

## Northwest Hillsborough Basin Board

## Information and Budget Notebook

Thursday, February 8, 2007 1:30 p.m.

Temple Terrace City Hall 11250 N. $56^{\text {th }}$ Street Temple Terrace, Florida (813) 989-7100

# NORTHWEST HILLSBOROUGH BASIN BOARD 

Maritza Rovira-Forino, Chair Ex Officio
Lester Adams, Member
Joe Robinson, Vice Chair
Mercy DiMaio, Member
Devon Higginbotham, Member
Susan Welsh, Member

## Committee Representatives:

## Basin Board Education Committee:

Primary: Devon Higginbotham; Alternate: Susan Welsh

Basin Board Land Resources Committee:
Primary: Joe Robinson; Alternate: Mercy DiMaio

## AGENDA

## Northwest Hillsborough Basin Board

Temple Terrace City Hall

1:30 p.m.

ITEM

1. Call to Order and Roll Call
2. Pledge Of Allegiance to the American Flag
3. Additions/Deletions to Agenda

## PRESENTER

Maritza Rovira-Forino/Frances Sesler
Maritza Rovira-Forino
Lou Kavouras
4. Consent Item:
a. December 7, 2006, Meeting Minutes \{Exhibit 1\} Lou Kavouras
5. Discussion Items:
a. Rocky Creek Lake Enhancements Project (B027) Lisann Morris
b. 2006 Regional Water Supply Plan \{Exhibits 2 \& 3\}

Gregg Jones
c. Tampa Bay Regional Reclaimed Water Project Update (H300-H310) \{Exhibit 4\}

Kathy Scott
d. Approval of Agreement and Transfer of Funds for Tampa Bay Water's System Configuration II Project (H065) \{Exhibit 5\}

Gregg Jones
e. FY2008 Cooperative Funding Requests \{Exhibits are behind FY2008 Projects tab in this Notebook\}

Maya Burke
6. Reports:
a. Water Shortage Update \{Exhibit 6\}

Lois Sorenson
b. Report on Governing Board Activities
7. Announcements:

Lou Kavouras
a. Memorial for Former Governing Board Member Ramon "Ray" F. Campo: Monday, February 12, 2007, 9:00 a.m., Tampa Service Office
b. Memorial for Former Governing Board Member Ed Chance: Friday, March 2, 2007, 8:30 a.m., Lake Manatee Reserve
c. Basin Board Education Committee: Tuesday, March 6, 2007, 9:30 a.m., Tampa Service Office
d. Basin Board Land Resource Committee: Thursday, March 22, 2007, 9:30 a.m., Starkey Environmental Education Center
e. Next Basin Board Meeting: Thursday, April 5, 2007, 1:30 p.m., Tampa Service Office
f. Other
8. Adjournment

Maritza Rovira-Forino
*** Information Items are Included in the Summary Agenda***

# SUMMARY AGENDA <br> <br> Northwest Hillsborough Basin Board Meeting 

 <br> <br> Northwest Hillsborough Basin Board Meeting}

February 8, 2007
1:30 p.m.

## 1. Call to Order and Roll Call

Presenters: Maritza Rovira-Forino, Chair Ex Officio
Northwest Hillsborough Basin Board
Frances Sesler, Senior Administrative Assistant
Boards and Executive Services
2. Pledge of Allegiance to the American Flag

Presenter: Maritza Rovira-Forino, Chair Ex Officio

## 3. Additions/Deletions to Agenda

Presenter: Lou Kavouras, Deputy Executive Director Outreach, Planning and Board Services
4. Consent Item:
a. December 7, 2006, Meeting Minutes

Basin Board members were provided minutes of the December meeting for review.
Staff Recommendation: Exhibit 1
Approve the December minutes as presented.
Presenter: Lou Kavouras
5. Discussion Items:
a. Rocky Creek Lake Enhancements Project (B027)

Purpose
This is a request to approve the reallocation of budgeted funds for the Rocky Creek Lake Enhancements project (B027) from Phase 3 (construction) to Phase 2 (design and permitting). The total budget for Phase 2 would increase from $\$ 112,403$ to $\$ 279,600$.

## Background/History

In the northern Tampa Bay area, water levels in some lakes and wetlands have been impacted due to ground-water withdrawals. Minimum flows and levels were adopted in 1999 and a recovery plan was implemented that targeted cutbacks in ground-water withdrawals from Tampa Bay Water's wellfields with the goal of restoring water levels. The Rocky Creek Lake Enhancements Project was identified as an alternative management project that would divert excess surface water from unstressed lakes to lakes with chronically low levels. In 2001, the Lake Enhancement Project was approved as a Basin Initiative by the Northwest Hillsborough Basin Board. The project was approved as a cooperative effort with Tampa Bay Water and included three phases with funding for Phase 1 (Feasibility assessment) and Phase 2 (design and permitting) being budgeted in 2001. Partial funding of Phase 3 (construction) was included in the Basin's

FY2007 budget in the amount of \$200,000 (\$100,000 each) with additional funding to be requested in future years' budgets.

Rocky Creek captures surface water drainage in Northwest Hillsborough County and flows through Pretty Lake into Lake Armistead and then toward Tampa Bay. During wet periods, it is possible to divert a portion of the excess flows leaving Pretty Lake into Horse Lake, a nearby lake with chronically low levels. If the desired levels are achieved in Horse Lake, available excess flows can be routed to nearby Lakes Raleigh and Rogers. The District, in cooperation with Tampa Bay Water (TBW), successfully implemented the Lake Enhancement project as a temporary flood control measure during the El-Nino events of 1997-1998 and 2002-2003.

The objective of Phase 1 of the project was to perform surface water modeling, identify the preferred engineering alternative, and identify permitting requirements. Several delays occurred during Phase 1. In March 2002, TBW deferred further action on the project until the completion of permitting and design for the District's Lake Armistead structure project, located immediately downstream of Lake Pretty. This was because the installation and operation of a water control structure on Lake Armistead would affect the timing and availability of excess surface water flows that could be diverted from Lake Pretty. An additional delay occurred as District staff worked with the project consultant to resolve problems with Phase 1 deliverables. The Phase 1 Feasibility Study was finalized in September 2005.

After completion of Phase 1, the District became the lead agency for Phases 2 and 3. Phase 2 principally consists of developing the final engineering design and obtaining the necessary permits. A Request for Proposals for design, permitting and construction management services was advertised in June 2006, and the successful respondent was MACTEC, Inc. Contract negotiations began in September 2006. Based on these negotiations, staff has determined that the cost to conduct Phase 2 will be greater than was originally estimated in 2001. Therefore, it is necessary to seek additional funds to conduct Phase 2.

## Benefits/Costs

The Rocky Creek Lake Enhancement Project will provide an alternative management approach for achieving desirable lake levels in the portion of Northwest Hillsborough County that has been most affected by wellfield pumping. Lake augmentation projects in combination with reduced groundwater withdrawals can be used to achieve water level recovery in the region.

The Rocky Creek Lake Enhancement Project is cooperatively funded by the Northwest Hillsborough Basin Board and TBW on a 50/50 cost-share basis and is scheduled to be conducted in three phases over a multi-year period. The total cost of the project was originally estimated at $\$ 812,834$ ( $\$ 406,417$ each) with approved budgets for Phase 1 at $\$ 115,807$ ( $\$ 57,903.50$ each), and Phase 2 at $\$ 112,403$ ( $\$ 56,201.50$ each). In FY2007, $\$ 200,000$ ( $\$ 100,000$ each) was budgeted to cover construction services in Phase 3.

As noted above, District staff have negotiated a scope of work and cost with the consultant MACTEC to conduct Phase 2. Because the approved budget estimate for Phase 2 was prepared over five years ago, the new estimated cost to complete this phase is now $\$ 279,600$, an increase of $\$ 167,197$ ( $\$ 83,598.50$ each). In order to fund this phase, a transfer of currently budgeted funds for Phase 3 is requested. The cost to perform Phase 2 will not exceed the total project cost of the current funding agreement with TBW. It is anticipated, however, that later this year the agreement with Tampa Bay

Water will be amended to reflect updated cost estimates and to extend the completion date to sufficiently account for design, permitting and construction. Estimates for construction services and construction will be included in the proposed fiscal year 2008 budget.

## Staff Recommendation:

Recommend the Board approve increasing the total budget amount for Phase 2 (design and permitting) from $\$ 112,403$ to $\$ 279,600$, with the District's increased share $(\$ 83,598.50)$ to be transferred from FY2007 funds currently allocated to Phase 3 (construction).

Presenter: Lisann Morris, Senior Professional Engineer, Hydrologic Evaluation Section
Resource Conservation and Development Department
b. 2006 Regional Water Supply Plan

## Purpose

This is to provide an overview of the approved 2006 Regional Water Supply Plan (RWSP). The RWSP is an assessment of projected water demands for all use sectors and potential sources of water to meet those demands over a 20-year planning period within the area required by the RWSP. Legislation passed in 1997 requires the water management districts to complete a RWSP for areas with water supply shortfalls and to update it every five years. The District's first RWSP was completed in 2001. The 2006 RWSP is the result of technical investigation, and collaboration with local governments, water suppliers and other stakeholders.

## Background/History

The 2006 RWSP addresses the water supply needs for a ten-county area (the Planning Region) that extends from Pasco County in the north to Charlotte County in the south. A RWSP is required in this area because stresses to the hydrologic system resulting from ground-water withdrawals, require that future water supply demands be met largely by alternative sources (sources other than fresh ground water). Alternative sources include the harvesting and storage of the excess wet-season flow of rivers, reclaimed water, water conservation, brackish ground-water desalination, and seawater desalination. In areas where alternative sources are limited, the development of a limited amount of fresh ground water may be permitted under certain conditions. The 2006 RWSP update shows that sufficient alternative water sources exist in the Planning Region to meet water supply demand through 2025 and replace some of the current ground-water withdrawals causing hydrologic stress.

Chapter 9 is the financial component of the RWSP. In this chapter, the cost of developing the projects necessary to meet the 2025 water supply demand is estimated. This cost is compared to the amount of funding that will be generated in the Planning Region through 2025 by the District's water supply funding programs, state funding programs, and matching funds from cooperators. This information was the basis for the development of the District's Financial Engine for funding alternative water supply projects that was presented to the Governing and Basin Boards at their December meetings. This presentation showed that the Northwest Hillsborough Basin is well positioned to generate its share of the funding for the development of currently identified projects and costs that will help meet water supply demand in the Basin through 2025.

At its June 2006 meeting, the Governing Board approved the release of the draft 2006 RWSP for public review and comment. Staff held three public workshops to solicit input on the RWSP, and received and responded to numerous comments from local governments, water supply authorities, utilities, private industry, private citizens, and consultants. Copies of the comments and the District's responses have been included in the Board's materials along with a final copy of the RWSP. Numerous changes were made to the RWSP based on these comments. The Governing Board approved the final draft of the RWSP at their December 2006 meeting. The Board-approved RWSP was submitted to the Florida Department of Environmental Protection in December of 2006 as required.

The District is required to present the information in the RWSP to local governments and provide technical assistance as they ensure consistency between their local water supply planning efforts and those of the District. Approval of the RWSP began an 18month time clock in which local governments must meet the new requirements for water supply planning within their local comprehensive plans.

Staff Recommendation:
See Exhibits 2 \& 3
This item is for the Board's information only; no action is required.
Presenter: Gregg W. Jones, P.G., Director
Resource Conservation \& Development Department

## c. Tampa Bay Regional Reclaimed Water Project Update (H300-H310)

## Purpose

The purpose of this presentation is to provide the board with an update on the Tampa Bay Regional Reclaimed Water and Downstream Augmentation Project, including how the funding has been allocated.

## Background/History

In 2000, the Governing Board directed staff to develop a project that would utilize a significant portion of the reclaimed water discharging into Tampa Bay from the City of Tampa's Howard F. Curran Advanced Wastewater Treatment Plant (HFC Plant). District staff began working on a concept with the City of Tampa to bring reclaimed water from the HFC Plant to the rapidly expanding New Tampa subdivisions in Northern Hillsborough County. The scope, benefits, and costs of the project expanded as Pasco and Hillsborough counties and Tampa Bay Water joined the project in 2001 and 2002. The project concept was finalized in the February 2004 report entitled, Tampa Bay Regional Reclaimed Water and Downstream Augmentation Project (TBRRAP). The collaboration of the five partners has been very successful at securing state and federal revenues for the project. To date, approximately $\$ 11.4$ million has been awarded.

The goal of the TBRRAP was to maximize the use of reclaimed water from the HFC Plant in the following ways: 1) offset the use of potable water for irrigation of residential landscaping in Pasco, Hillsborough, and Pasco counties, 2) augment the lower Hillsborough River to help meet the minimum flow, 3) augment the lower Hillsborough River and Tampa Bypass Canal with reclaimed water so that more freshwater could be withdrawn upstream, 4) increase the beneficial use of wet-weather reclaimed water flows through storage in reservoirs, and (5) help restore natural systems in Pasco and Hillsborough counties.

During the past two years, the project team has been determining design criteria, including the treatment, pipeline, storage and pumping parameters required to serve each partner with their allocation of reclaimed water flows. Tampa Bay Water has worked diligently to provide the necessary supporting information to provide reasonable assurance for the permit submitted to the Department of Environmental Protection (DEP) to augment the Tampa Bypass Canal and lower Hillsborough River with reclaimed water. The permit application was submitted to the DEP in June of 2005.

In October, the Tampa Bay Water Board voted to move forward with expansion of its enhanced surface water system without the augmentation component. Permitting uncertainties and recently completed minimum flows and levels work on the lower Hillsborough River and the Tampa Bypass Canal, by the District, were the reasons behind this decision. As a result, the project is currently undergoing a significant reconfiguration due to the elimination of the downstream augmentation component and the component to augment the lower Hillsborough River to meet the minimum flow.

As a result of the elimination of downstream augmentation, Tampa Bay Water has withdrawn from the project to pursue their System Configuration II project, which continues to incorporate the withdrawal and treatment elements of the augmentation project. Recently completed minimum flow studies show that significant amounts of freshwater can be developed from the Tampa Bypass Canal and Hillsborough River during times of higher flow. Tampa Bay Water has been encouraged to investigate this option by the Agency on Bay Management and the Tampa Bay Estuary Program. To access this water, Tampa Bay Water needs to upsize their surface water treatment plant and intake facilities on the Tampa Bypass Canal.

## Status of the Reclaimed Water Project

The project, now known as the Tampa Bay Regional Reclaimed Water Project, was most recently discussed with the remaining partners on January 10, 2007. The purpose of the meetings was to reconfigure the project and determine what the benefits and costs would be. Preliminary indications are that the cost of the project will be between $\$ 210$ and $\$ 220$ million for 17 mgd of benefit. This includes 9 mgd of offset from irrigation and other potable demands, and 8 mgd of ground-water recharge. Although the benefits of the project are significantly reduced as a result of the elimination of downstream augmentation, costs remain at approximately the previous level due to dramatic increases in the cost of materials during the past several years. Based on this information, it is anticipated that each partner will decide by the summer of 2007 whether its continued participation in the project remains feasible.

## Work Completed or in Progress to Date

During the last two years, a significant amount of project work has been completed or is in progress. The majority of this work will still be applicable to the reconfigured project when the partners agree to move forward. The following is a description of progress to date.

Tampa Bay water completed scientific modeling work as part of the planning and preliminary design work required to prepare the permit materials for downstream augmentation elements, and respond to questions from the DEP.

Before Tampa Bay Water withdrew from the project, they and the City of Tampa were in the process of preliminary design for the pipelines that will supply most of the project. The pipelines, and related pumping and storage, is required to convey the water to serve customers in and around New Tampa, Pasco County, and Hillsborough County.

Tampa's Basis of Design Report (20-percent design) also focuses on identifying residential and large, non-residential customers. It is anticipated to be completed in 2007.

During the past year, the District's consultants have been working to identify options for using approximately 6 mgd of wet-weather reclaimed water flows for public supply and natural systems restoration in Pasco County. King Engineering is in the process of completing the final report on storage options, and will identify the volume of wetweather reclaimed water that can be stored in Pasco County, the associated costs, and the number of customers that could be served as a result of the storage.

Pasco County has completed the construction of a pipeline that will ultimately convey reclaimed water from the pipeline that will be constructed from the HFC Plant, through New Tampa to the Pasco County line. In addition, during the past 18 months, the county has been working through permitting issues with the DEP on the construction of its 100 million gallon wet-weather reclaimed water reservoir. An Environmental Resource Permit has been issued and construction bids were recently received by the County. Construction is expected to begin within the next couple of months.

Hillsborough County commenced preliminary ( 30 percent) permitting and design engineering work in January 2007 on its reservoir that will store wet weather reclaimed water flows from the HFC Plant. The work is expected to be completed by the end of 2007, and will indicate if the large storage/restoration facility is feasible and permittable.

## Status of Funds Budgeted for the Project

Table 1 reflects the funds budgeted and expended to date, anticipated transfers, and the remaining balance of project funds. Revenue funds have been budgeted when grants have been awarded to the project. Because the project would provide a benefit to the entire region, the funding commitment requested of each Basin Board, similar to funding for the Partnership Agreement, was proportionate to each Basin's population in the Hillsborough-Pasco-Pinellas county area.

Funds associated with the downstream augmentation elements of the project are anticipated to be transferred to the Tampa Bay Water's System Configuration II surface water project. This is because several elements of the Configuration II project (surface water treatment plant expansion, pumping expansions, and intake structures) were elements of the downstream augmentation component of the original TBRRAP.

## Staff Recommendation:

See Exhibit 4
This item is for the Board's information only; no action is required.
Presenter: Kathy F. Scott, Manager, Conservation Projects Section Resource Conservation \& Development Department
d. Approval of Agreement and Transfer of Funds for Tampa Bay Water's System Configuration II Project (H065)

## Purpose

This is to request approval of an agreement with Tampa Bay Water to cooperatively fund the development of the System Configuration II Project, authorize the transfer of $\$ 975,517$ of Basin funds into the System Configuration II project budget, and authorize
the transfer of \$975,000 of Water Protection and Sustainability Program trust (SB 444) funds into the System Configuration II project budget. These funds were previously budgeted for use in the Tampa Bay Regional Reclaimed Water and Downstream Augmentation Project (TBRRAP) and the Northwest Hillsborough Interconnect Project.

## Background/History

Tampa Bay Water has determined that necessary regional potable water supply needs to meet the 2011 projected demands will exceed their existing permitted water supply system. In order to meet these additional demands, Tampa Bay Water has decided to move forward with the System Configuration II project. As presented in previous Basin discussion items and past budget development cycles on the "Tampa Bay Regional Reclaimed Water Project (H300-H310)," Tampa Bay Water originally proposed to meet the 2011 supply needs through the downstream augmentation component of the TBRRAP project. The downstream augmentation component was eliminated from the project based on permitting difficulties and results from the District's MFL work on the lower Hillsborough River and Tampa Bypass Canal. However, many of the elements that would have been necessary for downstream augmentation, such as expansion of the surface water treatment plant and Tampa Bypass Canal intakes, will also be necessary for the System Configuration II project. As a result of these developments, the Tampa Bay Water Board at its October 2006 meeting voted to move forward with the System Configuration II project to meet their 2011 demands.

The System Configuration II project will develop additional capacity in Tampa Bay Water's Enhanced Surface Water System to withdraw and treat water during periods of higher flow from the Hillsborough River and Tampa Bypass Canal. As part of the project, a number of Tampa Bay Water's regional system components will need to be expanded including the surface water treatment plant and the Tampa Bypass Canal Pump Station. These improvements will enable the higher surface water flows from the Hillsborough River and Tampa Bypass Canal to be captured and the use of Tampa Bay Water's C.W. Bill Young Regional Reservoir to be increased. Four system interconnect components are also included in the System Configuration II project. These will provide delivery of alternative water supplies from the regional system to member governments of Tampa Bay Water. Upon completion, the project will develop a total of 25 mgd of new water supply. Two of the system interconnect projects were previously approved by the District for funding. The South Central Hillsborough Interconnect was partially funded in FY2007 by the Governing Board, Alafia River and Hillsborough River Basins and the Northwest Hillsborough Interconnect by the Governing Board and Northwest Hillsborough Basin, also in FY2007. The amounts previously budgeted by the Board and Basins for those projects are recommended to be transferred to this project and the amounts credited towards their respective project costs.
Since November 2006, Tampa Bay Water staff and District staff have been working on a cooperative funding agreement for the agencies to cooperatively fund development of the System Configuration II Project. An agreement has been prepared and a copy is provided as an exhibit to this item. The agreement will also be presented for approval to the other five contributing Basin Boards (Alafia River, Hillsborough River, PinellasAnclote River, Coastal Rivers and Withlacoochee River) at their February meetings. The Governing Board will vote on approval at its February 2007 meeting. As described in the agreement, the District will provide up to 50 percent of project funding for all eligible project costs. Planning and design elements of some project components began in October 2005. Tampa Bay Water anticipates having the entire project completed by September 2010.

## Benefits/Costs

Development of the System Configuration II Project will provide the pumpage, transmission, and treatment capacity to produce an additional 25 mgd of alternative sources to the regional system that will enable future demands to be met using nongroundwater sources. This will ensure that recovery of natural systems impacted by ground-water withdrawals in the region can be achieved.

It is estimated that the total cost of constructing the System Configuration II Project is $\$ 235,122,500$. Of this amount, $\$ 232,000,000$ has been determined to be eligible for reimbursement through the District's Cooperative Funding Program. Tampa Bay Water has requested the District fund 50 percent or up to $\$ 116,000,000$ of total eligible project costs. The District's and Tampa Bay Water's shares of the project will be reduced to $\$ 105,246,573$ each as a result of $\$ 21,506,854$ in state funding that has been secured ( $\$ 15,506,854$ from the Water Protection and Sustainability Program trust funds and $\$ 6,000,000$ from the Community Budget Issue Request). Of the total state funding, the Northwest Hillsborough Basin Board has included \$975,000 in Water Protection and Sustainability Program trust funds in its budget that will be applied to the project.

Some of the funding previously allocated to the downstream augmentation component of the TBRRAP will now be reallocated to the System Configuration II Project. The total amount of previously budgeted District funds that are available to transfer and use for the System Configuration II project is $\$ 12,536,413$. Of this amount, the Northwest Hillsborough Basin Board's budget includes $\$ 814,866$ (see Table 1). Additionally, the District approved $\$ 321,301$ in its FY2007 budget for Tampa Bay Water's Northwest Hillsborough Interconnect project with the Basin's share being \$160,651. Combined with the TBRRAP funds, the Northwest Hillsborough Basin Board has a total of \$975,517 of previously budgeted funds that are available to transfer and use for the System Configuration II Project.

The District has determined that through FY2007, $\$ 36,011,841$ is available from all its previously budgeted funds to apply towards the System Configuration II Project components. These funds include the $\$ 12,536,413$ discussed in the previous paragraph; $\$ 1,647,273$ for the South Central Hillsborough Interconnect, $\$ 321,301$ for the Northwest Hillsborough Interconnect, and the $\$ 21,506,854$ from state funds. The District's share of the remaining eligible costs for the project is contingent upon approval of such amounts by the District, in its sole discretion and judgment, in its annual budget for FY2008 through 2011. Future funding commitments may be reduced through additional contributions from SB 444 or other State and Federal grants. Table 2 summarizes the current, future and total anticipated funding sources and amounts. It is anticipated that the Northwest Hillsborough Basin will be requested to fund $\$ 1,466,378$ each of those four years, beginning in FY2008, for a total of $\$ 5,865,510$. Adding the $\$ 975,517$ in previously budgeted funds that staff is requesting to be transferred at this time, the total funding commitment for the Northwest Hillsborough River Basin Board is $\$ 6,841,027$, subject to reduction if additional state and federal funding is secured.

Staff Recommendation:
See Exhibit 5

1. Recommend the Governing Board approve the agreement with Tampa Bay Water to construct the System Configuration II Project for a total amount of \$232,000,000, with the District's share not to exceed $\$ 116,000,000$, and the Northwest Hillsborough Basin's share not to exceed $\$ 6,841,027$;
2. Approve the transfer of $\$ 814,866$ of Basin funds previously budgeted for the Tampa Bay Regional Reclaimed Water and Downstream Augmentation Project to the System Configuration II Project;
3. Approve the transfer of $\$ 160,651$ of Basin funds previously budgeted for the Northwest Hillsborough Interconnect Project to the System Configuration II Project;
4. Approve the transfer of $\$ 975,000$ of Water Protection and Sustainability Program trust funds previously budgeted for the Tampa Bay Regional Reclaimed Water and Downstream Augmentation Project to the System Configuration II Project subject to adoption of a future resolution by the Governing Board; and
5. Recommend the Governing Board authorize the Executive Director to sign the agreement.

## Presenter: Gregg W. Jones, P.G., Director <br> Resource Conservation and Development Department

## e. FY2008 Cooperative Funding Requests

## Purpose

To advise the Board of the Cooperative Funding applications received for the FY2008 budget cycle and the staff review process they undergo.

## Background/History

Applications for the FY2008 Cooperative funding cycle were received in December and are provided in the Budget section of this notebook as they were received. Staff will provide a brief overview of the project submittals received and review the District's project ranking process. Staff will return to the April meeting with initial project ranking and funding recommendations for the Board's consideration. This process is an important part of the Basin Boards budget discussions for Fiscal Year 2008.

## Staff Recommendation:

See Exhibit FY2008 Projects
This item is presented for the Board's information only; no action is required.
Presenter: Maya Burke, Planner, Planning Department
6. Reports:
a. Water Shortage Update

## Background

At its November 30, 2006 meeting, the Governing Board authorized the District's Executive Director to declare a water shortage and impose appropriate restrictions, if necessary, prior to the Governing Board's next regularly scheduled meeting on January 30. Staff has continued to monitor water resource conditions in accordance with the District's Water Shortage Plan (Chapter 40D-21, Florida Administrative Code). Conditions have generally been below normal in the sixteen counties served by the District, and these conditions have not experienced sustained improvement as a result of December rain events.

A public hearing was held on Tuesday, January 9, so that the Executive Director could receive testimony from staff and the general public regarding these conditions and resulting impacts. At the conclusion of the public hearing, taking into consideration current conditions, contributions of local demand management efforts, uncertain weather predictions and public comments, the Executive Director determined that District action
was necessary. He further determined that the action required was for all water users to conserve water consistent with the modified "Phase II" Severe Water Shortage restrictions recommended by staff. In order to put these restrictions into effect, the Executive Director then signed Order SWF 07-02.

## Contents of the Order

A copy of the Order is included as an Exhibit. It includes a description of current conditions as of the date of the public hearing. It also contains a convenient fact sheet summarizing the new restrictions.

Order SWF 07-02 declares modified "Phase II" Severe Water Shortage restrictions for the District's entire sixteen county area. These restrictions went into effect on January 16 and will remain in effect until July 31, unless rescinded or further modified prior to that date. The one modification, compared to "Phase II" restrictions as listed in the District's Water Shortage Plan, is that the once-per-week lawn watering schedule will remain in effect for the duration of the Order, instead of automatically reverting to the normal twice-per-week schedule after the winter months conclude. The Order also specifically acknowledges that some local governments already have once-per-week lawn watering restrictions in effect, allowing those local governments to retain any special local schedule if it is at least as restrictive as the modified "Phase II" restrictions.

## Implementation Details

Prior to the public hearing, District staff went beyond the legally required notification process, contacting local officials and advisory committee members by e-mail to inform them about the water shortage declaration to be contemplated. After the hearing, required public notices were published in newspapers of general circulation, such as the Tampa Tribune. These notices took the form of large display advertisements. Letters were also used to notify Water Use Permit holders about the hearing's outcome. A similar letter is augmenting Community Affairs Coordinators' ongoing interaction with local officials and legislative delegations. The District's website has been updated, and enhancements will be added in response to customer inquiries. Recorded messages for the District's water restriction hotline (1-800-848-0499) have also been updated, and temporary staff will be used as necessary to help answer calls during normal business hours. Local governments are in contact with staff regarding changes in enforcement and any unique needs; for example, the city of St. Petersburg requested and received permission to institute a special watering schedule. Staff is in the process of providing status presentations to the Basin Boards, advisory committees, city councils and other key stakeholder groups.

Staff will provide a brief presentation regarding current water resource conditions and District actions.

Staff Recommendation:
See Exhibit 6
This item is provided for information only; no action is required.
Presenter: Lois Ann Sorensen, Demand Management Coordinator
b. Report on Governing Board Activities

An update on key issues will be provided.

## Staff Recommendation:

This item is provided for information only; no action is required.

## Presenter: Maritza Rovira-Forino

7. Announcements: Lou Kavouras
a. Memorial for Former Governing Board Member Ramon "Ray" F. Campo: Monday, February 12, 2007, 9:00 a.m., Tampa Service Office
b. Memorial for Former Governing Board Member Ed Chance: Friday, March 2, 2007, 8:30 a.m., Lake Manatee Reserve
c. Basin Board Education Committee: Tuesday, March 6, 2007, 9:30 a.m., Tampa Service Office
d. Basin Board Land Resource Committee: Thursday, March 22, 2007, 9:30 a.m., Starkey Environmental Education Center
e. Next Basin Board Meeting: Thursday, April 5, 2007, 1:30 p.m., Tampa Service Office
f. Other
8. Adjournment

Maritza Rovira-Forino

## ****|nformation Items****

The item(s) listed below are for the Board's information, intended to keep the Board apprised of completed projects, cancelled projects, and projects that have executed contracts and are ready to begin. The item(s) do not require Board action at this time. Formal presentations are not planned, but staff will make presentations and/or answer questions at the next Board meeting, if requested.

1. Watershed Management Program - Maintenance of Watershed Parameters and Models (B206) - Execution Notice
This fiscal year (FY) 2006 project is to initiate the Maintenance of Watershed Parameter and Models element of the District's Watershed Management Program (WMP). The District has contracted with ten WMP consultants to capture watershed parameter changes resulting from approved Environmental Resource Permitting submittals. The consultants selected to begin this maintenance effort are: Ardaman and Associates; Ayres \& Associates; BCI Engineers \& Scientists; Dyer, Riddle, Mills and Precourt; Jones Edmunds \& Associates; Keith \& Schnars; Parsons Water \& Infrastructure; Post, Buckley, Schuh \& Jernigan; Tampa Bay Engineering; and URS Corporation Southern. All ten are from a short list of consultants approved through a Request for Proposals to perform elements of the District's WMP. Consultants who are currently developing or have completed Watershed Management Plans will be assigned the maintenance of their respective watersheds. For maintenance where a Watershed Management Plan has not been developed, staff will determine assignments. The information developed as part of the WMP must remain current to reflect changed conditions or improved information as it becomes available. If a watershed model has not been developed, the maintenance of parameters in the GIS processes the information in a format that will save time and funding when the watershed is modeled in the future. The total budget associated with these consultant services agreements is $\$ 859,110$. The agreements will be paid from funds included in the Governing and Basin Boards' FY2006 budgets for this project. Please refer to the project write-up in the budget section of this notebook for detailed information. The ten consultant services agreements were executed between September 2006 and November 2006. Copies of the executed agreements and scopes of work are available upon request.
2. Pasco County Southeast Regional Reclaimed Water Loop (H041) - Execution Notice
This fiscal year 2006 Cooperative Funding project with Pasco County is for the design and construction of approximately 18,500 linear feet 24 -inch reclaimed water transmission main with associated fittings and valves to complete the transmission system looped interconnection between Pasco County's Southeast Pasco and Wesley Center Wastewater Treatment Facilities. This interconnection is an integral part of the Tampa Bay Regional Reclaimed Water System. The agreement was written to be effective October 1, 2005. Pasco County commenced design on July 25, 2006, and the project will be completed by February 1, 2009. The total project cost is $\$ 1,330,000$ with the Basin Board contributing $\$ 36,073$. Please refer to the project write-up in the budget section of this notebook for detailed information. The Executive Director signed this agreement on October 26, 2006. Copies of the executed agreement and scope of work are available upon request.
3. Budget Transfer Report

Purpose - This item is to provide the Basin Board with information regarding a Basin budget transfer that has been approved by the Executive Director since the date of the last report.

Background - In accordance with Board Policy No.130-8, the Executive Director is delegated authority to execute budget transfers of $\$ 50,000$ or less that do not involve contingency funds. The Governing Board via the Consent Agenda subsequently ratifies all such transfers. The delegated budget transfers, if related to a Basin budget, are also presented as an information item to the appropriate Basin Board.

The Executive Director approved a Northwest Hillsborough Basin budget transfer of $\$ 12,000$ on November 15, 2006, which was ratified by the Governing Board on January 30, 2007. The funds were originally budgeted to replace generators at Channels A \& G. The generator at Channel G will not need to be replaced this fiscal year. The funds were needed to purchase construction materials to build and install a control platform that will allow for remote operation of the Lake Crescent water control structure.

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## DRAFT

Minutes of the Meeting

Northwest Hillsborough Basin Board<br>Southwest Florida Water Management District<br>Tampa, Florida December 7, 2006

The Northwest Hillsborough Basin Board of the Southwest Florida Water Management District convened for a regular meeting at 1:37 p.m., December 7, 2006, at the Tampa Service Office.

## Board Members Present

Maritza Rovira-Forino, Chair Ex Officio Joseph W. J. Robinson, Vice Chair
Frank "Lester" Adams, Member
Mercy DiMaio, Secretary
Devon Higginbotham, Member
Susan Welsh, Member
Absent Member(s)
None
Recording Secretary
M. Frances Sesler

Staff Members
Lou Kavouras
Bruce C. Wirth
Gene Schiller
Elaine Kuligofski
Mark A. Hammond
Rand R. Baldwin
Maya Burke
Randy C. Emberg
Linda Pilcher
Malcolm Wilson

A list of others who attended and signed the attendance roster is filed in the permanent files of the Basin. Compact disks of the audio and copies of materials and handouts, as set forth in full herein, are also filed in the permanent files of the District.

The numbers preceding the items listed below correspond with the published agenda.

1. Call to Order and Roll Call

Chair Rovira-Forino called the meeting to order at 1:37 p.m. Ms. Sesler, the Board's administrative support, called the roll and noted a quorum was present.
2. Pledge of Allegiance

Chair Rovira-Forino reminded members of the audience if they wish to speak on a particular item, they should fill out a blue card and present it to Ms. Sesler.
3. Additions and Deletions to Agenda

Ms. Lou Kavouras, Deputy Executive Director, stated there was one add-on to the agenda which was the Status Report on Cooperator Diversity; and one deletion, Item 5b, Tampa Bay Water/District Agreement in Principle Funding Document. (CD 1/Track 1)
4. Consent Items:
a. August 3, 2006, Meeting Minutes
b. October 10, 2006 Meeting and Workshop Minutes

After consideration, Mr. Adams moved, seconded by Ms. Higginbotham, to approve the Consent Items as presented. Motion carried unanimously.
5. Discussion Items:
a. District Financial Engine - Water Supply and Water Resource Development

Mr. Bruce Wirth, Deputy Executive Director, provided an overview of staff's evaluation of the Governing Board and the eight Basin Boards' ability to meet the financial demands of funding major water supply and resource development projects through the year 2025.
(Mr. Robinson entered the meeting at this time.)
Ms. DiMaio expressed concern about new, large developments and whether or not there is sufficient water supply to accommodate additional demand. Mr. Wirth explained the balancing act that utilities must examine. Chair Rovira-Forino indicated that decisions about growth fall under the jurisdiction of counties and local governments. Mr. Robinson inquired about the Basin Board's mandatory participation in the funding of new water sources, especially when finances are strained. Mr. Wirth clarified that "mandatory" is not the legislative language; it would be more appropriate to say that the District must exhaust its resources in order to provide a funding match. He noted that contingency reserves, Water Supply and Resource Development Reserves and unencumbered dollars would be available for emergency purposes. He commented that the Northwest Hillsborough Basin Board was positioned to meet its financial demands but would need to "stay the course." Chair Rovira-Forino said that, although the numbers are conservative, she is pleased to see that the Board is in a strong economic position. This item was presented for the Board's information; no action was required. (CD 1/Track 2)
b. Tampa Bay Water/District Agreement in Principle Funding Document

This item was deleted from the agenda.

## Add-On - Cooperator Diversity

Ms. Elaine Kuligofski, Human Resources Director, provided an update regarding the District's cooperator diversity program. Mr. Robinson commended the District for positioning itself to avoid problems in the future by implementing a progressive, race neutral policy that encourages the use of women and minority-owned businesses. Mr. Robinson indicated that he was hopeful the Governing Board would affirm this approach. Chair Rovira-Forino announced that, as the minority liaison between the Governing Board and the District, she would see that the District continues to promote, encourage and report on issues with respect to diversity. Ms. Higginbotham asked about the explicit incentives the District offers to cooperators who utilize women and minority-owned business, and whether or not those cooperators have access to an index of women and minority-owned businesses. Ms. Kuligofski explained that the District was not legally allowed to provide specific incentives, but it does provide a vendor list for cooperators to use.
c. 2007-2016 District Strategic Plan

Ms. Kavouras said the purpose of this item is to present the final updated Strategic Plan to the Basin Board. The Strategic Plan sets the overall policy direction and strategic priorities established by the Governing Board, and District management develops the strategies, programs, and activities necessary to efficiently and effectively implement this Governing Board direction. The Strategic Plan is part of a cycle of continuous analysis and improvement that ensures employee efforts are aligned with Governing Board direction. The District has been in the process of updating its Strategic Plan for the past several months. Input has been received from Executive and Senior Staff and the

Governing Board members during workshop sessions. In October, staff presented the proposed updated Strategic Plan to all eight Basin Boards during their annual planning workshop sessions. After evaluating all the recommendations and suggested changes, the Governing Board approved the final document at its meeting on October 24. Ms. Kavouras urged all in attendance to take time to familiarize themselves with the document. This item was presented for the Board's information; no action was required. (CD 1/Track 3)

## 6. Reports:

## a. Basin Board Land Resources Committee

Mr. Robinson highlighted several key points, such as control of exotic species and the importance of value-added acquisitions, which were included in a summary of accomplishments and future challenges for the District's various land programs. He specifically praised the District for its efforts with respect to hunting lands that are accessible to the special needs population. Ms. Higginbotham emphasized that District land purchases are the only sure way to control growth in the region. The next Basin Board Land Resources Committee meeting will be held March 22, 2007, at the Starkey Environmental Education Center.
b. Basin Board Education Committee

The Basin Board Education Committee meeting was held at the Tampa Service Office on November 14, 2006. Ms. Higginbotham gave a brief summary of topics discussed ranging from the Partnership in Watershed Education Awards, the Children's Museum of Tampa, Peace River Virtual Tour, and the 2007 media messaging campaign that resulted in a 700 percent increase in online orders of District materials during the twomonth campaign. The next Committee meeting will be March 6, 2007.
c. Chair Ex Officio Report on Governing Board Activities

Staff played pre-recorded highlights of the November 30/December 1, 2006 Governing Board meeting. Ms. Kavouras narrated the brief recap of the Governing Board meeting, which included the following topics: Board approval of the 2006 Regional Water Supply Plan, the District's Financial Engine report, update of Federal Emergency Management Agency floodplain maps, the Sunset Review Report, a report of ongoing projects of the Peace River/Manasota Regional Water Supply Authority, and the next phases of Tampa Bay Water supply projects. (CD1/Track 4)

## 7. Announcements:

a. Ms. Kavouras reminded members the next Basin Board meeting is scheduled to be held Thursday, February 8, 2007, at Temple Terrace City Hall.
b. Other

## 8. Adjournment

There being no further business or discussions, Chair Rovira-Forino adjourned the meeting at 3:23 p.m.
****|nformation Items****

The item(s) listed below were for the Board's information, intended to keep the Board apprised of completed projects, cancelled projects, and projects that have executed contracts and is ready to begin. The item(s) did not require Board action at this time.

1. Enhancement of Strawberry Irrigation and Nutrient Management (B138) Article and University of Florida Institute of Food and Agricultural Sciences (IFAS) Agricultural Expo
2. Determine Water Requirements for Genetically Altered Lantana camara Nursery and Landscape Plants (B239) - Execution Notice
Reducing Water Consumption in Polyethylene-Mulched Tomato and Pepper Fields after Methyl Bromide Phase-Out (B240) - Execution Notice
3. Reduction Of Water Use For Citrus Cold Protection (B241)- Execution Notice
4. Effect of Karst Development on Peace River Flow (B113) - Execution Notice

## A separate document <br> Regional Water Supply Plan

was provided to Basin Board Members.

If you require a copy or compact disk of the Plan, please contact Judi Reed,
1-800-423-1476 or 352-796-7211, extension 4215; e-mail: judi.reed@swfwmd.state.fl.us

A link to the Regional Water Supply Plan, including public comments and District responses, is on the Home Page of the District's web site: watermatters.org

## Public Comments on the 2006 Regional Water Supply Plan and District Responses

Commodity Groups<br>Florida Fruit \& Vegetable Association<br>\section*{Consultants}<br>Integrated Water Solutions<br>\section*{Counties}<br>Manatee County<br>Sarasota County<br>Electric Utilities and Mining<br>CF Industries<br>Lakeland Electric<br>\section*{Private Individuals}<br>Bill Harper<br>Joe Bourassa<br>Nancy Lopez<br>\section*{State Agencies}<br>Department of Environmental Protection<br>Water Supply Authorities / Water Districts<br>Tampa Bay Water (Paula Dye)<br>Tampa Bay Water (Dave Bracciano)<br>Tampa Bay Water (Black and Veatch, September 2006)<br>Peace River/Manasota Regional Water Supply Authority<br>Englewood Water District

SWFWMD Reponses to Florida Fruit \& Vegetable Association Comments on the July 2006 Draft RWSP
Alan Peirce
Florida Fruit \& Vegetable Association

## General Comments:

Comment: The District has done an excellent job of projecting future water demand for the 10 County Planning Region and identifying potential sources to meet those demands over the next 20 years. You should also be commended for organizing this information into a logical and useable format. Recognizing the rapidly increasing demand for public supply quantities being faced in the region, it is comforting to know that potential sources have been identified to meet this growing demand, while providing for existing stress in the region.

Response: The District appreciates your comments and will continue to strive to improve the Regional Water Supply Plan in future years.

Comment: Agriculture's primary role in meeting future demands involves resource conservation, and growers welcome the opportunity to install more efficient irrigation systems and improve management strategies when they are economically feasible. While conservation is an extremely important element in meeting future demand, this document should probably recognize that successive advancements in water conservation generally become more and more expensive on a dollar per gallon basis, because the volumes available to be conserved decrease with each improvement in efficiency. In other words, the laws of diminishing returns apply.

Response: Your point is well taken and staff will add language to make this clear. However, please keep in mind that the District's Cooperative Funding Program and FARMS program have a long history of providing funding to agricultural water users to help offset the cost of increasing the efficiency of irrigation systems.

## Specific Comments:

Chapter 4 "Demand Estimate Projections"
Comment: The projections for agricultural demand are based on the number of production acres that are expected to exist in the future. Because future acreage is dependent on numerous factors including, but are not limited to, land prices and availability, profitability, foreign competition, disease issues, and alternative land use opportunities, we believe the district should recognize that the projections are crude estimates of future demand. We also suggest that the district be prudent in planning for major declines in demand that my not materialize. As an example, the district currently projects a 45 percent decrease in agricultural demand in Desoto County primarily because of urbanization and land use changes that are occurring. While agricultural lands are being converted for residential use, agricultural intensification is also likely to occur and agricultural water demand may not decrease at a rate that is consistent with acreage. We are happy to see that the district will monitor actual changes in acreage and water us and adjust projections accordingly.

Response: As you know, developing accurate water-use trends for agriculture over the next 20 years is an extremely challenging undertaking. The conclusion that a significant decline in agricultural acreage and water use will occur over the next 20 years was arrived at by agricultural water use experts who used the best available data. The data sources included the Institute of Food and Agricultural Sciences (IFAS), the Florida Department of Agriculture and Consumer Services (FDACS) Bureau of Plant Inspections (nurseries), and the Florida Agricultural Statistics Service (FASS).

In Table 4-11a, the decline in ground-water use resulting from such factors as urbanization of agricultural and to a much lesser extent, mining lands, through 2025 in the SWUCA is projected to be approximately 74 mgd . An additional 68 mgd of ground water will be made available through enhanced agricultural conservation and the retirement of permits associated with lands purchased for conservation, for a total of 142 mgd . It is important to understand that of this 142 mgd , the District is only counting on 50 mgd of it to meet the salt-water intrusion minimum aquifer level in the SWUCA. The remaining 92 mgd has not been allocated. Some of it may, under certain circumstances, be re-permitted, however, if declines in agricultural water use are not as high as projected, the District has not counted this 92 mgd as a critical component of the slate of sources necessary to meet the 2025 projected demand. The District believes this is a conservative approach that takes full account of your caution that agricultural water use may not decline as much as has been estimated.

Comment: Dramatic reductions in citrus acreage in recent year are partially the result of the citrus canker eradication program and reduced profitability caused by depressed market prices that occurred in recent years. With the discontinuation of the federal eradication program and higher juice prices, downward trends are unlikely to continue at the rates seen in recent years.

Response: Staff are aware of this and believe, as stated in the response to the previous comment, that the District's approach to utilizing quantities of ground water that become available as agricultural ground-water use declines, is cautions and conservative.

Comments: Tables 4-11 and 4-11b (pages 65-66). Having separate columns for "decreasing" and "increasing" numbers within each planning year, may not be necessary, and could be presented as a single column entitled" change in demand" with positive or negative values.

Response: The reason why total demand cannot be determined by subtracting decreasing demand from increasing demand is explained as follows: Most of the 74 mgd in decreasing demand in the SWUCA results from decreasing ground-water withdrawals. Although a portion of the 74 mgd may be used to meet some of the 409 mgd increase in demand through 2025, it is not certain how much will be used. Whatever portion of the 74 mgd that is not used to meet some of the 409 mgd demand, will help meet the salt-water intrusion minimum aquifer level. For these reasons it is important to track declines in demand that result from reductions in ground-water withdrawals separate from increases in demand. Text will be added in the RWSP prior to table 4-11a to make certain this point is clear.

Comment: The Appendices referenced in numerous places were not included in this draft.

Response: The Appendices have now been posted on the District's web site at watermatters.org

## Chapter 5, Section 7 (pages 106-111)

Comment: This section, which is included to explain how the district estimates potential savings from future agricultural water conservation efforts is difficult to understand, and should be clarified.

Response: Since you were not specific as to which portions of this section were difficult to understand, it is not apparent where the problem areas are. Staff will take another look at the text to determine if there are places where it can be made more clear.

Comment: The reasons for, and implications of, eliminating 14 of the 20 Model Farms used in the 2001 RWSP is also not fully explained.

Response: Important changes were made in the SWUCA rules in 2003 that significantly reduced the quantity of water permitted for supplementary irrigation needs. Increased irrigation system efficiency and a reduction water use allocations resulted in a significant reduction in water allotments in water use permits. This rendered some of the model farms significantly less feasible, since less water was assumed to able to be saved. In terms of information used, the District's consultant used various data sources including IFAS acreage, census data, the District's Regulatory database, and GIS-based land use data to identify the model farms that best represent agricultural water use in the Planning Region. As a result of the permitting rule changes and other information gathered, six model farms were selected.

Comment: In the 2001 Plan, the model farms were used to estimate the costs associated with various conservation options on a dollar per thousand gallons basis. While this seems to be a good method for cost comparison, those figures have been eliminated from the 2006 draft. Based on the new language, it seems that the district now prefers to compare options on a cost per acres basis which may not always be an equitable method for comparing costs. It is also unclear whether or not this change will have implications regarding the selection of FARMS projects which are compared with the model farms example to determine cost effectiveness.

Response: The consultants who developed this portion of the RWSP made the decision to use cost per acre because they believed it provided more information about the actual value of agricultural lands, and this would facilitate the process of determining the cost effectiveness of conservation options. This change will have no implications regarding selection of FARMS projects because the FARMS staff is still evaluating projects based on cost per thousand gallons.

SWFWMD Responses to Integrated Water Solutions Comments on the July 2006 Draft Regional Water Supply Plan
Jim Guida, P.G., Vice President
David Brown, P.G., Vice President
Integrated Water Solutions
Comment: The table is unclear, and we suggest that titles be defined in a footnote. For example, does "Permitted Withdrawal" mean permitted annual Average (AA)? We also suggest that the "Permitted Withdrawal" quantities be verified against permitted WUP quantities, and that the "Available in Permit" quantities be verified accordingly. For example, permitted AA quantities for the City of Venice are 6.864 mgd, and Peak Monthly (PM) quantities are 8.240 mgd . The table lists "Permitted Withdrawal" for the City of Venice at 8.240 mgd, which corresponds to the PM quantity, and the "Available in Permit" quantities are calculated accordingly. Also, the "Treatment Capacity" for the City of Venice is listed as 4.0 mgd, but " 5 Year Average Withdrawals" are listed a 4.84 mgd. This appears incongruous, as we would expect the treatment capacity to exceed the quantities withdrawn.

Response: The heading in the table that you refer to will be changed from "Permitted Withdrawals" to "Annual Average Permitted Withdrawals" and all quantities will be verified. "Available in Permit" quantities will be adjusted accordingly. With respect to the City of Venice's treatment capacity, the capacity listed in the table represents a "finished water" capacity and was provided by the City. In discussing this issue further with the City, the actual amount of water the facility can take in and treat is 9.14 mgd . The table will be changed to reflect this quantity.

## Page 95, Section 4.0 - Summary of Brackish Groundwater Availability

Comment: A. Paragraph 1 - States that it "may be possible to obtain a WUP for brackish groundwater withdrawals" in the NTB area. The same is implied for brackish groundwater from the IAS. However, unlike the NTB area comment, no statement is provided regarding the possibility of obtaining a WUP for such IAS withdrawals in SWUCA. We believe it is important to identify that it may also be possible to obtain a WUP for IAS withdrawals in SWUCA, particularly for non-technical members of the public and policy-makers who might otherwise infer from these statements that brackish groundwater is only permittable in the NTB area. We suggest this could be resolved by slightly modifying the last sentence in the first paragraph of this section to state: "...it may be possible to obtain a water use permit for brackish groundwater withdrawals in the SWUCA and NTB areas."

Response: Staff agrees with your comment and the paragraph has been modified accordingly.
Comment: B. Paragraph 2 - States that "the additional quantity of brackish groundwater that is potentially available in the Planning Region is the permitted but unused quantities at existing facilities and quantities from three proposed sites in the NTB area." The paragraph further states "the total amount of potential supply from brackish groundwater desalination in the entire Planning Region is approximately 23 mgd."

This statement does not distinguish between groundwater obtained from the IAS and UFAS, and does not appear to be accurate, particularly for IAS groundwater. The statement implies that no new quantities of brackish groundwater are available within

SWUCA, regardless of the location of the groundwater source or the specific aquifer such groundwater is obtained from. Other portions of the draft RWSP, and the SWUCA Recovery Plan, clearly state that groundwater withdrawals from the IAS have the ability to be tapped for future water supply development within SWUCA. Further, Section 2.0 (Page 90) recognizes that new withdrawals from the UFAS outside the MIA can be granted if it is demonstrated that the withdrawals have no effect upon groundwater levels in the UFAS in the MIA, or if a net benefit is provided.

We respectfully suggest this paragraph be modified to recognize the total amount of potential supply from brackish groundwater desalination in the entire planning region is not necessarily limited to only the above-referenced quantities and sources. We believe narrowing the potential sources and quantities of brackish groundwater in the entire Planning Region in such a way may unnecessarily preclude some entities from being able to effectively implement a conjunctive use strategy (i.e. surface water and groundwater) that could otherwise further the SWUCA Recovery Strategy and meet District WUP criteria.

Response: The District recognizes that additional quantities of brackish groundwater may be available within the Planning Region. The calculations were done in an effort to put into perspective amounts of water potentially available for withdrawal. The paragraph will be rewritten as follows.

For planning purposes, the minimum amount of additional brackish ground water that is available in the Planning Region was estimated by combining permitted but unused quantities at existing facilities and quantities from three proposed sites in the NTB area. A review of permitted quantities and current use from the 12 active facilities permitted by the District indicates there is an estimated 13.7 mgd of permitted but unused potable supply from brackish ground water. Combining this quantity with the development of 11.5 mgd from three potential projects in the NTB area, yields a minimum amount of 25 mgd potential additional supply from brackish ground-water desalination in the Planning Region. Although additional quantities of brackish ground water are potentially available, the actual availability will be determined when water use permits are submitted by entities seeking to develop brackish ground-water facilities.

## Page 97, Section 2.1 Paragraph 3 - Surficial Aquifer Fresh Groundwater

Comment: A. Though entitled "Surficial Aquifer," Section 2.1 provides combined estimates of potentially available quantities from both the surficial aquifer system (SAS) and the IAS. We acknowledge the difficulty in estimating the quantities of water regionally available from the SAS and IAS. However, we do not believe this challenge makes it necessary to combine discussion of the potential yields from these aquifers into one. Rather, we believe combining the discussion of the SAS and IAS in one section decreases the clarity of these sections of the report.

We respectfully request the District consider not merging the discussion of the SAS and the IAS. As an alternative, we suggest the District address each aquifer system separately, and discuss their respective aquifer characteristics based upon potential yield. For example, we suggest the SAS discussion address the yield characteristics of the SAS based upon areas that contain shell beds versus those that do not. For the IAS discussion, we suggest the yield characteristics be broken down in accordance with the established PZ-1, PZ-2 and PZ-3 nomenclature, and also include the known general water quality characteristics of each. This would clarify the text, and allow those interested in
developing one or more of these aquifers to more clearly grasp the nature of these aquifer systems and their potential usefulness in meeting their water supply needs.

Response: The SAS and IAS sources were combined due to the inherent difficulty in forecasting where these sources would be located and how much water they could provide. Due to the localized nature of development, District staff combined expected demand to be met from these two aquifers. There currently is insufficient information available to accurately define future IAS withdrawals on a per unit (PZ 1, PZ 2, or PZ 3) basis.

The 34 mgd identified in the RWSP as being available from the IAS and surficial aquifer system (SAS) was determined by identifying the types of demands that are projected to occur through 2025 that could be met using relatively low yielding wells supplied by the SAS or upper portion of the IAS. The types of demands that were identified included domestic self-supply, recreation, and outdoor lawn watering associated with public supply uses. The District recognizes that additional water from the SAS and IAS, beyond the 34 mgd indicated in the RWSP, is potentially available over portions of the SWUCA. However, the determination that the SAS and IAS can supply 34 mgd for users whose demands can be supplied by relatively low yielding wells, provides a conservative minimum amount of water that could be developed from these two systems.

Comment B. Paragraph 3 of Section 2.1 also states the combined estimates of potential yield from the SAS and IAS were "largely based on identifying the types of demands that could reasonably be met with these aquifers." This language is unclear, and could lead to the impression the District has identified the safe yield of these aquifer systems, although the District acknowledges elsewhere in the RWSP that it has not determined safe yield for these aquifer systems. We suggest the above-referenced language be reworded to address this issue.

Response: The District will add additional language to clarify the expected yield from the SAS and IAS and add that the 34 mgd does not represent the "safe yield" of these systems. The response to the previous comment should help to clarify the District's position.

## Page 98. Section 2.2. SWUCA - Intermediate Aquifer Fresh Groundwater

Comment: Though entitled "IAS," this section continues to discuss the SAS and IAS in combination. As stated above, we believe the content of this section could be clarified appreciably through a separate discussion of the SAS and IAS. The second paragraph is somewhat difficult to follow, as it states the quantity of water potentially available from these combined aquifers (i.e. the SAS and IAS in their entirety) has been estimated at 34.0 mgd . The paragraph acknowledges the higher capacities of shell beds in the SAS (where they exist), and the lower portion of the IAS (i.e. PZ-3), and thus their greater significance in providing water supply to larger scale water users. However, the 34.0 mgd value provided for these combined aquifer systems in their entirety was apparently derived from an estimated 30.0 mgd from the SAS and the Upper IAS, and 4 mgd from shell beds that will supply certain already planned FARMS projects. It appears the 34.0 mgd value does not include any quantities from PZ-3 of the IAS (i.e. the lower IAS), nor does it recognize the greater quantities that are likely available from the highly productive shell units (above and beyond those associated with currently planned FARMS projects.)

We respectfully request that it be clarified in the final RWSP that the 34.0 mgd value contained within the RWSP does not represent the total quantity available from the combined SAS and IAS in their entirety, and that this value does not include an estimate of potentially significant quantities from the more productive PZ-3 and shell units that are available for meeting the demands of larger water users.

Response: The District will add additional language to clarify the expected total yield from the SAS and IAS could be higher than the 34 mgd and that it does not represent the "safe yield" of these systems. As stated in response to 3B, there may certainly be greater quantities derived from the SAS and IAS, but supportive information is limited. District staff has conservativelyestimated a minimum amount that could be developed from these sources based on best available information.

## Page 100. Second Paragraph

Comment: This paragraph again references the 34.0 mgd value as the estimated quantity that can be supplied by the SAS and IAS in their entirety. We again request that it be clarified that the 34.0 mgd value for these aquifers is not a safe yield value, and that it may be possible to obtain greater quantities than those stated, especially from PZ-3 of the IAS and the highly productive shell units.

Response: Staff agrees with your comment and will clarify the text regarding this issue.

## Page 118. Section 3

Comment: This section discusses certain WUP-related considerations under Chapter 373, FS. Will the District Governing Board be identifying the need for a multijurisdictional water supply entity or regional water supply authority to develop any of the specific alternative water supply projects in the RWSP, or will it do so in some other form (e.g. a District rule)? We believe it would be helpful for these projects and entities to be identified explicitly in the RWSP. It would be valuable for entities that are planning to develop such water sources to be aware of the Governing Board's preference as to who should develop a particular source, in what cases the public interest presumption will apply, and the related implications upon the WUP application approval process. If not addressed in the RWSP, how and when will members of the public be made aware of the District's position on these issues?

Response: Staff has now modified the text to identify the most appropriate entity or entities for implementing each of the water supply options in Chapter 6.

## Page 160. PRMRWSA Planning Area Brackish Groundwater

Comment: A. This section identifies a conceptual one (1) mgd brackish groundwater desalination option in Charlotte County to demonstrate the cost of developing this source in the southern portion of the Planning Region, and indicates that costs associated with this site may be generally applicable to regional brackish groundwater sites from southern Sarasota to central Charlotte counties. Table 6-9, List of Brackish Groundwater Projects, also identifies a five (5) mgd brackish groundwater RO facility in Charlotte County.

Despite these projects only referencing Charlotte County, it also appears that if a brackish groundwater desalination source is proposed to be developed within Sarasota or DeSoto Counties, and the project does not adversely affect an MFL water body, that the project would be considered an alternative water supply project that was described in the RWSP. As such, it appears that a WUP application for such a project would be presumed to be in the public interest as described on Page 118 (Section 3.0 Water Use Permitting), unless the Governing Board has identified the need for a multi-jurisdictional water supply entity or regional water supply authority to develop that source (which would appear to limit the presumption only to such preferred regional entities). Please clarify if this is correct, and explain the District's position to assist us in understanding these relatively new statutory provisions and their relationship to the final 2006 RWSP.

Response: As noted in Chapter 5 (page 95), the availability of brackish ground water to meet future demands will likely be limited based on impacts to MFL water bodies. Because the SWUCA Recovery Strategy seeks an overall reduction in ground water withdrawals to achieve the minimum aquifer level, we do not anticipate meeting a large portion of future demands with this source. The amount of brackish ground water that is potentially available in the Planning Region was estimated using permitted but unused quantities at existing facilities and quantities from three proposed sites in the NTB area. Please note that the projects listed in Table 6-9 were identified as part of the water supply plan developed for the Water Planning Alliance under the direction of the PR/MRWSA.

Pursuant to $373.223(5)$, F.S., ". . . the use of an alternative water supply project . . ." would be consistent with the public interest. However, the WUP application as a whole would still need to meet all the conditions for issuance of a permit. Because the impact of a brackish ground water withdrawal on an MFL water body is dependent on the location and amount of the withdrawal, it's possible for brackish withdrawals to be permitted in the future. Even though it's possible to obtain a WUP for a brackish ground water withdrawal, District funding of such projects would be limited to hydrogeologic exploration and testing.

SWFWMD Responses to Manatee County Comments on the July 2006 Draft Regional Water Supply Plan<br>John Zimmerman<br>Manatee County Utilities

Comment: You will find my greatest concern is with the population projections that the Districts were required to use and the significant impact that has on projected water demand. In addition, the inequity in the broad range of per capita rates used to project demand creates a problem in projecting reasonable demand. The need for reasonableness is also expressed regarding the anticipated conservation gains.

Note: the comment above is a summary of what was received from Manatee County. The actual comment consisted of eight pages of text and graphs.

Response: As you know, the five Water Management Districts are required by the legislature to use the Bureau of Economic and Business Research (BEBR) medium population projections for projecting public supply water demand. District staff has confidence in BEBR projections for a number of reasons, among which is their ability to identify potential trends. The District can modify the water demand projections only if the Peace River/Manasota Regional Water Supply Authority (Authority) or its member governments provide population data to support claims that water demand will be higher. This was discussed at length with the Authority and its member governments during the development of the demand projections over the past several years. When the water demand projections were first reviewed during the Water Planning Alliance process, alternative population projection data were provided by Manatee County and Charlotte County. These data projected growth over the next 20 years based on the phenomenal period of growth that occurred in the region over the past few years. Because it is already becoming apparent that the rate of growth is slowing significantly, the District believes that the data provided by the counties may significantly over project demand for water through 2025.

An independent evaluation by HDR engineering prepared for the Water Planning Alliance supports the relative historical accuracy of BEBR population projections. During a workshop held on September 29, 2006, HDR showed that the actual average (long-term) population growth rate for the Authority's service area was 3.1 percent per year. This figure is significantly lower than the population growth rates provided by the Authority's member governments, including Manatee County.

Since the 2006 RWSP draft was prepared, BEBR has published the "Projections of Florida Population by County, 2005-2030", February 2006. The District is currently in the process of updating the water demand projections in the RWSP using this more recent BEBR population data. It is expected that these data will account for the recent high growth period and this will result in higher water demand projections for Manatee County. However, these projections will still be significantly below those of Manatee County.

Regarding per capita, the 2001 per capita of 133 that Manatee County Utilities reported to the District in their 2001 Public Supply Survey Report will be used as the basis for projection, since the survey reports submitted earlier this year are still under evaluation.

Finally, because the District shares your concern for how critically important accurate public supply demand projections are, staff would like to work with water supply utilities and population projection experts to develop a consensus on an improved projection methodology. Such a
methodology could be employed more frequently than every five years to maintain a better understanding of population trends.

Comment: Pg. 55 Table 4.5, it is recommended that the per capita rates used to project water demand be included for each county. It becomes important when water conservation gains are anticipated or planned. My calculations suggest that the range in this table is from a low of approximately 80 gpcpd in Hardee to a high of 152 gpcpd in Polk. These differences clearly point out where future conservation gains should be anticipated.

Response: As described in Chapter 4 of the RWSP, the water demand projections are based on an aggregate of per capita water use rates for each large utility, for small utilities and domestic self-supply. The calculations referenced in the above comment are inaccurate in that they are simply averages and are not weighted to reflect the population associated with each large utility, small utilities or domestic self supply line item. All of these details, including per capita water use and percent of population, are provided in the Appendix for Chapter 4, which can be found on the District's web site at "watermatters.org".

Comment: Pg. 56, Section 1.3.3, The estimated use of at least the 300 gpd/well is a significant improvement from the last RWSP and is much closer to that observed for irrigation users in our county as previously reported.

Response: The figure of 300 gpd comes from better information; specifically, from an analysis of residential reclaimed water use.

Comment: Pg 77 Section on the Manatee River: The description of our operation of Lake Manatee is misleading and reads as follows: "The utility typically holds water in the reservoir during the dry season and then releases large quantities during the wet season. This type of activity would skew the flow distribution and consequently affect the calculated potential withdrawal amounts." The actual operation is that water is released when the reservoir is full same as the Hillsborough River Dam, the Braden River Dam and the Shell Creek facility. It just happens that a lot more water passes through in the wet season. The releases are the result of rainfall and not something the Utility controls. The above text suggests that our wet season releases are something we could control or limit. The reservoir has very limited storage when compared to wet season river flow.

Response: The text will be changed to reflect the fact that the release of water during the wet season is principally due to excess flows resulting from rainfall and the limited storage capacity of the reservoir.

Comment: Pg 83 Table 5.2: If best available population information was employed the projected wastewater flow would be up along with the projected water demand. The projected 2025 flow for just the three Manatee County WWTPs is 38.91 mgd, which exceeds the total county flow as shown at 38.29 mgd . Total county flow would also include WWTP from the Cities of Palmetto and Bradenton.

Response: These factors, and others, are considered in the reclaimed water information in the RWSP. As stated on page 82, Section 2.1 the estimated future 2025 wastewater treatment plant (WWTP) flows were calculated for each county by: (1) using each county's actual 2000 WWTP flows in mgd, which consist of flows from all utilities within each county, (2) subtracting utilities' planned 2000 to 2025 sewer flow reductions (in mgd) associated with inflow \& infiltration
activities, as well as ongoing or planned indoor water conservation projects, and then (3) multiplying the product by the percentage increase in public water supply demand (based on projected population increases). As stated previously, the District believes the best available population information was used for the projections.

Comment: Pg 83 Table 5-3; The top right cell in the table is incorrect should be 81 (382301.)

Response: Thank you for pointing out an apparent inconsistency on Table 5-3 regarding projected 2025 WWTP flows. Although the explanations of footnote numbers 7 and 8 were included below Table 5-3, references to these footnotes were inadvertently omitted from the appropriate table cells. Therefore, the District will add a reference to footnote 7 to the heading above the cell in question (top right cell), which will help readers understand why the value of 382 mgd is correct. As footnote 7 explains, this value represents the total wastewater flows in the year 2025. In addition, references to footnote number 8 will be added to the table's far right middle cell (additional use), and far right bottom cell (additional offset). Finally, the column heading and footnote will be changed to reflect that the WWTP flows, reuse and offsets represent a grand total of potential sources to help meet regional demands.

Comment: Pg 93 SWUCA - Investigation of the Hydraulic Barrier concept in the Upper Floridan Aquifer - The report on this modeling was intriguing in that it demonstrated that an extraction line of wells could actually move the $1000 \mathrm{mg} / \mathrm{L}$ line westward toward the gulf, but it also caused the movement of the more brackish water on the gulf side toward the extraction line of wells. This would result in an abrupt salinity change at the extraction line. Conceptually such a line of wells could conceivably provide a better source of water for desalination then (sic) the direct use of bay water. The source would be filtered, warm, lower in TDS and more economical to treat due to the reduced TDS (around $15,000 \mathrm{mg} / \mathrm{L}$ ?) and reduced pretreatment. The brine may also come up very close to the bay's TDS ( $30,000 \mathrm{mg} / \mathrm{L}$ ), which could potentially make bay discharge less challenging. Proper positioning of the extraction wells would allow for control of the $1000 \mathrm{mg} / \mathrm{L}$ which seems to be the measure of salt water intrusion for the MIA in the SWUCA.

Response: As concluded in the report by HydroGeoLogic, "The results of the modeling analysis indicate that there would be very little benefit of either a barrier trough (line of extraction wells) or a pressure ridge (line of injection wells). There would only be a marginal increase in the available water that would otherwise be impacted by saltwater intrusion. This minimal benefit would not be justified given the large costs of treating (saline) ground water extracted from the barrier trough or costs associated with injecting large volumes of reclaimed water into a line of injection wells. Furthermore, the barrier trough would reduce the amount of potable water that is available east of the barrier, because the ground-water extraction wells would lower the regional potentiometric surface and increase the ground-water flow rates toward the barrier." (HydroGeoLogic, Inc., 2004 August; Technical Memorandum: Predictive Ground-water Modeling Simulations for Proposed Hydraulic Barriers to Saltwater Intrusion; Prepared for Southwest Florida Water Management District)

Comment: Pg 115 Table 5-11 Potential Water Availability; This Table presents some overly optimistic estimates of potential conservation gains. ... This table (provided by Manatee County) points out some of the real efficiency differences that exist within the projected demands and the estimated amount of water conservation. We have to ask is it reasonable to expect Hardee County residents to conserve an additional 0.9 mgd (Tables

5-3A and 5-4A Chapter 5 Appendix) when their Public Supply demand has been projected at 79.5 gpcpd? The projected reduction of 0.9 mgd from the projected demand of 2.9 mgd would leave Hardee with 2.0 mgd for the use of their 36,480 residents, and per capita amount of 54.8 gpcpd. While their northern neighbors in Polk County would be granted 129.56 gpcpd even after the proposed conservations gains are deducted, because their demand is projected at the highest rate of any county ( 151.84 gpcpd). ...There needs to be some reasonableness and equality in the projected water demands and expected conservation gains.

Response: Staff agrees that reasonableness is critical in presenting projected demand and potential conservation and equality is important in the approach to determining the information; however, the District believes it is more appropriate to recognize that each water user is different in terms of its per capita water use, population and growth potential. Those differences were scrutinized and applied to demands and water conservation. Water conservation estimations were extremely detailed, as described in Chapter 5 of the RWSP, with great care taken not to over-estimate, but to identify the cost-effective measures that could be implemented across the board. Two measures that had been included in the 2001 RWSP, were not included in the 2006 RWSP due to cost. The public supply accounts that have already implemented any of the options identified were eliminated from the projections, and a conservative ( $30-50$ percent) rate of participation of the remaining customers was the basis for the conservation estimates. These efforts, combined with savings and cost rates that are supported by numerous publications, provide District staff with the confidence that the savings rates are reasonable, and equitable where appropriate.

Some utilities have greater savings potential than others, due to the composition of their related customer bases and the degree to which conservation has already been employed. Therefore, per capita in and of itself does not identify which counties need to do more work in the area of conservation since a lower per capita does not necessarily indicate a greater degree of efficiency. For example, Manatee County has a low per capita water use rate because their public supply customers use sources such as shallow wells for irrigation. This does not negate the water savings potential of older homes to replace toilets or for commercial customers to replace spray valve nozzles. This is one aspect that would unfortunately be discounted by the table you provided. Another is the countywide per capita, which appears to reflect averages for each county. As described earlier, per capita was determined for each individual large utility, for small utilities as a group, and for domestic self-supplied users as a group. To take a countywide average and then set a target that does not accurately capture the potential each could achieve, would only identify what each county needs to achieve to reach a level playing field. The intent of the conservation element of the RWSP is to identify the potential conservation that could be achieved by broad-based programs that cost $\$ 3$ per 1000 gallons saved or less. The District's methods are useful in that they reveal that despite differences, such as the availability of irrigation wells in Manatee and Sarasota counties, or large numbers of commercial customers in Tampa, or aggressive conservation programs in Pinellas County, all water users can achieve some degree of water conservation for less than $\$ 3$ per 1000 gallons.

With respect to the specific comments regarding Hardee County, it is not unreasonable to expect Hardee County to save the water identified over the next few years. In addition to the reasons just described, while half of the county's per capita water use is quite low, as pointed out in the comments, the other half is between 117 and 131 gpcd , and none of these figures account for the 0.2 mgd of private irrigation wells. With respect to the specific comments regarding Polk County, again, the RWSP does not strive to identify what should be achieved, but what could be achieved using nine conservation measures identified to be feasible. The
county will not be "granted" a per capita rate reflected in the RWSP. The counties and cities are expected to evaluate these and, where possible, implement other conservation measures as appropriate.

Comment: Pg. 121 Section 1, Surface Water/Storm Water Options: Second sentence seems to suggest that the Planning Level Criteria would result in developing rivers/creeks to their full potential. The full potential is far and away above that allowed by the planning level criteria, as one can determine by the western development of water resources, i.e., over 60\% diversion (Lower Colorado River 7.2 BGD off stream consumptive use from a total 11.2 BGD annual renewable supply, USGS). Maybe the sentence needs to conclude with "were developed to this potential" (planning level).

Response: The sentence will be modified to reflect the idea that "full potential" in the context of the RWSP means using the planning level criteria that were established for the plan (P85/10 percent) to calculate available quantities of water supply.

Comment: Pg 162 Section 5, PR/MRWSA Planning Area - Fresh Ground Water Options: It is disappointing to not really find any clear reference to the use of the groundwater replacement credits that were a key element of the SWUCA rules and the Recovery Strategy and a fundamental objective of the Manatee Agricultural Reuse Supply (MARS) Project. The use of these groundwater replacement credits to provide for limited fresh ground water supply in Manatee County is a key source of near term (prior to 2014) local supply along with the development of surface/storm water options by the PRMSRWSA (sic) beginning in 2014 as shown in the 2006 Update to the Manatee County Water Supply Plan.

Response: Beginning at the bottom of page 98, there is a brief discussion on the use of fresh ground water from the Upper Floridan aquifer in the SWUCA. Though it is possible that some users can meet all or a portion of their future additional demands with ground water from the Upper Floridan aquifer, the SWUCA Recovery Strategy seeks an overall reduction in ground water withdrawals in the basin from about 650 mgd to about 600 mgd . As discussed at the top of page 99, this will largely occur through land use transitions that have occurred and will likely continue to occur throughout the region. The use of ground-water replacement credits will be very important for some users. However, the net effect is to shift existing withdrawals from one user to another, with an overall net reduction in ground-water withdrawals. Though the approach is extremely beneficial to users who are able to provide a ground-water offset, it will not expand the use of Floridan ground water in the basin.

SWFWMD Response to Sarasota County Comments on the July 2006 Draft Regional Water Supply Plan
Theresa A. Conner, P.E.
Sarasota County

## Chapter 4: Demand Estimates and Projections: Section 3. Public Supply

Comment: (Chapter 4, Section 3, 1.0 \& 2.0) The projected population growth within the four county service area of the Peace River Manasota Regional Water Supply Authority (Regional Authority) is much lower than either individual utility projections or projections being assembled by the Regional Authority. The unincorporated area of Sarasota County and the incorporated area have been growing at higher rate than is projected within Table 4-4 on page 55. We would suggest that the BEBR high population projections will more accurately reflect the anticipated growth within the entire Sarasota County area.

The Regional Authority has been conducting their Integrated Water Supply Master Plan including projections of new supplies needed. Although projections are still being completed at this time, the population projections and subsequent increases in demand are much higher than projected in Tables 4-4 and 4-5. The difference in projections for DeSoto County may be the most dramatic. The Authority is contracted to provide 4.815 mgd of water supply for DeSoto County over the next 7 years compared to the projected change in demand of 0.7 mgd over a 20-year period established by the Regional Water Supply Plan.

Regional Authority staff have mentioned that their preliminary analysis shows BEBR High population projections are the most realistic for their service area. This is a high growth area that is expected to far exceed the population growth projections developed in the Regional Water Supply Plan.

Response: One reason why Sarasota County's water demand projections are higher than the District's is that the county is projecting demand using a per capita rate of 100 gpd , while the District is using the 2001 per capita of 93 gpd that Sarasota County Utilities reported in their 2001 Public Supply Survey. Subsequent Public Supply Survey Reports submitted by Sarasota County Utilities have shown a decrease in the per capita rate.

Regarding population projections, the five Water Management Districts are required by the legislature to use the Bureau of Economic and Business Research (BEBR) medium population projections for projecting public supply water demand. District staff has confidence in BEBR projections for a number of reasons, among which is their ability to identify potential trends. The District can modify the water demand projections only if it is provided with credible data that support higher demand projections. This was discussed at length with the PR/MRWSA (Authority) and its member governments including Sarasota County during the development of the demand projections over the past several years. When the water demand projections were first reviewed during the Water Planning Alliance process, alternative population projection data were provided by Manatee County and Charlotte County. These data projected growth over the next 20 years based on the phenomenal period of growth that occurred in the region over the past few years. Because it is already becoming apparent that the rate of growth is slowing significantly, the District believes that data provided by these counties may significantly over project demand for water through 2025.

An independent evaluation by HDR engineering prepared for the Water Planning Alliance supports the relative historical accuracy of BEBR medium population projections. During a workshop held on September 29, 2006, HDR showed that the actual average (long-term) population growth rate for the Authority's service area was 3.1 percent per year. This figure is significantly lower than the population growth rates provided by the Authority's member governments.

Since the 2006 RWSP draft was prepared, BEBR has published the "Projections of Florida Population by County, 2005-2030", February 2006. The District is currently in the process of updating the water demand projections in the RWSP using this more recent BEBR population data. It is expected that the latest BEBR population data will account for the recent high growth period and this will result in higher water demand projections. However, it is likely that these projections will still be significantly below those of Sarasota County.

Finally, because the District is aware of how critically important accurate public supply demand projections are, staff would like to work with water supply utilities and population projection experts to develop a consensus on an improved projection methodology. Such a methodology could be employed more frequently than every five years to maintain a better understanding of population trends.

Comment: (Chapter 4, Section 3, 3.0) Because of the difference in population and demand projections associated with local planning and the Draft Regional Water Supply Plan, we would recommend that the service area of the Regional Authority be included in this discussion and that the Regional Authority's Water Supply Master Plan be referenced for best available data.

Response: As was stated in the previous comment, following the District's evaluation of all available data sources and the independent evaluation conducted by HDR, the District is convinced that the public supply water demand projections in the RWSP, that are based on BEBR medium population projections, are reasonable.

## Chapter 5. Meeting and Managing Future Water Demand

Comment: (Chapter 5, Part A, Section 1.0) We understand the District's approach of the p85/10 approach to evaluation of potential beneficial use of water from a surface water system. This approach is well explained as the second criteria on page 73. This is overall a large-scale approach to water supply planning, although we do encourage SWFWMD staff to incorporate into this discussion the potential for evaluation of impacts of prior hydrologic alterations on the natural water budget of a receiving water body. This approach will substantially alter the amount of water available for beneficial use from water bodies such as Cow Pen Slough. In Table 5-1, Footnote 7 starts this discussion, but we would request that it be more prominent in the report.

Response: In Chapter 5, Part A., Section 1 of the RWSP, it is noted that several water bodies in the region (such as Cow Pen Slough) have in-stream impoundments that could affect available quantities. Yields associated with these, as well as all surface water bodies, will ultimately be determined in the permitting process and depend on the degree of structural alteration that has occurred, the habitat supported by the flows, and the minimum flows that are established. A minimum flow will be established for Cow Pen Slough in 2007. For purposes of the RWSP, it is appropriate to use the planning level criteria that were developed to provide a consistent and conservative estimate of available supplies. We agree that it is important to recognize factors
that could influence the amount of water supply that is potentially available. However, it is not appropriate to arbitrarily alter these criteria, especially when the available quantities will be determined during the permitting process. Please note that in Chapter 5, in the discussions for individual water bodies, there is recognition of potential water supplies that can result from environmental restoration efforts. This potential was also recognized in the descriptions for specific water supply development options in Chapter 6, where it was appropriate.

