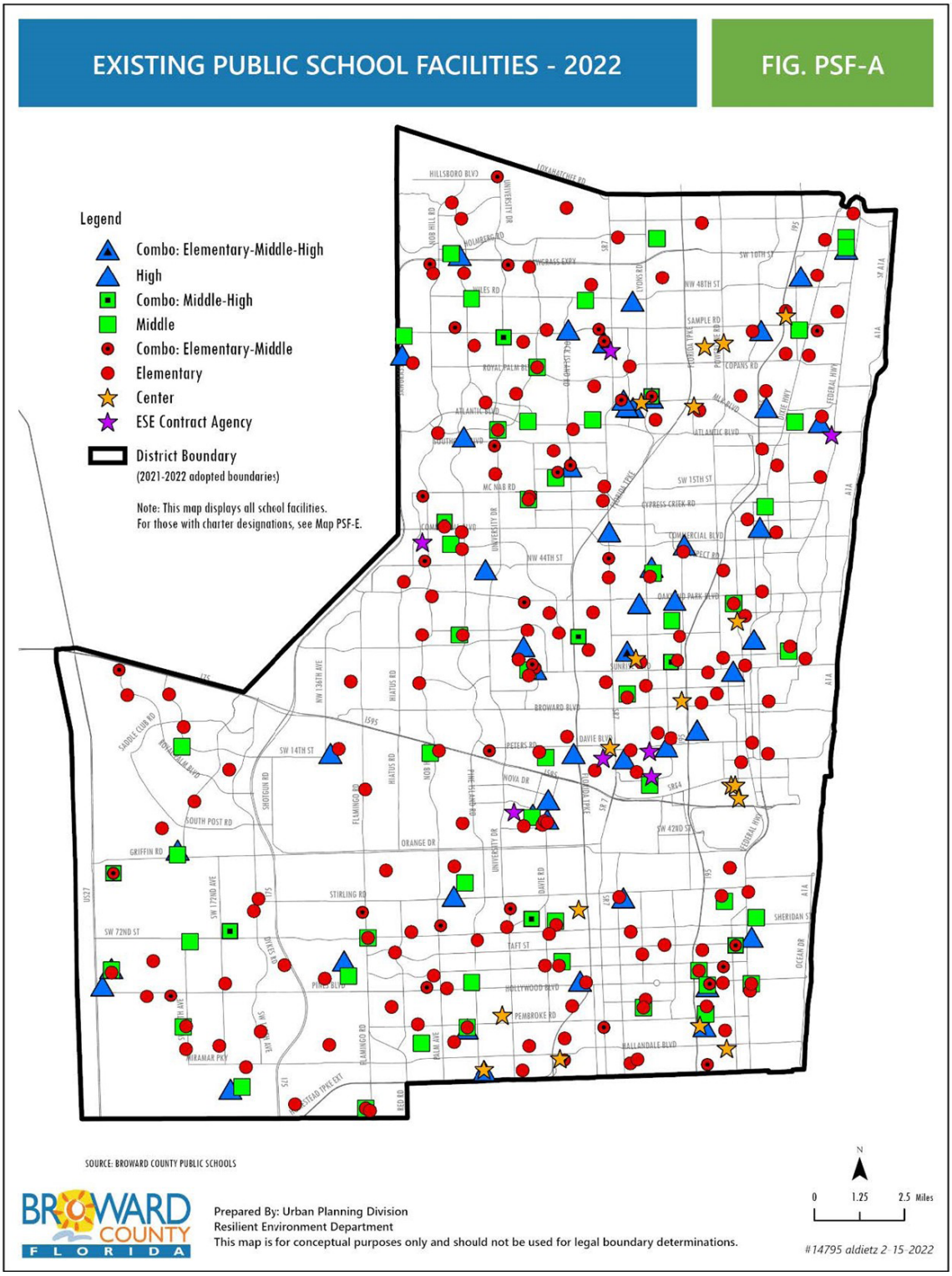
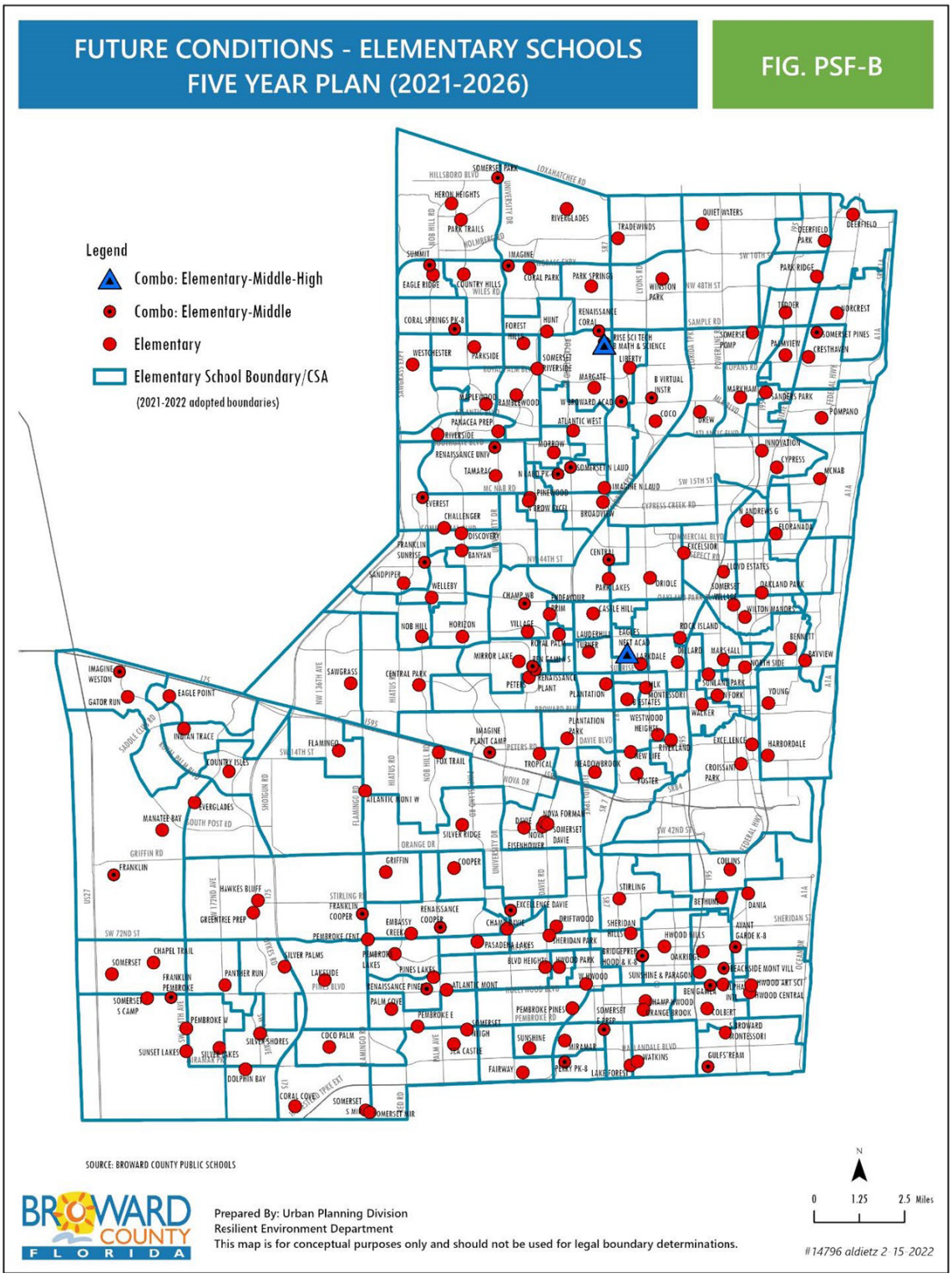


FIGURE 11-2
~~MAP NO. 1~~



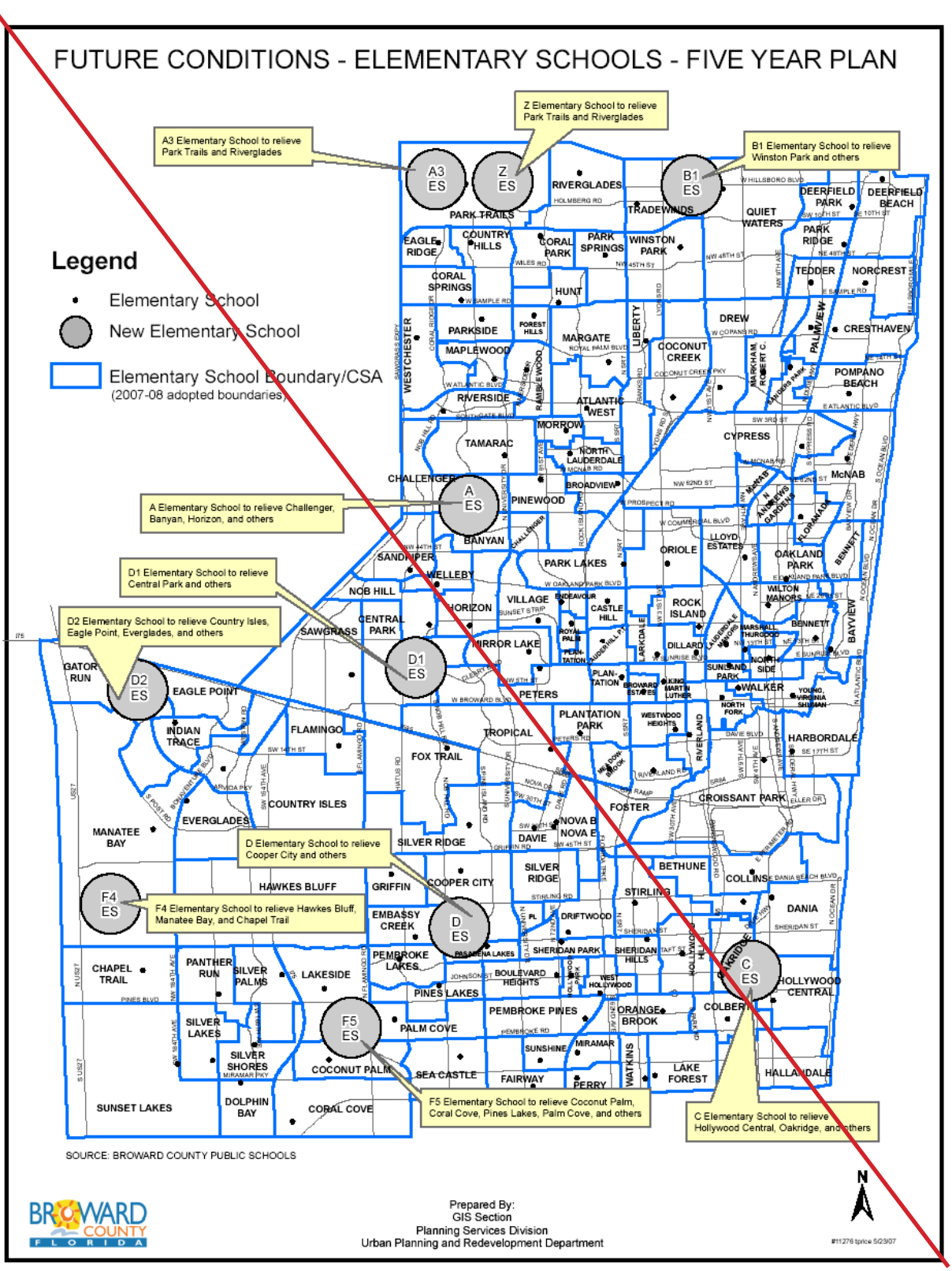
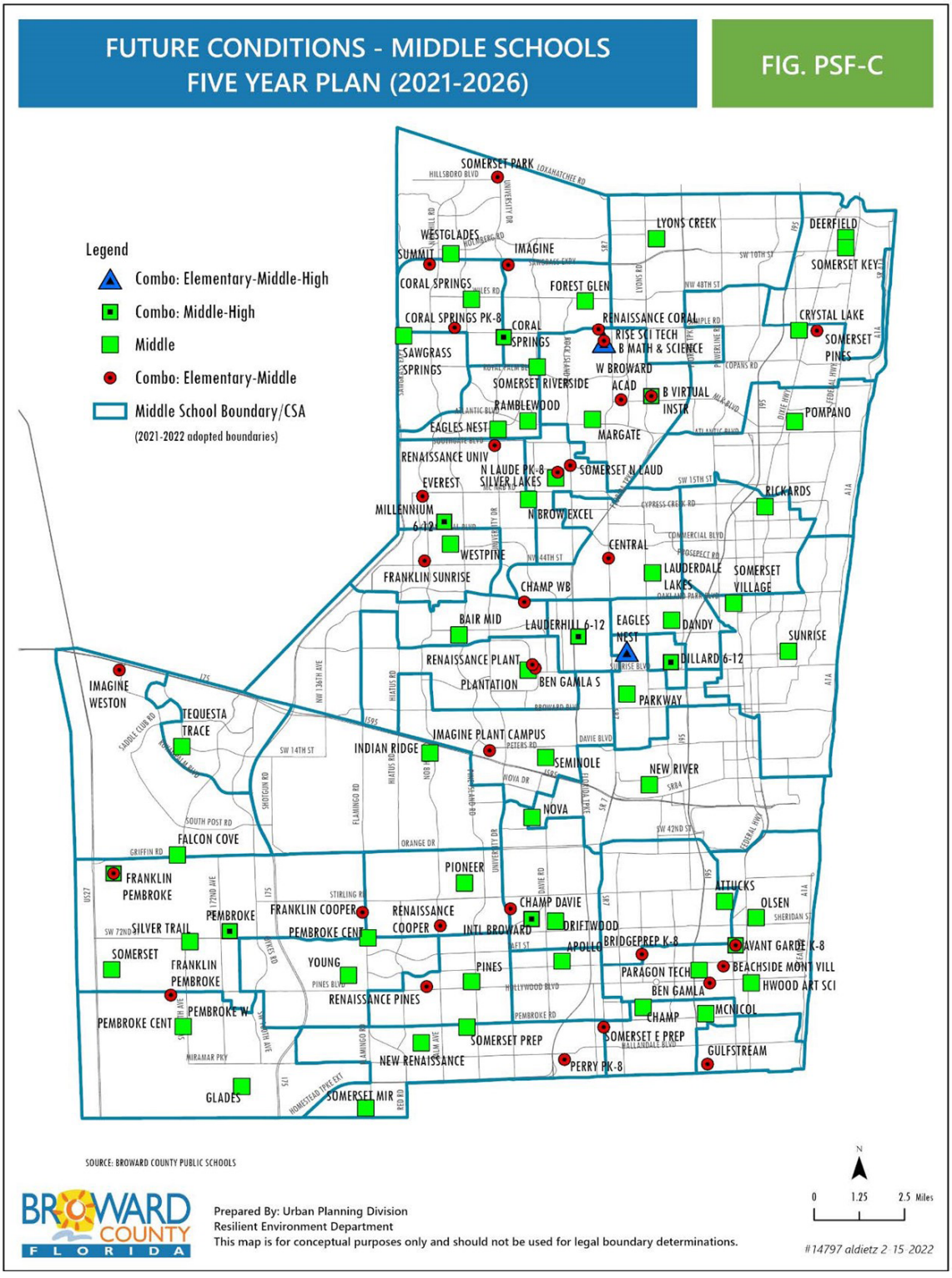

