



18-173 - EXHIBIT 4 - 2018 FIRE ASSESSMENT STUDY

A re-apportionment study for fixed properties within
the City of Hallandale Beach

Hallandale Beach Department of
Fire Rescue



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Background

The City of Hallandale Beach's Department of Fire Rescue provides comprehensive fire suppression, emergency medical services (EMS), fire prevention, public education and ocean rescue services. The department employs 102 people, including 67 emergency response personnel, five command staff, four fire inspectors, 23 full time, part time and seasonal lifeguards and three administrators. They respond to over 9,000 calls for service annually from three fire stations using six fire suppression and medical transport vehicles. The Fire Prevention Bureau performs over 3,300 inspections per year and performs numerous public education activities including Fire Prevention Week and a presence at all major city gatherings. On our beach, the Ocean Rescue lifeguards provide protective and emergency response services to approximately 900,000 visitors each year. The total fire rescue budget including personnel, operations, capital and debt service in FY17 was \$15,872,204.

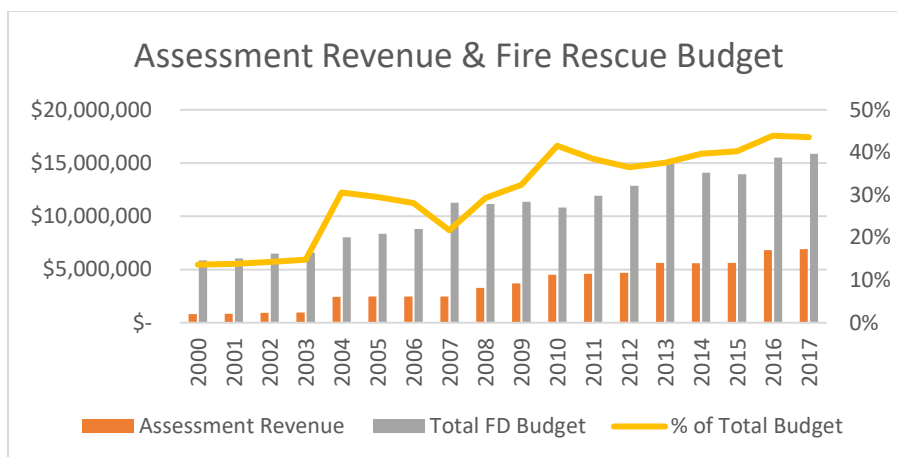
The City has utilized a non-ad valorem assessment since FY99/00 to partially recover the cost of providing fire protection services. This special assessment was originally for EMS, but was changed in FY99/00 to fire protection after a court case in the Fourth District Court of Appeals ruled that EMS did not provide a specific benefit to property. This case, SMM Properties, Inc. v. City of North Lauderdale, ruled that fire suppression, fire prevention, fire inspections and first response medical services¹ do provide a special benefit to property. EMS provides a benefit to people, who are mobile, not fixed property, and is therefore ineligible for funding through this source. Fire protection services provide a special benefit by lowering insurance rates and containing the spread of fires to other adjacent properties. The fire protection benefits are currently assessed under City Ordinance No. 2000-16.

The fire assessment is one of the most common funding sources for public safety in the region. For the current fiscal year, the rate of \$198 per residential unit ranks 10th lowest out of 26 in Broward County (Appendix A). Beginning in FY99/00, the fire assessment generated revenue of \$801,252, covering 14% of the total budget of

¹ "First response medical aid" is considered one of the routine duties of a firefighter, and firefighters are required to take 40 hours of training of first response medical aid. EMS is more comprehensive and includes transport capabilities. See §§ 401.435(1), 633.35(2), Fla. Stat. (1997); Fla. Admin. Code R. 4A-37.055(21)

the fire rescue department budget. For FY16/17, this fund generated \$6,923,116, covering 44% of the total Fire Rescue budget, and 85% of the fire protection costs based on the 2015 assessment study.

Figure 1: Assessment Revenue and Department Budget



As the makeup of the City’s property mix is rapidly changing in the face of development and improvements, it is important to periodically revisit the apportionment to ensure that the costs are being accurately captured by the correct property types (see Appendix D). This study apportions all applicable costs to calculate total recoverable revenue, and reviews demand for service data to apportion all demand for service into the property type that was serviced. Using these figures, new rates for each property type are calculated to accurately reflect the real world.