## Cow Pen Slough

Comment: Sarasota county staff are concerned that our efforts in coordination with the Regional Authority and the District to restore a more natural flow to the Dona Bay watershed through capturing water on Cow Pen Slough could be misconstrued by a third party. The figure in the regional water supply plan of potentially available water supply of 4.4 mgd is well below our preliminary evaluation of water availability in the Dona Bay Watershed as 15 mgd, which is based upon our ability to store excess water, and not the amount of excess water going to Dona Bay.

Therefore on pages 78-79 we request that SWFWMD incorporate language into the end of the paragraph discussing Cow Pen Slough as follows:
"It is anticipated that future environmental restoration efforts in the watershed will focus on preventing the excess freshwater flows in the watershed from entering Dona Bay. Through the diversion and capture of these excess flows, opportunities for water supply development will be created which will help advance environmental restoration efforts. There is limited flow data available on Cow Pen Slough. As part of the District's MFLs effort, flow measurements on the Slough were initiated in 2003. Using data collected for the period since 2003, the annual average flow has been 72 mgd (111 cfs) as measured at the structure near Laurel Road. The available yield from cow Pen Slough was based on flow data for similar watersheds in the area. Using these flow estimates and based on the planning level minimum flow criteria, 4.4 mgd of water supply is potentially available from the Slough. As more information is available on the excess flow created by the channelization of Cow Pen Slough to Dona Bay, the potential quantities of water supply are expected to increase greatly and be based upon the amount of storage that can be created within the watershed. Ongoing studies are currently quantifying the excess flow."

Response: The District acknowledges the County's concern and offers this language at the end of the Cow Pen Slough discussion: "As ongoing restoration studies continue, more information will be available to better quantify excess flows within Cow Pen Slough, which may result in significantly higher yield estimates. Ultimately, the quantity of future water supply available from Cow Pen Slough will be determined through the permitting process and following establishment of a minimum flow in 2007."

Comment: The Myakka River watershed has had several significant alterations and we are encouraged that SWFWMD has taken the lead with the Myakka River Watershed Initiative to evaluate all of the hydrologic alterations on the watershed holistically. Our concern is that there is excess flow in the upper watershed and potentially too little flow in the southern portion of the watershed going to Charlotte Harbor. We do understand and support SWFWMD's efforts to restore a natural flow regime to the Flatford Swamp. We are concerned of this developed as a long term water supply since the excess flow is based upon an agricultural land use that can reasonably be expected to change to
suburban development over the planning period of the Regional Water Supply Plan. We do encourage the direction of the District and Manatee County to incorporate the groundwater permits into the Public Supply system as agricultural lands change use to development.

We are concerned that the Regional Water Supply Plan has overstated the potentially available water supply in the Myakka Watershed at 19.1 mgd. Our own personal experience with the Myakka River has low flows throughout much of the year and would limit the ability to withdrawal from the river without causing great harm downstream. We are encouraged that SWFWMD will be completing a detailed water budget of the watershed. We do encourage SWFWMD staff to consider the entire watershed before allocating water withdrawal quantities in the upper watershed.

Response: As indicated in an earlier response, the potential availability of water from rivers, such as the Myakka River, was determined using the P85/10 approach providing a consistent estimate for planning purposes. Withdrawals in the Upper and Lower Myakka will be subject to the permitting process and adoption of MFLs. The Upper Myakka MFL was adopted last year and the draft Lower Myakka MFL is expected in early 2007. In an effort to address issues within the Myakka watershed on a holistic basis, the District launched the Myakka River Watershed Initiative earlier this year. As part of the scope of work for the project (a copy was provided to Sarasota County under a separate letter), alternative model scenarios will be run for the Upper Myakka Water Budget task. At least one of these scenarios will include a suburban development within the Flatford area. It is hoped that information obtained from the modeling effort will enhance our understanding of how the flow regime would change in response to landuse changes.

## Part A. Evaluation of Water Sources: Section 5. Fresh Ground Water

Comment: In Section 5.2.2, the Intermediate Aquifer System is listed as Fresh Ground Water. In Sarasota County, only PZ1 and PZ2 can really be considered "fresh." We request that PZ3 of the Intermediate Aquifer system be addressed separately from the Upper Floridan area in Section 4.2 Brackish Ground Water - SWUCA - Upper Floridan Aquifer Brackish Ground Water. Due to the heterogeneity and discontinuous nature of the Intermediate Aquifer System; it is not a regional system and should not be treated as such. Neither of these sections refers to the Intermediate Aquifer Management Plan being developed by the District in lieu of an MFL to better manage this resource.

Response: In Chapter 5, Section 5.2.2 there is a brief discussion about brackish water existing in the lower zone of the intermediate aquifer in the coastal areas. Based on previous work on the intermediate aquifer, there are probably some areas in the eastern and northeastern portions of the county where the water quality of this lower zone can be considered fresh. The District will provide additional language to make sure this is clear when discussing the extent of brackish water in this zone. The heading for Section 4.2 in Chapter 5 will be changed to reflect a combined discussion of existing brackish ground water facilities that use the lower intermediate aquifer and/or the Upper Floridan aquifer. Staff agrees that the intermediate aquifer system is not a regional system and does not believe it was conceptualized as such in the RWSP. However, staff will review the discussions of the intermediate aquifer system in the report and make certain that point is clear. A brief discussion of the Intermediate Aquifer Management Plan will be presented in Section 5.2.2.

SWFWMD Response to CF Industries Comment on the July 2006 Draft Regional Water Supply Plan
Richard S. Ghent
CF Industries
Comment: CFI is requesting that its proposed Aquifer Recharge and Recovery project (ARRP) located within the South Pasture Mine at its Hardee Phosphate Complex in Hardee County be included as a water supply project in the draft plan.

Note: this comment was contained in a three-page letter that described the project and provided justification for including the project in the RWSP. The letter also provided specific language about the project that CFI requested be included in the RWSP.

Response: The District strongly supports the aquifer recharge and recovery concept and will include the CFI Aquifer Recharge and Recovery project in Chapter 8 of the RWSP; Water Supply Projects Under Development. Part A, Section 5, Table 8-6.

SWFWMD Response to Lakeland Electric Comments on the July 2006 Draft Regional Water Supply Plan
Farzie Shelton
Lakeland Electric
Comment 1. Lakeland Electric has concerns about HWA Planning Area Reclaimed Water Option \#1-Lakeland Zero Liquid Discharge Reuse set forth of pages 171 and 172 of the draft RWSP and also listed on Table 6-13 shown of page 174 of the RWSP.

Comment 1a. The draft RWSP does not identify the entity that would undertake this project; Lakeland Electric assumes that it is the intended entity.

Response: 1a. The District identified "the city" as the option entity, as the District did not want to presume which city department could take the lead on this option. However, in response to your question, either the City of Lakeland Department of Electric Utilities or the City of Lakeland Department of Water Utilities could both be potential entities to pursue this option, as the option has the potential to benefit both entities.

Comment 1b. The data set forth in support of this water supply option significantly underestimates the cost of undertaking this project. Lakeland Electric estimates the project would have an capital cost of \$31,477,106 and an annualized O\&M cost of $\$ 3,582,917$, resulting in annualized capital and O\&M cost of $\$ 6,327,235$ assuming capital recovery over a twenty (20) year period and a 6 percent discount rate.

Response: 1b. The sources used to generate the District's cost estimate for this option were detailed in a District Memorandum on the City of Lakeland's water use permit dated July 2, 2004, and include information from Sandia National Laboratories and US Bureau of Reclamation, information presented at the 2003 National Salinity Management and Desalination Summit, as well as project information from the City of Clearwater Brackish RO Project. The higher project costs estimated by the City appear to be based on older cost estimates. The costs detailed in the RWSP are based on District research using the latest available data.

Comment 1c. The RWSP estimates that this project will produce approximately 7.0 MGD (2.0 MGD of high quality water and 5.0 MGD of "freed up" reclaimed water currently used for dilution). By comparison, Lakeland Electric estimates that the project will produce only 6.0 MGD or less.

Response: 1c. The sources used to generate the District's estimates 7.0 mgd of supply and offset for this option were detailed in a District Memorandum on the City of Lakeland's water use permit dated July 2, 2004. The 7.0 mgd used in the option description is more conservative than the 8.51 mgd of reclaimed water Lakeland actually reported as being utilized for dilution alone in 2005 (FDEP 2005 Reuse Inventory).

Comment 1d. If (a future ) feasibility study confirms our anticipated high costs orland funding by the District to support this project is not available, then this project would not be feasible. Therefore, Lakeland Electric, at this time respectfully requests that this project be removed from the RWSP.

Response: 1d. The referenced project presented in the RWSP is one of several future options. If the city conducts a study resulting in defensible data and conclusions indicating the project is not feasible, future versions of the RWSP can be adjusted. The current RWSP reflects an
estimated timeframe for this option of 2011 to 2025. It would be premature to remove the option based upon the lack of a current feasibility study when the implementation could be up to 20 years in the future. The District will continue to include this option in the RWSP; however, the description will include a statement that a feasibility study would be prudent before implementation.

Comment 2. Lakeland Electric also has concerns regarding the Lakeland Electric Storage Facility project set forth on Table 6-13 HWA Area-List of Reclaimed Water Options on page 174 of the draft RWSP. The RWSP does not describe this project anywhere else in the text. However, based on prior communications with District staff, Lakeland Electric assumes this project refers to Lakeland Project Number LPE9760. The feasibility of undertaking this project was investigated by Lakeland Electric in circa 2001. The project was later determined to be unfeasible and cancelled. For this reason, Lakeland Electric respectfully requests that this project be removed from the RWSP.

Response: 2. The District included the Lakeland Electric Storage Facility option as well as other reclaimed water options in the RWSP that may have been determined to be unfeasible in the past, as they may become viable options at some point in the future (out to 2025). The project presented in the RWSP is one of several future options; however, based upon your description of a completed feasibility study with a determination of infeasibility, the District will remove the option from the RWSP, as requested.

Comment 3. Finally, and most importantly, Lakeland Electric believes the RWSP does not consider Lakeland Electric's future water use needs because the RWSP does not include the needs of new generation of Lakeland Electric that will be added in the future. Presently Lakeland is in the process of planning a new electric generation plant, which Lakeland Electric predicts bringing into operation sometime in 2013. Lakeland Electric intends to utilize substantially all of the remaining reuse water that is produced by the City of Lakeland's PWWT as the primary source for the unit's cooling water.

Response: 3. While individual water use permits (WUP) such as those issued to Lakeland Electric are considered in industrial/commercial (I/C) water demand projections, water demand is projected by County and not by individual WUP. The 2005 demand for Polk County was projected at 71.9 mgd; actual use was 67.7 mgd. While a bit high, the Polk County projections are certainly "within the ballpark." The District considers and includes quantities for all proposed industrial expansions in formulating demand projections. As part of the 2011 RWSP update (and if Lakeland Electric is still on schedule to bring an additional generating facility on line in 2013), the District will revise its demand projections for Polk County.

# SWFWMD Responses to Bill Harper Comments on the July 2006 Draft Regional Water Supply Plan <br> Bill Harper <br> Citizen 

Comment: I notice that on the 2006 table 4-7, p58 the numbers are less than from the 2001 report, table IVA6, p57, up to year 2010 and then the 2006 is higher than the 2001 forecasted. What happened around the 2010 mark to cause this sudden change in direct?

Response: The 2001 RWSP projected demand from 1995 to 2020, using 1995 Bureau of Economic and Business Research (BEBR) projections as the base year to project population through 2020 and using 1995 per capita data to project demand through 2020 (Technical Memorandum, January 18, 2000). The 2006 RWSP forecasts demand from 2005 to 2025, using 2005 BEBR projections as the base year to project population through 2025 and using 2001 per capita data to project demand through 2025 (Technical Memorandum, March 14, 2004 and January 2005 Addendum to Technical Memorandum, March 14, 2004). The difference in the time period reported for as well as the base years used to project the population and demand are alone, significant enough to create a variance between the 2001 and 2006 RWSP reports. Another factor to note is the difference in per capita from 1995 to 2001. For most counties in the Planning Region, the per capita has been reduced since 1995.

Comment: Also why do the totals for SWUCA on p55 and p58 differ by 20-25 mgd per time column even when you add the PS and DSS together on p55 to compare to p58?

Response: Table 4-4 lists the demands for Public Supply (PS) and Domestic Self Supply (DSS) for the Planning Region. Thus, when you compare the tables you will need to look at the Planning Region demands portion in table 4-7, not the SWUCA demands portion. Also, the Public Supply demand projections include the demands associated with domestic irrigation wells, the demands for which are provided in Table 4-6.

So, for example if you take year 2005:
From Table 4-5 add the PS and DSS demands ( $488.3+25.3$ ), then from Table 4-6 add the additional irrigation demand (19.6) $=533.2 \mathrm{mgd}$. Compare this to Table 4-7 where, for Planning Region in 2005, the average-year demand is 533.3 mgd . There is a slight rounding error when comparing this way, due to formatting.

Comment: Table IVD-1 p138 in the 2001 report shows Shell Creek as 10mgd yield and 40 mgd capacity and Table 6-4 p148 in the 2006 report says the same. Question is, in 2001 the emphasis was on ASR storage, but with the concern over ASR at present, wouldn't it make more sense to go off stream reservoir? There are projects doing just that and with land being purchased now for that purpose, your document would give credence to that rather than ASR. In the southern area of Shell Creek ASR recovery is going to be lower that normal, so reservoir evaporation loss is not an issue since no money has been spent on treating it before storage except pumping.

Response: In the report, it is recognized that storage is an important element of water supply projects that can be accomplished using reservoirs and/or ASR. In fact, on page 145 of the report, in the description of the option entitled "PR/MRWSA Planning Area Surface Water/Storm Water Option \#4 - Shell Creek Public Supply," it is contemplated that the storage needs of the project would be met using a reservoir. Though there are still issues associated with the
development of ASR systems, those systems have tremendous potential to assist water suppliers in meeting their long-term water supply needs, especially during periods of drought or low surface water flows. In the future it is anticipated that reservoirs and ASR wells will be used as complements to each other.

Regarding your statement that, ". . . reservoir evaporation loss is not an issue since no money has been spent on treating it," evaporation loss in a reservoir is always an issue. This is especially true when you consider the volume of water supply that is lost and unavailable for use. If ASR can be used to reduce the size of a reservoir, the water not subjected to evaporation losses can be used for additional water supply.

Comment: Table IVB-2 p80 of 2001 report shows Shell at 220 mgd mean, shows the 5.4 permitted and the 3.7 mgd use and 17 mgd theoretical available but only estimates 10 mgd for new source. A statement on p86 states the average potential yield is $\mathbf{1 7} \mathbf{~ m g d}$ ABOVE the permitted amount based on 10\% over the P85. The 2006 report says 225 mgd, and the use is 4 mgd and an additional 17.6 is available, using the $10 \%$ after P85.

Response: Table IVB-2 in the 2001 RWSP included a column labeled "Practical Available New Water" which included factors such as local need. Because the projected demands in Charlotte County did not require the total available amount from Shell Creek this amount was limited to 10 mgd. In Table 5-1 of the 2006 RWSP, this column was deleted from the table. In addition, the relatively small differences in available yield you note ( 17 versus 17.6 mgd ) are due to the use of a slightly longer period of time to estimate available yield in the 2006 RWSP (1965 to 1998 for the 2001 RWSP versus 1965 to 2003 for the 2006 RWSP).

Comment: Now on p149, it states 7.8 mgd current yield to 17.8 mgd. Where did the 2 mgd come in? Also on p149 is says in column yield is $\mathbf{8} \mathbf{~ m g d}$ but the text in descript says 7.8 mgd . It doesn't appear that rounding off is appropriate since the rest of the table column have decimal in them. Just an item that draws questions like "Can't you make up your mind?'

Response: As indicated in the header, the information in Table 6-5 was taken as reported in the Water Planning Alliance (WPA) Regional Planning and Engineering Study. This study was done independently from the District's RWSP by a consulting firm and therefore, it does not always agree with the District's work. It was included to provide readers with information from other ongoing water supply plans within each region. A copy of the WPA Study can be obtained from the Peace River/Manasota Regional Water Supply Authority.

Comment: This leads to the comparison of the 2001 report showing 17 mgd and the 2006 report showing either 17.6 or 17.8 mgd and then there is the confusion over is the 17 plus the 5.4 permitted ( 22.4 mgd ) in 2001 against the 17.6 plus the 4 mgd use ( 21.6 mgd ) or is it just the 17.8 mgd from page 149 in the 2006 report? Couldn't there be more consistency in your numbers so that they at least add up?

Response: The following table compares the quantities reported by the District for Shell Creek in Table IVB-2 of the 2001 RWSP and Table 5-1 of the 2006 RWSP. The differences you note are relatively small and due to the reasons mentioned in the responses to your previous comments. It is not possible to directly calculate the last column from the other numbers in the table because of the conditions that need to be satisfied before calculating available yield. The first thing that is done is to make sure existing permitted uses are satisfied. New uses are allocated water only after existing uses are satisfied, flow in the river/creek is above the
minimum flow cutoff, and the sum of existing permitted quantities is less than 10 percent of the total flow of the river. In addition to the minimum flow cutoff for new uses, the available yield is limited to twice the median daily flow for the period of record. Another factor that affects the "Theoretically Available Additional Withdrawals" is how the existing uses were permitted. Keep in mind that the potential yield from Shell Creek and other surface water bodies will be modified in future updates of the RWSP as minimum flows and levels are established and water use permits are modified to incorporate these flows in their withdrawal schedules.

| Report | Annual <br> Average <br> Flow | !0\% of <br> Mean Flow | Permitted <br> Annual <br> Average | Current <br> Use | Theoretical <br> Available <br> Additional <br> Withdrawals |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 2001 | 220 | 22 | 5.4 | 3.7 | 17 |
| 2006 | 225 | 22.5 | 5.4 | 4.0 | 17.6 |

Note: quantities are in million gallons per day (mgd)
Comment: Conservation as a source in 2001 projected non-ag at 95.3 mgd by 2020, p96 and in 2006, p.106, the savings is 120.2 mgd. Does that mean that from 2020 to 2025 that there will be another 25 mgd in savings added to the total of 2030, or is it an increase in the rate of conservation starting with 2005 and increasing to 2025? I note that Public Supply goes from 60 mgd in 2020 (2001 report) to 73.85 mgd in 2025 in the 2006 report. I would think with all the emphasis on conservation now focused on the public, there ought to be a declining trend in the amount saved by conservation as time goes on, since as is said "how low can you go?" I also note that the costs/1000 in just 5 years has doubled (some inflation).

Response: The savings presented are cumulative from 2005 through 2025 based on the incremental increases in population projected for the area and the associated "new" conservation from that population segment being combined with the existing conservation already occurring.

The Public Supply increases generally reflect the projected increases in population served by the utility. The calculation used holds the per capita use to the initial 2005 value, i.e., per capita is not reduced to reflect effects of conservation measures initiated during previous years. If the per capita demand is adjusted to reflect previous conservation efforts, Public Supply conservation does generally decrease across the planning period.

The costs were adjusted to reflect a 34 percent increase in costs since the 2001 RWSP was published. Costs for certain conservation measures, especially for local governments with smaller populations available for implementation tend to escalate much more than others with larger populations because of the ability to spread costs over larger participating populations.

Comment: On page 155 of the 2006 report, there is the Punta Gorda reclaimed water section. For your information, the effluent has been going to deep well since August 6, 2001. There is no application on the hay fields at all. It is also stated that there is problem with high inflow/infiltration. The correct way to state this is there is a high concentration of salts infiltrating from the harbor which is a lot harder to find and tighten up than just high flows coming into the system as your text reads. To supply reclaimed water for a use is the City's aim. There is a concern over offsetting Potable water. Most of the water to be offset from ground water use is non-potable. To offset potable when the only potable around is the City's supply is the most complicated and expensive of the
possibilities. A study to look at current and potential reuse is currently planned and a more realistic picture can be had, but counting it as offsetting ground water use rather than potable is more appropriate for now.

Response: Regarding the effluent disposal method, you are correct; Punta Gorda's effluent disposal method will be modified to "deep well." Regarding the suggestion to re-characterize inflow/infiltration (I\&I) as only infiltration, the District will continue to use I \& I. This is a standard industry term that describes multiple pathways of non-sewer water entering the sanitary sewer system, not just infiltration. The discussion of potable versus non-potable may be resolved by a clarification of offset expected. If potable water is not offset from the city's system, then the District believes there is opportunity to offset potable-quality water from other sources. There are benefits that can be realized beyond the offset of strictly public water supplies, and this is what the potential offset reflects.

## SWFWMD Responses to Joe Bourassa Comments on the July 2006 Draft Regional Water Supply Plan <br> Joe Bourassa <br> Citizen

Comment 1: Since we are well into 2006, I have to wonder why this "2006" RWSP can not use 2005 numbers as its basis for projecting. There appears to be some interjection of 2001 \& 2003 numbers, but most projection refer back to 2000. Of course 2000 was a very severe drought period [ 1 in 200 yrs. ?] so all usage is exaggerated. Compounding that is that this QA report now uses a 25 year planning period, when the intent was to use a 20 year planning period.

Response: The five water management districts agreed to use certain methods for preparing the Regional Water Supply Plan (RWSP), in accordance with statewide guidelines agreed upon with DEP. This included using the year 2000 as a base year. When work on the demand projections for the 2006 RWSP began, the 2003 population and 2002 water use were the latest published data. The year 2000 is a starting point for planning purposes but, as explained in Chapter 4 (p.45), it actually reflects water use from 2001 to ensure that use would not be exaggerated due to the 2000 drought for those demand projections based on historical water use. In addition, some demands are based on numbers of permits (Industrial/Commercial) or numbers of acres (Agricultural), rather than water use. That being said, based on feedback such as yours, population data for 2005 will be used to update the population projections and related water use for the final version of the RWSP.

Comments 2 through 9 pertain to the District's 2003 Estimated Water Use Report and not the draft 2006 RWSP. Staff will respond to these comments in a separate e-mail.

Comment 10: Page 55, Table 4-4 \& Table 4-5---District Totals---It is apparent that the projected 40\% increase in both Population \& Public Supply between 2000 \& 2025 equals a $1.6 \%$ / yr increase. That agrees with the BEBR population projection but really does not indicate any improvement in Per Capita Usage. Since reclaim will be a much more significant part of future water usage, will it be just added on to the historic GW \& SW usage---or will it be separately reported??

Response: As described in Chapter 4 (p.45), the projected demand represents the total amount of water required through 2025 and does not account for demand management measures. The potential for demand management measures such as conservation and reclaimed water to reduce water use is accounted for in Chapter 5 . So, for the purpose of calculating demand, the per capita was held constant throughout 2000-2025. It is expected that as additional conservation methods are added, per capita will decrease. Pages 80-83 of the 2006 RWSP discuss the possibilities for offsetting future demand by each county in the Planning Region by implementing reclaimed water projects.

Comment 11: Page 55; Table 4-5, Last Columns "Change (\%)" Since the numbers in both columns [PS \& DSS] are exactly the same, I cannot understand why the PS Total is 40 \% and the DSS Total is 50\%.

Response: The "Total Change (\%)" is calculated as shown below. Total Change (\%) = (Change in Demand / 2000 Demand) * 100 \% So:

PS Change (\%) $=(179.2 / 444.6) * 100 \%=40 \%$
DSS Change (\%) $=(11.5 / 22.8) * 100 \%=50 \%$
Note that the results are rounded to the nearest whole number. The data in the table is aggregated from detailed utility-level information for Public Supply, and then rounded by county. Both the Public Supply and Domestic Self-Supply totals in the table are rounded by year. The DSS data are quite small, and rounding can have a noticeable impact. We double checked the numbers and can assure you they are correct for the county totals, planning-year totals, and overall totals.

There does not appear to be a comment 12.
Comment 13: Page 58; Table 4-7 "Public Supply Projections" I find it interesting that this table uses 2001 as its base point. Since the District has all the EN 50's for 2005, why not compare that number with the one shown here ( 533.3 mgd ).

Response: Staff does not understand your comment. Please provide more information.
Comment 14: Page 85; 2.0 "The Tampa Bay Water Seawater Desalinization Plant", I know this is a July draft, but it will not be finalized for awhile. --- The latest published TBW number is $\$ 3.01$ not your $\$ 2.54$ / 1,000 gal. What always must be remembered is that is for the plant to be operating at its $\mathbf{2 5} \mathbf{~ m g d}$ design capacity.

Response: Based on recent discussions with Tampa Bay Water staff, the new cost for seawater desalination is $\$ 3.19$ per 1000 gallons. This will be the number used in the final report. When originally drafted, the cost per 1000 gallons for the desalination plant was $\$ 2.54$.

SWFWMD Responses to Nancy Lopez Comments on the July 2006 Draft Regional Water Supply Plan
Nancy Lopez
Citizen
Comment: As part of the explanation for not including the Northern District in the RWSP, on page 4 of the Draft 2006 RWSP the District states that in 2005 Marion County and the Withlacoochee Regional Water Supply Authority (WRWSA) initiated "... separate comprehensive water supply plans ..." in cooperation with the District. This week I began reviewing the WRWSA's draft plan. In particular, I downloaded draft Technical Memorandum 1: Existing and Future Demand, dated September 15, 2005, from the WRWSA website. This document states on page 17 that "Sumter County's water demand in 2000 was 44 mgd . An increase of 15 mgd (34\%) to 59 mgd was computed for the planning horizon time period [2000 to 2025]." The Villages began major development in Sumter County after 2000. Basically, the currently permitted groundwater withdrawals for the Sumter County portion of The Villages is about equivalent to the computed water demands for all of Sumter County over the planning horizon. I will be providing comments to WRWSA on their water supply plan. However, such departures from reality cannot possibly support sound water management and cannot substitute for careful, timely planning by the District. What kind of cooperation is actually occurring between the District and WRWSA's water supply planning effort?

Response: Because it is recognized that portions of the Northern Planning Area have experienced high growth, and that it will be beneficial to begin planning for future water resources development to avoid the impacts that have been experienced in other areas, the District and the Withlacoochee Regional Water Supply Authority (WRWSA) have initiated an update of the Authority's water supply plan. This project is cooperatively funded by the District and the WRWSA and District staff work very closely with the WRWSA's consultants to make certain that the water supply plan will be as comprehensive as the RWSP that is being drafted for the southern 10 counties.

Regarding your concerns about the water supply demand projections, the five Water Management Districts are required by the legislature to use the Bureau of Economic and Business Research (BEBR) medium population projections for projecting public supply water demand. District staff has confidence in BEBR projections for a number of reasons, among which is their ability to identify potential trends. The District can modify the water demand projections only if credible population data is provided to support claims that water demand will be higher.

Since the 2006 RWSP draft was prepared, BEBR has published the "Projections of Florida Population by County, 2005-2030", February 2006. The District is currently in the process of updating the water demand projections in the RWSP using this more recent BEBR population data. It is expected that the latest BEBR population data will account for the recent high growth period, and this will result in higher water demand projections for the Northern Planning Area.

Because the District shares your concern for how critically important accurate public supply demand projections are, staff would like to work with water supply utilities and population projection experts to develop a consensus on an improved projection methodology. Such a methodology could be employed more frequently than every five years to maintain a better understanding of population trends.

Comment: Regarding surface water impacts, the District approved these major groundwater withdrawals in an area of Sumter County where it had previously identified stressed surface waterbodies. In 1991 the District determined that Lake Miona and Black Lake were stressed. Re-evaluating these waterbodies again in 2005, the District again determined that they are stressed. Unfortunately, the District failed to meet its 2005 deadline for re-establishing the Minimum Levels for these two waterbodies.

Response: The "stressed lakes" criterion has been used for lakes without adopted minimum levels to indicate where the lake is fluctuating relative to its adopted Guidance levels, in particular the Low Level and Extreme Low Level. These levels are generally used to indicate the normal range of fluctuation for a lake and are often influenced by cultural features and interests of lakeshore property owners. Since the late 1990s, the District has undertaken an intensive effort to adopt minimum levels on priority lakes in the District. These are the levels the District now uses to assess whether withdrawals are causing significant harm to the lake habitat. Because of differences in how minimum levels and Guidance levels are established, it is hard to make direct comparisons between whether a lake is identified as "stressed" and whether or not a lake is meeting its minimum level. Since we received your letter, the Governing Board, at their October 2006 meeting, adopted minimum levels for lakes Deaton, Miona, Okahumpka, Panasoffkee, and Big Gant in Sumter County. At this time, all these lakes are meeting their adopted minimum levels.

Comment: At the bottom of page 2, the District's Draft 2006 RWSP states that "... declines in water levels in recent years have primarily coincided with and can generally be explained by an extended period of lower rainfall. Because the Upper Floridan aquifer is either unconfined or has little overlying confinement over much of the area, low rainfall means less recharge to the aquifer resulting in lower aquifer water levels." It seems, the District approved these major withdrawals knowing that the lakes are stressed and that aquifer levels in the area are especially sensitive to low rainfall because of the geology. After 2000 the consulting firm CH2M Hill analyzed drawdowns in Sumter and surrounding areas that would be caused by pumping in The Villages during severe drought conditions. That information might be helpful to the District as it reviews the need for water supply planning in Sumter County.

Response: Though the District generally evaluates the long-term effects of withdrawals on water resources in its water supply planning efforts, the District also evaluates shorter-term impacts to the water resources under its water use permitting criteria to ensure that potential harm to environmental features does not occur. This typically is conducted by modeling peak monthly quantities that the applicant proposes to use during dry season conditions. For the Villages existing water use permits, District regulatory staff conducted an extensive evaluation of the proposed withdrawals and concluded that they met their criteria for issuance - namely that the proposed withdrawals did not cause adverse impacts to adjacent users or on-site environmental features. Conditions of the water use permits require an extensive monitoring program of both surficial and Upper Floridan aquifer wells, metered withdrawals, lake and wetland stages, and other data. Calendar year withdrawals in 2005 for the District's portion of the Villages were 7.3 mgd , or a little over half of permitted ground-water withdrawals. Based on review of on-site and nearby monitor well and lake stage data, there does not appear to be a significant lowering of aquifer levels or lake stages as a result of the increasing ground-water withdrawals in the area.

Comment: The St. John's River Basin Water Management District included the area of The Villages that is under their jurisdiction in a Priority Water Resources Caution Area.

The SWFWMD was aware of St. John's action in plenty of time to include Sumter County in the draft 2006 RWSP, but instead the District chose to exclude it. Recently, at my urging, the SWFWMD Governing Board directed the staff to determine the extent of the Caution Area in Sumter County. The Governing Board requested that this information be provided to them by January 2007. Given the current schedule, it appears that the information will be available too late to assist with the 2006 RWSP. In the interim, I request that SWFWMD rely on the St. Johns River Basin Water Management District evaluation of conditions in Sumter County for the purposes of revising the 2006 RWSP.

Response: As you note in your comment, the District is evaluating options for delineating a potential water use caution area in a portion of the Northern Planning Area. As part of this evaluation, staff is reviewing the information developed by the SJRWMD that formed the basis for delineation of their Priority Water Resource Caution Area, and it is anticipated that a recommendation will be provided to our Governing Board in January 2007.

It is important to note that the SWFWMD and SJRWMD routinely coordinate and discuss water resource issues that may impact both Districts. At the October 2006 Governing Board meeting, District staff made a presentation to the Governing Board regarding the coordination of activities among staffs of the SJRWMD, SFWMD, and SWFWMD in the Central Florida area. In addition, staff also informed the Board of an intensive effort that was recently initiated by the SJRWMD and the District to coordinate water supply planning, water use regulation, and water resource evaluation activities in the area of Lake, Marion and northeast Sumter counties.

Comment: On page 2, Part A, Section 1, paragraph 2, the draft states that "...regional water supply planning should be initiated for the west-central, east-central and southern planning regions because 'traditional sources of water are not adequate for the planning period to supply water for all reasonable-beneficial uses and to sustain the water resources and related natural systems' (373.0361(1), F.S.)." Sumter County meets this criteria for inclusion in the RWSP. In closing, the District needs to take timely action to revise the 2006 RWSP to include Sumter County and closely related concerns in nearby areas. Waiting until 2011 to initiate water supply planning for this area would not be in compliance with the statute and would not support responsible water management. Please take effective action now to correct the 2006 RWSP.

Response: Even though the Northern Planning Area is not included in the 2006 RWSP, the District has numerous water supply planning, water supply development, and resource protection activities in progress in the area. For example, the District has been expanding its hydrologic monitoring networks, developing regional ground-water flow models, conducting cooperative hydrologic studies with the U. S. Geological Survey, and rapidly working through the process of establishing MFLs. These efforts will enhance the District's technical understanding of the area and help provide the technical foundation to support water resources management. Another example is the funding and technical assistance the District is providing for water supply planning efforts conducted by the WRWSA and Marion County. An update of both of these efforts was presented to the Governing Board at their October 2006 meeting. For both of these efforts, it was concluded that water resources throughout the region are generally in good condition; however, there are areas of resource concern that exist, such as the northeastern portion of Sumter County. One of the main goals for water supply planning in the Northern Planning Area is to develop and implement a strategy to prevent harm to the resources from occurring so that the resource problems experienced in the southern 10 counties of the District can be avoided.

Chapter 1 of the RWSP now includes a lengthy discussion of water resource issues and District programs to address the issues in the Northern Planning Area.

SWFWMD Responses to Florida Department of Environmental Protection Comments on the July 2006 Draft Regional Water Supply Plan
Thomas Swihart
Florida Department of Environmental Protection

## Comment: The plan should include an executive summary as set out in the Format and Guidelines.

Response: An Executive summary will be included in the final version of the RWSP.
Comment: In Chapter 4, pages 45-68, the plan does not present demand projections for all of the individual use categories prescribed in the Format and Guidelines. These use categories must appear in the final plan. Specifically, Domestic Self Supply must be separated from the Public Supply totals, and Power Generation must be broken out of the Industrial / Commercial totals.

Response: The demands were prepared and reported in accordance with Format and Guidelines agreed to by the five water management districts and DEP. The Format and Guidelines document prescribes minimum thresholds, and category definitions that should be included in the projections of demand. Each of these has been included in the 2006 RWSP, according to the definition, and meet or exceed the reporting thresholds. Power Generation is the only category the District chose not to report separately, but there is no such reporting requirement in the guidelines. The Domestic Self Supply demands are presented in Table 4-5, Public Supply (PS) and Domestic Self Supply (DSS) Demand Projections (mgd) (5-in-10). The detailed population, per capita and demand figures are provided in the Appendix for Chapter 4. The Power Generation figures are not presented separately in the main part of the RWSP. As was the case in the 2001 plan, Power Generation is included in the "Industrial/Commercial" category and the disaggregated information for the demand category is provided in the Appendix for Chapter 4. The Appendices are not included in the RWSP, but are available on the District's web site at "watermatters.org."

Comment: The plan does not always present the 1-in-10 demand projections as required by Section 373.0361(2), F.S. Sometimes the plan explains this exclusion (e.g., Table 4-3, page 51 with text in the last paragraph) and sometimes it does not (e.g., Table 4-8, page 61 with text in subsection 2.1, page 60). We also found that the text for Table 4-12 (partial paragraph at the top of page 64) refers to a 1-in-10 demand projection, but this projection is not in the table.

Response: The 1-in-10 demands were calculated and presented, if not in the text then in the Appendix for Chapter 4, for all categories required. The text at the top of page 64 will be adjusted to eliminate the reference to 1 -in-10 demands. The demands for the
Recreational/Aesthetic category are presented as required, showing average and 1-in-10 demands, in Table 4-9. The golf course demands, a segment of the Recreational/Aesthetic category, are shown only with the average demands for discussion purposes. The golf course demands represent the majority of the Recreation/Aesthetic category demands and warranted additional discussion using Table 4-8 as a reference.

Comment: On pages 61-66, environmental restoration is not the same type of water "demand" as the water needs identified in the required use categories. Placement with these categories may suggest that the environment needs to obtain a consumptive use permit and must meet all requirements for permit issuance. We are aware the District
finds the environmental restoration information useful in planning to meet MFLs and recovery strategies in the region. We suggest moving this discussion to the Chapter 3, Part B (MFLs) or Part C (Reservations), whichever best fits with District plans.

Response: The District sees no difference between meeting the demands of the environment and other water use categories such as public supply. To meet public supply demand, new sources of water must be developed and must obtain consumptive use permits. To meet environmental restoration demands (minimum flows and levels), new sources of water must be developed to make up for reductions in ground-water withdrawals. An example of this was the 68 mgd reduction in ground-water withdrawals from Tampa Bay Water's 11 central system wellfields. These quantities had to be replaced by quantities developed from rivers and seawater, and the projects that were built to utilize these sources had to obtain consumptive use permits. It follows then that the District must calculate the total demand for new water quantities, including environmental restoration demand, in order to plan for water supply and water resource development projects that need to be constructed to meet these demands and accumulate the necessary financial resources.

Comment: We are very much interested in the District's proposal to obtain 35 mgd from South Florida Water Management District's (SFWMD) Kissimmee Basin for use in the Heartland Water Alliance (or just Polk County?) area. The plan acknowledges that close coordination with SFWMD will be required to develop this option. The option should be developed carefully to ensure that it meets the interdistrict transfer and local sources requirements found in Sections 373.223(3)(a) and 373.2295,F.S., and in Chapter 6240.422, F.A.C., as well as the Central Florida Coordination Area Action Plan.

Response: The District appreciates and shares the Department's concerns and will proceed cautiously with this project as the Department suggests. The area where Kissimmee River water would be utilized is most likely limited to Polk County.

Comment: On Page 121 (Section 1, paragraph 1) and page 167 (Option 1, paragraph 2), the plan indicates the transferred water would come from the Kissimmee River, but on pages 123 (Section 5, paragraph 3) and 176 (Section 5, paragraph 1) the text says the transfer would involve groundwater. Please provide substantially more information on these possibilities.

Response: It is not clear from your comment what questions or concerns you have regarding these options. In Chapter 1, Part B, and Chapter 6, Part B, there are summaries of other water supply planning efforts that were ongoing at the time the District prepared the 2006 RWSP. In compiling water supply options for the 2006 RWSP, staff felt it was important to recognize the options that were identified in those other planning efforts. In the plan developed for the Heartland Water Alliance (Polk, Hardee, Highlands, and DeSoto counties), water supply options involving both ground water and surface water in the SFWMD were identified. These options are summarized in Tables 6-11 and 6-15. As was discussed in the RWSP, these options would result in a transfer of water from one district to another. However, the water would generally be used in the same county in which the withdrawal(s) occurs. The District will supply the Department with a copy of the final report that was prepared for the HWA water supply planning effort.

Comment: Please continue to coordinate very closely with the Department on the Tampa Bay Water Enhanced Surface Water System (pages 207-209).

Response: The District has every intention of very closely coordinating this project with the Department.

Comment: The plan refers (page 3, paragraph 3) to demand projections for the counties north of the planning region. Please provide this information to us.

Response: This information will be sent to you but will not be included in the final version of the RWSP.

Comment: We are unsure about what constitutes the NTBWUCA in the Plan. Compare the RWSP's Figure 1-1 (page 3) with Figure 3-1 (page 28), and both of these figures with the NTBWUCA map found in the BOR Figure 7.3-1, Chapter 40D-2, F.A.C. Figure 7.3-1 includes only portions of Pasco and Hillsborough Counties, as illustrated in Figure 3-1, rather than the entirety of these counties as seen in Figure 1-1.

Furthermore, in April 2006, the District created a new Water Resource Caution Area (WRCA) encompassing the portions of Hillsborough, Pasco and Polk Counties not already in the NTBWUCA or SWUCA. The new WRCA does not appear to be identified in the plan (Chapter 3, Part A, pages 27-33), and its defined area also seems to conflict with the boundaries shown in Figure 1-1. The significance of the new WRCA should be addressed in the plan.

Response: There are several overlapping areas in the RWSP that have been delineated for different purposes. Figure 1-1 was not meant to show the NTB WUCA. It was included to show the SWUCA and the area where Tampa Bay Water's Central System Wellfields are located, that is commonly referred to as the Northern Tampa Bay (NTB) Area. Figure 3-1 depicts both the NTB WUCA and the SWUCA accurately. The area of the Planning Region that is not included in either of these WUCAs is the area that was designated as a Water Resource Caution Area (WRCA). This area was designated as a WRCA pursuant to recent amendments to Chapter 6240.520(2) F.A.C. by the FDEP. The amendments require the water management districts to designate any area requiring a water supply plan as a WRCA. This designation enables the FDEP to require utilities in the area to conduct reuse feasibility studies. Staff will identify this area on Figure 3-1 and provide a brief description in the text of the final version of the RWSP.

For the benefit of local governments and water suppliers, the discussion of water supply options was broken out by planning areas. The planning areas encompass the service areas of Tampa Bay Water, the Peace River/Manasota Regional Water Supply Authority, and the Heartland Water Alliance, which is the group of counties that are working together to plan for water supply development. These areas are shown on Figure 6-1 of the plan. The reason the options were segregated by planning areas is explained in Chapter 6, Part B, paragraph 4.

Comment: On page 30, it will take until 2025 to restore minimum levels to lakes in the Lake Wales Ridge and to the upper Peace River. Please explain why.

Response: The goals of the SWUCA Recovery Strategy include restoring minimum levels on priority lakes along the Lake Wales Ridge and minimum flows in the upper Peace River by 2025. One of the major tools identified in the Recovery Strategy that will be used to achieve recovery is the significant reduction in ground-water withdrawals that is occurring in the basin as agricultural lands go out of production and discontinue the use of their permitted ground-water quantities. Benefits to the resource from land-use transitions, however, will occur gradually over an extended period of time. This is one of the reasons full recovery may not occur until 2025.

As described in Chapter 7 of the report, the District is also conducting several water resource development projects that will be used to help the lakes and the upper Peace River meet their minimum flows and levels. These projects include: the Lake Hancock Lake Level Modification project; the Upper Peace River Resource Development project; Effect of Karst Development on Peace River Flows investigation; and the Lake Lotela Pilot Augmentation project. The success of these projects will ultimately determine the time frame in which recovery will be achieved. It is anticipated that these projects will be completed and fully operational by 2025.

Comment: Beginning on page 40 and throughout the document, the plan references different appendices that are not available in this draft. Please provide this information in the next version.

Response: The appendices have been available on the District's web site since the end of September. They will not be part of the final version of the RWSP, but can be downloaded at any time from the District's web site.

Comment: On page 45, please update the reference to the 1998 version of the Format and Guidelines to the 2005 version.

Response: The document has been updated.
Comment: There are differences among the demand projection data tables that should be clarified. We are not sure if these anomalies are related to the NTBWUCA delineation discussed in comment $A-2$, or if there is a different explanation.

As an example, compare Table 4-1 (page 48) with Table 4-7 (page 58). In Table 4-1, column 2, the Polk County total for the SWUCA ( 107.7 mgd ) is the same as the Polk County total for the Ten-County Planning Region (107.7 mgd), and the SWUCA + NTB subtotals add up to the ten county grand total $(440.0+51.6=491.6 \mathrm{mgd})$.

Response: Table 4-1 presents agricultural demand information, while Table 4-7 presents public supply demand projections. Within Table 4-1, the Polk County agricultural demands are the same for SWUCA and the 10-County Planning Region because all of Polk County's agricultural demands occur within the SWUCA. There is a small portion of northern Polk County that is located outside of the SWUCA and the NTB Area but inside the 10-County Planning Region. This portion of Polk County is located mainly in the Green Swamp where there are very few agricultural land uses.

Comment: In Table 4-7, column 2, the Polk County total for the SWUCA (66.7 mgd) is different from the Polk County total for the Ten-County Planning Region (73.4 mgd),

Response: Table 4-7 reflects that public supply demand occurs in the portion of Polk County that is inside the SWUCA and the small portion of northern Polk County that is outside of the SWUCA and NTB Areas but still in the 10-County Planning Region. It is the public supply demand in this northern portion of Polk County that is responsible for the discrepancy.

Comment: The SWUCA + NTB subtotals do not add up to the ten-county grand total $(204.5+274.2=485.4 \mathrm{mgd})$.

Response: Again, the discrepancy results from the fact that the northern portion of Polk County is not in the SWUCA and NTB areas but is in the 10-County Planning Region. This is made clear in the footnote to Table 4-11a.

Comment: On page 61, subsection 2.2, last sentence, is unclear if the corresponding table (Table 4-9, page 62) is for landscapes only (since this text appears within the Landscapes subsection), or if the table includes data for both golf courses and landscapes (as indicated in the title).

Response: Table 4-9 refers to the entire category of Recreation/Aesthetic Demands, as indicated by the title. The last sentence of Subsection 2.2 makes this clear.

Comment: On page 68, it would be helpful to have grand totals for Table 4-12.
Response: A grand total will be added to the final version of the RWSP.
Comment: On pages 118-121, Part B, there should be a brief explanation of why some projects are highlighted in the subsequent subsections, while others are not. Currently, there is such an explanation for reclaimed water projects (page 121, Section 2, paragraph 2) that could be moved to an earlier location to address this concern. We suggest also adding this explanation to page 180, Part B.

Response: Your concern has been addressed In Chapter 6, part B., at the bottom of paragraph 3 with the following text: "A description of one or more representative options for each source is included that more fully develops the concepts and refines estimates of development costs. Due to space limitations, only a small fraction of the options were described in the text; the majority of the options are included in tables. Options that are described in the text are not necessarily considered by the District to have a higher priority than those in the tables."

Comment: Throughout Chapter 6, pages 129 ff, the highlighted projects do not always appear in the corresponding table. One example is Option 1, Bradenton Agricultural Reuse, page 152, which doesn't seem to be in Table 6-8, pages 156-157. Similarly, highlighted projects that seem to appear in the corresponding table often have mismatching information, making it unclear if the project in the corresponding table is the same as or different from the highlighted project. An example is Option 2, Cow Pen Slough, pages 144-145, which has different Quantity Available (MGD) and Cost per 1,000 Gallons from either of the Cow Pen Slough projects in Table 6-4, page 147.

Response: Let's use the Cow Pen Slough option as an example of how the options are set up. Three different options to produce water from Cow Pen Slough were developed. One of them was described in detail in the text to provide the reader with a better understanding of how such a project could be configured. The other two options were included in the tables. The options in the tables are configured differently than the one in the text and, therefore, have different costs, available quantities, and may even supply different user groups. The projects described in the text are never included in the tables.

Comment: Perhaps related to this issue is the difficulty in identifying projects in Chapters 6 and 7 that correspond to the alternative water supply projects adopted by the Governing Board for Water Protection and Sustainability Program Trust Fund monies. Any assistance you could offer on how these lists correspond would be most appreciated.

Response: Only projects that are under development have been allocated Water Protection and Sustainability Trust Fund (WPSTF) monies and these projects are listed in Chapter 8, Water Supply Projects Under Development. The projects in Chapter 6 are all potential water supply options that are not under development and none of these have been allocated WPSTF monies. The projects in Chapter 7 are water resource development projects and a number of these are receiving WPSTF monies.

Comment: In Chapter 7, pages 180 ff, the plan periodically mentions the status of projects as scheduled for or expected by the end of 2004 or 2005. One example is page 185, Subsection 5.2 paragraph 1, next to last sentence. Please provide an updated status of these projects in the plan.

Response: These projects have been updated in the final version of the RWSP.

SWFWMD Responses to Tampa Bay Water (Paula Dye) Comments on the July 2006 Draft Regional Water Supply Plan
Paula Dye
Tampa Bay Water

## Chapter 1: Introduction

Comment Page 1, Second Paragraph. States that water users can select water supply options from those presented in the RWSP or different options "provided that such options are consistent with the RWSP." What does this phrase mean? Consistent with the direction and intent of the RWSP?

Response: The words "consistent with the direction and intent" have been added to the text.
Comment: Page 5, First bullet under Section 1.0: Conservation is treated as a potential source of water in this planning document. We agree that water conservation is a very important part of water management but disagree that it should be considered a "water supply source" for public water supply planning purposes. From the perspective of a regional water supplier, continued conservation is not a given and if a conservation program is abandoned suddenly by the public, a water supplier could face serious water shortages (same comment on Page 69, Part A).

Response: It is understood that from a water utility's perspective, conservation is viewed as a means to serve more customers with a limited source and is not truly a "new " source of water. However, the five water management districts and the FDEP agreed that water conservation is a source to be evaluated in the RWSP. By treating conservation as a source, with demand projections done in an unconstrained fashion, the RWSP allows for the quantification of future conservation and provides an impetus for conservation to be considered on equal footing with other, more traditional sources in meeting future demands. The prospect for a conservation program to be "abandoned suddenly" is very unlikely, as proven over the past two decades, if the program is well researched, planned and implemented.

Comment: Page 6, last paragraph: Maximizing the use of alternative sources when available is a gross oversimplification of the realities of operating a public water supply system with different water sources. Agree with the concept but the statement should be along the lines of "maximizing the use of alternative sources when available and feasible recognizing the multiple constraints of a multi-source water supply system."

Response: The District certainly recognizes the complexities involved in operating Tampa Bay Water's system and is well aware that a great deal of coordination must occur between the two agencies to optimize the conjunctive use concept. The last sentence in the guideline in question makes this clear: "The District will be working with water utilities and water supply authorities to explore the feasibility of implementing a conjunctive use approach to managing their water supplies."

Comment: Page 7, second paragraph. Discussion of the existence and utilization of the AMO in water supply planning. Since we do not know how long the current period of increased tropical precipitation will last, how is the District planning for alternative water supply sources during the next period of diminished tropical precipitation?

Response: One of the principal ways the AMO was incorporated into this planning effort was to base estimates of surface water availability on the period 1965 to 2003, a period that mostly encompassed a cooler period, which corresponds to a dry phase of the AMO. This was discussed in Section 1.0 of Chapter 5. Using this period to assess surface water availability provided estimates of yields that are more likely to be sustained during low rainfall periods without causing impacts to natural systems.

Comment: Page 9, third paragraph: Typo - please make a global search for the word "Tamp" and replace with"Tampa" - applies to the City of Tampa and Tampa Bay Water in multiple places.

Response: Document has been corrected.
Comment: Page 10, first full paragraph: The Tampa Bay Water desalination facility will be undergoing modifications through December 2006, not October 2006.

Response: Document has been corrected.

## Chapter 3: Resource Protection Criteria

Comment: Page 29, second paragraph: States the first 1994 SWUCA rule objective as "significantly halt saltwater intrusion." Do you mean significantly reduce?

Response: The rule does contain the phrase "significantly halt." However, the District's goal, as stated in the 2006 SWUCA Recovery Strategy, is more clear: "....reduce the rate of saltwater intrusion in coastal Hillsborough, Manatee, and Sarasota Counties by achieving the proposed minimum aquifer level for saltwater intrusion by 2025."

Comment: Page 31, third paragraph. Discussing Tampa Bay Water's central wellfield system and reports a reduction in pumpage from a high of 158 to 90 mgd. Earlier you referenced the previous permitted quantity of 191 mgd . Are you making a distinction between permitted quantity and actual production?

Response: The discussion on page 12 will be modified to make it consistent with the discussion on page 31 and the discussion contained in the Partnership Agreement regarding the "Phased Reductions" in combined pumping from the 11 central system wellfields from 158 mgd to 90 mgd by December 31, 2007.

Comment: Page 41, Figure 3-3a. What are the dotted lines on the map? Please include in legend.

Response: The dotted lines represent public supply wells that are generally dispersed and not located on large tracts of land such as the Starkey wellfield. The figure will be modified based on your comment.

Comment: Page 43: Part "C" should be relabeled as Part "D"
Response: Document has been corrected.

## Chapter 4: Demand Estimates and Projections

Comment: How are the local government and Water Supply Authority demand projections considered in the District's Process here? (see statement made on page 53, first paragraph below bulleted list)?

Response: The basis of our demands starts with reports that water use permittees have submitted to the District in the form of the annual Public Supply Permittee Surveys required as a condition of their water use permit. The District's Planning Department also conducted a data query in 2003 wherein the planning departments within the counties of the District were forwarded a population survey requesting information on permanent and functional population projections.

For a full description of the District's methodology, please see the Technical Memorandum dated March 17, 2004. This can be viewed online at the District's website as an Appendix to Chapter 4. http://www.swfwmd.state.fl.us/documents/plans/RWSP/appendix4.pdf

Since the 2006 RWSP draft projections have been available for public comment, BEBR has published the "Projections of Florida Population by County, 2005-2030", BEBR, February 2006. The District is currently in the process of updating population projections using the most recent BEBR figures.

Comment: Page 45, first bullet item: 2001 was used as a base year for demands - wasn't this also a very dry year? Same comment on page 53, fourth paragraph.

Response: The five Water Management Districts and the FDEP agreed to use certain methods for preparing the RWSP. This included using the year 2000 as a base year. However, the year 2000 was a relatively dry year in terms of precipitation. The relationship between public supply water use and the amount of annual precipitation is inverse (less rain results in increased water use, largely due to outdoor water use). This is confirmed by a higher district-wide average per capita water use rate in 2000 versus other recent years. Water use projections based on observed 2000 per capita rates would be higher than a reasonable average water use projection. While 2001 may have been a drier than normal year, it was less severe than 2000, and was the most recent published data available.

Comment: Page 54, second paragraph; The District's well construction database was used to develop the number of domestic irrigation wells. While this may well be the very best source of available data, our experience in the Brandon and South Central Hillsborough area has been that a query of this database will greatly underestimate the number of wells in the field.

Response: The District contracted D.L. Smith \& Associates to prepare an inventory of irrigation wells within the District, the result of which was the Southwest Florida Water Management District Irrigation Well Inventory, August 12, 2004. Although this report started with the District's well construction database as a first step, many other methods (such as using spatial GIS and FDEP data) were applied and the District is confident that all available data were comprehensively analyzed.

Comment: Page 63, top paragraph: Please add a statement that the 58 mgd needed for environmental recovery will meet interim goals but will not result in a "recovered" SWUCA ecosystem.

Response: Staff believes the statement in the first paragraph after the Section 5, Environmental Restoration Sub-heading makes the point you suggest above. "Environmental restoration comprises quantities of water that may need to be developed and/or existing quantities that need to be retired to help impacted natural systems meet their MFLs." Notice the emphasis on meeting MFLs as opposed to returning the system to pre-development conditions.

Comment: Page 65, Table 4-11a: Please recheck sums on table. The last line before the overall sums (Restoration for the entire Planning Region) sums incorrectly. It should be 132.0 mgd, not 124.0 mgd.

Response: Document has been corrected.

## Chapter 5: Meeting and Managing Future Water Demands

Comment: Page 70, first paragraph. For the average quantities presented, what are the time periods for each? Are they the same: (Comment applicable throughout this chapter)

Response: The time periods vary and are noted in the discussions of each respective water body in Section 1 of Chapter 5. The variability in time periods used was due to the lack of available data for some surface water sources.

Comment: Page 71-72, Table 5-1: Is it possible to use consistent dates for each average flow/quantity reported? If not, please footnote to show date ranges.

Response: See previous comment. Also, footnote number 1 addresses this question as well, though it appears some sources may not be included. The footnote will be revised to indicate the period used for all sources in Table 5-1.

Comment: page 84, third paragraph: The cost of ZLD is presented as $\$ 3.00 / \mathrm{kgal}$ of total product water - does this include disposal costs for the dry salts?

Response: No, the cost of ZLD does not include the costs associated with the disposal of dry salts.

Comment: Page 95, fourth paragraph: The Mid Pinellas Brackish RO project may be technically feasible but if not developed by Tampa Bay Water at this point in time, the project will likely become infeasible due to infrastructure limitations in this urbanized area. Consider removing these quantities from the total quantity available in this paragraph.

Response: Tampa Bay Water's Board recently voted to keep this project on the Master Water Supply Plan list. Therefore, the possibility exists that the stated quantities could one day be developed in the area.

Comment: Page 99, top paragraph: add phrase in sentence: "As discussed previously, the reduction in ground-water use resulting from land-use transitions and the purchase of conservation lands with water use permits is projected to be approximately $84 \mathbf{~ m g d}$.

Response: Document has been corrected.
Chapter 6: Water Supply Development Component

Comment: Page 117, first bulleted item: Only alternative water supplies can be proposed to meet a local government's future water supply needs? No "traditional" water supply source will be considered/accepted even if available?

Response: This language was taken directly from Senate Bill 444 that was passed in the 2005 legislative session. It is likely that your question could best be answered by the FDEP Office of Water Policy staff.

Comment: Page 125, third paragraph: States that Tampa Bay Water's Downstream Augmentation Project is presented as a stand-alone option in the reclaimed water section of this chapter." Could not find this stand-alone reference in the reclaimed water section.

Response: This project was originally placed in Chapter 6; the Water Supply Development Component. It was later realized that the project needed to be moved to Chapter 8; Water Supply Projects Under Development. The sentence you identified above was inadvertently left in the text of the draft of the RWSP and has now been removed.

Comment: Page 125, fourth paragraph: States that Tampa Bay Water's ESWS can deliver approximately $\mathbf{2 6 0} \mathbf{m g d}$ to the reservoir. This is a typographical error. The correct number should be approximately 120 mgd to the reservoir.

Response: Document has been corrected.

## Chapter 7: Water Resource Development Component

Comment: Page 185, third paragraph: References District projects scheduled to be completed by the end of 2005. Can you provide an updated schedule?

Response: The schedule will be updated in the final version of the RWSP.
Comment: Page 186, second paragraph: References 19 water resource development projects. The number should be 17 as reflected in this paragraph and in the referenced tables.

Response: A re-evaluation of this section indicates a total of 18 water resource development projects.

Comment: Page 186, bottom paragraph: Please perform a global search for "Florida aquifer" and correct.

Response: Document has been corrected.
Comment: Page 187, Table 7-2. Please correct lettering scheme for projects - use consecutive letters. Also, on following pages, the lettering system used as paragraph headings to describe each project does not match the lettering system on the table.

Response: Document has been corrected.
Comment: Update project status: Page 191, top paragraph

Page 191, second paragraph
Page 192, top paragraph
Page 198, third paragraph
Response: An updated status of these projects will be provided in the final version of the RWSP.

Comment: Page 196, top paragraph: Correct reference should be to Table 7-3, not 6-3.
Response: Document has been corrected.
Comment: Page 200, table 7-4: Correct lettering for projects; add USEPA as a funding source for the Section 21 Wellfield Rehydration Pilot Project.

Response: Document has been corrected.
Comment: Page 201, second paragraph. Please obtain an updated project status from Doreen Chan for the Section 21 Wellfield Rehydration Pilot Project.

Response: The status of the project will be updated in the final version of the RWSP.
Comment: Page 202, Item D. Please correct references to reflect that the cooperative funding agreement between Tampa Bay Water and the District has been executed for the Cypress Creek Wellfield Surface Water Management Project.

Response: Document has been corrected.

## Chapter 8: Water Supply Projects Under Development

Comment: Page 203, first three paragraphs: It is confusing to the reader to discuss projects under development and include projects that have been completed and are operational in this discussion. Could you include another distinction - projects completed since the 2001 RWSP? (Similar comment on first paragraph of page 229 Chapter 9).

Response: Staff believes that the definition of "projects under development" which is provided in the first paragraph of Chapters 8 and 9, makes it clear that completed projects are included in this category. As requested, the words "completed since the year 2000" will be added after the project title of projects that have been completed.

SWFWMD Responses to Tampa Bay Water (Dave Bracciano) Comments on the July 2006 Draft Regional Water Supply Plan<br>Dave Bracciano<br>Tampa Bay Water

Comment: Could the District add some language to the RWSP that promotes the use of High Efficiency Toilets (HET's) and specific information about the enhanced specifications for testing and flush ability.

Response: Although HET's were not evaluated in the RWSP, the District will provide a general description of HET's including water savings and the specifications that are being developed. The purpose of the additional language will be to provide information regarding HETs as an additional option, or an option to consider in place of Ultra-Low Volume (ULV) Toilets.

Comment: Did your calculation of savings for ULF toilets get modified to reflect actual researched and quantified savings? As I recall, your savings reflected a high average number of flushes per person per day and a simple but elevated calculation for water savings per person.

Response: For the purposes of the RWSP, the water savings for the water conservation measures, including ULV toilet rebates, were determined by using the work of Ayres Associates (2000), and other data available to the District (Chapter 6, page 124). The District also used the ULF toilet rebate savings rate provided in the Potable Water Conservation Best Management Practices for the Tampa Bay Region Final Report, September 2004. The information generated by Ayres Associates for the conservation measures, was reviewed updated based on current population, household and per capita estimates, and extrapolated through 2025, for the 2006 RWSP (Chapter 5, page 100). It was assumed that an average of 1.4 rebates would be issued per single-family program participant, 1.3 rebates would be issued per multi-family program participant and 4.2 for the nonresidential category (Chapter 6, page 138). The water savings was calculated in gallons per measure per day, taking into account the number of rebates per residence/establishment and the persons per household for each county utility.

Comment: The use of retrofit kits in the future will probably need to be eliminated due to natural replacement of fixtures occurring. Is that reflected in your calculations?

Response: Since there are older homes that exist with older plumbing devices, the District considers plumbing retrofit give-aways to be a viable option for water conservation at this time. The District acknowledges your comment and it will be considered for future RWSPs.

Comment: From previous conversations, you know the Energy Policy Act of 2005 required the use of 1.6 gpm pre-rinse spray valves. Are you going to describe this in the report?

Response: A description will be added in the portions of the RWSP that draw attention to the valves as a potential option. It is agreed that the section of the Energy Policy Act of 2005, specifically the new requirement for all pre-rinse spray valves manufactured on or after January 1,2006 to have a flow rate of not more than 1.6 gallons per minute, is a significant development that should be discussed. It should be also noted, however, that there is no companion legislation that requires valve users to select and install the efficient devices over those manufactured elsewhere.

SWFWMD Responses to Tampa Bay Water (Black and Veatch) Comments on the July 2006 Draft Regional Water Supply Plan
Paula Dye, Project Supervisor
Tampa Bay Water
Comment: Chapter 1. Introduction. Page 1, fifth sentence. The words "and economic perspective" should be deleted. The report states that "Because sources within the Planning Region are sufficient from a technical and economic perspective to meet these demands, the District's major focus for meeting demands has been on sources within the Planning Region." The cost of new water supplies continues to rise, and to our knowledge there has been no economic analysis which demonstrates that sources are sufficient from an economic perspective. While the overall Planning Region may have sufficient water, there are localized demand and supply imbalances. Some public water service areas do not have adequate potential water supply projects within the service area, which could mean relatively high costs.

Response: Staff believes it is valid to include the "economic perspective" language. All of the water supply development options in Chapter 6 have undergone a financial analysis that has provided information such as capital cost, cost per mgd, annual operation and maintenance costs, etc. Comparing this information to the costs of water supply projects that have recently been built, gives a general indication of what costs are reasonable or economically feasible for each type of water supply option. If the cost of a water supply option fell well outside of this range, it was not included in the RWSP. Admittedly, this is a rather subjective method of evaluating economic feasibility. However, as the cost of water supply projects continues to increase, and as all the "easy" options in the RWSP are developed, options that are more expensive and more difficult to develop are likely to be included in subsequent updates of the RWSP.

Comment: Page 13, Section 4, first sentence. The identified quantity of new water meets the projected demands; however, in lieu of describing this new water as "restoring" minimum flows and levels, could be better worded to "allow impacted natural systems to be restored."

Response: The quantities of new water identified for the Environmental Restoration category in Chapter 4 are what is necessary to meet the minimum flow and level of a water body. This is not the same as the quantity of water necessary to restore an impacted natural system.

Comment: Part A., Bulleted list. One key component that should be added to the list is developing the plan in coordination with local water supply authorities. Joint development with regional water supply authorities was added in 2004 and confirmed in 2005 legislation.

Response: Text has been modified as suggested under Part A., Section 3, 2.0, Guiding Principles Developed Since Completion of the 2001 RWSP.

Comment: Page 125. NTB Planning Area Surface Water/Storm Water Option \#1: Updated cost estimates for this option are being finalized now and will be provided to you under separate cover.

Response: Document will be modified as you suggest.

Comment: Page 126. The Starkey Ecosystem Enhancement Project option description furnished by Tampa Bay Water appears to be missing from the text. The project is listed in Table 6-1, but the writeup is not in the text.

Response: As explained in the text in Chapter 6, Part B., paragraph 4, a write up on one or more representative options for developing a given water source is included in the text and all the remaining options for developing that water source are included in the table. For the Northern Tampa Bay Surface Water Storm Water options, a write up for the Downstream Enhancement project was included and all other NTB Surface Water Storm Water options were included in Table 6-1. The text has been modified as follows to make this more clear: " $A$ description of one or more representative options for each source is included that more fully develops the concepts and refines estimates of development costs. Due to space limitations, only a small fraction of the options were described in the text; the majority of the options are included in tables. Options that are described in the text are not necessarily considered by the District to have a higher priority than those in the tables."

Comment: Page 129, Part C, Section 1. At the end of section 1, there should be a section on System Interconnect Projects for the NTB Planning Area, as previously commented on. A writeup is included.

Response: A table has been included in Chapter 6 at the end of Section 1, that includes all of the system interconnect and improvement options that are not yet under development. Those that are under development are included in Chapter 8.

Comment: Page 133, Table 6-3. Mosaic Reclaimed Exchange should be added to the table as an option.

Response: This project has been added to the final version of the RWSP.
Comment: Page 135. The Downstream Augmentation Project option description furnished by Tampa Bay Water appears to be missing from the text. The project is listed in Table 6-3, but the write up is not in the text, although it is referenced on page 125. Updated cost estimates for this option are being finalized now and will be provided to you under separate cover.

Response: The write up for the project is now in Chapter 8; Water Supply Projects Under Development, Part A., Section 2, 1.0 NTB Area Reclaimed Water.

Comment: Page 135, NTB Panning Area Seawater Desalination Option \#1 - Big Bend costs need to be updated as follow:

| Quantity <br> Produced (mgd) | Capital Cost | Capital Cost <br> (District's Share) | Cost Per MGD | Cost per 1,000 <br> Gallons |
| :---: | :---: | :---: | :---: | :---: |
| 25 | $\$ 158,430,000$ | $\$ 85,000,000$ | $\$ 6,337,200$ | $\$ 3.01$ |

Response: Costs have been updated as you suggest. Please note that per recent discussions with staff from TBW, the final report will cite a cost per 1,000 gallons of \$3.19.

Comment: Page 135, NTB Panning Area Seawater Desalination Option \#2 - Big Bend Expansion costs need to be updated as follows:

| Quantity <br> Produced (mgd) | Cost per 1,000 <br> Gallons |
| :---: | :---: |
| 10 | $\$ 3.01$ |

Note: A detailed engineering estimate for the Desalination Expansion project has not been developed at this time. For the purpose of this table, it is assumed that the unit cost for the Desalination Expansion project would be the same as the unit costs for the Seawater Desalination project.

Response: Costs have been updated as you suggest. Please note that per recent discussions with staff from TBW, the final report will cite a cost per 1,000 gallons of \$3.19.

Comment: Page 136, NTB Planning Area Seawater Desalination Option \#3 - Anclote Power Plant costs need to be updated as follows:

| Quantity <br> Produced (mgd) | Capital Cost | Cost Per MGD | Cost per 1,000 <br> Gallons | Annual O \& M |
| :---: | :---: | :---: | :---: | :---: |
| 25 | $\$ 182,500,000$ | $\$ 7,300,000$ | $\$ 2.52$ | $\$ 10,180,000$ |

Response: These costs have been updated as you suggest.
Comment: Page 137. The cost per 1000 gallons for the Mid-Pinellas Brackish project was modified from the Tampa Bay Water furnished cost of $\$ 3.17$ per 1000 gallons. The text identifies that some costs were modified.

Response: The "Cost per 1,000 Gallons" has been changed to $\$ 3.17$ per 1000 gallons.
Comment: Chapter 6, Part C, Section 1 Addition (page 129 just prior to Section 2): NTB Planning Area - System Interconnect Projects. Included in the list of projects identified as part of Tampa Bay Water's ongoing water supply planning efforts are several projects that will develop critical components of the regional water supply distribution system. The projects are pipeline and booster pumping station projects. Implementation of these projects will further regionalize the potable water supply system by providing transmission of water from areas of supply to areas of demand, increasing the rotational reserve capabilities and providing redundancy of water supplies during emergency conditions.

NTB Planning Area Tampa Bay Water System Interconnects Project 1 - NW Hillsborough Pipeline. This 10,000-ft, 36 -inch diameter pipeline will allow supply from Tampa Bay Water's regional system to be delivered to the NW Hillsborough WTP. Currently, the NW Hillsborough WTP is dependant on supply from the NW Hillsborough Wellfield. As the demands at the NW Hillsborough WTP continue to grow, the NW Hillsborough Wellfield will no longer have sufficient capacity to keep up with the demand. Connecting the NW Hillsborough WTP to Tampa Bay Water's Regional System will reduce its dependence on the NW Hillsborough Wellfield, and allow alternative water supplies to be delivered to the WTP. The estimated capital cost for this pipeline is $\$ 8,050,000$.

NTB Planning Area Tampa Bay Water System Interconnects Project 2 - South-Central Hillsborough Infrastructure Improvements Project (SCHIIP) - Phases IB and II. The series of improvement projects will allow Tampa Bay Water to deliver supply from the
regional transmission system to the South-Central Hillsborough service area. Currently, the South Central Hillsborough service area is highly dependant on supply from the South Central Hillsborough Regional Wellfield (SCHRWF). As the demands in this service area increase, the SCHRWF will no longer have sufficient capacity to keep up with the demand. Implementation of the SCHIIP Phase IB and II project will reduce this service area's dependence on supply from the SCHRWF, and allow alternative water supplies to be delivered to the South Central Hillsborough service area. The estimated capital cost for the series of projects included in SCHIIP Phases IB and II is \$12,060,000.

NTB Planning Area Tampa Bay Water System Interconnects Project 3 - Morris Bridge Booster Pumping Station Improvements. This project will allow Tampa Bay Water to maintain the original design capacity of this booster pumping station. Improvements to the pumps at this booster pumping station are required due to the higher regional system pressures that are anticipated as more alternative supply source capacity is implemented in the southeastern portion of Tampa Bay Water's system. The estimated capital cost for the Morris Bridge Booster Pumping Station Improvements is $\mathbf{\$ 2 , 0 0 0 , 0 0 0}$.

NTB Planning Area Tampa Bay Water System Interconnects Project 3 - Cypress Creek Pumping Station Improvements. This project will increase the pumping capacity of the Cypress Creek Pumping Station. Additional pumps will be required at this facility to handle the increasing demands and supplies of the regional transmission system. The estimated capital cost for the Cypress Creek Pumping Station Improvements is \$2,000,000.

Response: The system interconnect options listed above that are under development will be included in Chapter 8 and those not under development will be included in Chapter 6.

SWFWMD Responses to Peace River/Manasota Regional Water Supply Authority Comments on the July 2006 Draft Regional Water Supply Plan
Mike Coates P.G.
Peace River/Manasota Regional Water Supply Authority
Comment: Please include an Executive Summary: Due to the high level of detail included in the plan, incorporating an executive summary would be very helpful in conveying the Water Supply Plan key messages and findings. One critical item that should be included in the executive summary is a discussion of the statutory requirements (Chapter 373.0361 F.S.) for local government reporting associated with District adoption of the Water Supply Plan.

Response: An executive summary will be included in the final version of the RWSP that will be taken to the Governing Board for approval at their November 30/December 1, 2006 meeting.

Regarding the inclusion of a discussion of the statutory requirements (Chapter 373.0361 F.S.) for local government reporting associated with District adoption of the water supply plan, such a discussion is found on the first page of Chapter 6 in the RWSP.

Comment: The Water Supply Plan should identify an entity responsible for implementation of each project included therein (where possible): The current plan structure identifies projects within planning areas such as the PR/MRWSA planning area, but does not specifically identify the entities responsible for implementing listed projects within the area. Chapter 373.0361 (3) requires specific provisions to be included for each project in District Water Supply Plans, including identification of the entity that should implement each project option. Recognizing that an implementing entity might not be known for every project, this information is known in many cases, such as in Authority's future water supply projects, and thus should be included in the plan. In addition to the statutory requirement to include this information, identification of the entity responsible for each project would clarify the District's expectations on supply project development, streamline the permitting of these new supplies, and aid local governments in the process of meeting water supply project reporting requirements in Chapter 373.0361 F.S.

Response: Staff has now modified the text to identify the most appropriate entity or entities for implementing each of the water supply options in Chapter 6.

Comment: The District should consider a policy/practice of updating components of the Water Supply Plan on a more frequent basis than every 5 years: The statutory timeframe requirement for updating water supply plans is approximately every five years. Considering growth and development conditions in southwest Florida, the new implementation of SB 444 and HB360, potential water supply project changes, and the planning efforts of supply entities in the area, the District should consider updating plan components such as population projections in rapid-growth areas, and water supply projects on an "as-needed basis" between major five-year plan updates. As an example, consider the Master Water Supply Plan that the PR/MRWSA is currently developing, which will be completed in early 2007; not in time to meet the District's statutory deadline (12/31/06) for completion of the Regional Water Supply Plan. Under these circumstances the District Water Supply Plan would not include the most up-to-date project information from the Authority's 2007 Master Water Supply Plan, until the next scheduled update of the District's Plan in 2011. Chapter 373.0361 requires that "The water supply development component of a regional supply plan which affects public utilities and
public water supply for those areas served by regional water authority and its member governments within the boundary of the Southwest Florida Water Management District shall be jointly developed by the authority and the district." Considering the circumstances stated above, the Authority requests that the District conduct "as needed" updates of Regional Water Supply Plan components on a more frequent basis than every five years.

Response: The District would like to work with water supply utilities and population projection experts to develop a consensus on an improved projection methodology. Such a methodology could be employed more frequently than every five years to maintain a better understanding of population trends.

Regarding frequent updates to the portion of the RWSP that deals with water supply projects, the District does not see a need for this since water supply projects that are not included in the 2006 RWSP could still receive District and state funding as long as they meet the necessary criteria. In addition, staff believes that the projects the Authority is proposing for development for the next 20 years have been included in the RWSP in significant detail.

Comment: Please clarify whether a project must be listed in the 2006 (or most recent) Water Supply Plan in order to be eligible for State of Florida Water Protection and Sustainability Program (FWPSP) co-funding: The South Florida Water Management District has a general requirement that only AWS projects included in the Water Supply Plans are eligible for FWPSP co-funding. There is no mention in the SWFWMD Regional Water Supply Plan of this District's policy or practice to such co-funding eligibility requirements.

Response: Although language in Senate Bill 444 implies that state funding can only be applied to projects listed in a Water Management District's RWSP, the FDEP has interpreted this language to mean that projects not in the RWSP can receive state funding as long as the project concept is specifically listed in the RWSP. For example, a reclaimed water project sponsored by a local government could receive state funding even if it is not specifically listed in the RWSP because the reclaimed water concept is very clearly delineated and encouraged in the District's RWSP.

Comment: Please clarify the District's position on Intermediate Artesian Aquifer Development opportunities in the SWUCA: The Regional Water Supply Plan treatment of new water availability from the IAS is somewhat disjointed throughout the document and seems generally inconsistent with the findings of the District's 2005 study entitled "Assessment of Minimum Levels for the Intermediate Aquifer System in the SWFWMD." The Water Supply Plan suggests that very limited supplies are available from the intermediate aquifer system (IAS), yet the aforementioned District's 2005 study results showed the IAS to be a potential supply source for small to moderate withdrawals that could generally be developed with minimal environmental effect, and no significant impact on saline water intrusion in the Floridan Aquifer within the SWUCA. In an area where new Floridan Aquifer groundwater development is extremely limited, it appears from the 2005 study that the IAS has the potential to become an important source, particularly for brackish groundwater supply in the future. This seems inconsistent with the overall discussion of IAS availability in the Water Supply Plan and should be clarified.

Response: The 34 mgd identified in the RWSP as being available from the IAS and surficial aquifer system (SAS) was determined by identifying the types of demands that are projected to
occur through 2025 that could be met using relatively low yielding wells supplied by the SAS or upper portion of the IAS. The types of demands that were identified included domestic selfsupply, recreation, and outdoor lawn watering associated with public supply uses. The District recognizes that additional water from the SAS and IAS, beyond the 34 mgd indicated in the RWSP, is potentially available over portions of the SWUCA. However, the determination that the SAS and IAS can supply 34 mgd for users whose demands can be supplied by relatively low yielding wells, provides a conservative minimum amount of water that could be developed from these two systems.

Regarding brackish ground-water supply and the lower portion of the IAS, the 2005 study indicated that in general, there is moderate-to-good hydraulic connection between the lower portion of the IAS and the Upper Floridan aquifer. It is also evident that this connection can vary on a site-specific basis. In the future, requests for new withdrawals from the lower portion of the IAS would need to be evaluated based on projected impacts to the Upper Floridan aquifer. Given the proximity of the MIA and generally good connection with the Upper Floridan aquifer, this could be problematic for major expansion of withdrawals from this zone.

Comment: Public water supply demand projections for the PR/MRWSA service area should be reconciled between the District, the Authority and Authority members and customers: The District's public water supply demand projects for Authority customers and members are approximately 82 mgd lower in 2025 than the demand projections made by Authority customers and members. The Authority is holding a workshop on September 29, 2006 in Sarasota with its members as a step toward reaching consensus on population and demand projection methodology. Considering the 82 mgd demand difference in 2025 it would be prudent for the District, Authority, and member government staff to meet and discuss population and water demand projection methodologies in an effort to reconcile the difference. The District has recognized (section 3.0 page 59) that in some high-growth areas additional tools will be necessary to refine demand projects. We recommend that the PR/MRWSA service area be included in that effort. If not quickly addressed, the significant difference in District and Authority member demand projections has the potential to delay or derail future water supply development, permitting, and funding decisions. On a specific note, the 5-in-10 demand projection for 2025 in Table 4-5 (page 55) for the Authority's members do not match the same projections in Table 4-7 (page 58). Review of the text does not provide any rational for the difference.

Response: The five Water Management Districts are required by the legislature to use the Bureau of Economic and Business Research (BEBR) medium population projections for projecting public supply water demand. District staff has confidence in BEBR projections for a number of reasons, among which is their ability to identify potential trends. The District can modify the water demand projections only if the Authority or its member governments provide population data to support claims that water demand will be higher. This was discussed at length with the Authority and its member governments during the development of the demand projections over the past several years. When the water demand projections were first reviewed during the Water Planning Alliance process, alternative population projection data were provided by Manatee County and Charlotte County. These data projected growth over the next 20 years based on the phenomenal period of growth that occurred in the region over the past few years. Because it is already becoming apparent that the rate of growth is slowing significantly, the District believes that the counties data may significantly over project demand for water through 2025.

An independent evaluation by HDR engineering prepared for the Water Planning Alliance supports the relative historical accuracy of BEBR population projections. During the workshop you reference, held on September 29, 2006, HDR showed that the actual average (long-term) population growth rate for the Authority's service area was 3.1 percent per year. This figure is significantly lower than the population growth rates provided by the Authority's member governments.