FUTURE CONDITIONS - ELEMENTARY SCHOOLS - FIVE YEAR PLAN
Legend
Elementary School
New Elementary School
Elementary School Boundary/CSA
(2007-08 adopted boundaries)
A3 Elementary School to relieve Park Trails and Riverglades
Z Elementary School to relieve Park Trails and Riverglades
B1 Elementary School to relieve Winston Park and others
A Elementary School to relieve Challenger, Banyan, Horizon, and others
D1 Elementary School to relieve Central Park and others
D2 Elementary School to relieve Country Isles, Eagle Point, Everglades, and others
D Elementary School to relieve Cooper City and others
F4 Elementary School to relieve Hawkes Bluff, Manatee Bay, and Chapel Trail
F5 Elementary School to relieve Coconut Palm, Coral Cove, Pines Lakes, Palm Cove, and others
C Elementary School to relieve Hollywood Central, Oakridge, and others
A3 ES
Z ES
B1 ES
A ES
D1 ES
D2 ES
D ES
F4 ES
F5 ES
C ES
RIVERGLADES
PARK TRAILS
TRADEWINDS
QUIET WATERS
DEERFIELD PARK
DEERFIELD BEACH
EAGLE RIDGE
COUNTRY HILLS
CORAL PARK
PARK SPRINGS
WINSTON PARK
PARK RIDGE
CORAL SPRINGS
HUNT
TEDDER
NORCREST
PARKSIDE
MAPLEWOOD
MARGATE
COCONUT CREEK
DREW
CRESTHAVEN
RIVERSIDE
ATLANTIC WEST
POMPANO BEACH
MORROW
TAMARAC
CYPRESS
NORTH LAUDERDALE
CHALLENGER
BROADVIEW
McNAB
PINEWOOD
BANYAN
SANDPIPER
WELLEBY
PARK LAKES
ORIOLE
LLOYD ESTATES
OAKLAND PARK
NOB HILL
HORIZON
VILLAGE
CASTLE HILL
ROCK ISLAND
WILTON MANORS
CENTRAL PARK
SAWGRASS
MIRROR LAKE
DILLARD
BENNETT
GATOR RUN
EAGLE POINT
PETERS
SUNRISE PARK
WALKER
INDIAN TRACE
FLAMINGO
TROPICAL
PLANTATION PARK
WESTWOOD HEIGHTS
HARBORDALE
FOX TRAIL
COUNTRY ISLES
FOSTER
CROISSANT PARK
EVERGLADES
MANATEE BAY
SILVER RIDGE
DAVIE
NOVA B
NOVA E
BETHUNE
HAWKES BLUFF
GRIFFIN
COOPER CITY
STIRLING
COLLINS
DANIA
EMBASSY CREEK
DRIFTWOOD
PEMBROKE LAKES
SHERIDAN PARK
SHERIDAN HILLS
CHAPEL TRAIL
PANTHER RUN
SILVER PALMS
LAKESIDE
BOULEVARD HEIGHTS
HOLLYWOOD CENTRAL
PINES LAKES
PEMBROKE PINES
ORANGE BROOK
COLBERT
SILVER LAKES
PALM COVE
SUNSHINE
MIRAMAR
SILVER SHORES
COCONUT PALM
SEA CASTLE
FAIRWAY
PERRY
WATKINS
LAKE FOREST
HALLANDALE
SUNSET LAKES
DOLPHIN BAY
CORAL COVE
SOURCE: BROWARD COUNTY PUBLIC SCHOOLS
Prepared By:
GIS Section
Planning Services Division
Urban Planning and Redevelopment Department
BROWARD COUNTY FLORIDA
N

FIGURE 11-3-
~~MAP NO. 2~~



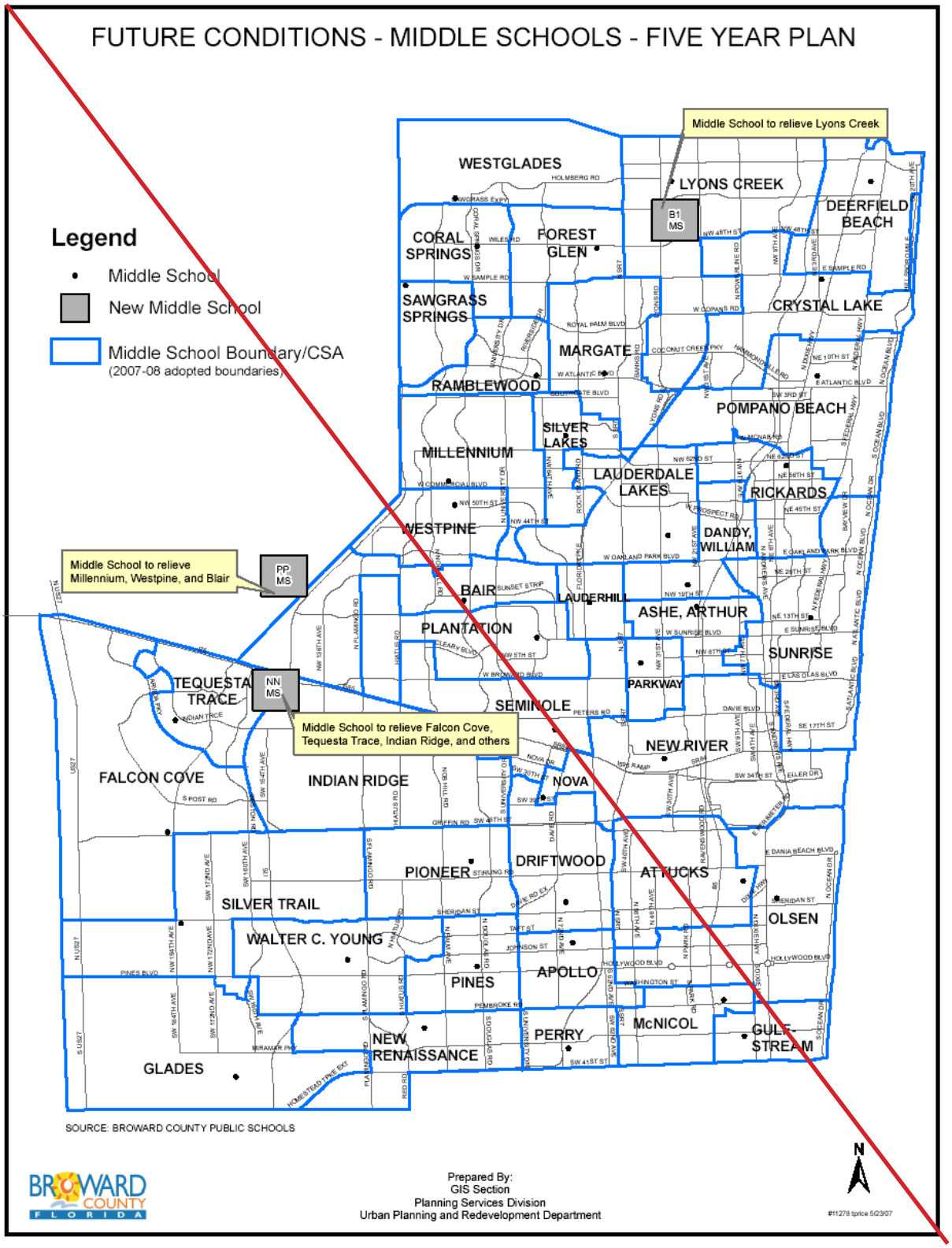
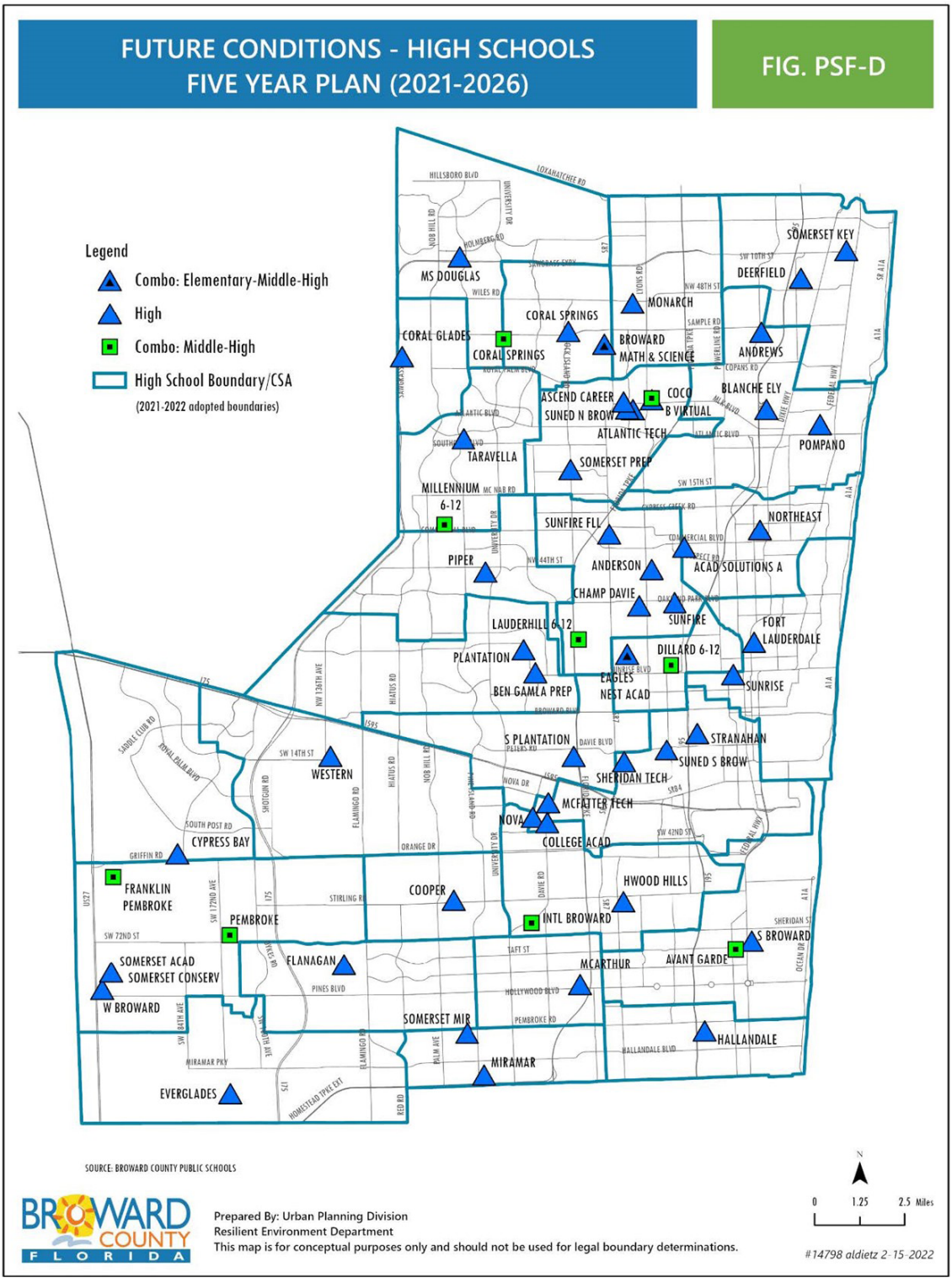