Assessable Cost Calculations

All costs that are directly attributed to fire protection services, such as fire trucks, personnel that staff those vehicles, and the fire prevention bureau, were included in the analysis. All costs that are directly attributed to EMS, such as medical equipment and the staff who are assigned to rescue units, the contract for billing transport fees, etc., were excluded. Ocean Rescue was excluded entirely. While the analysis was calculated using the best available data, when projecting future costs, some assumptions are necessary. The assumptions are outlined below:

- Personnel costs were taken directly from the actual expenditures on the FY17 budget, the last completed fiscal year data available. A 3% increase, compounded annually, was utilized for all wages and benefits costs with the exception of healthcare.

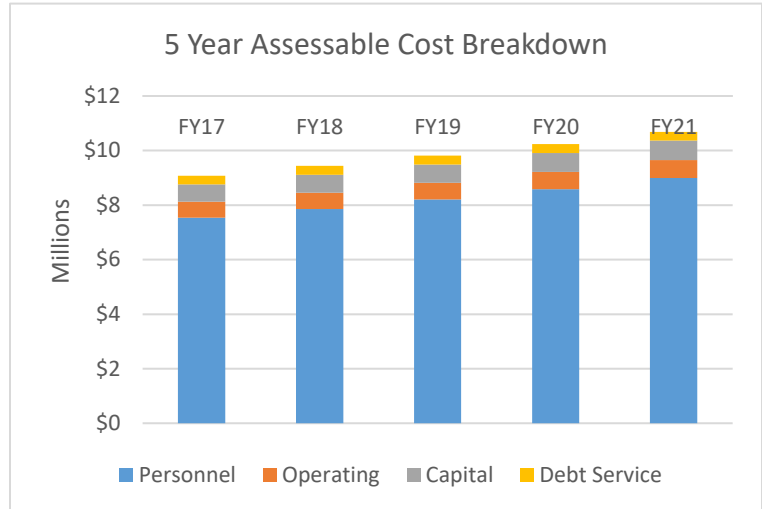


Figure 2: Assessable Costs

In keeping with the 2015

analysis and the figures cited in FY16/17 Summer Study 17-004, a 20% cost increase was assumed.

- Operating costs² were taken directly from the actual operating expenditures on the FY17 budget, the last completed fiscal year data available. A 3% increase, compounded annually, was utilized for all segments of this budget.
- Capital costs were taken from the equipment inventory kept by the Fire Rescue Department. This equipment inventory is a centralized database of all equipment that is deemed essential and/or meets the fixed asset criteria of the City. It also includes our specialized apparatus fleet. The average annualized cost of this equipment was taken from the FY16/17 average annualized cost. A 3% increase, compounded annually, was assumed.
- Debt service is amortized to have the same annual cost. This is to repay the bond from the construction of Fire Station 7.

Costs that are shared between the EMS and non-EMS programs were apportioned based on the ratio of personnel assigned to each program under optimal staffing. Ten are assigned to fire protection, and nine are

² Section 197.3626, Florida Statutes, allows for the Property Appraiser to be reimbursed for administrative costs incurred through the collection of the fire assessment. This is billed annually by BCPA and is a line item cost included in administrative operating costs.

assigned to EMS. This yields a 52.63% allowable distribution of these funds to fire protection services, the same as 2015. This included operational costs such as utility bills, apparatus repairs, and the debt service for the new Fire Station 7.

Figure 3: Cost Centers

Expenditure	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	5 Year Average
Personnel	\$7,540,571	\$7,857,808	\$8,202,767	\$8,579,918	\$8,994,599	\$8,235,133
Operating	\$583,731	\$601,243	\$619,281	\$637,859	\$656,995	\$619,822
Capital	\$630,683	\$650,189	\$669,695	\$689,786	\$710,479	\$670,166
Debt Service	\$324,526	\$324,526	\$324,526	\$324,526	\$324,526	\$324,526
Total	\$9,079,511	\$9,433,766	\$9,816,267	\$10,232,089	\$10,686,598	\$9,849,646

Other Cost Considerations

Figure 4: Total Allowable Cost

Florida Statutes 197.162(1) specifies that a discount of 4% is applicable to taxes and non-ad valorem assessments. For the 5 year total assessable cost, this is \$393,986. That can be added as an assessable cost.