Since the 2006 RWSP draft was prepared, BEBR has published the "Projections of Florida Population by County, 2005-2030", February 2006. The District is currently in the process of updating the water demand projections in the RWSP using this more recent BEBR population data. It is expected that the latest BEBR population data will account for the recent high growth period and this will result in higher water demand projections. However, these projections will still be considerably below those of the Authority's member governments.

Finally, as stated previously, because the District shares the Authority's concern for how critically important accurate public supply demand projections are, staff would like to work with water supply utilities and population projection experts to develop a consensus on an improved projection methodology. Such a methodology could be employed more frequently than every five years to maintain a better understanding of population trends.

Regarding your concern that the demand projections do not match in subsequent tables: Table $4-5$ represents Public Supply (PS) and Domestic Self-Supply (DSS) Demand Projections, whereas table 4-7 represents the Public Supply Demand Projections for the entire Planning Region. The cumulative Public Supply Demand Projections in Table 4-7 include demands from PS, DSS, and Domestic Irrigation Wells (the sum of demands in Table 4-5 for PS and DSS and in Table 4-6 for Domestic Irrigation Wells = Planning Region Demands in Table 4-7). District staff will incorporate text into the 2006 RWSP to make this distinction more clear.

SWFWMD Responses to Rich Rollo Comments on the July 2006 Draft Regional Water Supply Plan.<br>Rich Rollo<br>Englewood Water District

Comment: As you are well aware, population projections drive utility capital expansion projects in an effort to have public water supply capacity available when needed. On page 55, it appears the Charlotte County population growth is projected at slightly less than 2\% per year, for a total increase of 51\% over 25 years (and Sarasota even less). This projection does NOT appear to consider the potential impact baby-boomer retirements may have on the future population, especially in coastal counties. I have heard that 20\% of retirees have historically retired in Florida. If 20\% of baby-boomers retire in Florida, the State population could almost double in the next 20 years. This could double the 51\% projection for Charlotte County in the Plan. The impact of baby-boomer retirement is a new phenomenon that departs from historical projections. I fear the Plan may significantly under-estimate future domestic water supply demand as drafted if babyboomer retire to Florida in large numbers.

Response: The five Water Management Districts are required by the legislature to use the Bureau of Economic and Business Research (BEBR) medium population projections for projecting public supply water demand. District staff has confidence in BEBR projections for a number of reasons, among which is their ability to identify potential trends such as the retirement of the baby boomers. The District can increase the water demand projections only if it is provided with credible data to support claims that water demands will be higher. This was discussed at length with the Authority and its member governments during the development of the demand projections over the past several years. When the water demand projections were first reviewed during the Water Planning Alliance process, alternative population projection data were provided by Manatee County and Charlotte County. These data projected growth over the next 20 years based on the phenomenal period of growth that occurred in the region over the past few years. Because it is already becoming apparent that the rate of growth is slowing significantly, the District believes that the counties data may significantly over project demand for water through 2025.

An independent evaluation by HDR engineering prepared for the Water Planning Alliance supports the relative historical accuracy of BEBR population projections. During a workshop held on September 29, 2006, HDR showed that the actual average (long-term) population growth rate for the Authority's service area was 3.1 percent per year. This figure is significantly lower than the population growth rates provided by the Authority's member governments.

Since the 2006 RWSP draft was prepared, BEBR has published the "Projections of Florida Population by County, 2005-2030", February 2006. The District is currently in the process of updating the water demand projections in the RWSP using this more recent BEBR population data. It is expected that the latest BEBR population data will account for the recent high growth period and this will result in higher water demand projections. However, these projections will still be considerably below those of the Authority's member governments.

Because the District shares your concern for how critically important accurate public supply demand projections are, staff would like to work with water supply utilities and population projection experts to develop a consensus on an improved projection methodology. Such a methodology could be employed more frequently than every five years to maintain a better understanding of population trends.
Table 1. District Fund Allocation for the Tampa Bay Regional Reclaimed Water Project

|  | BUDGET (FY2003-07) |  | $\begin{gathered} \text { UNDER CONTRACT } \\ \text { TO DATE } \\ \hline \end{gathered}$ |  | EXPENDED TO DATE |  | TO BE TRANSFERRED TO CONFIGURATION II |  | REMAINING IN BUDGET \& CONTRACTS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Board | Ad Valorem to Date | Revenue to Date | $\begin{gathered} \text { Ad } \\ \text { Valorem } \\ \hline \end{gathered}$ | Revenue | $\begin{gathered} \mathrm{Ad} \\ \text { Valorem } \\ \hline \end{gathered}$ | Revenue | Ad Valorem (H306) | Revenue | Ad Valorem | Revenue |
| Governing | 23,423,880 | 16,500,000 | 2,289,655 | 3,000,000 | 875,291 | 1,410,768 | 6,268,206 | 13,500,000 | 16,280,383 | 1,589,232 |
| Alafia River | 2,195,601 | 850,000 | 198,888 | 100,000 | 70,986 | 47,026 | 626,820 | 750,000 | 1,497,794 | 52,974 |
| Hillsborough River | 5,387,429 | 2,125,000 | 516,796 | 250,000 | 191,196 | 117,564 | 1,567,054 | 1,875,000 | 3,629,179 | 132,436 |
| NW <br> Hillsborough | 2,885,886 | 1,105,000 | 259,887 | 130,000 | 76,426 | 61,133 | 814,866 | 975,000 | 1,994,594 | 68,867 |
| Coastal Rivers | 1,855,001 | 680,000 | 163,616 | 80,000 | 47,031 | 37,620 | 501,456 | 600,000 | 1,306,514 | 42,380 |
| P-A River | 10,040,637 | 3,655,000 | 881,146 | 430,000 | 252,794 | 202,210 | 2,695,328 | 3,225,000 | 7,092,514 | 227,790 |
| With. River | 222,589 | 85,000 | 20,920 | 10,000 | 5,879 | 4,703 | 62,682 | 75,000 | 154,028 | 5,297 |
| TOTAL | 46,011,023 | 25,000,000 | 4,330,909 | 4,000,000 | 1,519,604 | 1,881,024 | 12,536,412 | 21,000,000 | 31,955,006 | 2,118,976 |

Tampa Bay Water System Configuration II Project

| Table 1: Summary of Previously Budgeted Funds Through FY 2007 <br> to be Transferred into the System Configuration II Project |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
| Fund | H306 - <br> TBRRAP | H053 NW <br> Hillsborough <br> Interconnect | H054 - SCHW <br> Interconnect* | Total Available <br> from Prior <br> Budgets |
| Governing Board | $\$ 6,268,207$ | $\$ 160,650$ | $\$ 823,637$ | $\$ 7,252,494$ |
| Alafia | $\$ 626,820$ |  | $\$ 716,564$ | $\$ 1,343,384$ |
| Hillsborough | $\$ 1,567,054$ |  | $\$ 107,072$ | $\$ 1,674,126$ |
| NW Hillsborough | $\$ 814,866$ | $\$ 160,651$ |  | $\$ 975,517$ |
| Coastal | $\$ 501,456$ |  |  | $\$ 501,456$ |
| Pinellas-Anclote | $\$ 2,695,328$ |  |  | $\$ 2,695,328$ |
| Withlacoochee | $\$ 62,682$ |  |  | $\$ 62,682$ |
| Sub-Total | $\$ 12,536,413$ | $\$ 321,301$ | $\$ 1,647,273$ | $\$ 14,504,987$ |
| CBIR | $\$ 6,000,000$ |  |  | $\$ 6,000,000$ |
| WPSTF | $\$ 15,000,000$ |  | $\$ 506,854$ | $\$ 15,506,854$ |
| Totals |  |  |  | $\$ 36,011,841$ |


| Table 2: Summary of Anticipated Funding Sources for <br> the System Configuration II Project |  |  |  |
| :--- | ---: | ---: | ---: |
| Fund | Current Budgeted <br> Amounts <br> (Through FY 07) | Future Budgeted <br> Amounts <br> (FY 08-011) | Total |
| Governing Board | $\$ 7,252,494$ | $\$ 45,370,793$ | $\$ 52,623,287$ |
| Alafia | $\$ 1,343,384$ | $\$ 3,918,945$ | $\$ 5,262,329$ |
| Hillsborough | $\$ 1,674,126$ | $\$ 11,481,696$ | $\$ 13,155,822$ |
| NW Hillsborough | $\$ 975,517$ | $\$ 5,865,510$ | $\$ 6,841,027$ |
| Coastal | $\$ 501,456$ | $\$ 3,708,407$ | $\$ 4,209,863$ |
| Pinellas-Anclote | $\$ 2,695,328$ | $\$ 19,932,685$ | $\$ 22,628,013$ |
| Withlacoochee | $\$ 62,682$ | $\$ 463,550$ | $\$ 526,232$ |
| CBIR (District Share) | $\$ 3,000,000$ | TBD | $\$ 3,000,000$ |
| WPSTF (District Share) | $\$ 7,753,427$ | TBD | $\$ 7,753,427$ |
| Total | $\$ 25,258,414$ | $\$ 90,741,586$ | $\$ 116,000,000$ |

COOPERATIVE FUNDING AGREEMENT<br>BETWEEN THE<br>SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT AND<br>TAMPA BAY WATER<br>FOR<br>SYSTEM CONFIGURATION II (H065)

THIS COOPERATIVE FUNDING AGREEMENT is made and entered into by and between the SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT, a public corporation of the State of Florida, whose address is 2379 Broad Street, Brooksville, Florida 34604-6899, for itself and on behalf of the Alafia River, Coastal Rivers, Hillsborough River, Northwest Hillsborough, Pinellas-Anclote River, and Withlacoochee River Basin Boards, hereinafter collectively referred to as the "DISTRICT," and TAMPA BAY WATER, a regional water supply authority, an interlocal agency created and existing pursuant to Sections 373.1962, 373.1963 and 163.01, Florida Statutes (F.S.) whose address is 2575 Enterprise Road, Clearwater, Florida 33763-1102, hereinafter referred to as "TAMPA BAY WATER."

## WITNESSETH:

WHEREAS, TAMPA BAY WATER, starting in 2001, conducted a comprehensive water supply alternatives study that evaluated 300 potential water supply ideas through an inclusive public involvement process that culminated in the prioritization of adaptive reuse for downstream augmentation; and

WHEREAS, in October 2006, TAMPA BAY WATER approved Downstream Enhancements Phases $A / B$, which would utilize mid-range (higher) flows on the Hillsborough River and Tampa Bypass Canal, for System Configuration II and approved System Interconnects to provide for future drinking water needs of the region; and

WHEREAS, Downstream Enhancements is included as an alternative water supply option in the DISTRICT'S Regional Water Supply Plan (December 2006), Strategic Plan, and Strategic Funding Priorities; and

WHEREAS, the project consists of System Configuration II (including Downstream Enhancements Phases A/B and System Interconnects), hereinafter referred to as the "PROJECT"; and

WHEREAS, TAMPA BAY WATER proposed the PROJECT to the DISTRICT for funding consideration under the DISTRICT'S cooperative funding program; and

WHEREAS, the DISTRICT considers the PROJECT worthwhile and desires to assist TAMPA BAY WATER in funding the PROJECT; and

WHEREAS, funding for the PROJECT includes funds from the Water Protection and Sustainability Program Trust Fund (WPSPTF) and 2006/2007 Community Budget Issue Request (CBIR) funding.

NOW THEREFORE, the DISTRICT and TAMPA BAY WATER, in consideration of the mutual terms, covenants and conditions set forth herein, agree as follows:

1. PROJECT MANAGER AND NOTICES. Each party hereby designates the employee set forth below as its respective Project Manager. Project Managers will assist with PROJECT coordination and will be each party's prime contact person. Notices and reports will be sent to the attention of each party's Project Manager by U.S. mail, postage paid, to the parties' addresses as set forth in the introductory paragraph of this Agreement.

## Project Manager for the DISTRICT: Brian Armstrong <br> Project Manager for TAMPA BAY WATER: Paula Dye

Any changes to the above representatives or addresses must be provided to the other party in writing.
1.1 The DISTRICT'S Project Manager is hereby authorized to approve requests to extend a PROJECT task deadline set forth in this Agreement. Such request must be in writing and explain the reason for the extension. Such approval must be signed by the Project Manager and his or her Department Director, or Deputy Executive Director if the Department Director is the Project Manager. The DISTRICT'S Project Manager is not authorized to approve any time extension which will result in an increased cost to the DISTRICT or which will exceed the expiration date set forth in Paragraph 5, Contract Period.
1.2 The DISTRICT'S Project Manager is authorized to adjust a line item amount of the PROJECT Budget contained in the Proposed Project Plan set forth in Exhibit "B" or, if applicable, the refined budget as set forth in Paragraph 3.4 below. The adjustment must be in writing, explain the reason for the adjustment, and be signed by the Project Manager, his or her Department Director and Deputy Executive Director. The DISTRICT'S Project Manager is not authorized to make changes to the Scope of Work and is not authorized to approve any increase in the DISTRICT'S maximum amount set forth in the funding section of this Agreement.
2. SCOPE OF WORK. TAMPA BAY WATER agrees to perform the services necessary to complete the PROJECT in accordance with the Special Project

Terms and Conditions set forth in Exhibit "A" and TAMPA BAY WATER'S Proposed Project Plan set forth in Exhibit "B." Any changes to this Scope of Work and associated costs, except as provided herein, must be mutually agreed to in a formal written amendment approved by the DISTRICT and TAMPA BAY WATER, such approvals not to be unreasonably withheld, prior to being performed by TAMPA BAY WATER, subject to the provisions of Paragraph 3, Funding, and all subsections thereunder. TAMPA BAY WATER will be solely responsible for managing the PROJECT, including the hiring and supervising of any consultants or contractors it engages in order to complete the PROJECT.
3. FUNDING. The parties anticipate that the total ELIGIBLE cost of the PROJECT, as defined in paragraph 3.10 below and as set forth in Exhibit "B," will be Two Hundred Thirty Two Million Dollars $(\$ 232,000,000)$. The DISTRICT agrees to fund ELIGIBLE PROJECT costs up to One Hundred Sixteen Million Dollars $(\$ 116,000,000)$ and will have no obligation to pay any costs beyond this maximum amount. TAMPA BAY WATER agrees to fund all remaining PROJECT costs exclusive of those paid by the DISTRICT and other external sources, which include the Water Protection and Sustainability Program Trust Fund. TAMPA BAY WATER will be the lead party to this Agreement and pay ELIGIBLE PROJECT costs prior to requesting reimbursement from the DISTRICT.
3.1 The DISTRICT will utilize Water Protection and Sustainability Program Trust Funds (SB 444 monies or successor programs) in an amount up to twenty percent ( $20 \%$ ) of the associated ELIGIBLE construction costs for the PROJECT. The amount of the funding will be dependent upon the legislature's appropriation of funds and the Governing Board's consideration of the interests within its jurisdictional sixteen county area. These funds will be applied to lower the total ELIGIBLE cost of the PROJECT prior to the application of any other funds.
3.2 The DISTRICT and TAMPA BAY WATER agree that any state or federal appropriations, trust funds or grant monies received by either party for the PROJECT, along with the funds received pursuant to Paragraph 3.1, will be applied to lower the total ELIGIBLE cost of the PROJECT prior to the application of any other funds.
3.3 After the application of funds pursuant to Paragraphs 3.1 and 3.2 above, the DISTRICT agrees to fund fifty percent ( $50 \%$ ) of the remaining ELIGIBLE costs of the PROJECT, subject to annual DISTRICT and Basin Board appropriations. DISTRICT staff will use its best efforts to secure future DISTRICT funding for the PROJECT. If future DISTRICT funding identified above is not available, TAMPA BAY WATER will be responsible for all funding necessary to complete the PROJECT. In the event the DISTRICT provides funding for the PROJECT in excess of the DISTRICT'S share after all state and federal appropriations, trust funds
and grant monies have been applied as set forth herein, TAMPA BAY WATER will promptly refund such overpaid amounts to the DISTRICT.
3.4 The DISTRICT will reimburse TAMPA BAY WATER for the DISTRICT'S share of the ELIGIBLE PROJECT costs in accordance with the PROJECT Budget contained in the Proposed Project Plan set forth in Exhibit "B." and Paragraphs 3.1, 3.2 and 3.3 above. TAMPA BAY WATER may contract with consultant(s) or contractor(s) or both in accordance with the Special Project Terms and Conditions set forth in Exhibit "A." Upon written DISTRICT approval, such approval not to be unreasonably withheld, the budget amounts for the work set forth in such contract(s) will refine the amounts set forth in the PROJECT Budget and be incorporated herein by reference. At no point will the DISTRICT'S expenditure amount under this Agreement exceed expenditures made by TAMPA BAY WATER. TAMPA BAY WATER will periodically submit to the DISTRICT invoices for ELIGIBLE costs expended on a cash basis for the PROJECT for which TAMPA BAY WATER is seeking reimbursement. Each invoice will be accompanied by a certification from the General Manager and the Director of Finance and Administration in accordance with Paragraph 3.13 of this Agreement, certifying that all the costs for which TAMPA BAY WATER is seeking reimbursement are ELIGIBLE costs. Payment will be made to TAMPA BAY WATER in accordance with the Local Government Prompt Payment Act, Part VII of Chapter 218, F.S., upon receipt of an invoice, with the appropriate support documentation, as set forth herein. The invoice will be submitted to the DISTRICT at the following address:

Accounts Payable Section<br>Southwest Florida Water Management District<br>Post Office Box 1166<br>Brooksville, Florida 34605-1166

3.5 TAMPA BAY WATER will annually prepare and submit to the DISTRICT, a Schedule of Costs on a cash basis for the PROJECT from inception through completion, with totals by fiscal year, that specifically identifies actual ELIGIBLE and ineligible costs expended for the PROJECT in the form of the Summary of Tasks attached in Exhibit "B." TAMPA BAY WATER, annually and within 120 days after the close of TAMPA BAY WATER'S fiscal year (September 30), will have a firm of Independent Certified Public Accountants (CPA) conduct an examination of the Schedule of Costs in accordance with relevant professional standards established by the American Institute of Certified Public Accountants and issue a report on the costs for which TAMPA BAY WATER sought reimbursement in that fiscal year that provides reasonable assurance that the Schedule of Costs prepared by TAMPA BAY WATER is fairly stated in all material respects. The report will be addressed to both TAMPA BAY

WATER and the DISTRICT Governing Board. The costs to provide the Independent CPA's services will be considered ELIGIBLE costs reimbursable at $50 \%$. TAMPA BAY WATER will use good faith efforts to secure a report each fiscal year as provided herein; however, in the event that such report cannot be provided for a specific PROJECT cost or costs, the DISTRICT and TAMPA BAY WATER shall jointly review the PROJECT cost or costs for their validity and shall determine if any reimbursement to the DISTRICT is required.
3.6 The Project Budget includes any travel expenses which may be authorized under this Agreement and reimbursement will be paid in accordance with Section 112.061, F.S., and District Procedure 13-5, attached hereto as Exhibit "C," as both may be amended from time to time.
3.7 TAMPA BAY WATER will not use any DISTRICT funds for any purposes not specifically identified in the above Scope of Work.
3.8 The DISTRICT will have no obligation to reimburse TAMPA BAY WATER for any costs under this Agreement prior to the contract period commencement date set forth in paragraph 5.
3.9 TAMPA BAY WATER recognizes that the DISTRICT has approved ThirtySix Million, Eleven Thousand, Eight Hundred Forty-One Dollars ( $\$ 36,011,841$ ) for the PROJECT through Fiscal Year 2007. This amount includes Fifteen Million, Five Hundred Six Thousand, Eight Hundred Fifty Four Dollars ( $\$ 15,506,854$ ) from the WPSPTF through Fiscal Year 2007 and Six Million Dollars $(\$ 6,000,000)$ from CBIR funds for Fiscal Year 2007. These state funds in the total amount of Twenty One Million, Five Hundred Six Thousand, Eight Hundred Fifty-Four Dollars $(\$ 21,506,854)$ will reduce the anticipated total ELIGIBLE PROJECT costs to Two Hundred Ten Million, Four Hundred Ninety Three Thousand, One Hundred Forty-Six Dollars ( $\$ 210,493,146$ ) and the DISTRICT'S remaining maximum funding commitment under this Agreement to One Hundred Five Million, Two Hundred Forty-Six Thousand, Five Hundred Seventy-Three Dollars ( $\$ 105,246,573$ ). The DISTRICT has approved Fourteen Million, Five Hundred Four Thousand, Nine Hundred Eighty-Seven Dollars ( $\$ 14,504,987$ ) in its annual budget for Fiscal Year 2007 reducing its future funding commitment to Ninety Million, Seven Hundred Forty-One Thousand, Five Hundred Eighty-Six Dollars (\$90,741,586). The identified CBIR funds have previously been encumbered under a separate funding agreement between the parties. The DISTRICT'S share of the remaining ELIGIBLE costs for the PROJECT are contingent upon approval of such amounts by the DISTRICT, in its sole discretion and judgment, in its annual budget for Fiscal Years 2008 through 2011. Additionally, the DISTRICT'S performance and payment pursuant to this Agreement are
contingent upon the DISTRICT'S Governing Board and Basin Boards appropriating funds for the PROJECT.
3.10 "ELIGIBLE" PROJECT costs will mean design (which shall include feasibility studies, planning, initial design, and final design), engineering and construction costs actually expended in the development of the PROJECT. Costs that are not ELIGIBLE PROJECT costs include land acquisition, project financing, public relations (which does not include efforts to inform the public about the nature of the PROJECT through public meetings and other communications methods), permitting (which shall include the preparation, filing and the defense of permit applications, but not include work relating to the engineering and design-activities of the PROJECT which may also be used to support an application), lobbying, operating and bid protests, including related litigation.
3.11 In providing its share of the funding for the PROJECT, it is the intent of the DISTRICT that the PROJECT will be constructed and maintained so as to be capable of sustainable water delivery in accordance with the capacities as described in the Proposed Project Plan. However, it is not the intent of the DISTRICT that TAMPA BAY WATER be required to operate the facilities funded under this Agreement at those capacities. Accordingly, TAMPA BAY WATER will ensure that the PROJECT infrastructure is constructed and maintained in such a manner that it is capable of sustaining the capacities as described in the Proposed Project Plan. This provision will survive the CONTRACT PERIOD until December 31, 2042.
3.12 TAMPA BAY WATER will operate its regional water supply system, of which the PROJECT is a component, in accordance with the Optimized Regional Operations Plan (OROP) and terms and conditions of Water Use Permit Nos. 20011771.000, 20011732.002, 20004352.005, 20005886.003, 20006312.003, 20011796.000 and 20011794.000, and any modifications or renewals to these permits and the Second Amendment to New Water Sources Funding Agreement Between the Southwest Florida Water Management District and Tampa Bay Water for the Seawater Desalination Water Supply Project of the Master Water Plan. This provision will survive the CONTRACT PERIOD until December 31, 2042.
3.13 TAMPA BAY WATER'S invoices must include the following certification by its General Manager and the Director of Finance and Administration:
"I hereby certify that the costs requested for reimbursement and TAMPA BAY WATER'S matching funds, as represented in this invoice, are directly related to the performance under the System Configuration II (H065) agreement between the Southwest Florida Water Management District
and TAMPA BAY WATER (Agreement No. $\qquad$ ), and are ELIGIBLE, allowable, allocable, properly documented, and are in accordance with the approved project budget."
4. FLORIDA SINGLE AUDIT ACT. Funding for this Agreement includes state financial assistance and is therefore subject to the Florida Single Audit Act (FSAA), Section 215.97, F.S. TAMPA BAY WATER is a subrecipient of state financial assistance under this Agreement and therefore may be subject to audits and monitoring as described in the Special Audit Requirements set forth in Exhibit "D." TAMPA BAY WATER must also use the Florida Single Audit Act Checklist For Non-State Organizations - Recipient/Subrecipient vs. Vendor Determination (Attachment 2 of Exhibit "D"), to evaluate the applicability of the FSAA to non-state organizations to which TAMPA BAY WATER provides State resources to assist in carrying out activities related to this Agreement.
5. CONTRACT PERIOD. This Agreement will be effective October 1, 2005, and will remain in effect through December 31, 2012, unless terminated, pursuant to Paragraph 9 below, or if amended in writing by the parties.
6. PROJECT RECORDS AND DOCUMENTS. Each party, upon request, will permit the other party to examine or audit all PROJECT related records and documents during or following completion of the PROJECT. Each party will maintain all such records and documents for at least five (5) years following completion of the PROJECT. All records and documents generated or received by either party in relation to the PROJECT are subject to the Public Records Act, Chapter 119, F.S.
7. REPORTS. TAMPA BAY WATER will provide the DISTRICT with copies of any and all reports, models, studies, maps or other documents resulting from the PROJECT as delineated in the Deliverables set forth in Exhibit "B."
8. LIABILITY. Each party hereto agrees to indemnify and hold the other harmless, to the extent allowed under Section 768.28 , F.S., from all claims, loss, damage and expense, including attorney fees and costs and attorney fees and costs on appeal, arising from the negligent acts or omissions of the indemnifying party's officers, employees, contractors and agents related to its performance under this Agreement. This provision does not constitute a waiver of either party's sovereign immunity under Section 768.28, F.S. or extend either party's liability beyond the limits established in Section 768.28, F.S.
9. DEFAULT. Either party may terminate this Agreement upon the other party's failure to comply with any term or condition of this Agreement, as long as the terminating party is not in default of any term or condition of this Agreement. To initiate termination, the terminating party must provide the defaulting party with a written "Notice of Termination" stating its intent to terminate and describing all
terms and conditions with which the defaulting party has failed to comply. If the defaulting party has not remedied the default or not initiated good faith efforts to remedy its default within thirty (30) days after receiving the Notice of Termination, this Agreement will automatically terminate.
10. RELEASE OF INFORMATION. The parties agree not to initiate any oral or written media interviews or issue press releases on or about the PROJECT without providing advance notices or copies where possible to the other party. This provision will not be construed as preventing the parties from complying with the public records disclosure laws set forth in Chapter 119, F.S.
11. DISTRICT RECOGNITION. TAMPA BAY WATER will recognize DISTRICT funding and, if applicable, Basin Board funding in any reports, models, studies, maps or other documents resulting from this Agreement, and the form of said recognition will be subject to DISTRICT approval. If construction is involved, TAMPA BAY WATER will provide signage at the PROJECT site that recognizes funding for this PROJECT provided by the DISTRICT and, if applicable, the Basin Board(s). All signage must meet with DISTRICT written approval as to form, content and location, and must be in accordance with local sign ordinances.
12. PERMITS AND REAL PROPERTY RIGHTS. TAMPA BAY WATER must obtain all permits, local government approvals and all real property rights necessary to complete the PROJECT prior to commencing any construction involved in the PROJECT.
13. LAW COMPLIANCE. Each party will comply with all applicable federal, state and local laws, rules, regulations and guidelines, related to performance under this Agreement.
14. COMPLIANCE WITH DISTRICT RULES \& REGULATIONS. If the PROJECT involves design services, TAMPA BAY WATER'S professional designers and the DISTRICT'S regulation and projects staff will meet regularly during the PROJECT design to discuss ways of ensuring that the final design for the proposed PROJECT technically complies with all applicable DISTRICT rules and regulations.
15. DIVERSITY IN CONTRACTING AND SUB-CONTRACTING. The DISTRICT is committed to supplier diversity in the performance of all contracts associated with DISTRICT cooperative funding projects. The DISTRICT requires TAMPA BAY WATER to make good faith efforts to encourage the participation of minorityowned and woman-owned and small business enterprises, both as prime contractors and sub-contractors, in the performance of this Agreement, in accordance with applicable laws.
15.1 If requested, the DISTRICT will assist TAMPA BAY WATER by sharing information to help the cooperator in ensuring that minority-owned and woman-owned and small businesses are afforded an opportunity to participate in the performance of this Agreement.
15.2 TAMPA BAY WATER agrees to provide to the DISTRICT, upon final completion of the PROJECT, a report indicating all contractors and subcontractors who performed work in association with the PROJECT, the amount spent with each contractor or sub-contractor, and whether each contractor or sub-contractor was a minority-owned or woman-owned or small business enterprise. If no minority-owned or woman-owned or small business enterprises were used in the performance of this Agreement, then the report shall so indicate.
16. ASSIGNMENT. Except as provided herein, TAMPA BAY WATER may not assign any of its rights under this Agreement voluntarily or involuntarily, whether by merger, consolidation, dissolution, operation of law, or any other manner without the prior written consent of the DISTRICT. For purposes of this paragraph, a change in ownership or control is deemed an assignment; however a change in control does not preclude TAMPA BAY WATER from unilaterally contracting for operation, maintenance or support of its facilities. TAMPA BAY WATER may delegate its performance under this Agreement to any person for the performance of operation and maintenance duties. Despite any delegation, TAMPA BAY WATER shall not be relieved of any of its obligations under this Agreement.
17. SUBCONTRACTORS. Nothing in this Agreement will be construed to create, or be implied to create, any relationship between the DISTRICT and any subcontractor of TAMPA BAY WATER.
18. THIRD PARTY BENEFICIARIES. Nothing in this Agreement will be construed to benefit any person or entity not a party to this Agreement.
19. LOBBYING PROHIBITION. Pursuant to Section 216.347, F.S., TAMPA BAY WATER is hereby prohibited from using funds provided by this Agreement for the purpose of lobbying the Legislature, the judicial branch or a state agency.
20. PUBLIC ENTITY CRIMES. Pursuant to Subsections 287.133(2) and (3), F.S., a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any
public entity; and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, F.S., for Category Two, for a period of 36 months following the date of being placed on the convicted vendor list. TAMPA BAY WATER agrees to include this provision in all subcontracts issued as a result of this Agreement.
21. DISCRIMINATION. Pursuant to Subsection 287.134(2)(a), F.S., an entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity. TAMPA BAY WATER agrees to include this provision in all subcontracts issued as a result of this Agreement.
22. ENTIRE AGREEMENT. This Agreement and the attached exhibits listed below constitute the entire agreement between the parties and, unless otherwise provided herein, may be amended only in writing, signed by all parties to this Agreement.
23. DOCUMENTS. The following documents are attached and made a part of this Agreement. In the event of a conflict of contract terminology, priority will first be given to the language in the body of this Agreement, then to Exhibit "A," then to Exhibit "C," then to Exhibit "D," and then to Exhibit "B."

Exhibit "A" Special Project Terms and Conditions
Exhibit "B" TAMPA BAY WATER'S Proposed Project Plan
Exhibit "C" District Travel Procedure 13-5
Exhibit "D" Special Audit Requirements

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IN WITNESS WHEREOF, the parties hereto, or their lawful representatives, have executed this Agreement on the day and year set forth next to their signatures below.

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

By:
David L. Moore, Executive Director
Date

TAMPA BAY WATER, A Regional Water Supply Authority

By:
Theodore J. Schrader, Chairman Date

COOPERATIVE FUNDING AGREEMENT<br>BETWEEN THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT AND<br>TAMPA BAY WATER<br>FOR<br>SYSTEM CONFIGURATION II (H065)



## EXHIBIT "A" <br> SPECIAL PROJECT TERMS AND CONDITIONS

1. CONTRACTING WITH CONSULTANT AND CONTRACTOR. TAMPA BAY WATER may engage the services of a consultant(s), hereinafter referred to as the "CONSULTANT," for design and engineering services and a contractor(s), hereinafter referred to as the "CONTRACTOR," to construct the PROJECT in accordance with TAMPA BAY WATER'S Proposed Project Plan previously submitted to the DISTRICT and attached as Exhibit "B." TAMPA BAY WATER will be responsible for administering the contracts with the CONSULTANT and CONTRACTOR.
2. SUBMITTAL OF CONTRACTS. TAMPA BAY WATER must provide to the DISTRICT contracts entered into with its CONSULTANT and CONTRACTOR as referenced above in paragraph 1 of this exhibit.
3. REVIEW OF REPORTS \& TECHNICAL DOCUMENTS. TAMPA BAY WATER must obtain the DISTRICT'S written comments on PROJECT reports and technical documents as delineated in the Deliverables as set forth in Exhibit "B", prior to being finalized, distributed or otherwise solicited. The DISTRICT will be provided fourteen (14) days to review and provide comments on documents before they are finalized, distributed, or otherwise solicited. As a part of the DISTRICT'S review, the DISTRICT will have the right to approve if the reports and technical documents meet the requirements of this Agreement. Said approval will not be unreasonably withheld, and will not extend to the conclusions reached in the reports and technical documents. The DISTRICT'S review/approval of the reports and technical documents does not constitute a representation or warranty that the DISTRICT has verified the architectural, engineering, mechanical, electrical, modeling, or other components of the reports and technical documents, or that such documents are in compliance with DISTRICT rules and regulations or any other applicable rules, regulations, or laws. The DISTRICT'S review/approval will not constitute a waiver of TAMPA BAY WATER'S obligation to require that the design professional performs according to the standards of his or her profession.
4. COMPLETION DATES. TAMPA BAY WATER commenced work on the PROJECT by October 1, 2005 and will complete all aforementioned work within 75 months of said commencement date. However, in the event of any national, state or local emergency which significantly affects TAMPA BAY WATER'S ability to perform, such as hurricanes, tornados, floods, acts of God, acts of war, or other such catastrophes, or other man-made emergencies beyond the control of TAMPA BAY WATER such as labor strikes or riots, then TAMPA BAY WATER'S obligation to complete said work within aforementioned time frames will be suspended for the period
of time the condition continues to exist. This will be TAMPA BAY WATER'S sole remedy for the delays set forth in this paragraph.
5. PROJECT COORDINATION. TAMPA BAY WATER will keep the DISTRICT advised of progress and issues concerning the PROJECT at reasonable times and intervals during the course of the PROJECT as set forth herein. TAMPA BAY WATER will provide the DISTRICT'S Project Manager with updated project and report schedules. TAMPA BAY WATER will provide the DISTRICT'S Project Manager written monthly reports throughout the term of the Agreement. $\qquad$
6. PUBLIC INVOLVEMENT PROGRAM. TAMPA BAY WATER is responsible for coordinating and conducting any efforts which may be required to inform the public about the nature of the PROJECT through public meetings and other communications related to the PROJECT. TAMPA BAY WATER will coordinate implementation of the program with the DISTRICT.
7. GIS REQUIREMENTS. Pipeline study routing information will be delivered to the DISTRICT in the mutually agreed upon electronic format, if any is created. TAMPA BAY WATER must provide the feasibility related GIS information, if any is created, to the DISTRICT upon completion of PROJECT and prior to submission of the final invoice.

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AGREEMENT NO. $\qquad$

EXHIBIT "B"
TAMPA BAY WATER'S PROPOSED PROJECT PLAN

## TAMPA BAY WATER SYSTEM CONFIGURATION II

## INTRODUCTION

Projections of future demand show that Tampa Bay Water member governments will need additional drinking water supply by 2012 to meet the region's needs. In order to design, permit, bid, build and start up new facilities in a timely fashion, on October 16, 2006, the Tampa Bay Water's board of directors approved System Configuration II (PROJECT). The PROJECT will build on Tampa Bay Water's existing Enhanced Surface Water System to provide an environmentally sound and economically feasible supply. Studies for the project examined how to more fully use potential surface water withdrawals, while protecting the low and high flow regimes of local river systems and improving conditions in Tampa Bay, an estuary of national significance.

Downstream Enhancements Phases A/B of the PROJECT involve expanding the delivery capacity of Tampa Bay Water's Regional Surface Water Treatment Plant (SWTP) and adding pumping and boosting capacity to existing infrastructure to enable the higher surface water flows on the Hillsborough River and Tampa Bypass Canal to be captured, and increasing use of Tampa Bay Water's existing C.W. Bill Young Regional Reservoir. System Interconnects of the PROJECT are required to deliver the new water supply to Tampa Bay Water member governments.

## SYSTEM CONFIGURATION II TASKS

## Downstream Enhancements Phase A/B -

The Downstream Enhancements Phase A/B incorporates six (6) of the System Configuration II Tasks. Collectively these Tasks will increase TAMPA BAY WATER'S alternative water supply by 25 million gallons per day (mgd) median year surface water yield through expansion of Tampa Bay Water's Enhanced Surface Water System.

1. Expansion of the Tampa Bay Regional Surface Water Treatment Plant Task: The purpose of this task is to increase the capacity of the Surface Water Treatment Plant to a Florida Department of

Environmental Protection (FDEP) rated treatment capacity of not less than 99 mgd through the expansion of necessary treatment plant components anticipated to include coagulation, sedimentation, and primary disinfection by ozone, filtration, solids handling, chemical application, storage, piping, pumping and power supply.
2. Tampa Bypass Canal Pump Station Expansion Task: The Tampa Bypass Canal Pump Station pumps raw water from the Tampa Bypass Canal Lower and Middle Pool to the SWTP or the Repump Station. The Tampa Bypass Canal Pump Station Expansion will be designed and constructed to expand capacity from 138 mgd to not less than 200 mgd . This is anticipated to be accomplished by adding four or more additional pumps, modifying the suction header configuration and augmenting the power supply and drive capabilities.
3. Tampa Bay Water Regional High Service Pump Station Expansion Task: The function of the Tampa Bay Water Regional High Service Pump Station is to pump treated water into the Regional Transmission System. The Tampa Bay Water Regional High Service Pump Station capacity will be designed and constructed to expand from 120 mgd to not less than 135 mgd by adding variable frequency drive pumps. This is anticipated to include the addition of two or more additional variable frequency drive pumps and one variable frequency drive to an existing pump. Auxiliary power, storage and chemical feed expansion are also anticipated to be included in this task.
4. Repump Station Expansion Task: The Tampa Bay Water SWTP Repump Station will pump raw water from the Regional Facilities site to the South Central Hillsborough Intertie Booster Pumping Station. The Tampa Bay Water SWTP Repump Station will be designed and constructed to expand from 130 mgd to not less than 180 mgd . This is anticipated to be accomplished by adding two or more additional pumps and associated electrical equipment and yard piping.
5. South Central Hillsborough Intertie (SCHI) Booster Pumping Station Task: The purpose of the SCHI Booster Pump Station is to boost the flow from the Tampa Bay Water SWTP Repump Station to the C.W. Bill Young Regional Reservoir. The repump station will be designed and constructed for a flow of not less than 180 mgd . This is anticipated to require construction of a new facility to include a block building, pumps, piping, motors, drives, and associated

Heating Ventilation and Air Conditioning (HVAC) and electrical equipment.
6. Offstream Reservoir Pump Station Task: The function of the offstream reservoir pump station is to pump raw water from the C.W. Bill Young Reservoir to the Tampa Bay Water Surface Water Treatment Plant. The offstream reservoir pump station will be designed and constructed to have a capacity of not less than 120mgd . This is anticipated to require construction of a new facility to include a block building, pumps, piping, motors, drives, and associated HVAC and electrical equipment.

## System Interconnects

The System Interconnects are four (4) of the System Configuration II Tasks that individually and collectively will provide delivery of the alternative water supplies from the regional system to the member governments of Tampa Bay Water.
7. South Central Hillsborough Infrastructure Project (SCHIP) Phases 1B and II Task: The purpose of this task is to add disinfection facilities and raw water collection pipelines at the Brandon wells, add yard piping improvements at the Lithia Water Treatment Plant, and convert the Brandon and Brandon South-Central Connection pipelines to potable water supply. This task will provide potable water from the regional surface water treatment plant to TAMPA BAY WATER'S Brandon/South Central Hillsborough service area.
8. Northwest Hillsborough Pipeline Task: The purpose of this task is to add the necessary transmission capacity and associated infrastructure improvements to supply water from the Regional System to the Northwest Hillsborough Potable Water Treatment Facility. The additional transmission capacity associated with this task will be not less than 15 mgd . It is expected that the diameter, length and route and final capacity of the new pipeline will be finalized following public input on route alternatives during the first quarter of 2007. Following this it is expected that the Tampa Bay Water's board of director's will take action on a recommended route in the spring of 2007.
9. Morris Bridge Booster Station Task: The purpose of this task is to provide additional pumping capacity and associated improvements to accommodate higher regional system pressure and delivery needs at the Morris Bridge Point of Connection. It is anticipated that this will include the replacement or upgrade of the Morris Bridge Booster Station with larger variable frequency drives (VFD) pumps.

The purpose is to maintain the existing capacity of 30 mgd for operation at higher pressures.
10. Cypress Creek Pump Station Expansion Task: The purpose of this task is to provide additional pumping capacity with improvements that are anticipated to include additional pumps, VFD, switchgear, power supply augmentation upgrades and storage and associated improvements to accommodate higher regional system pressure and delivery needs at the Cypress Creek Pump Station. The additional capacity associated with this task will be not less than 15 mgd

## SCHEDULE

Planning and Initial Design
Design
Construction
Substantial Completion
Final Completion

October 2005 - October 2006
October 2006 - September 2008
September 2008-September 2010
December 2010
December 2011
*Note: This schedule is representative of the completion of tasks outlined above. Individual completion dates for tasks will be specified in contracts entered into between TAMPA BAY WATER and its CONSULTANTS/CONTRACTORS.

## DELIVERABLES

TAMPA BAY WATER will provide the following technical documents when they are available:

- Copies of contracts for design and construction
- Basis of Design Reports for each Task
- Contract documents for construction for components of the PROJECT, to include plans and specifications for each Task

TAMPA BAY WATER will provide the DISTRICT'S Project Manager summarized e-mail status reports and budget summaries during the first week of each month throughout the term of the Agreement. These progress reports will provide an update on the status of Tasks of the PROJECT. Updates on budget and schedule will be provided as available as work progresses.

## BUDGET

## SYSTEM CONFIGURATION II BUDGET SUMMARY

| TASK | PROJECT COSTS |
| :---: | :---: |
| Permitting | \$522,500 |
| Engineering | \$47,457,890 |
| Intergovernmental Coordination | \$0 |
| Land | \$2,600,000 |
| Construction | \$184,542,110 |
| TOTAL | \$235,122,500 |
|  |  |
| INELIGIBLE PROJECT COSTS |  |
| Permitting and Land | \$3,122,500 |
|  |  |
| ELIGIBLE PROJECT COSTS | \$232,000,000 |
|  |  |
| STATE FUNDING SOURCES THROUGH FY 2007 |  |
| WPSPTF (state) | \$15,506,854 |
| CBIR (state) | \$6,000,000 |
| Total State Funding | \$21,506,854 |
|  |  |
| PROJECT BALANCE AFTER APPLICATION OF STATE FUNDS | \$210,493,146 |
|  |  |
| FUNDING SCHEDULE AFTER APPLICATION OF STATE FUNDS |  |
| District Share | \$105,246,573 |
| Tampa Bay Water Share | \$105,246,573 |
|  |  |
| COOPERATOR BUDGETED FUNDS THROUGH FY2007 |  |
| District | \$14,504,987 |
| Tampa Bay Water | \$14,504,987 |
|  |  |
| PROJECT BALANCE AFTER APPLICATION OF FY2007 COOPERATOR FUNDS | \$181,483,172 |
|  |  |
| TAMPA BAY WATER ( $50 \%$ of Remaining Balance) | \$90,741,586 |
| DISTRICT (50\% of Remaining Balance) | \$90,741,586 |

SYSTEM CONFIGURATION II - SUMMARY OF TASK COSTS

| Downstream Enhancements, Phase A/B Tasks | Water Use Permitting | Engineering | Inter-Govern. Coordination | Land | Construction | District Expense | Tampa Bay Water Expense | Totals |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1) SWTP Expansion | \$ - | \$ 21,442,100 | \$ | \$ | \$ 79,641,900 | \$ 50,542,000 | \$ 50,542,000 | \$ 101,084,000 |
| 2) Tampa Bypass Canal Pump Station Exp. | \$ 522,500 | \$ 6,127,500 | \$ | \$ - | \$ 24,700,000 | \$ 15,413,750 | \$ 15,936,250 | \$ 31,350,000 |
| 3) High Service Pump Station Exp. | \$ | \$ 1,050,000 | \$ | \$ | \$ 3,900,000 | \$ 2,475,000 | \$ 2,475,000 | \$ 4,950,000 |
| 4) Repump Station Expansion | \$ | \$ 5,600,000 | \$ | \$ - | \$ 20,800,000 | \$ 13,200,000 | \$ 13,200,000 | \$ 26,400,000 |
| 5) SCHI Booster Pumping Station | \$ | \$ 3,600,000 | \$ | \$ 600,000 | \$ 15,600,000 | \$ 9,600,000 | \$ 10,200,000 | \$ 19,800,000 |
| 6) Offstream Reservoir Pump Station | \$ | \$ 4,650,000 | \$ | \$ 600,000 | \$ 19,500,000 | \$ 12,075,000 | \$ 12,675,000 | \$ 24,750,000 |
| System Interconnects |  |  |  |  |  |  |  |  |
| 7) SCHIP Phases 1B \& II | \$ | \$ 2,315,155 | \$ | \$ | \$ 13,034,000 | \$ 7,674,578 | \$ 7,674,578 | \$ 15,349,155 |
| 8) Northwest Hillsborough Pipeline | \$ | \$ 1,993,135 | \$ | \$ 1,400,000 | \$ 4,656,865 | \$ 3,325,000 | \$ 4,725,000 | \$ 8,050,000 |
| 9) Morris Bridge Booster Station | \$ | \$ 200,000 | \$ | \$ | \$ 800,000 | \$ 500,000 | \$ 500,000 | \$ 1,000,000 |
| 10) Cypress Creek Pump Station Exp. | \$ | \$ 480,000 | \$ | \$ - | \$ 1,909,345 | \$ 1,194,673 | \$ 1,194,673 | \$ 2,389,345 |
| TOTALS | \$ 522,500 | \$ 47,457,890 | \$ | \$ 2,600,000 | \$ 184,542,110 | \$ 116,000,000 | \$ 119,122,500 | \$ 235,122,500 |

## SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

IN RE:
DECLARATION OF WATER SHORTAGE
ORDER SWF 07-02

## ORDER DECLARING WATER SHORTAGE

The Executive Director of the Southwest Florida Water Management District (District), during a public hearing held on January 9, 2007, at District Headquarters in Brooksville, Florida, received testimony, including data and recommendations from District staff, and comment from the public regarding hydrologic conditions and the declaration of a water shortage within the District. Based upon the testimony, data, staff recommendations and public comment, the Executive Director makes the following Findings of Fact and Conclusions of Law.

## FINDINGS OF FACT

1. At its November 30, 2006 meeting, the District's Governing Board authorized the Executive Director to declare a water shortage pursuant to the non-emergency provisions of 40D-21, Florida Administrative Code (F.A.C.), the District's Water Shortage Plan ("Plan"), if, in his judgement, it is appropriate to do so prior to the Governing Board meeting on January 30, 2007.
2. The Plan specifies that the District will monitor certain sources of national predictions, indices and conditions and current hydrologic data, including rainfall, stream flow, lakes and ground water levels and certain sources of national predictions and conditions.
3. The Plan establishes Drought Condition Levels that relate the extent to which current rainfall, stream flows and ground water levels are below normal levels. Drought Condition Levels include Moderately, Severely, Extremely and Critically Abnormal. Drought Condition Levels consider regional conditions, and national predictions, indices and conditions (individually "Drought Indicator", collectively "Drought Indicators"). The Drought Condition Levels are described in the Fact Sheet attached to this Order.
4. Drought Indicators are summarized as follows:
a. Rainfall
i. As of December 31, 2006, for the sixteen counties within the District, there is an average rainfall deficit of approximately 11.6 inches, measured as a twelve-month moving sum.

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07-02
ii. Citrus, DeSoto, Hardee, Hernando, Highlands, Lake, Levy, Marion, Pasco, Polk, and Sumter, are experiencing rainfall deficits categorized as Critically Abnormal.
b. Ground water conditions
i. As of January 3, 2007, all or part of fifteen of sixteen counties within the District were experiencing varying levels of below-normal ground water conditions.
ii. Sarasota County was the most affected, with part of it experiencing ground water levels categorized as Critically Abnormal.
c. Surface water conditions
i. As of January 3, 2007, flow data were generally below normal for most rivers. This includes rivers associated with the District's largest surface water-dependent public supply systems.
ii. As of January 3, 2007, the stream flow for the Withlacoochee River near Holder was 190 cubic feet per second (cfs). The USGS categorizes this flow as Severe Hydrologic Drought. Under the Plan this flow is Critically Abnormal.
iii. The Peace River is the primary water source for the Peace River Manasota Regional Water Supply Authority. The Authority is a wholesale water supplier serving portions of Charlotte, DeSoto, Manatee and Sarasota counties.
iv. As of January 3, 2007, the stream flow for the Peace River at Arcadia was 125 cfs , categorized as Extremely Abnormal.
v. The Hillsborough River is both a source of water for Tampa Bay Water and a primary water source for the City of Tampa.
vi. As of January 3, 2007, the stream flow for the Hillsborough River at Zephyrhills was 76 cfs, categorized as Severely Abnormal.
vii. The Alafia River is one of the sources of water for Tampa Bay Water. Tampa Bay Water is a wholesale water supplier serving portions of Hillsborough, Pasco and Pinellas counties.
viii. As of January 3, 2007, the stream flow for the Alafia River at Lithia was 109 cfs , which is just within normal limits for that river.

## d. The U.S. Drought Monitor

i. The U.S. Drought Monitor is one of the national Drought Indicators specified in the Plan.
ii. As of January 2, 2007, the Monitor indicates that all sixteen counties within the District were experiencing drought or drought-like conditions.
iii. Citrus, Marion, Polk and Sumter counties were the most affected, generally experiencing Severely Abnormal conditions.

## e. The Standard Precipitation Index

i. The Standard Precipitation Index is another national Drought Indicator specified in the Plan.
ii. As of November 2006, the Standard Precipitation Index indicates that all sixteen counties have experienced some improvement compared to October 2006, but conditions remained below normal.
iii. Citrus, Hernando, Lake, Levy, Marion, Pasco and Sumter counties were the most affected, generally experiencing Critically Abnormal conditions, the most pronounced level of abnormality defined in the Plan.
f. The Long-Term Palmer Index
i. The Long Term Palmer Index is another national Drought Indicator specified in the Plan.
ii. As of December 20, 2006, this Index indicated that all sixteen counties within the District were experiencing drought conditions of a nature that affect water demand for agriculture and other irrigation purposes. Based on this Index, all sixteen counties are Severely Abnormal.
iii. Citrus, Hernando, Lake, Levy, Marion, Pasco, and Sumter counties, as of December 9, 2006, were classified as Extremely Abnormal. Those counties have experienced some improvement in recent weeks, but as of December 20, 2007, they are classified as Severely Abnormal.

## g. The National Oceanic and Atmospheric Administration's Climate Prediction Center ("CPC") Predictions

i. The CPC Predictions comprise another national Drought Indicator specified in the Plan.
ii. The District has considered all applicable CPC prediction outlooks.
5. The Plan specifies that the Drought Indicators described in paragraph 4. above and Drought Condition Levels are factors to be considered in determining whether a water shortage declaration is warranted. As described above, the Drought Indicators demonstrate that all sixteen counties within the District are experiencing a composite Drought Conditions Level consistent with a declaration of at least a Phase II, Severe Water Shortage, Order.
6. While lake levels are not included in the Plan as a Drought Indicator, the Plan specifies that lake levels, as part of the water resource data collected by the District, shall be considered in determining whether a water shortage should be declared. Current lake level conditions include that:
a. Lakes in the northern region are 2.64 feet below the bottom of the normal range.
b. Lakes in the Tampa Bay region are 0.02 foot below the bottom of the normal range.
c. Lakes in the Polk Uplands region are at the bottom of the normal range.
d. Lakes in the Lake Wales Ridge region are 1.49 feet below the bottom of the normal range.
7. In addition to evaluating and analyzing quantifiable Drought Indicators to determine the degree to which geographic area(s) and water source(s) are affected by a water shortage, the Plan specifies that District shall take into account several qualitative factors when considering what Phase of restrictions and other response mechanisms should be declared. Pertinent factors include:
a. Surface water-dependent public supply systems serving the City of Tampa, Tampa Bay Water and the Peace River Manasota Regional Water Supply Authority were significantly affected by this water shortage prior to its impact reaching regional proportions. The District has assisted each of these public supply systems as necessary, including coordination of water conservation messaging efforts.
b. Local governments associated with these public supply systems have already responded with appropriate local actions, including restrictions substantially consistent with Phase II, Severe Water Shortage restrictions.
c. The CPC predictions assume that the El Nino weather pattern will produce above-normal rainfall in winter and spring. However, the CPC recently indicated that this pattern may have already started to subside and, even if above average rainfall in the winter and spring does occur, District staff have concluded that areas of the District could remain in a deficit situation for several months.
d. All ground water and surface water sources throughout the District are currently affected by this water shortage event to varying degrees. All categories of water users are impacting the available sources and contribute to the potential for harm to the natural systems.
e. It is necessary to place all categories of water users under the same level of restrictions until conditions have improved to where water shortage restrictions are determined to be no longer necessary.

## CONCLUSIONS OF LAW

8. The Governing Board of the District is duly authorized by Section 373.246(2), Florida Statutes (F.S.), and Chapter 40D-21, F.A.C., to issue Orders declaring the existence of a water shortage within all or part of the District and to impose such restrictions and require such measures as may be necessary to reduce demand on available water supplies.
9. The Governing Board is duly authorized by Section $373.083(5)$, F.S., to delegate, and has so delegated, its power, duties and functions to the Executive Director to issue a non-emergency water shortage order pursuant to the Plan prior to the Governing Board meeting scheduled for January 30, 2007.
10. County and city officials and all law enforcement authorities are required to enforce orders lawfully issued by the Executive Director pursuant to the Plan and Section 373.609, F.S.
11.The Executive Director held a public hearing on January 9, 2007, at the District's Brooksville headquarters for the purpose of considering data, including quantitative and qualitative indicators, staff recommendations and public input.
11. Upon careful consideration of the Drought Indicators, Drought Condition Levels, District data, qualitative factors, staff recommendations and public input, the Executive Director has determined that a District-wide modified Phase II "Severe Water Shortage" declaration is necessary and should be ordered prior to the next regularly scheduled Governing Board meeting.

## ORDERED

THEREFORE, based upon the foregoing Findings of Fact and Conclusions of Law, it is hereby ORDERED:
13. A Phase II "Severe Water Shortage" as defined in the Plan, is declared for all ground and surface waters within the District's sixteen county area.
14. Except as modified in paragraph 15. below, Phase II "Severe Water Shortage" restrictions and other response mechanisms are hereby ordered for all categories of water users within the District's sixteen county area. These restrictions and other response mechanisms are specified in Chapter 40D-21.601(4), F.A.C., and Chapter 40D-21.631, F.A.C.
15. The Plan's Phase II provision codified in 40D-21.631(6)(c)2.b., F.A.C., limiting lawn watering to one day per week is hereby modified to extend the limitation through July 31, 2007.
16. A Fact Sheet containing a summary of the restrictions and response mechanisms is attached to this Order.
17. County and city officials and all law enforcement authorities shall enforce the Order when requested pursuant to the Plan and Section 373.609, F.S.
18. Water shortage declarations and restrictions enacted prior to this Order by county and city officials affecting their local jurisdictions ("Local Action") that are at least as restrictive as a Phase II Severe Water Shortage under the Plan are hereby ratified and are authorized to continue in effect according to their terms. In the event that a Local Action is less restrictive than this Order, this Order shall supersede the Local Action, unless the county or city officials obtain a variance or waiver from this Order from the District.
19. This order shall expire on July 31, 2007, unless extended or rescinded by Governing Board or Executive Director action on or before that date.

DONE AND ORDERED in Hernando County, Florida, on this $9^{\text {th }}$ day of January, 2007.

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT


Filed this $\underline{9+H}$ day of January, 2007


Agency Clerk

## Fact Sheet: Drought Indicators \& Drought Condition Levels

## Characterization of Drought Indicators

Analysis of Drought Indicator data includes characterizing each value as either normal or one of four degrees of abnormality. The names of the four degrees are: Moderately Abnormal, Severely Abnormal, Extremely Abnormal and Critically Abnormal.

The range of values associated with each degree of abnormality is based on a comparison to historical data. For example, streamflow is characterized as follows:

- "Moderately Abnormal" means streamflow is at or below the $25^{\text {th }}$ percentile*
- "Severely Abnormal" means streamflow is at or below the $20^{\text {th }}$ percentile*
- "Extremely Abnormal" means that streamflow is at or below the $10^{\text {th }}$ percentile*
- "Critically Abnormal" means that streamflow is at or below the $5^{\text {th }}$ percentile*
* Percentile is a statistical term that is used in scientific settings. One way to describe this term is that, if 100 pieces of historical data are available for a specific Drought Indicator, a current value in the $19^{\text {th }}$ percentile means that conditions have been better 81 times (and only as bad or worse 19 times).


## Determination of Drought Condition Level

Analysis also includes reviewing the characterizations of individual Drought Indicators for any given geographical area or water source of interest. This review results in a composite Drought Level Condition Level being determined, as follows:

| Drought <br> Condition | Applicable <br> Drought Indicators |
| :---: | :--- |
| Level 1 | At least one Drought Indicator is Moderately Abnormal |
| Level 2 | Multiple Drought Indicators are Moderately Abnormal <br> (or one is Severely Abnormal) |
| Level 3 | Multiple Drought Indicators are Severely Abnormal <br> (or one is Extremely Abnormal) |
| Level 4 | Multiple Drought Indicators are Extremely Abnormal <br> (or one is Critically Abnormal) |

The individual Drought Indicators, composite Drought Condition Level(s) and other pertinent facts (including qualitative factors) are considered in order to decide what Water Shortage Phase should be declared.

NOTE: this fact sheet is a summary of Table 21-1, Table 21-2 and associated text; please refer to Chapter 40D-21.221, F.A.C. for complete details

## Summary Fact Sheet <br> Modified "Phase II" (Severe Water Shortage) Restrictions

## All Water Uses

- These restrictions go into effect on January 16 and are scheduled to expire on July 31, unless rescinded or otherwise modified prior to that date.
- These restrictions apply to the use of water from public and private water utilities as well as the use of all wells and surface water sources (ponds, rivers, etc.).
- This fact sheet is only a summary. All water users should review Water Shortage Order SWF 07-02 and the District's Water Shortage Plan for complete details; both items are available online (at www.WaterMatters.org).


## Lawn \& Landscape Watering

- If your city or county already has a once-per-week schedule in effect, your watering day will remain the same.
- If you were previously allowed to follow a twice-per-week schedule, you now need to follow the schedule shown below.
- Unless your city or county already has stricter hours in effect, properties under two acres in size may only water before $8 \mathrm{a} . \mathrm{m}$. or after 6 p.m.
- Unless your city or county already has stricter hours in effect, properties two acres or larger may only water before 10 a.m. or after 4 p.m.
- Variances are available if a property proposes an alternative irrigation plan (such as splitting a large property into two pieces and assigning a different day to each piece).
- Handwatering or microirrigation of non-lawn landscape is allowed.
- Certain limited exemptions are available, such as allowances for new plant material.

| Addresses with "house numbers" ending in ... | May only irrigate on... |
| :--- | :--- |
| 0 or 1 | Monday |
| 2 or 3 | Tuesday |
| 4 or 5 | Wednesday |
| 6 or 7 | Thursday |
| 8 or 9 | Friday |

## Local Governments \& Water Utilities

- Assist the District with water shortage restriction enforcement, including coverage for cases referred by the District (when a Water Use Permit is not involved).
- Review the availability of backup water supplies for potable and fire-fighting purposes.
- Institute/accelerate local water conservation efforts, including a water system audit.
- Implement appropriate changes to water system flushing, including on-site signage.


## Golf Courses, Agricultural Operations \& Other Water Users

- Fountains and other aesthetic-only water features may only operate 8 hours per day.
- Car washing is limited to once per week; however, fundraiser events are still allowed.
- Comply with all Water Use Permit conditions, including allowable drought quantities.
- Reduce off-site discharge and mobile equipment washing.
- Follow applicable best management practices, including watering times and applications.

For complete details or to ask questions about these restrictions, visit the District's website (www.WaterMatters.org) or call 1-800-848-0499 or 1-800-423-1476, extension 4498, during normal business hours.
Three Months Ended December 31, 2006

| On-Going Activities |  |
| :--- | :--- |
| Z010 | Board and Executive Services |
| Z030 | Planning |
| Z050 | Information Resources |
| Z060 | Communications |
| Z074 | Risk Management |
| Z090 | Community Affairs |
| Z500 | Resource Management |
| Z550 | Resource Conservation and Development |
| Z600 | Operations |
| Z700 | Land Resources |
| Total On-Going Activities |  |
| Property Appraiser \& Tax Collector Commissions |  |
| Z910 | Pr. App. \& Tax Coll. Commissions |
| Total Property Appraiser \& Tax Collector Commissions |  |
| Reserves |  |
| Z930 | Contingencies |
| Total Reserves |  |
| Save Our Rivers (SOR) Reimbursable Projects |  |
| S003 | Brooker Creek |
| Total Save Our Rivers (SOR) Reimbursable Projects |  |
| Surface Water Improvement \& Management (SWIM) Projects |  |
| W020 | SWIM Plan Implementation - Tampa Bay |
| W027 | Tampa Bay Estuary Program |
| W028 | Bay Soundings |
| W254 | Stormwater Filtration Devices |
| W258 | Hills Co Est of Pollution Loads \& Yields |
| W259 | N Dale Mabry Hwy SW Retrofit/Wetland Rstr |
| W268 | City of Tampa Urban Lake Rescue |
| W312 | Tampa Bay Habitat Restoration |

Three Months Ended December 31, 2006

| Projects  <br> W331  <br> W388  <br> Total Surface Water Improvement \& Management (SWIM) Projects  <br> Basin Initiatives  <br> B008 Sweetwater Creek Restoration <br> B027 Lake Armistead Structure <br> B063 Rocky Creek Lake Enhancement Project <br> B099 USGS Surface Wtr. Flow, Level, \& W.Q. Data Coll <br> B131 Quality of Water Improvement Program <br> B136 Hotel/Motel Water Conservation Program <br> B159 FL Auto Weather Network (FAWN) Data Diss \& Edu <br> B206 Tampa Bay/Anclote River CWM <br> N210 Maintenance of Watershed Parameters \& Models <br> B219 Watershed Stdy Lks: Raleigh, Rogers, Starvation <br> B242 Land Use/Cover Mapping <br> B246 Potential to Use ASR in Avon Park Formation <br> B530 FYN Regional Builder/Developer Coord <br> B630 Mapping \& GIS <br> B670 Field Operations <br> G004 Structure Operations <br> P259 Aquatic Plant Management <br> P268 Youth Water Resources Education <br> Z969 Public Education$\quad$ Stormwater Implementation Reserves |
| :--- | :--- |

Total Basin Initiatives

## New Water Sources Initiative (NWSI) Projects

Unallocated NWSI Funding
Section 21 Wellfield Rehydration
Partnership Agreement
TBW/WMD - Starkey Wellfield Rehydration Pilot Natural Treatment of Storm and Waste Water
Total New Water Sources Initiative (NWSI) Projects
Southwest Florida Water Management District Northwest Hillsborough Basin
Three Months Ended December 31, 2006

| Adopted FY2007 Budget | Prior Year Encumbrances | Budget Transfers/ Amendment | Modified <br> FY2007 <br> Budget | Encumbered <br> To Date | Expended To Date | Remaining Balance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 642 | 201,568 | 0 | 202,210 | 198,466 | 17 | 3,727 |
| 662 | 51,006 | 0 | 51,668 | 51,006 | 10 | 652 |
| 1,156 | 68,250 | 0 | 69,406 | 68,250 | 70 | 1,086 |
| 162,981 | 0 | 0 | 162,981 | 0 | 93 | 162,888 |
| 500,000 | 3,225,900 | 0 | 3,725,900 | 3,225,900 | 0 | 500,000 |
| 3,004 | 1,047,417 | 0 | 1,050,421 | 1,047,417 | 290 | 2,714 |
| 143,452 | 510,870 | 0 | 654,322 | 510,870 | 56 | 143,396 |
| 176,754 | 301,229 | 0 | 477,983 | 301,229 | 0 | 176,754 |
| 662 | 22,391 | 0 | 23,053 | 22,391 | 7 | 655 |
| 31,212 | 194,544 | 0 | 225,756 | 194,506 | 38 | 31,212 |
| 291,400 | 528,409 | 0 | 819,809 | 528,409 | 180 | 291,220 |
| 38,414 | 68,291 | 0 | 106,705 | 68,291 | 0 | 38,414 |
| 73,543 | 130,743 | 0 | 204,286 | 130,743 | 0 | 73,543 |
| 62,679 | 111,429 | 0 | 174,108 | 111,429 | 5 | 62,674 |
| 27,579 | 49,029 | 0 | 76,608 | 49,029 | 0 | 27,579 |


| $\mathbf{\$ 1 , 5 1 4 , 1 4 0}$ | $\mathbf{\$ 6 , 5 1 1 , 0 7 6}$ | $\mathbf{\$ 0}$ | $\mathbf{\$ 8 , 0 2 5 , 2 1 6}$ | $\mathbf{\$ 6 , 5 0 7 , 9 3 6}$ | $\mathbf{\$ 7 6 6}$ | $\mathbf{\$ 1 , 5 1 6 , 5 1 4}$ |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |  |
| 92,985 | 65,868 | 0 | 158,853 | 152,382 | 5,760 | 711 |
| 30,000 | 12,015 | 0 | 42,015 | 30,000 | 1,305 | 10,710 |
| 1,099 | 48,309 | 0 | 49,408 | 46,379 | 3,285 | $(256)$ |
| 11,600 | 11,600 | 0 | 23,200 | 11,600 | 0 | 11,600 |
| 3,152 | $11,463,400$ | 0 | $11,466,552$ | $11,463,400$ | 78 | 3,074 |
| 0 | 1 | 0 | 1 | 1 | 669 | $(669)$ |
| 51,285 | 37,475 | 0 | 88,760 | 79,112 | 5,756 | 3,892 |
| 0 | 50,000 | 0 | 50,000 | 50,000 | 58 | $(58)$ |
| 0 | 67,919 | 0 | 67,919 | 67,919 | 0 | 0 |
| 1,693 | 37,000 | 0 | 38,693 | 37,000 | 0 | 1,693 |
| 19,575 | 0 | 0 | 19,575 | 0 | 0 | 19,575 |
| $1,802,273$ | 0 | 0 | $1,802,273$ | 0 | 0 | $1,802,273$ |
| 111,693 | 0 | 0 | 111,693 | 0 | 0 | 111,693 |
| 10,000 | 0 | 0 | 10,000 | 0 | 0 | 10,000 |
| 149,857 | 0 | 0 | 149,857 | 147,600 | 0 | 2,257 |


| Adopted <br> FY2007 <br> Budget | Prior Year Encumbrances | Budget Transfers/ Amendment | Modified <br> FY2007 <br> Budget | Encumbered To Date | Expended To Date | Remaining Balance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 334,657 | 0 | 0 | 334,657 | 332,400 | 0 | 2,257 |
| \$2,619,869 | \$11,793,588 | \$0 | \$14,413,457 | \$12,417,794 | \$16,911 | \$1,978,752 |
| \$9,288,171 | \$19,683,422 | \$0 | \$28,971,593 | \$20,590,740 | \$205,661 | \$8,175,192 |

Southwest Florida Water Management District Northwest Hillsborough Basin
Budget Progress Report
Three Months Ended December 31, 2006

$$
\begin{aligned}
& \text { H63 Hillsborough Co Bordeaux Village Rclm Water Distribution Prj } \\
& \text { Total Cooperative Funding } \\
& \text { Total Northwest Hillsborough Basin }
\end{aligned}
$$

Southwest Florida Water Management Distric1
Northwest Hillsborough Basin
Multi-Year Project Commitments and Budget Projections
December 31, 2006

| Expenditures | Prior Years |  | Adopted <br> FY 2006 |  | Adopted <br> FY 2007 |  | FY 2008 |  | FY 2009 |  | FY 2010 |  | FY 2011 |  | FY 2012 |  | Project <br> Totals |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| On-Going Activities |  | \$ | 141,858 | \$ | 168,883 | \$ | 173,949 | \$ | 179,167 | \$ | 184,542 | \$ | 190,078 | \$ | 195,780 |  |  |
| Tax Apr. \& Tax Coll. Commissions |  |  | 165,544 |  | 192,974 |  | 202,623 |  | 212,754 |  | 223,392 |  | 234,562 |  | 246,290 |  |  |
| Contingencies |  |  | 300,000 |  | 600,000 |  | 600,000 |  | 600,000 |  | 600,000 |  | 600,000 |  | 600,000 |  |  |
| Save Our Rivers (SOR) |  |  | 39,185 |  | 16,808 |  | 17,312 |  | 17,831 |  | 18,366 |  | 18,917 |  | 19,485 |  |  |
| Surface Water Improvement \& Management (SWIM) |  |  | 404,376 |  | 115,559 |  | 119,026 |  | 122,597 |  | 126,275 |  | 130,063 |  | 133,965 |  |  |
| Basin Initiatives |  |  | 720,375 |  | 3,291,938 |  | 3,390,696 |  | 3,492,417 |  | 3,597,190 |  | 3,705,106 |  | 3,816,259 |  |  |
| Water Supply and Water Resource Development |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| F025 Partnership Projects | \$7,588,666 |  | 768,000 |  | 768,000 |  |  |  | - |  | - |  |  |  | - | \$ | 9,124,666 |
| H012 Largo/Clearwater/Pasco-ASR/Interconnec | 210,737 |  | 610 |  | 642 |  | 112,013 |  | - |  | - |  | - |  | - |  | 324,002 |
| H053 TBW - Northwest Hillsborough Wellfield Imprv |  |  |  |  | 162,981 |  | 254,800 |  | 1,572,113 |  | - |  |  |  |  |  | 1,989,894 |
| H100 Water Supply \& Resource Development Reserves | 3,225,900 |  | - |  | 500,000 |  | - |  | - |  | - |  | - |  | - |  | 3,725,900 |
| H300s TBRRAP-Tampa Bay Reg Reclm Wtr \& Downstream Aug | 1,188,825 |  | 2,048,767 |  | 848,699 |  | 843,166 |  | 843,166 |  | 843,166 |  | 843,166 |  | 843,166 |  | 8,302,121 |
| Other Water Supply \& Water Resource Development Projects |  |  | 266,888 |  | 1,818 |  | - |  | - |  | - |  | - |  | - |  |  |
| Future Wtr Sply/Water Resource Dev Allocation (NWSI/WSRD) |  |  | - |  | - |  | - |  | - |  | - |  | - |  | - |  |  |
| Total Water Supply \& Water Resource Developmen 1 |  |  | 3,084,265 |  | 2,282,140 |  | 1,209,979 |  | 2,415,279 |  | 843,166 |  | 843,166 |  | 843,166 |  |  |
| Coop. Funding Pledged |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| K057 Hillsborough Co Lakes/Streams Monitoring | \$ 620,098 |  | 92,850 |  | 92,985 |  | 95,775 |  | 98,648 |  | 101,607 |  | 104,655 |  | 107,795 | \$ | 1,314,413 |
| K209 Hillsborough Co Adopt-A-Pond | 87,760 |  | 18,000 |  | 30,000 |  | 18,000 |  | 18,000 |  | 18,000 |  | 18,000 |  | 18,000 |  | 225,760 |
| K655 S. Tampa Area Reclaimed Prj (STAR), Ph II | 7,755,576 |  | 3,908,860 |  | 3,152 |  |  |  | - |  | - |  | - |  | - |  | 11,667,588 |
| L099 Hillsborough Co Update of Watershed Mgmt Plans | 205,190 |  | 55,083 |  | 51,285 |  | 49,000 |  | 230,000 |  | - |  |  |  |  |  | 590,558 |
|  |  |  | 4,074,793 |  | 177,422 |  | 162,775 |  | 346,648 |  | 119,607 |  | 122,655 |  | 125,795 |  |  |
| Other Cooperative Funding Projects |  |  | 177,769 |  | 2,442,447 |  |  |  | - |  | - |  |  |  | - |  |  |
| Total Cooperative Funding |  |  | 4,252,562 |  | 2,619,869 |  | 162,775 |  | 346,648 |  | 119,607 |  | 122,655 |  | 125,795 |  |  |
| Future Available Funding |  |  | - |  | - |  | 2,400,997 |  | 1,244,185 |  | 3,289,527 |  | 3,547,254 |  | 3,820,273 |  |  |
| Total Expenditures |  |  | 9,108,165 | \$ | 9,288,171 | \$ | 8,277,357 | \$ | 8,630,878 | \$ | 9,002,065 | \$ | 9,391,801 | \$ | 9,801,013 |  |  |
| REVENUES N | Notes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ad Valorem Taxes |  |  | 5,669,310 | \$ | 6,723,839 | \$ | 7,060,045 | \$ | 7,413,047 | \$ | 7,783,699 | \$ | 8,172,884 | \$ | 8,581,528 |  |  |
| Balance From Prior Years | (1) \& (2) |  | 862,610 |  | 1,587,524 |  | 500,000 |  | 500,000 |  | 500,000 |  | 500,000 |  | 500,000 |  |  |
| Local Funding - County/City |  |  | - |  | 100,000 |  | - |  | - |  | - |  | - |  | - |  |  |
| State Funding |  |  | 2,092,810 |  | 160,000 |  | - |  | - |  | - |  | - |  | - |  |  |
| SOR Reimbursement |  |  | 39,185 |  | 16,808 |  | 17,312 |  | 17,831 |  | 18,366 |  | 18,917 |  | 19,485 |  |  |
| Federal Funding |  |  | 94,250 |  | - |  | - |  | - |  | - |  | - |  | - |  |  |
| Interest on Investments (3) | (3) |  | 350,000 |  | 700,000 |  | 700,000 |  | 700,000 |  | 700,000 |  | 700,000 |  | 700,000 |  |  |
| Total Revenues |  |  | 9,108,165 | \$ | 9,288,171 | \$ | 8,277,357 | \$ | 8,630,878 | \$ | 9,002,065 | \$ | 9,391,801 | \$ | 9,801,013 |  |  |
| Estimated Millage |  |  | 0.268 |  | 0.268 |  | 0.268 |  | 0.268 |  | 0.268 |  | 0.268 |  | 0.268 |  |  |
| Income Per 100th Mill |  | \$ | 211,541 | \$ | 250,890 | \$ | 263,435 | \$ | 276,606 | \$ | 290,437 | \$ | 304,958 | \$ | 320,206 |  |  |
| Change in Property Valuations | (4) |  | 13.5\% |  | 18.6\% |  | 5.0\% |  | 5.0\% |  | 5.0\% |  | 5.0\% |  | 5.0\% |  |  |

[^1]| Project: | Boards \& Executive Services |
| :--- | :--- |
| Project \#: | Z010 Basin: 014, |
| Phase: | 00 Project Status: Ongoing |
| Cooperator: | N/A |
| Coop. Contact: | N/A |


| Source | FY 2006 <br> Budget | FY 2007 <br> Budget | Expended FY <br> 2007 |
| :--- | ---: | ---: | ---: | ---: |
| Northwest Hillsborough Basin | $\$ 23,266$ | $\$ 25,279$ | $\$ 661$ |
| TOTAL | $\$ 23,266$ | $\$ 25,279$ | $\$ 661$ |
| Critical Project Milestones: | Projected: | Amended: | Actual: |
| District Recognition/Signage: |  |  |  |
| Status As Of: $07 / 09 / 2004$ - As of this date, this project will not show an update. Ongoing project details are <br> shown in the project description. |  |  |  |


| Project: | Planning |
| :--- | :--- |
| Project \#: | Z030 Basin: 014, |
| Phase: | 00 Project Status: Ongoing |
| Cooperator: | N/A |
| Coop. Contact: | N/A |
| Project Manager: | Renner, Mikel |
| Task Manager: |  |
| Project Type: | On-Going |

DESCRIPTION: Planning is an Executive support function responsible for long-range comprehensive planning and near-term strategic planning. Department staff administer the Comprehensive Watershed Management initiative; provide Basin Board support; and assist the Basin Board with development of resource management priorities. Planning Department staff support the Basin Board through the following tasks. Project Management Database project worksheets that are used in the Budget Notebook for each Basin Board meeting are reviewed to ensure accuracy and completeness. Planning staff work with project managers to identify any significant issues and resolve any discrepancies. Staff take the lead in preparing for joint Governing and Basin Board Planning Workshops and for the Basin Board's Annual Planning Workshop. Basin Board meetings are attended and presentations are made to the Board on an as-needed basis. Staff often coordinate responses to issues raised during meetings. Staff respond to Board Member questions and requests via oral and written communications. Staff assist Basin Board members by creating and providing presentations on Basin-specific issues. At the Board's request, research is conducted and special issues are presented during Board meetings. Department staff assist the Community Affairs Coordinators with Cooperative Funding kick-off meetings held for local governments and other potential cooperators. Assistance is provided for new Board member orientations.

| Source | $\begin{aligned} & \hline \text { FY } 2006 \\ & \text { Budget } \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { FY } 2007 \\ & \text { Budget } \\ & \hline \end{aligned}$ | $\begin{gathered} \hline \text { Expended FY } \\ 2007 \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Northwest Hillsborough Basin | \$9,186 | \$8,745 | \$584 |
| TOTAL | \$9,186 | \$8,745 | \$584 |
| Critical Project Milestones: <br> District Recognition/Signage: NA | Projected: A | Amended: | Actual: |
| Status As Of: 05/09/2005 - As of this date, this project will not show an update. Ongoing project details are shown in the project description. |  |  |  |


| Project: | Information Resources |
| :--- | :--- |
| Project \#: | Z050 Basin: 011,013,014,015,016,019,020,021, |
| Phase: <br> Cooperator: | 01 Project Status: Ongoing |
| Coop. Contact: |  |
| Project Manager: <br> Task Manager: <br> Project Type: | Redman, Terry |
|  | On-Going |

DESCRIPTION: Video production and conferencing staff provides audio-visual, archive tape, and video teleconferencing support for Basin Board and Governing Board meetings, including staff presentations. Audio-visual staff provides support for annual Basin Board planning workshops, and the semiannual Governing Board/Basin Board planning workshops, as well as other non-regularly scheduled workshops not held in a District office, as needed. Based on the time devoted to these activities, including travel, the appropriate salary percentage is allocated to each Basin Board.