FUTURE CONDITIONS - MIDDLE SCHOOLS - FIVE YEAR PLAN
Legend
Middle School
New Middle School
Middle School Boundary/CSA
(2007-08 adopted boundaries)
Middle School to relieve Lyons Creek
B1 MS
Middle School to relieve Millennium, Westpine, and Blair
PP MS
NN MS
Middle School to relieve Falcon Cove, Tequesta Trace, Indian Ridge, and others
WESTGLADES
LYONS CREEK
DEERFIELD BEACH
CORAL SPRINGS
FOREST GLEN
SAWGRASS SPRINGS
CRYSTAL LAKE
MARGATE
RAMBLEWOOD
POMPANO BEACH
SILVER LAKES
MILLENNIUM
LAUDERDALE LAKES
RICKARDS
WESTPINE
DANDY, WILLIAM
BAIR
LAUDERHILL
ASHE, ARTHUR
PLANTATION
SUNRISE
TEQUESTA TRACE
PARKWAY
SEMINOLE
NEW RIVER
FALCON COVE
INDIAN RIDGE
NOVA
PIONEER
DRIFTWOOD
ATTUCKS
SILVER TRAIL
OLSEN
WALTER C. YOUNG
APOLLO
PINES
PERRY
McNICOL
GULF STREAM
NEW RENAISSANCE
GLADES
SOURCE: BROWARD COUNTY PUBLIC SCHOOLS
Prepared By:
GIS Section
Planning Services Division
Urban Planning and Redevelopment Department
N

FIGURE 11-4
~~MAP NO. 3~~



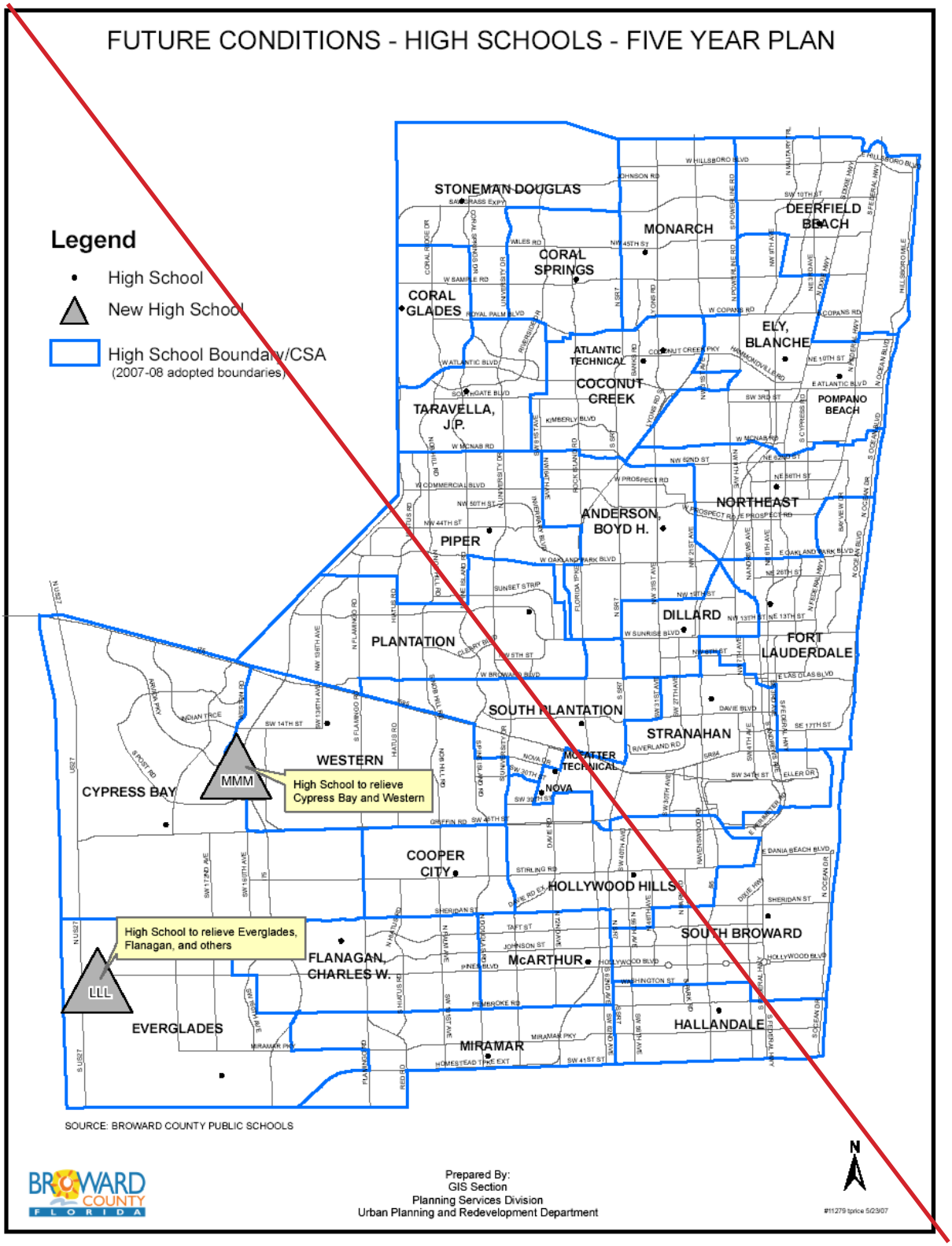
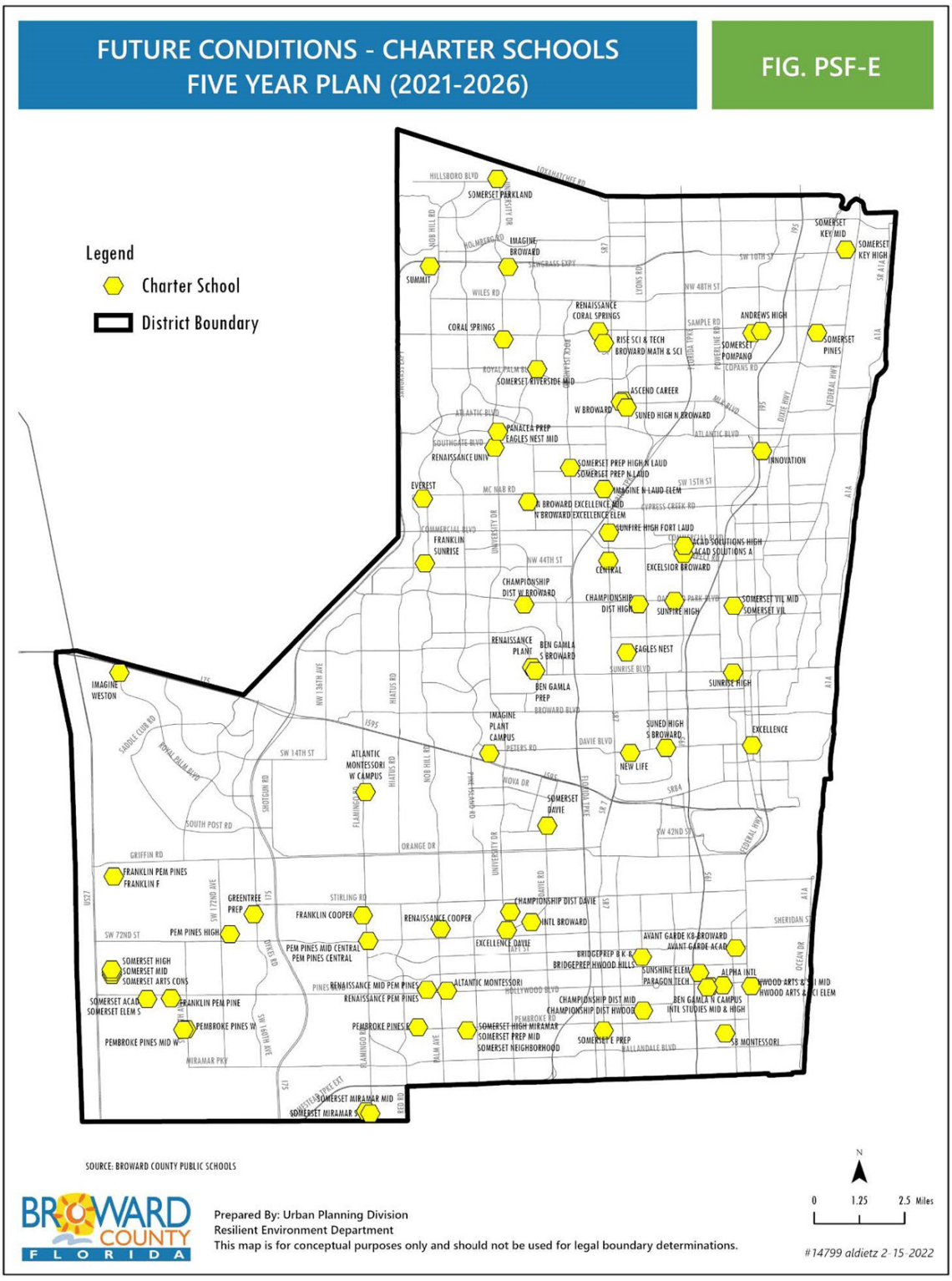
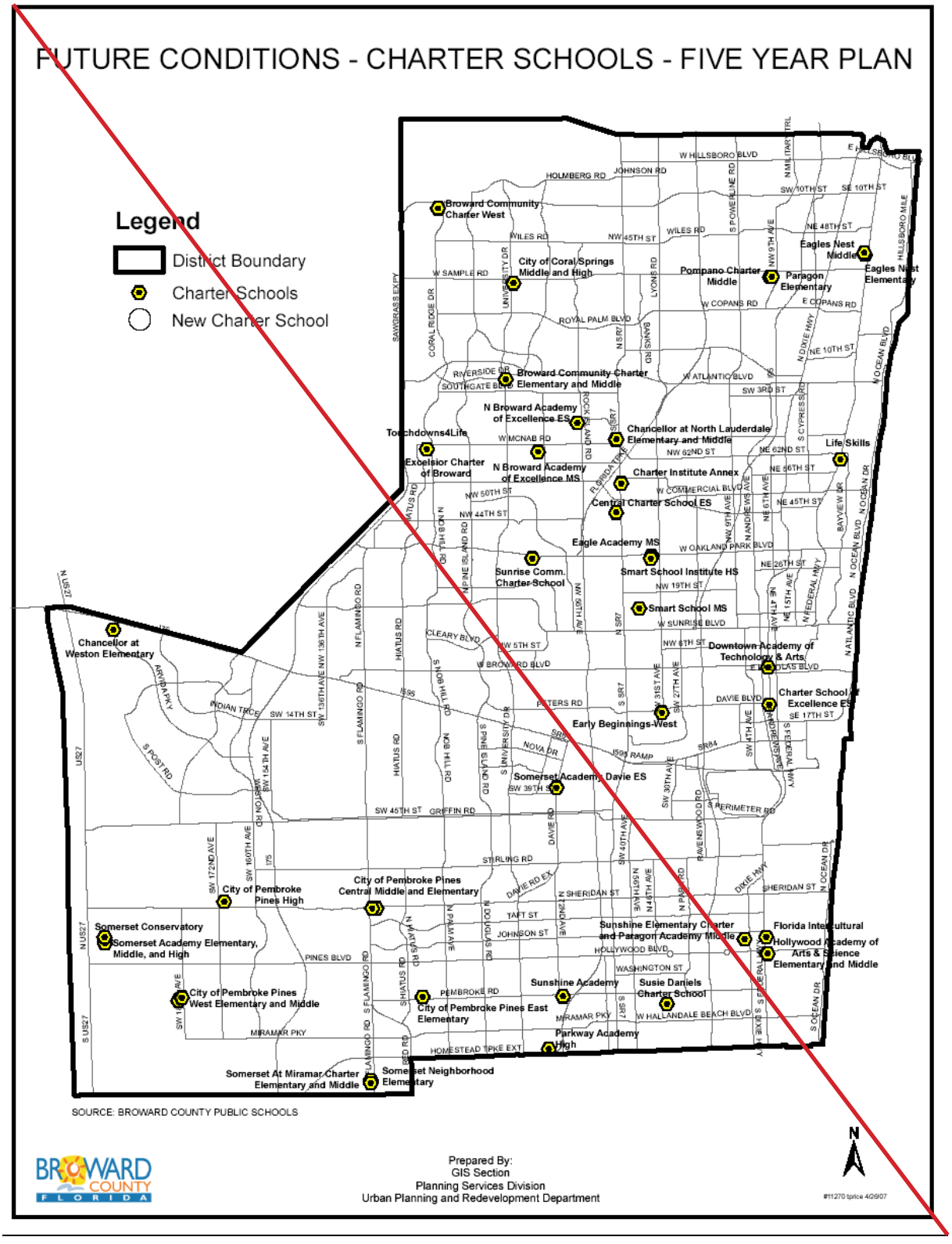
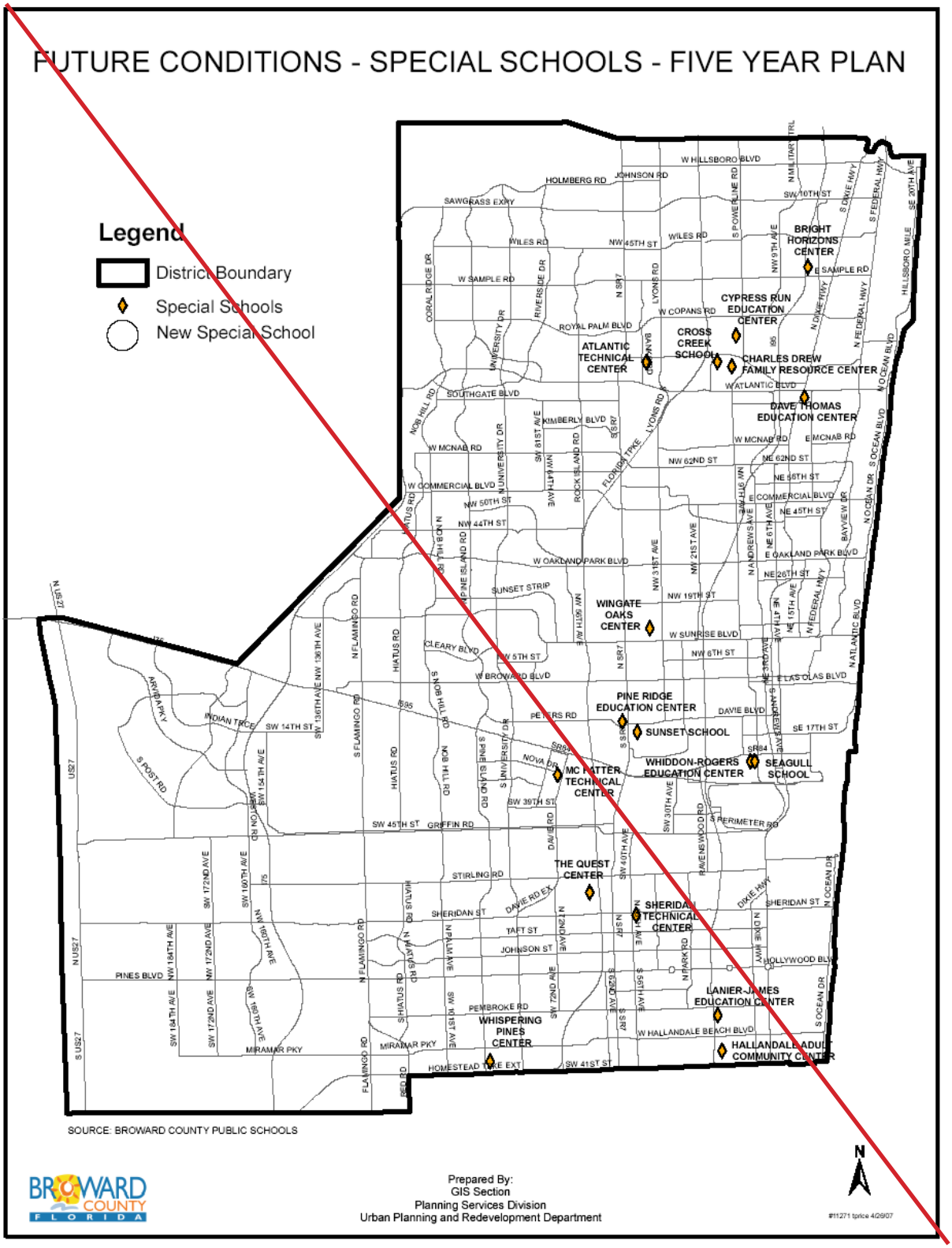