Other factors outside of the budgeted and projected expenditure items must be included in the calculations. Revenues that are received for fire protection or prevention services decrease the allowable assessment

amount. These revenues vary with demand for service, but have averaged \$261,121. This amount must be deducted from the allowable cost since this revenue is otherwise recovered.

This results in a total 5 year average assessable cost of **\$9,982,511**.

Cost	Amount
Expenditures	\$ 9,849,646
Statutory	
Costs	\$ 393,986
Revenues	\$ (261,121)
Total Cost	\$ 9,982,511

Demand for Service Calculations

This analysis reviewed call data for calendar years 2015-2017. When a call for service is dispatched, a record is created with multiple data points that are reported to the National Fire Incident Reporting System (NFIRS). NFIRS is “a reporting standard that fire rescue departments use to uniformly report on the full range of their activities, from fire to emergency medical services (EMS) to equipment involved in the response.” These include but are not limited to: type of call, time of call, the location, which resource was dispatched, how long it was engaged, and what it found. This is done for all responses from every vehicle, whether one vehicle responds to a call or several.

The type of call dispatched is captured in the “incident type” field in the record. 38,317 responses were analyzed. 20,288 responses to EMS calls were excluded, since these did not result in a special benefit to property.

NFIRS also captures the type of property that units responded to through the “property use” field. An additional 3,594 responses were not included because they could not be assigned to a location. These include roadways, bridges, waterways, vacant land, the beach, the railroad tracks and others. This also includes construction sites. Since these calls were not on a property, they did not realize any special benefit to any property.

In the past, it was necessary to calculate the effort required on one call type vs another and created a formula to weigh calls to different types of properties. Improvements in reporting software and data for export has made that unnecessary. Fire Rescue staff was able to take data from **all responses** from calendar year 2015-2017, including the type of vehicle used, the staff on it, and the total involvement time, and calculate the actual effort expended by the fire department responding to all calls for service. If three vehicles were dispatched to a single call, the effort expended by all three was captured. The results, expressed in minutes, are below:

Figure 5: Demand Apportionment

Property Type	# of Response	% of Response	Effort (Minutes)	% Effort (Minutes)
Residential	10,379	71.90%	189,899	75.97%
Commercial ³	2,987	20.69%	45,082	18.04%
Pari-mutuel	440	3.05%	6,538	2.62%
Warehouse	55	0.38%	788	0.32%
Institutional	574	3.98%	7,645	3.06%
Total	14,435	100%	249,952	100.00%

Apportionment to Tax Roll Properties

Data on the City's property mix is updated and reported by the Broward County Property Appraiser (BCPA). The City currently has five assessable property types: residential, commercial, pari-mutuel, warehouse and institutional as designated by BCPA. The residential rate is the same for single family and multi-family units. Categories such as office and amusement are included in the commercial category. The cost of providing fire protection services must be fairly apportioned between them, so that the revenue recovered from each property type is proportional to the cost of providing it.

Costs were apportioned between all of the property types included in the most recent BCPA property file released in October 2017. Residential units are expressed in single units. All other categories are expressed in 100 square feet.

³ Includes Office and Amusement

Figure 6: Property Mix

Property Type	Billable Units	2015 Study	2018 Study
Residential	27,177	72.89%	75.96%
Commercial	46,023	15.59%	18.04%
Race Track	8,667	3.53%	2.62%
Institutional	10,150 ⁴	5.88%	3.06%
Warehouse	12,437	2.11%	0.32%

Exemptions

Exemptions in the fire assessment are determined by the City's Ordinance, 2000-16. The majority are governmental properties that belong to the City, Broward County, the Federal Government (the post office), and the School Board. The remainder are places of worship and a few other non-profit uses.

Calls to these property types are included in the apportionment. This is done to accurately capture the service demand from this property category. Without including them, either the other property types would carry the cost of service to these property types, or the remaining properties in this category would be disproportionately burdened. This would invalidate the rate study.