| Source |  |  |  |  |  |  |  | FY 2006 <br> Budget | FY 2007 <br> Budget | Expended FY <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Withlacoochee River Basin | $\$ 5,206$ | $\$ 6,663$ | $\$ 0$ |  |  |  |  |  |  |  |
| Pinellas-Anclote River Basin | $\$ 4,554$ | $\$ 7,754$ | $\$ 201$ |  |  |  |  |  |  |  |
| Alafia River Basin | $\$ 6,516$ | $\$ 8,514$ | $\$ 0$ |  |  |  |  |  |  |  |
| Coastal Rivers Basin | $\$ 4,929$ | $\$ 6,297$ | $\$ 166$ |  |  |  |  |  |  |  |
| Manasota Basin | $\$ 7,174$ | $\$ 9,414$ | $\$ 360$ |  |  |  |  |  |  |  |
| Peace River Basin | $\$ 8,461$ | $\$ 11,621$ | $\$ 325$ |  |  |  |  |  |  |  |
| Hillsborough River Basin | $\$ 6,622$ | $\$ 9,741$ | $\$ 0$ |  |  |  |  |  |  |  |
| Northwest Hillsborough Basin | $\$ 6,325$ | $\$ 8,265$ | $\$ 344$ |  |  |  |  |  |  |  |
| TOTAL | $\$ 49,787$ | $\$ 68,269$ | $\$ 1,396$ |  |  |  |  |  |  |  |

Critical Project Milestones:
Projected: Amended: Actual: District Recognition/Signage: NA

Status As Of: 07/15/2004-As of this date, this project will not show an update. Ongoing project details are shown in the project description.

| Project: | Communications |
| :--- | :--- |
| Project \#: | Z060 Basin: 014, |
| Phase: | 00 Project Status: Ongoing |
| Cooperator: | N/A |
| Coop. Contact: <br> Project Manager: <br> Task Manager: <br> Project Type: | Molligan, Michael |
|  | On-Going |

DESCRIPTION: The Communications Department is an Executive support function responsible for a broad range of activities that support the District's mission, Governing and Basin boards, and other departments. Departmental functions include projects funded by the Governing and Basin boards, such as public information and media coordination; youth and public education programs and initiatives in coordination with local governments and other community organizations; promotion of sound water conservation practices; presentation of projects to the Basin boards in the budget adoption process; and graphics support for Basin Board presentations. Communications Department staff support the Basin Board through the following tasks. Basin Board meetings are attended on an as-needed basis to make presentations, answer questions, and participate in budget discussions. Reponses are prepared to answer Board Member questions and requests via oral and written communications. Educational materials are developed, reviewed, updated, promoted, and distributed. Assistance is provided to cooperators to develop education projects that support the District's mission. Education and grant programs are promoted at schools and to cooperators. Support is provided to the Basin Board Education Committee. Media contact summaries and articles are disseminated. The District's web site is maintained.

|  | Source | FY 2006 <br> Budget | FY 2007 <br> Budget | Expended FY <br> 2007 |
| :--- | ---: | ---: | ---: | ---: |
| Northwest Hillsborough Basin | $\$ 24,830$ | $\$ 28,174$ | $\$ 925$ |  |
| TOTAL | $\$ 24,830$ | $\$ 28,174$ | $\$ 925$ |  |

Critical Project Milestones:
Projected: Amended: Actual: District Recognition/Signage:

Status As Of: 07/09/2004-As of this date, this project will not show an update. Ongoing project details are shown in the project description.

| Project: | Risk Management |
| :--- | :--- |
| Project \#: | Z074 Basin: 014, |
| Phase: | 00 Project Status: Ongoing |
| Cooperator: | N/A |
| Coop. Contact: | N/A |
| Project Manager: Petruccelli, Lucy <br> Task Manager:  <br> Project Type: On-Going. |  |

DESCRIPTION: The funds budgeted for this project apply to insurance on insured water control structures in this basin. Those structures with their corresponding insured values include: Channel A Salinity Barrier - $\$ 994,000$, Channel G Salinity Barrier - $\$ 718,000$, Island Ford - $\$ 156,000$, Lake Pretty - $\$ 110,000$, Bay Lake - $\$ 58,000$ and Lake Madelene - $\$ 50,000$ The total insured value is $\$ 2,086,000$. The District's current property insurance is rated at $\$ .575 / 100$ of value. Governing Board Policy 120-1, directs that a Risk Management function be maintained to protect the assets of the District using an appropriate market based financing measure of a blend of self-insurance, insurance or transfer of risk. Budgeting a known minimal expenditure annually for insurance premiums has been more cost effective for the individual basins than establishing permanent reserves equal to the value of an individual structure or maximum probable loss should any structure be damaged or destroyed. Property coverage is currently provided in layers through several property insurance carriers. The current deductible is set at $\$ 5,000$ on all losses except flood and wind. The District's property rate for structures increased over 300\% for FY2007 policy year and the District was only able to obtain insurance on 50\% of total values due to major market losses caused by weather events in 2004, 2005 and 2006. No further updates will be made on this project unless a property loss claim is reported for any of the insured structures.

|  | Source | FY 2006 <br> Budget | FY 2007 <br> Budget | Expended FY <br> 2007 |
| :--- | ---: | ---: | ---: | ---: |
| Northwest Hillsborough Basin | $\$ 5,300$ | $\$ 10,900$ | $\$ 11,995$ |  |
| TOTAL | $\$ 5,300$ | $\$ 10,900$ | $\$ 11,995$ |  |

Critical Project Milestones:
Projected: Amended: Actual: District Recognition/Signage:

Status As Of: 10/30/2006 - All funds for FY2007 have been expended to cover the annual premium for insurance on the insured structures. There will be no further status reports this fiscal year unless there is a property damage claim reported on a structure.

| Project: | Community Affairs |
| :--- | :--- |
| Project \#: | Z090 Basin: 014, |
| Phase: | 00 Project Status: Ongoing |
| Cooperator: |  |
| Coop. Contact:  <br> Project Manager: Rathke, David <br> Task Manager:  <br> Project Type: On-Going <br> DESCRIPTION: Basin Board funds budgeted are for the administration and coordination of the Cooperative  <br> Funding program, including conducting cooperator workshops, processing applications, communicating with  <br> applicants and participating in project ranking. Basin Board funds are budgeted for the Community Affairs  <br> Coordinator (CAC) to attend and participate in Basin Board meetings, new Board member orientations and  <br> briefings, and for the CAC's responses to Board member information requests, as well as other "as needed"  <br> services to the Basin Board.  |  |


|  | Source | FY 2006 <br> Budget | FY 2007 <br> Budget | Expended FY <br> 2007 |
| :--- | ---: | ---: | ---: | ---: |
| Northwest Hillsborough Basin | $\$ 9,236$ | $\$ 9,790$ | $\$ 362$ |  |
| TOTAL | $\$ 9,236$ | $\$ 9,790$ | $\$ 362$ |  |

Critical Project Milestones:
Projected: Amended: Actual:
District Recognition/Signage:
Status As Of: 07/09/2004 - As of this date, this project will not show an update. Ongoing project details are shown in the project description.

| Project: | Resource Management |
| :--- | :--- |
| Project \#: | Z500 Basin: 014, |
| Phase: | 00 Project Status: Ongoing |
| Cooperator: | N/A |
| Coop. Contact: | N/A |
| Project Manager: <br> Task Manager: | Hammond, Mark |
| Project Type: | On-Going |

DESCRIPTION: The Resource Management Department addresses issues related to flood protection, water quality, and natural systems and consists of the Chemistry Lab, Engineering, Environmental, Mapping and GIS, and Surface Water Improvement \& Management (SWIM) sections. The District's goal for flood protection is to minimize damage from floods by protecting and restoring the natural water storage and conveyance functions of flood prone areas. The Department's efforts involve: 1) Prevention by providing local governments and the public with information, such as topographic information, watershed management plans, and flood insurance rate maps, prior to construction in or near flood prone areas; and 2) Mitigation to reduce existing flooding problems through restoration of conveyance and storage systems. The District's goal for water quality is to restore, protect and preserve surface water quality in water bodies within the District. The Department's efforts involve diagnostics, monitoring and implementing water quality improvement projects. The District's goal for natural systems is to protect, preserve and restore natural Florida ecosystems. The Department's efforts involve wetland system restoration. The District's SWIM Program addresses water quality and natural systems. In 1987, the Florida Legislature established the SWIM Act recognizing that water quality and habitat in surface waters were being degraded. As required by the Act, the District has developed state approved plans for ten SWIM water bodies of significance, and is implementing programs for the improvement of those water bodies. SWIM projects are eligible for state matching funds with the state funding 50 percent of the project costs and the District funding the remaining 50 percent. The funds budgeted here are for coordinating the SWIM and Cooperative Funding Programs, and those unforeseen basin analyses which occur during the year. The Department works on ongoing projects and reviews, evaluates, and ranks each Fiscal Year's Cooperative Funding projects related to water quality, natural systems, and flood protection. Staff makes recommendations regarding these projects, and other items proposed in each year's budget. Staff also works to address any budget issues identified at Basin Board meetings.

|  | Source | FY 2006 <br> Budget | FY 2007 <br> Budget | Expended FY <br> 2007 |
| :--- | ---: | ---: | ---: | ---: |
| Northwest Hillsborough Basin | $\$ 30,336$ | $\$ 38,091$ | $\$ 712$ |  |
| TOTAL | $\$ 30,336$ | $\$ 38,091$ | $\$ 712$ |  |

Critical Project Milestones:
Projected: Amended: Actual:
N/A
N/A
N/A
Status As Of: 11/10/2004-As of this date, this project will not show an update. Ongoing project details are shown in the project description.

| Project: | Resource Conservation and Development |
| :--- | :--- |
| Project \#: | Z550 Basin: 014, |
| Phase: | 00 Project Status: Ongoing |
| Cooperator: | N/A |
| Coop. Contact: | N/A |
| Project Manager: <br> Task Manager: | Jones, Gregg |
| Project Type: | On-Going |

DESCRIPTION: The Resource Conservation \& Development Department includes the Conservation Projects, Hydrologic Evaluation, and the Ecologic Evaluation sections. The funds budgeted here are for coordinating the Water Supply and Resource Development Program, Water Resource Assessment Projects, such as Minimum Flows and Levels, New Water Sources Initiative (NWSI), the Cooperative Funding Program, and those unforeseen basin analyses which occur during the year. Resource Conservation and Development staff prepare for and attend Basin Board meetings. The Section's staff interact with Basin Boards on a number of activities that are critical to the development of environmentally sustainable water supplies and conservation. These activities include regional water supply planning, minimum flows and levels development, the District's conservation initiative, status of conservation and reclaimed water projects, status of ASR projects, status of the Partnership Agreement, status of efforts to rehydrate wetlands and lakes, discussion of Board accomplishments at annual workshops, development of the fiscal year budgets, evaluation of cooperative funding proposals from cooperators, execution of contracts for projects, briefing of new Basin Board members, and the preparation of information in response to requests from Basin Board members. Staff is also working to keep the Board informed on a major new initiative: the Tampa Bay Regional Reclaimed Water and Downstream Augmentation Project.

|  | Source | FY 2006 <br> Budget | FY 2007 <br> Budget | Expended FY <br> 2007 |
| :--- | ---: | ---: | ---: | ---: |
| Northwest Hillsborough Basin | $\$ 13,817$ | $\$ 16,300$ | $\$ 387$ |  |
| TOTAL | $\$ 13,817$ | $\$ 16,300$ | $\$ 387$ |  |

Critical Project Milestones: Projected: Amended: Actual: District Recognition/Signage:

Status As Of: 11/10/2004-As of this date, this project will not show an update. Ongoing project details are shown in the project description.

| Project: | Operations |
| :--- | :--- |
| Project \#: | Z600 Basin: 014, |
| Phase: | 00 Project Status: Ongoing |
| Cooperator: | N/A |
| Coop. Contact: <br> Project Manager: <br> Task Manager: <br> Project Type:$\quad$ N/A |  |
|  | Holtkamp, Mike |
|  | On-Going |

DESCRIPTION: The Operations Department consists of five sections including Administration, Field Operations, Aquatic Plant Management, Hydrologic Data, and Structure Operations. The Administration section provides support for departmental management, planning, budgeting, and clerical functions. The Field Operations section is responsible for maintenance and restoration of all District-owned lands including fence construction, mowing, culvert installations, road and bridge maintenance and construction, fire line maintenance, prescribed burn support, erosion control, and well site preparation/restoration. The Aquatic Plant Management section is responsible for aquatic and ditch bank vegetation management operations on District flood control systems, the control of exotic aquatic plants on natural waters throughout the District, and the control of aquatic vegetation around water control structures and lake level gauges. Additionally, the Aquatic Plant Management section controls/eradicates infestations of upland invasive species including Brazilian pepper, Australian pine, cogongrass and tropical soda apple on all District-owned conservation lands. The Hydrologic Data section is responsible for designing, installing, and maintaining data collection sites in support of the District's resource monitoring and technical analysis, as well as data analysis and database management. The Structure Operations section inspects, operates, maintains, and repairs all District-owned flood and water conservation structures as well as salinity barriers throughout the District. This section also directs and operates the District's Emergency Operations Center (EOC), which is part of a state and nationwide storm tracking and emergency response network. Included in this project are administrative salary allocations associated with overseeing field operations and maintenance, aquatic plant management, emergency operations, Supervisory Control and Data Acquisition (SCADA), and structure operations programs throughout the Basin, as applicable. Funds expended have been to prepare for Basin Board meetings as required or provide data to Board members, local agencies or the public.

| Source | $\begin{aligned} & \text { FY } 2006 \\ & \text { Budget } \end{aligned}$ | $\begin{gathered} \hline \text { FY } 2007 \\ \text { Budget } \end{gathered}$ | $\begin{gathered} \text { Expended FY } \\ 2007 \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Northwest Hillsborough Basin | \$8,991 | \$8,641 | \$0 |
| TOTAL | \$8,991 | \$8,641 | \$0 |
| Critical Project Milestones: District Recognition/Signage: | Projected: A | mended: | Actual: |


| Project: | Land Resources |
| :--- | :--- |
| Project \#: | Z700 Basin: 014, |
| Phase: | 00 Project Status: Ongoing |
| Cooperator: | N/A |
| Coop. Contact: | N/A |
| Project Manager: <br> Task Manager: | Musselmann, Fritz |
| Project Type: | On-Going |

DESCRIPTION: The Land Resources Department consists of five sections, including Administration, Land Acquisition, Land Management, Survey, and Land Use and Protection. The Administration section provides support for departmental management, planning, budgeting and clerical functions. The Land Acquisition section acquires lands as set forth in the District's Florida Forever Workplan. These lands are acquired for various functions including flood control, water storage and management, conservation and protection of water resources, aquifer recharge and recovery, water resource development, and preservation of wetlands, streams, lakes, and other natural systems. The Land Management section is responsible for the management and protection of natural and cultural resources on District lands. Major functions include natural systems restoration, prescribed burning, forest management, exotic species control, and monitoring. The Survey section is responsible for providing land surveying assistance in support of various projects and programs within the District. The Land Use and Protection section is responsible for land use activities on District lands including development of recreational trails and facilities, monitoring of public and private uses, management of the security officer program and maintaining visitor safety. Included in this project are activities on District-managed lands purchased with funds other than Florida Forever, Preservation 2000 and Save Our Rivers such as surveying costs (salaries and equipment rental), miscellaneous land use requests (salaries), resource protection (utilities and maintenance) and structural flood control projects.

| Source | $\begin{aligned} & \hline \text { FY } 2006 \\ & \text { Budget } \end{aligned}$ | $\begin{gathered} \hline \text { FY } 2007 \\ \text { Budget } \end{gathered}$ | $\begin{gathered} \hline \text { Expended FY } \\ 2007 \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Northwest Hillsborough Basin | \$10,571 | \$14,698 | \$0 |
| TOTAL | \$10,571 | \$14,698 | \$0 |
| Critical Project Milestones: <br> District Recognition/Signage: NA | Projected: A | mended: | Actual: |

Status As Of: 11/10/2004-As of this date, this project will not show an update. Ongoing project details are shown in the project description.

| Project: | Commissions |
| :--- | :--- |
| Project \#: | Z910 Basin: 014, |
| Phase: | 00 Project Status: Ongoing |
| Cooperator: | N/A |
| Coop. Contact: | N/A |
| Project Manager: | Pilcher, Linda |
| Task Manager: |  |
| Project Type: On-Going <br> DESCRIPTION: These funds pay the commissions due to the counties within the Basin for tax collection and  <br> property appraisals.  |  |


|  | Source | FY 2006 <br> Budget | FY 2007 <br> Budget | Expended FY <br> 2007 |
| :--- | :---: | ---: | ---: | ---: |
| Northwest Hillsborough Basin | $\$ 165,544$ | $\$ 192,974$ | $\$ 26$ |  |
| TOTAL | $\$ 165,544$ | $\$ 192,974$ | $\$ 26$ |  |

Critical Project Milestones:
Projected: Amended: Actual: District Recognition/Signage:

Status As Of: 11/01/2006 - Property Appraiser and Tax Collector commissions are statutorily prescribed and are based on property tax levies and collections. Amounts collected in excess of the underlying Property Appraiser and Tax Collector budgets are returned to the Basin as excess fees the following year. During the one month ended October 31, 2006, $\$ 26$ was remitted in commissions to Property Appraisers and Tax Collectors and $\$ 50,507$ was returned to the Basin in excess fees.

| Project: | Contingencies |
| :--- | :---: |
| Project \#: | Z930 Basin: 014, |
| Phase: | 00 Project Status: Ongoing |
| Cooperator: | N/A |
| Coop. Contact: | N/A |
| Project Manager: | Pilcher, Linda |
| Task Manager: |  |
| Project Type: On-Going <br> DESCRIPTION: Funds are budgeted for contingencies to be used at the Board's discretion. The goal is to set  <br> aside an amount equal to approximately 5 percent ( 2.5 percent minimum target) of the ad valorem based budget  <br> (ad valorem taxes plus interest plus balance forward multiplied by 5 percent).  |  |


|  | Source | FY 2006 <br> Budget | FY 2007 <br> Budget | Expended FY <br> Bud |
| :--- | :---: | ---: | :---: | :---: | :---: |
| Northwest Hillsborough Basin | $\$ 300,000$ | $\$ 600,000$ | $\$ 0$ |  |
| TOTAL | $\$ 300,000$ | $\$ 600,000$ | $\$ 0$ |  |

Critical Project Milestones:
Projected: Amended: Actual:
District Recognition/Signage:

Status As Of: 11/01/2006-To date, the Board has not allocated any of its contingency funds.

Project:<br>Project \#:<br>Phase:<br>Cooperator:<br>Coop. Contact:<br>Project Manager:<br>Task Manager:<br>Project Type:<br>Brooker Creek Headwaters and Brooker Creek Preserve<br>S003 Basin: 014,016,<br>00 Project Status: Ongoing<br>Hillsborough County, Pinellas County<br>Miller, Will<br>Colleen Kruk/LND/swfwmd, Mary Barnwell/LND/swfwmd<br>SOR

DESCRIPTION: In 1987 the Governing Board authorized staff to pursue the acquisition of the Brooker Creek project in Pinellas and Hillsborough Counties. Lands within Hillsborough County are referred to as the Brooker Creek Headwaters and in Pinellas County as the Brooker Creek Preserve. Both projects' activities are contained in this project status. Land acquisition within the project is complete. Pursuant to Section 373.1391(1)(a), Florida Statutes, lands within the Brooker Creek project are managed and maintained in such a way as to ensure a balance between public access, general public recreational purposes, and restoration and protection of their natural state and condition. Costs for these activities are 100 percent reimbursed through the state's Water Management Lands Trust Fund. Northwest Hillsborough Basin: The Brooker Creek Headwaters consists of 1,039 acres acquired by the District in fee simple, and remains as islands of undeveloped natural and rural lands in the changing landscape of northwest Hillsborough County. The property includes several extensive and interconnected cypress swamps which form the headwaters of Brooker Creek. These headwater swamps are an important water resource feature on their own, as well as for their contribution to downstream elements of the creek. Hillsborough County manages all resource management and public access responsibilities on lands within the Brooker Creek Headwaters. Current recreation opportunities include hiking which is allowed on several miles of unimproved trails. The trail system on this property serves as a connector to the 38 -mile Suncoast Parkway Regional multiple-use Trail. County staff are proceeding with the development of a paved multiple use trail on the property which will connect the Upper Tampa Bay Trail to the Suncoast Parkway Trail Pinellas-Anclote River Basin: The Brooker Creek Preserve is in Pinellas County and consists of 1,619 acres that was purchased by the District in fee simple to protect the headwaters and enhance lands owned by Pinellas County in the project The dominant habitats within the Brooker Creek Preserve include cypress and mixed hardwoods swamps along portions of Brooker Creek. As part of the area's natural drainage system, Brooker Creek is an important water resource feature. Local low-lying areas are drained by the creek's system of sloughs and swamps. Floodplain vegetation offers treatment of runoff prior to discharging into Lake Tarpon. Lands within the Brooker Creek Preserve are managed by Pinellas County. Recreational improvements/ amenities available on the tract include a three-mile loop equestrian trail, 8.5 miles of guided hiking trails and a $1.75-$ mile loop foot trail. An environmental education center on lands owned by Pinellas County has recently been completec. Benefits: Pursuant to Section 373.1391(1)(a), Florida Statutes, lands within the project are managed and maintained in such a way as to ensure a balance between public access, general public recreational purposes, and restoration and protection of their natural state and condition.
Costs: Northwest Hillsborough Basin: The FY2007 budget consists of reimbursement to Hillsborough County for 50\% of project management costs and salaries for contract management. Pinellas-Anclote River Basin: Funds in the FY2007 budget are for District staff time for contract monitoring and working with Pinellas County as necessary for lands within the Brooker Creek Preserve. Pinellas County funds all resource management and public access responsibilities in the project and does not receive reimbursement from the District. District costs for these activities are 100 percent reimbursed through the state's Water Management Lands Trust Fund.

|  | Source | $\begin{array}{r}\text { FY 2006 } \\ \text { Budget }\end{array}$ | $\begin{array}{r}\text { FY 2007 } \\ \text { Budget }\end{array}$ |  |
| :--- | ---: | ---: | ---: | ---: |
| Expended FY |  |  |  |  |
| 2007 |  |  |  |  |$]$

Critical Project Milestones:
Projected: Amended: Actual: District Recognition/Signage: NA

Status As Of: 10/24/2006 - No significant activities this quarter for Brooker Creek Preserve (Pinellas County). Hillsborough County staff mowed the interior roads, maintained points of access, constructed 2,600 linear feet of farm field fence, posted fence and security staff performed regular patrols.

Project:<br>Project \#:<br>SWIM Plan Implementation - Tampa Bay<br>W020 Basin: 011,013,014,016,021,<br>00 Project Status: Ongoing<br>Tampa Bay Estuary Program<br>Holly Greening<br>Kaufman, Kristen<br>SWIM

DESCRIPTION: This project provides for the implementation, periodic review, and update of the Tampa Bay Surface Water Improvement and Management (SWIM) Plan. The plan was originally prepared in 1988 and updated in 1992 and 1999. Development and update of the SWIM plan is completed in coordination with involved stakeholders and governmental agencies and includes: an assessment of implementation progress, development of new projects (rationale and justification), and determination of pertinent Pollutant Load Reduction Goals (PLRG). Additionally, this project provides for the implementation of projects identified in the Tampa Bay SWIM Plan; including water quality assessments necessary for SWIM plan implementation, periodic Tampa Bay Estuary Program (TBEP) Technical Advisory Committee meetings, contract development, invoicing, project presentations, site visits and other relevant tasks.
Benefits: A SWIM Plan must be developed and approved before state SWIM funds can be spent on restoration, protection or management activities. SWIM projects are eligible for state matching funds with the state funding fifty percent of the project costs and the District funding the remaining 50 percent.
Costs: The FY2007 budget is for ongoing costs associated with the Tampa Bay SWIM Plan Implementation with funding from State SWIM, Alafia River, Hillsborough River, Northwest Hillsborough, Pinellas-Anclote River, and Manasota Basin Boards. ADDITIONAL INFORMATION: In 1987, the Florida Legislature established the Surface Water Improvement and Management (SWIM) Act having recognized that water quality and habitat in surface waters throughout the state have degraded or were ir danger of being degraded. The Act requires the five water management districts to maintain a priority list of water bodies of regional or statewide significance within their boundaries, and develop plans and programs for the improvement of those water bodies. Tampa Bay was identified by the Legislature in the SWIM Act as the highest priority on the District's SWIM priority list. To date, ten SWIM water bodies in the District have had plans developed and approved by the state. Several plans have been updated one or more times as required by the Act.


Status As Of: 10/31/2006 - District staff is working with staff from TBEP, FFWCC, and Mote Marine Lab to determine a suite of indicators that might determine the potential influence of point sources of nitrogen into Old Tampa Bay. The group completed the first round of effluent detection using stable isotopes in 2005. A purchase order has been opened with the USF College of Marine Science to complete nitrogen and carbon isotope analysis on algae samples for the second round of effluent detection sampling in early 2007. Ongoing evaluations of TBEP's existing monitoring programs and discussions of other implementation opportunities will continue to be reviewed.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

## Tampa Bay Estuary Program

W027 1 Basin: 011,013,014,016,021,
01 Project Status: Ongoing
Tampa Bay Estuary Program
Dick Eckenrod
Garcia, Lizanne

## SWIM

DESCRIPTION: This project provides for the funding for the Tampa Bay Estuary Program (TBEP) as outlined in the Interlocal Agreement which established the TBEP as a independent special district in 1998. The District participates in three main areas. First the District's SWIM program, funded by the basin boards and State, carries out the projects that will address water quality and habitat restoration within the bay. Second, the basin boards and State contribute funding to the administration of the TBEP to carry out the plan. And finally, the District provides staff to sit on the technical, management and policy (Governing Board Member) boards of the program. The FY2007 budget includes funding support to the TBEP and staff salaries to administer the project, which includes attending board meetings and other workshops and invoicing.
Benefits: This project's support of the Tampa Bay Estuary Program creates an opportunity for a cohesive effort between the District, TBEP and other state and local agencies to implement resource management decisions and restoration activities. Additionally, this project provides for leveraging funding between the partners.
Costs: The FY2007 ongoing costs for the TBEP are funded ten percent from each of the following Basin Boards: Alafia; Northwest Hillsborough River; Pinellas-Anclote River and Manasota. The remaining fifty percent is from the State SWIM Program. Funding is for the funds allocated to the TBEP, $\$ 138,335$, as well as staff salary, travel and central garage.
ADDITIONAL INFORMATION: In 1987, the Florida Legislature established the Surface Water Improvement and Management Program. (SWIM) Act having recognized that water quality and habitat in surface waters through out the state have degraded or in danger of being degraded. The Act requires the District maintain a priority list of waterbodies of regional or statewide significance within their boundaries. The Act listed Tampa Bay as the District's number one priority. Subsequently, in 1990, the United States Environmental Protection Agency identified Tampa Bay as an estuary of Federal Significance and included it in the National Estuary Program. As a result of this designation, the Tampa Bay National Estuary Program was established in 1991 to assist the region in developing a comprehensive plan for the restoration and protection of Tampa Bay. In 1999, the "National" designation was dropped from the program name as a result of the program reaching its five year goal (1991 -1996) of developing a comprehensive plan for protection and restoration. The Federal government provided the majority of funding during the first five years. The members of the original effort decided to continue with the program and formed the Tampa Bay Estuary Program (TBEP) (dropping the Federal designation) as a partnership of federal, state and local agencies and governments including several private industries. These entities include the USEPA, Florida Department of Environmental Protection, the District, Hillsborough, Manatee and Pinellas counties and the cites of St. Petersburg, Tampa and Clearwater. The goals and strategies for the Bay are identified in the Comprehensive Conservation and Management Plan (CCMP) for Tampa Bay which provides the guidance for each entity on their contribution to restore the bay. In 1998, the program reached a historic position in relation to all other National estuary programs in that the partners agreed to continue the alliance and coordinate their efforts. Each entity has committed to a nitrogen reduction goal through their various programs. The District signed the Interlocal Agreement of the TBEP in March 1998 which identified a long term commitment to the program. That commitment requires annual funding approval at the basin board level. Since 1998 the District and other partners have completed numerous stormwater retrofit and habitat restoration projects toward achieving the goals of the CCMP.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Alafia River Basin | $\$ 13,834$ | $\$ 13,834$ | $\$ 14,734$ | $\$ 0$ | $\$ 42,402$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 13,834$ | $\$ 13,834$ | $\$ 14,734$ | $\$ 0$ | $\$ 42,402$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 13,834$ | $\$ 13,834$ | $\$ 14,734$ | $\$ 0$ | $\$ 42,402$ | $\$ 0$ |
| Manasota Basin | $\$ 13,834$ | $\$ 13,834$ | $\$ 14,734$ | $\$ 0$ | $\$ 42,402$ | $\$ 0$ |
| Pinellas-Anclote River Basin | $\$ 13,834$ | $\$ 13,834$ | $\$ 14,734$ | $\$ 0$ | $\$ 42,402$ | $\$ 0$ |
| State SWIM | $\$ 69,166$ | $\$ 69,165$ | $\$ 73,667$ | $\$ 0$ | $\$ 211,998$ | $\$ 0$ |
| Local Governments | $\$ 0$ | $\$ 276,665$ | $\$ 0$ | $\$ 0$ | $\$ 276,665$ | $\$ 0$ |
| US EPA | $\$ 0$ | $\$ 506,685$ | $\$ 0$ | $\$ 0$ | $\$ 506,685$ | $\$ 0$ |
| TOTAL |  |  |  | $\$ 1,207,358$ | $\$ 0$ |  |


| Critical Project Milestones: | Projected: | Amended: | Actual: |
| :--- | :--- | :--- | :--- |
| District Recognition/Signage: NA |  |  |  |
| Contract Execution: | $10 / 01 / 2005$ |  | $01 / 26 / 2006$ |
| First payment (1/2 total): | $10 / 31 / 2005$ | $02 / 28 / 2006$ | $02 / 28 / 2006$ |
| Second/final payment: | $01 / 31 / 2006$ | $02 / 28 / 2006$ | $02 / 28 / 2006$ |

End of contract: 09/30/2006

Status As Of: 08/22/2006 - The agreement between the District and the TBEP for funding of the annual work plan has been executed. All payments to the TBEP have been made and the contract closed out. District staff are participating in the Northeast Tampa Bay Basin Management Action Plan Workgroup. The TBEP Management and Policy Boards met on August 18, 2006. In May 2006, the Policy Board of the TBEP requested that the TBEP evaluate enlarging the TBEP boundary to include Clearwater Harbor and St. Joseph's sound. At its August 18 meeting, the Management and Policy Boards authorized TBEP staff to take the first step in the process by co-convening a conference focused on describing the current and past conditions of the waterbodies, defining impacts and management issues. Results from the conference will provide critical information needed to define a process for management of the Harbor and Sound.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

## Bay Soundings

W028 1 Basin: 011,013,014,016,021,
01 Project Status: Ongoing
Tampa Bay Regional Planning Council
Suzanne Cooper
Roe, Melissa
SWIM

DESCRIPTION: Bay Soundings is a full-color, 16-page, quarterly environmental journal that provides important information on issues affecting Tampa Bay, its watershed and the natural resources of the Tampa Bay region. This education project supports the Tampa Bay SWIM plan and is consistent with the Tampa Bay Estuary Program goals.
Benefits: Bay Soundings enhances the District's educational outreach efforts on Tampa Bay through this low cost publication.
Costs: The total cost for the project is $\$ 52,500$. SWIM funding is $\$ 11,250$ and the District's basin share is as follows: Alafia River - $\$ 900$; Hillsborough River - $\$ 2,475$; Northwest Hillsborough - $\$ 1,237$; Pinellas-Anclote River - $\$ 4,163$; Manasota - $\$ 2,475$; for a total of $\$ 11,250$. The publication's circulation of 25,000 is distributed throughout Pasco, Pinellas, Hillsborough and Manatee counties. This brings the District's cost per person to \$1.20.
ADDITIONAL INFORMATION:

- Through the education efforts of Bay Soundings, residents in the Tampa Bay area learn about the restoration and preservation of SWIM water bodies.
- This free publication is distributed to government and non-government agencies, local attractions, private businesses, environmental clubs, schools, libraries, elected officials and sponsors.
- District staff sits on the editorial board and provides story ideas featuring District projects that meet the editorial focus of the publication.
- Bay Soundings' web site is www.tbsoundings.com.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| SWIM | $\$ 0$ | $\$ 11,249$ | $\$ 11,250$ | $\$ 0$ | $\$ 22,499$ | $\$ 0$ |
| Alafia River Basin | $\$ 0$ | $\$ 900$ | $\$ 900$ | $\$ 0$ | $\$ 1,800$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 0$ | $\$ 2,475$ | $\$ 2,475$ | $\$ 0$ | $\$ 4,950$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 0$ | $\$ 1,238$ | $\$ 1,237$ | $\$ 0$ | $\$ 2,475$ | $\$ 0$ |
| Pinellas-Anclote River Basin | $\$ 0$ | $\$ 4,163$ | $\$ 4,163$ | $\$ 0$ | $\$ 8,326$ | $\$ 0$ |
| Manasota Basin | $\$ 0$ | $\$ 2,475$ | $\$ 2,475$ | $\$ 0$ | $\$ 4,950$ | $\$ 0$ |
| Other | $\$ 0$ | $\$ 35,280$ | $\$ 30,000$ | $\$ 0$ | $\$ 65,280$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 110,280$ | $\$ 0$ |



Project:<br>Project \#:<br>City of Tampa Stormwater Filtration Devices (Completed)<br>W254 Basin: 013,014,<br>00 Project Status: Ongoing<br>Tampa<br>Steven Seachrist<br>Miselis, Paul<br>SWIM<br>Project Type:

DESCRIPTION: The objective of this project is to install up to 25 filtration devices at existing, untreated and highly-urbanized stormwater outfalls. The project will specifically target suspended solids, oils and greases, and the associated contaminants. According to the City, CSR Stormceptor appears to be the technology most compatible with the City's objectives. The required minimum efficiency is $40 \%$ total suspended solids (TSS) removal, which has been exceeded in each of the installations. Benefits: This project would remove at least $40 \%$ of TSS from up to 25 existing, untreated and highly-urbanized stormwater outfalls into the Hillsborough River and Tampa Bay, a SWIM priority waterbody.
Costs: The total project cost is $\$ 1,225,000$. The District's total contribution to this project is $\$ 612,500$, of which $\$ 126,362$ is from the Hillsborough River Basin, $\$ 118,638$ is from the Northwest Hillsborough Basin and $\$ 367,500$ is from state SWIM funds.
ADDITIONAL INFORMATION: Since 1950, approximately 50 percent of Tampa Bay's natural shoreline has been lost due to development and reduction in water quality. This resulted in a decline in the aesthetic, recreational, and commercial value of the bay, as well as a loss of habitat for native plants and animals. The SWIM Plan for Tampa Bay outlines goals to restore habitat throughout the bay area and reduce pollutant loads entering Tampa Bay. The objectives of this project are consistent with these goals.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Hillsborough River Basin | $\$ 128,754$ | $\$ 1,046$ | $\$ 0$ | $\$ 0$ | $\$ 129,800$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 121,030$ | $\$ 1,046$ | $\$ 0$ | $\$ 0$ | $\$ 122,076$ | $\$ 0$ |
| State SWIM | $\$ 375,916$ | $\$ 2,090$ | $\$ 0$ | $\$ 0$ | $\$ 378,006$ | $\$ 0$ |
| City of Tampa | $\$ 612,500$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 612,500$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 1,242,382$ | $\$ 0$ |

Critical Project Milestones: District Recognition/Signage: YES
Sign Recognizing District, including District logo Installed at Construction Site
Draft Agreement to Management Services
Draft Agreement returned from Management Services
Basin Board Approval of Agreement
Governing Board Approval of Agreement
Contract Executed
Notice to Proceed
Design Complete - Phase I
Design Complete - Phase II
Construction Complete - Phase I
Construction Complete - Phase II
Contract Closeout

Projected: Amended: Actual:
06/30/2004

| 12/15/2002 |  | 08/23/2002 |
| :---: | :---: | :---: |
| 01/31/2003 | ----------- | 01/02/2003 |
| 02/28/2003 | ----------- | 10/2002 |
| 02/28/2003 | ---------- | 10/29/2002 |
| 04/15/2003 |  | 03/07/2003 |
| 05/01/2003 | ----------- | 03/11/2003 |
| ----------- | ----------- | 06/09/2003 |
| ------------ | ----------- | 08/25/2004 |
| 06/30/2005 |  | 06/30/2004 |
| 11/30/2005 |  | 12/16/2005 |
| 12/31/2005 | 02/01/2006 |  |

Status As Of: 10/27/2006 - This project consists of the construction of stormwater filtration devices at up to 22 outfalls located in the Westshore area of the City of Tampa and 3 outfalls along the Hillsborough River in the city limits. Construction of the first 9 units is complete and the City and District are awaiting as-built drawings for these units. The City completed the request for bids process for the construction of the remaining 16 units in the Westshore region; however, bids came in high and available funds limited construction to only 11 of the remaining 16 units. The 11 units selected for construction are all located within the Northwest Hillsborough Basin Board area. Construction of the remaining 5 stormwater filtration units will wait until funding becomes available in future fiscal years. The City awarded the construction contract for the next 11 units, the notice to proceed was issued, and the pre-construction meeting was held. Earthwork started in early 2005. Subsequently, high tailwater conditions in one of the selected units prevented it from functioning properly, so it was removed from the scope. Also, temporary construction access at another unit could not be obtained from two of the affected residents, so it too was removed from the scope of work. The City completed construction of the remaining 9 units in December 2005. The City to submitted final invoice and the project has been completed and closed out. This will be the last status update for this project.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

Hillsborough County Estimation of Pollution Loads and Yields
W258 Basin: 011,013,014,
00 Project Status: Ongoing
Hillsborough County
Gerold Morrison
Miselis, Paul
SWIM

DESCRIPTION: There is a lack of available pollution loading data for BMP evaluation and model development in the Hillsborough River, Alafia River and Northwest Hillsborough Basins. The Environmental Protection Commission (EPC) of Hillsborough County has conducted monthly water quality monitoring at approximately 100 stations, including 25 non-tidal freshwater stations in the Tampa Bay watershed, since the early 1970s. A number of these freshwater stations are located within hydrologic sub-basins that are currently slated for "total maximum daily load" (TMDL) development by the Florida Department of Environmental Protection and/or the U.S. Environmental Protection Agency. Estimation of monthly and annual pollutant loads and yields at a selected subset of these stations will be highly beneficial to the District, EPC, state and federal regulatory agencies, and numerous other stakeholder groups in the Tampa Bay watershed. In order to compute estimates of annual pollutant loads, the pollutant concentration data collected by EPC needs to be combined with estimates of stream flow at each station of interest. While the EPC anticipates that sufficient resources will be available to continue its water quality monitoring program, funding from other sources (such as the District's cooperative funding program) is needed to provide the estimated flow data. Through this project, the EPC and other partners (e.g., Hillsborough County Public Works Department, Tampa Bay Estuary Program) will work with District staff to: (a) select a subset of freshwater stations for which pollutant loading estimates are desired; (b) develop stream flow rating curves needed to calculate daily mean flow rates at those stations; (c) calculate monthly and annual estimates of pollutant loads for the water quality parameters of interest in the TMDL process for each selected station; and (d) provide a final report summarizing the water quality, flow, and pollutant load and yield information. The EPC's initial funding request was for a phased project over FY2005 and FY2006; however, after meeting with the District's Hydrologic Data Section staff, it is was decided to extend funding for the project an additional fiscal year to ensure accurate rating curves are developed for the estimation of pollutant loads and yields. Under the agreement the District is responsible for funding the initial installation of continuous water level recorders for 24 stream flow monitoring sites (15 in FY2005 and 9 in FY2006), and would also be responsible for developing the necessary stream rating curves for each site. The EPC is responsible for collecting water samples, paying for all laboratory costs, the long term operation and maintenance of all equipment purchased and installed by the District, and for preparing annual reports summarizing the data collected.
Benefits: The estimation of monthly and annual pollutant loads and yields at a selected stations will benefit the District, EPC, Hillsborough County, state and federal regulatory agencies in the development of Basin Management Action Plans (BMAPs) for the Tampa Bay watershed, which will, in turn, help the District's SWIM Program better target the areas in county in most need of stormwater retrofit projects.
Costs: The total project cost is $\$ 500,000$. The District's share is $\$ 250,000$, of which $\$ 132,500$ are state SWIM funds.
ADDITIONAL INFORMATION:In 1987, the Florida Legislature established the Surface Water Improvement and Management (SWIM) Act having recognized that water quality and habitat in surface waters throughout the state had degraded or was in danger of being degraded. The Act requires the five water management districts to maintain a priority list of water bodies of regional or statewide significance within their boundaries, and develop plans and programs for the improvement of those water bodies. To date, ten SWIM water bodies in the District have had plans developed and approved by the state. Several plans have been updated one or more times as required by the Act. The SWIM Plan for Tampa Bay was last approved in February 1999 and is the basis for this project. SWIM projects are eligible for state matching funds with the state funding 60 percent of the project costs and the District funding the remaining 40 Percent.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Hillsborough Co. EPC | $\$ 75,000$ | $\$ 75,000$ | $\$ 0$ | $\$ 0$ | $\$ 150,000$ | $\$ 0$ |
| State SWIM | $\$ 46,070$ | $\$ 40,949$ | $\$ 1,709$ | $\$ 0$ | $\$ 88,728$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 7,679$ | $\$ 20,474$ | $\$ 854$ | $\$ 0$ | $\$ 29,007$ | $\$ 0$ |
| Alafia River Basin | $\$ 7,679$ | $\$ 10,237$ | $\$ 428$ | $\$ 0$ | $\$ 18,344$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 15,357$ | $\$ 10,237$ | $\$ 428$ | $\$ 0$ | $\$ 26,022$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 312,101$ | $\$ 0$ |

Critical Project Milestones: Projected: Amended: Actual:
District Recognition/Signage: YES
All reports and public documents will include a recognition of the District's Hillsborough, Alafia and Northwest Hillsborough Basin Boards

| Hillsborough County EPC approval of agreement | $9 / 18 / 04$ | $1 / 15 / 05$ | $2 / 18 / 05$ |
| :--- | :--- | :--- | :--- |
| District approval of agreement | $10 / 30 / 04$ | $2 / 30 / 05$ | $3 / 04 / 05$ |
| Notice to proceed sent for Agreement | $11 / 15 / 04$ | $4 / 30 / 05$ | $3 / 09 / 05$ |
| Design Monitoring Plan/Execute Contracts | $12 / 15 / 04$ | $9 / 30 / 05$ | $8 / 29 / 05$ |
| Complete Monitoring phase | $12 / 15 / 04$ | $9 / 30 / 07$ |  |
| Complete Draft Report | $8 / 30 / 05$ | $10 / 30 / 07$ |  |
| Complete Final Report | $9 / 30 / 05$ | $12 / 30 / 07$ |  |
| Project Complete | $9 / 30 / 05$ | $12 / 30 / 07$ |  |

Status As Of: 10/27/2006 - The agreement for the project was executed on March 4, 2005. Under the agreement the District is responsible for installing continuous stage recording devices at the 15 sites. Fourteen of the 15 sites have been installed. It was not necessary to install the 15th monitoring station proposed because the USGS has installed a gaging station at that location. Hydrogage, the District's contractor for the development of stream rating curves, has begun obtaining stage vs. flow data necessary to rate the streams. The EPC has begun monitoring the fifteen sites. The cooperative agreement is being amended in FY2006 to add funding for the additional nine flow monitoring sites. On March 15, 2006, District SWIM and Hydrologic Data Section staff met with EPC staff to review the project status, discuss the installation of FY2006 flow monitoring sites, and the development of stream rating curves for the fourteen sites that have been installed. The District's Hydrologic Data Section has suggested refinements to the existing project scope of work to ensure the stream flow data collected is as accurate as possible. On March 29, District SWIM and Hydrologic Data Section staff met with EPC staff to specifically discuss the installation of the new FY2006 sites. Subsequently, based on the gaging station data, EPC staff have identified two stations that are tidally influenced and need to be relocated further upstream. Hydrogage staff concur with this assessment and have been directed to discontinue with developing rating curves at these two sites. The EPC is now in the process of confirming that the two new sites area not tidally influenced.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

FDOT North Dale Mabry Highway Stormwater Retrofit/Wetland Restoration
W259 Basin: 014,
01 Project Status: Ongoing
Florida Department of Transportation
Susan C. Moore
Miselis, Paul
SWIM

DESCRIPTION: This project is in response to a cooperative funding request from the Florida Department of Transportation (FDOT) to improve water quality and restore habitat in the Sweetwater Creek basin. This project involves the engineering design, environmental permitting and construction of a water quality treatment facility. The objective of the project is to remove the nuisance vegetation, restore the wetland hydroperiods and provide water quality treatment for stormwater and base flows that enter the site from an $80 \pm$ acre highly urbanized and impervious drainage basin. The District is the lead agency for this project and will be responsible for hiring an engineering consultant to design and obtain environmental resource permits, and for hiring a construction contractor for the project. The FDOT will be responsible for the operation and maintenance of the completed facility.
Benefits: Additional benefits of this project include flood plain creation and restoration of natural systems. The project is also consistent with the Tampa Bay Estuary Program's efforts to reduce nitrogen loading to Tampa Bay. The project also uses public land that is not being utilized to its fullest capacity.
Costs: The project budget for engineering, permitting, and construction is estimated at $\$ 900,000$. The estimated project engineering and permitting cost is $\$ 100,000$ and estimated construction cost is $\$ 800,000$. The District is contributing 50 percent, or $\$ 450,000$, with $\$ 225,000$ from the Northwest Hillsborough Basin and $\$ 225,000$ from the State SWIM Program. FDOT is contributing 50 percent or $\$ 450,000$. District funds shown in the table include staff salaries.
ADDITIONAL INFORMATION: The FDOT-owned 11 acre site is located one block south of Waters Avenue on the west side of Dale Mabry Highway and abuts Channel "H", a major tributary to Sweetwater Creek. Currently, the project area is dominated by nuisance and invasive species in the wetland and within a four acre upland area located in the central portion of the site. An existing ditch system and large culvert discharges water from the site into Channel "H" and has significantly reduced the hydroperiod of $6.5 \pm$ acres of wooded wetlands for over 20 years. Sweetwater Creek, located in Hillsborough County, is a tributary to Tampa Bay, a District SWIM waterbody. Since 1950, approximately 50 percent of the bay's natural shoreline has been lost due to development and reduction in water quality. This resulted in a decline in the aesthetic, recreational, and commercial value of the bay, as well as a loss of habitat for native plants and animals. The SWIM Plan for Tampa Bay outlines goals to restore habitat throughout the bay area and reduce pollutant loads entering Tampa Bay. The objectives of this project are consistent with these goals.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| FDOT | $\$ 0$ | $\$ 450,000$ | $\$ 0$ | $\$ 0$ | $\$ 450,000$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 0$ | $\$ 230,367$ | $\$ 5,694$ | $\$ 0$ | $\$ 236,061$ | $\$ 0$ |
| State SWIM | $\$ 0$ | $\$ 230,367$ | $\$ 5,694$ | $\$ 0$ | $\$ 236,061$ | $\$ 0$ |
| TOTAL |  |  |  | $\$ 922,122$ | $\$ 0$ |  |
|  |  |  |  |  |  |  |
| Critical Project Milestones: <br> District Recognition/Signage: YES <br> District recognition \& signage will be required in reports, on <br> plans and at the construction site. |  |  | Amended: | Actual: |  |  |

Status As Of: 10/27/2006 - The District budgeted \$450,000 (50\% State SWIM and 50\% Northwest Hillsborough Basin Board funds) and $\$ 450,000$ from the FDOT as revenue for FY2006. These funds will be used for engineering design, permitting and construction needs. The cooperative project agreement with the FDOT was fully executed on 12/05/2005. The Request for Proposal (RFP) for engineering services was advertised on $2 / 24 / 2006$, a mandatory pre-proposal meeting was held on $3 / 14 / 2006$, and the proposal opening was on $04 / 13 / 2006$. The proposal was awarded to HDR, Inc. The District has successfully finished negotiating the scope of work and fees with the consultant and is now in the process of drafting the agreement for consultant services. Design will commence once the agreement is fully executed, which is expected to be by the end of 2006.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

City of Tampa Urban Lake Rescue
W268 Basin: 013,014,
01 Project Status: Ongoing
Tampa
Alex Awad - Lake Kipling
Ben Koplin - Lakes Roberta and Edna
Miselis, Paul
SWIM
DESCRIPTION: This project is in response to an FY2006 cooperative funding request from the City of Tampa to improve water quality and restore habitat in three urban lakes (Lake Edna, Lake Roberta and Lake Kipling). Lake Kipling is tidally connected to Tampa Bay, a District SWIM waterbody, and Lakes Edna and Roberta discharge to the Hillsborough River, a major tributary to Tampa Bay. Lakes Edna, Roberta and Kipling are located in City of Tampa. Lake Edna, a 1.75 acre lake, is located in the Wellswood neighborhood, Lake Roberta, a 2.2 acre lake, is located in Seminole Heights and Lake Kipling, a 2.1 acre lake, is located in Sunset Park. The lakes are heavily silted from years of untreated stormwater inflow, the contributing drainage basin areas are highly urbanized, and in each case, stormwater passes through the lakes without much water quality treatment. This adversely impacts receiving waterbodies. This project involves the engineering design, permitting and construction of three separate lake projects. The City of Tampa is taking the lead in the design, permitting and construction, and will be responsible for long-term maintenance of the project. District funding will be used for design, permitting and construction of the project.
Benefits: The objectives of the project include lake habitat restoration, erosion control, water quality treatment, and citizen involvement and education.
Costs: The District's total contribution to this project (including all three lakes) is $\$ 420,000$, of which $\$ 103,000$ is from the Hillsborough River Basin, $\$ 107,000$ is from the Northwest Hillsborough Basin, and $\$ 210,000$ is from State SWIM funds. The City's matching contribution of $\$ 420,000$ is from an established CIP for the lake improvement project.
ADDITIONAL INFORMATION: Since 1950, approximately 50 percent of Tampa Bay's natural shoreline has been lost due to development and reduction in water quality. This resulted in a decline in the aesthetic, recreational, and commercial value of the bay, as well as a loss of habitat for native plants and animals. The SWIM Plan for Tampa Bay outlines goals to restore habitat throughout the bay area and reduce pollutant loads entering Tampa Bay. The objectives of this project are consistent with these goals.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> $\mathbf{2 0 0 7}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Hillsborough River Basin | $\$ 0$ | $\$ 104,633$ | $\$ 1,245$ | $\$ 0$ | $\$ 105,878$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 0$ | $\$ 108,729$ | $\$ 1,244$ | $\$ 0$ | $\$ 109,973$ | $\$ 0$ |
| State SWIM | $\$ 0$ | $\$ 213,362$ | $\$ 2,488$ | $\$ 0$ | $\$ 215,850$ | $\$ 0$ |
| City of Tampa | $\$ 0$ | $\$ 420,000$ | $\$ 0$ | $\$ 0$ | $\$ 420,000$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 851,701$ | $\$ 0$ |
|  |  |  |  |  |  |  |
| Critical Project Milestones: <br> District Recognition/Signage: YES <br> District recognition \& signage will be required in reports, on <br> plans and at the construction site. |  |  |  |  |  |  |

Status As Of: 10/30/2006 - This FY2006 project budgets $\$ 420,000$ in District funds (including State SWIM funds) for FY2006 with a $\$ 420,000$ match from the City of Tampa. These funds will be used for engineering design, permitting, and construction needs. The cooperative project agreement was drafted and sent to the City on 02/09/2006 for the Mayor's signature and was fully executed in May 2006. The City has negotiating Work Orders with the next consultants on their standing list of consultants for civil design work. One consultant (Hazen Sawyer) has been selected for the Lake Kipling project and another (DRMP) has been selected for the Lake Edna and Lake Roberta projects. Design work on all three lakes is anticipated to commence by the end of 2006.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

Tampa Bay Habitat Restoration
W312 Basin: 011,013,014,016,021,
00 Project Status: Ongoing
Florida Department of Environmental Protection
Fred Calder
Henningsen, Brandt
SWIM

DESCRIPTION: Tampa Bay, in 1987, was identified by the Legislature in the Surface Water Improvement and Management (SWIM) Act of as the highest priority on the District's SWIM priority list. This project provides funds for general support to SWIM habitat restoration efforts for Tampa Bay. Funds are provided for equipment rental, equipment repair/maintenance, advertising/public notices, parts and supplies, etc. Project construction expenses of the Operations Department are also budgeted under this activity code for projects proposed for construction during the year. Additionally, this project includes funds for exotic plant maintenance at the habitat restoration sites and funds for the Environmental Careers Organization (ECO) interns. Lastly, funds for this project allow planning of future projects, and facilitate SWIM involvement with various environmental committees and task forces (e.g., various committees of the Tampa Bay Estuary Program, etc.) Benefits: This project is important for meeting management goals of SWIM and the Tampa Bay Estuary Program (TBEP). Coordination and planning of existing and future projects is a critical component of long term success of both programs. If funds are not allocated, then SWIM's ability to successfully perform their habitat restoration projects for Tampa Bay will be compromised. Accordingly, the District will not be meeting its (and the TBEP's) goals to restore important habitats (and improve water quality) for the bay, habitats which have suffered great losses because of land development and other human uses of the resource.
Costs: The proposed FY2007 funds will address all aspects as detailed above. The proposed FY2007 budget breakdown is a follows: Alafia River Basin-10\% (\$18,857); Hillsborough River Basin - 10\% (\$18,857); Northwest Hillsborough Basin - 10\% (\$18,857); Pinellas-Anclote River Basin - 10\% (\$18,857); Manasota Basin - 10\% (\$18,857; State SWIM -50\% (\$94,285).
ADDITIONAL INFORMATION: Tampa Bay is the District's top priority Surface Water Improvement and Management (SWIM) program waterbody, is a category I (most in need of restoration) under the State's Unified Watershed Assessment and Watershed Restoration Priorities, and is considered an "estuary of national significance" with the designation of the Tampa Bay (National) Estuary Program. Since 1950, about 50 percent of the bay's natural shoreline and 40 percent of its seagrass acreage were lost as a result of physical destruction and water quality impairment This resulted in a decline in the aesthetic, recreational, and commercial value of the bay, as well as a loss of habitat for native plants and animals.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Alafia River Basin | $\$ 99,561$ | $\$ 18,521$ | $\$ 19,084$ | $\$ 0$ | $\$ 137,166$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 96,936$ | $\$ 18,521$ | $\$ 19,084$ | $\$ 0$ | $\$ 134,541$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 100,119$ | $\$ 18,521$ | $\$ 19,084$ | $\$ 0$ | $\$ 137,724$ | $\$ 0$ |
| Pinellas-Anclote River Basin | $\$ 120,862$ | $\$ 18,521$ | $\$ 19,085$ | $\$ 0$ | $\$ 158,468$ | $\$ 0$ |
| Manasota Basin | $\$ 106,487$ | $\$ 18,521$ | $\$ 19,084$ | $\$ 0$ | $\$ 144,092$ | $\$ 0$ |
| State SWIM | $\$ 784,492$ | $\$ 92,601$ | $\$ 95,420$ | $\$ 0$ | $\$ 972,513$ | $\$ 0$ |
| State Appropriation | $\$ 1,500,000$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 1,500,000$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 3,184,504$ | $\$ 0$ |

Critical Project Milestones: District Recognition/Signage: NA
Refer to Individual Projects for their milestones
Status As Of: 10/30/2006 - District Operations crews are preparing to return this fall to begin construction of the Newman Branch and Terra Ceia projects. District Operations are voicing concern over their continued services to construct small to medium size ( $\leq 30$ acres) SWIM restoration projects. The 15 year partnership between SWIM and Operations may be modified that Operations may only wish to be involved with one or so small ( $<5$ acres) SWIM projects per year. Discussions will be held early fall to discuss SWIM and Operations future relationship. Concerning SWIM presentations over the last two months, Dr. Brandt Henningsen gave two invited presentations concerning ecosystem restoration for Tampa Bay for. 1) State Water Management District Annual Water Conference; 2) Tampa Bay Estuary Program's " Estuary College". A new non-paid intern began work with SWIM staff to assist with various project duties and to investigate control methods of a non-native grass ("guinea grass") that threatens the success of SWIM upland restoration efforts. The intern, Patricia Ollen, is from the Environmental Science and Policy degree program of the University of South Florida. Lastly, after a lengthy quest to fill 6 vacancies, the SWIM Program once again became fully staffed with the hiring of two new environmental engineers: Nancy Norton and Shelley Thornton.

Project: Biennial Seagrass Mapping

## Tampa Bay, Sarasota Bay, Charlotte Harbor

W331 Basin: 011,013,014,016,020,021,
02 Project Status: Ongoing
Tampa Bay Estuary Program, Sarasota Bay NEP, Charlotte Harbor NEP
Holly Greening (TBEP), Mark Alderson (SBNEP), Catherine Corbett (CHNEP)
Kaufman, Kristen

SWIM
DESCRIPTION: This SWIM initiative project involves mapping and monitoring seagrass within three SWIM priority waterbodies: Tampa Bay, Sarasota Bay, and Charlotte Harbor. In addition to SWIM waterbodies, contractual services for the St. Joseph Sound/Clearwater Harbor Biennial GIS Mapping of Seagrass (See K150) are completed under this agreement to benefit from economy of scale. Specifically, the District's consultant will provide digital aerial photography, photointerpretation, and GIS-based mapping in order to generate calculations of seagrass acreage and distribution within each of the named waterbodies. The project is conducted every two years to monitor the long-term health of these vital resources. An agreement with a consultant is in place for the 2003-2004 and 2005-2006 phases of this project. Funds included in the FY2006 budget will be used for 2005-2006 project services through the existing consultant. District staff are requesting FY2007 funds for the upcoming 2007-2008 effort.
Benefits: The mapping of seagrasses within each estuary allows the District, the Estuary Programs, and other entities to monitor the health and distribution of seagrasses. Seagrass health is used as an indicator of water quality conditions. Thus, this project can assist with water resource management decision making, specifically in evaluating the effectiveness of water quality improvement projects.
Costs: The total FY2006 project cost is $\$ 164,900$, including revenue from Pinellas County under project K150. The District's portion of costs to complete Tampa Bay, Sarasota Bay, and Charlotte Harbor totals \$154,700. The total FY2007 project cost is estimated at $\$ 185,000$, which includes costs associated with K150. The funds budgeted under W331 for Tampa Bay, Sarasota Bay, and Charlotte Harbor total \$168,350. State SWIM will fund $\$ 84,175$ and funds from six basins will contribute $\$ 84,175$. The percent of this effort paid by each basin is based on the amount of area per waterbody flown for the aerial photography. Tampa Bay is approximately $55 \%$ of the area flown, Sarasota Bay is $7 \%$, and Charlotte Harbor is $38 \%$. Four basins (Alafia River, Hillsborough River, Northwest Hillsborough, Pinellas-Anclote River, and Manasota) will fund $5.5 \%$ of the cost at $\$ 9,970$ each. The Manasota Basin will fund $13.75 \%$ of the cost at $\$ 24,923$ and the Peace River Basin will fund $14.25 \%$ of the cost at $\$ 25,830$. These percentages are the same as those used to calculate the FY2006 budget.
ADDITIONAL INFORMATION: Seagrass meadows serve as nurseries for a variety of commercially and recreationally important species of fin fish and shellfish, and they are highly dependent upon the maintenance of good water quality. The project meets the goals and objectives of the Tampa Bay, Sarasota Bay, and Charlotte Harbor SWIM Plans, the Tampa Bay Estuary Program, Sarasota Bay Estuary Program, and Charlotte Harbor National Estuary Program. The mapping effort was last conducted in 2003-2004. Between 2002 and 2004, seagrass coverage in Tampa Bay increased by approximately 4\%. In Sarasota Bay, which has a more highly urbanized watershed than Tampa Bay, seagrass coverage increased 2\% in coverage from 2002 to 2004. From 2002 to 2004, Lemon Bay seagrass coverage increased by $6 \%$. The only system to experience a loss in coverage between 2002 and 2004 was Charlotte Harbor with a $0.5 \%$ decrease. Prior to the 1999 mapping effort, the seagrass trends for these systems had been improving since 1988. Decreases in coverage from 1996 to 1999 in these estuaries was most likely caused by the 1997 to 1998 El Nino with an increase in rainfall and corresponding increase in nutrients and suspended solids.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Alafia River Basin | $\$ 12,042$ | $\$ 8,985$ | $\$ 10,044$ | $\$ 0$ | $\$ 31,071$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 12,042$ | $\$ 8,985$ | $\$ 10,044$ | $\$ 0$ | $\$ 31,071$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 12,042$ | $\$ 8,985$ | $\$ 10,044$ | $\$ 0$ | $\$ 31,071$ | $\$ 0$ |
| Pinellas-Anclote River Basin | $\$ 12,042$ | $\$ 8,985$ | $\$ 10,044$ | $\$ 0$ | $\$ 31,071$ | $\$ 0$ |
| Peace River Basin | $\$ 31,780$ | $\$ 23,279$ | $\$ 26,022$ | $\$ 0$ | $\$ 81,081$ | $\$ 0$ |
| Manasota Basin | $\$ 31,555$ | $\$ 22,462$ | $\$ 25,110$ | $\$ 0$ | $\$ 79,127$ | $\$ 0$ |
| State SWIM | $\$ 165,904$ | $\$ 81,678$ | $\$ 91,302$ | $\$ 0$ | $\$ 338,884$ | $\$ 0$ |
| TOTAL |  |  |  | $\$ 623,376$ | $\$ 0$ |  |

Recognition of the Southwest Florida Water Management
District will be on all reports
2003/2004 Mapping Effort
Request for Proposals 06/15/2003 ---------------- 07/11/2003
Begin Review of Proposals
08/15/2003 --------------- 09/22/2003
Draft Agreement to Management Services
10/31/2003
--------------- 12/17/2003
Contract Executed
Photography Shot for 2003/2004
Final Report for 2003/2004
2005/2006 Mapping Effort
First Amendment to the 2003/2004 Agreement
11/15/2003
--------------- 01/16/2004
01/31/2004 ---------------- 01/17/2004
12/31/2004 --------------- 12/31/2004

Consultant Notice to Proceed
12/01/2005
---------------- 12/13/2005
Acquisition of Aerial Photography
Final Report for 2005/2006
Agreement Expiration Date
12/01/2005 --------------- 12/13/2005

Status As Of: 10/31/2006 - The Consultant was given notice to proceed and acquired aerial photography of all estuaries between February 1, 2006 and February 10, 2006. The Consultant delivered ortho photos for District review and approval. Photointerpretation of imagery began in April 2006 and is ongoing. Field verification of seagrass photographic signatures began in May 2006 and will be completed by November 2006. A project update was presented to the Estuary Programs' Seagrass Working Group October 4, 2006.

Project:<br>Project \#:<br>Phase:<br>Cooperator:<br>Coop. Contact:<br>Project Manager:<br>Task Manager:<br>Project Type:<br>\section*{Sweetwater Creek Restoration}<br>W388 Basin: 014,<br>01 Project Status: Ongoing<br>Hillsborough County<br>Jack Merriam<br>Henningsen, Brandt<br>SWIM

DESCRIPTION: This project is an effort to restore degraded and lost coastal habitats in northwestern Hillsborough County. The project involves restoration and stormwater treatment for Sweetwater Creek. This urbanized creek drains to the northeastern reaches of Old Tampa Bay. The creek has been channelized with the historical and manmade creek banks typically dominated by non-native vegetation (i.e., Brazilian pepper). In addition, the creek receives large volumes of stormwater with significant sediment loads that have filled downstream basins and residential canals. Portions of the watershed flanking the creek are owned by Hillsborough County, with an additional 55 acres of the area being pursued for public acquisition. If acquisition is successful, the County could establish a valuable 75+ acre urban green-space nature preserve that would be important for both the wildlife as well as the public of Tampa Bay. Proposed restoration of the creek would include: restoration/enhancement of historic and manmade creek channels, low salinity habitats, complementary marshes, and uplands; removal of all non-native vegetation; construction of stormwater treatment features which would improve water quality for the bay. A preliminary assessment of restoration/stormwater treatment opportunities will need to be conducted first, followed by project design/permitting, and construction. This project was originally proposed by Hillsborough County as a Cooperative Funding proposal, but due to SWIM's long term interest in the area (dating back to 1993), the project was included in SWIM's FY2005 budget. Project cooperators with SWIM include: Hillsborough County Stormwater Management, Hillsborough County Environmental Protection Commission, and the County's Park, Recreation and Conservation Department. The County will be the lead agency in this collaborative effort, administering consulting and construction contracts. The District will closely work with the County on all restoration and stormwater treatment designs. Benefits: This project will help in meeting management goals of SWIM and the Tampa Bay Estuary Program (TBEP), including providing low salinity habitats and improvements to water quality via stormwater treatment Improved habitat values and the addition of habitat acreages will provide opportunities for many differing species of coastal wildlife,inclusive of commercial and sportfishing species, bird populations, a host of invertebrate species (crabs, shrimp, oysters, etc.), reptiles/amphibians, and small mammals.
Costs: The District has budgeted $\$ 200,000$, of which $\$ 100,000$ was budgeted in prior years and $\$ 100,000$ ( $\$ 50,000$ from the Northwest Hillsborough Basin and $\$ 50,000$ State Appropriation) is requested for FY2007. District funds will be used for preliminary assessment, design/permitting, and construction expenses.
ADDITIONAL INFORMATION: Tampa Bay is the District's top priority Surface Water Improvement and Management (SWIM) program waterbody, is a category I (most in need of restoration) under the State's Unified Watershed Assessment and Watershed Restoration Priorities, and is considered an "estuary of national significance" with the designation of the Tampa Bay Estuary Program. Since 1950, about 50 percent of the bay's natural shoreline and 40 percent of its seagrass acreage were lost as a result of physical destruction and water quality impairment. This resulted in a decline in the aesthetic, recreational, and commercial value of the bay, as well as a loss of habitat for native plants and animals.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Northwest Hillsborough Basin | $\$ 41,997$ | $\$ 1,597$ | $\$ 51,681$ | $\$ 0$ | $\$ 95,275$ | $\$ 0$ |
| State SWIM | $\$ 62,995$ | $\$ 1,597$ | $\$ 1,681$ | $\$ 0$ | $\$ 66,273$ | $\$ 0$ |
| Hillsborough Co. | $\$ 100,000$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 100,000$ | $\$ 0$ |
| State Appropriation | $\$ 0$ | $\$ 0$ | $\$ 50,000$ | $\$ 0$ | $\$ 50,000$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 311,548$ | $\$ 0$ |

Critical Project Milestones:
District Recognition/Signage: NA
Status As Of: 10/31/2006 - With the imminent departure of Hillsborough County Commissioner Cathy Castor (probable election to U. S. House of Representatives), Hillsborough County staff will be losing their strongest County proponent of this project. David Glicksburg of the County's stormwater section informed SWIM staff that the County still will be pursuing negotiations with Harrod Properties (private landowner to north of County parcel) in an attempt to develop a cooperative relationship for a joint restoration project involving the County's property and small (probably undevelopable) sections of the Harrod tract. Mr. Glicksburg anticipates coordinating with SWIM staff and the Harrods during November to determine if a project remains that can be implemented. If available land is deemed insufficient for a restoration/stormwater polishing effort, then SWIM funds can be redirected elsewhere or returned to the Basin/State.

| Project: | Lake Armistead Structure |
| :--- | :--- |
| Project \#: | B008 Basin: 014, |
| Phase: | 01 Project Status: Ongoing |
| Cooperator: |  |
| Coop. Contact: |  |
| Project Manager: | Bartlett, Mike |
| Task Manager: | Jim GaNun/OPS/swfwmd |
| Project Type: | Basin Initiatives |

DESCRIPTION: This project involves the installation of a water control structure at the outlet of Lake Armistead to increase water conservation levels and system control, improve the health of cypress wetlands contiguous with the lake and thereby promote the ecological integrity of the lake ecosystem. Prior to construction, District staff completed: 1) an evaluation of the impacts of structure installation on downstream flood plain wetlands of Rocky Creek and potential flooding associated with structure operation; 2) the acquisition of permits from the Florida Department of Environmental Protection (FDEP) and the Hillsborough County Environmental Protection Commission (HCEPC); and 3) the hosting of public meetings to gauge resident support for the project; and subsequent design of the structure. The project was transferred to the District Operations Department in the spring of 2003. Construction began in May of that year. The foundation work was completed but an early major storm event in June halted the construction of the permanent weir wall. The trench box panels were then driven to the weir target elevation of 42.2' NGVD and stabilized with rip rap rubble. This created a temporary weir and an opportunity to observe the effects of a permanent installation at this level. After a very wet summer where residents experienced much higher sustained levels than in past years, District staff and consultant engineers analyzed the data and proposed modifications to the original design. Another public meeting was held in October 2003 to gather resident input on the design and construction. On the day of the meeting, Lake Armistead was at or near the 42.2' recommended elevation. In general, the residents in attendance still expressed support for a structure to raise levels but most thought the 42.2' target was too high. After establishing public support for modifying the plan, District staff proposed adding a fully operable remote controlled facility to maximize operational flexibility and the NW Hillsborough Basin Board concurred. The new structure has now been completed, with remote-contolled operable gates, within the original budget. The lake elevation can be varied from 39.2' to 42.2' to obtain the optimum maintenance level while still achieving beneficial conservation measures and environmental restoration goals. At the February 2005 meeting, the Basin Board authorized additional funding for the modification of several private docks on Lake Armistead to accomodate higher lake levels. These dock modiications are now complete.
BENEFITS I ADDITIONAL INFORMATION: Several years ago, Lake Armistead lake-front property owners and members of the Northwest Hillsborough Basin Board agreed to explore the idea of constructing a water conservation structure at the outflow of Lake Armistead where it empties into Rocky Creek. There was no water control structure at the site at that time. Water levels in Lake Armistead and in adjacent wetlands had declined over recent years, a result of drought and cumulative impacts in the area due to development, groundwater pumping and drainage improvement projects. The water level frequently fluctuated below the Low Level established by the District. Recognizing that maintaining higher lake levels will improve the health of cypress wetlands contiguous with the lake and thereby promote the ecological integrity of the lake ecosystem, the Basin Board directed staff to investigate the impacts of such a structure to both the lake and the downstream reach of Rocky Creek. An engineering firm was contracted with the watershed modeling and several public meetings were held in the Lake Armistead area in late 2002 and in early 2003. The purpose of the meetings was to obtain local citizen input and concurrence to build the water conservation structure. The structure would be constructed to aid in maintaining Lake Armistead at higher levels on the average and at the same time, permit natural flow downstream in Rocky Creek. After conducting the public meetings, gaining general agreement from local citizens and obtaining approval from the Northwest Hillsborough Basin Board, District staff initiated construction of the water conservation structure in May 2003.

The 1980 Adopted Guidance Levels are:

| 10-yr. Flood | $46.50^{\prime}$ |
| :--- | :--- |
| High Level | $44.00^{\prime}$ |
| Max Desirable | $43.00^{\prime}$ |
| Low Level | $40.50^{\prime}$ |
| Extreme Low | $39.00^{\prime}$ |

Prior to 1980, the 1967 Official Maximum Desirable Level was set at 45.80' and the Minimum Desirable Level was 42.00'. The SWFWMD Resource Conservation and Development Department has completed a draft Minimum Flows and Levels (MFL) study for Lake Armistead. The proposed levels are based on the best information on file, including: site specific water surface elevation data obtained from the District Water Management Database;
a normal pool elevation of 43.8 ft above NGVD which was established using buttress inflection points of cypress trees located along the southwestern lakeshore; a control point elevation of 42.2 ft above NGVD, which was based on the weir crest elevation of the new structure at the lake outlet; and the methodology for establishing minimum lake levels that is contained in District rules (Chapter 40D-8, Florida Administrative Code).

The proposed (provisional) levels are:
High Guidance Level $=42.2 \mathrm{ft}$ above NGVD
High Minimum Lake Level $=42.2 \mathrm{ft}$ above NGVD
Minimum Lake Level $=41.2 \mathrm{ft}$ above NGVD
Low Guidance Level $=40.1 \mathrm{ft}$ above NGVD
FUNDING: The original Basin Board budget for this project was $\$ 300,000$ (budget years 1997 and 1998). Approximately $\$ 100,000$ was spent on engineering and design and $\$ 200,000$ on construction. Dock modifications were not budgeted and an additional $\$ 115,700$ was allocated for in-kind replacement of seven docks and two boathouses. Also included was the cost to stabilize the property just west of the new structure, which was experiencing erosion at the rear corner of the home related to the higher levels, and $15 \%$ for any contingencies.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Northwest Hillsborough Basin | $\$ 415,700$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 415,700$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 415,700$ | $\$ 0$ |

Critical Project Milestones: Projected: Amended: Actual:
District Recognition/Signage: YES
Recognition of the Southwest Florida Water Management District
and No Trespassing signage at all structure sites
Weir construction complete 05-30-04
Gate design \& permit mods 05-30-04
Gate installation 12-31-04
Installation complete 03-01-05
Remote controls installed 05-30-05
Dock reconstruction 12-31-05
Status As Of: 06/28/2006 - The orginal project scope is complete. The SWFWMD Resource Conservation and Development Department has completed a draft Minimum Flows and Levels (MFL) study for Lake Armistead.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

## Rocky Creek Lake Enhancement Project

## B027 Basin: 014,

00 Project Status: Ongoing
Tampa Bay Water
Doug Keesecker
Morris, Lisann
Basin Initiatives

DESCRIPTION: In 2001, the Lake Enhancement Project was approved as a Basin Initiative by the Basin, and $\$ 114,105$ was budgeted for Phases I (Feasibility assessment) and Phase II (design and permitting) of this three phase project. Budgeting for the majority of Phase III (construction) is proposed for FY2008. Rocky Creek flows through Pretty Lake into Lake Armistead and then toward the Bay. During wet periods when there are excess flows out of Pretty Lake into Lake Armistead, it may be possible to divert a portion of these flows into Horse Lake. When the desired level is reached in Horse Lake, excess water will be routed to nearby Lakes Raleigh and Rogers. The objective of Phase I was to perform surface-water modeling, identify the preferred engineering alternative, identify permitting requirements, and determine the level of landowner participation. If it is concluded at the end of Phase I that there is a feasible engineering alternative, and landowners are willing to provide the necessary easements for project construction, the project will move forward into Phase II. Phase II principally consists of developing the final engineering design and obtaining the necessary permits. Funding for FY2007 was requested to cover increased costs for design services (survey and geotechnical), permit fees, and construction management services from the design consultant, performing pre-bid activities and starting shop drawing review. Benefits: This project was identified when the Basin Board expressed interest in opportunities in the Basin where it may be possible to divert excess surface-water into lakes with chronically low levels. In 2001, Tampa Bay Water proposed the Rocky Creek Lake Enhancement project as a cooperative effort with the District to divert excess flows from Rocky Creek/Pretty Lake into nearby lakes and wetlands that have been impacted. Previous studies have indicated that it may be possible to divert up to 3.24 million gallons per day (mgd) from Pretty Lake during wet periods. In addition to improving lake levels, the project will also restore a 13-acre cypress marsh wetland that is located between Pretty Lake and Horse Lake.
Costs: The Rocky Creek Lake Enhancement Project is proposed to be cooperatively funded by the District and Tampa Bay Water on a 50/50 cost-share basis and is scheduled to be conducted in three phases over a multi-year period. Currently, the project is budgeted cooperatively through the Northwest Hillsborough Basin in FY2001 for Phases I and II for a total amount of $\$ 114,105$. Funding for Phase III, which includes construction and testing, is proposed for FY2007 and 2008. The estimated total cost (including no land costs) for Phase III is $\$ 1,000,000$ ( $\$ 500,000$ each) bringing the total estimated cost of the project to $\$ 1,228,210$ ( $\$ 614,105$ each). This project has changed to a revenue contract managed by District staff beginning with Phase 2 activities.
ADDITIONAL INFORMATION: In the northern Tampa Bay area, water levels in some lakes and wetlands have been impacted due to ground-water withdrawals. Minimum flows and levels were adopted in 1999 and a recovery plan was put into place to achieve a cutback in ground-water withdrawals from Tampa Bay Water's wellfields with the goal of restoring water levels. A pilot project was implemented by the District in cooperation with Tampa Bay Water as a temporary flood control measure during the 1997-1998 El Nino event.

| Source | $\begin{gathered} \text { Prior } \\ \text { Funding } \end{gathered}$ | $\begin{gathered} \text { FY } 2006 \\ \text { Budget } \end{gathered}$ | $\begin{gathered} \text { FY } 2007 \\ \text { Budget } \end{gathered}$ | Future Funding | Total Funding | Expended 2007 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Northwest Hillsborough Basin | \$190,793 | \$35,048 | \$136,739 | \$400,000 | \$762,580 | \$1,139 |
| Tampa Bay Water | \$170,307 | \$0 | \$100,000 | \$400,000 | \$670,307 | \$0 |
| TOTAL |  |  |  |  | \$1,432,887 | \$1,139 |
| Critical Project Milestones: <br> District Recognition/Signage: NA |  |  | Projected: A |  | Amended: | Actual: |
| Basin Board Approval of Agreement |  |  | 08/02/2001 |  | ------------ | 08/02/2001 |
| Governing Board Approval of Agreement |  |  | 08/28/2001 |  | ------------- | 08/28/2001$01 / 02 / 2002$ |
| Contract Executed $11 / 30 / 2001$ ------------- $01 / 02 / 2002$ <br> Governing Board Approval of Second Amendment    |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| to Contract |  |  | 08/28/2004 |  |  | 08/28/2004 |
| Phase I completion |  |  | 06/30/ | 002 09 | 09/30/2004 |  |
| Contract Termination Draft Phase 2 \& 3 Agreement to Management Services |  |  | 09/30/ | 2005 | 12/31/2007 | 09/30/2005 |
|  |  |  | 11/13/2006 |  |  |  |
| Draft Phase 2 \& 3 Agreement to Management Services Draft Phase 2 \& 3 Agreement Returned from Management |  |  | 12/22/2006 |  |  |  |

Status As Of: 10/30/2006 - Phase I of the project was placed on hold in March 2002, Tampa Bay Water (TBW) had deferred further action on the project until the completion of permitting and design for the District's Lake Armistead structure project. Since Lake Armistead is located immediately downstream of Lake Pretty, the proposed installation and operation of a water control structure on Lake Armistead would likely affect the timing and availability of excess surface water flows that could be diverted from Lake Pretty. Initially, the surface water modeling for this project was scheduled to be complete in the spring of 2002. A preapplication meeting with the applicable regulatory agencies was held on June 14, 2004, to discuss the types of assessments that would be required for ERP and local permitting. An amendment to the contract was approved by the NW Hillsborough Basin Board in August 2004 to have the District take the lead in the project for Phases II (design and permitting) and III (construction). The amendment was signed by the Executive Director on October 4, 2004. After many months of exchanging draft reports and comments, the final technical memo and model for Phase I was received by the District in late September 2005. There are no further comments on the report and model, so Phase I is considered complete. Coordination meetings took place with Land Management so easement acquisitions could be initiated. This project has changed to a revenue contract managed by District staff. The RFP is active with a non-mandatory pre-proposal meeting was held on June 29, 2006. Proposals were submitted to the District on July 20, 2006. A consultant has been chosen and development of an agreement will commence in September 2006. MACTEC was the successful consultant chosen through the RFP process. One scoping meeting was held with MACTEC, TBW and the District. MACTEC is finalizing cost for design phase. After costs are approved by the District, the agreement will be routed through the District's approval process. Cooperative funding agreement with TBW will need a time extension.

| Project: | USGS Northwest Hillsborough Basin <br> Surface Water Flow and Level Data Collection |
| :--- | :--- |
| Project \#: | B063 Basin: 014, |
| Phase: | 00 Project Status: Ongoing |
| Cooperator: | United States Geological Survey |
| Coop. Contact: | Kane, Richard |
| Project Manager: | Kinsman, Granville |
| Task Manage: |  |
| Project Type: | Basin Initiatives |

DESCRIPTION: This initiative is to establish and maintain the Northwest Hillsborough Basin's surface water monitoring network, and is jointly funded by the Northwest Hillsborough Basin Board and the United States Geological Survey (USGS).
Benefits: This project provides basic surface water stage, discharge and/or water quality data collection to support assessing flooding events, developing surface water management plans, facilitating habitat restoration projects, establishment and monitoring of minimum flows and levels (MFLs), establishment of total maximum daily loads (TMDLs), land acquisition and management, and other critical water management activities.
Costs: Surface water stage and/or discharge is measured at four sites in the Northwest Hillsborough Basin for a cost of $\$ 42,700$. These sites are Double Branch at Country Way Boulevard ( $\$ 7,600$ ), Brushy Creek near Sulphur Springs ( $\$ 4,100$ ), Sweetwater Creek near Tampa ( $\$ 15,500$ ) and Rocky Creek at SH 587 near Citrus Park $(\$ 15,500)$. In FY2006, no changes were made to the data collection program in the NW Hillsborough Basin. No changes are planned to the monitoring network in FY2007. The cost increase in FY2007 reflects recent statewide standardization of pricing by the USGS.

|  | Source | FY 2006 <br> Budget | FY 2007 <br> Budget |  |
| :--- | ---: | ---: | ---: | ---: |
| Expended FY |  |  |  |  |
| Northwest Hillsborough Basin | $\$ 41,300$ | $\$ 42,700$ | $\$ 0$ |  |
| USGS | $\$ 3,000$ | $\$ 3,000$ | $\$ 0$ |  |
| TOTAL | $\$ 44,300$ | $\$ 45,700$ | $\$ 0$ |  |


| ritical Project Milestones: | Projected: | Amended: | Actual: |
| :---: | :---: | :---: | :---: |
| District Recognition/Signage: NA |  |  |  |
| Assume stage monitoring at Double Branch and Brushy Creek | 10/01/2003 | 02/28/2003 | 0/2/28/2003 |
| Discontinue lake level monitoring at five sites | 10/01/2003 |  | 10/01/2003 |
| Assume FY04 funding for flow monitoring on Sweetwater and | 04/30/2004 | ----------- | 04/08/2004 |
| Rocky Creek |  |  |  |
| Status As Of: 10/31/2006 - FY2006 data collection was compl commitment to the project was $\$ 41,300$, of which $\$ 20,650$ has processed. FY2007 data collection is ongoing, with no problem the project is $\$ 42,700$, of which $\$ 0$ has been expended (the USGs | ed Septemb een expended to report. GS bills us ev | The Distric nal billing is trict's FY2007 x months for | 2006 eing nmitment to activities). |


| Project: | Quality of Water Improvement Program |
| :--- | :--- |
| Project \#: | B099 Basin: 014, |
| Phase: | 00 Project Status: Ongoing |
| Cooperator: | N/A |
| Coop. Contact: <br> Project Manager: <br> Task Manager: <br> Project Type: N/A |  |
| Stover, Kevin J. |  |
|  | Basin Initiatives |

DESCRIPTION: Pursuant to F.S. Ch. 373.206, any abandoned artesian well having a detrimental impact on the District's water resources must be properly plugged. The District's Quality of Water Improvement Program provides funding assistance to landowners to come into compliance with the statute. To increase landowner cooperation and the number of abandoned artesian wells plugged annually, without increasing staff levels, the District's Governing Board has allocated matching funds to augment the Alafia River, Hillsborough River, Northwest Hillsborough, Pinellas-Anclote River, Peace River, and Manasota Basins Quality of Water Improvement Program budget to maintain the Funding Assistance Initiative since January 1, 1994. The Funding Assistance Initiative was designed to reimburse landowners up to 100 percent of the cost to have their abandoned artesian wells plugged, with a maximum District reimbursement of $\$ 5,000$ per well and $\$ 15,000$ annually per landowner. This incentive has increased landowner cooperation and the number of wells plugged annually. Under the 50/50 cost sharing program, Quality of Water Improvement Program plugged an average of 50 wells per year. Under the Funding Assistance Initiative, the Quality of Water Improvement Program has reimbursed an average of approximately 200 wells per year.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Northwest Hillsborough Basin | $\$ 85,871$ | $\$ 14,192$ | $\$ 16,487$ | $\$ 0$ | $\$ 116,550$ | $\$ 288$ |
| TOTAL |  |  |  |  | $\$ 116,550$ | $\$ 288$ |

Critical Project Milestones: Projected: Amended: Actual:
District Recognition/Signage:
Status As Of: 10/31/2006 - Since the last update, one well was plugged in the NW Hillsborough Basin for a total of 77 wells plugged since the program's inception. There are no additional wells approved for funding. Plugged wells are as follows: (1) A- Investments - six inch casing to 70 feet with a total well depth of 120 feet - Plugging for an obstructed well no longer in use - District Reimbursement - \$2,209:

Project: Hotel/Motel Water Conservation Program (Water C.H.A.M.P.)
Project \#:
Phase:
Cooperator:

Coop. Contact:
Project Manager:
Task Manager:
Project Type: Basin Initiatives
DESCRIPTION: Now in its fourth year, the Water Conservation Hotel and Motel Program (Water C.H.A.M.P.) continues to provide education to hotel/motel management and guests with the goal of reducing water use. Participating properties use printed materials provided by the District to assist owners/managers in determining ways to save water through their properties' operational processes, including, but not limited to, a towel and linen reuse program. There are approximately 975 hotels and motels in the District. Water C.H.A.M.P. currently has a 23 percent participation rate Districtwide with 232 participants, and continues to grow. Water C.H.A.M.P. experienced a 15 percent growth rate this year alone.
Benefits: Water C.H.A.M.P. provides the tools and education needed to help hotel and motel staff and guests learn to conserve water. This program measures the effectiveness of this education effort via actual water savings. Evaluation studies show that participants can save approximately 50 gallons of water per occupied room per day. Based on audits, the total estimated savings within a one year period in Pinellas and Hillsborough counties was approximately 100 million gallons.
Costs: The total cost of the program for FY2007 is $\$ 79,518$. Increases in the program's funding for 2007 reflect increases in the coordinator's travel and salary, printing program materials, and piloting an educational housekeeping conservation program. Based on the average number of guests exposed to the program, the estimated per person cost for the program is $\$ .02$. The cost per person decreases commensurate to the growth of the program.