FUTURE CONDITIONS - HIGH SCHOOLS - FIVE YEAR PLAN
Legend
High School
New High School
High School Boundary/CSA
(2007-08 adopted boundaries)
STONEMAN DOUGLAS
MONARCH
DEERFIELD BEACH
CORAL SPRINGS
CORAL GLADES
ELY, BLANCHE
ATLANTIC TECHNICAL
COCONUT CREEK
POMPANO BEACH
TARAVELLA, J.P.
NORTHEAST
ANDERSON, BOYD H.
PIPER
DILLARD
PLANTATION
FORT LAUDERDALE
SOUTH PLANTATION
STRANAHAN
WESTERN
MCFATTER TECHNICAL
CYPRESS BAY
MMM
High School to relieve Cypress Bay and Western
NOVA
COOPER CITY
HOLLYWOOD HILLS
SOUTH BROWARD
High School to relieve Everglades, Flanagan, and others
FLANAGAN, CHARLES W.
McARTHUR
LLL
EVERGLADES
HALLANDALE
MIRAMAR
SOURCE: BROWARD COUNTY PUBLIC SCHOOLS
BROWARD COUNTY FLORIDA
Prepared By:
GIS Section
Planning Services Division
Urban Planning and Redevelopment Department
N

FIGURE 11-5
~~MAP NO. 4~~




FUTURE CONDITIONS - CHARTER SCHOOLS - FIVE YEAR PLAN
Legend
District Boundary
Charter Schools
New Charter School
Broward Community Charter West
City of Coral Springs Middle and High
Pompano Charter Middle
Paragon Elementary
Eagles Nest Middle
Eagles Nest Elementary
Broward Community Charter Elementary and Middle
N Broward Academy of Excellence ES
Chancellor at North Lauderdale Elementary and Middle
Touchdowns4Life
Excelsior Charter of Broward
N Broward Academy of Excellence MS
Charter Institute Annex
Life Skills
Central Charter School ES
Eagle Academy MS
Sunrise Comm. Charter School
Smart School Institute HS
Smart School MS
Chancellor at Weston Elementary
Downtown Academy of Technology & Arts
Charter School of Excellence ES
Early Beginnings-West
Somerset Academy Davie ES
City of Pembroke Pines Central Middle and Elementary
City of Pembroke Pines High
Somerset Conservatory
Somerset Academy Elementary, Middle, and High
Sunshine Elementary Charter and Paragon Academy Middle
Florida International Academy of Arts & Science Elementary and Middle
City of Pembroke Pines West Elementary and Middle
City of Pembroke Pines East Elementary
Sunshine Academy
Susie Daniels Charter School
Parkway Academy High
Somerset At Miramar Charter Elementary and Middle
Somerset Neighborhood Elementary
SOURCE: BROWARD COUNTY PUBLIC SCHOOLS
BROWARD COUNTY FLORIDA
Prepared By:
GIS Section
Planning Services Division
Urban Planning and Redevelopment Department
N

~~MAP NO. 5~~


FUTURE CONDITIONS - SPECIAL SCHOOLS - FIVE YEAR PLAN
Legend
District Boundary
Special Schools
New Special School
BRIGHT HORIZONS CENTER
CYPRESS RUN EDUCATION CENTER
CROSS CREEK SCHOOL
ATLANTIC TECHNICAL CENTER
CHARLES DREW FAMILY RESOURCE CENTER
DAVE THOMAS EDUCATION CENTER
WINGATE OAKS CENTER
PINE RIDGE EDUCATION CENTER
SUNSET SCHOOL
WHIDDON-ROGERS EDUCATION CENTER
SEAGULL SCHOOL
MC FATTER TECHNICAL CENTER
THE QUEST CENTER
SHERIDAN TECHNICAL CENTER
LANIER-JAMES EDUCATION CENTER
WHISPERING PINES CENTER
HALLANDALE ADULT COMMUNITY CENTER
SOURCE: BROWARD COUNTY PUBLIC SCHOOLS
Prepared By:
GIS Section
Planning Services Division
Urban Planning and Redevelopment Department
N