After the proportions are done, all of the properties listed as exempt in the property appraiser's data are removed. This results in a "buy-down" that is supplemented with general fund revenues. The cost of the buy-down depends on the institutional rate in the apportionment, but is usually in the range of \$200,000-\$300,000.

Based on data from BCPA, 9,234 billable units (100 square feet) are exempt. This leaves 916.21 billable units in the institutional category after the apportionment has been completed.

⁴ Of which 916.21 are billable.

The potential for assessing non-governmental exempt properties was reviewed during the FY 17/18 budget development process. FY16/17 Summer Study 17-007 recommended against doing this and that recommendation continues for the development of the FY 18/19 budget.

Full Cost Recovery Rates

The change in rates based on the new allocation and a full cost recovery of \$9,982,511 is outlined in the table below:

Figure 7: 100% Recover Rate

Residential	Per Dwelling Unit
Residential	\$279.01
Non-Residential	Per 100 Sq. Ft.
Commercial	\$39.13
Racetrack	\$30.18
Institutional	\$30.10
Warehouse	\$2.57

Using the total actual effort expended on non-EMS response, the overall effort to provide fire protection has increased for residential and commercial properties, and decreased for the pari-mutuel, institutional and warehouse coded properties.

Alternate Rate Options

The total cost that can be recovered through the fire assessment has increased by \$1,848,160. This means that even if the revenue in terms of dollars

Study	2015	2018
Gross Recoverable Cost	\$8,134,351	\$9,982,511
FY16/17 Revenue	\$6,949,124	\$6,949,124
% of Total	85%	70%

Figure 8: Cost Recovery vs. Current Revenue

were held steady, the percentage of the total cost of funding fire protection services would decrease (see Figure 8) from 85% to 70%.

Further rate scenarios were analyzed and are presented in Figure 9. The selected rate scenario is 85%. The selected rate scenario would generate \$1,366,308 extra revenue for FY 18/19.

Figure 9: Recovery Rate Scenarios

Property Type	% Effort	Billable Units	100% Recovery	90% Recovery	85% Recovery	80% Recovery	70% Recovery
Residential	75.96%	27,177	\$279.01	\$251.11	\$237.16	\$224.52	\$196.45
Commercial	18.04%	46,022.77	\$39.13	\$35.22	\$33.26	\$31.49	\$27.55
Race Track	2.62%	8,667.42	\$30.18	\$27.16	\$25.65	\$24.28	\$21.25
Institutional	3.06%	916.21	\$30.10	\$27.09	\$25.58	\$24.21	\$21.19
Warehouse	0.32%	12,437.15	\$2.57	\$2.31	\$2.18	\$2.07	\$1.81
Net Revenue ⁵			\$9,683,036	\$8,714,732	\$8,230,580	\$7,791,776	\$6,949,124
Increase from FY17 Revenue			\$2,833,737	\$1,855,451	\$1,366,308	\$922,980	-\$0.23
Equivalent in Mills			0.5057	0.3266	0.2371	0.1559	0.00

Figure 10: Case Studies at 85% Recovery Rate

Location	Single Family Home	Single Condo Unit	Publix	McDonalds (US1)	Wasser Furniture
Property Type	Residential		Commercial		Warehouse
Square Footage	1,800	1,200	103,999	3,420	7,500
2015 Rate	\$198.00	\$198.00	\$28.91	\$28.91	\$12.22
2015 Bill	\$198.00	\$198.00	\$30,066.11	\$988.72	\$916.50
2018 Rate	\$237.16	\$237.16	\$33.26	\$33.26	\$2.07
2018 Bill	\$237.16	\$237.16	\$34,590.07	\$1,137.49	\$155.25
Change	\$39.16	\$39.16	\$4,523.96	\$148.77	-\$761.25

⁵ 97% Assumed Collection Rate

Policy Direction

Pursuant to Section 8 of Ordinance No. 2000-16, the City utilizes the uniform method to levy, collect and enforce of the assessment, as authorized by Chapter 197, Florida Statutes. Furthermore, Section 15 of Ordinance No. 2000-16 authorizes the annual modification of the total amount of the fire protection services special assessment and the amount assessed against each parcel of property. This must be approved by the City Commission and forwarded to BCPA by August 3rd in order to appear on the tax notices.