## ADDITIONAL INFORMATION:

## Evaluation:

Two evaluation measures were included as part of the pilot program. The results of those measures confirm the program's value and indicate its further expansion. The results of those evaluations are as follows:

- Hotel/motel guests give the program a 98 percent approval rating.
- Water savings determined by Pinellas County Utilities through on-site inspections and billing research revealed a total savings of 16 million gallons per year ( $\mathrm{mg} / \mathrm{y}$ ) from representative properties. From those results we can project that the 76 participating Pinellas-Anclote River Basin Water C.H.A.M.P. properties (2002-2003) potentially saved a total of $71 \mathrm{mg} / \mathrm{y}$. For each 95 cents the basin spent, it saved one thousand gallons of water. Based on Pinellas County water rates, that translates into a $\$ 569,400$ savings per year to participating hoteliers. Also in 2002, the Tampa Water Department conducted water use audits of 54 participating hotels and motels within Hillsborough County. According to their findings the 54 properties saved 35 million gallons of water in one year. This brought the total estimated savings in Pinellas-Anclote, Hillsborough River, Northwest Hillsborough and Alafia River basins to over 100 million gallons from 2002 to 2003. Currently, 21,753 hotel rooms participate in the program District wide. The average occupancy rate of these rooms is $68 \%$, and evaluation studies show that these rooms save approximately 50 gallons of water per day, which means: the Water CHAMP program saves approximately 739,602 gallons of water per day.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> $\mathbf{2 0 0 7}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Pinellas-Anclote River Basin | $\$ 145,211$ | $\$ 10,895$ | $\$ 11,570$ | $\$ 0$ | $\$ 167,676$ | $\$ 0$ |
| Alafia River Basin | $\$ 7,783$ | $\$ 1,934$ | $\$ 3,272$ | $\$ 0$ | $\$ 12,989$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 15,613$ | $\$ 2,668$ | $\$ 5,477$ | $\$ 0$ | $\$ 23,758$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 8,260$ | $\$ 1,993$ | $\$ 3,577$ | $\$ 0$ | $\$ 13,830$ | $\$ 0$ |
| Manasota Basin | $\$ 25,738$ | $\$ 11,790$ | $\$ 20,701$ | $\$ 0$ | $\$ 58,229$ | $\$ 0$ |
| Coastal Rivers Basin | $\$ 647$ | $\$ 5,697$ | $\$ 3,610$ | $\$ 0$ | $\$ 9,954$ | $\$ 0$ |
| Withlacoochee River Basin | $\$ 0$ | $\$ 5,698$ | $\$ 3,610$ | $\$ 0$ | $\$ 9,308$ | $\$ 0$ |
| Peace River Basin | $\$ 0$ | $\$ 28,185$ | $\$ 27,701$ | $\$ 0$ | $\$ 55,886$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 351,630$ | $\$ 0$ |

District Recognition/Signage: YES
Recognition of Basin Boards on all publications
Pilot program begins in Pinellas
Program begins in Hillsborough
Program begins in Manasota
Program begins in Citrus and Hernando
Program begins in Peace River
Pilot continuing education program in Pinellas
Education pilot program evaluation complete
FY2007 program begins
FY2007 program ends

| Ongoing |  |  |
| :---: | :---: | :---: |
| 06/10/2002 |  | 06/10/2002 |
| 06/01/2003 |  | 06/01/2003 |
| 10/01/2004 |  | 10/01/2004 |
| 09/15/2004 | 11/10/2004 | 11/10/2004 |
| 10/01/2005 | -------------- | 10/01/2005 |
| 09/01/2006 | 01/01/2007 | -------------- |
| 01/31/2008 | -------------- |  |
| 10/01/2006 | ------------- | 10/01/2006 |
| 09/30/2007 | ------------- |  |

Status As Of: 10/23/2006 - Currently Water C.H.A.M.P. has 232 participants, a 15 percent growth rate in 2006 alone. The list of participating properties is now available on the District's intranet site for use by District staff for travel arrangements. A new issue of the Water C.H.A.M.P. newsletter is in production and should be out to properties by November 30, 2006. The C.H.A.M.P. outreach display has been completely redesigned and was recently used at the ACOWM and at a Hillsborough County Hotel and Motel Association Trade Show. Basin updates are as follows: Pinellas-Anclote River Basin - Of the approximately 350 properties in this basin, 91 are C.H.A.M.P. properties. The American Hotel and Lodging Association's Education Institute (AH\&LAEI) provided the program coordinator with the course materials for its current hospitality facilities management and design course and extended an opportunity to refine and/or create a new education course based on Water C.H.A.M.P. Program Coordinator attended a Director of Engineering Workshop hosted by the DEP and Progress Energy in September. Fifteen properties attended. All of them are Water C.H.A.M.P.'s. Program coordinator will attend a trends and forecasting workshop on 10/27/2006 held by the Florida Restaurant and Lodging Association (FRLA) and the St. Pete/Clearwater Convention and Visitor's Bureau. Hillsborough River, Northwest Hillsborough and Alafia River basins - Of the approximately 150 properties in this basin, $\mathbf{7 1}$ are C.H.A.M.P. properties. Program Coordinator worked with the Tampa Bay Convention and Visitors Bureau to appear on a community-focused public affairs television program, "i on Tampa Bay" for the i Network which aired on August 29 on WXPX channel 66, formerly PAX TV. Program coordinator met with the President of the Hillsborough County Hotel and Motel Association (HCHMA) to begin work on developing a workshop for hotel and motel Directors of Engineering (DOE) that will focus on conservation. A Hillsborough Advisory Meeting was held on 10/12/2006 at the SWFWMD Tampa Service Office. Representatives from the City of Tampa, Hillsborough County, the Hillsborough County Hotel and Motel Association (HCHMA) and FY\&N attended. The DOE workshop with the HCHMA will be held in June 2007. Capitol budgets for accommodations are normally set in July/August, so discussion of the benefits of high-ticket conservation items and retrofits will be planned for the June workshop.
Coastal Rivers and Withlacoochee River basins - Program began in 2005. There are approximately 100 properties in this basin, 21 are C.H.A.M.P. properties. Water C.H.A.M.P. properties are now identified with the Water C.H.A.M.P. logo on the official web site of the Citrus County Visitors Bureau. The Coastal/Withlacoochee Advisory Meeting is scheduled for 11/9/2006 at the Best Western Weeki Wachee. Manasota Basin - Program began in 2005. There are approximately 200 properties in this basin, 39 are C.H.A.M.P. properties. Work is underway with the Sarasota Convention and Visitors Bureau to add Water C.H.A.M.P. identifications to hotels and motels in the Sarasota Visitors Guide. The first Water C.H.A.M.P. property in this basin, the Holiday Inn Lakewood Ranch, received their DEP Green Lodging certification in March, proving that the Water C.H.A.M.P. program can act as the first step to larger conservation efforts. Peace River Basin - Program began in 2006. There are approximately 178 properties in this basin, currently 10 of them are Water C.H.A.M.P. properties. A meeting was held in September with the Lakeland Hotel and Motel Association to discuss ways to promote the program to Polk county properties.District Staff will be preparing a Peace River Basin mailing promoting C.H.A.M.P. as part of expanded outreach plans. Work is continuing with the City of Lakeland and the City of Winter Haven to conduct studies documenting water conservation accomplishments at properties before and after the implementation of C.H.A.M.P. Upon resignation of C.H.A.M.P. Coordinator on Sept. 25, 2006, Dorian Morgan has resumed all Water C.H.A.M.P. duties and is in the process of hiring a new program coordinator.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

Florida Automated Weather Network (FAWN) Data Dissemination and Education
B136 Basin: 010,011,013,014,015,016,019,020,021,
01 Project Status: Ongoing
University of Florida
John Jackson
Cohen, Ron
Basin Initiatives

DESCRIPTION: The FAWN project started in 1997 and the District's involvement with the project started in 2003. This project collects and distributes weather and climatic data, and has an educational component to teach the public how to use the data to conserve water. Funding for the project was distributed over several years and is needed to continue data collection and dissemination.
Benefits: Increase the grower's knowledge and provide climatic data to help them reduce water use. The amount of water saved will be a function of the number of acres planted and their water use, which will change annually based on market and climatic conditions. Estimated savings are in excess of one billion gallons of water and $\$ 500,000$ per hour. Therefore during a cold winter where growers could use cold protection five (5) to ten (10) nights, annual savings could be as much as ten billion gallons of water and $\$ 5$ million to producers. Few winters require no cold protection, and it would be reasonable to assume this management tool would average saving five billion gallons of water and $\$ 2.5$ million annually. The key to realizing these water use savings is educating the public through schools; written material, trade shows, etc. In addition to collecting the data, FAWN information is used for workshops and other public events to help teach the public the significance of weather and climatic data for water conservation and how to use the data. An in-depth weather school is held annually. FAWN has developed a youth training curriculum. In FY2007 FAWN will increase its urban program and add new weather tools. One of the interesting tools is a graphical projection tool to help users calibrate NWS regional projections to local conditions.
Costs: The FY2007 budget includes $\$ 100,000$ for the FAWN project. Half this funding $(\$ 50,000)$ will come from general revenue and the remaining amount will be divided evenly between the eight basin boards with each budgeting \$6,250.
ADDITIONAL INFORMATION: The Florida Automated Weather Network (FAWN) has been a successful, on-going, multi Agency (IFAS, FDAC, SFWMD, SJRWMD, and Industry) project with about a \$500,000 annual budget. They are asking for continued funding in FY2007 and SFWMD has already agreed to provide \$100,000. The other cooperators have indicated that they will continue contributing to FAWN. The FAWN project started in 1997 and the District's involvement with the project started in 2003. This project collects and distributes weather and climatic data, and has an educational component to teach the public how to use the data to conserve water. Funding for the project was distributed over several years and is needed to continue data collection and dissemination. FAWN's weather data has been used by local Emergency Management personal to supplement the District's and other sources' climatic data. The project was first funded by the Peace River Basin Board and later expanded to the Manasota Basin Board. This proposal is to expand the project into the Hillsborough River, Alafia and Withlacoochee Basin Boards. FAWN has recently received new commitments for additional funds from FDACS, SFWMD and SJRWMD. FAWN was created in 1997 with a legislative appropriation to the University of Florida, Institute of Food and Agricultural Sciences (UF/IFAS). These funds were used to create infrastructure and to establish 11 weather sites that were incorporated with a small UF/IFAS network of five sites in Central Florida. Over the next few years there is a plan to expand FAWN's network to 33 sites. In 2002 additional funding was obtained from the Florida Division of Emergency Management to complete the system and in 2003 the Peace River Basin Board recognized the significance of FAWN and provided a \$5,000 grant. A year later the Peace River and the Manasota Basin Boards entered into a three-year agreement to provide FAWN with $\$ 15,000$ per year. These funds were to help continue FAWN's data collection efforts and to expand the program's educational components. That same year FDACS, SJRWMD and SFWMD approved funds for FAWN. Currently there are 10 FAWN sites within the District located at: Arcadia, Balm, Bradenton, Bronson, Brooksville, Dover, Frostproof, Lake Alfred, Ona and Sebring. In addition there are several sites surrounding the District that provide useful information to the citizens of the District. Current and historical climatic data from these sites, and FAWN irrigation tools, can be accessed on the web at: http://fawn.ifas.ufl.edu/. The FAWN program was developed to provide real time weather information to help Florida citizens make informed weather related decisions. This information is used to help conserve water and protect Florida's natural systems. Irrigators use FAWN data to help determine when and how much to water. Also, FAWN data is used to assist individuals to determine when to turn off irrigation systems used for cold protection. Urban and agricultural chemical applicators use FAWN to help make decisions relative to the application of chemicals and fertilizer. FAWN has been expanded to provide on-line water/irrigation management tools that require weather inputs. Examples of these tools include insect and disease control, cold protection, irrigation, nutrient management and many more. The District's Agricultural Advisory Committee has expressed their support for the FAWN program. In addition to the current tools, FAWN is
working with University of Florida scientists to develop others. Some of the studies already funded by the District will be used to enhance the FAWN program. For example, the Wet Bulb Irrigation Cut Off management tool has been able to allow strawberry, citrus, fern, vegetable, ornamental growers and home owners determine when it is safe to shut off irrigation systems used for cold protection.

| Source | Prior Funding | $\begin{aligned} & \hline \text { FY } 2006 \\ & \text { Budget } \end{aligned}$ | FY 2007 F <br> Budget Fu | Future unding | Total Funding | $\begin{gathered} \hline \text { Expended } \\ 2007 \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Peace River Basin | \$15,000 | \$4,687 | \$6,250 | \$0 | \$25,937 | \$0 |
| Manasota Basin | \$15,000 | \$4,688 | \$6,250 | \$0 | \$25,938 | \$0 |
| Alafia River Basin | \$0 | \$4,687 | \$6,250 | \$0 | \$10,937 | \$0 |
| Hillsborough River Basin | \$0 | \$4,688 | \$6,250 | \$0 | \$10,938 | \$0 |
| Withlacoochee River Basin | \$0 | \$4,688 | \$6,250 | \$0 | \$10,938 | \$0 |
| Coastal Rivers Basin | \$0 | \$4,688 | \$6,250 | \$0 | \$10,938 | \$0 |
| Northwest Hillsborough Basin | \$0 | \$4,687 | \$6,250 | \$0 | \$10,937 | \$0 |
| Pinellas-Anclote River Basin | \$0 | \$4,687 | \$6,250 | \$0 | \$10,937 | \$0 |
| District | \$0 | \$37,500 | \$50,000 | \$0 | \$87,500 | \$0 |
| TOTAL |  |  |  |  | \$205,000 | \$0 |
| Critical Project Milestones: <br> District Recognition/Signage: NA |  |  | Projected: |  | Amended: | Actual: |
| P.O. to Purchasing |  |  | 10/2003 |  | --------- | 10/2003 |
| Notice to Proceed |  |  | 10/2003 |  | ------------------- |  |
| Basin Board Notification |  |  | 11/2003 |  | -------- | 10/10/2003 |
| Governing Board Notification |  |  | 11/2003 |  | ------------ | 10/2003 |
| Year 1. Data Collection |  |  | 12/2004 |  | ----------- | $11 / 14 / 2004$$12 / 2005$ |
| Year 3. Data Collection |  |  | 12/2005 |  | ------------------ |  |
| Completion Report |  |  | 12/2006 |  |  | ---------------- |
| Project Ends |  |  | $\begin{aligned} & 01 / 2007 \\ & 03 / 2007 \end{aligned}$ |  | ---------------- |  |

Status As Of: 10/12/2006-9/15/2003 - Processed Purchase Order. 10/10/2003 - P.O. Mailed to cooperator. 11/04/2003 - Project continued as planned. 1/4/2004 - Reporting weather to public. Project continued as planned. 3/2/2004 - Project continued as planned. 5/4/2004 - Project continued as planned. 6/23/2004 Reviewed Draft progress report - Project continued as planned. 7/12/2004-Reviewed Task Completion reports for tasks 1, 2, 3, 4, 5, 6, and 7. Project continued. 09/07/2004 - Project continued as planned. 11/1/2004 Reviewed Task Completion report for task 8. 11/16/2004 - Reviewed annual reports and process payment. 12/04/2004 - Data collection ongoing. Project continued as planned. 1/24/2004-Data collection ongoing. Project continued as planned. 2/24/2005 - Presentation to District's Governing Board. 3/1/2005 Data collection continuing as planned. 5/2/2005-Data collection continuing as planned. 6/2005-Coastal and Withlacoochee basin board presentations, project continuing as planned. 9/1/2005 Data collection continuing as planned. 10/5/2005 - IFAS executed the Agreement. 11/1/2005-Highlands Co. Weather School canceled because of Hurricane Wilma, other schools continuing as planned. 1/11/2006-Successful series of weather schools: 11/3/2005 - Bartow - 31 Attendees 31; 11/16/2005 - Arcadia - 27 Attendees; 11/22/2005-Sebring - 25 Attendees. Dade City $1 / 11 / 200650+$ registered to attend. 3/1/2006 Statewide steering committee met in February. 4/17/2006 - Data Collection continuing as planned. 6/12/2006-Data Collection continuing as planned. 8/15/2006 - Working on educational program, data collection continuing as planned. 10/12/2006 Reviewed task reports - project continuing as planned.

| Project: | Tampa BaylAnclote River CWM |
| :--- | :--- |
| Project \#: | B159 Basin: 010,014,016, |
| Phase: | 00 Project Status: Ongoing |
| Cooperator: <br> Coop. Contact: <br> Project Manager: | Belangia, Lori |
| Task Manager: <br> Project Type: | Basin Initiatives |

DESCRIPTION: The Comprehensive Watershed Management (CWM) initiative has been established to improve the management of water and related natural resources within the Southwest Florida Water Management District. This initiative employs a watershed-based approach to resource management. Staff from a variety of agencies, disciplines and departments make up watershed teams that have been assigned to eleven watersheds in the District. The Tampa Bay/Anclote River watershed encompasses all of Pinellas County and parts of Hillsborough and Pasco Counties along with a diversity of surface water features and connections to the Floridan aquifer system. This watershed is highly developed, particularly in and near the City of Tampa and most of Pinellas County. Other parts of the watershed, especially in northwestern Hillsborough County and southwestern Pasco County, are rapidly transforming from rural to urban. The Tampa Bay/Anclote River CWM Plan describes and documents "present conditions" of the water resources for each of the District's Areas of Responsibility (AORs) within the Tampa Bay/Anclote River watershed. The Plan represents a significant component of the CWM initiative for the Basin. The CWM initiative seeks to integrate and coordinate District efforts with the Florida Department of Environmental Protection (FDEP) and other government agency watershed management activities. Major programs and processes to which the CWM initiative provides input include cooperative funding, basin initiatives, annual basin planning sessions, recommending restoration/mitigation/acquisition sites, budget development, local government comprehensive plan and amendment reviews, Development of Regional Impact reviews and several others. The Basin's assigned planner is the contact person for this project. Activities and milestones related to the Tampa Bay/Anclote River CWM Plan are routinely updated in the status section below.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Northwest Hillsborough Basin | $\$ 15,832$ | $\$ 2,446$ | $\$ 2,822$ | $\$ 0$ | $\$ 21,100$ | $\$ 109$ |
| Pinellas-Anclote River Basin | $\$ 22,324$ | $\$ 2,446$ | $\$ 2,822$ | $\$ 0$ | $\$ 27,592$ | $\$ 56$ |
| District | $\$ 33,548$ | $\$ 4,891$ | $\$ 5,641$ | $\$ 0$ | $\$ 44,080$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 92,772$ | $\$ 165$ |

## Critical Project Milestones:

Projected: Amended: Actual:
District Recognition/Signage:
Status As Of: 10/30/2006 - The TBA CWM team continues to review projects that support the sub-watersheds of Clearwater Harbor, St. Joseph's Sound, Old Tampa Bay, Anclote River, and Brooker Creek. The Team continues its work implementing the strategies and projects identified in the TBA CWM Plan.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

Maintenance of Watershed Parameters and Models
B206 Basin: 010,011,013,014,015,016,019,020,021,
01 Project Status: Ongoing
Hernando County, Pasco County, Polk County
Dunham, Stephanie
Gene Altman/MAN/swfwmd, Dawn Turner/MAN/swfwmd, Richard Mayer/MAN/swfwmd Basin Initiatives

DESCRIPTION: This is a basin initiative to fund the Maintenance of Watershed Parameters and Models element of the District's Watershed Management Program (WMP). This process will be applied to watersheds where the parameters and model were developed or updated based on the Districts Guidelines and Specifications (G+S), and where parameters from Environmental Resource Permitting (ERP) submittals can be converted to the District's GIS system until a model is developed. Funding will be required each year to continue maintenance. With FY2007 funding, the work of capturing watershed parameter changes resulting from approved ERPs will continue throughout the District.
Benefits: A WMP provides a method to evaluate the capacity of a watershed to protect, enhance, and restore water quality and natural systems, while achieving flood protection. The information developed assists local governments with their land management responsibilities by establishing a level of service and developing Best Management Practices (BMPs) to address level of service deficiencies. In addition, the information provides the District with the best available information to evaluate adverse impacts and mitigation of floodplain impacts for proposed ERPs. The continuous maintenance of watershed parameters in the GIS database as ERP permits are approved will provide the most up to date information about the watershed. If a watershed model has not been developed, the maintenance of parameters in the GIS processes the information in a format that will save time and funding when the watershed is modeled
Costs: The proposed maintenance budget for FY2007 is approximately $\$ 1.094$ million, of which the District's share is $\$ 924,200$. The District's share is split between the Governing Board ( $\$ 440,600$ ), Alafia River Basin $(\$ 37,200)$, Hillsborough River Basin (\$97,200), Northwest Hillsborough Basin $(\$ 25,000)$, Coastal Rivers Basin ( $\$ 55,775$ ), Pinellas-Anclote River Basin (\$57,000), Withlacoochee River Basin $(\$ 64,225)$, Peace River Basin $(\$ 47,200)$, and Manasota Basin $(\$ 100,000)$. Hernando, Pasco, and Polk Counties will contribute an additional $\$ 25,000, \$ 125,000$, and $\$ 20,000$ respectively for maintenance within their jurisdictions. The budget is based on the projected number of approved ERP permits and the average development area within each Basin. As parameter and model maintenance occurs with each approved ERP in a Basin, the project budget will be refined. The District funding amounts shown in the table include staff salaries.
ADDITIONAL INFORMATION: A WMP includes five major elements: 1) Topographic Information, 2) Watershed Evaluation, 3) Watershed Management Plan, 4) Implementation of Best Management Practices, and 5) Maintenance of Watershed Parameters and Models. Implementing elements of the WMP with local governments is one of the Comprehensive Watershed Management (CWM) initiative strategies. After the Topographic Information, Watershed Evaluation and Management Plan elements are completed, the watershed parameters and models require continuous maintenance to simulate the watersheds characteristics as the land form changes. The watershed's parameters change with the rapid growth being experienced in the District. If continued maintenance of the models is not performed, the watershed parameters and model will no longer represent the system. This limits their value in the areas of ERP and flood protection programs. For FY2005, the District managed this project by issuing work orders for the tasks needed to develop the maintenance process, and then by monitoring the efforts. FY2006 funds will be used to begin implementing the maintenance process throughout the District. Both Hernando County and Polk County contributed funds in FY2006 for maintenance in their jurisdictions. A cooperative funding revenue agreement will be developed with each community contributing funds towards maintenance. The District will manage the project and enter into purchase orders and agreements to accomplish project tasks. Future funding will be required each fiscal year to continue maintenance of watershed parameters and models. In the future those local governments with the technical abilities to perform the maintenance activities will be encouraged to manage this effort. The District will provide funding assistance to communities that can and those that cannot provide matching funds. Matching funds will be requested from the Federal Emergency Management Agency (FEMA) for this basin initiative. Failure to provide ongoing maintenance will diminish the return on the investment the District has made in their respective Watershed Management Plans.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Alafia River Basin | $\$ 11,132$ | $\$ 35,017$ | $\$ 38,348$ | $\$ 41,000$ | $\$ 125,497$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 11,132$ | $\$ 63,217$ | $\$ 98,348$ | $\$ 154,000$ | $\$ 326,697$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 11,132$ | $\$ 27,225$ | $\$ 26,148$ | $\$ 26,000$ | $\$ 90,505$ | $\$ 0$ |
| Coastal Rivers Basin | $\$ 11,132$ | $\$ 19,912$ | $\$ 59,853$ | $\$ 108,000$ | $\$ 198,897$ | $\$ 87$ |
| Pinellas-Anclote River Basin | $\$ 11,132$ | $\$ 44,016$ | $\$ 58,148$ | $\$ 81,000$ | $\$ 194,296$ | $\$ 171$ |
| Withlacoochee River Basin | $\$ 11,132$ | $\$ 46,167$ | $\$ 67,326$ | $\$ 86,000$ | $\$ 210,625$ | $\$ 294$ |
| Peace River Basin | $\$ 11,132$ | $\$ 74,354$ | $\$ 48,348$ | $\$ 61,000$ | $\$ 194,834$ | $\$ 0$ |
| Manasota Basin | $\$ 11,132$ | $\$ 103,425$ | $\$ 101,148$ | $\$ 101,000$ | $\$ 316,705$ | $\$ 0$ |
| District | $\$ 87,849$ | $\$ 424,073$ | $\$ 447,974$ | $\$ 430,000$ | $\$ 1,389,896$ | $\$ 190$ |
| Hernando County | $\$ 5,555$ | $\$ 20,000$ | $\$ 25,000$ | $\$ 26,000$ | $\$ 76,555$ | $\$ 0$ |
| Polk County | $\$ 0$ | $\$ 20,000$ | $\$ 20,000$ | $\$ 22,000$ | $\$ 62,000$ | $\$ 0$ |


| Pasco County | $\$ 0$ | $\$ 0$ | $\$ 125,000$ | $\$ 125,000$ | $\$ 250,000$ | $\$ 0$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| TOTAL |  |  | $\$ 3,436,507$ | $\$ 742$ |  |  |

Critical Project Milestones:
District Recognition/Signage:
Recognition of the SWFWMD, Basin Board, and Governing
Board will be included on all reports

FY2005 Consultant Services Agreement (URS)
Draft Agreement to Management Services
Draft Agreement returned from Management Services
Contract Execution
Notice to Proceed
Maintenance of Watershed Parameters and Models Planning Contract Termination

FY2006 Consultant Services Agreements
Draft Agreements to Management Services
Draft Agreements returned from Management Services
Ten (10) Consultant Agreements Execution
Notice to Proceed to all 10 Consultants
Contract Termination
FY2006 Hernando County Maintenance
Draft Agreement to Management Services
Draft Agreement returned from Management Services
Contract sent to County for signature
Cooperator Contract Executed
Cooperator Contract Expiration
FY2006 Polk County Maintenance
Draft Agreement to Management Services
Draft Agreement returned from Management Services
Contract sent to County for signature
Contract Execution
Contract Termination

FY2007 Consultant Services Agreements
Draft Agreements to Management Services
Draft Agreements returned from Management Services
Consultant Agreements Execution
Notice to Proceed to Consultants
Contract Termination
FY2007 Hernando County Maintenance
Draft Agreement to Management Services
Draft Agreement returned from Management Services
Contract sent to County for signature
Cooperator Contract Executed
Cooperator Contract Expiration
FY2007 Pasco County Maintenance
Draft Agreement to Management Services
Draft Agreement returned from Management Services
Contract sent to County for signature
Contract Execution
Contract Termination

FY2007 Polk County Maintenance
Draft Agreement to Management Services
Draft Agreement returned from Management Services

Projected: Amended: Actual:

| ************ | ************ | ************ |
| :---: | :---: | :---: |
| 03/14/2005 |  | 04/21/2005 |
| 04/04/2005 | ------------ | 05/23/2005 |
| 05/31/2005 | --------------- | 06/06/2005 |
| 05/31/2005 | --7----7 | 06/06/2005 |
| 07/21/2006 | 04/30/2007 |  |
| 07/21/2006 | 05/31/2007 |  |

## 06/30/2006 ---------------- 08/04/2006

07/17/2006
09/30/2006
09/30/2006
10/31/2008
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03/31/2005
04/15/2005
08/20/2006
10/31/2008
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08/09/2005
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03/25/2005
04/20/2005
08/20/2006 Not Returned
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08/09/2005
08/23/2005
--------------------- 08/25/2005
---------------- 12/02/2005
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Contract sent to County for signature
Contract Execution

## Contract Termination

Status As Of: 11/14/2006-FY2005: The consultant services agreement with URS Corporation Southern was executed on June 6, 2005. Notice to proceed was issued on the same date. Work Order \#1 has been developed to investigate the current data (type, quality, quantity, etc.) entering the District through ERP and to develop a proposed work flow to maintain the watershed parameters and models as permits are approved. A kick-off meeting with the consultant team and District staff was held on June 14th to introduce and plan the project with all departments that will be involved, including: Technical Services, Legal, and Resource Management. The revised, "draft" final report has been submitted and reviewed. Additional comments have been addressed and staff is performing final review. Once finalized, electronic copies of the report will be distributed to all team members. Remaining funds are being used to develop presentation and documentation of an example project to be distributed to cooperators, FEMA, and other District WMP consultants who will be performing maintenance beginning with FY2006 funds. Work Order \#2 has been executed to document the maintenance process step-by-step. All tasks under Work Order \#2 are to be completed no later than April 26, 2007. The consultant services agreement has been amended to extend the contract termination date. FY2006: Staff has developed consultant services agreements with ten (10) WMP consultants to begin maintenance of watershed parameters and models. Maintenance efforts will first be directed at completed and ongoing Watershed Management Plans. The District's consultants who originally prepared the Watershed Management Plans will be tasked with maintenance of their respective watershed(s). Work orders will be issued as project(s) with approved ERP(s) are identified. Basin Board funding will only be used for maintenance activities within the Basin. To date, consulting services agreements have been executed with the following firms: Ardaman; Ayres \& Associates; BCI; Dyer Riddle Mills \& Precourt; Jones Edmunds; Keith \& Schars; Post Buckley Schuh \& Jernigan; TBE Group; and URS. The remaining agreement with Parsons is currently being routed for approval. Hernando Co. Maintenance: Previously performed under Project B705. Fiscal year budgeted funds as follows; $\mathrm{FY} 2005=\$ 11,110$, $\mathrm{FY} 2006=\$ 40,000, \mathrm{FY} 2007=\$ 50,000$ has been budgeted for continued maintenance of the County's WMPs. The draft agreement was transmitted to the County on 10/26/2006. Polk Co.
Maintenance: Previously performed under Project B723. \$40,000 has been budgeted in FY2006 for continued maintenance of Polk County's WMPs. The contract was presented to the Polk County Commission for their approval at their October 26, 2005 meeting. Final execution of the contract occurred on December 2, 2005.

Project: Watershed Studies for Lakes Raleigh, Rogers, and Starvation
Project \#:
B210 Basin: 014,
01 Project Status: Ongoing
N/A
N/A
Arnold, Dave
Doug Leeper/DEV/swfwmd
Basin Initiatives
DESCRIPTION: The project is being conducted under the District's Watershed Management Program, involving three elements of the program: 1) Topographic Information, 2) Watershed Evaluation, and 3) Watershed Plan. The state's water management districts are statutorily charged with the establishment of minimum flows and levels for the protection of Florida's water resources. Numerous lakes, including Lakes Raleigh, Rogers and Starvation in Hillsborough County are identified for minimum levels adoption on the District's Priority List and Schedule for the Establishment of Minimum Flows and Levels. District staff has developed proposed minimum levels for Lakes Raleigh and Rogers in the Double Branch Creek watershed and Starvation within the Rocky/Brushy Creek watershed. The minimum levels proposed for the three lakes incorporate information on the effects of water-use, rainfall and landscape alterations (e.g., modifications to lake outlets) on lake stage, although it has been suggested during meetings of the Northern Tampa Bay Phase 2 Local Technical Peer Review Group that the effect of these factors on lake water levels within the basins could be better understood. The project addresses these concerns through an analysis of the impact of landscape changes, water-use patterns and rainfall on lake water levels. Prior funding is to complete Topographic Information, Watershed Evaluation, and a portion of the Watershed Plan. FY2007 funding completes the Watershed Plan.
Benefits: The project will (1) provide information and analysis of factors affecting levels of the lakes; (2) provide an enhanced basis for developing minimum levels, and provide support for making any appropriate adjustments to the proposed levels; (3) if necessary, make recommendations for projects to achieve compliance with minimum levels.
Costs: This project is funded by the Northwest Hillsborough Basin. Initially, the project budget was $\$ 250,000$ in FY2005, however, the Watershed Evaluation indicated complex modeling requirements, so an additional $\$ 100,000$ in FY2007 funding is proposed to complete the Watershed Management Plan. The District funding amounts shown in the table include staff salaries.
ADDITIONAL INFORMATION: Specifics of project tasks are as follows: Topographic Information: (1) Acquisition of aerial contour mapping on an as needed basis; (2) Digitization of available contour information from District aerial maps and as-built plans to document existing and historic conditions of the lake watersheds and adjacent areas that influence surface water or groundwater levels within the lake watersheds; (3) Development of digital terrain models for historic and existing conditions topography. Watershed Evaluation: (1) Compilation of existing reports, survey information, etc., to document historic and existing conditions within the watersheds/adjacent areas; (2) Compilation of regional rainfall, groundwater level, surface water level, and water-use data; (3) Review of the chronological landscape, rainfall, and water-use changes within the watersheds/adjacent areas; (4) Watershed parameterization to develop a GIS database for watershed modeling; (5) Formulation of the approach to watershed modeling. Watershed Plan: (1) Field reconnaissance and survey to document existing conditions of surface water conveyance and storage systems; (2) Development of watershed models capable of simulating the influence of specific water budget components on water level and discharge hydrographs; (3) Application of the watershed models to separate and evaluate the effect of landscape changes, water-use patterns and rainfall patterns on lake level hydrographs for the individual lakes; (4) Application of the watershed models to evaluate these factors in terms of strategies for achievement or compliance with the proposed minimum lake levels. This project is a Basin Initiative managed by District staff.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |  |
| :--- | :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Northwest Hillsborough Basin | $\$ 254,563$ | $\$ 4,807$ | $\$ 105,092$ | $\$ 0$ | $\$ 364,462$ | $\$ 685$ |  |
| TOTAL |  |  |  |  |  | $\$ 364,462$ | $\$ 685$ |

Critical Project Milestones:
District Recognition/Signage: NA
Draft Agreement to Management Services
Draft Agreement returned from Management Services
Consultant Contract Executed
Watershed Evaluation
Watershed Plan/Final Deliverables

Projected: Amended: Actual:
06/01/2004 ------------ 12/29/2004
08/01/2004 ------------- 1/20/2005
10/01/2004 ------------- 3/1/2005
11/2005
09/2006

07/2006

Status As Of: 10/27/2006 - Ayres Associates has completed Work Order \#1 for the Watershed Evaluation. The first task was to have a coordination meeting to review various government's concerns with the proposed lake MFLs (summary of government involvement is Pinellas County, City of St. Petersburg, Hillsborough County, Pasco County, and Tampa Bay Water). Currently, Ayres Associates has completed Digital Topographic Information task, submitted a draft Watershed Evaluation report, and has finalized this report based on comments from the District. On 09/6/06 a presentation was made to the Northern Tampa Bay Phase II Local Technical Peer Review Group, summarize the Watershed Evaluation (task force members are from the above governments). Work is proceeding on the Watershed Plan, consisting of watershed parameterization and model development.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

## Land Use/Cover Mapping

B219 1 Basin: 010,011,013,014,015,016,019,020,021, 01 Project Status: Ongoing
N/A
Braunsch, William
Basin Initiatives

DESCRIPTION: Beginning in 1989, the District initiated a comprehensive land use/cover mapping program. This program results in a Geographic Information System (GIS) data set that delineates over 30 categories of land use/cover (for example: single family residential, pine forest, wetland forest, row crops, citrus). The mapping categories adhere to the Florida Department of Transportation's Florida Land Use and Cover Classification System (FLUCCS) and are compatible with similar efforts at the other water management districts. Until 2005 the program was on a five year update cycle (1989, 1994, 1999, 2004). The rapid development within the District has made the five year update cycle to be inadequate and beginning with the 2005 orthophotos the update will be done on an annual basis. FY2006 and FY2007 represent the transitional years from the five year to the one year update cycle: 1) Completion of the 2004 District Wide Land Use/Cover Update in FY2006, 2) Completion of the 2005 Annual Update in FY2006, 3) Completion of the 2006 Annual Update in FY2007, and 4) Completion of the Integration with Historical Data in 2007. This last item is required to bring the 1994 and 1999 land use/cover data up to current mapping specifications.
Benefits: The land use/cover data collected under this project are widely used to support the District's planning, modeling and land acquisition programs. These data are also among the most commonly requested by external customers. Accurate tracking of acreages and locations of key agricultural land use/cover is a key component of the SWUCA Recovery strategy. This information, when coupled with data collected through the District's Water Use Permitting (WUP) process; provide the most accurate means for tracking these significant water uses within the SWUCA. These data also provide an important source of information for monitoring permit compliance. A significant benefit of this program is a consistent, and therefore defensible, estimation of agricultural trends. Costs: No federal, state or local government currently collects the required land use/cover data in a consistent and comprehensive manner. These data are likewise not available from the private sector. The District does not currently have sufficient in-house staff resources to support this effort and the funding will be used for staff augmentation, consulting services, plotting supplies and fieldwork associated with the project.The FY2006 and FY2007 funding supports three onsite mapping consultants. It is anticipated that after the transitional period to the annual updates has been completed in FY2007 that only one onsite consultant will be required to complete the annual updates. As in the past, the Governing and Basin Boards will jointly fund the updating of the District-wide Land Use/Cover layer with the Governing Board contributing fifty percent of the project cost and the remainder being distributed using a formula that accounts for area and population distributions. This will be an annual funding request to support the continued update of the database. This mapping project was previously funded under B089 - Orthophoto and Land Use/Cover Mapping. Beginning in FY2006 these two mapping efforts have been separated to allow for improved cost tracking.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| District | $\$ 74,896$ | $\$ 142,527$ | $\$ 190,750$ | $\$ 427,581$ | $\$ 835,754$ | $\$ 2,150$ |
| Alafia River Basin | $\$ 4,076$ | $\$ 11,255$ | $\$ 11,076$ | $\$ 33,765$ | $\$ 60,172$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 8,900$ | $\$ 14,595$ | $\$ 16,285$ | $\$ 43,785$ | $\$ 83,565$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 2,765$ | $\$ 9,009$ | $\$ 7,571$ | $\$ 27,027$ | $\$ 46,372$ | $\$ 0$ |
| Coastal Rivers Basin | $\$ 6,024$ | $\$ 13,096$ | $\$ 13,947$ | $\$ 39,288$ | $\$ 72,355$ | $\$ 0$ |
| Pinellas-Anclote River Basin | $\$ 10,806$ | $\$ 17,875$ | $\$ 21,402$ | $\$ 53,625$ | $\$ 103,708$ | $\$ 0$ |
| Withlacoochee River Basin | $\$ 9,749$ | $\$ 17,228$ | $\$ 20,394$ | $\$ 51,684$ | $\$ 99,055$ | $\$ 0$ |
| Peace River Basin | $\$ 17,794$ | $\$ 25,813$ | $\$ 33,786$ | $\$ 77,439$ | $\$ 154,832$ | $\$ 0$ |
| Manasota Basin | $\$ 9,990$ | $\$ 17,843$ | $\$ 21,352$ | $\$ 53,529$ | $\$ 102,714$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 1,558,527$ | $\$ 2,150$ |

## Critical Project Milestones:

District Recognition/Signage: NA
2004 District Wide Land Use/Cover Update
Begin District-Wide Land Use/Cover Update
Begin Update for Agricultural Lands in SWUCA

Projected: Amended: Actual:

Complete Update Agricultural Lands in SWUCA
Begin Update for Non-Agricultural Lands in SWUCA
Complete Update for Non-Agricultural Lands in SWUCA 12/30/2005 02/06/2006
Complete District-Wide Land Use/Cover Update 08/31/2006

FY2005 Annual Update
Begin Update
Complete Update
01/10/2006 ---------------- 02/09/2006

## FY2006 Annual Update

Begin Update
01/01/2007
06/30/2007
-------------- ----------------
Complete Update
--------------
Status As Of: 10/27/2006 - Updates to the District-wide 2004 land use/cover were completed August 31, 2006 and made available to the public via the district website September 8, 2006.
FY2005 SWUCA Agricultural Update: All 2005 color infrared imagery for the entire district has been received.
Photointerpretation and edits have been completed on the SWUCA. Photointerpretation and edits are ongoing for the northern portion of the district.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

## Potential to Use ASR in the Avon Park Formation

B242 1 Basin: 011,013,014,016,020,021, 01 Project Status: Ongoing
University of South Florida
Thomas Pichler
Barcelo, Mark
Basin Initiatives

DESCRIPTION: This study will evaluate the potential for ASR operation in the Avon Park Formation, which is not the injection zone typically used for ASR in the southern and central areas of the District. Investigators from the University of South Florida Geology Department will conduct a detailed mineralogical and chemical investigation of the Avon Park Formation that will culminate in an ASR operation model. Compounds that are regulated by primary and secondary drinking water standards will be considered, with an initial focus on arsenic and its identified source, pyrite. ASR is an important alternative resource that is integral to water resource management in the SWUCA, and the District has funded several ASR installation projects as well as ASR investigative studies. There have been growing concerns about the quality of water retrieved from the current injection zone, the Suwannee Limestone. Elevated arsenic concentrations have been consistently discovered in injectate that is stored and recovered from the Suwannee Limestone. The results of this study will be an important tool that can be used to evaluate future ASR development in the SWUCA. This study will be composed of the following tasks: descriptions of existing cores; sample collection; chemical analysis and interpretation of cores; collection and analysis of Avon Park Formation groundwater; and modeling a range of ASR scenarios using the collected data. Benefits: Water supply continues to be a critical issue in the SWUCA, and this study compliments the District's water supply planning efforts. This project will enable the District and local governments to make knowledgeable decisions about future investment in ASR.
Costs: Six basin boards have been asked to participate in funding this project at a level of $\$ 12,000$ each for FY2007.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Alafia River Basin | $\$ 0$ | $\$ 0$ | $\$ 12,777$ | $\$ 12,000$ | $\$ 24,777$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 0$ | $\$ 0$ | $\$ 12,777$ | $\$ 12,000$ | $\$ 24,777$ | $\$ 0$ |
| Manasota Basin | $\$ 0$ | $\$ 0$ | $\$ 12,777$ | $\$ 12,000$ | $\$ 24,777$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 0$ | $\$ 0$ | $\$ 12,777$ | $\$ 12,000$ | $\$ 24,777$ | $\$ 0$ |
| Pinellas-Anclote River Basin | $\$ 0$ | $\$ 0$ | $\$ 12,777$ | $\$ 12,000$ | $\$ 24,777$ | $\$ 0$ |
| Peace River Basin | $\$ 0$ | $\$ 0$ | $\$ 12,777$ | $\$ 12,000$ | $\$ 24,777$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 148,662$ | $\$ 0$ |

## Critical Project Milestones:

Projected: Amended: Actual:
District Recognition/Signage:

Status As Of: 11/01/2006 - The principal investigator for the project, Dr. Thomas Pichler with the USF, is preparing a detailed scope of work and budget for the project. The District's project manager is preparing the necessary contract documents.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

Florida Yards \& Neighborhoods Program--Regional Builder/Developer Coordinator
B246 Basin: 010,011,013,014,015,016,019,020,021,
01 Project Status: Ongoing

Durell, Sylvia
Basin Initiatives

DESCRIPTION: Water resources issues related to the fast growth of new home construction within the District boundaries has revealed a need for a Districtwide coordinator to promote the Florida Yards \& Neighborhoods (FYN) Program Regional Builder/Developer Program. The majority of decisions concerning new landscapes and environments are made by builders, developers and landscape and irrigation professionals. Their decisions impact water supply, water quality and natural systems. Outreach to builders, developers and landscape and irrigation specialists has proven successful in Charlotte, Manatee, Sarasota and Pasco counties and it is timely to expand efforts in these counties and to bring the education to other areas of the District.
Benefits: With the expected expansion in land development and building construction and increased population, demand for water continues to increase. The program addresses priority concerns of the Basin Boards and the District's Comprehensive Watershed Management initiative by promoting widespread adoption of environmental landscaping best management practices by builders, developers, and landscape and irrigation professionals to conserve water and reduce environmental damage from improper landscape design, installation and maintenance.
Costs: The total cost of the outreach program is $\$ 89,718$, which includes staff time to manage the project, project coordination, program expenses and travel expenses. The University of Florida will support the program by providing an office for the position at the Manatee Extension Office and the Florida Department of Environmental Protection will provide a computer and printer.

## ADDITIONAL INFORMATION:

- Education will be based on the nine Florida-friendly landscaping principles that were created by the University of Florida/Institute of Food and Agricultural Sciences for the FYN program: Right Plant, Right Place, Water Efficiently, Fertilize Appropriately, Mulch, Attract Wildlife, Manage Yard Pests Responsibly, Recycle, Reduce Stormwater Runoff and Protect the Waterfront.
- Outreach efforts will include conferences, workshops, one-on-one interactions, newspaper articles, electronic media and distribution of printed materials.
- Successful components of current outreach to builders, developers and landscape and irrigation professionals in Charlotte, Manatee, Pasco and Sarasota counties will be incorporated into the outreach plans for this program.


Status As Of: 10/23/2006 - A discussion was held with Barbra Larson, UF/State FYN coordinator, Ondine Wells, UF/State FYN builders/developers coordinator and Brenda Rogers, Manatee Extension Director about the regional builders/developers outreach position. The Manatee Extension office will hire the coordinator. This will ensure that the coordinator will have access to continuing education resources offered through the UF. The District's purchase order will be opened to the Manatee Extension office and the position will be located there. The District project manager shared a draft job description with Ms. Rogers to use to create the job posting for the county. District staff will participate in the hiring decision process. Outreach will be planned for every basin in the District. The total budget for the program is $\$ 89,718$.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

## Mapping and GIS

B530 Basin: 010,011,013,014,015,016,019,020,021, 00 Project Status: Ongoing
N/A
N/A
Dicks, Steve
Basin Initiatives

DESCRIPTION: This is a continuing initiative with the goal of providing Geographic Information System (GIS), aerial photo interpretation and photogrammetric mapping services to support Governing and Basin Board activities. GIS support includes the input, management, analysis and distribution of spatial data, the design and implementation of databases, software training and map production. Aerial photo interpretation includes land use/cover mapping in support of land acquisition, Surface Water Improvement and Management (SWIM), engineering, planning and environmental studies. Photogrammetric support includes the mapping of topographic information, collection of aerial photographs and satellite imagery and the production of digital orthophotographs. This program also supports the distribution of data to the public and routine maintenance activities. The annual budget includes administrative costs for salaries, travel, training, plotting and photographic supplies, maps and other data purchases, etc.
Benefits: Mapping and GIS has been a continuing activity since 1987 and is required to support the District's GIS, digital orthophoto, aerial mapping and other data collection, maintenance and management activities. The District's GIS database is an integral component of planning, engineering, regulatory, and land acquisition and management activities. In a rapidly growing area such as the District, continued maintenance and expansion is needed for the GIS database to meet new demands and is required to protect the historical investment in the system. The data are currently accessed by over 300 District staff using the ArcGIS software, are a key component of the Water Use Tracking System, and will serve as the foundation for the Water Management Information System. Additionally, the data collected by the Mapping and GIS Section are viewable and downloadable from the District's Internet web site.
Costs: FY2006 funds include consulting services in support of GIS software upgrades (\$12,000 in Governing board only), Programming Consulting Services (\$270,040 in Governing Board only), Water Management Information System Data Integration Project Consulting Services (\$500,000 in Governing Board only), Data Mirror Transformation Server Software (220,800 in Governing Board only), Land Parcel Ownership Database Update ( $\$ 30,000$ shared between the Governing and Basin Boards), Roads Database Update ( $\$ 32,000$ shared between the Governing and Basin Board). FY2007 funds include consulting services in support of GIS software upgrades ( $\$ 15,000$ in Governing Board only), consulting services for data management in support of the Federal Emergency Management Agency Map Modernization effort (\$160,000 in Governing Board only), Land Parcel Ownership Database Update ( $\$ 30,000$ shared between the Governing and Basin Boards), Roads Database Update ( $\$ 32,000$ shared between the Governing and Basin Board). Funding for GIS data collection projects (Land Parcel Ownership Database Update and Roads Database Update) is shared between the Governing Board and the Basin Boards is allocated as follows: 1) The Governing Board pays for $50 \%$ of the total project cost, plus costs for the Green Swamp Basin. 2) The remainder of the costs are split between the Basin Boards using a formula that accounts for the area and population of each basin.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> $\mathbf{2 0 0 7}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| District | $\$ 3,846,377$ | $\$ 1,491,212$ | $\$ 1,538,696$ | $\$ 0$ | $\$ 6,876,285$ | $\$ 21,907$ |
| Alafia River Basin | $\$ 73,298$ | $\$ 25,585$ | $\$ 32,897$ | $\$ 0$ | $\$ 131,780$ | $\$ 421$ |
| Hillsborough River Basin | $\$ 87,735$ | $\$ 26,085$ | $\$ 33,397$ | $\$ 0$ | $\$ 147,217$ | $\$ 421$ |
| Northwest Hillsborough Basin | $\$ 65,232$ | $\$ 24,585$ | $\$ 31,897$ | $\$ 0$ | $\$ 121,714$ | $\$ 421$ |
| Coastal Rivers Basin | $\$ 71,103$ | $\$ 25,585$ | $\$ 32,897$ | $\$ 0$ | $\$ 129,585$ | $\$ 2,529$ |
| Pinellas-Anclote River Basin | $\$ 92,761$ | $\$ 27,585$ | $\$ 34,897$ | $\$ 0$ | $\$ 155,243$ | $\$ 365$ |
| Withlacoochee River Basin | $\$ 93,604$ | $\$ 27,585$ | $\$ 34,897$ | $\$ 0$ | $\$ 156,086$ | $\$ 365$ |
| Peace River Basin | $\$ 122,048$ | $\$ 30,085$ | $\$ 37,397$ | $\$ 0$ | $\$ 189,530$ | $\$ 365$ |
| Manasota Basin | $\$ 92,996$ | $\$ 27,585$ | $\$ 34,897$ | $\$ 0$ | $\$ 155,478$ | $\$ 365$ |
| TOTAL |  |  |  |  | $\$ 8,062,918$ | $\$ 27,159$ |

Critical Project Milestones:
Projected: Amended: Actual:
District Recognition/Signage: NA
The following are major activities for FY2006
Transfer GIS Programming funds to Information Resources 11/30/2005
10/15/2005

The following are major activities for FY2007

| Transfer WMIS and ECM funds to Information Resources | 10/30/2006 | ------------- | 10/21/2006 |
| :---: | :---: | :---: | :---: |
| Annual Roads Database Update Completed | 09/30/2007 | ------------- | -------------- |
| Annual Parcel Database Project Completed | 09/30/2007 | ------------ |  | Annual Parcel Database Project Completed 09/30/2007

section will continue supporting ad hoc requests for GIS data as well as conducting routine data maintenance activities. Data will continue to be accessible via the District's Internet site. Funds supporting the Water Management Information System project have been transferred to the Information Resources Department. A purchase order for the roads database purchased from Geographic Data Technologies will be issued in October for the semi-annual update of these data. Preparation for Fiscal Year 2007 agreements with Florida State University are underway.

| Project: | Field Operations - Basin 14 |
| :--- | :--- |
| Project \#: | B630 Basin: 014, |
| Phase: | 00 Project Status: Ongoing |
| Cooperator: | N/A |
| Coop. Contact: | N/A |
| Project Manager: <br> Task Manager: | Hagberg, Jeff |
| Project Type: | Basin Initiatives |

DESCRIPTION: Annual field maintenance activities for this basin are generally for maintenance of District water control structures and well sites which include mowing, painting, tree trimming, and fence repair. Various additional requirements at both water control structures and well sites include erosion control, slope stabilization, fencing, and road, culvert and channel maintenance. These maintenance areas are District-owned, but were not acquired using Save Our Rivers (SOR), P2000, and Forever Florida funds. Currently there are 14 water control structure sites and three well sites to maintain. The largest structures in this basin are Channels A and G. Benefits: Keeping the water control structures clear and maintained are required to maintain the designed flow capacity. Well sites are maintained for Hydrologic Data and Resource Data crews to collect data easily and in a safe manner. In addition, repairs as necessary for erosion control and slope stabilization at canals and water control structures are accomplished with the use of materials such as rip-rap rock and filter fabric. In addition, maintenance requirements at well sites include materials for road stabilization and fencing repairs.
Costs: The FY2006 budget of $\$ 27,936$ includes $\$ 17,808$ for salaries/benefits/travel, $\$ 4,513$ for central garage charges, and $\$ 5,615$ for rental equipment, parts, supplies, and landfill disposal fees. The FY2007 budget of $\$ 33,883$ includes $\$ 17,327$ for salaries/benefits/travel, $\$ 4,487$ for central garage charges, $\$ 6,000$ for contracted services, and $\$ 5,785$ for rental equipment, parts, supplies, and landfill disposal fees.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Northwest Hillsborough Basin | $\$ 124,224$ | $\$ 27,936$ | $\$ 33,883$ |  | $\$ 0$ | $\$ 186,043$ |
| TOTAL |  |  |  |  | $\$ 186,043$ | $\$ 0$ |

Critical Project Milestones:
Projected: Amended: Actual: District Recognition/Signage: NA

Status As Of: 10/27/2006 - Field Operations crews have mowed and performed routine maintenance activities at water control structures and well sites during this reporting period as needed. In addition, the Island Ford Structure access road has been repaired with shell.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

Structure Operations 014
B670 Basin: 014,
00 Project Status: Ongoing
N/A
N/A
Bude, Tanase
Jim GaNun/OPS/swfwmd
Basin Initiatives

DESCRIPTION: The B670 budget provides funding for annual inspections, operations and maintenance (O\&M) activities on Southwest Florida Water Management District (District) water control structures and canal systems. There are 14 operable structures in the Northwest Hillsborough River Basin. The major structures are the automated Channel A (SCHA) and Channel G (SCHG) Salinity Barriers. These Salinity Barriers prevent the degradation of the fresh water resources on the lower Rocky Creek system and re-establish the original freshwater/saltwater interface prior to Channel A and G construction. SCHA and SCHG are normally operated in an unattended automatic mode but can be operated remotely via the newly upgraded SCADA system. In addition to Structures SCHA and SCHG, remote control upgrades have been accomplished on seven others. Specifically Armistead, Keystone, Pretty, Bay, Ellen-Lipsey, Magdalene and Island Ford structures can now be operated remotely via PC or laptop computer. See ADDITIONAL INFORMATION below. See Project B008 for details related to the new Lake Armistead structure. An issue of critical concern is in the area of manatee protection. There have been a total of five recorded manatee deaths associated with water control structures on Tampa Bay. Most recently, in 2003, there were two structure-related deaths. One carcass was found upstream and one downstream of the Channel G structure (SCHG). Two other live manatees were sighted upstream of SCHG and one above the Lake Tarpon Structure (S-551). The second largest human-related cause of manatee deaths is entrapment behind (and subsequent cold stress) or crushing in water control structures. An ad hoc inter-agency task force was formed in the early 1990s and now includes representatives from the Southwest Florida Water Management District (SWFWMD), South Florida Water Management District (SFWMD), US Army Corps of Engineers (USACOE), US Fish and Wildlife Service (FWS), Miami-Dade Department of Environmental Research Management (DERM), and the Florida Department of Environmental Protection (FDEP). SWFWMD is now coordinating with these agencies to develop Standard Operating Procedures and structural protection devices for manatees specific to these structures.
BENEFITSIADDITIONAL INFORMATION: District Structure Operations involves three areas of responsiblility: inspection, maintenance (including construction and repair) ,and operations. A comprehensive structural/operational inspection program of water control structures, both above and below water, is required to discover deficiencies related to human safety (both public and District personnel), operational viability, and structural integrity of the structures and bridges. Briefly, the objectives and benefits of the District inspection program, and Structure Operations actvities in general, are: (1) early discovery of structural/operational deficiencies and maintenance problems thereby offsetting costly repairs; (2) to find and mitigate safety hazards to District personnel and the public; (3) to prevent/preempt structure/canal failure with thorough, regular inspections thereby reducing the potential for loss of life and property; and (4) to comply with applicable state/federal regulations and guidelines for inspection, operation and maintenance of water control structures. The program has one full-time inspector, who performs routine monthly inspections and oversees the reporting/workorder processes, and additionally, the District utilizes engineering consultants for inspection services on the more critical structures on a two-year rotational basis. Weekly readiness inspections are conducted by Structure Maintenance personnel to exercise the gates' mechanical controls and ensure operational capability. Structure Operations section task orders are generated from the inspection reports and the section's Five-Year Plan. Structure Maintenance activities range from routine servicing and replacement of equipment to repair and construction of water control structures to performing gate operations under established guidelines in response to developing weather events. The Structure Controls section is responsible for monitoring water levels and rainfall totals across the District and directing structure gate operations, which are accomplished either manually or by remote control. Over the last five years, Structure Operations has automated 23 structures with remote control capabilities. Water level and rainfall data is received via the Supervisory Control and Data Acquisition (SCADA) system. The automated structures' gates can then be operated from a laptop computer using the SCADA program. The move to automated structure controls greatly increases operational efficiency, flexibility and safety factors and decreases response time, which also has reduced the number of complaints received related to water levels and flood management. Current plans are to automate up to approximately half of all District structures with remote control capabilities. FUNDING: The FY2006 budget provided $\$ 150,000$ for engineering design-build services for manatee protection structure modifications to SCHA \& SCHG (Channels A \& G); \$30,000 for replacement gates at the Lake Magdalene structure; and \$75,000 to relocate the access road at the Island Ford Structure to improve/mitigate accessibility issues. Remaining funds, approximately $\$ 123,000$ in Parts \& Supplies, Rental of Equipment, Salaries, Central Garage, etc., are related to ongoing routine maintenance and operations.

The FY2007 budget provides $\$ 25,000$ for emergency/miscellaneous engineering services and $\$ 40,000$ for replacement generators at SCHA and SCHG structures. Remaining funds, approximately $\$ 149,655$ in Parts \& Supplies, Rental of Equipment, Salaries, Central Garage, etc., are related to ongoing routine maintenance and operations.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Northwest Hillsborough Basin | $\$ 938,066$ | $\$ 378,556$ | $\$ 214,655$ | $\$ 0$ | $\$ 1,531,277$ | $\$ 203$ |
| TOTAL |  |  |  |  | $\$ 1,531,277$ | $\$ 203$ |

Critical Project Milestones: Projected: Amended: Actual: District Recognition/Signage: YES
Recognition of the Southwest Florida Water Management District and No Trespassing signage at all structure sites

Status As Of: 08/31/2006 - Kisinger Campo \& Associates (KCA) engineering consultants continue the design-build for manatee protection structure modifications for SCHA \& SCHG (Channels A \& G). Replacement gates for the Lake Magdalene structure are on order and awaiting delivery (anticipated delivery in December). Routine maintenance and operations continue

| Project: | Aquatic Plant Management |
| :--- | :--- |
| Project \#: | G004 Basin: 014, |
| Phase: | 00 Project Status: Ongoing |
| Cooperator: |  |
| Coop. Contact: |  |
| Project Manage: | Nelson, Brian |
| Task Manager: | Mike Holtkamp/OPS/swfwmd |
| Project Type: | Basin Initiatives |

DESCRIPTION: Annual treatment of approximately 200 acres of aquatic plants including hydrilla, water hyacinth, water lettuce and other aquatic plant species on Channels A, G, H and Rocky Creek and around the water control structures on this flood control system. This is an ongoing maintenance project.
Benefits: Excessive aquatic plant populations have the potential to reduce water flow capacity and to form jams on bridges and the water control structures hindering the movement of flood waters and the operation of the water control structures. Excessive aquatic plant populations also negatively impact recreation, aesthetics and property values along this canal system.
Costs: The FY2006 budget is broken down as follows: Salaries/wages $\$ 18,405$, herbicides $\$ 11,999$, central garage charges $\$ 4,000$. The FY2007 budget is broken down as follows: Salaries/wages $\$ 21,067$, herbicides $\$ 11,399$, central garage charges $\$ 4,000$.

| Source | $\begin{gathered} \text { Prior } \\ \text { Funding } \end{gathered}$ | $\begin{gathered} \text { FY } 2006 \\ \text { Budget } \end{gathered}$ | $\begin{gathered} \text { FY } 2007 \\ \text { Budget } \end{gathered}$ | Future Funding |  | $\begin{aligned} & \hline \text { Expended } \\ & 2007 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Northwest Hillsborough Basin | \$179,261 | \$34,404 | \$36,419 | \$0 | \$250,084 | \$0 |
| TOTAL |  |  |  |  | \$250,084 | \$0 |
| Critical Project Milestones: |  |  | Projec | ed: A | ended: | Actual: |
| District Recognition/Signage: NA |  |  |  |  |  |  |
| Aquatic plant management operations are conducted throughout the year on an as needed basis based upon the current and projected levels of plant growth |  |  |  |  |  |  |
| Status As Of: 10/27/2006 - F treated on Channels A,G, H | -eight acres Rocky Creek | f waterlettuc during Augus | and four | res of other | quatic plant sp | pecies was |

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

## Youth Water Resources Education

P259 Basin: 011,013,014,015,016,019,020,021,
00 Project Status: Ongoing
N/A
N/A
O'Neil, Raina
Basin Initiatives

DESCRIPTION: This Basin Initiative provides funding for water resources education programs to county school districts, private schools, homeschool groups and non-formal educators. Program components consist of teacher-training workshops, mini-grants for classroom projects, field trip program support, Envirothon support and educational resources for students and educators. Teacher training efforts ensure that teachers understand and are able to teach students about relevant Basin issues. Training sessions provide background information, materials, experiences and opportunities to explore topics of importance in the basin. Teacher workshops are conducted by District staff and/or educators who have been trained by District staff. Participants evaluate the effectiveness of teacher workshops, providing another method of improving performance. Workshops include information about the District and the Basins, as well as basic hydrology and water management issues. The mini-grant program provides funds directly to teachers to implement classroom water education projects centered around current Basin issues. Classroom projects are designed to increase knowledge and understanding of the impacts of human activities on the water resources in their Basin and to effect behavior change in regard to water resources conservation and protection. Mini-grant projects must fall into one of six categories: watersheds, water conservation and supply, water quality, flood protection/drought education, alternative water sources or natural systems. Projects must also support the District Water Management Plan and align with the appropriate Comprehensive Watershed Management Plan. Measurable outcomes include documentation and evaluation of individual mini-grants including pre- and post-assessment scores, sample student work generated from the project, video or photographic documentation, and final reports by teachers and representative students. Mini-grant recipients are required to participate in Annual Sharing Days, which provide an opportunity for mini-grant participants to showcase their projects and provide model programs for other teachers who would like to implement water projects in their classrooms. The District provides a variety of educational resources to educators and students including student newsletters with accompanying teacher's guides, water-testing equipment, surface and groundwater models and others. The District also provides kits and boxes specific to water conservation (the grades K-3 Water Conservation Kit) and watersheds (the grades 4-8 Watershed Education Resources Box) that teach students about the importance of water conservation and healthy watersheds, while meeting Sunshine State Standards and preparing students for the Florida Comprehensive Assessment Test. Each of these resources includes a big book, several smaller books, a teacher's guide and other tools and materials used for role-playing and demonstrations. Each county has received kits and boxes for circulation, and these materials are available through the mini-grant program.
Benefits: The Youth Water Resources Education project forwards the District's mission by providing students, teachers and families classroom materials and opportunities for hands-on learning experiences that equip them to make informed decisions about water resources.
Costs: For the first time in ten years the annual budget for this project was increased to $\$ 986,018$, less than $.4 \%$ of the District's overall budget (\$259 million). This highly effective program directly reaches 350,000 students and 11,000 teachers annually. Additionally, a total of 475,596 pieces of District water resources Youth Education publications were distributed in FY2006. Because most, if not all, of those involved in Youth Education programs also receive publications, a conservative estimate puts District outreach at 55 percent of the students in the District, at a cost of $\$ 1.18$ per person.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Alafia River Basin | $\$ 239,935$ | $\$ 48,133$ | $\$ 68,191$ | $\$ 0$ | $\$ 356,259$ | $\$ 2,031$ |
| Coastal Rivers Basin | $\$ 239,195$ | $\$ 48,585$ | $\$ 69,003$ | $\$ 0$ | $\$ 356,783$ | $\$ 381$ |
| Hillsborough River Basin | $\$ 525,595$ | $\$ 102,671$ | $\$ 139,945$ | $\$ 0$ | $\$ 768,211$ | $\$ 4,105$ |
| Manasota Basin | $\$ 311,522$ | $\$ 62,711$ | $\$ 98,073$ | $\$ 0$ | $\$ 472,306$ | $\$ 22,147$ |
| Northwest Hillsborough Basin | $\$ 236,740$ | $\$ 47,229$ | $\$ 68,323$ | $\$ 0$ | $\$ 352,292$ | $\$ 2,506$ |
| Peace River Basin | $\$ 539,692$ | $\$ 132,711$ | $\$ 205,353$ | $\$ 0$ | $\$ 877,756$ | $\$ 369$ |
| Pinellas-Anclote River Basin | $\$ 1,323,451$ | $\$ 253,652$ | $\$ 268,127$ | $\$ 0$ | $\$ 1,845,230$ | $\$ 467$ |
| Withlacoochee River Basin | $\$ 234,460$ | $\$ 48,585$ | $\$ 69,003$ | $\$ 0$ | $\$ 352,048$ | $\$ 417$ |
| TOTAL |  |  |  | $\$ 5,380,885$ | $\$ 32,423$ |  |


|  |  | Amended: | ual |
| :---: | :---: | :---: | :---: |
| District Recognition/Signage: NA |  |  |  |
|  |  |  |  |
| FY2006 Activities (2006-2007 School Year) |  |  |  |
| School Board Agreements executed | 08/01/20 |  | 8/01/20 |
| Program Commence for School Board agreement | 08/01/200 |  | 08/01/2006 |
| Mini-grants selected | 09/15/2006 |  | 09/15/2006 |
| Mini-grant projects complete | 05/01/200 |  |  |
| School Board agreement prog | 07/30/2007 |  |  |
| Final reports submitted to Distric | 08/3 |  |  |
|  | 08 |  |  |
| Status As Of: 10/23/2006 - Teacher Training: District staff has worked with other water management districts, the Florida Department of Education and the Northeast Consortium of Educators to address changes in professional development requirements for teachers. The changes reflect an emphasis on reading and writing as well as new instructional design models. In addition to incorporating these changes to the District's current teacher training offerings, the District has added The Great Water Odyssey to its repertoire. This interactive computer program was designed by the SJRWMD and targets 3rd grade students and teachers. To date, one |  |  |  |
| Great Water Odyssey training was held in our District and 3 Project WET trainings have been held so far this school year. Publications: New editions of District Youth Education materials were developed and distributed, including Sprinkles - Agriculture, WaterWeb - Extreme Weather and Mapping, and Currents - Extreme Weather |  |  |  |
| During the months of August - October, 2006, the Youth Education staff distributed 199,085 pieces of water resources education materials. Mini-Grants: The District received 100 applications for the $2006-2007$ school year. Over $\$ 221,900$ in funding was provided for classroom grant projects. Legacy: Youth Education staff and |  |  |  |
| District Lands Department staff are working together to expand the Legacy Program. Legacy, a hands-on program that explores the principles of land management, provides youth an opportunity to serve as land stewards on District or public lands. To date, the District has provided funding for five Legacy programs |  |  |  |
|  |  |  |  |
| Weedon Island Preserve, in partnership with Pinellas County. Watershed Education: District staff continues to support the teachers in the Brooker Creek watershed with Splash! mini-grant funding and technical assistance with projects. The Peace River Watershed Ground Water Institute, in partnership with USGS and American |  |  |  |
|  |  |  |  |
| Ground Water Trust, was held on June 5 and 6, 2006. This two-day teacher workshop provided an overview of |  |  |  |
| Peace River hydrology, water quality issues and the dynamics of surface water and ground water interactions in the Peace River Basin. Twenty-five teachers from the Peace River Basin participated in the Institute. This training was part of the District's overall education efforts within the Peace River watershed. Workshop participants are working with District staff to spearhead education initiatives in the 2006-2007 school year. A new environmental education center is being planned for the Lake Hancock area in Polk County. The District's Lands and |  |  |  |
| Communications departments are working with Polk County Environmental Lands and Polk County School Board to develop learning objectives and educational exhibits and materials. In addition to the new center, various educational tools and materials are being developed for the Peace River watershed, including an interactive |  |  |  |
| ual excurs |  |  |  |

0

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

## Public Education

P268 Basin: 010,011,013,014,015,016,019,020,021,
00 Project Status: Ongoing
N/A
N/A
Bartos, Beth
Basin Initiatives

DESCRIPTION: This Basin Initiative provides funding for various projects to inform and educate the public about the importance of managing and protecting the water resources. All programs align directly with one or more of the District's areas of responsibilities and with the District's Water Management Plan, Basin priorities and the appropriate Comprehensive Watershed Management Plans. The District's broad range of public education programs and materials reflect the variety of backgrounds and interests of the District's residents and visitors. Some of the projects are implemented Districtwide with support from all the basins, while some are basin specific and supported only both the basin(s) who will benefit from the project(s). Districtwide programs include media messaging, an annual public opinion survey, Florida-friendly landscaping education and Low Impact Development workshops. Basin-specific programs reflect differing priorities as well as unique opportunities. Examples are Community Education Grants, watershed education programs, virtual watershed tours, Adopt-A-Pond programs, partnerships with local environmental education centers and nonprofits and others. Benefits: The programs listed benefit the District through an increase in awareness and understanding of water management and water resource issues, as well as, in behaviors more likely to result in conservation and protection of the water resources and watersheds.
Costs: Funding for public education is budgeted within the basins for FY2007 as follows: Alafia River - \$69,255; Hillsborough River - \$170,587, Northwest Hillsborough - \$76,080; Coastal Rivers - \$65,206; Pinellas-Anclote River - \$293,885; Withlacoochee River - \$85,710; Peace River - \$168,411; Manasota - $\$ 121,964$. These totals include staff time to manage these projects. In addition, the Governing Board contributes $\$ 399,129$ to support these efforts. Based on the total number of people reached through the public education materials and programs in FY2006 $(4,398,431)$, the cost for FY2007 is projected to be approximately $\$ 0.31$ per person. This does not include media messaging, which is measured in impressions, and is projected to cost the District less than five hundredths of a cent per impression.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Alafia River Basin | $\$ 271,788$ | $\$ 53,902$ | $\$ 69,255$ | $\$ 0$ | $\$ 394,945$ | $\$ 742$ |
| Coastal Rivers Basin | $\$ 284,507$ | $\$ 55,239$ | $\$ 65,206$ | $\$ 0$ | $\$ 404,952$ | $\$ 2,060$ |
| Hillsborough River Basin | $\$ 676,102$ | $\$ 145,577$ | $\$ 170,587$ | $\$ 0$ | $\$ 992,266$ | $\$ 1,177$ |
| Manasota Basin | $\$ 398,772$ | $\$ 117,671$ | $\$ 121,964$ | $\$ 0$ | $\$ 638,407$ | $\$ 758$ |
| Northwest Hillsborough Basin | $\$ 291,059$ | $\$ 59,578$ | $\$ 76,080$ | $\$ 0$ | $\$ 426,717$ | $\$ 742$ |
| Peace River Basin | $\$ 539,858$ | $\$ 142,512$ | $\$ 168,411$ | $\$ 0$ | $\$ 850,781$ | $\$ 1,130$ |
| Pinellas-Anclote River Basin | $\$ 1,516,213$ | $\$ 284,209$ | $\$ 293,885$ | $\$ 0$ | $\$ 2,094,307$ | $\$ 1,137$ |
| Withlacoochee River Basin | $\$ 382,044$ | $\$ 78,707$ | $\$ 85,710$ | $\$ 0$ | $\$ 546,461$ | $\$ 3,037$ |
| District | $\$ 1,464,916$ | $\$ 329,546$ | $\$ 399,129$ | $\$ 0$ | $\$ 2,193,591$ | $\$ 8,735$ |
| TOTAL |  |  |  |  | $\$ 8,542,427$ | $\$ 19,518$ |

Critical Project Milestones:
District Recognition/Signage: YES
Recognition of each basin on all pertinent publications, presentations, electronic media and at demonstration sites.