~~MAP NO. 6~~

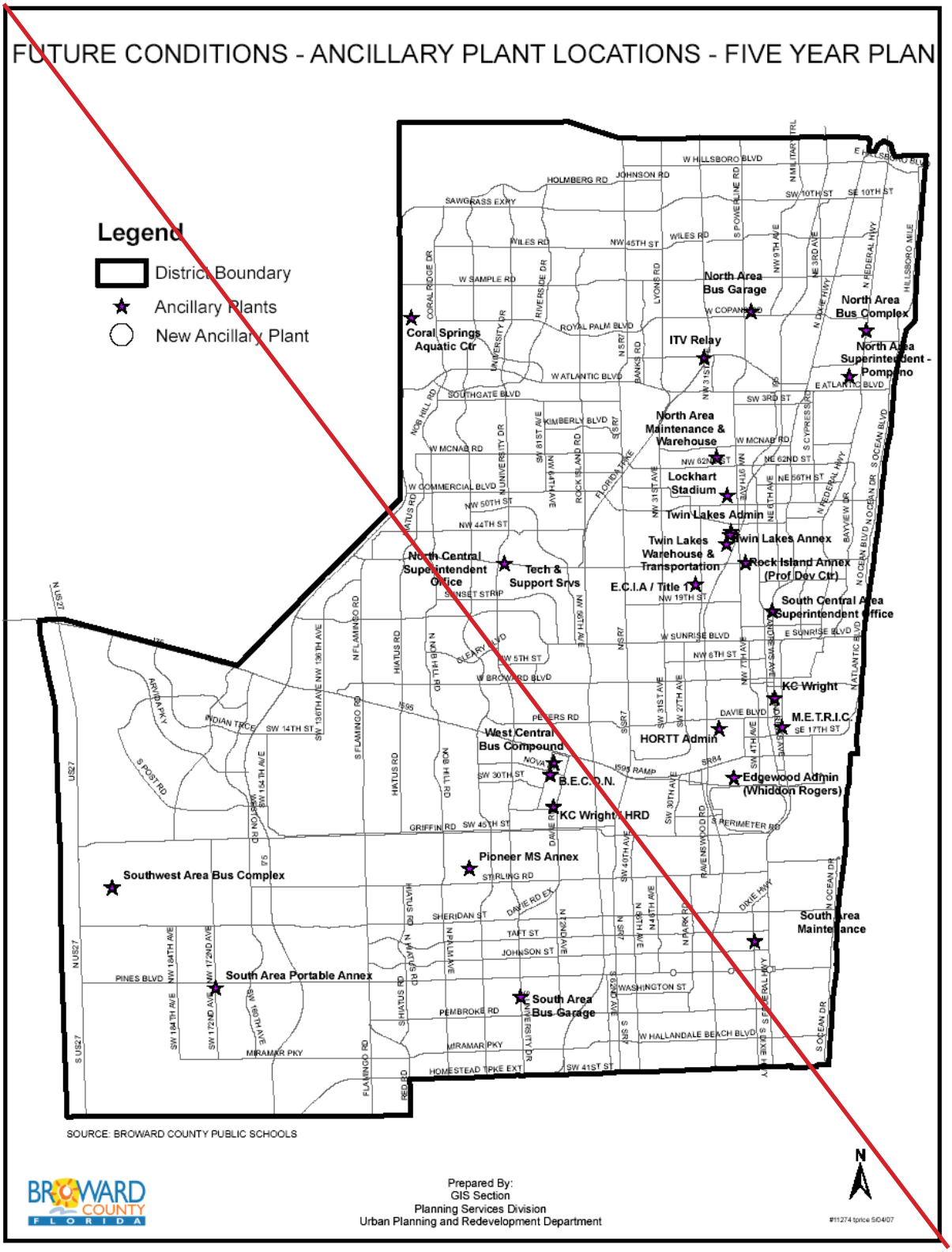
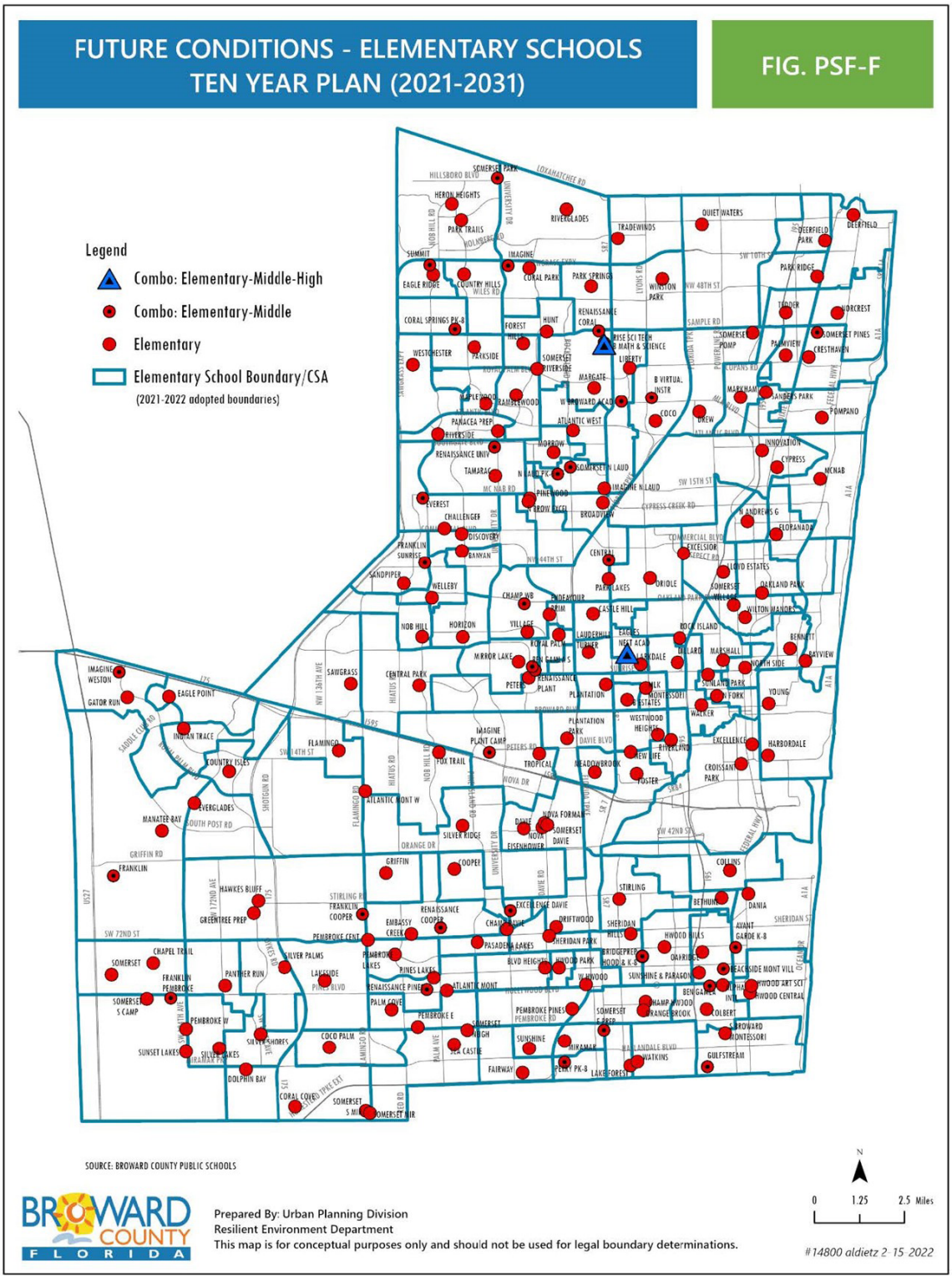

FUTURE CONDITIONS - ANCILLARY PLANT LOCATIONS - FIVE YEAR PLAN
Legend
District Boundary
Ancillary Plants
New Ancillary Plant
Coral Springs Aquatic Ctr
North Area Bus Garage
North Area Bus Complex
ITV Relay
North Area Superintendent - Pompano
North Area Maintenance & Warehouse
Lockhart Stadium
Twin Lakes Admin
Twin Lakes Annex
Twin Lakes Warehouse & Transportation
Rock Island Annex (Prof Dev Ctr)
North Central Superintendent Office
Tech & Support Srvs
E.C.I.A / Title 1
South Central Area Superintendent Office
KC Wright
M.E.T.R.I.C.
HORTT Admin
West Central Bus Compound
B.E.C.O.N.
Edgewood Admin (Whiddon Rogers)
KC Wright - HRD
Pioneer MS Annex
Southwest Area Bus Complex
South Area Maintenance
South Area Portable Annex
South Area Bus Garage
SOURCE: BROWARD COUNTY PUBLIC SCHOOLS
Prepared By:
GIS Section
Planning Services Division
Urban Planning and Redevelopment Department
N

FIGURE 11-6-
~~MAP NO. 7~~



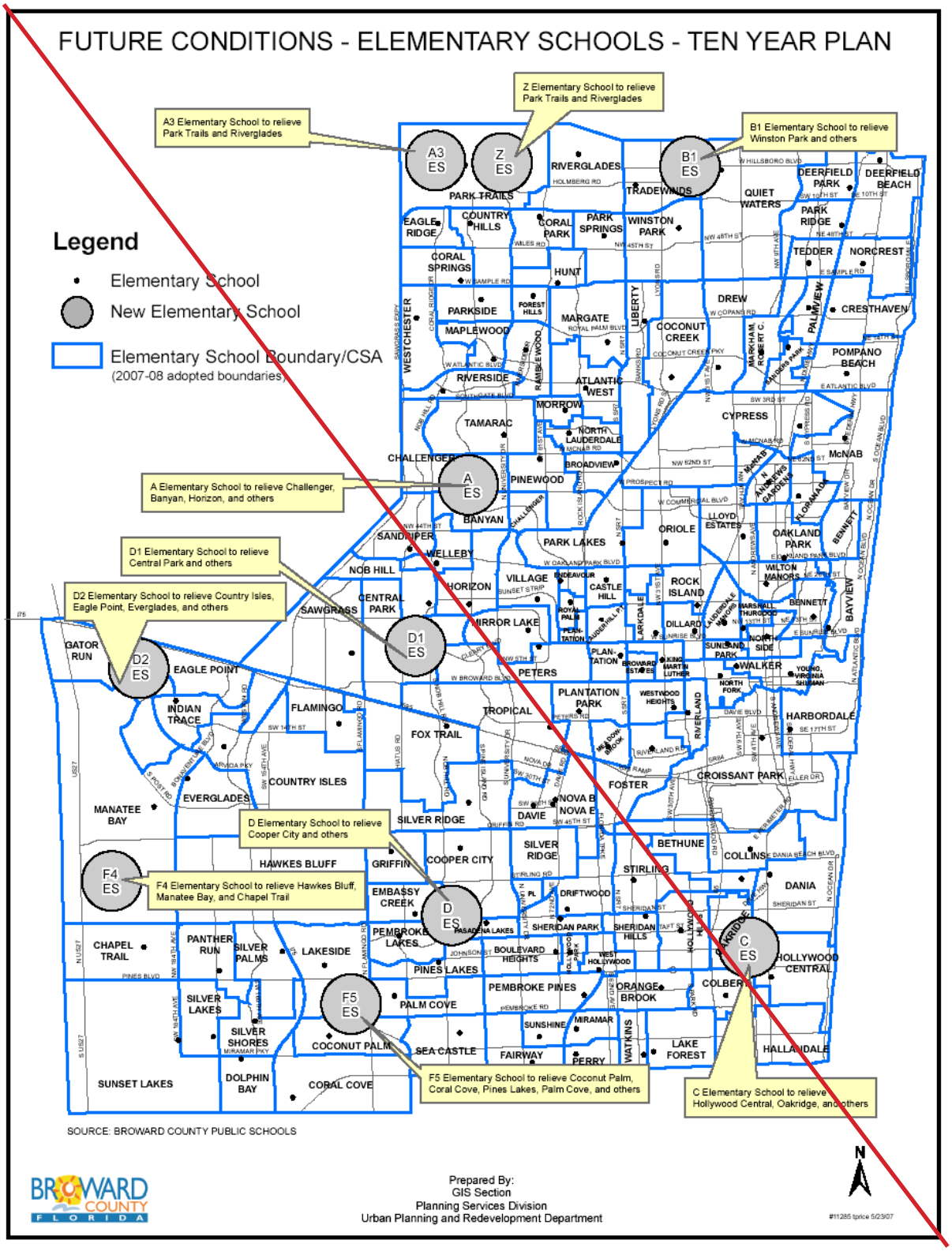
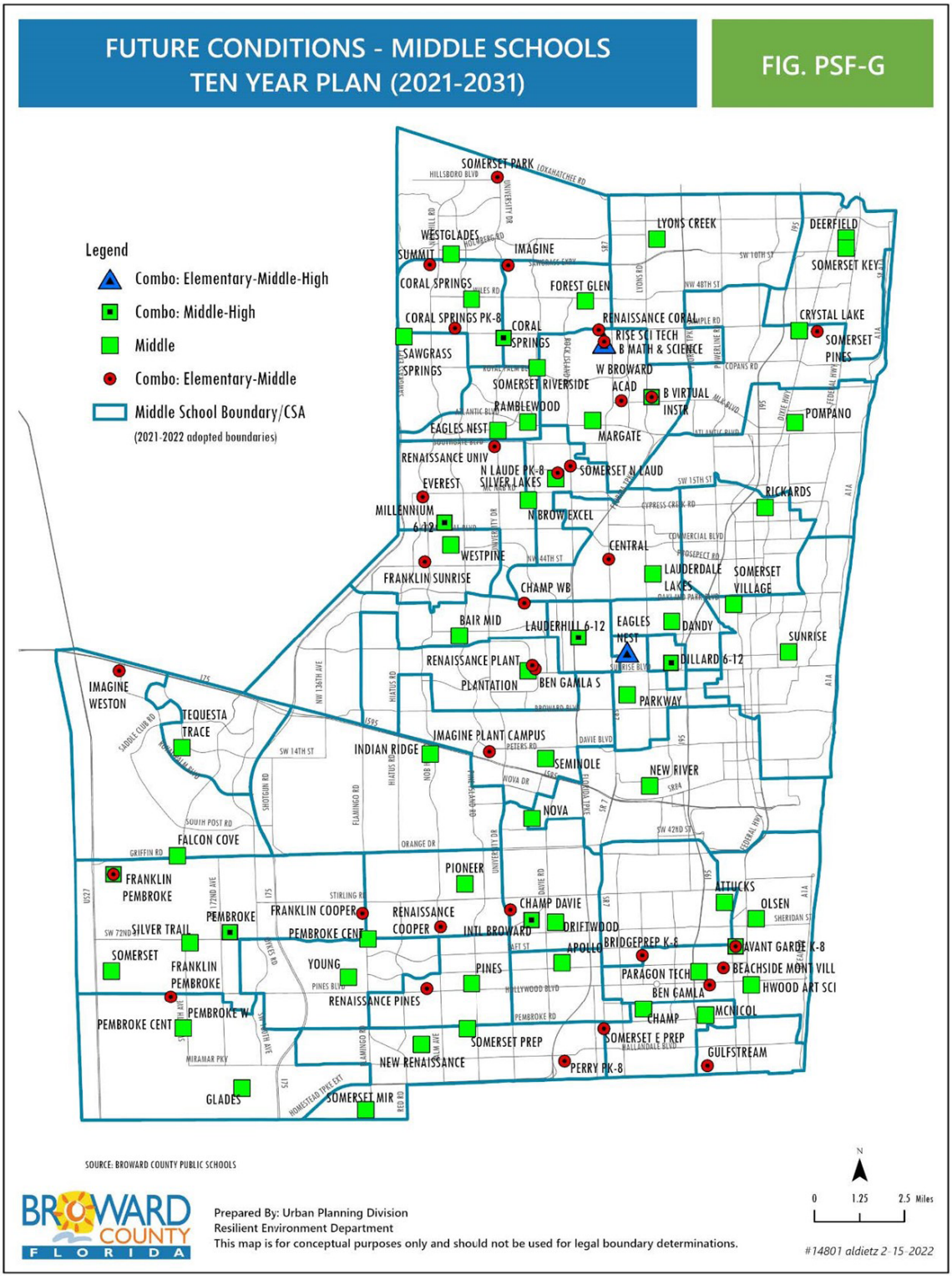

