

## Tarpon Woods Flood Control

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In response to the large storm events over the past two summers and the subsequent flooding caused within the Toniwoods area of Tarpon Woods, a discussion with the affected public was held in June, 2005. Public Works Surface Water Division was subsequently tasked (in August 2005) with design of improvements to reduce the stage and duration of peak elevations within the Toniwoods area and the area along Brian Road. The attached photographs (shown in a separate Word file) depict the extent of flooding in the Tarpon Woods Subdivision during these type rainfall events.

Public Works (PW) was subsequently directed to have all necessary design, permitting, contract document preparation, easement acquisition from the adjacent golf course, and bidding accomplished in order to begin construction early in April 2006. The PW-Surface Water Division was responsible for the development of plans and contract documents, and development and approval of the SWFWMD Environmental Resource Permit (ERP). The design concept included a double 60" pipe by-pass system to be located on the adjacent private property, for which an easement was required from the owner of the Tarpon Woods Golf and Country Club. The construction was intended to be completed between April 1, 2006 and August 31, 2006.

The project proceeded through the bidding phase, however, bids were rejected due to the inability to secure an easement agreement with the adjacent golf course owner. As a result, an initial smaller project within Toniwoods Drive right-of-way is currently being evaluated by the PW-Surface Water Division. Once permitted, the Highway Department will implement an 18" bypass pipe connecting two existing inlets along this roadway. During large storm events, flow will be intermittently "plugged" from an adjacent pond and diverted southward, via this 'new' pipe connection. The intent of this system is to introduce flows into a downstream area that exhibited no flooding during the aforementioned summer storms. This bypass is anticipated to reduce the time that Toniwoods Drive is under water following a rainfall event. Flow diversion will be accomplished through the use of slide gates on two of the inlets. These gates will be operated (opened/closed) by Highway staff, as necessary, in an attempt to control the water elevations in the roadways.

Upon completion of the initial project segment, a secondary phase is being planned where the pond along the eastern side of Toniwoods Drive will also be controlled by a slide gate in an inlet. This slide gate will isolate the eastern pond and divert the flow via a secondary pipe bypass system to be constructed near the intersection of Jennifer Terrace (within the right-of-way), connecting to the aforementioned bypass pipe. This future segment will most likely be accomplished by issuance of a 'Work Order' assignment via one of our annual contracts. Actual construction will be scheduled after permitting is completed, and in consideration of the rainy season and funding availability.

While these minor projects will help to alleviate flooding conditions to a small degree, a potential large scale solution lies upstream of the Tarpon Woods area within the Brooker Creek Preserve. DEM is the County's lead department in the development of the Brooker Creek Watershed Plan, which is managed by SWFWMD. URS, the consultant for the project, will consider the overall problem of excess drainage flowing to the Tarpon Woods area. An analysis of the needs of the Preserve will be made along with an analysis of excess drainage to Tarpon Woods. Ultimately, water will need to be distributed within the Preserve for wetland health, while also providing for some flood storage. Excess water will also need to be diverted away from Tarpon Woods. The consultant will analyze this in the watershed plan and make recommendations. Currently, the watershed plan is in the data acquisition phase, including assessment of wetland impacts. The watershed plan is anticipated to be completed in November 2007.