## FY2007 Community Education Grants Activities

Post application and guidelines on Web site
Advertise/promote CE Grant Program
Applications deadline
Applications sent to BBEC for review
Basin Boards informed of grant allocations
Announcement of allocations to CE Grant recipients
Grant recipient required workshops
End of projects' work period
Final reports due

Projected: Amended: Actual:

Requests for reimbursements
FY2007 Media Messaging
Media schedule development
Spring media buy
Dry season media buy (contingency only)
Fall/Winter media buy
FY2005 Public Opinion Survey
Survey design
Survey completion
Data analysis
Report preparation
Written final report
FY2006 Peace River Watershed Education Program
Initiate purchase order
Spanning the watershed event
Community leadership workshops planned
Public outreach efforts planned
Community leadership workshops completed
Public outreach efforts completed
Stormwater education program
Final Report

08/17/2007
11/30/2006
01/15/2007
04/30/2007
08/30/2007

06/30/2005
08/31/2005
10/15/2005
11/15/2005
12/31/2005

12/31/2005
03/31/2006
05/01/2006
05/01/2006
11/01/2006
11/01/2006
11/01/2006
11/30/2006


Status As Of: 10/18/2006 -

## Landscape Education:

- To maximize numbers of builders and developers reached, the District will be using funds previously contributed to the Tampa Bay Water/District Community Water-Wise Award program to other outreach. FYN coordinators throughout the District have been placing the SWFWMD Water-Wise Landscape Recognition Program signs in the landscapes of builders' model homes, government buildings and schools. The Water-Wise Landscape self-evaluation form and photos of recognized landscapes are featured on the Florida-friendly landscaping portion of the District's web site. The self-evaluation form can also be used for judging of homes in Parade of Homes events. The evaluation criteria on the form align closely with those of the Florida Green Building Coalition. The recognition program will be used for Parade of Homes events in Charlotte, Hernando, Manatee, and Sarasota counties in 2007.


## Florida-Friendly Landscape Education Program:

- In FY07, the District will fund the Charlotte Harbor National Estuary Program to plan and produce workshops on Florida-friendly landscaping in the Peace River Basin counties including DeSoto and Highlands. The South Florida Community College is a cooperator for future programming. Workshops will begin in January 2007.
- The Landscape Education Coordination Initiative (LECI) The FloridaYards.org web site is being promoted through a Florida-friendly Yard -- Grow Smart bookmarker, among other promotion methods. The web site contains information about Florida-friendly landscaping, an interactive landscape design tool, full-color photos and details on 300 plants, trees and shrubs, and a section for professionals, which is still under development. Response to the web site continues to be extremely positive. District staff will coordinate with FNGLA to create outreach to retail outlets and education for trades people. Staff will meet with Hillsborough County Extension office educators to discuss piloting an educational program for employees of commercial landscape maintenance companies, one of LECI's primary target audiences.
- The Town of Longboat Key is using $\$ 5,000$ in Manasota basin initiative funds to further its Water-Wise Irrigation Program. This work includes water conservation information distributed at two community events in June 2006; highest potable water users received letters to inform them of their overuse and that water audits are available; 19 customers received water use audits; and the Town's landscape water efficiency ordinance was drafted and will presented to the Town Commission in October. in addition, a rain sensor rebate program was initiated to coincide with the Town's new ordinance that requires rain sensors on all automated irrigation systems on Longboat Key. To date, 130 sensors have been installed and citizens have requested $\$ 6,000$ worth of rebates.
FYN Community Association Outreach:
- Outreach targets condominium managers, community/homeowner association members and managers, professional property managers, and landscape professionals with information about the FYN principles of Florida-friendly landscaping. Lisa Strange is the coordinator for Hillsborough and Polk counties. Among other outreach, she recently presented to 121 community managers at Sun City. She also presented to the Hillsborough River Technical Advisory Council. During this reporting period, Doris Heitzmann, outreach coordinator in Pinellas and Pasco counties, made 13 contacts with community associations and conducted six site visits.

Outreach:

- The 2007 Community Education Grant program has begun. Applications were due September 15, 2006 and 72 were received. Applications were reviewed and staff recommendations have been sent to the Basin Board Education Committee members for feedback. Approved projects will occur March 1 through June 30, 2007. Final reports are due July 27, 2007.


## Florida-Friendly Yards Media Messaging:

- The Spring campaign garnered an unprecedented online order increase of 700 percent. This campaign has been the District's most successful to date. The FY 2006 Spring media buy provided 104,912,458 impressions.
- The FY2007 campaign is in the planning phase and new Television, radio, and print ads are being created. The focus of this year's campaign is efficient irrigation practices. In addition, messaging will stress the importance of contacting a Florida Yards \& Neighborhoods coordinator for answers to Florida-Friendly Landscaping questions.


## Watershed Education:

- A series of "Spanning the Watershed" education events is scheduled in FY2007 in the Peace River Watershed. The goals of these events are to promote awareness and commitment to the protection of the Peace River Watershed. These events are tentatively scheduled to take place in Polk County (4/14/2007), Hardee County (4/17/2007), DeSoto County (4/19/2007) and Charlotte County (4/21/2007). District staff met with Polk County on $9 / 27 / 2006$ to plan the event and will meet again on $11 / 14 / 06$. The Charlotte Harbor Environmental Center (CHEC) met with District staff on 8/11/2006 to discuss the "Spanning the Watershed" efforts in Charlotte County and will collaborate with District staff to organize an event. Declaration of the "Peace River Watershed Awareness Month" is in the works for April of 2007.
- The Charlotte Harbor Environmental Center (CHEC) provides watershed education in the Peace River Watershed. In FY2005, the CHEC conducted research and made program recommendations for watershed education. The scope of work for the FY2006 outreach was revised eliminating one key task that the CHEC could not complete. As a result, the project budget was reduced by \$10,000. In FY2006, two workshops were held with 36 participants. The third workshop was held on 10/20/06 in DeSoto County with 11 participants. Additional outreach efforts for FY2006 include 15 public speaking events reaching 1,726 residents within the Peace River Watershed. District staff spoke with cooperator on 10/19/2006 to discuss the FY2007 scope of work and the "Spanning the Watershed" event scheduled in Charlotte County.
- The District is also working on watershed education projects in the Lemon Bay Watershed (see W506) and in the Crystal River/Kings Bay Watershed (see W466).
- The Pasco County Adopt-A-Pond program began as an CEG in FY2006. Project tasks are currently being completed and include a pond adoption, several pond workdays, a pond planting, creation and distribution of "Welcome to Pasco" packets, 5 presentations, with future presentations planned, one Florida Lakewatch program and the development of the volunteer program.
- Refer to L387 for the Pinellas County Adopt-A-Pond project status.
- The Hillsborough Adopt-A-Pond program (K209) received $\$ 10,000$ in basin initiative funding to supplement outreach and education. In FY2006, the following tasks were accomplished: 8 herbicide jobs for the county, 14 pond clean-ups, 13 pond plantings, 40 pond evaluations, 4 pond walks, 5 Officer Snook presentations, 4 Stormwater Ecologist presentation and 14 education meetings. Education materials promoting the AAP program were distributed at 2 special events and the Summer 2006 newsletter has been distributed. The Adopt-A-Pond brochure has been updated and the print process should be complete soon. To date, the Hillsborough County AAP Program has received 31 applications for pond adoptions in FY2006, 20 of which have been accepted. This is a record number of applications received in a fiscal year. The FY2007 scope of work is in the final approval stages and a purchase order should be opened within the next several weeks.
- The Nutrient Remediation Workgroup (NRW) met on 10/13/2006. Ed Jennings, Citrus County IFAS Extension Office Livestock Agent, presented on small farm and ranches and the effects of fertilizer use from these small farms and ranches in Citrus County. Discussion was held on creating a retail-oriented flyer on septic tank maintenance. The Citrus County FYN Program staff coordinate meetings and community outreach projects for the workgroup. A final invoice has been received. Once the District project manager receives all necessary back-up information to pay the final invoice, the purchase order will be closed.


## Community-based Social Marketing:

- The Brooker Creek Watershed Community Outreach Program seeks to educate area residents about the Brooker Creek watershed and how they can ensure the present and future health of the watershed through both individual efforts and working together as part of a larger community. Three communities are serving as pilots to test this approach. One is a neighborhood in north Pinellas, Brookers Landing, which borders Brooker Creek and the Preserve. Residents participated in a two-day field program on March 25 and April 22, 2006. The purpose was to teach the importance of water quality and quantity and how their day-to-day activities affect these water variables. Residents are now working to make modifications in their common areas, home landscapes and yard care practices with assistance from Center staff, a landscape architect, Florida Yards \& Neighborhoods staff, and Adopt-A-Pond personnel. The second community is a Unitarian
church in northern Hillsborough County that also borders Brooker Creek. Cooperator staff met with church le aders on several occasions to explain the outreach program, conduct a site analysis of the church property, and work on a master plan for the property. Church leaders are working towards certification in the Unitarian Green Sanctuary program and are planning to hold a nine-session discussion course on personal sustainability. Church leaders also plan to offer their site as a demonstration area for other faith-based organizations to visit. The third community originally selected for the outreach program is no longer a viable option. A replacement community is currently being selected. Lessons learned from working with the first two communities will be applied in work with the new community.
- Project manager met with a representative from the University of Central Florida's Stormwater Academy (UCF's SWA) on 10/17/2006 in Orlando. The District is cooperating with the SWA on a project entitled, "Measuring Landscaping Normative Behavior Change." The three-year project will map landscaping behaviors so that long-term projections of stormwater pollution reductions resulting from landscaping behavior changes can be quantified. The District will contribute the White Papers to the project as well as staff time. The project is moving forward one year because the FDEP wants to complete some preliminary research on the water quality of stormwater runoff from a subdivision landscaped with Florida-friendly principles compared to a standard subdivision. Two neighborhoods in Sarasota County have been chosen for one of the study groups. Two more study groups are planned for the research.
- The Tampa Mayor's Beautification Program (MBP) received the residential irrigation system water audits from the City of Tampa Water Department. MBP is in the process of developing survey and focus group questionnaires based on the audits. See L416 for more information on the Hillsborough River Watershed pilot.
- The Watershed Leadership Workshop project is completed. Two workshops were held on May 22-23 at Brooker Creek and on August 17-18 at Weedon Island. A total of 34 participants from four counties (Pinellas, Pasco, Hillsborough and Manatee) attended the two workshops. Participants included county board members, city managers, town managers, county parks directors, SWFWMD staff and a board member as well as many other city and county representatives. Project manager is reviewing the project for future leadership workshops.
- Doug McKenzie-Mohr of McKenzie-Mohr Associates was hired to compile a series of White Papers to provide the District with the information needed to develop successful water conservation and watershed protection programs that are likely to facilitate behavior change. Each paper addresses a specific behavior and includes a summary of examples of existing programs and a proposal for a community-based social marketing pilot program. Six of the white papers have been completed. The completed papers include the following behaviors: 1. reducing fertilizer use and increasing the use of slow-release fertilizer, 2. proper maintenance of septic systems, 3. raising lawn mower height, 4. reducing residential pesticide use, 5. picking up pet waste, 6 . installing low-flow showerheads. The project manager anticipates receiving three more papers by November 30 including: 1. turning the gutter pipe into pervious surfaces, 2. proper disposal of car oil, 3 . rain sensor retrofits on irrigation systems.

| Project: | Stormwater Implementation Reserves |
| :--- | :--- |
| Project \#: | Z969 1 Basin: 013,014, |
| Phase: | 01 Project Status: Ongoing |
| Cooperator: | Hillsborough County, Tampa, Temple Terrace |
| Coop. Contact: Chen-Feng Ho, Steve Seachrist, <br> Project Manager: Letasi, Scott |  |
| Task Manager: Basin Initiatives <br> Project Type:  <br> DESCRIPTION: The funds in this project are reserves that are to be used to perform the Implemention of Best  <br> Management Practices (BMPs) for projects that address issues related to the District's flood protection and water  <br> quality areas of responsibilities. The types of projects proposed in the Hillsborough River and Northwest  <br> Hillsborough Basin Boards would include stormwater implementation projects consistent with the District's  <br> priorities to provide flood protection, help correct level of service deficiencies, and improve water quality. The  <br> funds in this Reserve account could be used for the implementation of BMP projects with the City of Tampa,  <br> Hillsborough County or other cooperators.  |  |


| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Northwest Hillsborough Basin | $\$ 0$ | $\$ 0$ | $\$ 2,364,238$ | $\$ 0$ | $\$ 2,364,238$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 0$ | $\$ 0$ | $\$ 1,000,000$ | $\$ 0$ | $\$ 1,000,000$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 3,364,238$ | $\$ 0$ |

Critical Project Milestones:
Projected: Amended: Actual:
District Recognition/Signage:
Status As Of: -

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:
DESCRIPTION: The F001 activity number refers to the reserve fund set up in 1994 to fund projects selected for the New Water Sources Initiative (NWSI) program. The District Governing Board first adopted the NWSI program in its FY1994 budget. The purpose of this dedicated fund is to provide funding for "alternative" water supply and development projects. "Alternative" water sources are those sources other than traditional groundwater and include conservation, reclaimed water, stormwater reuse, surface water and desalination. The District Governing Board allocates $\$ 10$ million per year (beginning in 1995) which is matched by a combined total of $\$ 10$ million per year from the basin boards. Local governments participating in the program have so far provided a collective \$20 million per year toward NWSI projects. NWSI projects typically receive 25 percent of required funding from the District Governing Board, 25 percent from the appropriate basin(s), and 50 percent from the cooperator(s). The $\$ 53.3$ million represents prior years' funding that was placed in reserve for the 11 projects currently funded under this initiative.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| District | $\$ 28,345,460$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 28,345,460$ | $\$ 0$ |
| Alafia River Basin | $\$ 926,248$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 926,248$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 985,158$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 985,158$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 3,539,032$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 3,539,032$ | $\$ 0$ |
| Coastal Rivers Basin | $\$ 58,907$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 58,907$ | $\$ 0$ |
| Pinellas-Anclote River Basin | $\$ 1,069,732$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 1,069,732$ | $\$ 0$ |
| Peace River Basin | $\$ 2,469,068$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 2,469,068$ | $\$ 0$ |
| Manasota Basin | $\$ 15,898,099$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 15,898,099$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 53,291,704$ | $\$ 0$ |

Critical Project Milestones:
Projected: Amended: Actual:
District Recognition/Signage:
Not Applicable
Status As Of: 08/21/2006 - Work continues on a new report format to address Water Supply and Resource Development (WSRD) projects in addition to the NWSI projects. It is anticipated that the new format will be used for 2006 update.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

## Section 21 Wellfield Rehydration

F011 Basin: 010,014,016,
00 Project Status: Ongoing
Tampa Bay Water
Terry Thomas
Chan, Doreen
NWSI
DESCRIPTION: This is a New Water Sources Initiative project, initiated in July 1994, to design and construct the Section 21 Rehydration Pilot Project. The objective of the Section 21 Wellfield Rehydration Pilot Project is to investigate the feasibility of using stormwater and reclaimed water to rehydrate stressed and impacted wetlands on the wellfield, and to determine the effects of this type of rehydration on water levels, water quality and wetland health. The first critical task that will be performed prior to moving forward with this project is a Risk Assessment (RA). The RA will measure the probability and level of possible public health consequences associated with rehydrating surface features on the wellfield with surface-water and/or reclaimed water.
Benefits: This implementation of this type of project could help Tampa Bay Water effectively utilize excess storm water and/or highly treated effluent during the wet weather and help to rehydrate impacted lakes and wetlands on the Section 21 wellfield. The information and data collected from the RA could also be applied to future rehydration projects in the Tampa Bay Area.
Costs: The total project cost is $\$ 1,685,000$, to be shared by Tampa Bay Water, the District and the Environmental Protection Agency. The District's share is expected to be $\$ 420,500$.
ADDITONAL INFORMATION: In July 1994, Northwest Hillsborough and Pinellas-Anclote River Basin Boards approved an Agreement with Tampa Bay Water for the design and construction of the Section 21 Restoration Project, a New Water Sources Initiative. The objective of the Section 21 Wellfield Restoration Pilot Project is to investigate the feasibility of using storm water and/or reclaimed water to rehydrate stressed surface water features on the wellfield, and determine the effects of this type of restoration on water levels, water quality, and wetland health. The project site is the Section 21 wellfield, which is currently owned by the city of St. Petersburg and leased to Hillsborough County for use as a public park. It is located on the southwest corner of Dale Mabry Highway and Van Dyke Road in northwest Hillsborough County. The wellfield is one of the twelve groundwater facilities operated by Tampa Bay Water under a Consolidated Water Use Permit issued by the District. It is currently permitted to withdraw an average of 9.6 million gallons per day (mgd). The original project scope involved five phases including data collection, permitting, design, construction and long-term monitoring. At the request of Tampa Bay Water member governments, the project scope was expanded to include a RA, which is now a key component of the project. The purpose of the RA is to quantify the probability and level of possible public health consequences associated with rehydrating surface water features on the wellfield with surface water and/or reclaimed water. The RA will focus mainly on the potential risks associated with chemical and microbiological contaminants present in the water to be applied to the wellfield. The results of the RA will be used by Tampa Bay Water, the District, and other stakeholders to determine whether or not the project will go forward with permitting, design, and construction, therefore it is important that the evaluation be as accurate and comprehensive as possible.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Tampa Bay Water | $\$ 1,264,500$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 1,264,500$ | $\$ 0$ |
| District | $\$ 220,998$ | $\$ 3,764$ | $\$ 0$ | $\$ 0$ | $\$ 224,762$ | $\$ 0$ |
| Pinellas-Anclote River Basin | $\$ 106,976$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 106,976$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 106,976$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 106,976$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 1,703,214$ | $\$ 0$ |


| Critical Project Milestones: | Projected: | Amended: |
| :--- | :--- | :--- |
| District Recognition/Signage: NA |  |  |
| Original Contract Executed | $07 / 01 / 1994$ | $07 / 18 / 1994$ |
| Basin Board Approval of Amendment 1 | $02 / 06 / 1997$ | $02 / 26 / 1997$ |
| Governing Board Approval of Amendment 1 | $02 / 25 / 1997$ | $03 / 17 / 1997$ |
| Risk Assessment Plan of Study | $10 / 01 / 1998$ | $10 / 01 / 1998$ |
| Basin Board Approval of Amendment 2 | $08 / 12 / 1998$ | $08 / 12 / 1998$ |
| Governing Board Approval of Amendment 2 | $08 / 25 / 1998$ | $08 / 25 / 1998$ |
| Third Amendment Agreement to Management Services | $12 / 01 / 2001$ | $12 / 15 / 2001$ |
| Third Amendment Agreement Executed | $01 / 01 / 2002$ | $08 / 27 / 2002$ |

Submit Interim Data Report
Fourth Amendment Agreement to Management Services
Fourth Amendment Agreement Executed
Additional water quality data collection
Fifth Amendment Agreement to Managment Serv.
Fifth Amendment Agreement Executed
Perform remaining elements of Risk Assessment
Develop Conceptual Design and Cost estimates
Complete \& Submit Draft Risk Assessment Report
Finalize \& Submit Risk Assessment Report
Present Report \& Recommendations to Member Gov'ts
Amendment 5 Contract Close-out

04/01/2002
04/25/2002
01/10/2003
02/10/2003
02/25/2003
02/27/2003
03/31/2003
08/31/2003
09/01/2003
05/15/2005
09/10/2005
12/20/2005
10/30/2005
02/01/2006
12/01/2005
03/15/2006
12/15/2005 11/15/2006
05/01/2006 11/15/2006
05/15/2006 12/30/2006
06/01/2006 01/25/2007
07/30/2006 03/15/2007

Status As Of: 10/31/2006 - Work on this project has been delayed due to the wellfield rehabilitation project, and the contract deadline for this project was extended beyond the current December 31, 2005 deadline in order for Tampa Bay Water to complete the Risk Assessment. A new project schedule extending the project for another 15 months has been submitted by TBW. An expired contract agreement was drafted in September 2006 and is currently being reviewed by Management Services. HDR, the consultant conducting the work has been modifying the modeling portion of the Risk Assessment using the newly aquired data, as well as collecting additional water quality samples. While data collection and analyses are essentially complete for this project, the report has yet to be completed. The consultant is currently working on this final portion of the project and expects to have a draft RA report in November (2006). The new deadline for this project is March 15, 2007.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

## Partnership Agreement Projects

F025 Basin: 010,011,013,014,015,016,019,
00 Project Status: Ongoing
Tampa Bay Water
Ken Herd
Armstrong, Brian
NWSI

DESCRIPTION: The Northern Tampa Bay New Water Supply and Groundwater Withdrawal Reduction Agreement - (Partnership Agreement) was signed in May 1998 with Tampa Bay Water (TBW) and its six member governments. The objectives of the Partnership Agreement are to provide for the development of new sustainable water supplies, reduce pumpage at the consolidated wellfields, end existing litigation and minimize future litigation. The Partnership Agreement provides for the development of at least 85 mgd of new water supply by the end of 2007 and implementation of aggressive conservation and demand management programs to reduce demand by at least 17 mgd . Tampa Bay Water is currently working to develop new water supply projects that are capable of producing more than 85 mgd of new supply, 68 mgd of which will reduce groundwater pumping at its central system wellfields.
Benefits: The development of new water will enable TBW to meet the first phase of reductions in pumpage at the 11 Northern Tampa Bay Wellfields. Under the Partnership Agreement TBW was required to reduce its annual average withdrawal from the consolidated wellfields to 121 mgd or less by December 31, 2002. Since 2003, TBW has maintained withdrawals in the 100 mgd vicinity. Additionally the Partnership agreement requires TBW to further reduce their annual average withdrawal to 90 mgd or less by December 31, 2007.
Costs: To assist TBW in meeting these objectives, the District has committed $\$ 183$ million in funding assistance for the development of the alternative water supply projects, and a minimum of $\$ 90$ million toward conservation and reuse projects (at least $\$ 9$ million per year for ten years) that effectively reduce potable water use. As of April 1, 2006, the District had met $\$ 167,859,466$ of the Partnership commitment by placing those funds, with a credit for interest earnings, in the Partnership Trust. The final contribution of $\$ 15,140,538$ is budgeted for FY2007, as part of the NWSI budget. With the FY2007 contribution, the District will have funded the total $\$ 183,000,000$ consistent with the Partnership Agreement. The FY2007 budget also includes $\$ 32,260,933$ in conservation and reuse funding in accordance with the District's commitment to provide at least $\$ 9$ million per year. The District has also provided $\$ 26$ million in Save Our Rivers and Preservation 2000 state funding toward the purchase of the lands for the Tampa Bay Water regional reservoir.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| District | $\$ 77,672,281$ | $\$ 6,918,592$ | $\$ 6,918,588$ | $\$ 0$ | $\$ 91,509,461$ | $\$ 0$ |
| Alafia River Basin | $\$ 5,154,686$ | $\$ 645,120$ | $\$ 645,120$ | $\$ 0$ | $\$ 6,444,926$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 21,092,824$ | $\$ 2,672,597$ | $\$ 2,672,597$ | $\$ 0$ | $\$ 26,438,018$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 7,588,666$ | $\$ 768,000$ | $\$ 768,000$ | $\$ 0$ | $\$ 9,124,666$ | $\$ 0$ |
| Coastal Rivers Basin | $\$ 6,133,075$ | $\$ 614,400$ | $\$ 614,400$ | $\$ 0$ | $\$ 7,361,875$ | $\$ 0$ |
| Pinellas-Anclote River Basin | $\$ 34,498,257$ | $\$ 3,456,000$ | $\$ 3,456,000$ | $\$ 0$ | $\$ 41,410,257$ | $\$ 0$ |
| Withlacoochee River Basin | $\$ 579,145$ | $\$ 65,829$ | $\$ 65,829$ | $\$ 0$ | $\$ 710,803$ | $\$ 0$ |
| TOTAL |  |  |  | $\$ 183,000,006$ | $\$ 0$ |  |

Critical Project Milestones:
Projected: Amended: Actual:
District Recognition/Signage: YES
The Partnership Agreement involves many projects with various components such as the desalination facility, regional reservoir, surface water treatment plant, pump stations and various pipeline interties. District signage was established at all these locations when construction commenced.
Status As Of: 11/02/2006 - Demand Management: TBW staff presented a ground water, surface water and reservoir management strategy to its Board in August. Due to below average flow conditions in the Hillsborough River, Tampa Bypass Canal and Alafia River, TBW is proposing to reduce the amount of water treated at the surface water treatment plant to 20 mgd and take any additional water from these sources to the reservoir for storage. As a result of this strategy, 3.1 billion gallons of surface water were pumped into the reservoir during the month of September, bringing the total amount of water in storage to 14 billion gallons. Additionally in September, TBW produced 25 mgd from the surface water treatment plant and 113 mgd from the 11
consolidated wellfields. TBW had anticipated that groundwater withdrawals would average between 125 and 135 mgd for the remainder of water year (WY) 2006 (September 2006). In WY2007 (October 2006 - September 2007) production from the Consolidated Wellfields is expected to average below 110 mgd . The Consolidated Permit requires TBW's 12-month moving average withdrawals from the Consolidated Wellfields to be at or below 90 mgd by December 31, 2007. Seawater Desalination: American Water Pridesa (AWP) assumed operation of the plant on January 8, 2005, and began full-scale pilot testing on January 31, 2005. Testing was completed in December 2005 and results indicate the remediation efforts are technically sound and consistent with contractual performance requirements. Tampa Bay Water (TBW) issued a construction notice to proceed (NTP) on October 24, 2005. Project construction activities include substantial completion of modifications to the DynaSand filters, placement of 18 Diatomaceous Earth filters, substantial completion of concrete pours for the pretreatment structure, lime saturators and residual treatment structure walls. The agreement between TBW and AWP calls for the start of acceptance testing on September 21, 2006 and substantial completion by October 20, 2006. AWP filed delay claims to extend the start of acceptance testing and scheduled substantial completion date until November 13 and 26, 2006, respectively. The Dispute Resolution Committee mutually agreed to hold the claim in abeyance until November 1, 2006 in order to better determine any alleged impact to the construction schedule. Since making this decision, the Dispute Resolution Committee met again on October 3, 2006, and agreed to extend the abeyance period until February 1, 2007. AWP submitted a revised schedule that has a completion date of December 22, 2006. AWP is taking measures to try and recover the schedule by reallocating work to additional contractors, but it is anticipated that December 22, 2006, date will be the new date for acceptance of the facility.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

Starkey Wellfield Rehydration Pilot Project
F026 Basin: 010,013,014,015,016,
00 Project Status: Ongoing
Tampa Bay Water
Thomas, Terry
Schultz, Richard

## NWSI

DESCRIPTION: The District entered into a funding agreement with Tampa Bay Water, formerly West Coast Regional Water Supply Authority, on May 4, 1998, to design, permit, construct, and operate a pilot rehydration project utilizing reclaimed water obtained from Pasco County. The pilot project was to be located on approximately 39 acres of uplands in the central region of the Starkey Wellfield. The project is permitted by the Florida Department of Environmental Protection to apply up to two inches per week of reclaimed water to upland areas. The purpose of this project is to investigate the use of reclaimed water to recharge the surficial aquifer which in turn will provide recharge to the underlying Floridan Aquifer. The water will be applied with an above-ground sprinkler system. A corollary benefit of recharging the surficial aquifer would be that water may be available to aid in hydrating nearby wetlands. At this time, a portion of the sprinkler system has been installed and connected to Pasco County's reclaimed water transmission line. Five surficial aquifer and three Upper Floridan aquifer monitor wells have been installed. A detailed scope of work (Task 1 in the original Agreement) which includes an expanded monitoring program and refined project assessment methodologies, has been developed. Data collection has begun on background hydrologic, chemical, and biologic conditions. There have been some start-up delays as a result of difficulties with Floridan monitor well construction and completion of the Basis of Design report. With the recent completion of the detailed scope of work, the project has been re-evaluated in terms of schedule and cost. In the original schedule there was no provision for either pre- or post-rehydration monitoring. Without this baseline monitoring, it would be difficult to measure the impacts of the program. The revised scope of work anticipates a schedule consisting of one year of background monitoring, one year of application of reclaimed water, and a six month post-rehydration monitoring program. The revised scope of work also includes a more extensive monitoring program and a more detailed approach to evaluating the results. The budget has been revised to reflect the actual cost of work performed to date and the estimated cost for remaining tasks included in the revised scope of work. The decrease in budget is due to lower than expected costs for construction and monitoring.
Benefits: Applying reclaimed water to the wellfield would have the effect of recharging the surficial aquifer. The additional water would then have the opportunity to infiltrate over time to the underlying Floridan Aquifer and ultimately become available as additional water for public supply. An additional benefit of recharging the surficial would include having more water available for hydrating local wetlands that may have experienced stress due to either climate or ground water withdrawals If succesful as a pilot study, a larger version of the project may be feasible.
Costs: Total project cost is $\$ 510,794$ of which the District is funding $\$ 255,397$ plus District salaries.


Status As Of: 08/25/2006 - This project is on hold for the foreseeable future. The only activities consist of continued monitoring of water levels and geochemistry

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

Natural Treatment of Storm and Waste Water - Phase II
F027 Basin: 011,013,014,016,020,021,
00 Project Status: Ongoing
Florida Institute of Phosphate Res
Peter Schreuder
Chan, Doreen
NWSI

DESCRIPTION: This is a New Water Sources Initiative, initiated in FY1999, to investigate the potential for treating stormwater and treated wastewater effluent using a combination wetland and tailing sand filter basin (wetland-basin system) located on previously mined phosphate lands. The ultimate intent is to produce reliable quantities of high quality water that could be used as a source of water for an aquifer recharge/recovery well. Benefits: This project will investigate the feasibility of an innovative treatment technology that could help to provide alternative sources of water for industrial and commercial users in the SWUCA. There is abundance of reclaimed phosphate lands that could potentially be used to implement these types of projects and this would help to offset additional groundwater withdrawals and impacts to the area.
Costs: Total cost for Phase II is approximately $\$ 474,505$. The District approved additional 2005 funding at the August 2005 Basin Boards to conduct this next phase. The funding will come from the District's General fund and six Basin Boards (Alafia, Hillsborough, N.W. Hillsborough, Manasota, Peace and Pinellas/Anclote)
ADDITIONAL INFORMATION: This is a New Water Sources Initiative, initiated in FY1999, and is being conducted in support and association with the design, construction and testing of a one-million gallon per day (mgd) aquifer recharge/recovery well system (NWSI project F023). Both of these projects are being conducted at Florida Power Corporation's (FPC) Hines Energy Complex, which is located in the Southern Water Use Caution Area (SWUCA) on previously mined phosphate land situated southwest of the city of Bartow in Polk County. Both projects are also co-funded by the Florida Institute of Phosphate Research (FIPR). The purpose of this project is to investigate the potential for improving stormwater and treated wastewater effluent quality using a combination wetland and tailing sand filter basin (wetland-basin system) located on previously mined phosphate lands. The ultimate intent is to provide reliable quantities of water--of acceptable quality--that could be used as a source water for an aquifer recharge/recovery well (NWSI project F023). The water injected could be later withdrawn from the aquifer during periods when there is insufficient water supplies in Florida Power's cooling pond for power-plant cooling. Funding for the design, construction and testing of the wetland-basin system was approved by the Alafia, Hillsborough, Peace and Governing Boards using FY1999 funds, and was completed in early 2004. A final report entitled "Pilot Project to Test Natural Water Treatment Capacity of Wetland and Tailing Sand Filtration on Mined Phosphate Lands" was submitted to the District in March 2005. Water quality test results indicate that effluent from the wet;amd-basin system currently meets 134 of the total 140 state drinking water standards for chemicals. With the exception of total coliform, the remaining five parameters that do not meet standards are secondary drinking water parameters. The second phase of this project will consist of tasks that will be performed to improve treatment efficiency and effectiveness of the system. Also, additional data collection and laboratory testing tasks will be initiated to examine the potential for metal--specifically arsenic--mobilization in the limestone aquifer using water produced from the wetland-basin system. The low oxygen concentrations observed in the water may prevent or inhibit the dissolution of pyrite which commonly occurs during recharge, however further investigation and testing are needed to substantiate this. The results and data collected from this new task will provide important and relevant information for all existing and future aquifer recharge/recovery and aquifer storage and recovery (ASR) projects in the District. Total cost for Phase II is approximately $\$ 474,505$ and will take approximately 2 years to complete. The District approved additional 2005 funding at the August 2005 Basin Boards to fund this next phase. The funding will come from the District's General fund and six Basin Boards (Alafia, Hillsborough, N.W. Hillsborough, Manasota, Peace and Pinellas/Anclote).

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Alafia River Basin | $\$ 82,474$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 82,474$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 75,577$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 75,577$ | $\$ 0$ |
| Peace River Basin | $\$ 75,577$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 75,577$ | $\$ 0$ |
| District | $\$ 285,506$ | $\$ 13,711$ | $\$ 0$ | $\$ 0$ | $\$ 299,217$ | $\$ 349$ |
| Cooperator | $\$ 565,753$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 565,753$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 19,772$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 19,772$ | $\$ 0$ |
| Pinellas-Anclote River Basin | $\$ 19,772$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 19,772$ | $\$ 0$ |
| Manasota Basin | $\$ 19,772$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 19,772$ | $\$ 0$ |


| Critical Project Mil | Projected: | Amended: | Actual: |
| :---: | :---: | :---: | :---: |
| District Recognition/Signage: NA |  |  |  |
| Governing Board Approval Date | 06/29/1999 |  | 06/29/1999 |
| Execute Contract | 09/14/1999 |  | 09/14/1999 |
| Construction of Filtration Basin and Wetlands |  |  | 02/28/2001 |
| Treatment System |  |  |  |
| Initiate Data Collection | 05/01/2002 |  | 05/01/2002 |
| Complete Data Collection | 09/01/2003 |  | 12/31/2003 |
| Installation of Water Level Controllers and | 07/19/2002 |  | 07/24/2002 |
| Cleansing of drainage lines |  |  |  |
| Complete Data Analysis | 09/01/2003 |  | 03/31/2004 |
| Report Preparation | 08/01/2003 |  | 07/01/2004 |
| Contract Close Out | 12/31/2003 | 06/30/2004 | 07/01/2005 |
| PHASE II (NTS Improvements \& AS Mobilzn Study) |  |  |  |
| Governing Board Approval Date | 08/20/2005 |  |  |
| Execute Contract | 01/01/2006 |  | 12/21/2005 |
| Modify/Repair Filtration Basin system \& Infrastructure | 02/01/2006 |  | 03/15/2006 |
| WQ \& Data Collection; Interpretation/Analysis |  | 06/15/2006 |  |
| Conduct Arsenic Leaching Lab Testing |  | 09/15/2006 |  |
| Report Preparation \& Review |  | 03/30/2008 |  |
| Contract Close-out |  | 04/15/2006 |  |
| Status As Of: 10/31/2006 - Tasks completed on this project have been predominantly related to the continued repairs and modifications of the treatment site needed to get the site operational again. Existing pumps and |  |  |  |
| sensors within the filter basin and the wetland are currently under repair or will be replaced. Water quality |  |  |  |
| samples from the cooling pond, wetland and filter basin were also collected and analyzed in the field for a variety |  |  |  |
| also been working with USF to prepare for the bench testing. USF has been purchasing equipment and |  |  |  |
| constructing test structures that will be used to help determine the water-rock interactions and major reaction |  |  |  |
| steps occurring for each length. A meeting was held between project cooperators (District \& FIPR), Progress |  |  |  |
| Energy and the consultant to discuss adding an additio of using UV. The District has been talking with Progre and in the field. The consultant has estimated an additio | the project to share the of $\$ 6000$ for | estigate the of a UV unit units. | tial impacts |

Project: Largo/Clearwater/Pasco-ASR/Interconnect (includes H012-A re: Largo and H012-B r Clearwater)
Project \#: H012 Basin: 010,011,013,014,015,016,019,
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:
00 Project Status: Ongoing
Clearwater, Largo, Pasco County
Leland Dicus, and Andy Neff
Andrade, Anthony

DESCRIPTION: This multi-year and multi-phased regional alternative water supply project consisted of the planning, design, permitting ,construction and testing of a three-well reclaimed water ASR system to store reclaimed water in Clearwater. It also includes the design and construction of a reclaimed water transmission main that connects the reclaimed water systems of Clearwater, Largo and Pasco County. The combined annual average capacity of the three ASR wells in Clearwater was estimated to be 1.5 mgd , with a peak of 4.5 mgd . One exploratory/monitoring well was drilled in Clearwater prior to the construction of the any full scale ASR wells. Unfortunately the exploratory/monitoring well was unsuccessful, therefore the City will not be pursuing the construction of the three full-scale production ASR wells anticipated in Clearwater. The three ASR wells were to be used in Clearwater to support irrigation demands, however; when coupled with the pipeline interconnect, they would have maximized the benefit of the project and represented an increased regional scope. The original project's initial component concept was to store wet-weather reclaimed water flows in Clearwater, where they would be stored until needed during drier periods. The second concept is still being pursued and involves moving surplus flows from Largo and Clearwater to Pasco County to be used for irrigation demands and/or to restore natural systems. The potential exists for other reclaimed water systems in Pinellas and Hillsborough counties to supply/receive reclaimed water to/from the project.
Benefits: The project was anticipated to provide an estimated annual average of 3 mgd of reclaimed water to offset an estimated 1.8 mgd of traditional water resources. The use of reclaimed water during wet-weather periods also reduces discharges to surface water bodies, thereby improving water quality. The elimination of ASR's as a project component will require recalculation of the projects benefits.
Costs: The total regional project costs was $\$ 10,063,200$, and the District's share of $\$ 5,006,600$ is anticipated to be funded by the Governing Boards and six basin boards. Due to the regional impact of the project on water supplies in Northern Tampa Bay, the District's share of this project is funded by a similar arrangement as in the Partnership Agreement (Governing Board 50\%; Alafia River Basin 5\%; Coastal Rivers Basin 4\%; Hillsborough River Basin 12.5\%; Northwest Hillsborough Basin 6.5\%; Pinellas-Anclote Basin 21.5\%; and, Withlacoochee River Basin $0.5 \%$ ). The funding of this project requires a large capital investment and construction will span several years; therefore, District funding has been allocated over multiple fiscal years to ensure funds are available when costs are expected to occur. The cost benefit, using 1.8 mgd of offset and amortizing the total cost at $8 \%$ interest over 30 years, is $1.35 / 1000$ gallons. This does not include local offsets realized by Clearwater through the use of the ASR wells. The elimination of ASR's as a project component will require recalculation of the projects costs.
ADDITIONAL INFORMATION: When the project began in FY2001, the initial concept was to develop ASR systems in Largo and Clearwater. Feasibility studies for the ASR wells were completed in each city, with the Pinellas-Anclote River Basin Board contributions $\$ 50,000$ toward the $\$ 150,000$ project in FY2002. The feasibility reports confirmed the planned ASR locations were viable for pursuing ASR construction and use. Largo and Clearwater each requested and received FY2003 and FY2004 cooperative funding for the design and construction of one full scale 1.5 mgd ASR test well to be installed within each of the systems (H012- A for Largo and H012-B for Clearwater). Ultimately, only Clearwater decided to proceed with the construction of an ASR system. Clearwater received an additional $\$ 250,000$ in District funding for FY2005 related in increased costs estimated for their initial ASR test well. In October of 2004, the City of Largo decided not to pursue an ASR system because of its scaled-back plans for reclaimed water customer expansion. Largo is still interested in participating in the regional interconnect components of the project by contributions of its surplus reclaimed water flows. Feasibility (Phase A): $\$ 150,000$ for the ASR feasibility study, of which Largo, Clearwater and the District provided $\$ 50,000$ each. ASR Exploratory/Monitor Well (Phase B): $\$ 320,000$ for the ASR exploratory test well, of which Clearwater and the District provided $\$ 160,000$ each. The results of Clearwater's exploratory/monitoring well indicate that the north-east site is not suitable for ASR, as the storage zones were either too fresh or too saline to obtain a FDEP full scale ASR permit (report published Aug. 2006). Based upon the results of the exploratory well, the City will not be pursuing ASR and has elected to suspend further ASR investigations. Full Scale Initial ASR Wells (Phase C): $\$ 3,900,000$ originally anticipated for three 1.5 mgd wells will not be utilized for ASR. System Interconnections (Phase D): $\$ 5,693,200$ to interconnect the reclaimed systems of Largo, Clearwater and Pasco County. Using Wet-Weather Flows in Pasco County: In April 2005 the Governing Board and six affected basin boards approved a transfer of a total of $\$ 20,000$ in H 012 project funds to the Tampa Bay Regional Reclaimed Water \& Downstream Augmentation Project-Pasco County Wet Weather

Reclaimed Water Reservoirs Project (H305). The transferred funds are being used to study potential opportunities for using H012 project flows in Pasco County. Potential Expansion: At their April 2005 meetings, the Governing Board and six affected basin boards approved a project scope change to include investigating the potential to include other systems in Pinellas and Hillsborough counties. Project flows could increase to 10 mgd , which would then increase the costs to as much as $\$ 18,970,000$. Assuming a 60 percent offset, of 6 mgd , the cost benefit for the expanded project would become $\$ 0.76 / 1000$ gallons. The funds originally anticipated for the ASR component may be available for utilization in the interconnect component expansion. The costs will likely be modified as project development progresses.


Status As Of: 11/02/2006 - Feasibility Studies: The ASR and interconnect feasibility studies were completed by PBS\&J on May 21, 2004, and the cooperators were reimbursed by the District $(\$ 43,850)$. The results of the studies confirm the tested locations are feasible for the construction and testing of ASRs. ASR Testing Phase: This phase of the project progressed according to the amended timeline and was completed August 8, 2006 with the submittal of the ASR Exploratory Well Report. The City was reimbursed by the District a total of $\$ 112,279$ for the ASR testing phase. The results of Clearwater's exploratory/monitoring well indicate that th north-east site is not suitable for ASR, as the storage zones were either too fresh or too saline to obtain a FDEP full scale ASR permit. Based upon the results of the exploratory well the City will not be pursuing ASR and has elected to suspend further ASR investigations. Clearwater and District staff have coordinated the utilization of the north-east exploratory well as a future District monitoring well. Interconnection Phase: The consultant (King Eng.) for related project H 305 is continuing their investigations into the utilization of project H 012 flows in Pasco County. Upon completion of King Engineering's related investigations in late 2006/early 2007. District staff anticipates coordinating a meeting between all existing and potential interconnect partners. To date, $\$ 3,807,893$ has been budgeted. $\$ 3,807,893$ has been encumbered and $\$ 156,129$ has been reimbursed.

Project:
Project \#:
Phase: Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

Pasco County Southeast Regional Reclaimed Water Loop
H041 Basin: 010,011,013,014,015,016,019,
01 Project Status: Ongoing
Pasco County
A. Gleen Greer, P.E.

Wright, Carl
Water Supply and Resource Development

DESCRIPTION: This is an alternative water supply project consisting of design and construction of approximately 18,500 linear feet 24 -inch reclaimed water transmission main with associated fittings and valves to complete the transmission system looped interconnection between Pasco County's Southeast Pasco and Wesley Center Wastewater Treatment Facilities (WWTF's). This new 24-inch main will connect an existing 16-inch reclaimed water transmission main on State Road 54 that will serve the New River Development (now under construction) with three existing 16 -inch reclaimed water transmission mains on Handcart Road that deliver reclaimed water from the Southeast Pasco WWTF to areas to the north, south and east of the Southeast WWTF.
Benefits: This transmission main interconnect project will ensure an adequate means for the delivery of reclaimed water for the southeastern portions of the County, indirectly allowing offsets that will be realized within those portions of the Pasco County Reuse System where development is creating demand, and will allow later transmission/distribution of any wet weather flows diverted to the series of reservoirs being constructed in Pasco County.
Costs: The total cost of this project is estimated to be $\$ 1,330,000$. The Alafia River Basin Board budgeted \$27,265 for the project in FY2006, the Coastal Rivers Basin Board budgeted \$22,441 for the project in FY2006, the Hillsborough River Basin Board budgeted \$68,791 for the project in FY2006, the Northwest Hillsborough Basin Board budgeted $\$ 36,073$ for the project in FY2006, the Pinellas-Anclote River Basin Board budgeted $\$ 117,867$ for the project in FY2006, the Withlacoochee River Basin Board budgeted $\$ 3,355$ for the project in FY2006, and the Governing Board budgeted $\$ 273,279$ for the project in FY2006. In addition to the board's FY2006 budget, $\$ 239,405$ in Water Protection and Sustainability Trust Funds (WPSTF) were budgeted. The cost benefit cannot be calculated because there is no direct offset associated with this project; any benefits realized will be associated with future transmission/distribution projects this interconnect will support.
ADDITIONAL INFORMATION: When complete, this loop will help to transport water from the Southeast and Wesley Center WWTF's to the New River, Wesley Chapel and Meadow Point developing areas and will also serve to deliver reclaimed water from the Central Regional Reclaimed Water Interconnect to the most eastern portions of the Pasco County Reuse System. This project is consistent with the District's goal for the development of regional reuse interconnects; and in conjunction with the Tampa Bay Regional Reclaimed Water and Downstream Augmentation Project will help to provide a means for moving water from the City of Tampa to impacted areas within the Northern Tampa Bay WUCA. Of the total estimated project cost of $\$ 1,330,000$, design represents $\$ 133,000$ (10\%) and construction represents $\$ 1,197,000(90 \%)$. Any additional funds budgeted are for District staff time for project management. The County has a water conserving rate structure making it eligible for Water Protection and Sustainability Trust Funds.

| Source | Prior Funding | FY 2006 Budget | FY 2007 Futur <br> Budget Fun |  | Total Funding | $\begin{aligned} & \hline \text { Expended } \\ & 2007 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pasco County | \$0 | \$545,300 | \$0 | \$0 | \$545,300 | \$0 |
| Alafia River Basin | \$0 | \$27,265 | \$0 | \$0 | \$27,265 | \$0 |
| Coastal Rivers Basin | \$0 | \$22,441 | \$662 | \$0 | \$23,103 | \$0 |
| Hillsborough River Basin | \$0 | \$68,791 | \$662 | \$0 | \$69,453 | \$36 |
| Northwest Hillsborough Basin | \$0 | \$36,073 | \$662 | \$0 | \$36,735 | \$0 |
| Pinellas-Anclote River Basin | \$0 | \$117,867 | \$662 | \$0 | \$118,529 | \$0 |
| Withlacoochee River Basin | \$0 | \$3,355 | \$662 | \$0 | \$4,017 | \$0 |
| District | \$0 | \$273,279 | \$662 | \$0 | \$273,941 | \$0 |
| Wtr Prot Sust. T.F. | \$0 | \$239,405 | \$0 | \$0 | \$239,405 | \$0 |
| TOTAL |  |  |  |  | \$1,337,748 | \$36 |
| Critical Project Milestones: District Recognition/Signage: |  |  | Projected: | Amended: |  | Actual: |
| Signage Erected |  |  | 05/01/2007 | ------------- |  | ------------- |
| Draft Agreement to Contract Adr | inistration: |  | 11/15/2005 | ------------- |  | 12/16/2005 |
| Draft Agreement returned from | ontract Admi | istration: | 12/31/2005 | ------------ |  | 07/03/2006 |
| Contract Execution: |  |  | 03/15/2006 |  | ------ | 10/26/2006 |


| Notice to Proceed: | 03/16/2006 | ------------ | 10/30/2006 |
| :---: | :---: | :---: | :---: |
| Commence Design: | 08/01/2006 | ------------- | 07/25/2006 |
| Commence Construction: | 08/01/2007 | ------------ | ------------ |
| Project Complete: | 02/01/2009 | ------------ | ------------ |
| Contract Close-out: | 12/31/2009 | ------------ | ------------ |

Status As Of: 11/01/2006 - The Boards approved inclusion of this Water Supply and Resource Development project in their FY2006 budgets. The cooperator provided a Scope of Work on September 12, 2005, and a contract was drafted, has undergone the District's contract review process, and was sent to the cooperator on July 24, 2006, for signature. Pasco County has informed District staff that easement acquisition issues have necessitated a slight change in the proposed routing of the transmission main, but this change in routing does not alter the interconnection points or the intent of the project. The County issued notice to proceed to the design consultant on July 25,2006 . The survey work has been completed, and design is approximately $10 \%$ complete.

Project：
Project \＃：
Phase：
Cooperator：
Coop．Contact：
Project Manager：
Task Manager：
Project Type：

Cypress Creek Wellfield Surface Water Management Project
H043 1 Basin：010，011，013，014，015，016，019，
01 Project Status：Ongoing
Tampa Bay Water
Warren Hogg
Arnold，Dave
Doug Leeper／DEV／swfwmd
Water Supply and Resource Development

DESCRIPTION：This is a cooperative project with Tampa Bay Water to perform the Implementation of the Best Management Practices（BMPs）element of the District＇s Watershed Management Program（WMP）for an area within the Cypress Creek Watershed．The watershed covers an area of approximately 160 square miles and is located in Pasco and Hillsborough counties．The project objectives are to re－hydrate wetlands impacted by pumping from the Cypress Creek wellfield and address level of service deficiencies in the adjacent Saddlewood and Quail Hollow subdivision areas The project is funded in FY2006．
Benefits：The WMP provides a method to evaluate the capacity of a watershed to protect，enhance，and restore water quality and natural systems，while achieving flood protection．The project will remove conveyance restrictions caused by construction of roads，and enhance surface water storage within wetlands on the wellfield；including implementation of portions of the Phase I Mitigation Plan under Tampa Bay Water＇s Consolidated Water Use Permit．All construction will take place on the wellfield public lands，including improvements on SWFWMD owned property．
Costs：The total amount budgeted for this project is $\$ 2,758,780$ in FY2006．The District＇s share，allocated for half the construction costs，totals $\$ 1,050,000$ through the Governing Board，and Alafia River，Hillsborough River，Northwest Hillsborough，Coastal Rivers，Pinellas－Anclote，and Withlacoochee River Basin Boards．District funding is split among the Boards according to percentages established for the Phase 1 Mitigation Plan．Tampa Bay Water is funding design，permitting， construction document development，and half the construction．The District funding amounts shown in the table include staff salaries and expenses．
ADDITIONAL INFORMATION：The WMP includes five major elements：1）Topographic Information，2）Watershed Evaluation，3）Watershed Management Plan，4）Implementation of BMPs，and 5）Maintenance of Watershed Parameters and Models．Implementing elements of the WMP with local governments is one of the Comprehensive Watershed Management （CWM）initiative strategies．A cooperative funding expenditure agreement with Tampa Bay Water has been developed to complete this project，which is implementation of BMPs．Tampa Bay Water is managing the project，where the District project manager must approve any agreements to accomplish project tasks．

| Source | Prior Funding | FY 2006 Budget | FY 2007 Fu <br> Budget Fun |  | Total Funding | $\begin{aligned} & \hline \text { Expended } \\ & 2007 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tampa Bay Water | \＄658，780 | \＄1，050，000 | \＄0 | \＄0 | \＄1，708，780 | \＄0 |
| District | \＄0 | \＄527，901 | \＄3，928 | \＄0 | \＄531，829 | \＄0 |
| Alafia River Basin | \＄0 | \＄52，500 | \＄982 | \＄0 | \＄53，482 | \＄0 |
| Hillsborough River Basin | \＄0 | \＄132，333 | \＄2，137 | \＄0 | \＄134，470 | \＄0 |
| Northwest Hillsborough Basin | \＄0 | \＄68，400 | \＄1，156 | \＄0 | \＄69，556 | \＄0 |
| Coastal Rivers Basin | \＄0 | \＄42，149 | \＄0 | \＄0 | \＄42，149 | \＄0 |
| Pinellas－Anclote River Basin | \＄0 | \＄226，833 | \＄2，137 | \＄0 | \＄228，970 | \＄0 |
| Withlacoochee River Basin | \＄0 | \＄5，400 | \＄1，156 | \＄0 | \＄6，556 | \＄0 |
| TOTAL |  |  |  |  | \＄2，775，792 | \＄0 |
| Critical Project Milestones： District Recognition／Signage：YES |  |  | Projected： | Amended： |  | Actual： |
| Signage to be provided＠constr | ction start |  | 12／2006 | －－－－－－－－－－－－－ |  | －－－－－－－－－－－－ |
| Draft Agreement to Management | Services |  | 12／2005 | －－－－－－－－－－－－ |  | 01／2006 |
| Draft Agreement returned from M | anagement | ervices | 02／2006 | －－－－－－－－－－－－ |  | 02／2006 |
| Contract Executed |  |  | 05／2006 | －ーーーーーーーーーーーー |  | 03／2006 |
| Construction Bidding Complete |  |  | 10／2006 | －－－－－－－－－－－－ |  | delayed |
| Begin Construction |  |  | 12／2006 | －－－－－－－－－－－－－ |  | $\qquad$ |
| Facility Construction Complete |  |  | 10／2007 | －－－－－－－－－－－－ |  |  |
| Complete Project（Final Reimbur | ement） |  | 12／2007 | －－－－－－－－－－－－ |  | $\qquad$ |
| Contract Termination |  |  | 01／2008 |  | －－－－－－ | －－－－－－－－－－－－ |

Status As Of：10／27／2006－The cooperative funding agreement has been executed by both parties．The SWFWMD permit submittal for the project has been deemed complete，recommended for approval by staff，and was approved by the Governing Board in August．Possible legal action and／or litigation by the Saddlewood home owners association may delay the project

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:
Water Supply and Resource Development
DESCRIPTION: This project will interconnect the Northwest Hillsborough Potable Water Treatment Facility (WTF) to Tampa Bay Water's (TBW's) regional water supply system, which will diversify water sources in the Northwest Hillsborough Service Area. The WTF has a capacity of 30 mgd . There are no plant modifications planned as part of this project. The Northwest Hillsborough Service Area extends from Tampa Bay north to Pasco County and from Pinellas County east to l-275. The WTF serves the Northwest Hillsborough Service Area, and it is supplied entirely with groundwater from the Northwest Hillsborough Regional Wellfield (NWHRWF). The main project components are a pipeline route study; design and permitting; property acquisition; and pipeline construction between the regional system at the Cosme-Odessa Wellfield (located south of Citrus Park) and the WTF. TBW started the design process for this project in FY 2006 because of growing water demands, and they have requested reimbursement for funds spent in FY 2006. Project implementation, which will include tasks such as design and permitting, will begin in FY 2007 and continue into FY 2008.
Construction will occur between FY 2009 and FY 2010.
Benefits: Rotational ability will enable TBW to reduce pumping at the NWHRWF to achieve environmental constraints on lakes, wetlands, and groundwater levels. It will also enable them to manage the wellfield in accordance with the Optimized Regional Operations Plan (OROP). The OROP is a wellfield management guide approved by the SWFWMD.
Costs: This is a multi-year project that will continue into FY 2010. TBW initiated the design phase in FY 2006 because of growing demands in the service area. Funds spent prior to FY 2007 are not included in the District's portion of the budget.
ADDITIONAL INFORMATION: The WTF serves about 45\% of the demand in the service area; the Lake Park Potable Water Treatment Facility (LPPWTF) at Section 21 Wellfield serves the remainder of the demand. The LPPWTF receives groundwater from the Section 21 Wellfield and alternative supplies from the regional system, while the WTF's sole source of groundwater constrains operational flexibility and environmental and water quality management opportunities at the NWHRWF. The interconnect will improve TBW's ability to manage the NWHRWF according to the OROP. This should improve lake and wetland recovery and saline groundwater intrusion conditions.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| NW Hillsborough River Basin | $\$ 0$ | $\$ 0$ | $\$ 162,981$ | $\$ 1,826,913$ | $\$ 1,989,894$ | $\$ 0$ |
| District | $\$ 0$ | $\$ 0$ | $\$ 162,980$ | $\$ 1,826,913$ | $\$ 1,989,893$ | $\$ 0$ |
| Tampa Bay Water | $\$ 0$ | $\$ 99,750$ | $\$ 321,300$ | $\$ 3,653,825$ | $\$ 4,074,875$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 8,054,662$ | $\$ 0$ |

Critical Project Milestones:
Projected: Amended: Actual:
District Recognition/Signage:
Status As Of: -

| Project: | Water Supply \& Resource Development Reserve |
| :---: | :---: |
| Pr | H100 Basin: 014, |
| Phase | 01 Project Status: Ongoing |
| Cooperator: | N/A |
| Coop. Contact | N/A |
| Project Manager | Jones, Gregg |
| Task Manager: |  |
| Project Type: |  |
| DESCRIPTION: In 1997, the Florida Legislature amended the Water Resources Act to clarify the water management districts' responsibilities relating to water supply planning and water resource development. Specifically, the water management districts were directed to complete a district-wide water supply assessment by July 1, 1998. Further, the districts were to develop regional water supply plans for regions where demands are expected to exceed available supplies by 2020. The SWFWMD regional water supply plan encompasses a ten-county area extending from Pasco County in the north to Charlotte County in the south. This region encompasses the northern Tampa Bay region and the Southern Water Use Caution area. The regional water supply plan includes the following elements: (1) projected water demands for all use sectors through 2020; (2) available existing sources; (3) projected deficits in available supplies; (4) minimum flows and levels; (5) recovery and prevention strategies; (6) water supply development options; (7) water resource development options; (8) five-year work plan for water resource development projects; and (9) funding mechanisms and project schedules for selected projects. Projected water needs increase from 1.4 billion gallons per day (bgd) in 2000 to 1.67 bpd in 2020, a 19 percent increase. Staff has identified over 500 mgd of potential supplies, including demand management, to meet these needs. The reserves for water supply and resource development will be used to cooperatively fund future water supply and resource development projects to meet the needs identified in the regional water supply plan. |  |
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|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |


| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2006 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Northwest Hillsborough Basin | $\$ 3,225,900$ | $\$ 0$ | $\$ 500,000$ | $\$ 0$ | $\$ 3,725,900$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 3,725,900$ | $\$ 0$ |
|  |  |  | Projected: | Amended: | Actual: |  |
| Critical Project Milestones: <br> District Recognition/Signage: |  |  |  |  |  |  |

Status As Of: 11/01/2006 - No activity to date in FY2007.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

TBRRAP - Tampa Bay Regional Reclaimed Water and Downstream Augmentation Project
H300 Basin: 010,011,013,014,015,016,019,
00 Project Status: Ongoing
Hillsborough County, Pasco County, Tampa, Tampa Bay Water
Bart Weiss, Jim Duncan, Bruce Kennedy, Mike Bennett, Ralph Metcalf,
Scott, Kathy
Anthony Andrade/DEV/swfwmd, Carl Wright/DEV/swfwmd, Alison Ramoy/DEV/swfwmd Water Supply and Resource Development

DESCRIPTION: The Regional Project is the result of the collaboration of the District and four water suppliers, with financial assistance from the state and federal governments, to maximize the use of reclaimed water resources within the Tampa Bay Area. The project will help the five partners reach mutual goals of (1) reducing the use of traditional water supplies for irrigation and other purposes, (2) increasing the beneficial use of wet-weather reclaimed water flows, rather than continue the practice of discharging them to tide or deep wells, and (3) helping to restore the natural systems in Pasco and Hillsborough counties. The District's partnership with the City of Tampa, Tampa Bay Water, Hillsborough County and Pasco County is expected to ultimately provide at least 26 mgd of available water supplies, and result in 8 mgd of groundwater recharge and natural system restoration, for a total project benefit of 34 mgd by 2012, for an estimated cost of approximately $\$ 213$ million. The primary reclaimed water source is the City of Tampa's Howard F. Curren Advanced Wastewater Treatment Facility (HFC plant); however, it is anticipated that other facilities will be part of the project in the future. The project consists of the planning, design and construction of more than 45 miles of reclaimed water transmission pipelines, pumping and storage, and additional distribution pipelines and infrastructure. The core project was estimated to cost $\$ 213$ million in 2004, but costs could increase as feasibility studies are completed and if components related to surplus/wet-weather reuse are expanded. There are ten project segments associated with the Regional Project. Collectively, these segments will supply reclaimed water to 30,000 customers in Pasco and Hillsborough counties to offset 9 mgd of potable water supplies, supply approximately 14 mgd of new water sources for potable purposes to three counties, and result in a net beneficial use of 8 mgd from using wet-weather reclaimed water flows in storage or natural system restoration. Additionally, the Tampa Bay Estuary Program estimates that removing the reclaimed water discharge to Tampa Bay from the HFC plant could reduce nitrogen loading by 175 tons annually, or 3.5 percent. The planning level includes a number of projects that will be designed, permitted and constructed through 2012. The 10 segments identified in 2004 include:

- Lower Segment of the Tampa Transmission System (H301)
- Pasco County/New River West Regional Reclaimed Water Transmission Pipeline (H302)
- North Tampa Reclaimed Water Pipeline Phase II Construction (H303)
- Pasco County Central Regional Reclaimed Water Transmission Pipeline (H304)
- Pasco County Wet-weather Reclaimed Water Utilization (H305)
- Tampa Bay Water Downstream Augmentation (H306)
- Pasco-Tampa Reclaimed Water Regional Interconnect (H307)
- South Hillsborough Area Reuse Exchange -"SHARE" (H308)
- Hillsborough County South Hillsborough ASR and Reservoir Project-SHARP (H309)
- Regional Reuse Interconnect Serving TBW and Central Hillsborough County (H310)

This overall project is expected to significantly contribute to meeting water supply needs in the Tampa Bay area over the next 20 years. Therefore, funding for the Regional Project is allocated to each affected basin board proportionate to the basin population relative to the Hillsborough-Pasco-Pinellas county area. The District's funding allocation is: Governing Board 50\%; Alafia River Basin 5\%; Coastal Rivers Basin 4\%; Hillsborough River Basin 12.5\%; Northwest Hillsborough Basin 6.5\%; Pinellas-Anclote Basin 21.5\%; and Withlacoochee River Basin $0.5 \%$. The District has also allocated to the project, as a means to help fund its share of the project costs, $\$ 15,000,000$ of its FY2006 Water Protection and Sustainability Program funding from the state. The District, in cooperation with its project partners, is aggressively pursuing state and federal grants. In FY2004, the federal government appropriated $\$ 1.45$ million toward the project, and the state appropriated $\$ 4.0$ million in FY2005. As a result of these and future appropriations, the cost to the District and its partners will be reduced proportionately. Basin and Governing Board funding is reflected in the individual summaries for the project segments listed above. Coordinating Consultant. A consultant has been retained to coordinate the numerous and complex elements of the Regional Project. The consultant's role will be to ensure the components and processes associated with the Regional Project are evaluated and coordinated for technical and financial feasibility. The consultant will evaluate each project element in terms of its technical, financial and general consistency with the agreed upon objectives of the overall project. The work is expected to involve technical evaluation of reclaimed water projects elements, and coordination/tracking of project activities using information and other feedback provided by the five project partners for the next three years. After three years, the need for these services, and their respective scopes, will be re-evaluated. At their respective June 2005 meetings, the Governing Board and the Alafia River, Hillsborough

River, Northwest Hillsborough, Coastal Rivers, Withlacoochee River and Pinellas-Anclote River Basin Boards each approved a collective $\$ 200,000$ to hire a coordinating consultant for the Regional Project. Each board's funding was determined according to the District's funding allocation described above.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| City of Tampa | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| Alafia River Basin | $\$ 10,000$ | $\$ 2,852$ | $\$ 3,004$ | $\$ 0$ | $\$ 15,856$ | $\$ 66$ |
| Coastal Rivers Basin | $\$ 8,000$ | $\$ 2,852$ | $\$ 3,004$ | $\$ 0$ | $\$ 13,856$ | $\$ 53$ |
| Hillsborough River Basin | $\$ 25,000$ | $\$ 2,852$ | $\$ 3,004$ | $\$ 0$ | $\$ 30,856$ | $\$ 165$ |
| Northwest Hillsborough Basin | $\$ 13,000$ | $\$ 2,852$ | $\$ 3,004$ | $\$ 0$ | $\$ 18,856$ | $\$ 86$ |
| Pinellas-Anclote River Basin | $\$ 43,000$ | $\$ 2,852$ | $\$ 3,004$ | $\$ 0$ | $\$ 48,856$ | $\$ 283$ |
| Withlacoochee River Basin | $\$ 1,000$ | $\$ 1,902$ | $\$ 2,002$ | $\$ 0$ | $\$ 4,904$ | $\$ 7$ |
| District | $\$ 100,000$ | $\$ 3,352$ | $\$ 3,499$ | $\$ 0$ | $\$ 106,851$ | $\$ 661$ |
| Pasco County | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| Hillsborough Co. | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| Federal Gov't | $\$ 0$ | $\$ 1,450,000$ | $\$ 0$ | $\$ 0$ | $\$ 1,450,000$ | $\$ 0$ |
| Tampa Bay Water | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| State Grant | $\$ 0$ | $\$ 4,000,000$ | $\$ 6,000,000$ | $\$ 0$ | $\$ 10,000,000$ | $\$ 0$ |
| Wtr Prot Sust T.F. | $\$ 0 \$ 15,000,000$ | $\$ 0$ | $\$ 0$ | $\$ 15,000,000$ | $\$ 0$ |  |
| TOTAL |  |  |  |  | $\$ 26,690,035$ | $\$ 1,321$ |

Critical Project Milestones:
District Recognition/Signage: NA
Project Team Coordination Initiation
Preliminary Project Cost Estimation
Master Conceptual Project Document
Begin Cost Allocation
Finalize Cost Allocation
Develop Project Schedule Framework
First Draft Master Agreement
Execute Final Master Agreement
Hire Coordinating Consultant
Begin Revising Project Description Document
Finalize Project Description Document
Joint Board Meeting

Projected: Amended: Actual:
12/31/2002
10/18/2002
12/31/2003
12/31/2003
01/31/2004
03/31/2004
12/31/2006
01/31/2006
04/30/2005
12/31/2006
10/31/2005
04/30/2006
11/30/2006
12/01/2006

02/03/2004
03/26/2004
80\% Complete
01/05/2006
04/26/05
02/01/2006
03/01/2006
25\% Complete

Status As Of: 12/14/2006 - The five-party agreement for the disbursement of the $\$ 4$ million in state (CIBR) funds appropriated to the project in FY2006 was executed on October 10, 2006. Since then, $\$ 1.8$ million was disbursed to partners for about $\$ 5$ million in work completed to date. The project team met on October 30th, and TBW revealed downstream augmentation is no longer a viable option due to its inability to obtain permits from DEP, and recent data indicating it augmentation is not necessary for MFLs at the TBC. Augmentation of the Hillsborough River could become viable in the future, but the project team will focus on the needs of the remaining four partners. The consultant believes that, since TBW is only interested in wet-weather flows, the size of the pipeline will not need to be adjusted to accommodate TBW joining the project at a later date. Tampa and Pasco County will work together to determine the most viable project infrastrucutre and routing, with the help of the project consultant. Hillsborough County will then determine how best they fit into the new configuration. The partners will regroup in January to discuss the project configuration, related costs and strategies for moving forward.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

TBRRAP - Lower Segment of North Tampa Reclaimed Water Pipeline
H301 Basin: 010,011,013,014,015,016,019,
01 Project Status: Ongoing
Tampa
Mark Oural
Scott, Kathy
Alison Ramoy
Water Supply and Resource Development

DESCRIPTION: The Regional Project is the result of the collaboration of the District and four water suppliers, with financial assistance from the state and federal governments, to maximize the use of reclaimed water resources within the Tampa Bay Area. The project will help the five partners reach mutual goals of (1) reducing the use of traditional water supplies for irrigation and other purposes, (2) increasing the beneficial use of wet-weather reclaimed water flows, rather than continue the practice of discharging them to tide or deep wells, and (3) helping to restore the natural systems in Pasco and Hillsborough counties. The District's partnership with the City of Tampa, Tampa Bay Water, Hillsborough County and Pasco County is expected to ultimately provide at least 26 mgd of available water supplies, and result in 8 mgd of groundwater recharge and natural system restoration, for a total project benefit of 34 mgd by 2012, for an estimated cost of approximately $\$ 213$ million. The primary reclaimed water source is the City of Tampa's Howard F. Curren Advanced Wastewater Treatment Facility (HFC plant); however, it is anticipated that other facilities will be part of the project in the future. The project consists of the planning, design and construction of more than 45 miles of reclaimed water transmission pipelines, pumping and storage, and additional distribution pipelines and infrastructure. The core project was estimated to cost $\$ 213$ million in 2004, but costs could increase as feasibility studies are completed and if components related to surplus/wet-weather reuse are expanded. There are ten project segments associated with the Regional Project. Collectively, these segments will supply reclaimed water to 30,000 customers in Pasco and Hillsborough counties to offset 9 mgd of potable water supplies, supply approximately 14 mgd of new water sources for potable purposes to three counties, and result in a net beneficial use of 8 mgd from using wet-weather reclaimed water flows in storage or natural system restoration. This project (H301) represents one segment of the Regional Project. It is currently defined as containing two segments of pipeline, as well as storage and pumping facilities. One segment includes low- and high-head pumping facilities and diurnal storage at the HFC Plant, as well as approximately 40,900 LF of 48" reclaimed water transmission pipeline from the HFC plant north to the Hillsborough River. The pipeline capacity is anticipated to be approximately 40 mgd , capable of supplying the needs of the various partners. The terminus of this line near the Hillsborough River will serve as the line connection point for the pipeline segment that will supply north Tampa and Pasco County. This pipeline will also provide a connection point for an east-bound pipeline to serve the Hillsborough County and Tampa Bay Water segments of the Regional Project. The second segment of this project (H301) will be 9,200 LF of 24" pipeline stemming from the first segment west to a point below the dam on the Hillsborough River to convey approximately 6.5 mgd of reclaimed water to help maintain minimum river flows and may be used by TBW as part of the downstream augmentation element of the Regional Project. In FY2003, a feasibility study (H020) was cooperatively funded by the District and the City of Tampa to identify recommended routing, storage, and pumping for the transmission main from the HFC Plant to New Tampa. While the FY2003 study was completed when the only partners included the Tampa and Pasco County (with the District providing financial assistance) it is still useful for this (five-party) component of the Regional Project. It will be used to define the timing and scope of the project as it moves forward. As the Tampa project was undergoing an evolution into the Regional Project, H301 became the general account into which all unspecified funds for the regional reuse project were budgeted during FY2003 and FY2004, and from which funds may be transferred to complete specific projects as they are identified. Funds began to be budgeted under specified projects, all identified with an H300-series project number, in FY2005. This project is expected to significantly contribute to meeting water supply needs in the Tampa Bay area over the next20 years. Therefore, funding is allocated to each affected basin board proportionate to the basin population relative to the Hillsborough-Pasco-Pinellas county area. The funding allocation is: Governing Board 50\%; Alafia River Basin 5\%; Coastal Rivers Basin 4\%; Hillsborough River Basin 12.5\%; Northwest Hillsborough Basin 6.5\%; Pinellas-Anclote Basin 21.5\%; and Withlacoochee River Basin $0.5 \%$. The planning level cost for the project is $\$ 42,800,000$. The District's contribution is anticipated to be 50 percent, or $\$ 21,400,000$; additional costs shown below are for staff time. The District, in cooperation with its project partners, is aggressively pursuing state and federal grants in an amount that may exceed 50 percent of the project costs. As state and federal funds are allocated to the project, the cost to the District and its partners will be reduced proportionately. Basin and Governing Board funding is reflected in the individual summaries for the project segments listed above. Phase 1 (H301). The first phase of the project affects all phases of the overall Regional Project, but was budgeted in FY2004 in H301 because of the "catch all" nature of H301 for unspecified funds, as described above. Phase I involves three elements: (1) determining the allocation of project costs among partners, (2) determining the schedule of individual project elements as well as the overall Regional Project, and (3) projecting the cash flow necessary to keep the project on schedule. Greeley and Hansen, LLC is the consultant selected to complete the project. Although the District and Tampa are funding the project, the consultant has been directed to work with all partners equally. The total project cost for the first year is $\$ 58,000$. The District agreed to contribute $\$ 49,500$, and issued a purchase order to the City of Tampa, who contracted with Greeley and Hansen. Tampa is contributing the remainder, or $\$ 8,500$, toward the project. The funding split represents Tampa's contribution of 100 percent of the costs necessary for Greeley and Hansen to develop the conceptual project and produce the mutually agreed-upon project document in early 2004. District funds for this effort are entirely from the Governing Board. Phase 2 (H301-A). The project, a key element in the Tampa Bay Regional Reclaimed Water and Downstream Augmentation Project (Regional Project, H300), consists of preliminary (20 percent) design of the North Tampa Reclaimed Water Pipeline (NTRWP), which is essentially the backbone of the Regional Project. The pipeline includes four segments: 40,900 linear feet (LF) of transmission main from the Howard F. Curren Advanced Wastewater Treatment Plant (HFCAWTP) to the Hillsborough River, 55,700 LF from the Hillsborough River to the proposed pump station adjacent to the Morris Bridge Water Treatment Plant,

23,500 LF of transmission main from the Morris Bridge site to the Pasco County line, and 26,500 LF of transmission main from the HFCAWTP to the Tampa Bypass Canal. The design effort will result in a series of Basis of Design Reports (BODRs) for the NTRWP, as well as planning-level modeling of up to three local transmission/distribution schemes to get water to north Tampa customers. The BODRs will address the wet- and dry-season elements described in the mutually agreed-upon Tampa Bay Regional Reclaimed Water and Downstream Augmentation Project-- An Innovative Partnership (February 2004). The project will identify: the pipeline route; engineering/hydraulic criteria; recommendations for the specific storage, pumping and pipeline configuration; alignment and operation based on property requirements; permit requirements; hydraulic modeling; cost estimates; and public and environmental feasibility to meet requirements associated with the Regional Project The City of Tampa will be responsible for administering contracts with consultants and assuring that the District receives all DRAFT and FINAL reports associated with the project. The District shall approve all agreements and draft documents prior to execution of the project parts. The total project budget is $\$ 1,172,505$ with funding being equally divided between the two parties, with the Governing Board's and six Basins' share not to exceed \$586,252.50.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| City of Tampa | $\$ 12,443,520$ | $\$ 3,207,551$ | $\$ 3,240,551$ | $\$ 2,508,378$ | $\$ 21,400,000$ | $\$ 0$ |
| Alafia River Basin | $\$ 265,268$ | $\$ 115,533$ | $\$ 115,595$ | $\$ 575,160$ | $\$ 1,071,556$ | $\$ 36$ |
| Coastal Rivers Basin | $\$ 326,909$ | $\$ 76,085$ | $\$ 76,148$ | $\$ 377,920$ | $\$ 857,062$ | $\$ 28$ |
| Hillsborough River Basin | $\$ 445,907$ | $\$ 319,584$ | $\$ 319,477$ | $\$ 1,592,915$ | $\$ 2,677,883$ | $\$ 88$ |
| Northwest Hillsborough Basin | $\$ 391,269$ | $\$ 143,390$ | $\$ 143,452$ | $\$ 714,445$ | $\$ 1,392,556$ | $\$ 46$ |
| Pinellas-Anclote River Basin | $\$ 1,883,664$ | $\$ 388,761$ | $\$ 388,824$ | $\$ 1,941,300$ | $\$ 4,602,549$ | $\$ 151$ |
| Withlacoochee River Basin | $\$ 30,790$ | $\$ 11,458$ | $\$ 11,521$ | $\$ 54,785$ | $\$ 108,554$ | $\$ 3$ |
| District | $\$ 4,119,613$ | $\$ 941,156$ | $\$ 941,264$ | $\$ 4,700,275$ | $\$ 10,702,308$ | $\$ 349$ |
| TOTAL |  |  |  |  | $\$ 42,812,468$ | $\$ 701$ |

Critical Project Milestones:

## District Recognition/Signage: NA

Phase 1
Completed

## Phase 2

| Develop Scope of Work | $11 / 30 / 2004$ | $11 / 30 / 2004$ |
| :--- | :--- | :--- |
| Agreement to Contracts | $12 / 10 / 2004$ | $12 / 02 / 2004$ |
| Execute Agreement | $03 / 31 / 2005$ | $06 / 01 / 2005$ |
| Issue Notice to Proceed | $01 / 03 / 2005$ | $01 / 03 / 2005$ |
| Project Completion | $04 / 31 / 2006$ | $15 \%$ complete |
| Contract Termination | $12 / 30 / 2006$ |  |

Status As Of: 11/14/2006 - A First Amendment to the project, which will add Ecosystems Management and Restoration Trust Funds to the project, as well as extend the termination date to $3 / 31 / 07$, was sent to the city on July 13, 2006. The project managers for the District, city and consultant have agreed upon a revised Scope of Work for the project, which will be incorporated into a Second Amendment. The project budget will not be affected. The District submitted its comments on the draft BODRs for the Morris Bridge Terminal Distribution Site, UV Disinfection at HFC, and the North Tampa RW Distribution System to the city and Greeley and Hansen on June 1st. The District's comments will be addressed in the final version of the reports. City and District staff met on July 14th to discuss the complex financial issues related to the project. The first reimbursement for $\$ 183,543.02$ was sent to the city on August 4,2006 . A second payment of $\$ 197,163.39$ was sent on October 19, 2006, as the result of the execution of a five-party funding agreement related tothe disbursement of a state line-item appropriation of $\$ 4$ million to all elements of the regional project.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

TBRRAP - North Tampa Reclaimed Water Pipeline Phase II Construction
H303 Basin: 010,011,013,014,015,016,019,
00 Project Status: Ongoing
Tampa
Mike Bennett
Scott, Kathy
Alison Ramoy/DEV/swfwmd
Water Supply and Resource Development

DESCRIPTION: The Regional Project is the result of the collaboration of the District and four water suppliers, with financial assistance from the state and federal governments, to maximize the use of reclaimed water resources within the Tampa Bay Area. The project will help the five partners reach mutual goals of (1) reducing the use of traditional water supplies for irrigation and other purposes, (2) increasing the beneficial use of wet-weather reclaimed water flows, rather than continue the practice of discharging them to tide or deep wells, and (3) helping to restore the natural systems in Pasco and Hillsborough counties. The District's partnership with the City of Tampa, Tampa Bay Water, Hillsborough County and Pasco County is expected to ultimately provide at least 26 mgd of available water supplies, and result in 8 mgd of groundwater recharge and natural system restoration, for a total project benefit of 34 mgd by 2012 , for an estimated cost of approximately $\$ 213$ million. The primary reclaimed water source is the City of Tampa's Howard F. Curren Advanced Wastewater Treatment Facility (HFC plant); however, it is anticipated that other facilities will be part of the project in the future. The project consists of the planning, design and construction of more than 45 miles of reclaimed water transmission pipelines, pumping and storage, and additional distribution pipelines and infrastructure. The core project was estimated to cost $\$ 213$ million in 2004, but costs could increase as feasibility studies are completed and if components related to surplus/wet-weather reuse are expanded. There are ten project segments associated with the Regional Project. Collectively, these segments will supply reclaimed water to 30,000 customers in Pasco and Hillsborough counties to offset 9 mgd of potable water supplies, supply approximately 14 mgd of new water sources for potable purposes to three counties, and result in a net beneficial use of 8 mgd from using wet-weather reclaimed water flows in storage or natural system restoration. This project ( H 303 ) represents a segment of that Regional Project that will supply approximately 13,000 customers in New Tampa with reclaimed water for irrigation purposes. The project consists of the feasibility, design, permitting and construction of 55,700 LF of 42 -inch reclaimed water transmission main from the terminus of the 48 -inch pipeline representing the lower segment of Tampa's northern transmission system (project H301) south of the Hillsborough River, to a point near Tampa's Morris Bridge water treatment facility. The project also includes a reclaimed water pumping station and diurnal storage at the site near the Morris Bridge facility. In addition to providing 13,000 customers with an annual average of 7.8 mgd to offset 3.9 mgd of traditional water sources, the 42 " pipeline will ultimately continue northward to connect to Pasco County's reclaimed water system (H307). The pipeline can carry approximately 31 mgd to serve North Tampa's and Pasco's needs. This project is expected to significantly contribute to meeting water supply needs in the Tampa Bay area over the next 20 years. Therefore, funding is allocated to each affected basin board proportionate to the basin population relative to the Hillsborough-Pasco-Pinellas county area. The funding allocation is: Governing Board 50\%; Alafia River Basin 5\%; Coastal Rivers Basin 4\%; Hillsborough River Basin 12.5\%; Northwest Hillsborough Basin 6.5\%; Pinellas-Anclote Basin 21.5\%; and Withlacoochee River Basin $0.5 \%$. The planning level cost for the project is $\$ 42,300,000$. The District's contribution is anticipated to be 50 percent, or $\$ 21,150,000$; additional costs shown below are for staff time. Work will be undertaken to determine the allocation of costs among partners, and to schedule the implementation of the ten project segments over ten years. As the project progresses, it is anticipated that the funding table below will be updated to reflect the allocation of costs to the partners in the project, and is expected to include contributions from other sources. The District, in cooperation with its project partners, is aggressively pursuing state and federal grants in an amount that may exceed 50 percent of the project costs. If successful, the cost to the District and its partners will be reduced proportionately.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Cooperators | $\$ 2,115,000$ | $\$ 2,719,286$ | $\$ 2,719,286$ | $\$ 13,596,430$ | $\$ 21,150,002$ | $\$ 0$ |
| District | $\$ 1,057,500$ | $\$ 1,359,643$ | $\$ 1,359,643$ | $\$ 6,798,215$ | $\$ 10,575,001$ | $\$ 0$ |
| Alafia River Basin | $\$ 105,750$ | $\$ 135,964$ | $\$ 135,964$ | $\$ 679,820$ | $\$ 1,057,498$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 264,375$ | $\$ 339,911$ | $\$ 339,911$ | $\$ 1,699,558$ | $\$ 2,643,755$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 137,475$ | $\$ 176,754$ | $\$ 176,754$ | $\$ 883,770$ | $\$ 1,374,753$ | $\$ 0$ |
| Coastal Rivers Basin | $\$ 84,600$ | $\$ 108,772$ | $\$ 108,771$ | $\$ 543,855$ | $\$ 845,998$ | $\$ 0$ |
| Pinellas-Anclote River Basin | $\$ 454,725$ | $\$ 584,646$ | $\$ 584,646$ | $\$ 2,923,230$ | $\$ 4,547,247$ | $\$ 0$ |
| Withlacoochee River Basin | $\$ 10,575$ | $\$ 13,596$ | $\$ 13,596$ | $\$ 67,980$ | $\$ 105,747$ | $\$ 0$ |

Critical Project Milestones:
District Recognition/Signage:
TBD

TBD
Status As Of: 11/14/2006 - The five-party agreement for the disbursement of the $\$ 4$ million in state (CIBR) funds appropriated to the project in FY2006 was executed on October 10, 2006. Since then, $\$ 1.8$ million was disbursed to partners for about $\$ 5$ million in work completed to date. The project team met on October 30th, and TBW revealed downstream augmentation is no longer a viable option due to its inability to obtain permits from DEP, and recent data indicating it augmentation is not necessary for MFLs at the TBC. Augmentation of the Hillsborough River could become viable in the future, but the project team will focus on the needs of the remaining four partners. The consultant believes that, since TBW is only interested in wet-weather flows, the size of the pipeline will not need to be adjusted to accommodate TBW joining the project at a later date. Tampa and Pasco County will work together to determine the most viable project infrastrucutre and routing, with the help of the project consultant. Hillsborough County will then determine how best they fit into the new configuration. The partners will regroup in January to discuss the project configuration, related costs and strategies for moving forward.

