

# Watershed Management in Hillsborough County

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Nestled on the eastern shores of Tampa Bay, Hillsborough County covers about 900 square miles of land and 25 square miles of inland water area. Municipalities, including the city of Tampa, account for about 140 square miles. Organized in 1934 as Florida's 19th county, Hillsborough County has enjoyed growth and a population increase synonymous with that experienced by the rest of Florida.

Despite the rapid growth rate, about 60% of the county remains either undeveloped or in agricultural use. The remaining 40% consists of urbanized land clustered in three principal regions: the Northwest (including the communities of Carrollwood, Town N' Country, Citrus Park, and Lutz), the East (including Brandon and vicinities), and South County (including Apollo Beach, Gibsonton, Sun City, Ruskin, and vicinities). The majority of the undeveloped land remains in the southern and eastern parts of the county.

A network of three main interstates (I-275, I-75, and I-4), two limited access expressways (Veterans and Lee Roy Selmon), and a number of main arteries, such as Hillsborough Avenue, Dale Mabry Highway, and Gunn Highway, connect the urbanized regions. Regional water and wastewater treatment plants also service the urbanized areas in these regions.

Stormwater management, like other public services, was decentralized, with a "maintenance unit" in each of the main regions directly responding to any drainage inquiries.

During the El Niño rains of 1997-1998, large areas in Hillsborough County, especially in the Northwest, experienced street and structural flooding for an extended period of time. With over 50 inches of rain falling in a 4-month period (following a wet rainy season), El Niño proved to be the ultimate test for the effectiveness of the county's stormwater infrastructure.

Given the magnitude of the problems, a more centralized approach for dealing with the flooding was needed to ensure efficiency in utilizing available resources. A flood response center was set up at the Emergency Operations Center to field all calls. County forces, mobilized from different departments, worked in shifts around the clock to relieve flooding throughout the county.

Flooding that resulted in complaints consisted of localized flooding that could be resolved with proper maintenance or that was caused by undersized drainage systems, closed basins, or lack of outfalls, and regional flooding caused by undersized conveyance systems.

More than three hundred stormwater neighborhood projects were generated, and the need to accelerate stormwater master planning for the entire county was recognized. Regional master plans would be managed as a group, thereby standardizing methodologies countywide. They would also allow for solutions to be implemented for regional problems while more effectively solving the localized problems.

Through discussions with personnel in various county departments and state agencies, it was quickly recognized that the plans could and should do more than solve flood problems created in yesteryears. With \$96 million approved by the county commissioners for an accelerated 5-year stormwater program, the objectives of the new plans came to fruition:

1. The plans will be "Watershed Management Plans" embracing the latest concepts of watershed planning outlined by EPA.
2. The plans will cover all 17 watersheds in the county, covering its entire 900 square miles. Accordingly, some watersheds that were studied a decade or so ago will be re-studied using current technology, while other watersheds will be stud-

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ied for the first time.

3. The plans will comply with the requirements of the county's NPDES permit, as well as the Tampa Bay Estuary Program agreement.

4. The plans will address four areas of concern in each watershed: flood control, water quality, natural systems, and water supply.

5. The plans will examine the adequacy of existing regulations and land use policies, and any resulting recommendations will have regulatory significance.

6. The plans will have specific regional and local recommendations dealing with issues that are specific to the watershed without being too complex or cumbersome to follow.

7. Finally, the most important aspect of the plans is the emphasis on public input. The watershed plans will solicit input from the public and other citizen groups in each of the watersheds at three different stages: when data for existing conditions is collected, the beginning of alternative analysis, and at the recommendation stage. In addition to continuous opportunity for input during the process, these three events will be professionally facilitated to ensure a chance for everyone to voice opinions, concerns, or recommendations. Such facilitated meetings will also build on efforts by other county agencies working with citizen groups to link land use and water management.

In 1998 the county completed studies for six watersheds (Brooker Creek, Double Branch Creek, Rocky/Brushy Creek, Sweetwater Creek, Lower Sweetwater Creek in the northwest part of the county, and Pemberton/Baker Creek in eastern Hillsborough County). Currently nine more watershed plans are being initiated. Plans for the East Lake watershed and Delaney/Archie Creek watershed are being done in-house by county staff, and are scheduled to be completed in fiscal years 1999 and 2000, respectively. Consultants are doing the other seven studies at an estimated cost of \$8 million. These include the Hillsborough River and Tampa Bypass Canal watersheds, the Alafia River, the Little Manatee River, Bullfrog Creek, Cypress Creek, and Curiosity Creek. All of the plans are scheduled to be completed no later than the end of fiscal year 2001. ■

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