FUTURE CONDITIONS - ELEMENTARY SCHOOLS - TEN YEAR PLAN
Z Elementary School to relieve Park Trails and Riverglades
A3 Elementary School to relieve Park Trails and Riverglades
B1 Elementary School to relieve Winston Park and others
A Elementary School to relieve Challenger, Banyan, Horizon, and others
D1 Elementary School to relieve Central Park and others
D2 Elementary School to relieve Country Isles, Eagle Point, Everglades, and others
D Elementary School to relieve Cooper City and others
F4 Elementary School to relieve Hawkes Bluff, Manatee Bay, and Chapel Trail
F5 Elementary School to relieve Coconut Palm, Coral Cove, Pines Lakes, Palm Cove, and others
C Elementary School to relieve Hollywood Central, Oakridge, and others
Legend
Elementary School
New Elementary School
Elementary School Boundary/CSA
(2007-08 adopted boundaries)
SOURCE: BROWARD COUNTY PUBLIC SCHOOLS
Prepared By:
GIS Section
Planning Services Division
Urban Planning and Redevelopment Department
BROWARD COUNTY FLORIDA

FIGURE 11-7
~~MAP NO. 8~~



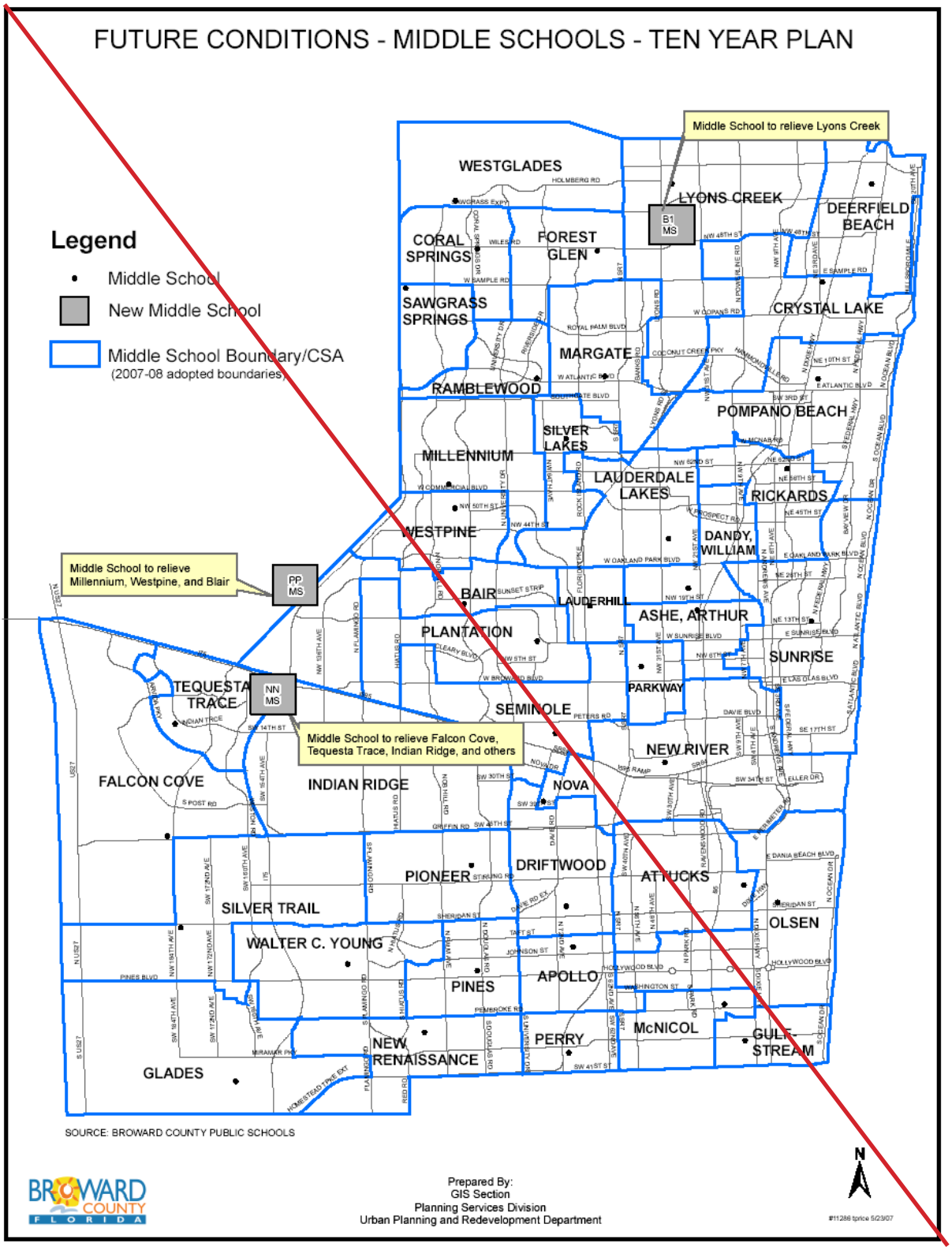
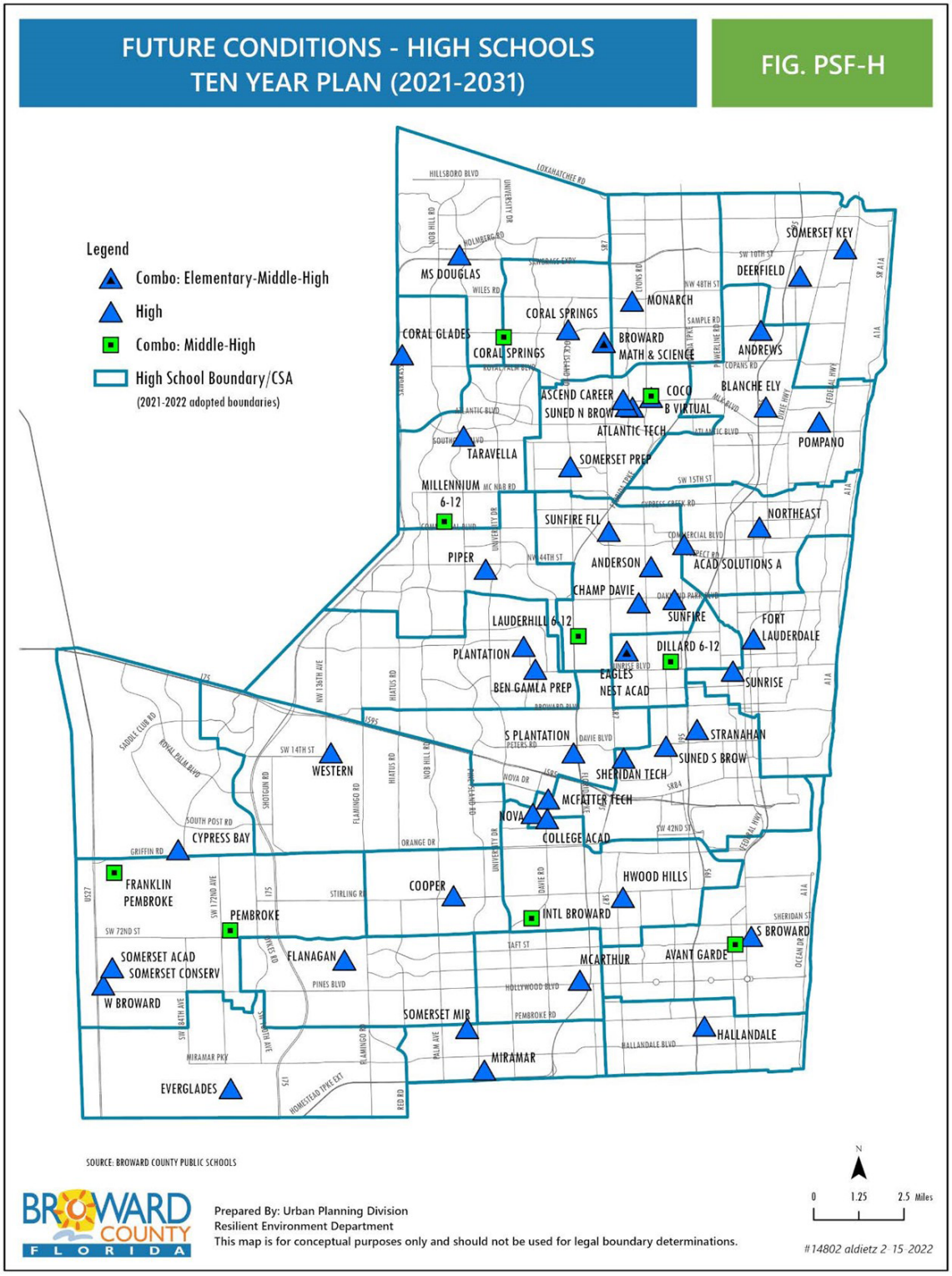
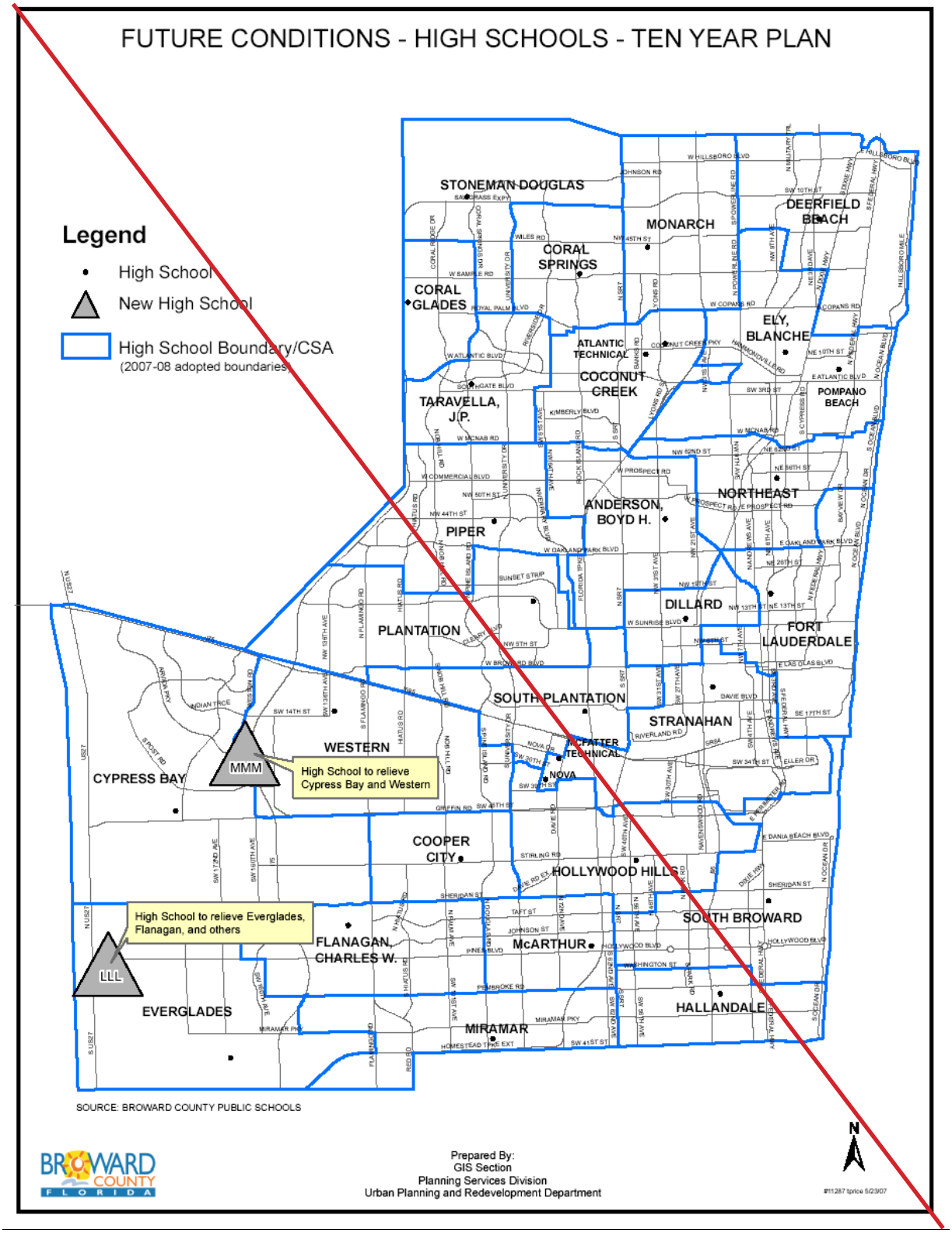
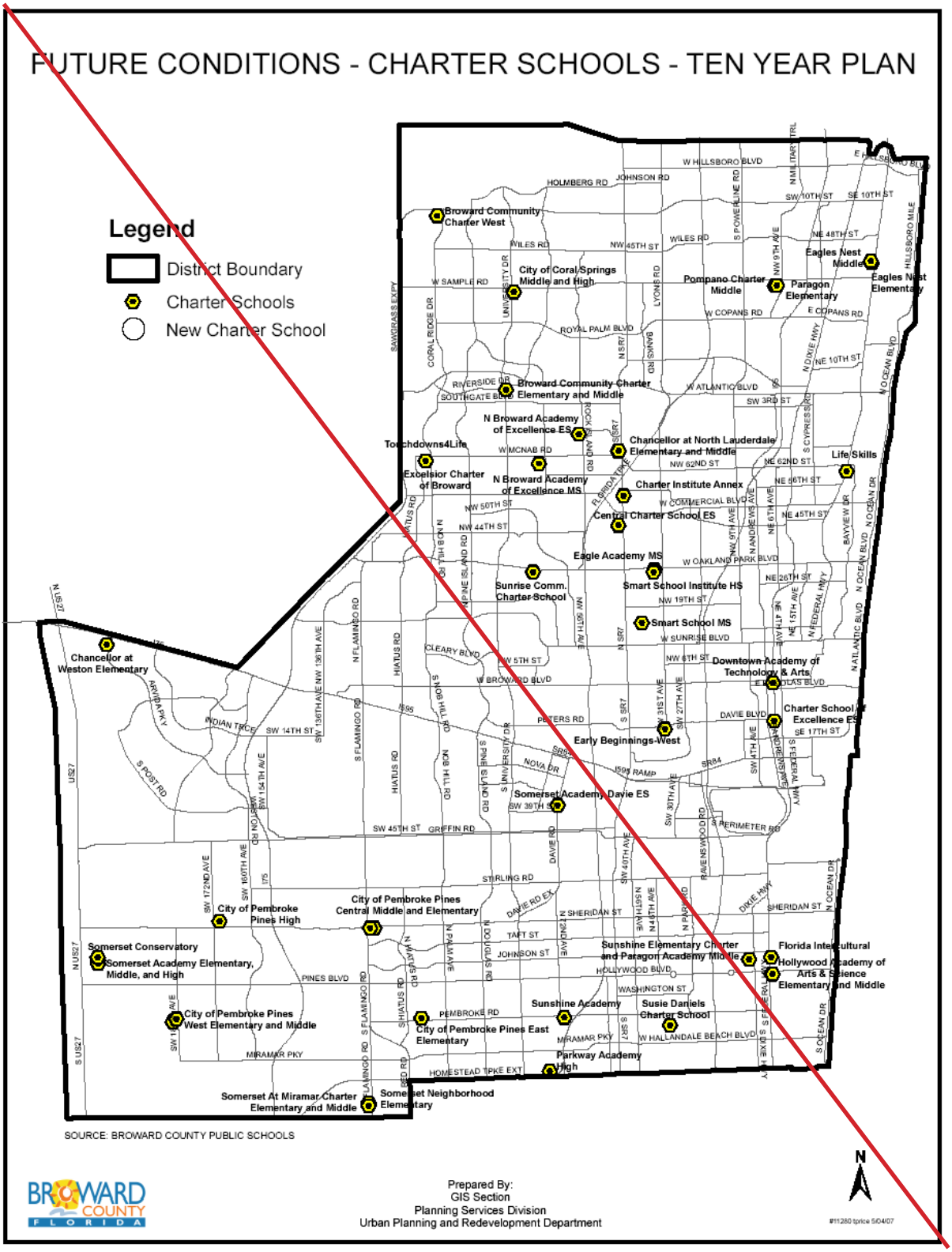

