

EXHIBIT 11

County Environmental Protection and Growth Management Department (BCEPGMD) to determine if this would be permissible. BCEPGMD stated that increasing this culvert size would not be allowed unless calculation proved that this would not increase stormwater discharges into the ICWW. This condition could not be met.

2. Increasing collection system pipe sizes for Diplomat Parkway at Atlantic Shores Boulevard. Similar to the box culvert described previously, increasing the pipe sizes would result in increased discharges into the ICWW which would not be allowed by BCEPGMD.

Southwest Section

1. A collection system improvement to facilitate the conveyance of stormwater towards the existing outfall located at SW 11th Street between SW 4th Terrace and SW 3rd Avenue was investigated. The improvements were presented to the Miami-Dade County Public Works and Waste Management, Stormwater Utility Planning Division. According to Miami-Dade County, the residential neighborhood downstream of this outfall experiences frequent flooding and has had multiple repetitive loss claims. Due to the existing flooding problem, Miami-Dade County stated that the City of Hallandale Beach cannot increase discharges into this area in an effort to prevent even higher flooding levels.
2. A retention area to protect all low lying homes from flooding in a 100-year - 72-hour storm event was determined to be approximately thirty-five (35) acres. In order to provide this area, the City of Hallandale Beach would need to purchase and demolish roughly 150 homes with an average home value of \$145,000. This average home value was calculated using the Broward County Property Appraiser's website. The cost of the property acquisition alone would be in the \$21,000,000.00 range. This cost does not include the demolition of existing roadways or cost to relocate existing utilities. Also, the proposed lake would need to be constructed in the areas containing the low lying finish floors. This option eliminates the need for the lake because the homes purchased and demolished would be the homes the lake was intended to protect.

Proposed Options

The following improvements were analyzed to determine economic feasibility and improvement to existing conditions.

Gravity Drainage Wells and Collection System Improvements

Option 1 proposes to construct the maximum length of exfiltration trench and swales which can be feasibly installed within each basin. The runoff will be diverted by the swales and exfiltration trench system into the groundwater. Excess stormwater which cannot be diverted by the exfiltration system will then be routed to the trunk lines by the collector pipes. The flows into the trunk lines will be regulated by control structures with raised weirs to maximize the effectiveness of the proposed exfiltration trench systems thus improving the water quality of the runoff. The control structures will also prevent the basins with higher elevations from flooding those with lower elevations, while still providing a means for the entire system within each Section to equalize. Also, a network of gravity drainage wells will be installed along the collection system which will assist in the reduction of flood stage durations and discharge to the outfalls. Finally,