Staff is aware and understands that any increase in the cost of public safety increases the cost on taxpayers. Recovering 100% of the assessable costs would result in a residential rate of \$279.01.

While this rate is justified, when combined with FY17/18 rate increases for the storm water utility and water and sewer, it is too great a one year adjustment. However, to maintain the standard of service that our constituents expect, these services must have

adequate funding. The study that was performed assumed that there would not be any service enhancements, such as new or improved facilities or additional staff, only exactly what is offered now. If the total dollar amount of revenue remains the same, an increasing portion of the cost of fire services must be supplemented by the general fund, as shown in Figure 8. This would result in either reductions to other services, reductions to fire protection services, or an increase in the millage rate.

Figure 11: % Funding by Taxing Authority

Taxing Authority	% Funded
Southwest Ranches	100%
Lauderhill	100%
West Park	100%
Weston	100%
Miramar	100%
Pembroke Pines	100%
North Lauderdale	100%
Wilton Manors	100%
Coconut Creek	100%
Lauderdale by the Sea	100%
Lauderdale Lakes	95%
Oakland Park	91%
Coral Springs	88%
Hallandale Beach	85%
Dania Beach	67%
Parkland	60%
Tamarac	59%
Davie	58%
Lighthouse Point	24%

Therefore, staff recommends maintaining consistency by continuing the 85% revenue recovery rate for fire protection services through the fire assessment. The increased residential rate of \$237.16, which is the rate used for comparative purposes, is in line with other rates in the county. Additionally, of the 20 agencies that responded to a 2017 survey asking how much revenue is recovered through the fire assessment, only five recover less revenue than Hallandale Beach. This would not change if the Commission directs staff to continue recovering 85% of allowable costs.

Conclusion

The proposed rate for the FY18/19 Fire Assessment is based on a far better and more transparent data than the 2015 study. The improved analysis goes to the distribution of costs to the five property types and the clarity in how the costs were calculated. The result is that the rate for residential and commercial went up, and the rate for institutional, warehouse, and pari-mutuel went down.

The next level of decision is pure policy. The City Commission has the facts and staff has recommended the 85% recovery while 100% would have been justified. This means that an additional \$1,366,308 would be generated, which is the equivalent of .2371 mills of taxation. Any reduction in the proposed 85% recovery would require a millage increase, cost reductions in the Fire/Rescue Department, or contributions in other General Fund supported programs. Please thank Stephanie Delgado, Special Projects Coordinator, for her excellent work on this report.