FUTURE CONDITIONS - MIDDLE SCHOOLS - TEN YEAR PLAN
Legend
Middle School
New Middle School
Middle School Boundary/CSA
(2007-08 adopted boundaries)
Middle School to relieve Lyons Creek
B1 MS
Middle School to relieve Millennium, Westpine, and Blair
PP MS
NN MS
Middle School to relieve Falcon Cove, Tequesta Trace, Indian Ridge, and others
WESTGLADES
LYONS CREEK
DEERFIELD BEACH
CORAL SPRINGS
FOREST GLEN
SAWGRASS SPRINGS
CRYSTAL LAKE
MARGATE
RAMBLEWOOD
POMPANO BEACH
SILVER LAKES
MILLENNIUM
LAUDERDALE LAKES
RICKARDS
WESTPINE
DANDY, WILLIAM
BAIR
LAUDERHILL
ASHE, ARTHUR
PLANTATION
SUNRISE
TEQUESTA TRACE
PARKWAY
SEMINOLE
NEW RIVER
FALCON COVE
INDIAN RIDGE
NOVA
DRIFTWOOD
PIONEER
ATTUCKS
SILVER TRAIL
OLSEN
WALTER C. YOUNG
APOLLO
PINES
McNICOL
PERRY
NEW RENAISSANCE
GULF-STREAM
GLADES
SOURCE: BROWARD COUNTY PUBLIC SCHOOLS
BROWARD COUNTY FLORIDA
Prepared By:
GIS Section
Planning Services Division
Urban Planning and Redevelopment Department
N

FIGURE 11-8
~~MAP NO. 9~~

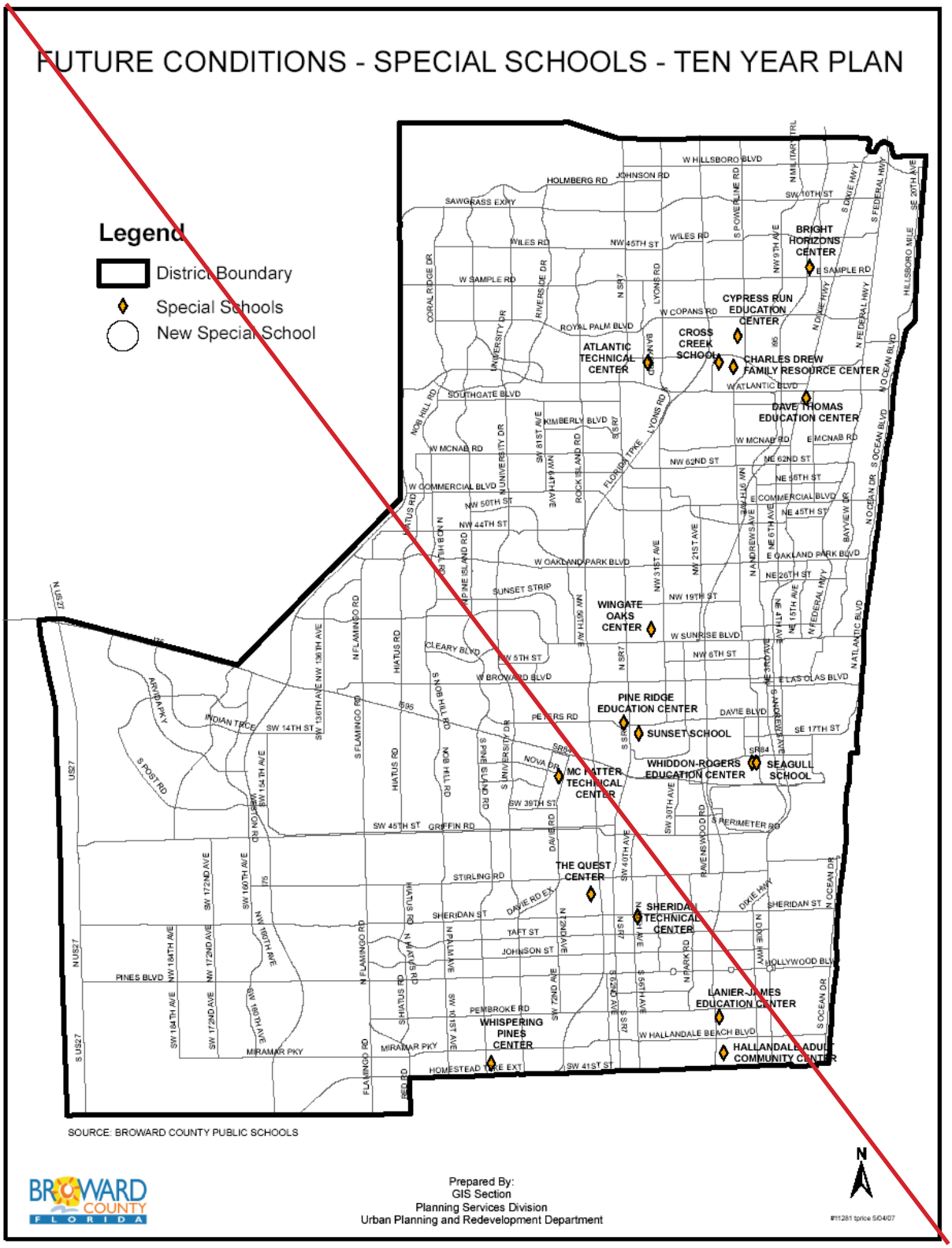



FUTURE CONDITIONS - HIGH SCHOOLS - TEN YEAR PLAN
Legend
High School
New High School
High School Boundary/CSA
(2007-08 adopted boundaries)
STONEMAN DOUGLAS
MONARCH
DEERFIELD BEACH
CORAL SPRINGS
CORAL GLADES
ELY, BLANCHE
ATLANTIC TECHNICAL
COCONUT CREEK
POMPANO BEACH
TARAVELLA, J.P.
NORTHEAST
ANDERSON, BOYD H.
PIPER
DILLARD
PLANTATION
FORT LAUDERDALE
SOUTH PLANTATION
STRANAHAN
WESTERN
McFATTER TECHNICAL
NOVA
CYPRESS BAY
MMM
High School to relieve Cypress Bay and Western
COOPER CITY
HOLLYWOOD HILLS
SOUTH BROWARD
High School to relieve Everglades, Flanagan, and others
FLANAGAN, CHARLES W.
McARTHUR
LLL
EVERGLADES
HALLANDALE
MIRAMAR
SOURCE: BROWARD COUNTY PUBLIC SCHOOLS
BROWARD COUNTY FLORIDA
Prepared By:
GIS Section
Planning Services Division
Urban Planning and Redevelopment Department
N

~~MAP NO. 10~~


FUTURE CONDITIONS - CHARTER SCHOOLS - TEN YEAR PLAN
Legend
District Boundary
Charter Schools
New Charter School
Broward Community Charter West
City of Coral Springs Middle and High
Pompano Charter Middle
Paragon Elementary
Eagles Nest Middle
Eagles Nest Elementary
Broward Community Charter Elementary and Middle
N Broward Academy of Excellence ES
Chancellor at North Lauderdale Elementary and Middle
Touchdowns4Life
Excelsior Charter of Broward
N Broward Academy of Excellence MS
Charter Institute Annex
Central Charter School ES
Life Skills
Eagle Academy MS
Sunrise Comm. Charter School
Smart School Institute HS
Smart School MS
Chancellor at Weston Elementary
Downtown Academy of Technology & Arts
Charter School of Excellence ES
Early Beginnings-West
Somerset Academy Davie ES
City of Pembroke Pines High
City of Pembroke Pines Central Middle and Elementary
Somerset Conservatory
Somerset Academy Elementary, Middle, and High
Sunshine Elementary Charter and Paragon Academy Middle
Florida International Cultural Hollywood Academy of Arts & Science Elementary and Middle
City of Pembroke Pines West Elementary and Middle
Sunshine Academy
Susie Daniels Charter School
City of Pembroke Pines East Elementary
Parkway Academy High
Somerset At Miramar Charter Elementary and Middle
Somerset Neighborhood Elementary
SOURCE: BROWARD COUNTY PUBLIC SCHOOLS
BROWARD COUNTY FLORIDA
Prepared By:
GIS Section
Planning Services Division
Urban Planning and Redevelopment Department
N

~~MAP NO. 11~~


FUTURE CONDITIONS - SPECIAL SCHOOLS - TEN YEAR PLAN
Legend
District Boundary
Special Schools
New Special School
BRIGHT HORIZONS CENTER
CYPRESS RUN EDUCATION CENTER
CROSS CREEK SCHOOL
ATLANTIC TECHNICAL CENTER
CHARLES DREW FAMILY RESOURCE CENTER
DAVE THOMAS EDUCATION CENTER
WINGATE OAKS CENTER
PINE RIDGE EDUCATION CENTER
SUNSET SCHOOL
WHIDDON-ROGERS EDUCATION CENTER
SEAGULL SCHOOL
MC ARTHUR TECHNICAL CENTER
THE QUEST CENTER
SHERIDAN TECHNICAL CENTER
LANIER-JAMES EDUCATION CENTER
HALLANDALE ADULT COMMUNITY CENTER
WHISPERING PINES CENTER
SOURCE: BROWARD COUNTY PUBLIC SCHOOLS
Prepared By:
GIS Section
Planning Services Division
Urban Planning and Redevelopment Department
BROWARD COUNTY FLORIDA
N