Project: TBRRAP- Pasco County Central Regional Reuse Interconnect Transmission Main Segments
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
H304 Basin: 010,011,013,014,015,016,019,
01 Project Status: Ongoing
Pasco County
Glenn Greer
Scott, Kathy
Carl Wright
Water Supply and Resource Development
Project Type:
DESCRIPTION: The Regional Project is the result of the collaboration of the District, four water suppliers, and potentially the federal government to maximize the use of reclaimed water resources within the Tampa Bay Area. The project will help the partners reach mutual goals of (1) reducing the use of traditional water supplies for irrigation and other purposes, (2) increasing the beneficial use of wet-weather reclaimed water flows, rather than continue the practice of discharging them to tide or deep wells, and (3) helping to restore the natural systems in Pasco and Hillsborough counties. The District's partnership with the City of Tampa, Tampa Bay Water, Hillsborough County and Pasco County is expected to ultimately provide at least 26 mgd of available water supplies, and result in 8 mgd of groundwater recharge and natural system restoration, for a total project benefit of 34 mgd by 2012, for an estimated cost of approximately $\$ 213$ million. In its entirety, the project will consist of the design, permitting and construction of a regional reclaimed water system expected by 2012 to supply approximately 30,000 residential, industrial, commercial and golf course customers. The primary reclaimed water source is the City of Tampa's Howard F. Curren Advanced Wastewater Treatment Facility (HFC plant); however, it is anticipated that other facilities will be part of the project in the future. The project infrastructure will consist of more than 45 miles of reclaimed water transmission pipelines, pumping and storage, and additional distribution pipelines and infrastructure. The core project is estimated to cost $\$ 213$ million, but costs could increase as feasibility studies provide more information and if components like Hillsborough and Pasco county wet-weather flow utilization and Tampa Bay Water downstream augmentation are expanded. This project (H304) is one element of the Regional Project in that it provides part of the infrastructure necessary for Pasco County to accept up to 10 mgd of reclaimed water from Tampa during periods of peak demand for reclaimed water by Pasco County customers. The project consists of the design and construction of 2,000 linear feet of 30-inch reclaimed water transmission main along Bruce B. Downs Boulevard (CR 581) from Meadow Point Drive to County Line Road, and 17,500 linear feet of 24 -inch reclaimed water main from the New River subdivision to an existing reclaimed water main that serves residential customers in the Meadow Point subdivision. The 30 -inch main has a capacity to deliver approximately 15 mgd , so that in addition to the 10 mgd of reclaimed water delivered from Tampa to meet peak demands, the pipeline could serve as a conduit for surplus flows during the rest of the year to be stored and used when needed, or to be used for natural systems restoration in Pasco County. Assuming a mixed customer base the 10 mgd from Tampa is expected to result in a traditional water offset of 6 mgd . This project is expected to significantly contribute to meeting water supply needs in the Tampa Bay area over the next 20 years. Therefore, funding is allocated to each affected basin board proportionate to the basin population relative to the Hillsborough-Pasco-Pinellas county area. The funding allocation is: Governing Board 50\%; Alafia River Basin 5\%; Coastal Rivers Basin 4\%; Hillsborough River Basin 12.5\%; Northwest Hillsborough Basin 6.5\%; Pinellas-Anclote Basin 21.5\%; and Withlacoochee River Basin 0.5\%. The total cost of this project is \$1,114,000. The District budgeted its funding contribution of $\$ 557,000$ (50\% of eligible project costs) in FY2004; additional costs shown below are for staff time.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> $\mathbf{2 0 0 7}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Pasco County | $\$ 557,000$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 557,000$ | $\$ 0$ |
| Alafia River Basin | $\$ 20,200$ | $\$ 629$ | $\$ 662$ | $\$ 0$ | $\$ 21,491$ | $\$ 0$ |
| Coastal Rivers Basins | $\$ 28,388$ | $\$ 629$ | $\$ 662$ | $\$ 0$ | $\$ 29,679$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 87,615$ | $\$ 629$ | $\$ 662$ | $\$ 0$ | $\$ 88,906$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 22,985$ | $\$ 629$ | $\$ 662$ | $\$ 0$ | $\$ 24,276$ | $\$ 0$ |
| Pinellas-Anclote River Basin | $\$ 126,644$ | $\$ 629$ | $\$ 662$ | $\$ 0$ | $\$ 127,935$ | $\$ 0$ |
| Withlacoochee River Basin | $\$ 2,127$ | $\$ 629$ | $\$ 662$ | $\$ 0$ | $\$ 3,418$ | $\$ 0$ |
| District | $\$ 276,748$ | $\$ 629$ | $\$ 662$ | $\$ 0$ | $\$ 278,039$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 1,130,744$ | $\$ 0$ |

Critical Project Milestones: District Recognition/Signage: YES Signage Erected

Projected: Amended: Actual:

| Draft Agreement to Contract Administration: | 09/01/2003 | ------------ | 12/23/2003 |
| :---: | :---: | :---: | :---: |
| Draft Agreement returned from Contract Administration: | 10/10/2003 | ------------- | 01/21/2004 |
| Contract Execution: | 02/01/2004 | ------------- | On Hold |
| Notice to Proceed: | 02/05/2004 | ------------ |  |
| Commence Design: | 05/01/2004 | ------------ |  |
| Commence Construction: | 05/01/2005 | ------------ | ------------ |
| Project Complete: | 04/30/2006 | ------------ | ------------ |
| Contract Close-out | 12/31/2006 | ------------ | ------------ |

Status As Of: 09/01/2006 - The cooperative agreement was sent to the cooperator for signature on February 2, 2004, but is not anticipated to be signed until an interlocal agreement between Pasco County and the City of Tampa is reached. The agreement will address the terms of delivery of reclaimed water from the Howard F. Curren AWWTP to Pasco County. Work on the specific project is not anticipated to begin for several years. All affected basin boards and the Governing Board have approved a funding plan over ten years to provide funds toward this and other Regional Reuse project elements. The costs and scope of work are anticipated to be more fully defined later this year, along with the development of a draft master agreement.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

TBRRAP - Pasco County Wet Weather Reclaimed Water Reservoirs
H305 Basin: 010,011,013,014,015,016,019,
01 Project Status: Ongoing
Pasco County
A. Glenn Greer, P.E.

Scott, Kathy
Michael Hancock, Carl Wright
Water Supply and Resource Development

DESCRIPTION: The Regional Project is the result of the collaboration of the District, four water suppliers, and potentially the federal government to maximize the use of reclaimed water resources within the Tampa Bay Area. The project will help the partners reach mutual goals of (1) reducing the use of traditional water supplies for irrigation and other purposes, (2) increasing the beneficial use of wet-weather reclaimed water flows, rather than continue the practice of discharging them to tide or deep wells, and (3) helping to restore the natural systems in Pasco and Hillsborough counties. The District's partnership with the City of Tampa, Tampa Bay Water, Hillsborough County and Pasco County is expected to ultimately provide at least 26 mgd of available water supplies, and result in 8 mgd of groundwater recharge and natural system restoration, for a total project benefit of 34 mgd by 2012, for an estimated cost of approximately $\$ 213$ million. In its entirety, the project will consist of the design, permitting and construction of a regional reclaimed water system expected by 2012 to supply approximately 30,000 residential, industrial, commercial and golf course customers. The primary reclaimed water source is the City of Tampa's Howard F. Curren Advanced Wastewater Treatment Facility (HFC plant); however, it is anticipated that other facilities will be part of the project in the future. The project infrastructure will consist of more than 45 miles of reclaimed water transmission pipelines, pumping and storage, and additional distribution pipelines and infrastructure. The core project is estimated to cost $\$ 213$ million, but costs could increase as feasibility studies provide more information and if components like Hillsborough and Pasco county wet-weather flow utilization and Tampa Bay Water downstream augmentation are expanded. This project (H305) accomplished the goals of the Regional Project by exploring ways to beneficially use surplus reclaimed water. It is estimated that it will cost approximately $\$ 5.8$ million to achieve about 4 mgd in potable and ground water resource benefits using surplus reclaimed water flows. A couple of opportunities to achieve those goals appear to exist. One such opportunity is the use of Pasco County surplus flows. Pasco County has determined that their surplus reclaimed water disposal capacity in their system of rapid infiltration basins is insufficient to handle anticipated reclaimed water flows. he county has identified a need to develop seasonal storage (long-term, large-capacity) to manage their flows year-round in order to avoid potential wastewater permitting problems in future years. Pasco County has drafted a long-term plan to develop approximately 1.2 billion gallons of storage for reclaimed water produced by their eight wastewater treatment plants by building five reclaimed water reservoirs adjacent to existing system infrastructure between the Odessa and Handcart Road facilities' central and eastern parts of their county-wide system. Three of the reservoirs are planned to hold approximately 100 million gallons each, and two of them will hold approximately 400 million gallons each. Storing a total of 1.2 billion gallons of surplus reclaimed water available from Pasco County when no customers are using it will allow the county to make the water available during the 90-day peak-demand season when daily supplies are typically tapped out. As a result, the county will be able to serve up to 16,667 customers in addition to those already connected, and in addition to those that will be connected as a result of the 10 mgd made available from the City of Tampa during the dry season via the Regional Project. The 16,667 new customers that can be added to the system as a result of the surplus storage are expected to offset approximately 5 mgd of potable and ground water resources. Land O' Lakes Reservoir. The Pasco County Wet-Weather Reclaimed Water Reservoir-Land O' Lakes Project was approved by the basin and Governing Boards in June 2004. It is both a core project of the Regional Project and the first phase of Pasco County's overall plan to store surplus reclaimed water. The project consists of the design, permitting, and construction of a reclaimed water storage reservoir located on 35 acres of county-owned land adjacent to the Land O' Lakes wastewater treatment facility. It will have an average depth of 12 feet and will store 100 million gallons of Pasco County's surplus reclaimed water for use to meet dry-season demand. The Land O' Lakes Reservoir will enable the county to supply up to 926 additional customers with reclaimed water, and reliably meet the peak-season demands of an estimated 185 customers who currently have had to rely on ground-water sources when dry-weather flows were not available. As a result, the project is expected to offset an annual average of 333,300 gallons of potable-quality water supplies per day. Without surplus reclaimed water to supplement system flows during periods of peak demand, the county would not be able to provide reclaimed water service to these customers, and potable water would be used. The total project cost is estimated to be $\$ 3,860,000$, and the District's contribution is anticipated to be 50 percent, or $\$ 1,930,000$. Assuming an interest rate of $8 \%$ amortized over 30 years the cost benefit of Phase I is $\$ 2.97 / \mathrm{Kgal}$ offset.
Beneficial Use of Surplus Reclaimed Water: Another opportunity for the use of Pasco County and/or Tampa surplus reclaimed water is for natural system restoration. Using funds budgeted by the Governing Board in FY2004 for this purpose, a consultant will be hired to investigate the use of wet-weather flows in Pasco County
through storage, land application, irrigation in agricultural and urban settings, and the augmentation of existing, restored or created wetland systems. The amount of land application will be a function of the availability of the reclaimed water, the infiltration capacity of the land application sites, and water-quality attenuation capacity of the receiving land and wetlands. Existing infrastructure and reclaimed water systems already approved for construction will be utilized to the greatest extent possible. Some additional infrastructure, including conservation easements and/or fee simple land acquisition, is anticipated. This project will investigate the engineering feasibility and provide estimates of cost to construct recommended facilities and possibly future phases of the project. This project is expected to significantly contribute to meeting water supply needs in the Tampa Bay area over the next 20 years. The Governing Board had budgeted funds for this effort, which was a parallel effort to the Regional Project, in FY2004. Since then the project was incorporated into the Regional Project since it is so closely related to the Regional Project objectives. The Governing Board's share of funding for the Regional Project will be reduced proportionately in other areas so that the net contribution by each affected basin board and Governing Board will be proportionate to the basin population relative to the Hillsborough-Pasco-Pinellas county area. The funding allocation is: Governing Board 50\%; Alafia River Basin 5\%; Coastal Rivers Basin 4\%; Hillsborough River Basin 12.5\%; Northwest Hillsborough Basin 6.5\%; Pinellas-Anclote Basin 21.5\%; and Withlacoochee River Basin $0.5 \%$. The District had planned to take this element on completely ( $100 \%$ ) up to $\$ 5.8$ million. The total cost of H 305 is now $\$ 7,730,000$, including the District's contribution, which will remain at $\$ 5,800,000$, and cooperator costs. District staff will continue to seek opportunities to work with cooperators like Pasco County to use the $\$ 5.8$ million as a match for mutually beneficial projects.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Pasco County | $\$ 1,930,000$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 1,930,000$ | $\$ 0$ |
| District | $\$ 1,455,594$ | $\$ 207,158$ | $\$ 218,777$ | $\$ 1,032,145$ | $\$ 2,913,674$ | $\$ 359$ |
| Alafia River Basin | $\$ 125,500$ | $\$ 24,129$ | $\$ 24,162$ | $\$ 117,500$ | $\$ 291,291$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 320,888$ | $\$ 59,379$ | $\$ 59,412$ | $\$ 293,750$ | $\$ 733,429$ | $\$ 0$ |
| Coastal Rivers Basin | $\$ 100,994$ | $\$ 19,429$ | $\$ 19,462$ | $\$ 94,000$ | $\$ 233,885$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 163,744$ | $\$ 31,179$ | $\$ 31,212$ | $\$ 152,750$ | $\$ 378,885$ | $\$ 0$ |
| Pinellas-Anclote River Basin | $\$ 540,244$ | $\$ 101,679$ | $\$ 101,712$ | $\$ 505,250$ | $\$ 1,248,885$ | $\$ 0$ |
| Withlacoochee River Basin | $\$ 12,550$ | $\$ 2,979$ | $\$ 3,012$ | $\$ 11,750$ | $\$ 30,291$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 7,760,340$ | $\$ 359$ |

## Critical Project Milestones:

District Recognition/Signage: YES

## Land O'Lakes Reservoir

Signage Erected:
Draft Agreement to Contract Administration:
Draft Agreement returned from Contract Administration:
Contract Execution:
Notice to Proceed:
Commence Design:
Complete Design:
Commence Construction:
Project Complete:
Contract Close-out
Beneficial Use of Reclaimed Water
RFP issued for Phase I
Phase I Consultant Contract Executed
Phase I Notice to Proceed
Phase I Work Order One Issued
Phase I Work Order One Complete
Phase I Work Order Two Issued
Phase! Work Order Two Complete
Phase I Agreement Termination
RFP issued for Phase II
Phase II Consultant Contract Executed
Phase II Notice to Proceed
Phase II Work Order One Issued
Phase II Work Order One Complete
Phase II Work Order Two Issued

Projected: Amended: Actual:

09/15/2005
05/31/2004
07/15/2004
09/01/2004
09/15/2004
09/15/2004
05/15/2005
09/15/2005
06/30/2006
12/31/2006

09/24/2004
03/18/2005
03/25/2005
04/06/2005
06/10/2005
05/22/2006
08/22/2006
12/31/2006
10/01/2004
05/24/2005
05/03/2004
07/23/3004
08/25/2004
08/25/2004
08/25/2004
06/01/2005
Delayed
$\qquad$

05/24/2005
05/24/2005
09/09/2005
07/24/2005
11/01/2005

04/05/2005
04/06/2005
04/06/2005
04/25/2006

05/26/2005
05/26/2005
05/26/2005
09/02/2005
11/01/2005
11/02/2005 re-packaging this project work. Beneficial use of Reclaimed Water: King Engineering completed its investigation of potential enhancements to Pasco County's wet-weather reclaimed water storage plan to handle 6 mgd from the City of Tampa's Howard F. Curren Advanced Wastewater Treatment Facility. The final reporthas been received. Staff used GIS to identify where surplus reclaimed water flows from Tampa could be used to recharge ground water resources. After investigation, the cost of land is believed to make this portion of the project cost-prohibitive at the scale ( 6 mgd annual average) anticipated. A final decision is pending.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

TBRRAP - Tampa Bay Water Downstream Augmentation Project
H306 Basin: 010,011,013,014,015,016,019,
0 Project Status: Ongoing
Tampa Bay Water
Paula Dye
Scott, Kathy
Anthony Andrade
Water Supply and Resource Development

DESCRIPTION: The Regional Project is the result of the collaboration of the District, four water suppliers, and potentially the federal government to maximize the use of reclaimed water resources within the Tampa Bay Area. The project will help the partners reach mutual goals of (1) reducing the use of traditional water supplies for irrigation and other purposes, (2) increasing the beneficial use of wet-weather reclaimed water flows, rather than continue the practice of discharging them to tide or deep wells, and (3) helping to restore the natural systems in Pasco and Hillsborough counties. The District's partnership with the City of Tampa, Tampa Bay Water, Hillsborough County and Pasco County is expected to ultimately provide at least 26 mgd of available water supplies, and result in 8 mgd of groundwater recharge and natural system restoration, for a total project benefit of 34 mgd by 2012, for an estimated cost of approximately $\$ 213$ million. In its entirety, the project will consist of the design, permitting and construction of a regional reclaimed water system expected by 2012 to supply approximately 30,000 residential, industrial, commercial and golf course customers. The primary reclaimed water source is the City of Tampa's Howard F. Curren Advanced Wastewater Treatment Facility (HFC plant); however, it is anticipated that other facilities will be part of the project in the future. The project infrastructure will consist of more than 45 miles of reclaimed water transmission pipelines, pumping and storage, and additional distribution pipelines and infrastructure. The core project is estimated to cost $\$ 213$ million, but costs could increase as feasibility studies provide more information and if components like Hillsborough and Pasco county wet-weather flow utilization and Tampa Bay Water downstream augmentation are expandec. This project (H306) represents one segment of the Regional Reuse project. In this project (H306) Tampa Bay Water (TBW) proposes to use between 8 and 20 million gallons of surplus (non-peak flows) reclaimed water per day (mgd) from the City of Tampa's HFC Plant to augment surface water flows downstream of the surface water intake in conjunction with a1-for-1 withdrawal upstream. By augmenting stream flows downstream in wet weather, additional freshwater can be withdrawn upstream. In this way, the reclaimed water would be used to replace fresh water and would not be used as a potable water source Otherwise, Tampa Bay Water is limited in the amount of freshwater that can be withdrawn from the surface water system. This project is expected to allow TBW to withdraw as much as 14 mgd of freshwater for potable water treatment while high quality reclaimed water is discharged downstream to maintain the stream flows. The project details will be determined by feasibility studies. This project is expected to significantly contribute to meeting water supply needs in the Tampa Bay area over the next20 years. Therefore, funding is allocated to each affected basin board proportionate to the basin population relative to the Hillsborough-Pasco-Pinellas county area. The funding allocation is: Governing Board 50\%; Alafia River Basin 5\%; Coastal Rivers Basin 4\%; Hillsborough River Basin 12.5\%; Northwest Hillsborough Basin 6.5\%; Pinellas-Anclote Basin 21.5\%; and Withlacoochee River Basin $0.5 \%$. As the project progresses, it is anticipated that the funding table below will be updated to reflect the allocation of costs to the partners in the project, and is expected to include contributions from other sources. The District, in cooperation with its project partners, is aggressively pursuing state and federal grants in an amount that may exceed 50 percent of the project costs. If successful, the cost to the District and its partners will be reduced proportionately. The Phase I Feasibility: Feasibility studies are necessary to fully evaluate and select the best options for implementing downstream augmentation activities. Phase I of the feasibility study is being conducted during the first year (May 2004 through June 2005) of the project, and includes all of the preliminary work necessary before actual permitting begins. Necessary project permitting is being evaluated, and a permitting process is being formulated; project alternatives are being evaluated and prioritized; and models are being developed and implemented to assess water quality, water quantity scenarios, and how each interacts with the Enhanced Surface Water System. In addition, a public involvement effort includes identifying and working with key stakeholders, and providing general information to the public. Tampa Bay Water has secured several firms to complete approximately three years work in one year. Janicki \& Associates is conducting water quality and ecological analyses; Hazen \& Sawyer is conducting a reclaimed water availability analysis, an assessment of streamflow impacts, and an assessment of how the downstream augmentation project impacts the Enhanced Surface Water System configuration and operation; Montgomery Watson Harza (MWH) is evaluating permitting issues and various alternatives; and the firms of Roberts Communication and Tucker Hall performing the public involvement tasks. The cost of the feasibility study is $\$ 1,995,112$, and the District's share is 50 percent, or $\$ 997,556$. The District's funding share is from funds previously budgeted in FY2003 and FY2004 in project H301, transferred to H306, and reflects the same arrangement as the overall H306 project, described below. Preliminary engineering estimates of costs and benefits will be revised as feasibility studies are completed Those preliminary estimates predict project components may include 18,000 LF of 24" transmission main from Hillsborough County reclaimed water system to the Alafia River and upsizing Hillsborough County's infrastructure; and upsizing/expanding TBW's surface water treatment plant and pump station, and Cypress Creek pump station. Depending on the specific combinations of projects, the total maximum capital cost (including feasibility and design) could be as much as $\$ 123$ million; however, until more information is available, TBW has identified the representative project cost of the project as part of the overall Reclaimed Water and Downstream Augmentation project to be approximately $\$ 71.8$ million. The District's contribution of 50 percent is $\$ 35.9$ million; additional funds shown in the table below is for District staff time. The project costs $\$ 1.24$ per thousand gallons of potable water made available, assuming an interest rate of $8 \%$ over 30 years. Phase II: Preliminary Design. Preliminary design of the TBW Downstream Augmentation Project consists of addressing requests for information (RFI's) from DEP on the NPDES permit application for augmenting the Hillsborough River and Tampa By-pass Canal/Palm River, submitted as a result of Phase I. On June 23, 2005 the City of Tampa and TBW executed a two-party agreement for the project in which TBW will design, construct, own, and operate the shared pipeline from Tampa's HFC to the augmentation points. The agreement also
stipulates that the project will utilize Ultra-Violet (UV) and related treatment for disinfection at HFC and just prior to augmentation points on the two rivers. This preliminary design project, therefore, also includes work to produce a 20-percent design of the transmission pipeline from Tampa's HFC plant to the points of discharge on the two rivers, along with the required pumping, storage and point-of-discharge reclaimed watertreatment. No District funds have been budgeted specifically for Phase II, but it is expected a cooperative agreement will be brought to the basin boards for funding and scope approval in 2006.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> $\mathbf{2 0 0 7}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Tampa Bay Water | $\$ 2,250,000$ | $\$ 4,807,143$ | $\$ 4,807,143$ | $\$ 24,035,714$ | $\$ 35,900,000$ | $\$ 0$ |
| Alafia River Basin | $\$ 229,378$ | $\$ 224,270$ | $\$ 224,302$ | $\$ 1,116,300$ | $\$ 1,794,250$ | $\$ 87$ |
| Coastal Rivers Basin | $\$ 183,502$ | $\$ 179,538$ | $\$ 179,570$ | $\$ 894,640$ | $\$ 1,437,250$ | $\$ 70$ |
| Hillsborough River Basin | $\$ 573,445$ | $\$ 559,762$ | $\$ 559,793$ | $\$ 2,795,755$ | $\$ 4,488,755$ | $\$ 219$ |
| Northwest Hillsborough Basin | $\$ 298,191$ | $\$ 291,368$ | $\$ 291,400$ | $\$ 1,453,790$ | $\$ 2,334,749$ | $\$ 113$ |
| Pinellas-Anclote River Basin | $\$ 986,325$ | $\$ 962,349$ | $\$ 962,381$ | $\$ 4,808,695$ | $\$ 7,719,750$ | $\$ 375$ |
| Withlacoochee River Basin | $\$ 22,938$ | $\$ 22,976$ | $\$ 23,008$ | $\$ 111,830$ | $\$ 180,752$ | $\$ 8$ |
| District | $\$ 2,298,276$ | $\$ 2,237,313$ | $\$ 2,237,968 \$ 11,183,015$ | $\$ 17,956,572$ | $\$ 872$ |  |
| TOTAL |  |  |  |  | $\$ 71,812,078$ | $\$ 1,744$ |