Appendices

Appendix A – Adopted FY17/18 Assessment Rates – Broward County

Figure 12: Broward County FY18 Rates

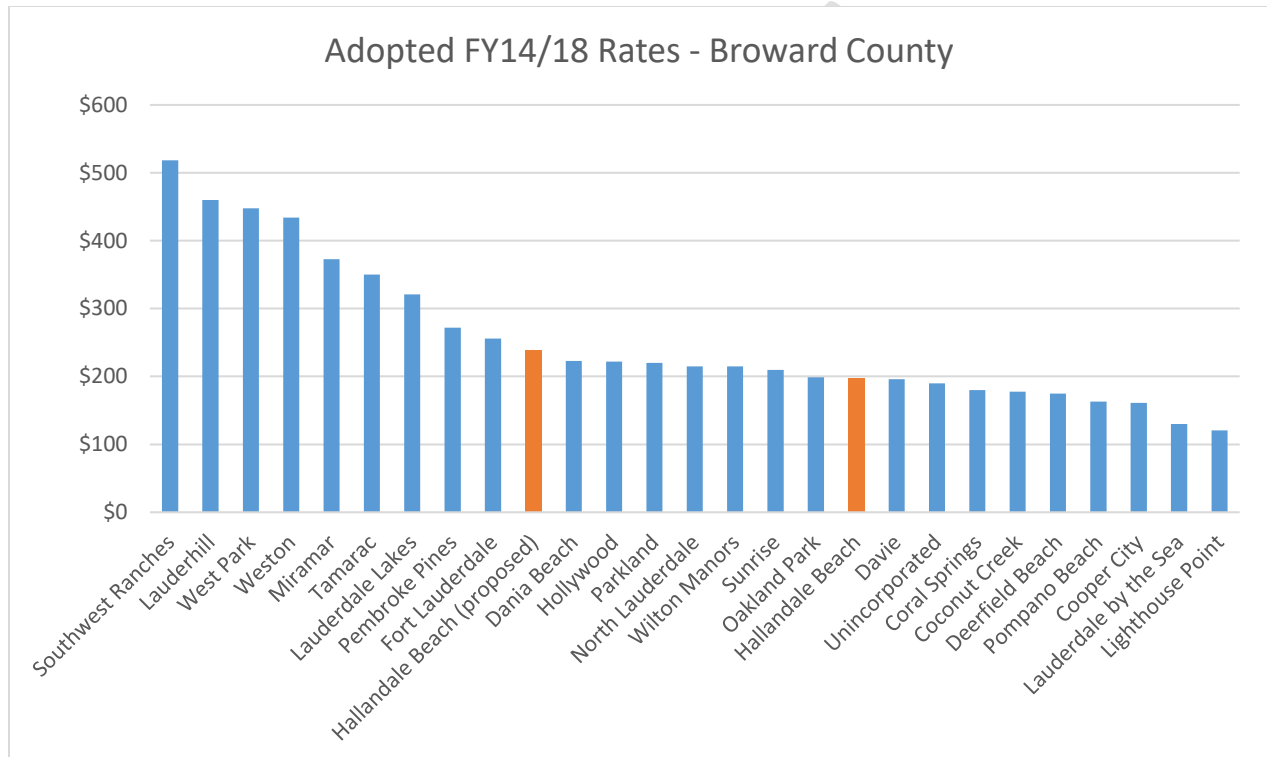


Figure 13: FY 18 Assessment Rate Table

Municipality	Adopted FY18 Rates
Southwest Ranches	\$518.49
Lauderhill	\$460.00
West Park	\$447.86
Weston	\$433.97
Miramar	\$372.84
Tamarac	\$350.00
Lauderdale Lakes	\$321.00
Pembroke Pines	\$271.98
Fort Lauderdale	\$256.00
Hallandale Beach (proposed)	\$238.55
Dania Beach	\$223.00
Hollywood	\$222.00
Parkland	\$220.00
North Lauderdale	\$215.00
Wilton Manors	\$214.72
Sunrise	\$209.50
Oakland Park	\$199.00
Hallandale Beach (current)	\$198.00
Davie	\$196.00
Unincorporated	\$190.00
Coral Springs	\$180.00
Coconut Creek	\$177.79
Deerfield Beach	\$175.00
Pompano Beach	\$163.00
Cooper City	\$161.28
Lauderdale by the Sea	\$129.85
Lighthouse Point	\$120.34

Appendix B – NFIRS Property Use Codes

Figure 14: NFIRS Property Use Codes Quick Guide

Code	Property Type
100-199	Assembly
200-299	Educational
300-399	Healthcare, Detention, and Correction
400-499	Residential
500-599	Mercantile, Business
600-699	Industrial, Utility, Defense, Agriculture, Mining
700-799	Manufacturing, Processing
800-899	Storage
900-999	Outside or Special Property

Appendix C – NFIRS Incident Type Codes

Figure 15: NFIRS Incident Code Quick Guide

Code	Incident Type
100-199	Fire
200-299	Overpressure, Rupture, Explosion, Overheat - No Fire
300-399	Rescue and EMS
400-499	Hazardous Condition
500-599	Service Call
600-699	Cancelled, Good Intent
700-799	False Alarm, False Call
800-899	Severe Weather and Natural Disaster
900-999	Special Incident Type

Appendix D – BCPA Property Use Codes

Figure 16: BCPA Property Use Codes

Code	Property Type
00-09	Residential
10-39	Commercial
40-49	Industrial
50-69	Agricultural
70-79	Institutional
80-89	Government
90-97	Miscellaneous
98	Centrally Assessed
99	Acreage not Zoned Agricultural