~~MAP NO. 12~~

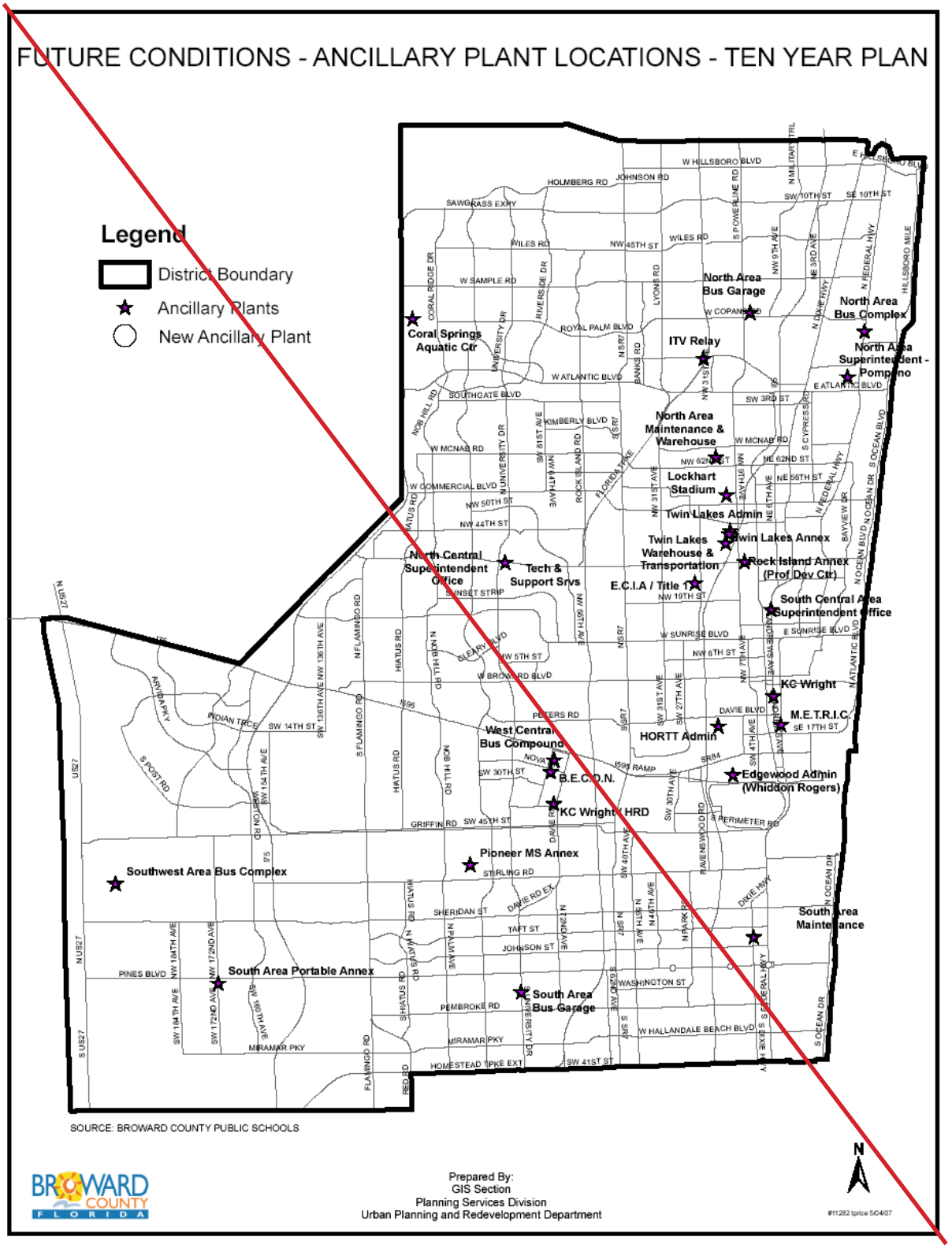
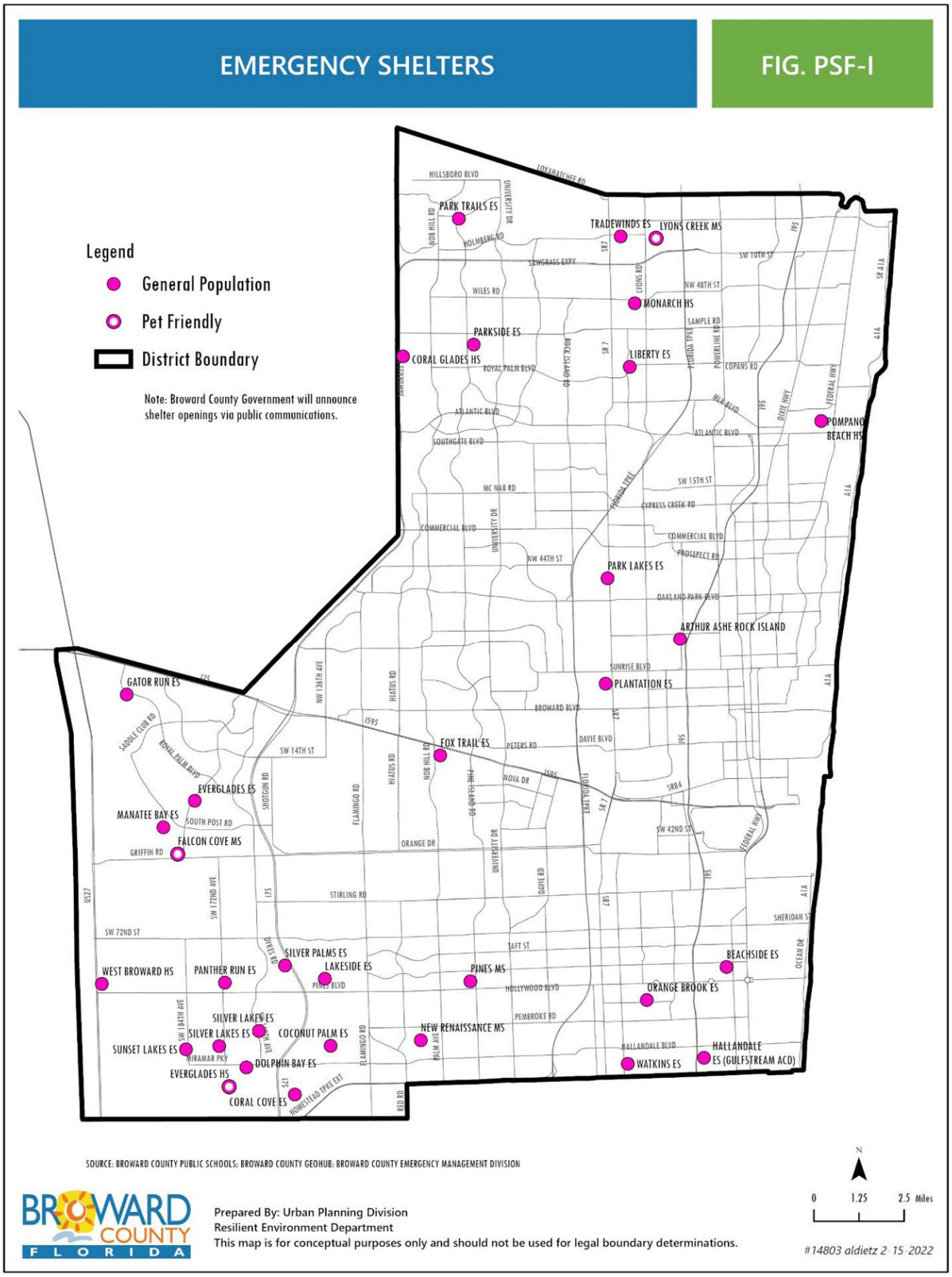

FUTURE CONDITIONS - ANCILLARY PLANT LOCATIONS - TEN YEAR PLAN
Legend
District Boundary
Ancillary Plants
New Ancillary Plant
North Area Bus Garage
North Area Bus Complex
Coral Springs Aquatic Ctr
ITV Relay
North Area Superintendent - Pompano
North Area Maintenance & Warehouse
Lockhart Stadium
Twin Lakes Admin
Twin Lakes Annex
Twin Lakes Warehouse & Transportation
Rock Island Annex (Prof Dev Ctr)
North Central Superintendent Office
Tech & Support Srvs
E.C.I.A / Title 1
South Central Area Superintendent Office
KC Wright
M.E.T.R.I.C.
HORTT Admin
West Central Bus Compound
B.E.C.O.N.
Edgewood Admin (Whiddon Rogers)
KC Wright / HRD
Pioneer MS Annex
Southwest Area Bus Complex
South Area Maintenance
South Area Portable Annex
South Area Bus Garage
SOURCE: BROWARD COUNTY PUBLIC SCHOOLS
Prepared By:
GIS Section
Planning Services Division
Urban Planning and Redevelopment Department
BROWARD COUNTY FLORIDA
N

FIGURE 11-9


EMERGENCY SHELTERS
FIG. PSF-I
Legend
General Population
Pet Friendly
District Boundary
Note: Broward County Government will announce shelter openings via public communications.
PARK TRAILS ES
TRADEWINDS ES
LYONS CREEK MS
MONARCH HS
PARKSIDE ES
CORAL GLADES HS
LIBERTY ES
POMPANO BEACH HS
PARK LAKES ES
ARTHUR ASHE ROCK ISLAND
PLANTATION ES
GATOR RUN ES
FOX TRAIL ES
EVERGLADES ES
MANATEE BAY ES
FALCON COVE MS
WEST BROWARD HS
PANTHER RUN ES
SILVER PALMS ES
LAKESIDE ES
PINES MS
BEACHSIDE ES
ORANGE BROOK ES
SILVER LAKES ES
SILVER LAKES ES
COCONUT PALM ES
NEW RENAISSANCE MS
SUNSET LAKES ES
DOLPHIN BAY ES
EVERGLADES HS
CORAL COVE ES
WATKINS ES
HALLANDALE ES (GULFSTREAM ACD)
SOURCE: BROWARD COUNTY PUBLIC SCHOOLS; BROWARD COUNTY GEOHUB; BROWARD COUNTY EMERGENCY MANAGEMENT DIVISION
BROWARD COUNTY FLORIDA
Prepared By: Urban Planning Division
Resilient Environment Department
This map is for conceptual purposes only and should not be used for legal boundary determinations.
N
0 1.25 2.5 Miles
#14803 aldietz 2-15-2022

~~13.1~~ 12.1 GOALS, OBJECTIVES, AND POLICIES

~~13.1.1~~ 12.1.1 INTRODUCTION

This section presents the City's property rights goals, objectives, and policies. On July 1, 2021, CS/CS/CS/HB 59 was signed into law (the "Law") by the Governor and provides, among other things, a new requirement in Section 163.3177(6), Florida Statutes that each local government include in its comprehensive plan a "property rights element to ensure that private property rights are considered in local decision making."

~~13.1.2~~ 12.1.2 GOALS, OBJECTIVES, AND POLICIES

GOAL 1: The City of Hallandale Beach will make all local government decisions with respect for property rights and with respect for people's rights to participate in decisions that affect their lives and property.

OBJECTIVE 1.1: The City of Hallandale Beach will respect judicially acknowledged and constitutionally protected private property rights.

POLICY 1.1.1: The City of Hallandale Beach will consider in its decision-making the rights of a property owner to physically possess and control his or her interests in the property, including easements, leases or mineral rights.

POLICY 1.1.2: The City of Hallandale Beach will consider in its decision-making the right of a property owner to use, maintain, develop, and improve his or her property for personal use or for the use of any other person, subject to state law and local ordinances.

Policy 1.1.3: The City of Hallandale Beach will consider in its decision-making the right of the property owner to privacy and to exclude others from the property to protect the owner's possessions and property.

Policy 1.1.4: The City of Hallandale Beach will consider in its decision-making the right of a property owner to dispose of his or her property through sale or gift.

OBJECTIVE 1.2: The City of Hallandale Beach affirms its support for the rights of all to participate in all local government decisions.

Policy 1.2.1: The City shall continue to follow the public participation procedures outlines in the land development regulations which provide a framework for public participation in the development review process.

Policy 1.2.2: The City shall continue through its land development regulations to provide notification procedures prior to public hearings to promote public participation in the decision-making process.

CORRADINO

4055 NW 97th Avenue
Suite 200, Doral, FL 33178
305.594.0735 • www.corradino.com