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Critical Project Milestones:
District Recognition/Signage: NA
Phase I: Feasibility
Draft Agreement to Contract Administration: 
05/26/2004
Draft Agreement to Contract Administration:
Basin Boards Approval of Agreement:
Governing Board Approval of Agreement:
Contract Executed:
Project Effective Date & Notice to Proceed:
Project Commence:
Project Stakeholders Workshop I:
Project Stakeholders Workshop II:
Draft Final Report:
Final Report and Study Complete:
Public Information Efforts
06/30/2004 06/16/2004
06/30/2004 06/16/2004
06/30/2004
6/30/2004
Projected: Amended: Actual:
06/30/2004
06/30/2004
08/30/2004 10/06/2004
05/01/2004 05/01/2004
05/01/2004 05/01/2004
09/01/2004 09/01/2004
11/19/2004 11/19/2004
05/30/2005 05/06/2005
12/31/2005 12/31/2005
07/31/2006
Contract Termination:
12/31/2006
Phase II: Preliminary Design
Consultant Notice to Proceed
02/28/2005
02/28/2005
Status As Of: 11/14/2006 - The project team met on October 30th, and TBW revealed downstream augmentation is no longer a viable option due to its inability to obtain permits from DEP, and recent data indicating it augmentation is not necessary for MFLs at the TBC. Augmentation of the Hillsborough River could become viable in the future, but the project team will focus on the needs of the remaining four partners. The consultant believes that, since TBW is only interested in wet-weather flows, the size of the pipeline will not need to be adjusted to accommodate TBW joining the project at a later date. The five-party agreement for the disbursement of the \(\$ 4\) million in state (CIBR) funds appropriated to the project in FY2006 was executed on October 10, 2006. For Phase I \(, \$ 945,474\) has been reimbursed through cooperative funding and \(\$ 480,511\) has been reimbursed from the state appropriation; for Phase II, \(\$ 939,069\) has been reimbursed using the state appropriation.
```

Project:

Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

## TBRRAP- Pasco County Central Regional Reuse Interconnect and Storage/Pumpinc Facility

H307 Basin: 010,011,013,014,015,016,019,
01 Project Status: Ongoing
Pasco County
A. Glenn Greer, P.E.

Scott, Kathy
Carl Wright
Water Supply and Resource Development

DESCRIPTION: The Regional Project is the result of the collaboration of the District, four water suppliers, and potentially the federal government to maximize the use of reclaimed water resources within the Tampa Bay Area. The project will help the partners reach mutual goals of (1) reducing the use of traditional water supplies for irrigation and other purposes, (2) increasing the beneficial use of wet-weather reclaimed water flows, rather than continue the practice of discharging them to tide or deep wells, and (3) helping to restore the natural systems in Pasco and Hillsborough counties. The District's partnership with the City of Tampa, Tampa Bay Water, Hillsborough County and Pasco County is expected to ultimately provide at least 26 mgd of available water supplies, and result in 8 mgd of groundwater recharge and natural system restoration, for a total project benefit of 34 mgd by 2012, for an estimated cost of approximately $\$ 213$ million. In its entirety, the project will consist of the design, permitting and construction of a regional reclaimed water system expected by 2012 to supply approximately 30,000 residential, industrial, commercial and golf course customers. The primary reclaimed water source is the City of Tampa's Howard F. Curren Advanced Wastewater Treatment Facility (HFC plant); however, it is anticipated that other facilities will be part of the project in the future. The project infrastructure will consist of more than 45 miles of reclaimed water transmission pipelines, pumping and storage, and additional distribution pipelines and infrastructure. The core project is estimated to cost $\$ 213$ million, but costs could increase as feasibility studies provide more information and if components like Hillsborough and Pasco county wet-weather flow utilization and Tampa Bay Water downstream augmentation are expanded. This project (H307) represents one segment of the regional project. Preliminary engineering estimated indicate the project will consist of the design and construction of 17,000 feet of 30 -inch reclaimed water transmission main, two (2) five million gallon ground storage tanks, and a 20 million gallon per day reclaimed water pump station. The transmission main will be routed north along County Road 581 (Bruce B. Downs) from the terminus of the North Tampa Reclaimed Water Pipeline (H300) at the Pasco County/Hillsborough County border to Meadow Point Drive, where it will turn to the west and follow Meadow Point Drive to the site of the proposed pump station. This project is part of the infrastructure necessary for Pasco County to accept and utilize up to 10 mgd of reclaimed water from Tampa. Because the function of this storage, pump station and 30 -inch reclaimed water main system is to serve as a conveyance mechanism to Pasco County's reuse system, there are no specific reclaimed water projects to be served, there is no offset directly associated with this project, and consequently a cost/benefit cannot be calculated. This project is expected to significantly contribute to meeting water supply needs in the Tampa Bay area over the next 20 years. Therefore, funding is allocated to each affected basin board proportionate to the basin population relative to the Hillsborough-Pasco-Pinellas county area. The funding allocation is: Governing Board 50\%; Alafia River Basin 5\%; Coastal Rivers Basin 4\%; Hillsborough River Basin 12.5\%; Northwest Hillsborough Basin 6.5\%; Pinellas-Anclote Basin 21.5\%; and Withlacoochee River Basin $0.5 \%$. The planning level cost for the project is $\$ 9,192,200$. The District's contribution is anticipated to 50 percent, or $\$ 4,596,100$; additional costs shown below are for staff time. Work will be undertaken to determine the allocation of costs among partners, and to schedule the implementation of the ten project segments over ten years. As the project progresses, it is anticipated that the funding table below will be updated to reflect the allocation of costs to the partners in the project, and is expected to include contributions from other sources. The District, in cooperation with its project partners, is aggressively pursuing state and federal grants in an amount that may exceed 50 percent of the project costs. If successful, the cost to the District and its partners will be reduced proportionately.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Pasco County | $\$ 459,651$ | $\$ 590,978$ | $\$ 590,978$ | $\$ 2,954,893$ | $\$ 4,596,500$ | $\$ 0$ |
| Alafia River Basin | $\$ 22,983$ | $\$ 29,549$ | $\$ 29,549$ | $\$ 147,745$ | $\$ 229,826$ | $\$ 0$ |
| Coastal Rivers Basin | $\$ 18,386$ | $\$ 23,639$ | $\$ 23,639$ | $\$ 118,195$ | $\$ 183,859$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 57,456$ | $\$ 73,872$ | $\$ 73,872$ | $\$ 369,364$ | $\$ 574,564$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 29,877$ | $\$ 38,414$ | $\$ 38,414$ | $\$ 192,070$ | $\$ 298,775$ | $\$ 0$ |
| Pinellas-Anclote River Basin | $\$ 98,825$ | $\$ 127,060$ | $\$ 127,060$ | $\$ 635,300$ | $\$ 988,245$ | $\$ 0$ |
| Withlacoochee River Basin | $\$ 2,298$ | $\$ 2,956$ | $\$ 2,955$ | $\$ 14,775$ | $\$ 22,984$ | $\$ 0$ |
| District | $\$ 229,825$ | $\$ 295,489$ | $\$ 295,489$ | $\$ 1,477,445$ | $\$ 2,298,248$ | $\$ 0$ |

Critical Project Milestones:
Projected: Amended: Actual:
District Recognition/Signage:

Status As Of: 11/14/2006 - The five-party agreement for the disbursement of the $\$ 4$ million in state (CIBR) funds appropriated to the project in FY2006 was executed on October 10, 2006. Since then, $\$ 1.8$ million was disbursed to partners for about $\$ 5$ million in work completed to date. The project team met on October 30th, and TBW revealed downstream augmentation is no longer a viable option due to its inability to obtain permits from DEP, and recent data indicating it augmentation is not necessary for MFLs at the TBC. Augmentation of the Hillsborough River could become viable in the future, but the project team will focus on the needs of the remaining four partners. The consultant believes that, since TBW is only interested in wet-weather flows, the size of the pipeline will not need to be adjusted to accommodate TBW joining the project at a later date. Tampa and Pasco County will work together to determine the most viable project infrastrucutre and routing, with the help of the project consultant. Hillsborough County will then determine how best they fit into the new configuration. The partners will regroup in January to discuss the project configuration, related costs and strategies for moving forward.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

TBRRAP - South Hillsborough Area Reuse Exchange (SHARE)
H308 Basin: 010,011,013,014,015,016,019,
01 Project Status: Ongoing
Hillsborough County Water Department
Duncan, Jim
Scott, Kathy
Alison Ramoy
Water Supply and Resource Development

DESCRIPTION: The Regional Project is the result of the collaboration of the District, four water suppliers, and potentially the federal government to maximize the use of reclaimed water resources within the Tampa Bay Area. The project will help the partners reach mutual goals of (1) reducing the use of traditional water supplies for irrigation and other purposes, (2) increasing the beneficial use of wet-weather reclaimed water flows, rather than continue the practice of discharging them to tide or deep wells, and (3) helping to restore the natural systems in Pasco and Hillsborough counties. The District's partnership with the City of Tampa, Tampa Bay Water, Hillsborough County and Pasco County is expected to ultimately provide at least 26 mgd of available water supplies, and result in 8 mgd of groundwater recharge and natural system restoration, for a total project benefit of 34 mgd by 2012, for an estimated cost of approximately $\$ 213$ million. In its entirety, the project will consist of the design, permitting and construction of a regional reclaimed water system expected by 2012 to supply approximately 30,000 residential, industrial, commercial and golf course customers. The primary reclaimed water source is the City of Tampa's Howard F. Curren Advanced Wastewater Treatment Facility (HFC plant); however, it is anticipated that other facilities will be part of the project in the future. The project infrastructure will consist of more than 45 miles of reclaimed water transmission pipelines, pumping and storage, and additional distribution pipelines and infrastructure. The core project is estimated to cost $\$ 213$ million, but costs could increase as feasibility studies provide more information and if components like Hillsborough and Pasco county wet-weather flow utilization and Tampa Bay Water downstream augmentation are expanded. This project (H308) represents one segment of the Regional Project. Preliminary engineering estimates define the project as including the design and construction of 12,000 LF of 20-inch reclaimed water transmission main (RWTM) and associated appurtenances to be located adjacent to the Falkenburg AWTP. The project includes crossing the Palm River with approximately 750 feet of 20 -inch RWTM. Also included are two 5 million gallon ( mg ) reclaimed water storage tanks to be located at the Falkenburg Advanced Wastewater Treatment Plant (AWTP). Controls, telemetry, pumps, and associated appurtenances are to be included to connect to the City of Tampa's and Hillsborough County's South/Central reuse systems. This project also includes the design and construction of 46,000 feet of 20 -inch RWTM and associated appurtenances to be located in the southeast portion of the County' $s$ South/Central reuse system. This pipeline is needed to provide additional hydraulic capacity to distribute reclaimed water to existing and future customers in the South/Central Reclaimed Water System. The project will provide the infrastructure necessary for Hillsborough County to accept reclaimed water flows from Tampa into the South-Central Service Area. Up to 7,000 customers will be provided with an annual average of 4.2 mgd , and will offset approximately 2.1 mgd . This project is expected to significantly contribute to meeting water supply needs in the Tampa Bay area over the next 20 years. Therefore, funding is allocated to each affected basin board proportionate to the basin population relative to the Hillsborough-Pasco-Pinellas county area. The funding allocation is: Governing Board 50\%; Alafia River Basin 5\%; Coastal Rivers Basin 4\%; Hillsborough River Basin $12.5 \%$; Northwest Hillsborough Basin 6.5\%; Pinellas-Anclote Basin 21.5\%; and Withlacoochee River Basin 0.5\%. The planning level cost is estimated to be $\$ 17,600,000$. The District's contribution is anticipated to 50 percent, or $\$ 8,800,000$; additional costs shown below are for staff time. Work will be undertaken to determine the allocation of costs among partners, and to schedule the implementation of the ten project segments over ten years. As the project progresses, it is anticipated that the funding table below will be updated to reflect the allocation of costs to the partners in the project, and is expected to include contributions from other sources. The District, in cooperation with its project partners, is aggressively pursuing state and federal grants in an amount that may exceed 50 percent of the project costs. If successful, the cost to the District and its partners will be reduced proportionately.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> $\mathbf{2 0 0 7}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Alafia River Basin | $\$ 44,000$ | $\$ 56,571$ | $\$ 56,571$ | $\$ 282,859$ | $\$ 440,001$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 110,000$ | $\$ 141,429$ | $\$ 141,429$ | $\$ 707,145$ | $\$ 1,100,003$ | $\$ 0$ |
| Coastal Rivers Basin | $\$ 35,200$ | $\$ 45,257$ | $\$ 45,257$ | $\$ 226,285$ | $\$ 351,999$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 57,200$ | $\$ 73,543$ | $\$ 73,543$ | $\$ 367,715$ | $\$ 572,001$ | $\$ 0$ |
| Pinellas-Anclote River Basin | $\$ 189,200$ | $\$ 243,257$ | $\$ 243,257$ | $\$ 1,216,285$ | $\$ 1,891,999$ | $\$ 0$ |
| Withlacoochee River Basin | $\$ 4,400$ | $\$ 5,657$ | $\$ 5,657$ | $\$ 28,285$ | $\$ 43,999$ | $\$ 0$ |
| District | $\$ 440,000$ | $\$ 565,714$ | $\$ 565,714$ | $\$ 2,828,570$ | $\$ 4,399,998$ | $\$ 0$ |

Critical Project Milestones:
Projected: Amended: Actual:
District Recognition/Signage: YES

Status As Of: 11/14/2006 - The five-party agreement for the disbursement of the $\$ 4$ million in state (CIBR) funds appropriated to the project in FY2006 was executed on October 10, 2006. Since then, $\$ 1.8$ million was disbursed to partners for about $\$ 5$ million in work completed to date. The project team met on October 30th, and TBW revealed downstream augmentation is no longer a viable option due to its inability to obtain permits from DEP, and recent data indicating it augmentation is not necessary for MFLs at the TBC. Augmentation of the Hillsborough River could become viable in the future, but the project team will focus on the needs of the remaining four partners. The consultant believes that, since TBW is only interested in wet-weather flows, the size of the pipeline will not need to be adjusted to accommodate TBW joining the project at a later date. Tampa and Pasco County will work together to determine the most viable project infrastrucutre and routing, with the help of the project consultant. Hillsborough County will then determine how best they fit into the new configuration. The partners will regroup in January to discuss the project configuration, related costs and strategies for moving forward.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

TBRRAP - South Hillsborough Area Reservoir Project (SHARP)
H309 Basin: 010,011,013,014,015,016,019,
01 Project Status: Ongoing
Hillsborough County Water Department
Weiss, Bart
Scott, Kathy
Alison Ramoy
Water Supply and Resource Development

DESCRIPTION: The Regional Project is the result of the collaboration of the District, four water suppliers, and potentially the federal government to maximize the use of reclaimed water resources within the Tampa Bay Area. The project will help the partners reach mutual goals of (1) reducing the use of traditional water supplies for irrigation and other purposes, (2) increasing the beneficial use of wet-weather reclaimed water flows, rather than continue the practice of discharging them to tide or deep wells, and (3) helping to restore the natural systems in Pasco and Hillsborough counties. The District's partnership with the City of Tampa, Tampa Bay Water, Hillsborough County and Pasco County is expected to ultimately provide at least 26 mgd of available water supplies, and result in 8 mgd of groundwater recharge and natural system restoration, for a total project benefit of 34 mgd by 2012, for an estimated cost of approximately $\$ 213$ million. In its entirety, the project will consist of the design, permitting and construction of a regional reclaimed water system expected by 2012 to supply approximately 30,000 residential, industrial, commercial and golf course customers. The primary reclaimed water source is the City of Tampa's Howard F. Curren Advanced Wastewater Treatment Facility (HFC plant); however, it is anticipated that other facilities will be part of the project in the future. The project infrastructure will consist of more than 45 miles of reclaimed water transmission pipelines, pumping and storage, and additional distribution pipelines and infrastructure. The core project is estimated to cost $\$ 213$ million, but costs could increase as feasibility studies provide more information and if components like Hillsborough and Pasco county wet-weather flow utilization and Tampa Bay Water downstream augmentation are expanded. This project (H309) represents one segment of the regional project. It is designed to store and use surplus reclaimed water available when demand is not high. Preliminary engineering estimates indicate South Hillsborough Area Reservoir Project (SHARP) will take between 9 and 20 mgd and combine it with an average of 10 mgd (expanding over time to 20 mgd ) wet weather discharge from the County's Falkenburg and Valrico WWTPs. A portion of the City's reclaimed water will be piped to a proposed reservoir on land near the Sydney Mine in central Hillsborough County through the county's existing transmission mains, and through a proposed pipeline extension southeast of the Valrico Plant. The stored reclaimed water can then be used during the dry season, and/or treated and injected into the Floridan aquifer for future withdrawal, or applied to land for natural system enhancement. A second component of SHARP involves the construction of an 80-acre reservoir adjacent to the County's reuse transmission main south of Progress Boulevard. The County currently owns a 100-acre tract suitable for the reservoir, located adjacent to the County's ASR demonstration project. The remaining portion of combined reclaimed water will be piped through the existing county transmission main to the reservoir site. This project is expected to significantly contribute to meeting water supply needs in the Tampa Bay area over the next 20 years. Therefore, funding is allocated to each affected basin board proportionate to the basin population relative to the Hillsborough-Pasco-Pinellas county area. The funding allocation is: Governing Board 50\%; Alafia River Basin 5\%; Coastal Rivers Basin 4\%; Hillsborough River Basin 12.5\%; Northwest Hillsborough Basin 6.5\%; Pinellas-Anclote Basin 21.5\%; and Withlacoochee River Basin $0.5 \%$. The planning level cost for the project is $\$ 15,000,000$. The District's contribution is anticipated to 50 percent, or $\$ 7,500,000$; additional costs shown below are for staff time. Work will be undertaken to determine the allocation of costs among partners, and to schedule the implementation of the ten project segments over ten years. As the project progresses, it is anticipated that the funding table below will be updated to reflect the allocation of costs to the partners in the project, and is expected to include contributions from other sources. The District, in cooperation with its project partners, is aggressively pursuing state and federal grants in an amount that may exceed 50 percent of the project costs. If successful, the cost to the District and its partners will be reduced proportionately.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Alafia River Basin | $\$ 37,500$ | $\$ 48,715$ | $\$ 48,214$ | $\$ 241,070$ | $\$ 375,499$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 93,750$ | $\$ 121,037$ | $\$ 120,536$ | $\$ 602,685$ | $\$ 938,008$ | $\$ 0$ |
| Coastal Rivers Basin | $\$ 30,000$ | $\$ 39,073$ | $\$ 38,571$ | $\$ 192,855$ | $\$ 300,499$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 48,750$ | $\$ 63,180$ | $\$ 62,679$ | $\$ 313,395$ | $\$ 488,004$ | $\$ 0$ |
| Pinellas-Anclote River Basin | $\$ 161,250$ | $\$ 207,622$ | $\$ 207,321$ | $\$ 1,036,605$ | $\$ 1,612,998$ | $\$ 0$ |
| Withlacoochee River Basin | $\$ 3,750$ | $\$ 4,821$ | $\$ 4,821$ | $\$ 24,105$ | $\$ 37,497$ | $\$ 0$ |
| District | $\$ 375,000$ | $\$ 483,244$ | $\$ 482,143$ | $\$ 2,410,715$ | $\$ 3,751,102$ | $\$ 0$ |

Critical Project Milestones:
Projected: Amended: Actual:
District Recognition/Signage: YES

Status As Of: 11/14/2006 - The five-party agreement for the disbursement of the $\$ 4$ million in state (CIBR) funds appropriated to the project in FY2006 was executed on October 10, 2006. Since then, $\$ 1.8$ million was disbursed to partners for about $\$ 5$ million in work completed to date. The project team met on October 30th, and TBW revealed downstream augmentation is no longer a viable option due to its inability to obtain permits from DEP, and recent data indicating it augmentation is not necessary for MFLs at the TBC. Augmentation of the Hillsborough River could become viable in the future, but the project team will focus on the needs of the remaining four partners. The consultant believes that, since TBW is only interested in wet-weather flows, the size of the pipeline will not need to be adjusted to accommodate TBW joining the project at a later date. Tampa and Pasco County will work together to determine the most viable project infrastrucutre and routing, with the help of the project consultant. Hillsborough County will then determine how best they fit into the new configuration. The partners will regroup in January to discuss the project configuration, related costs and strategies for moving forward.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

## TBRRAP - Regional Reuse Interconnect Serving Hillsborough County and TBW Facilities

H310 Basin: 010,011,013,014,015,016,019,
00 Project Status: Ongoing
Hillsborough County, Tampa Bay Water
Jim Duncan
Scott, Kathy
Alison Ramoy/DEV/swfwmd
Water Supply and Resource Development

DESCRIPTION: The Regional Project is the result of the collaboration of the District, four water suppliers, and potentially the federal government to maximize the use of reclaimed water resources within the Tampa Bay Area. The project will help the partners reach mutual goals of (1) reducing the use of traditional water supplies for irrigation and other purposes, (2) increasing the beneficial use of wet-weather reclaimed water flows, rather than continue the practice of discharging them to tide or deep wells, and (3) helping to restore the natural systems in Pasco and Hillsborough counties. The District's partnership with the City of Tampa, Tampa Bay Water, Hillsborough County and Pasco County is expected to ultimately provide at least 26 mgd of available water supplies, and result in 8 mgd of groundwater recharge and natural system restoration, for a total project benefit of 34 mgd by 2012, for an estimated cost of approximately $\$ 213$ million. In its entirety, the project will consist of the design, permitting and construction of a regional reclaimed water system expected by 2012 to supply approximately 30,000 residential, industrial, commercial and golf course customers. The primary reclaimed water source is the City of Tampa's Howard F. Curren Advanced Wastewater Treatment Facility (HFC plant); however, it is anticipated that other facilities will be part of the project in the future. The project infrastructure will consist of more than 45 miles of reclaimed water transmission pipelines, pumping and storage, and additional distribution pipelines and infrastructure. The core project is estimated to cost $\$ 213$ million, but costs could increase as feasibility studies provide more information and if components like Hillsborough and Pasco county wet-weather flow utilization and Tampa Bay Water downstream augmentation are expanded. This project is an element of the Regional Project that will connect the reclaimed water facilities of the City of Tampa to those of Hillsborough County to provide flows throughout the year to offset irrigation demand, and from the City of Tampa to Tampa Bay Water (TBW) facilities to augment streamflow in the Alafia River and or the Palm River/Tampa Bypass Canal in exchange for potable supply. Preliminary engineering work indicates the project will consist of the feasibility, design, permitting and construction of a 24-inch reclaimed water transmission main east from Tampa's northern transmission system (project H301) to the Palm River/TBC, a 24 -inch main from the county's reclaimed water system to the Alafia River, and a high-service pumping facility expansion. The 24 -inch mains each have a capacity to convey approximately 10 mgd . The project will allow Hillsborough County to receive up to 7 million gallons of reclaimed water per day (mgd) during peak-demand periods from the City of Tampa to help meet irrigation demands in the south-central county area (SHARE project, H308). The county will also receive approximately 9 mgd of surplus reclaimed water available during non-peak demand periods, which will be stored (SWUCA recovery project, H309) in reservoirs until needed to meet customer demand, or used to enhance natural systems. The interconnect will also allow the transfer of reclaimed water from the City of Tampa, through parts of the Hillsborough County system, to TBW facilities near the Alafia and Palm River/TBC potable intakes. TBW would receive between 8 and 20 mgd of surplus reclaimed water to augment stream flows downstream of the potable infrastructure in exchange for additional fresh water supplies to be withdrawn upstream (project H306). This project is expected to significantly contribute to meeting water supply needs in the Tampa Bay area over the next 20 years. Therefore, funding is allocated to each affected basin board proportionate to the basin population relative to the Hillsborough-Pasco-Pinellas county area. The funding allocation is: Governing Board 50\%; Alafia River Basin 5\%; Coastal Rivers Basin 4\%; Hillsborough River Basin 12.5\%; Northwest Hillsborough Basin 6.5\%; Pinellas-Anclote Basin 21.5\%; and Withlacoochee River Basin $0.5 \%$. The planning level cost for the project is $\$ 6,600,000$. The District's contribution is anticipated to 50 percent, or $\$ 3,300,000$; additional costs shown below are for staff time. Work will be undertaken to determine the allocation of costs among partners, and to schedule the implementation of the ten project segments over ten years. As the project progresses, it is anticipated that the funding table below will be updated to reflect the allocation of costs to the partners in the project, and is expected to include contributions from other sources. The District, in cooperation with its project partners, is aggressively pursuing state and federal grants in an amount that may exceed 50 percent of the project costs. If successful, the cost to the District and its partners will be reduced proportionately.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Hillsborough County and TBW | $\$ 0$ | $\$ 0$ | $\$ 660,000$ | $\$ 2,640,000$ | $\$ 3,300,000$ | $\$ 0$ |
| District | $\$ 165,000$ | $\$ 212,143$ | $\$ 212,143$ | $\$ 1,060,715$ | $\$ 1,650,001$ | $\$ 0$ |


| Alafia River Basin | $\$ 16,500$ | $\$ 21,214$ | $\$ 21,214$ | $\$ 106,070$ | $\$ 164,998$ | $\$ 0$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Hillsborough River Basin | $\$ 41,250$ | $\$ 53,036$ | $\$ 53,036$ | $\$ 265,180$ | $\$ 412,502$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 21,450$ | $\$ 27,579$ | $\$ 27,579$ | $\$ 137,895$ | $\$ 214,503$ | $\$ 0$ |
| Coastal Rivers Basin | $\$ 13,200$ | $\$ 16,971$ | $\$ 16,971$ | $\$ 84,855$ | $\$ 131,997$ | $\$ 0$ |
| Pinellas-Anclote River Basin | $\$ 70,950$ | $\$ 91,221$ | $\$ 91,221$ | $\$ 456,105$ | $\$ 709,497$ | $\$ 0$ |
| Withlacoochee River Basin | $\$ 1,650$ | $\$ 2,121$ | $\$ 2,121$ | $\$ 10,600$ | $\$ 16,492$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 6,599,990$ | $\$ 0$ |

Critical Project Milestones:
Projected: Amended: Actual: District Recognition/Signage:

Status As Of: 11/14/2006 - The five-party agreement for the disbursement of the $\$ 4$ million in state (CIBR) funds appropriated to the project in FY2006 was executed on October 10, 2006. Since then, $\$ 1.8$ million was disbursed to partners for about $\$ 5$ million in work completed to date. The project team met on October 30th, and TBW revealed downstream augmentation is no longer a viable option due to its inability to obtain permits from DEP, and recent data indicating it augmentation is not necessary for MFLs at the TBC. Augmentation of the Hillsborough River could become viable in the future, but the project team will focus on the needs of the remaining four partners. The consultant believes that, since TBW is only interested in wet-weather flows, the size of the pipeline will not need to be adjusted to accommodate TBW joining the project at a later date. Tampa and Pasco County will work together to determine the most viable project infrastrucutre and routing, with the help of the project consultant. Hillsborough County will then determine how best they fit into the new configuration. The partners will regroup in January to discuss the project configuration, related costs and strategies for moving forward.

Project: Hillsborough County Lake and Stream Monitoring Program
Project \#:
Phase:
Cooperator:
K057 Basin: 011,013,014,
01 Project Status: Ongoing
Hillsborough County
Jason Mickel
Munson, Adam
Project Manager:
Task Manager:
Project Type:
Coop
DESCRIPTION: This is a continuation of the 1997-2005 Lake Management Program. The program is designed to engage local citizens in the data collection efforts of the county, providing both education for the public and long-term water quality monitoring for the county.
Benefits: The objectives of this project are to: (1) maintain 120 country lakes and 20 stream sites in the University of Florida LAKEWATCH program that monitors lake water quality throughout the state; (2) provide training to citizen volunteers to collect field data and water quality samples; (3) educate lake and stream property owners on lake/stream management techniques and water resource protection; and (4) insure that all data are entered into the Hillsborough County Watershed Atlas web site http://www.hillsborough.wateratlas.usf.edu/, and the site is properly maintained.
Costs: The total project cost for FY2007 is projected to be $\$ 401,186$, and the District's share of $\$ 200,593$ is anticipated to be funded by three basin boards. Prior District funding for this project totals $\$ 1,288,82$.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Hillsborough Co. | $\$ 1,162,428$ | $\$ 200,593$ | $\$ 200,593$ | $\$ 0$ | $\$ 1,563,614$ | $\$ 0$ |
| Alafia River Basin | $\$ 243,902$ | $\$ 40,694$ | $\$ 40,829$ | $\$ 0$ | $\$ 325,425$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 393,935$ | $\$ 68,777$ | $\$ 68,912$ | $\$ 0$ | $\$ 531,624$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 620,098$ | $\$ 92,850$ | $\$ 92,985$ | $\$ 0$ | $\$ 805,933$ | $\$ 0$ |
| TOTAL |  |  |  | $\$ 3,226,596$ | $\$ 0$ |  |


| Critical Project Milestones: | Projected: | Amended: | Actual: |
| :---: | :---: | :---: | :---: |
| District Recognition/Signage: YES |  |  |  |
| Recognition is given on the Hillsborough County Water Atlas web site. |  |  |  |
| FY2003 Contractual Funding |  |  |  |
| FY2003 Contract Approvals | 03/30/2003 |  | 03/30/2003 |
| FY2003 Draft Agreement to management services | 01/15/2003 |  | 01/01/2003 |
| FY2003 Draft Agreement returned from management services | 02/28/2003 |  | 03/06/2003 |
| FY2003 Draft Agreement Mailed to Hillsborough Co. | 03/01/2003 |  | 03/17/2003 |
| FY2003 Draft Agreement returned from Hillsborough Co. | 03/21/2003 |  | 05/10/2003 |
| FY2003 Contract Executed | 04/01/2003 |  | 05/22/2003 |
| FY2003 Begin Annual Sampling Program | 04/01/2003 |  | 04/01/2003 |
| FY2003 Annual Citizen Meeting for Lake Monitoring Program | 09/01/2003 |  | 08/18/2003 |
| FY2003 Annual Report | 03/31/2004 |  | 06/30/2003 |
| FY2003 Contract Close Out | 06/31/2004 |  | 06/30/2003 |
| FY2004 Contractual Funding |  |  |  |
| FY2004 Draft Agreement to management services | 01/15/2004 |  | 01/27/2004 |
| FY2004 Draft Agreement returned from management services | 02/28/2004 |  | 02/26/2004 |
| FY2004 Draft Agreement Mailed to Hillsborough Co. | 03/01/2004 |  | 03/01/2004 |
| FY2004 Draft Agreement returned from Hillsborough Co. | 03/21/2004 |  | 04/10/2004 |
| FY2004 Contract Executed | 04/01/2004 |  | 04/22/2004 |
| FY2004 Recognition of SWFWMD in project signage | 04/01/2004 |  | 04/01/2004 |
| FY2004 Begin Annual Sampling Program | 04/01/2004 |  | 04/01/2004 |
| FY2004 Annual Citizen Meeting for Lake Monitoring Program | 09/01/2004 |  | 09/24/2004 |
| FY2004 Annual Report | 06/31/2005 |  | 06/31/2004 |
| FY2004 Contract Close Out | 06/31/2005 |  |  |
| FY2005 Contractual Funding |  |  |  |
| FY2005 Draft Agreement to management services | 01/15/2005 |  | 11/01/2004 |
| FY2005 Draft Agreement returned from management services | 02/28/2005 |  | 11/15/2004 |
| FY2005 Draft Agreement Mailed to Hillsborough Co. | 03/01/2005 |  | 12/01/2004 |
| FY2005 Draft Agreement returned from Hillsborough Co. | 03/21/2005 |  | 12/15/2005 |


| FY2005 Contract Executed | 04/01/2005 | 12/29/2005 |
| :---: | :---: | :---: |
| FY2005 Recognition of SWFWMD in project signage | 04/01/2005 | 04/01/2005 |
| FY2005 Begin Annual Sampling Program | 04/01/2005 | 04/01/2005 |
| FY2005 Annual Report | 06/31/2006 | 06/31/2006 |
| FY2005 Contract Close Out | 06/31/2006 |  |
| FY2006 Contractual Funding |  |  |
| FY2006 Draft Agreement to management services | 01/15/2006 | 01/20/2006 |
| FY2006 Draft Agreement returned from management services | 02/28/2006 | 02/15/2006 |
| FY2006 Draft Agreement Mailed to Hillsborough Co. | 03/01/2006 | 03/03/2006 |
| FY2006 Draft Agreement returned from Hillsborough Co. | 03/21/2006 | 05/03/2006 |
| FY2006 Contract Executed | 04/01/2006 | 05/31/2006 |
| FY2006 Recognition of SWFWMD in project signage | 04/01/2006 | 04/01/2006 |
| FY2006 Begin Annual Sampling Program | 04/01/2006 | 04/01/2006 |
| FY2006 Annual Report | 06/31/2007 |  |
| FY2006 Contract Close Out | 06/31/2007 |  |
| FY2007 Contractual Funding |  |  |
| FY2006 Draft Agreement to management services | 01/15/2007 | 10/15/2006 |
| FY2006 Draft Agreement returned from management services | 02/28/2007 |  |
| FY2006 Draft Agreement Mailed to Hillsborough Co. | 03/01/2007 |  |
| FY2006 Draft Agreement returned from Hillsborough Co. | 03/21/2007 |  |
| FY2006 Contract Executed | 04/01/2007 |  |
| FY2006 Recognition of SWFWMD in project signage | 04/01/2007 |  |
| FY2006 Begin Annual Sampling Program | 04/01/2007 |  |
| FY2006 Annual Report | 06/31/2008 |  |
| FY2006 Contract Close Out | 06/31/2008 |  |
| Status As Of: 10/30/2006 - The county has recently hired a new project manager and the FY2006 contract has been executed. Sampling of lakes and streams has continued, and the Hillsborough County Water Atlas web site is available at http://www.hillsborough.wateratlas.usf.edu. The contract for FY2007 is under review. |  |  |

Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

Project: Hillsborough County Adopt-A-Pond Project
K209 Basin: 011,013,014,
00 Project Status: Ongoing
Hillsborough County Board of County Commissioners
John McGee
Antoine, Kendra
Coop

DESCRIPTION: The Adopt-A-Pond (AAP) program restores pond treatment and flood protection functions, teaches citizens to manage ponds, reduces stormwater pollution and increases habitat. Program goals: work with citizen volunteers, reduce neighborhood pollution, increase pond habitat, reduce litter, mark storm drains, increase citizen awareness of stormwater impacts and improve pond treatment functions. Citizens learn about the program through county staff referral and public outreach.
Benefits: Local and regional benefits include improved water quality, maintained ponds and reduced pollution sources (i.e., trash, fertilizer). The program encourages regional watershed planning, the reduction of nitrogen levels in the Tampa Bay Estuary Program, meeting District water treatment goals and protection of wetlands and receiving water bodies.
Costs: The total cost of the program is $\$ 178,427$, and the District's share is $\$ 50,000$. This funding is from the Alafia River Basin - \$10,000, Hillsborough River Basin - \$10,000 and the Northwest Hillsborough Basin - \$30,000. The dollar amount allocated per basin is determined by the amount of work projected to occur within each specific basin.

## ADDITIONAL INFORMATION:

- Hillsborough County and the District have funded the program since 1995. The county pays the cost of pond restorations. Citizens learn about the program through county staff referral and public outreach.
- A contracted program evaluator found Adopt-A-Pond to be the District's most effective education program in FY2003.
- The tasks associated with the Hillsborough AAP Program are on-going throughout the year. The critical project milestones reflect completion of these on-going tasks.
The Hillsborough Adopt-A-Pond program includes the following components:


## Pond Management

- Materials provided to participants for pond management efforts include: program notebook, pond management workbook, aquatic plant identification material, a neighborhood sign, waders, aquatic plants and county staff support provided to participants. These participants also attend educational meetings, pond walks and an annual pond seminar.


## Officer Snook \& Stormwater Ecologist Programs

- The Officer Snook Program and character educates elementary students about water pollution and its effects. The Florida Aquarium cooperates with the county to present Officer Snook at their facility, reaching several thousand students, who receive T-shirts, stickers and booklets. The Tampa Bay Regional Planning Council funds the Officer Snook costume, and the Aquarium and Hillsborough County provide the materials.
- The Stormwater Ecologist program provides critical thinking exercises, in-class experiments and opportunities for hands-on education to middle school classrooms using an Enviroscape watershed model.


## Storm Drain Marking Program

- The storm drain component distributes door hangers door-to-door in participating areas, provides materials to mark storm drains and invites participation in a Tampa Baywatch event.


## Outreach \& Education

- Production and distribution of a quarterly newsletter to more than 5,000 citizens.
- Brochure distributed to interested neighborhoods.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Alafia River Basin | $\$ 34,870$ | $\$ 6,000$ | $\$ 10,000$ | $\$ 0$ | $\$ 50,870$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 34,870$ | $\$ 6,000$ | $\$ 10,000$ | $\$ 0$ | $\$ 50,870$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 87,760$ | $\$ 18,000$ | $\$ 30,000$ | $\$ 0$ | $\$ 135,760$ | $\$ 0$ |
| Hillsborough Co. | $\$ 110,000$ | $\$ 105,000$ | $\$ 138,034$ | $\$ 0$ | $\$ 353,034$ | $\$ 0$ |
| TOTAL |  |  |  | $\$ 590,534$ | $\$ 0$ |  |

Critical Project Milestones:
Projected: Amended: Actual:
District Recognition/Signage: YES
The District and funding basin boards receive recognition on
program materials and signs.

| FY2006 Budgeted Funds | 11/30/2005 |  | 12/06/2005 |
| :---: | :---: | :---: | :---: |
| Initiate purchase order | 01/31/2006 | 11/30/2006 |  |
| Task 1 - Pond Management | 05/31/2006 | 11/30/2006 |  |
| Task 2 - Officer Snook/Stormwater Ecologist Program | 08/31/2006 | 11/30/2006 |  |
| Task 3 - Storm Drain Marking Program | 11/30/2006 | 11/30/2006 |  |
| Task 4 - Outreach \& Education | 11/30/2006 | 11/30/2006 |  |
| Project Close | 11/30/2006 |  |  |
| Final Report | 12/15/2006 | ---------------- |  |
| FY 2007 Budgeted Funds |  |  |  |
| Initiate Purchase Order | 12/01/2006 | --------------- | - |
| Task 1 - Pond Management | 09/28/2007 | --------------- |  |
| Task 2-Officer Snook/Stormwater Ecologist Program | 09/28/2007 | --------------- | ------------- |
| Task 3 - Storm Drain Marking Program | 09/28/2007 | ---------------- | ------------ |
| Task 4 - Outreach \& Education | 09/28/2007 | ------------ |  |

Status As Of: 10/18/2006 - In 2006, $\$ 10,000$ from basin initiative funding for public education (P268) in the Alafia River, Hillsborough River and Northwest Hillsborough Basins has been used to supplement education and outreach efforts. Tasks accomplished so far in FY2006 include: 8 herbicide jobs for the county, 14 pond clean-ups, 13 pond plantings, 40 pond evaluations, 4 pond walks, 5 Officer Snook presentations, 4 Stormwater Ecologist presentations and 14 education meetings. Education materials promoting the AAP Program were distributed at 2 special events, and the Summer 2006 newsletter has been distributed. The Adopt-A-Pond brochure has been updated and the print process should be complete soon. To date, the Hillsborough County AAP Program has received 31 applications for pond adoptions in FY2006, 20 of which have been accepted. This is a record number of applications received in a fiscal year. The FY2007 scope of work is in the final approval stages and a purchase order should be opened within the next several weeks.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

Hillsborough County - Update of NW Watershed Management Plans
K645 Basin: 014,
00 Project Status: Ongoing
Hillsborough County
David Glicksberg
Arnold, Dave
Coop

DESCRIPTION: This is a cooperative project with Hillsborough County to update 1) Topographic Information 2) Watershed Evaluation, and 3) Watershed Management Plan elements of the District's Watershed Management Program (WMP). In 1998 Hillsborough County completed watershed management plans for five basins in the northwest part of the County. These watersheds include Brooker Creek, Double Branch Creek, Lower Sweetwater Creek, Sweetwater Creek, and Rocky/Brushy Creek. The plans addressed water quantity and quality as individual reports. Afterward, an environmental assessment was completed that consolidated the quality issues for all five watersheds into one report. The objective of this update is to re-evaluate the watersheds and develop watershed plans that fully integrate flood protection, water quality, natural systems, and water resource issues. Plans, outlining a program of best management practices, will be published for each of the five watersheds. This will produce comprehensive watershed management plans that are consistent with the format of Hillsborough County's current efforts. Flooding and pollutant loading models will be reviewed and updated to include the most recent data available. A maintenance plan and monitoring plan will be included in each of the five plans. Funding in FY2005 completes the project.
Benefits: This project reviews and updates the previous recommendations to consider multiple uses and benefits for proposed projects within each of the five watersheds. The information obtained through the development of these plans is also being used to update the Flood Insurance Rate Maps for Hillsborough County through an agreement between the County and FEMA. This is being accomplished through a separate effort that includes updating the hydrologic and hydraulic modeling with recent development information, and converting files from AutoCad to ArcView.
Costs: The Northwest Hillsborough Basin funded its entire $\$ 150,000$ commitment to the project in FY2002. The District funding amounts shown in the table include staff salaries and expenses.
ADDITIONAL INFORMATION: The WMP includes five major elements: 1) Topographic Information, 2) Watershed Evaluation, 3) Watershed Management Plan, 4) Implementation of BMPs, and 5) Maintenance of Watershed Parameters and Models. Implementing elements of the WMP with local governments is one of the Comprehensive Watershed Management (CWM) initiative strategies. A cooperative funding expenditure agreement with Hillsborough County has been developed to complete this project, which includes updates of the Topographic Information, Watershed Evaluation, and Watershed Plan elements. Hillsborough County is managing the project, where the District project manager must approve any agreements to accomplish project tasks.

| Source | Prior Funding | FY 2006 Budget | FY 2007 <br> Budget | Future Funding | Total Funding | Expended 2007 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hillsborough Co. | \$650,000 | \$0 | \$0 | \$0 | \$650,000 | \$0 |
| Northwest Hillsborough Basin | \$167,744 | \$2,908 | \$1,099 | \$0 | \$171,751 | \$91 |
| TOTAL |  |  |  |  | \$821,751 | \$91 |


| Critical Project Milestones: | Projected: | Amended: | Actual: |
| :---: | :---: | :---: | :---: |
| District Recognition/Signage: NA |  |  |  |
| Draft Agreement to Management Services | 12/15/2001 | ------------- | 01/31/2002 |
| Draft Agreement Returned from Management Services | 01/31/2002 | ------------- | 02/2002 |
| Basin Board Approval of Agreement | 12/15/2001 | ------------- | 03/2002 |
| Governing Board Approval of Agreement | 02/28/2002 | ------------ | 03/2002 |
| Contract Executed | 04/15/2002 | ------------ | 11/6/2002 |
| Notice to Proceed | 03/31/2003 | 09/30/2003 | 09/30/2003 |
| Existing Conditions Analysis | 02/2004 | 10/2005 | 05/2006 |
| Alternatives Analysis | 02/2005 | 04/2006 |  |
| Final Recommendations and Report (Proj. complete) | 06/2005 | 07/2006 | ------------- |
| Project Close-out | 12/31/2005 | 12/31/2006 | ------------ |

Status As Of: 10/27/2006-Status History: The project was approved in August 2001 for inclusion in the Northwest Hillsborough Basin Board's FY2002 budget. Initially, this project was to be conducted using the procedures and specifications the District developed for completion of watershed management plans. However,
because of budget constraints associated with developing hydrologic and hydraulic models to these standards, the County and District had to develop a detailed scope-of-work for the project based on using the County's existing models. For this reason, the cooperative funding agreement was not executed until November 2002. The County is the lead party to the agreement and they issued a request for proposals and selected a consultant. The internal project deadlines were amended because the consultant selection process took longer than originally planned. The County gave the consultant notice to proceed on 9/30/2003, and a kick-off meeting was held on $10 / 13 / 2003$. One of the scope-of-work items is to incorporate results of a related project into the watershed modeling. Therefore, scheduling of project tasks related to the watershed modeling is on hold until this project (B126), the Review of the Hillsborough County Watershed Models, is completed. Due to the delays with the B126 project, the decision was made in January 2005 to move forward by utilizing draft reports from the B126 project for guidance. Currently, Hillsborough County is updating the sub-basin delineations. An amendment to extend the project deadline to December 2006 has been executed. Current Status: The County's consultant has completed the watershed evaluation, existing conditions model development, and is currently working on the alternatives analysis. Due to an additional time requirement to incorporate updated information on impaired waters and Total Maximum Daily Loads, as well as recently updated land use information, the County has requested a second time extension. In response, District staff has drafted a second amendment to extend the project deadline to December 31, 2007.

| Project: | Tampa - Water Conservation Education Theatre Project |
| :--- | :--- |
| Project \#: | K652 Basin: 011,013,014, |
| Phase: | 00 Project Status: Ongoing |
| Cooperator: | Tampa Water Department |
| Coop. Contact: | Brent White |
| Project Manager: <br> Task Manager: | Wagner, Mary Alice |
| Project Type: | Coop |

DESCRIPTION: The Water Conservation Education Theatre Project is an in-school, arts-based project that delivers water protection and conservation messages to over 60,000 elementary students every year through live theatrical presentations. Each participating classroom receives District-created student/teacher materials and preand post-performance assessments.
Benefits: This project enhances the District's water conservation education efforts by fostering individual (student, teacher and parent) responsibility to protect water resources and conserve drinking water. Students, working with their teachers, gain knowledge and skills - and then use those skills in the classroom. This project promotes the District's mission through the distribution of District-created student/teacher materials.
Costs: The total project cost is $\$ 80,000$ and the District's share is $\$ 40,000$. The Hillsborough River Basin Board is funding \$19,600, the Northwest Hillsborough River Basin Board \$11,600 and the Alafia River Basin Board $\$ 8,800$. This cost-effective program reaches more than 60,000 students throughout Hillsborough County each year in kindergarten to sixth grade at a cost of $\$ 1.33$ per person.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Alafia River Basin | $\$ 35,200$ | $\$ 8,800$ | $\$ 8,800$ | $\$ 0$ | $\$ 52,800$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 82,000$ | $\$ 19,600$ | $\$ 19,600$ | $\$ 0$ | $\$ 121,200$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 42,800$ | $\$ 11,600$ | $\$ 11,600$ | $\$ 0$ | $\$ 66,000$ | $\$ 0$ |
| City of Tampa | $\$ 190,000$ | $\$ 40,000$ | $\$ 40,000$ | $\$ 0$ | $\$ 270,000$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 510,000$ | $\$ 0$ |


| Critical Project Milestones: | Projected: | Amended: | Actual: |
| :---: | :---: | :---: | :---: |
| District Recognition/Signage: YES |  |  |  |
| Recognition of the Southwest Florida Water Management |  |  |  |
| District, Alafia River, Hillsborough River, Northwest Hillsborough |  |  |  |
| Basin Boards will be on all reports, educational materials and within the educational resource kit. |  |  |  |
| Purchase order opened: | 10/01/2005 | 04/28/2006 |  |
| Selection of new performers/script development: | 08/14/2006 | --------------- | 08/14/2006 |
| Student/teacher materials distributed: | 10/03/2006 | ---------------- | 10/03/2006 |
| Theatre Performances begin: | 10/03/2006 | --------------- | 10/03/2006 |
| Theatre Performances end: | 05/19/2007 | ---------------- |  |
| Evaluation and Final Report Due to District | 07/30/2007 |  |  | Status As Of: 10/30/2006 - Theatre performances began this month. District-created student/teacher materials are being distributed by the Cooperator. District staff recently received performance schedules and is planning on attending. This project is currently being funded through FY2006 funding. The opening of purchase orders are typically delayed for this project because the scope of the project follows the school year calendar, not the District's fiscal year calendar. The FY2007 funding applies to the 2007-2008 school year and the PO will be opened in May 2007.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

Tampa - South Tampa Area Reclaimed Project (STAR) - Phase II
K655 Basin: 014,
00 Project Status: Ongoing
Tampa
Sandra Anderson
Ramoy, Alison
Coop

DESCRIPTION: This alternative water supply project consists of the design and construction of Phase II of the South Tampa Area Reclaimed Project (STAR) project. Phase II includes the design and construction of approximately 105,600 linear feet ( 20 miles) of reclaimed water transmission main, a single 2 mg ground storage tank, a re-pumping facility located in the Palma Ceia area, and 332,640 linear feet ( 63 miles) of distribution pipelines to provide reclaimed water for irrigation. At build out, STAR 1 and 2 are expected to provide 10 mgd annual average daily flow to offset 6.7 mgd of potable-quality demand. The potable water offsets from the reclaimed water will result in a demand reduction to the City of Tampa and Tampa Bay Water's regional system. Benefits: The STAR Project will provide highly treated reclaimed water from the City of Tampa Howard F. Curren Advanced Wastewater Treatment Plant (HFCAWTP) to residential and commercial customers in South Tampa and Westshore who are currently using potable water for irrigation. The specific customer base served by Phase II of the project has not been provided at this time. For Phase II, it is anticipated that an initial 2.0 mgd of reclaimed water will be provided to 4,200 customers (estimated to be 4,013 residential and 187 commercial) offsetting an estimated 1.3 mgd of irrigation demand estimated.
Costs: A First Amendment to project has been executed, which increased the Phase II project cost to $\$ 22,000,000$, with the District contributing $\$ 1,000,000$ towards design and $\$ 10,000,000$ towards construction. The city has informed District staff that the cost may increase to $\$ 32,700,000$. The cooperator has requested and received cooperative funding for Phase II from the Northwest Hillsborough Basin in the amounts of \$1,000,000 in FY2002, $\$ 1,950,000$ in FY2003, $\$ 2,448,150$ in FY2004, $\$ 2,348,415$ in FY2005, and $\$ 2,979,758$ in FY2006. An additional $\$ 926,800$ has been allocated in FY2006 from the Water Protection and Sustainability Trust Fund. As a result, $\$ 189,723$ will be balanced forward and returned to the Northwest Hillsborough Basin Board. The \$22 million cost, amortized at 8 percent over 30 years, is $\$ 4.08$ per thousand gallons offset.
ADDITIONAL INFORMATION: At build out, STAR 1 and 2 are expected to provide 10 mgd annual average daily flow to offset 6.7 mgd of potable-quality demand. The potable water offsets from the reclaimed water will result in a demand reduction to the City of Tampa and Tampa Bay Water's regional system.

| Source | Prior Funding | FY 2006 Budget | FY 2007 Budget | Future Funding | Total Funding | $\begin{gathered} \hline \text { Expended } \\ 2007 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| City of Tampa | \$2,950,000 | \$1,000,000 | \$3,293,300 | \$3,293,300 | \$10,536,600 | \$0 |
| Northwest Hillsborough Basin | \$7,755,977 | \$2,982,060 | \$3,152 | \$0 | \$10,741,189 | \$26 |
| Wtr Prot Sust T.F. | \$0 | \$926,800 | \$0 | \$0 | \$926,800 | \$0 |
| TOTAL |  |  |  |  | \$22,204,589 | \$26 |
| Critical Project Milestones: District Recognition/Signage: YE |  |  | Projected: |  | Amended: | Actual: |
| Recognition of the District and th Board will be at the well site throug | Northwest ghout the co | Hillsborough struction ph | Basin 09/30/ ase. |  | 05/15/2006 |  |
| Draft Agreement to Contract Adm | inistration: |  | 08/31/ | 2001 -- | ------------ | 10/10/2001 |
| Basin Board Approval of Interloca | Agreement |  | 12/13/ | 2001 -- | ------------ | 10/11/2001 |
| Governing Board Approval of Interda | rlocal Agree | ment: | 12/26/ | 2001 -- | ------------ | 10/30/2001 |
| Contract Executed: |  |  | 02/28/ | 2002 -- | ------------ | 05/07/2002 |
| First Amendment Executed |  |  | ----- | -- | ------------ | 09/27/2004 |
| Notice to Proceed: |  |  | 03/31/ | 2002 -- | ------------- | 05/07/2002 |
| Second Amendment Executed: |  |  | 08/31/ | 006 | ----------- | 10/23/2006 |
| Commence Phase 2 Design: |  |  | 09/30/ | 2002 T | To be amended | 07/15/2004 |
| Commence Phase 2 Construction: |  |  | 09/30/ | 2003 T | To be amended |  |
| Project Complete: |  |  | 01/31/ | 2006 T | To be amended |  |
| Contract Close-out: |  |  | 06/30/ | 20061 | 12/31/2010 |  |

Status As Of: 11/01/2006-As the City has focused its attention on Phase I of the STAR project, work on Phase II has been halted. A presentation was prepared by CDM and Greeley and Hansen that is outside of the scope of this cooperative funding agreement. It was presented to the City in April 2006 and was subsequently submitted to the District. District and City staff met on July 14, 2006 to discuss, among other things, the overall STAR
program. The City Council recently approved a contract with CDM for the STAR Expansion Evaluation. It will include an implementation and financial analysis, identification of potential new customers, a conceptual transmission main route and distribution system layout, a conceptual level hydraulic model, construction cost estimates, and financial strategies to expand the system. The evaluation and resulting Summary Report will be complete by March 2007. This work will not be eligible for reimbursement under the K655 Agreement. Final design and construction related to the scope of services in our Agreement will be considered based upon the results of the CDM study. A second amendment to the project, adding Water Protection and Sustainability Program trust funds in the amount of $\$ 926,800$, and extending the termination date from June 30, 2006 until December 31, 2010, was executed on October 23, 2006. A third amendment will still be required to revise the scope of work based on the consultants' recommendations. The amended scope will likely result in an increased project cost.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

Hillsborough County - Update of Watershed Management Plans
L099 Basin: 011,013,014,
01 Project Status: Ongoing
Hillsborough County
Chin-Feng Ho
Arnold, Dave
Larry Walker/MAN/swfwmd
Coop

DESCRIPTION: This is a multi-year funded project to update 1) Topographic Information, 2) Watershed Evaluation, and 3) Watershed Management Plan elements of the District's Watershed Management Program (WMP) for watersheds in Hillsborough County. The County's area is approximately 1000 square miles. The project will update 17 watershed plans developed by Hillsborough County. The Topographic Information, Watershed Evaluation and Management Plan elements were completed in 1998-2002 by the cooperator before implementation of the District's Watershed Management Program Guidelines and Specifications (G+S). This project involves the Update of Watershed Parameters and Models to the District's G+S where the Topographic Information, Watershed Evaluation and Plan will reflect the changes in the watershed since the previous work was done. FY2004-2006 funding is being used to complete Updates for the Brooker Creek, East Lake, Duck Pond, and Curiosity Creek, and begin the Alafia River Update. Future funding will be required for updating the other 11 watersheds.
Benefits: The WMP provides a method to evaluate the capacity of a watershed to protect, enhance, and restore water quality and natural systems, while achieving flood protection. The information developed provides the science for the District's Resource Management and Environmental Resource Permitting (ERP). It assists local governments: 1) With their land management responsibilities by establishing a level of service and developing Best Management Practices (BMPs) to address level of service deficiencies. 2) Provides a Geodatabase and projected results from watershed model simulations for floodplain management, and water quality management through the Total Maximum Daily Loads (TMDL) process for their National Pollution Discharge Elimination System (NPDES) permit requirements.
Costs: This project is funded over FY2004-2009 at total budget of $\$ 3,198,500$, of which the District's share is $\$ 1,599,250$. The District's share is split between the Alafia River Basin $(\$ 664,250)$, Hillsborough River Basin ( $\$ 510,000$ ), and Northwest Hillsborough Basin $(\$ 425,000)$. The County will contribute $\$ 1,500,000$. The FY2007 budget is $\$ 504,000$ with the District's share, totalling $\$ 252,000$, divided among the Basins as follows: Alafia $\$ 100,000$; Hillsborough River \$105,000; Northwest Hillsborough \$47,000. FY2007 funding will be used to complete the Alafia River and Double Branch Creek updates, and start the Hillsborough River update, pending completion of LiDAR mapping within this watershed. Future funding is required to complete the project. As watershed plan updates are completed, the project budget may require refinement based on consulting services costs. The District funding amounts shown in the table include staff salaries.
ADDITIONAL INFORMATION: A WMP includes five major elements: Topographic information, Watershed Evaluation, Watershed Management Plan (develop and update), Implementation of Best Management Practices, and Maintenance of Watershed Parameters and Models. Implementing elements of the WMP with local governments is one of the Comprehensive Watershed Management (CWM) initiative strategies. Topographic Information is being updated by Hillsborough County. The Watershed Evaluation, and Watershed Management Plan update process began in FY2002, with project K645 in the N.W. Hillsborough Basin. In FY2003 the basins funded watershed model reviews at the request of the County for each watershed (see B126). This project merges watershed plan update efforts within the County by: (1) including funding from the three Basins within the County, the Alafia River, N.W. Hillsborough, and Hillsborough Basins; and (2) incorporating FY2004 Alafia River Basin watershed update project (L109) into this project. The project funding will be allocated to update watershed plans within each Basin based on update requirements/priorities established under the B126 project, funding availability, and Basin funding priorities. The updates will address the review comments, and include new topographic information funded cooperatively by the County and District (see K524). Additional FY2006 funding was added to the project by transferring funds from the South County Stormwater Recovery and Wetlands Creation Project Feasibility Study (L444) in order to conduct this BMP analysis under the Alafia River Watershed Plan Update (Alafia River Basin funding). A cooperative funding expenditure agreement with the County has been developed as a multi-year funded project contingent on the approval of future funding to complete the WMP elements through the Watershed Management Plan. This is a multi-year funded project that will require a cooperative funding request each fiscal year until completed. If approved, this project will continue to be ranked as a 1A project in future fiscal years. The County will manage the project, where the District project manager must approve any agreements to accomplish project tasks. Future cooperative agreements will be required for the Implementation of BMPs and Maintenance of Watershed Parameters and Models.

Prior FY 2006 FY 2007
Future
Total
Expended

|  | Funding | Budget | Budget | Funding | Funding | 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Hillsborough Co. | $\$ 500,000$ | $\$ 350,250$ | $\$ 252,000$ | $\$ 499,000$ | $\$ 1,601,250$ | $\$ 0$ |
| Alafia River Basin | $\$ 206,084$ | $\$ 250,981$ | $\$ 102,146$ | $\$ 115,000$ | $\$ 674,211$ | $\$ 137$ |
| Hillsborough River Basin | $\$ 262,751$ | $\$ 50,152$ | $\$ 107,399$ | $\$ 105,000$ | $\$ 525,302$ | $\$ 137$ |
| Northwest Hillsborough Basin | $\$ 53,529$ | $\$ 55,083$ | $\$ 51,285$ | $\$ 279,000$ | $\$ 438,897$ | $\$ 91$ |
| TOTAL |  |  |  |  | $\$ 3,239,660$ | $\$ 365$ |


| Critical Project Milestones: | Projected: | Amended: | Actual: |
| :---: | :---: | :---: | :---: |
| District Recognition/Signage: NA |  |  |  |
| Draft Agreement to Management Services | 12/15/2002 | 04/2004 | 05/14/2004 |
| Draft Agreement Returned from Management Services | 01/31/2003 | 06/2004 | 05/28/2004 |
| Basin Board Approval of Agreement | 02/2003 | 09/2003 | 09/2003 |
| Governing Board approval of Agreement | 02/2003 | 09/2003 | 09/2003 |
| Cooperator Contract Executed | 04/15/2003 | 08/2004 | 09/30/2004 |
| Notice to Proceed | 05/01/2003 | 02/2005 | 02/2005 |
| Complete Project | 01/2008 | ------------ | ------------ |

Status As Of: 10/27/2006 - The County's consultants have completed the update of the Brooker Creek, East Lake, and Curiosity Creek watershed plans. The County has issued an RFP for the Alafia River Watershed Plan Update, and selected a consultant for this update, and has negotiated a contract for services. Notice to proceed with this review will be issued in the near future. A draft scope-of-services has been developed for an RFP for the Hillsborough River update. The County anticipates issuance of the RFP for responses in the spring of 2007. Results of Hillsborough County Watershed Model Review project (see B126) are being used to determine watershed plan update requirements.

Project:<br>Project \#:<br>Phase:<br>Cooperator:<br>Coop. Contact:<br>Project Manager:<br>Task Manager:<br>Project Type:<br>\title{ Van Dyke RW Storage Tank and Pump Station Expansion }<br>L103 Basin: 014,<br>00 Project Status: Ongoing<br>Hillsborough County Water Department<br>Jim Duncan<br>Ramoy, Alison<br>Nicholas LoPresti<br>Coop

DESCRIPTION: This project consists of the design and construction of one 5 million gallon ( mg ) storage tank located at the existing Van Dyke Wastewater Treatment Plant (WWTP), along with required electrical systems, controls, telemetry, piping and valving necessary to connect with Hillsborough County's Northwest reuse system. The tank will replace storage ponds that already exist at the WWTP. The project also includes the expansion of the reclaimed water pumping capacity at this location through replacement of existing fixed speed pumps with variable speed pumps andor expansion by addition of two new variable speed pumps.
Benefits: The county views the project as one that will provide 5 mg of reclaimed water storage. However, the proposed tank will replace existing pond storage.
Costs: The total project cost is $\$ 3,000,000$, and the District's share is expected to be $\$ 1,500,000$. The Northwest Hillsborough Basin Board budgeted $\$ 300,000$ in FY2004, $\$ 300,000$ in FY2005, and is being requested to fund $\$ 900,000$ in FY2007. The cost benefit cannot be calculated, since any offsets will be associated with future customers.
ADDITIONAL INFORMATION: Design and construction of this project is anticipated to cost $\$ 3,000,000$, with $\$ 600,000$ allocated for design. The Van Dyke WWTP will be removed from service by 2007. The site will then be used for wastewater repumping and the storage and distribution of reclaimed water. The County is currently modifying the wastewater handling equipment at this location to send untreated flows to the Northwest Regional plant Reclaimed water from the Northwest Regional plant will be returned to the proposed ground storage tank which will replace the existing storage ponds at the facility. The expanded reclaimed water pumps and associated piping will then be used to improve and increase the hydraulic capabilities to meet existing (peak) customer demands in the Northwest Reclaimed Water System. Reclaimed water customers served by the Van Dyke reclaimed water storage tank and pump station will include the Van Dyke Farms subdivision (423 units), the Cheval subdivision (412 units), and other smaller commercial customers. The Van Dyke pump station pumped out an average of 0.78 mgd in FY 2002 , utilizing on-site pond storage. Anticipated build out capacity is 2.53 mgd.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> Fund |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Northwest Hillsborough Basin | $\$ 602,387$ | $\$ 0$ | $\$ 0$ | $\$ 0$ | $\$ 602,387$ | $\$ 0$ |
| Hillsborough County | $\$ 600,000$ | $\$ 450,000$ | $\$ 450,000$ | $\$ 0$ | $\$ 1,500,000$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 2,102,387$ | $\$ 0$ |


| Critical Project Milestones: | Projected: | Amended: | Actual: |
| :---: | :---: | :---: | :---: |
| District Recognition/Signage: YES |  |  |  |
| Signage in Place | 12/10/2005 |  |  |
| Draft Agreement to CONTRACTS: | 10/01/2003 | ------------- | 10/01/2003 |
| Agreement to Cooperator for Signature | 01/15/2004 | ------------ | 06/06/2004 |
| Contract Executed: | 01/15/2005 | ------------ | 03/04/2005 |
| Notice to Proceed: | 01/31/2005 | ------------ | 03/07/2005 |
| Project Design | 08/12/2005 | ------------ | 12/07/2005 |
| Develop Construction Contract | 08/13/2005 | ------------ | 10/21/2005 |
| Solicit Bids | 09/10/2005 | ------------ | 11/23/2005 |
| Select Contractor/Award Contract | 12/09/2005 | ------------ | 12/01/2005 |
| Notice to Proceed | 12/10/2005 | 01/18/2006 | 01/18/2006 |
| Construction Completion | 09/30/2007 | ------------- | ------------- |
| Project Closeout | 12/31/2007 | ------------- | ------------ |

Status As Of: 11/02/2006-The BOCC awarded the construction contract to Brandes Design-Build at its meeting on January 18, 2006. The bid documents that the District received revealed a discrepancy from the amount of storage that was originally proposed. It does not appear that this will affect the intent of the project. Project managers from both agencies will address any administrative changes that need to be made as a result. The county anticipates completing construction in December 2006, well ahead of the anticipated schedule. The county has reported that the project cost is within the budget. A total of $\$ 600,000$ has been encumbered through FY2005 toward completion of the project. The cooperator requested, but did not receive, the remaining $\$ 900,000$ for funding in FY2007. No invoices have been received.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

Tampa Plumbing Retrofit and Education Project
L276 Basin: 014,
01 Project Status: Ongoing
Tampa Water Department
Sandra Anderson
Castor, Malcolm
Coop

DESCRIPTION: This project offers financial incentives to water customers within the Tampa Water Department's (TWD) service area to replace existing high-volume fixtures, i.e., showerheads, faucet aerators, and toilets, with ultra-low flow (ULF) models to save potable water. The FY2005 project proposes to retrofit 2,200 single-family, multi-family, and/or commercial accounts with ULF fixtures on a first come, first served basis. It is part of an on-going city program in which a separate project in the overall program begins each fiscal year.
Benefits: The project will provide potable water savings of 66,800 gallons per day (gpd) or 24.4 million gallons per year.
Costs: The total FY2005 cost for this project is $\$ 300,000$, with the District requested to fund 33 percent, or $\$ 100,000$, through the Northwest Hillsborough Basin Board. The cost per 1,000 gallon (Kgal) saved, amortized at 8 percent over 20 years,is \$1.24/1,000 gallons.
ADDITIONAL INFORMATION: The contractor is responsible for processing applications, inspecting the plumbing retrofits, mailing rebate checks, mailing and compiling customer satisfaction data (survey), and reporting water savings, numbers of retrofits, costs per toilet, and rebate (by Basin Board) locations. District funding is used for the rebate incentive while the City funding covers administrative costs and the retrofit kits. The project also includes an on-going education component to educate current and previous rebate customers in the identification of leaky toilet flappers and selection of appropriate replacement flappers to assure continued water savings from low-flow toilets. Approximately 28,000 toilets have been replaced in the TWD service area since 1993. The City has more than 65,000 pre-1995 single-family residences that still require retrofitting. An estimated 496,000 plus toilets that use 3.5 gpf or more remain. The project will be completed within one year from the notice to proceed. The project is part of the City's five-year plan and is also one of the Best Management Practices listed in the Tampa Bay Water (TBW) Partnership Guidelines established between the Southwest Florida Water Management District, TBW, and its member governments. In addition, water conservation and education is included in the Hillsborough River Watershed Management Plan's (2000) Action Plan.


Status As Of: 10/18/2006 - The City was granted an extension of time to complete the project final report. The report due date was extended to September 15, 2006, and was received on September 12, 2006. The first and final invoice has also been submitted, and is being processed. Project funding of $\$ 100,000$ has been encumbered and no funds have been expended to date.

| Project: | Tampa Plumbing Retrofit \& Education Project-2006 |
| :--- | :--- |
| Project \#: | L442 Basin: 014, |
| Phase: | 01 Project Status: Ongoing |
| Cooperator: | Tampa Water Department |
| Coop. Contact: | Sandra E. Anderson |
| Project Manager: <br> Task Manager: <br> Project Type: | Musicaro, Melissa |
|  | Coop |

DESCRIPTION: This project offers financial incentives to water customers within the Tampa Water Department's (TWD) service area to replace existing high-volume fixtures, i.e., showerheads, faucet aerators, and toilets, with ultra-low flow (ULF) models to save potable water. The FY2006 project proposes to retrofit 2,200 single-family, multi-family, and/or commercial accounts with ULF fixtures on a first come, first served basis. It is part of an on-going city program in which a separate project in the overall program begins each fiscal year.
Benefits: The project will provide potable water savings of 66,800 gallons per day (gpd) or 24.4 million gallons per year.
Costs: The total cost for this FY2006 project is $\$ 300,000$, with the District requested to fund 33 percent, or $\$ 100,000$, through the Northwest Hillsborough Basin Board. The cost per 1,000 gallon (Kgal) saved, amortized at 8 percent over 20 years, is $\$ 1.23 / 1,000$ gallons.
ADDITIONAL INFORMATION: The contractor is responsible for processing applications, inspecting the plumbing retrofits, mailing rebate checks, mailing and compiling customer satisfaction data (survey), and reporting water savings, numbers of retrofits, costs per toilet, and rebate (by Basin Board) locations. District funding is used for the rebate incentive while the City funding covers administrative costs and the retrofit kits. The project also includes an on-going education component to educate current and previous rebate customers in the identification of leaky toilet flappers and selection of appropriate replacement flappers to assure continued water savings from low-flow toilets. Approximately 28,000 toilets have been replaced in the TWD service area since 1993. The City has more than 65,000 pre-1995 single-family residences that still require retrofitting. An estimated 496,000 plus toilets that use 3.5 gpf or more remain. The project will be completed within one year from the notice to proceed. The project is part of the City's five-year plan and is also one of the Best Management Practices listed in the Tampa Bay Water (TBW) Partnership Guidelines established between the Southwest Florida Water Management District, TBW, and its member governments. In addition, water conservation and education is included in the Hillsborough River Watershed Management Plan’s (2000) Action Plan.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Northwest Hillsborough Basin | $\$ 0$ | $\$ 102,061$ | $\$ 1,693$ | $\$ 0$ | $\$ 103,754$ | $\$ 0$ |
| City of Tampa | $\$ 0$ | $\$ 200,000$ | $\$ 0$ | $\$ 0$ | $\$ 200,000$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 303,754$ | $\$ 0$ |


| Critical Project Milestones: | Projected: | Amended: | Actual: |
| :---: | :---: | :---: | :---: |
| District Recognition/Signage: NA |  |  |  |
| Contract Executed | 03/31/2006 | ------------ | 05/12/2006 |
| Notice to Proceed | 04/01/2006 | -------------- | 05/15/2006 |
| Solicit Rebate Coordination Contractor | 04/15/2006 | -------------- | --------------- |
| Select Rebate Coordination Contractor | 06/01/2006 | -------------- | -------------- |
| Start Program \& Educational Campaign | 07/31/2006 |  | -------------- |
| Project Evaluation | 06/01/2007 | -------------- | -------------- |
| Contract Close-out | 07/31/2007 | -------------- | -------------- |
| Final Report | 09/30/2007 | ---------- | -------------- |

Status As Of: 08/24/2006 - The cooperator's existing contract with their consultant has been extend to encompass the FY2006 work. FY2006 funding totalling $\$ 100,000$ has been encumbered and no money will be expended until the work has been initiated and invoicing with supporting documentation is received.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

Education Exhibits in the New Children's Museum of Tampa - Phase I
L693 1 Basin: 011,013,014,015,016,019,020,021, 01 Project Status: Ongoing
The Children's Museum of Tampa
Becky Clayton
O'Neil, Raina
Coop

DESCRIPTION: The Children's Museum of Tampa (CMT) is relocating to a new museum site in Riverfront Park in downtown Tampa. This project focuses on the planning and development phase of two interactive water exhibits for the new museum site. The first exhibit is a "Water Bank," which builds beginning concepts about water's importance, uses and conservation. Visitors will learn through play that a bank is a place where one can safely keep and withdraw a resource, such as water, and that resources cannot be withdrawn without replenishing. The second exhibit is a "Climber" which may be modeled as an aquifer. Museum visitors would move through the climber, starting deep within the aquifer, climbing through, eventually penetrating the surface, which would then become the watershed, climbing through the trees to the upland area. The hydrologic cycle may also be incorporated into the exhibit, using the climber as a way to talk about water, watersheds, flooding and hurricanes.
Benefits: The exhibits are multi-disciplinary, integrating Sunshine State Standards and diverse learning styles. This project has the potential to reach 100,000 people annually. The proposed exhibits forward the District's watershed education efforts through interactive, hands-on water exhibits.
Costs: The total cost of Phase 1 is $\$ 1,435,000$, and the District's share of $\$ 112,500$ is contributed by all basin boards and have been calculated based on estimated attendance projections received from the Children's Museum 4/21/2006: (Alafia River--\$14,850, Hillsborough River--\$33,075, Northwest Hillsborough--\$19,575, Coastal Rivers--\$2,973, Pinellas-Anclote River--\$28,125, Withlacoochee River--\$2,381, Peace River--\$6,167, Manasota--\$5,354). The Cooperator projects 100,000 people per year will attend the museum. Using an expected 10-year exhibit life, the cost benefit ratio is projected to be $\$ .11$ per visitor. These funds are for exhibit development only. The cooperator will request future funding for building the exhibits and for programming on an as-needed basis.
ADDITIONAL INFORMATION:

- The interactive nature of the exhibits and the incorporation of different learning styles into the exhibit design, make this project highly effective and of great educational value.
- The Children's Museum's primary audience is children ages 0-10 years and accompanying adults. This segment of the population was identified in a 2002 independent evaluation of the District's Youth Education Program as one to which the District needed to expand its reach.
- The Children's Museum staff hosted workshops with District staff and BBEC members to determine the specific water education components of each exhibit.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> $\mathbf{2 0 0 7}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Alafia River Basin | $\$ 0$ | $\$ 0$ | $\$ 14,850$ | $\$ 0$ | $\$ 14,850$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 0$ | $\$ 0$ | $\$ 33,075$ | $\$ 0$ | $\$ 33,075$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 0$ | $\$ 0$ | $\$ 19,575$ | $\$ 0$ | $\$ 19,575$ | $\$ 0$ |
| Coastal Rivers Basin | $\$ 0$ | $\$ 0$ | $\$ 2,973$ | $\$ 0$ | $\$ 2,973$ | $\$ 0$ |
| Pinellas-Anclote River Basin | $\$ 0$ | $\$ 0$ | $\$ 28,125$ | $\$ 0$ | $\$ 28,125$ | $\$ 0$ |
| Withlacoochee River Basin | $\$ 0$ | $\$ 0$ | $\$ 2,381$ | $\$ 0$ | $\$ 2,381$ | $\$ 0$ |
| Peace River Basin | $\$ 0$ | $\$ 0$ | $\$ 6,167$ | $\$ 0$ | $\$ 6,167$ | $\$ 0$ |
| Manasota Basin | $\$ 0$ | $\$ 0$ | $\$ 5,354$ | $\$ 0$ | $\$ 5,354$ | $\$ 0$ |
| The Children's Museum of | $\$ 0$ | $\$ 0$ | $\$ 1,322,500$ | $\$ 0$ | $\$ 1,322,500$ | $\$ 0$ |
| Tampa |  |  |  | $\$ 1,435,000$ | $\$ 0$ |  |

[^2]Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

Dale Mabry: Neptune to Henderson Stormwater Improvements
L741 Basin: 013,014,
01 Project Status: Ongoing
Tampa
Jasmine G. Arenas
Letasi, Scott
Coop

DESCRIPTION: This is a multi-year funded project to perform the Implementation of Best Management Practices (BMPs) element of the District's Watershed Management Program (WMP) for the City of Tampa Watershed. This BMP will be implemented in the Dale Mabry:Neptune to Henderson stormwater improvement area. Implementation of BMPs includes the following tasks: design, development of construction documents, construction permitting, bidding, contractor selection, and construction. The watershed covers an area of approximately 3.66 square miles and is located in the City of Tampa. The proposed BMPs will address level of service deficiencies.
Benefits: The project will provide treatment removal of pollutants, add conveyance and storage to provide an improved level of service to minimize flooding and damage to homes and streets during a 100 year flood event. The addition of sediment sumps will remove sediments from the stormwater system and improve water quality. This project will provide benefits to a primary evacuation route for South Tampa. Secondary benefits of the project include alleviation of street and yard flooding problems in the heart of Palma Ceia, north of Bay to Bay between Himes and MacDill Avenues.
Costs: The total budget amount for this project is $\$ 20,185,000$, of which the City is requesting the District contribute $\$ 8,500,000$ over several years ( $\$ 5,100,000$ from the Hillsborough River Basin and $\$ 3,400,000$ from the Northwest Hillsborough Basin). The City is contributing $\$ 4,500,000$ in FY2007 and requesting $\$ 4,500,000$ from the District ( $\$ 2,700,000$ from the Hillsborough Basin and $\$ 1,800,000$ from the Northwest Hillsborough Basin). When each element of the project is complete the project budget may require refinement based on the information gathered. The probable construction costs for this project are based on the BMP alternative analysis developed with the Watershed Management Plan in 2005 by the City of Tampa.
ADDITIONAL INFORMATION: The WMP includes five major elements: Topographic Information, Watershed Evaluation, Watershed Management Plan, Implementation of BMPs, and Maintenance of Watershed Parameters and Models. Implementing elements of the WMP with local governments is one of the Comprehensive Watershed Management (CWM) initiative strategies. The WMP provides a method to evaluate the capacity of a watershed to protect, enhance, and restore water quality and natural systems, while achieving flood protection. The alternative analysis was completed by the City of Tampa in 2005. A cooperative funding expenditure agreement with City of Tampa will be developed as a mult-year funded project contingent on the approval of future funding to complete the Implementation of BMPs. This is a multi-year funded project that will require a cooperative funding request each fiscal year until completed. If approved, this project will be ranked as a 1A project in future fiscal years. The City of Tampa will manage the project, where the District project manager must approve any agreements to accomplish project tasks. Currently (FY2006) design and engineering is underway. The next phase of the project includes the completion of the engineering and construction of a new outfall to connect existing inlets on Dale Mabry Highway to Hillsborough Bay at the intersection of Granada Street and Bayshore Boulevard Along the route, new inlets and laterals will be added in order to pick up existing street and yard flooding problems in the Palma Ceia area A large box culvert system will be constructed under the CSX Transportation railroad tracks and the Crosstown Expressway in order to reach the Bay. This route is the preferred alternative in a series of solutions investigated for this flooding problem. The third phase of the project will be the construction of a system along Dale Mabry Highway to pick up additional flooding areas With FY2007 funding the work on the design phase of the Dale Mabry Project can be completed. When each phase of the project is complete the project budget will be refined based on the information gathered.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| The City of Tampa | $\$ 185,000$ | $\$ 3,000,000$ | $\$ 4,500,000$ | $\$ 4,000,000$ | $\$ 11,685,000$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 0$ | $\$ 0$ | $\$ 2,702,273$ | $\$ 2,400,000$ | $\$ 5,102,273$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 0$ | $\$ 0$ | $\$ 1,802,273$ | $\$ 1,600,000$ | $\$ 3,402,273$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 20,189,546$ | $\$ 0$ |

Critical Project Milestones:
Projected: Amended: Actual: District Recognition/Signage:

Status As Of: 10/25/2006-Cooperative Funding Agreement is currently under development. A project meeting with the City and District was conducted on October 5, 2006 to discuss the agreement, design schedule, and project schedule.

Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:
DESCRIPTION: This project offers financial incentives to water customers within the Tampa Water Department's (TWD) service area to replace existing high-volume fixtures, i.e., showerheads, faucet aerators, and toilets, with ultra-low flow (ULF) models to save potable water. The FY2007 project proposes to retrofit 2,200 single-family, multi-family, and/or commercial accounts with ULF fixtures on a first come, first served basis. It is part of an on-going city program in which a separate project in the overall program begins each fiscal year.
Benefits: The project will provide potable water savings of 66,800 gallons per day (gpd) or 24.4 million gallons per year.
Costs: The total cost for this FY2007 project is $\$ 330,000$, with the District requested to fund 33 percent, or $\$ 110,000$, through the Northwest Hillsborough Basin Board. The cost per 1,000 gallon (Kgal) saved, amortized at 8 percent over 20 years, is $\$ 1.36 / \mathrm{Kgal}$.
ADDITIONAL INFORMATION: The contractor is responsible for processing applications, inspecting the plumbing retrofits, mailing rebate checks, mailing and compiling customer satisfaction data (survey), and reporting water savings, numbers of retrofits, costs per toilet, and rebate (by Basin Board) locations. District funding is used for the rebate incentive while the City funding covers administrative costs and the retrofit kits. The project also includes an on-going education component to educate current and previous rebate customers in the identification of leaky toilet flappers and selection of appropriate replacement flappers to assure continued water savings from low-flow toilets. Approximately 28,000 toilets have been replaced in the TWD service area since 1993. The City has more than 65,000 pre-1995 single-family residences that still require retrofitting. An estimated 496,000 plus toilets that use 3.5 gpf or more remain.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| City of Tampa | $\$ 0$ | $\$ 0$ | $\$ 220,000$ | $\$ 0$ | $\$ 220,000$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 0$ | $\$ 0$ | $\$ 111,693$ | $\$ 0$ | $\$ 111,693$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 331,693$ | $\$ 0$ |

Critical Project Milestones:
Projected: Amended: Actual: District Recognition/Signage:

Status As Of: 10/18/2006 - An Agreement is in the process of being drafted.

Project: MFLs for Marshes - A Study to Determine the Usefulness of Spartina bakeri and
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type: Juncus effusus as Estimators of Normal Pool Elevations
L756 1 Basin: 011,013,014,
01 Project Status: Ongoing
Hillsborough County
Gordon A. Leslie, P.G.
Rochow, Ted
Ted Rochow/DEV/swfwmd
Coop
DESCRIPTION: The SWFWMD has been a pioneer in the development of MFL methodologies. The EPC and technical experts common to both organizations have been instrumental in helping the District in its development and implementation of MFLs. One type of natural system that remains in need of an MFL methodology is the herbaceous marsh. The herbaceous marsh often does not have cypress (cypress serve as a means for determining Normal Pool elevations). Often these marshes do not have fringing palmetto (another documented means for determining Normal Pools). Yet, these herbaceous systems are an important wetland feature in much of the landscape, and are deserving of an MFL Methodology. The Marsh MFL Study will examine the potential use of two species of plants commonly occurring in herbaceous marsh systems for use as indicators of Normal Pool. These plants are: Spartina bakeri and Juncus effusus. Preliminary work indicates that these two species are long-lived and persistent. They are not expected to appear and disappear from year to year depending upon short-term hydrologic variations. The proposed study will examine the outer edge elevations of these species in wetlands that do contain either cypress or are edged by palmetto. The cooperator proposes to examine no less than 50 of these wetlands. At each wetland, the cooperator will determine the Normal Pool elevation based upon the cypress (including Lyonia component) and/or the palmetto, using the methodologies established in District rules. The cooperator will then survey a minimum of 9 (each) of the outermost Spartina and Juncus elevations in each of these wetlands, and will calculate median elevations for each herbaceous species for each wetland and compare those elevations to the Normal Pool elevation for that wetland. The cooperator will determine for each species whether there is a definable outer edge elevation that is consistent with respect to Normal Pool (much as was done by the District with the palmetto offset with respect to cypress). The cooperator has already begun locating wetlands containing all the necessary species, and they are completing a pilot exercise. The results of this pilot project work are sufficiently promising to warrant a full study. From this work, the District can determine whether either or both herbaceous species are reliable indicators of Normal Pool. If deemed so, these species may be utilized in the development of an MFL methodology for herbaceous systems.
Benefits: The project is expected to result in a methodology suitable for establishing MFL in marshes. These systems often lack one of the traditional indicators of Normal Pool. This project will determine if one of two commonly occurring herbaceous plants can be used as an indicators of Normal Pool in wetland marshes. Costs: The total project cost is $\$ 60,000$, and the District's share of this project is $\$ 30,000$ to be equally funded by the Alafia River $(\$ 10,000)$, Hillsborough $(\$ 10,000)$ and Northwest Hillsborough $(\$ 10,000)$ Basin Boards, since marsh systems that will be evaluated are located within these three basins.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Alafia River Basin | $\$ 0$ | $\$ 0$ | $\$ 10,000$ | $\$ 0$ | $\$ 10,000$ | $\$ 0$ |
| Hillsborough River Basin | $\$ 0$ | $\$ 0$ | $\$ 10,000$ | $\$ 0$ | $\$ 10,000$ | $\$ 0$ |
| Northwest Hillsborough Basin | $\$ 0$ | $\$ 0$ | $\$ 10,000$ | $\$ 0$ | $\$ 10,000$ | $\$ 0$ |
| EPC Hillsborough Co. | $\$ 0$ | $\$ 0$ | $\$ 30,000$ | $\$ 0$ | $\$ 30,000$ | $\$ 0$ |
| TOTAL |  |  |  |  | $\$ 60,000$ | $\$ 0$ |

Critical Project Milestones: Projected: Amended: Actual: District Recognition/Signage: NA

Status As Of: 10/31/2006-A scope of work is being developed by the applicant.

| Project: | Casey Lake Manors Reclaimed Water Distribution Project |
| :--- | :--- |
| Project \#: | L760 1 Basin: 014, |
| Phase: | 01 Project Status: Ongoing |
| Cooperator: | Hillsborough County Water Department |
| Coop. Contact: | Jim Duncan |
| Project Manager: | Ramoy, Alison |
| Task Manager: | Nicholas LoPresti |
| Project Type: | Coop |

DESCRIPTION: This project includes the construction of approximately 2,400 LF of 4 -inch and 6-inch reclaimed water distribution pipelines and associated appurtenances to be located within the Casey Lake Manors residential subdivision. Miscellaneous valves, tees, controls, and telemetry are to be included to connect to Hillsborough County's Northwest reuse system. Residents will be individually metered and charged using a tiered, inclining rate structure according to usage per the county's current rate resolution.
Benefits: The project is expected to provide 0.022 mgd of reclaimed water to 42 single-family residences to offset 0.011 mgd of potable water.

Costs: The total project cost is $\$ 246,000$, and the District's share is requested to be $\$ 123,000$. The Northwest Hillsborough Basin Board is requested to fund $\$ 98,400$ in FY2007. An additional $\$ 49,200$ has been allocated in FY2007 from the Water Protection and Sustainability Trust Fund. The cost, amortized at 8 percent over 30 years, is $\$ 5.37$ per thousand gallons offset.
ADDITIONAL INFORMATION: Design and construction of this project is anticipated to cost $\$ 288,000$, with $\$ 42,000$ allocated for design and $\$ 246,000$ allocated for construction. However, the funding request is only for the construction portion of the project. This project is enabled through the county's Reclaimed Water Improvement Unit (RWIU) program, whereby a majority ( 51 percent or greater) of residents petition for reclaimed water service. The residents are not required to connect to the reuse system, but records show that 80 percent of residences in RWIUs do connect. In this neighborhood, the county has estimated that about 90 percent of 47 residences will connect. Based on estimated flows and offsets from the county, the efficiency is estimated to be 50 percent.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Northwest Hillsborough Basin | $\$ 0$ | $\$ 0$ | $\$ 100,657$ | $\$ 0$ | $\$ 100,657$ | $\$ 0$ |  |
| Hillsborough County | $\$ 0$ | $\$ 36,000$ | $\$ 93,000$ | $\$ 36,000$ | $\$ 165,000$ | $\$ 0$ |  |
| Wtr prot Sust T.F. | $\$ 0$ | $\$ 0$ | $\$ 49,200$ | $\$ 0$ | $\$ 49,200$ | $\$ 0$ |  |
| TOTAL |  |  |  |  | $\$ 314,857$ | $\$ 0$ |  |
|  |  |  |  |  |  |  |  |
| Critical Project Milestones: |  |  | Projected: | Amended: | Actual: |  |  |
| District Recognition/Signage: |  |  |  |  |  |  |  |
| Status As Of: - |  |  |  |  |  |  |  |


| Project: | Bordeaux Village Reclaimed Water Distribution Project |
| :--- | :--- |
| Project \#: | L763 1 Basin: 014, |
| Phase: | 01 Project Status: Ongoing |
| Cooperator: | Hillsborough County Water Department |
| Coop. Contact: | Jim Duncan |
| Project Manager: | Ramoy, Alison |
| Task Manager: | Nicholas LoPresti |
| Project Type: | Coop |

DESCRIPTION: This project includes the construction of approximately $6,800 \mathrm{LF}$ of 4 -inch and 6 -inch reclaimed water distribution pipelines and associated appurtenances to be located within the Bordeaux Village (Cheval) residential subdivision. Miscellaneous valves, tees, controls, and telemetry are to be included to connect to Hillsborough County's Northwest reuse system. Residents will be individually metered and charged using a tiered, inclining rate structure according to usage per the county's current rate resolution.
Benefits: The project is expected to provide 0.063 mgd of reclaimed water to 66 single-family residences to offset 0.033 mgd of potable water.

Costs: The total project cost is $\$ 554,000$, and the District's share is requested to be $\$ 277,000$. The Northwest Hillsborough Basin Board is requested to fund $\$ 221,600$ in FY2007. An additional $\$ 110,800$ has been allocated in FY2007 from the Water Protection and Sustainability Trust Fund. The cost, amortized at 8 percent over 30 years, is $\$ 4.01$ per thousand gallons offset.
ADDITIONAL INFORMATION: Design and construction of this project is anticipated to cost $\$ 650,000$, with $\$ 96,000$ allocated for design and $\$ 554,000$ allocated for construction. However, the funding request is only for the construction portion of the project. This project is enabled through the county's Reclaimed Water Improvement Unit (RWIU) program, whereby a majority ( 51 percent or greater) of residents petition for reclaimed water service. The residents are not required to connect to the reuse system, but records show that 80 percent of residences in RWIUs do connect. In this neighborhood, the county has estimated that about 90 percent of 73 residences will connect. Based on estimated flows and offsets from the county, the efficiency is estimated to be 53 percent.


Project:
Project \#:
Phase:
Cooperator:
Coop. Contact:
Project Manager:
Task Manager:
Project Type:

## FEMA Map Modernization Management Support

M118 Basin: 010,011,013,014,015,016,019,020,021, 00 Project Status: Ongoing
Federal Emergency Management Agency
Bruce Buckerfield and Sandra McNease
Dunham, Stephanie
Jamison Janke/MAN/swfwmd
FEMA/Map Modernization

DESCRIPTION: This project is to provide management support for Federal Emergency Management Agency (FEMA) flood insurance rate map (FIRM) modernization projects throughout the District (please reference projects M101-M116). Under these Map Modernization projects the FIRMs will reflect updated flood hazard risk areas and be modernized to a digital product. The updated flood hazard risk areas are being developed by the District through the 1) Topographic Information, 2) Watershed Evaluation, and 3) Watershed Management Plan elements of the District's Watershed Management Program (WMP). Map Modernization management support (MMMS) funds supplement the ongoing activities already being performed by staff including, but not limited to coordination and effort in building partnerships, information technology systems, program management planning, hydrologic and hydraulic review, and outreach.
Benefits: The WMP provides a method to evaluate the capacity of a watershed to protect, enhance, and restore water quality and natural systems, while achieving flood protection. The information developed provides the science for the District's Resource Management and Environmental Resource Permitting (ERP). It assists local governments: 1) With their land management responsibilities by establishing a level of service and developing Best Management Practices (BMPs) to address level of service deficiencies. 2) Provides a Geodatabase and projected results from watershed model simulations for floodplain management, and water quality management through the Total Maximum Daily Loads (TMDL) process for their National Pollution Discharge Elimination System (NPDES) permit requirements. The FIRMs are used by local governments for land management and building permitting to satisfy the minimum requirements of the National Flood Insurance Program. Costs: The total amount for MMMS is $\$ 1.014$ million to be funded by FEMA. The District has received a total of $\$ 643,620$ in FEMA MMMS that has been included in the Governing Board's FY2005, FY2006 and FY2007 budgets as revenue. District Staff anticipate an additional $\$ 500,000$ to be funded by FEMA for ongoing MMMS activities in FY2008 and FY2009. The District funding amounts shown in the table represents staff salaries.
ADDITIONAL INFORMATION: The WMP includes five major elements: 1) Topographic Information, 2) Watershed Evaluation, 3) Watershed Management Plan, 4) Implementation of Best Management Practices, and 5) Maintenance of Watershed Parameters and Models. Implementing elements of the WMP with local governments is one of the Comprehensive Watershed Management (CWM) initiative strategies. The District is cooperating with FEMA to modernize the FIRMs throughout the District. Staff has worked with the FEMA to improve and formalize the District's relationship with a federal agency that shares flood protection responsibilities. FEMA and the District executed a Cooperating Technical Partners (CTP) Memorandum of Agreement on September 14, 2001. As a CTP, the District is eligible for federal grants and matching funds to further efforts to modernize the FIRMs. Each year the District enters into a cooperative agreement with FEMA for MMMS funding that defines the activities that will be performed. \$250,000 in funding (grant EMA-2004-CA-5038) for FY2005 is being used to provide a meeting facilitator for ongoing coordination meetings between the water management districts, FEMA Region 4, and the Florida Department of Community Affairs; develop a District-wide FIRM paneling scheme; determine the feasibility of expanding the District's role in distributing digital FIRMs to the public; maintaining the digital FIRMs; and revising the FIRMs simultaneously with the ERP application review. For FY2005, a total of $\$ 3000,000$ was actually budgeted in the General Fund with associated revenue. The $\$ 50,000$ difference between expected funding and actual was rolled into the FY2006 budget. For FY2006 FEMA has granted (EMA-2005-CA-5244) the five water management districts $\$ 120,000$ in MMMS to hire an outreach facilitator and develop design storm rainfall depth criteria for the entire State. The District will manage the project and contract with consultants on behalf of the other water management districts. In addition, the District received additional MMMS $(\$ 144,000)$ in FY2006 to support outreach efforts, allow the District to develop quality control/quality assurance tools, and support staff travel to meetings and conferences related to this effort. For FY2007, the District has received $\$ 129,620$ from FEMA for continued travel support, outreach efforts, management assistance, and an XML-based export to for the District's Geographic Watershed Information System to populate FEMA's database. The District will coordinate with the local government(s), will manage the project, and will enter into purchase orders and agreements to accomplish project tasks.

| Source | Prior <br> Funding | FY 2006 <br> Budget | FY 2007 <br> Budget | Future <br> Funding | Total <br> Funding | Expended <br> 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FEMA | $\$ 250,000$ | $\$ 264,000$ | $\$ 129,620$ | $\$ 500,000$ | $\$ 1,143,620$ | $\$ 0$ |

Critical Project Milestones:
District Recognition/Signage:
FEMA \& District Recognition on Reports

## FY2005

Develop Mutually Agreeable Scope of Work for MMMS
Execute FEMA Agreement Articles and Related Forms
Develop Consultant Agreement
Draft Agreement to Management Services
Draft Agreement returned from Management Services
Contract Execution
Notice to Proceed
Contract Termination
Develop First Amendment to Consultant Service Agmt
Draft Amendment to Management Services
Amendment Execution

## FY2006

Develop Application for competitive MMMS (FL WMD)
Execute FEMA Agreement Articles and Related Forms
Develop State Outreach Facilitator Purchase Order Purchase Order Execution
Purchase Order Termination
Develop Rainfall Frequency Analysis Purchase Order
Purchase Order Execution
Purchase Order Termination
Develop Cooperative Agreement for MMMS (District)
Execute FEMA Agreement Articles and Related Forms
Develop District Outreach Facilitator Purchase Order
Purchase Order Execution
Purchase Order Termination

## FY2007

Develop Application for competitive MMMS
Execute FEMA Agreement Articles and Related Forms
Develop XML-base Export System Purchase Order
Purchase Order Execution
Purchase Order Termination

Develop Cooperative Agreement for MMMS
Execute FEMA Agreement Articles and Related Forms
Develop Map Modernization Program Assistance Purchase
Order
Purchase Order Execution
Purchase Order Termination

Projected: Amended: Actual:
$\qquad$

05/26/2006
05/26/2006
09/22/2006
11/30/2006
12/31/2006

09/30/2004
11/30/2004
11/30/2004
01/07/2005
01/21/2005
03/04/2005
03/04/2005
07/21/2006
07/07/2006
07/12/2006
09/18/2006
--FY2006--
--Y2006--
05/18/2005
12/02/2005
02/21/2006
03/02/2006
06/01/2006
07/20/2006

06/01/2005
12/02/2005
02/21/2006
03/02/2006

03/27/2006
09/28/2006
09/22/2006
11/30/2006
12/31/2006
09/30/2004
11/24/2004
11/19/2004
01/07/2005
02/04/2005
03/01/2005
03/01/2005

08/02/2006
08/02/2006

06/01/2005
10/31/2005
01/30/2006
02/28/2006
12/31/2006
06/01/2006
06/30/2006
06/30/2007

06/07/2005
10/31/2005
01/30/2006
02/28/2006
12/31/2006

03/27/200

09/29/2006
$\qquad$

Status As Of: 11/14/2006 - FY2005: A fully executed FEMA Form 76-10 to MMMS Grant, EMA-2004-CA-5038 has been returned to the District. The form awards funds pursuant to the approved Statement of Work. Forms SF424 and FEMA 20-20 have also been executed by the Executive Director and transmitted to FEMA to support these funds. The consultant agreement with URS Corporation Southern was executed on March 1, 2005. Work Orders \#1, \#2, and \#3 have been executed. Work Order \#1 is to incorporate a Hazard Mitigation Component into the District's Business Plan for Map Modernization. Work Order \#2 is to develop a District-wide flood insurance rate map (FIRM) paneling scheme to support the District's efforts in modernizing and updating the FIRMs throughout the District. The draft paneling scheme has been prepared and submitted to surrounding water management districts (South Florida, St. Johns River, and Suwannee River). Work Order \#3 supplies a moderator for ongoing coordination meetings among staff from the five water management districts regarding Map Modernization and a Sharepoint site for staff to access minutes and associated documents. Work Order \#4 continues meeting facilitation support for another year. Staff continues to develop the scope and associated fees to determine the District's ability and resulting issues of reviewing Letters of Map Change (LOMC) simultaneously
with ERPs. Staff meet with FEMA on November 1, 2006, to discuss the future maintenance of parameters, models, and maps. FY2005 funds have been encumbered via an amendment to URS' agreement, which has been executed. FY2006: An additional $\$ 120,000$ in funds have been approved by FEMA for the five Florida water management districts. These funds were approved to facilitate Map Modernization outreach for all five districts and to support the development of statewide isopluvial maps for various design storm events. The District will contract with consultants and manage the projects on behalf of the other four water management districts. A purchase order has been developed with UCF for $\$ 60,000$ to begin resolving design rainfall depth differences between WMDs. Additionally, the District has authorized a purchase order for outreach consulting services to support the Map Modernization effort of all the WMDs $(\$ 45,000)$ and specific needs of the District $(\$ 48,000)$. Bender Consulting is providing outreach planning support to review completed and ongoing outreach efforts associated with each project and provide messages and direction to enhance future outreach. A total of $\$ 63,000$ in funds for the quality control and assurance tools has been encumbered through an amendment to JEA's service agreements for the Sarasota County Map Modernization (M115) project. The FY2005 consultant agreement with URS has been amended to include FY2006 funds for ongoing meeting facilitator services. Work Order \#4 has been executed with URS to provide facilitation services for four (4) additional quarterly meetings. Remaining funds are to reimburse the District for travel and video conferencing expenses. Funds that have not been expended have been board encumbered ( $\$ 13,000$ ). FY2007: The District has been granted an additional $\$ 60,000$ in competitive MMMS for FY2007 to develop tools to export from the District enhanced ArcHydro database to FEMA's data capture standards. In addition, the District has been awarded \$69,200 in MMMS from FEMA to continue travel associated with Map Modernization, coordination meeting facilitation, and programmatic assistance. The FEMA forms to encumber these funds have been executed. Staff is negotiating work orders with the appropriate consultants for these efforts..

## Coop Funding by Basin

## Basin: Northwest Hillsborough Basin

| Project | Project Name | Project Cost |
| :--- | :--- | ---: |
| K057 | Hillsborough County Lake and Stream Monitoring Program | $4,354,571$ |
| K209 | Hillsborough County Adopt-A-Pond | 426,854 |
| L099 | Watershed Management Plan Updates | $3,300,000$ |
| L103 | Van Dyke Reclaimed Water Storage Tank and Pump Station Impro | $3,000,000$ |
| L693 | Water Education Exhibits in the New Children's Museum of Tam | $20,00,000$ |
| L741 | Dale Mabry: Neptune to Henderson Stormwater Improvements | $20,000,000$ |
| L807 | Brooker Creek Watershed Community Outreach Program Phase 2 | 106,721 |
| L828 | Drew Park Stormwater Improvements | $5,500,000$ |
| L834 | Geographical Information System (GIS) Dataset Development | $1,400,000$ |
| L835 | City of Tampa Water Conservation Education Project | 80,000 |
| L836 | Tampa Plumbing Retrofit \& Education Projec | 960,000 |
| L886 | Masterplan Maintenance Interface Tool Development | 760,000 |
| L890 | Closed Basin Percolation Rate Study | 160,000 |
| L891 | Lake Carroll Stormwater Input Determination Study | 280,000 |
| L892 | Brooker Creek Watershed-Optimized Gate Operation Schedule | 50,000 |

## 2008 COOPERATIVE FUNDING INITIATIVE APPLICATION FORM

Proposals more than two pages in length will not be recommended for funding by staff. The only supplemental information to be provided is a location map, a single page to document that the applicant's matching funds are in an existing or proposed budget or capital improvement plan, and a PC-compatible CD-ROM or 3.5 -inch diskette containing the completed application in Microsoft Word 2000 or equivalent. Additional Information may be required for the four project types as well as education projects. Please refer to the specific guidelines. Four copies of each project proposal must be submitted.

## ALTERATIONS TO THE APPLICATION ARE NOT PERMITTED. E-MAILS/FAXES WILL NOT BE ACCEPTED. (Computer users: select form fields with mouse or navigate fields with tab or arrow key)

| Project Name | Hillsborough County Lake and Stream Monitoring Program |
| ---: | :--- |
| Project \# | K057 |
| Cooperator | Hillsborough County |
| Contact Person | Jason Mickel |
| Address | Public Works Department, P.O. Box 1110, Tampa, FL 33601 |
| Phone \# | $\mathbf{8 1 3} 307$ 1824 |
| Emall Address | mickelj@hillsboroughcounty.org |
| District Project Manager | Adam Munson |

PROJECT TYPE: (Check all that apply. Computerusers: mouse-select box or navigate with tab or arrow key, use space bar to mark box)
$\square$ Water Supply
区 Water Quality
Flood Protection
区 Natural Systems

Indicate All Counties To Benefit from Project:

| $\square$ Charlotte | $\square$ Citrus |
| :--- | :--- |
| $\square$ Lake | $\square$ Levy |
| $\square$ Sarasota | $\square$ Sumter |

$\square$ DeSoto
$\square$ Manatee
$\square$ Hardee Marion
$\square$ Hernando
Pasco
Highlands Pinellas
$\boxed{\square}$ Hillsborough Polk

PROJECT DESCRIPTION: This is a continuation of the 1997-2007 Lake and Stream Monitoring Program. The objectives of this project are to: (1) update and maintain water quality, habitat and hydrologic conditions data for 120 county lakes and 20 stream sites in the University of Florida LAKEWATCH program that monitors lake conditions throughout the state; (2) provide training to citizen volunteers to collect field data and water quality samples; (3) educate and assist lake and stream property owners on lake/stream management techniques and water resources protection; (4) insure that all data are entered into the Hillsborough County Watershed Atlas web site (http://www.hillsborough.wateratlas.org) and that the site is kept current through data updates and new developmental tasks; and (5) employ the Atlas for watershed, lake habitat and hydrologic conditions education and as a central source for State, County and Volunteer data for citizens and water resource professionals.

Describe your organizations efforts in developing, implementing and enforcing water conservation and flood protection ordinances. Water Conservation: Hillsborough County was the premier local government to criminalize the violation of water use restrictions, and to adopt a civil citation process for the enforcement of the same in July 1993. A fulltime Water Conservation Manager assures that the County stays abreast of conservation issues. This facilitates amendments to the County's Water Conservation Ordinance (HCO 91-27) as needed to quickly address changing conditions in the regulatory environment and as deemed appropriate by the County's administration.

Flood Protection: The principal purpose of Hillsborough County's floodplain management program is to protect residents and business owners from flooding risks. Flooding disasters are the leading recurring hazard within the Courfyonis have the potential of affecting greater than one-quarter of the population at a value that is greater than five $b$ personal property. Construction standards and planning concepts are implemented through the Count Development Code, Floodplain Management Plan and Local Mitigation Strategy.

2008 Cooperative Funding Initiative Application Form

## SOUTHWEST FLORIDA Water Management District

| Funding Source | Prior <br> Funding | FY 2007 <br> Budget | FY 2008 <br> Budget | Future <br> Funding | Fundil <br> Funding |
| :---: | ---: | ---: | ---: | ---: | ---: |
| Applicant Share | $\$ 1,501,599$ | $\$ 200,593$ | $\$ 230,593$ | $\$ 250,593$ | $\$ 2,183,378$ |
| Basin Board(s) Share |  |  |  |  |  |
| Alafia River | 297,881 | 40,118 | 46,118 | 50,118 | 434,235 |
| Hillsborough River | 506,399 | 68,201 | 78,201 | 85,201 | 738,002 |
| Northwest Hillsborough | 685,134 | 92,274 | 106,274 | 115,274 | 998,956 |
|  |  |  |  |  |  |
| Other Funding Sources |  |  |  |  |  |
| TOTAL | $\$ 2,991,013$ | $\$ 401,186$ | $\$ 461,186$ | $\$ 501,186$ | $\$ 4,354,571$ |

Check here if requesting a waiver or reduction in matching fund requirements pursuant to s. 288.06561, F.S. See Guidelines for Submittal of Cooperative Funding Projects for Which a Waiver or Reduction in Matching Fund Requirements is Requested Pursuant to the Rural Economic Development Initiative. Please provide documentation of qualification under the Rural Economic Development Initiative.


Timelines:
13 months/continuous
13 months/continuous
13 months/continuous
13 months/continuous
13 months/continuous
13 months/continuous

# 2008 COOPERATIVE FUNDING INITIATIVE APPLICATION FORM 

Proposals more than two pages in length will not be recommended for funding by staff. The only supplemental information to be provided is a location map, a single page to document that the applicant's matching funds are in an existing or proposed budget or capital improvement plan, and a PC-compatible CD-ROM or 3.5 -inch diskette containing the completed application in Microsoft Word 2000 or equivalent. Additional Information may be required for the four project types as well as education projects. Please refer to the specific guidelines. Four copies of each project proposal must be submitted.

ALTERATIONS TO THE APPLICATION ARE NOT PERMITTED. E-MAILS/FAXES WILL NOT BE ACCEPTED.
(Computer users: select form fields with mouse or navigate fields with tab or arrow key)

| Project Name | Hillsborough County Adopt-A-Pond |
| ---: | :--- |
| Project \# | K209 |
| Cooperator | Hillsborough County BOCC, Public Works Department |
| Contact Person | John McGee |
| Address | 601 E. Kennedy Blvd., 22 ${ }^{\text {nd }}$ Floor, Tampa, FL 33602 |
| Phone\# | $813-307-1785$ |
| Email Address | mcgeej@hillsboroughcounty.org |
| District Project Manager | Kendra Antoine |

PROJECT TYPE: (Check all that apply. Computer users: mouse-select box or navigate with tab or arrow key, use space bar to mark box)
$\square$ Water Supply
【 Water Quality

Flood Protection
Q Natural Systems

## Indicate All Counties To Benefit from Project:

| $\square$ Charlotte | $\square$ Citrus | $\square$ DeSoto | $\square$ Hardee | $\square$ Hernando | $\square$ Highlands | $\boxtimes$ Hillsborough |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\square$ Lake | $\square$ Levy | $\square$ Manatee | $\square$ Marion | $\square$ Pasco | $\square$ Pinellas | $\square$ Poik |
| $\square$ Sarasota | $\square$ Sumter |  |  |  |  |  |

PROJECT DESCRIPTION: Adopt-A-Pond improves the appearance, water quality, and habitat in neighborhood stormwater ponds. The program's goals are to: improve water quality, work with citizen volunteers; reduce neighborhood pollution; increase pond habitat; reduce litter; mark stormdrains; increase citizen awareness of stormwater impacts; and improve pond treatment functions. Citizens reach the program by County staff referral and our public outreach efforts such as the Adopt-A-Pond Website, brochures, and attending special events. The out-reach/education/communication portion of the program produces an Adopt-A-Pond pamphlet, brochure, information booklet, and quarterly newsletter with a growing mailing list of 5,200 citizens. Participants in the program receive an Adopt-A-Pond Notebook, aquatic plant identification guides, a neighborhood education meeting (16 in 2006), a Pond Walk by a field biologist (4 in 2006), a pond evaluation ( 40 in 2006), a neighborhood Adopt-A-Pond sign, waders, aquatic plants for planting ( 19 in 2006), a pond management workbook, admission to the annual lake \& pond seminar, a chance to win annual awards, and County staff support. Hillsborough County and SWFWMD have been funding the program since 1995. An educational exhibit provided information at 7 events in 2006 featuring Adopt-A-Pond and other programs in the County's overall Stormwater Public Education and Awareness Campaign. The Storm Drain Marking Program provided materials to mark storm drains at 7 locations in 2006. The program includes decals, adhesive, door hangers, and educational and instructional materials. The Officer Snook Program educates $2^{\text {nd }}$ grade students about water pollution, potential impacts to the environment, and preventive and proactive steps that can be taken to reduce pollution. The Officer Snook costumed character, role-playing costumes for students, Officer Snook T-shirts, stickers, coloring and activity booklets, and tattoos enhance the experience. County staff conducted 11 presentations (over 366 students) in 2006. Officer Snook is a favorite character at local events. The Stormwater Ecologist program ( 6 in 2006) provides critical thinking exercises to elementary ${ }_{2}$ middle \&
 relating to pollution prevention as well as opportunities for hands-on education through the Pond Walks, marking events, and Adopt-A-Pond programs.

Describe your organizations efforts in developing, implementing and enforcing water conservation and flood protection ordinances. Throughout Hillsborough County, hundreds of neighborhood stormwater ponds have aged ten or more years without maintenance. Few neighborhoods have pond management plans, even if they've hired someone to spray for nuisance plants. Certainly, few neighborhoods outside the Adopt-A-Pond Program practice stormwater pollution prevention. Adopt-A-Pond restores pond treatment and flood protection functions, teaches citizens to manage ponds, reduces stormwater pollution, and increases habitat. Local and regional benefits include improved water quality, maintained ponds, improved property values, and reduced pollution sources (i.e., trash, fertilizer.). The program facilitates regional watershed planning, TBEP nitrogen reduction goals, SWFWMD water treatment goals, and protection of wetland and receiving water bodies.

| Funding Source | Prior <br> Funding | FY 2007 <br> Budget | FY 2008 <br> Budget | Future <br> Funding | Total <br> Funding |
| :---: | :---: | ---: | ---: | ---: | ---: |
| Applicant Share | $\$$ | $\$ 128,427$ | $\$ 148,427$ | $\$$ | $\$ 276,854$ |
| Basin Board(s) Share |  | 50,000 | 50,000 |  |  |
| Alafia River |  | 10,000 | 16,667 |  | 26,667 |
| Hillsborough River |  | 10,000 | 16,666 |  | 26,666 |
| Northwest Hillsborough |  | 30,000 | 16,667 |  | 46,667 |
|  |  |  |  |  |  |
| Other Funding Sources |  |  |  |  |  |
| TOTAL | $\$$ | $\$ 178,427$ | $\$ 248,427$ | $\$$ | $\$ 426,854$ |

Check here if requesting a waiver or reduction in matching fund requirements pursuant to $\mathbf{s}$. 288.06561, F.S. See Guidelines for Submittal of Cooperative Funding Projects for Which a Waiver or Reduction in Matching Fund Requirements is Requested Pursuant to the Rural Economic Development Initiative. Please provide documentation of qualification under the Rural Economic Development Initiative.

## Critical Project Milestones:

Pond Cleanups
Educational meetings
Pond Plantings
Spring Pond Seminar
Pond Walks
Newsletter
Exhibits
Officer Snook/ Stormwater Ecologist
Storm Drain Marking
Quarterly Reports
AAP Committee Meetings
Pond Judging Contest


Timelines:
Year round
Year round
Feb-Dec
Jan-Apr
Mar-Nov
Quarterly
Year round
Year round
Year round
Quarterly
Quarterly
Sept-Dec

## 2008 COOPERATIVE FUNDING INITIATIVE APPI_ICATION FORM

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## ALTERATIONS TO THE APPLICATION ARE NOT PERMITTED. E-MAILS/FAXES WILL NOT BE ACCEPTED. <br> (Computer users: select form fields with mouse or navigate fields with tab or arrow key)

| Project Name | Northwest HIIlsborough Basin - Watershed Management Plan Updates |
| ---: | :--- |
| Project \# | L099 |
| Cooperator | Hillsborough County Public Works / Stormwater |
| Contact Person | Junshan Su, Ph.D., P.E. |
| Address | P.O. Box 1110, Tampa, FL 33601 |
| Phone \# | (813) 3071791 |
| Email Address | suj@Hillsboroughcounty.org |
| District Project Manager | David Arnold |

PROJECT TYPE: (Check all that apply. Computer users: mouse-select box or navigate with tab or arrow key, use space bar to mark box)
$\square$ Water Supply
区 Water Quality
Flood Protection
$\square$ Natural Systems

Indicate All Counties To Benefit from Project:

| $\square$ Chariotte | $\square$ Citrus | $\square$ DeSoto | $\square$ Hardee | $\square$ Hernando | $\square$ Highlands | Hillsborough |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\square$ Lake | $\square$ Levy | $\square$ Manatee | $\square$ Marion | $\square$ Pasco | $\square$ Pinellas | $\square$ Polk |
| $\square$ Sarasota | $\square$ Sumter |  |  |  |  |  |

PROJECT DESCRIPTION: Hillsborough County's Northwest Watershed Management Plan Studies, which include Brooker Creek, Double Branch, RockylBrushy Creek, Sweetwater Creek and Lower Sweetwater Creek watersheds, were completed at the end of FY2002. All reports contain data collection, model calibration/verification, and existing conditions for water quantity within the watershed. Alternatives were evaluated to solve identified flooding problems. Finally, the proposed recommendations in these reports support the current stormwater Capital Improvement Program (CIP) that protects and enhances the quality of life in our community.

All five of these watershed master plan studies have been reviewed by SWFWMD and serve as best available information both for SWFWMD Resource Regulations and Hillsborough County's Land Development Regulations. The continuous updating of these plans is essential for making reliable information available to local and regional decision makers and will help streamline the land development regulation permit process.

Describe your organizations efforts in developing, implementing and enforcing water conservation and flood protection ordinances. Water Conservation: Hillsborough County was the premier local government to criminalize the violation of water use restrictions, and to adopt a civil citation process for the enforcement of the same in July 1993. A fulltime Water Conservation Manager assures that the County stays abreast of conservation issues. This facilitates amendments to the County's Water Conservation Ordinance (HCO 91-27) as needed to quickly address changing conditions in the regulatory environment and as deemed appropriate by the County's administration.

Flood Protection: The principal purpose of Hillsborough County's floodplain management program is to protect residents and business owners from flooding risks. Flooding disasters are the leading recurring hazard within the County and have the potential of affecting greater than one-quarter of the population at a value that is greater than five billion

## SOUTHWEST Florida Water Management District

dollars in personal property. Construction standards and planning concepts are implemented through the County's Land Development Code, Floodplain Management Plan and Local Mitigation Strategy.

| Funding Source | Prior <br> Funding | FY 2007 <br> Budget | FY 2008 <br> Budget | Future <br> Funding | Total <br> Funding |
| :---: | ---: | ---: | ---: | ---: | ---: |
| Applicant Share | $\$ 199,000$ | $\$ 101,000$ | $\$ 140,000$ | $\$ 137,000$ | $\$ 577,000$ |
| Basin Board(s) Share |  |  |  |  |  |
| Northwest Hillsborough | 199,000 | 101,000 | 140,000 | 137,000 | 577,000 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Other Funding Sources |  |  |  |  |  |
| TOTAL | $\$ 398,000$ | $\$ 202,000$ | $\$ 280,000$ | $\$ 274,000$ | $\$ 1,154,000$ |

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Critical Project Milestones:


## 2008 COOPERATIVE FUNDING INITIATIVE APPLICATION FORM

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## ALTERATIONS TO THE APPLICATION ARE NOT PERMITTED. E-MAILS/FAXES WILL NOT BE ACCEPTED. <br> (Computer users: select form fields with mouse or navigate fields with tab or arrow key)

| Project Name | Van Dyke Reclaimed Water Storage Tank and Pump Station Improvements |
| ---: | :--- |
| Project\# | L103 (Continuing Project) |
| Cooperator | Hillsborough County Water Department |
| Contact Person | Nicholas J. LoPresti |
| Address | P.O. Box 1110 Tampa, FL 33601-1110 |
| Phone \# | 813-272-5977 |
| Email Address | loprestin@hillsboroughcounty.org |
| District Project Manager | A. Ramoy |

PROJECT TYPE: (Check all that apply. Computer users: mouse-select box or navigate with tab or anow key; use space bar to mark box)
区 Water Supply
$\square$ Water Quality
$\square$ Flood Protection
$\square$ Natural Systems

Indicate All Counties To Benefit from Project:

| $\square$ Charlotte | $\square$ Citrus | $\square$ DeSoto | $\square$ Hardee | $\square$ Hernando | $\square$ Highlands | Hillsborough <br> $\square$ Lake |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\square$ Levy | $\square$ Manatee | $\square$ Marion | $\square$ Pasco | $\square$ Pinellas | $\square$ Polk |  |
| $\square$ Sarasota | $\square$ Sumter |  |  |  |  |  |

PROJECT DESCRIPTION: This project includes the design and construction of one 5-MG Storage Tank and associated appurtenances to be located at the existing Van Dyke WWTP. Misc. controls, telemetry, and associated appurtenances to connect to the Hillsborough County's Northwest reuse system. Project includes modifications to the existing reclaimed water pump station and misc. on-site pipeline improvements. Existing WWTP is to be taken off-line by 2007. New above ground tank is required to replace existing pond storage to meet operational reliability and efficiency and provide additional hydraulic capacity to meet customer demands in the Northwest Reclaimed Water System.

Reclaimed water customers served by the Van Dyke RW Storage Tank and Pump Station include the Van Dyke Farms subdivision ( 423 units), the Cheval subdivision ( 412 unit), Freedom Fairways Golf Course ( 0.15 MGD), and other miscellaneous commercial customers. The Van Dyke RW PS pumped out an average of 0.78 MGD in FY2002, utilizing on-site pond storage. Anticipated build out demand is 2.53 MGD . The anticipated potable water offset at build-out is approximately 0.84 MGD with an additional groundwater offset of approximately 0.85 MGD for a total water conservation benefit of 1.69 MGD. The estimated cost/benefit ratio calculated at an $8 \%$ annual interest rate, amortized over 30 years is $\$ 0.42 / 1000$ gallons for the total project $(\$ 3,000,000)$ and $\$ 0.21 / 1000$ gallons for the District's share $(\$ 1,500,000)$. Resources from the County's Capital Improvement Program are available to pay for the County's portion of the project.

Describe your organizations efforts in developing, implementing and enforcing water conservation and flood protection ordinances. Hillsborough County was the premier local government to decriminalize the violation of water use restrictions, and to adopt a civil citation process for the enforcement of the same in July 1993. A fulltime Water Conservation Manager assures that the County stays abreast of conservation issues. This facilitates amendments to the County's Water Conservation Ordinance (HCO 03-07) as needed to quickly address changing conditions in the regulatory environment and as deemed appropriate by the County's administration. All significant regulatory issues pertaining to the

County's water conservation efforts are reviewed through a Water Conservation Technical Committee comprised of environmental interests, green industry representatives, other local governments, Tampa Bay Water and the Southwest Florida Water Management District. Enforcement of water conservation issues is done through a 5-member Conservation Team, and supplemented by Code Enforcement and Construction Services (Plumbing and Building Departments) in areas of their respective responsibilities.

Reclaimed Water Master Plans have been developed to determine how reclaimed water throughout the County will be utilized for the primary goal of offsetting potable water use. Additionally, the County has established a Reclaimed Water Improvement Unit (RWIU) ordinance to retrofit existing subdivisions with reclaimed water distribution systems.

Hillsborough County has adopted a flood plain ordinance (County Ordinance 01-33) as required to participate as a community in the National Flood Insurance Program (NFIP) administered through the Federal Emergency Management Agency (FEMA). The county has developed land development regulations (LDR 96-35) to enforce the ordinance. All development is required to receive the proper building and site alteration permits. At this time flood plain issues are addressed to insure compliance with the flood plain ordinance. Finished floor elevations are compared to the 100 year flood elevation. The County is also a participant in FEMA's Community Rating System and received a Class 6 rating.

| Funding Source | Prior <br> Funding | FY 2007 <br> Budget | FY 2008 <br> Budget | Future <br> Funding | Total <br> Funding |
| :---: | ---: | ---: | ---: | ---: | ---: |
| Applicant Share | $\$ 900,000$ | $\$ 300,000$ | $\$ 300,000$ | $\$ 0$ | $\$ 1,500,000$ |
| Basin Board(s) Share |  |  |  |  |  |
| Northwest Hillsborough Basin | 900,000 | 300,000 | 300,000 |  | $1,500,000$ |
|  |  |  |  |  |  |
| Other Funding Sources |  |  |  |  |  |
| TOTAL | $\$ 1,800,000$ | $\$ 600,000$ | $\$ 600,000$ | $\$ 0$ | $\$ 3,000,000$ |

Check here if requesting a waiver or reduction in matching fund requirements pursuant to $\mathbf{s .} \mathbf{2 8 8 . 0 6 5 6 1}$, F.S. See Guidelines for Submittal of Cooperative Funding Projects for Which a Waiver or Reduction in Matching Fund Requirements is Requested Pursuant to the Rural Economic Development Initiative. Please provide documentation of qualification under the Rural Economic Development Initiative.

## Critical Project Milestones:

Planning
Conceptual Design
Procurement - Design
Preliminary Design
Final Design
Final Design complete
Contract Preparation
Advertise
Bid Selection / BOCC Award
Contract Agreement -- Construction
Substantial Completion
Closeout

Timelines:
10/01/00
01/29/01
02/17/04
10/16/04
01/01/05
08/12/05
08/13/05
09/10/05
12/09/05
01/09/06
10/03/06
08/31/07

## 2008 COOPERATIVE FUNDING INITIATIVE APPLICATION FORM

Proposals more than two pages in length will not be recommended for funding by staff．The only supplemental information to be provided is a location map，a single page to document that the applicant＇s matching funds are in an existing or proposed budget or capital improvement plan，and a PC－compatible CD－ROM or 3.5 －inch diskette containing the completed application in Microsoft Word 2000 or equivalent．Additional information may be required for the four project types as well as education projects．Please refer to the specific guidelines．Four copies of each project proposal must be submitted．

ALTERATIONS TO THE APPLICATION ARE NOT PERMITTED．E－MAILSFAXES WILL NOT BE ACCEPTED．
（Computer users：select form fields with mouse or navigate fields with tab or arrow key）

| Project Name | Water Education Exhibits in the New Children＇s Museum of Tampa |  |
| ---: | :--- | :--- |
| Project \＃ |  |  |
| Cooperator | The Children＇s Museum of Tampa，Inc． |  |
| Contact Person | Becky Clayton，General，Manager． |  |
| Address | 7550 North Boulevard，Tampa，FL 33604 |  |
| Phone \＃ | 813－935－8441 ext．225 | Email Address |
| becky＠flachildrensmuseum．com |  |  |
| District Project Manager |  |  |

PROJECT TYPE：（Check al that apply．Computer usens：mouseselect box ornavigate with tab or arow key，use space bar to mark box）
区 Water Supply
区 Water Quality
区 Flood Protection
X Natural Systems

Indicate All Counties To Benefit from Project：


PROJECT DESCRIPTION：The Children＇s Museum of Tampa（CMT）was incorporated in 1987 in response to the need for an informal，cultural learning environment dedicated to the needs of children and families in the Tampa Bay region． The Musuem is a not－for－profit educational and cultural resource whose mission is to inspire children and farnilies by creating learing opportunities．CMT is presently located just north of Lowry Park and is currently in the planning stages for a new facility in downtown Tampa．The City of Tampa has generously provided land valued at approx．$\$ 3$ million in the new Curtis Hixon Riverfront Park being developed adjacent to the new Tampa Museum of Art．The new downtown location will provide more accessibilty to families and schools in surrounding neighborhoods and communities．We are conservatively projecting 100,000 visitors／yr．to the New Museum．We have raised over $\$ 4$ million of an $\$ 20$ million campaign to date．Funders include Rooms to Go，Publix Supermarket Charities，All Children＇s Hospital，the Propeller Club，Tampa Port Authority，Outback，Media General，and the State of Fiorida among others．

An exhibit master plan was developed as an outcome of a series of comprehensive and collaborative community focus groups held with community leaders，current members and children in early 2005．The exhibit master plan now serves as the basis for the exhibit design and provides a roadmap for the interactive learing that will take place．Water was cited as the most frequent comment included when focus group participants were asked what characteristics of their city，region， county and state would they like visitors to the museum to explore．Based on this information，a proposal was submitted for cooperative funding for FY07 to fund Phase I of a water exhibit project．Concepts for the water exhibits have been further developed and refined through workshops that were facilatated by the exhibit design team and held with SWFMWD staff and Basin Board Education Committee members in Sept．2007．A conceptual plan for＂Water，Water． Everywhere！＂has been developed which includes the centerpiece of the water experience，the＂Water＇s Joumey：From Aquifer to Watershed＂structure，a Water Bank Exhibit，an Orientation exhibit and additional water elements that will be incorporated in many of the other exhibit galleries in the Museum．The overall goal of the＂Water，Water．Everywherel＂is
to build concepts and understanding about water use, management and conservation. Phase II of the project will be to fabricate and install the exhibits and develop educational programming for the exhibits.

Describe your organizations efforts in developing, implementing and enforcing water conservation and flood protection ordinances. NA

| Funding Source | Prior <br> Funding | FY 2007 <br> Budget | FY 2008 <br> Budget | Future <br> Funding | Total <br> Funding |
| :---: | ---: | ---: | ---: | ---: | ---: |
| Applicant Share | $\$$ | $\$ \$ 37,463$ | $\$ 253,994$ | $\$$ | $\$ 291,457$ |
| Basin Boards) Share |  | $\$ 112,500$ | $\$ 504,941$ |  | $\$ 617,441$ |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Other Funding Sources |  |  |  |  |  |
| TOTAL | $\$$ | $\$ 1,322500$ | $4,750,000$ | $13,018,602$ | $19,091,100$ |
|  |  |  | $\$ 5,508,935$ | $\$ 13,018,602$ | $\$ 20,000,000$ |

Check here if requesting a waiver or reduction in matching fund requirements pursuant to s. 288.06561, F.S. See Guidelines for Submittal of Cooperative Funding Projects for Which a Waiver or Reduction in Matching Fund Requirements is Requested Pursuant to the Rural Economic Development Initiative. Please provide documentation of qualification under the Rural Economic Development Initiative.

| Critical Project Milestones: |
| :--- |
| Phase I |
| Final Conceptual Drawings |
| Schematic Design to include planning drawings, completed |
| content, design drawings, scale models, graphic treatments |
| and estimate confirmation |
| Phase II |
| Fabrication Documents to include drawings, specifications |
| and cost verification |
| Develop and finalize education programming plan |
| Select and contract with fabricators |
| Exhibit Fabrication |
| Installation |
| Close out: final inspection, instructional operational training |
| for museum staff, exhibit resource notebook |

```
Timelines:
12/06
1/07-11/07
```

12/07-6/08

## Senior Administrator Signature

# 2008 COOPERATIVE FUNDING INITIATIVE APPLICATION FORM 

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## ALTERATIONS TO THE APPLICATION ARE NOT PERMITTED. E-MAILS/FAXES WILL NOT BE ACCEPTED. <br> (Computer users: select form fields with mouse or navigate fields with tab or arrow key)

| Project Name | Dale Mabry: Neptune to Henderson Stormwater Improvements |
| ---: | :--- |
| Project \# | 1 |
| Cooperator | City of Tampa |
| Contact Person | Steve Seachrist, P.E., Chief Engineer, Stormwater Department |
| Address | 306 East Jackson Street, 6N, Tampa, Florida 33602 |
| Phone \# | $(813)$ 274-7049 |
| Email Address | StevenSeachrist@tampagov.net |
| District Project Manager | Gordon McClung |

PROJECT TYPE: (Check all that apply. Computer users: mouse-select box ornavigate with tab or anow key; use space bar to mark box)
$\square$ Water Supply
Q Water Quality
区 Flood Protection
X Natural Systems

Indicate All Counties To Benefit from Project:

| $\square$ Charlotte | $\square$ Citrus | $\square$ DeSoto | $\square$ Hardee | $\square$ Hernando | $\square$ Highlands | $\boxtimes$ Hillsborough |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\square$ Lake | $\square$ Levy | $\square$ Manatee | $\square$ Marion | $\square$ Pasco | $\square$ Pinellas | $\square$ Polk |
| $\square$ Sarasota | $\square$ Sumter |  |  |  |  |  |

PROJECT DESCRIPTION: This is a multi-year structural flood relief and water quality project to establish flood protection for land owners and drivers on Dale Mabry Highway, a major evacuation route, in the Interbay Peninsula of Tampa. During even minor rain events the safety and welfare of those driving on Dale Mabry Highway is affected by the inadequacy of the system. This problem occurs on Dale Mabry Highway at the intersections of both Neptune Ave. and Henderson Blvd. This frequent and persistent street and structural flooding has caused innumerable stalled vehicles, vehicle damage, traffic delays and other inconveniences to motorists and businesses over the past few decades. This project will improve traffic safety conditions and will provide benefits to a primary evacuation route for South Tampa. Secondary benefits of the project include alleviation of street and yard flooding problems in the heart of Palma Ceia, generally south of the country club between Himes and MacDill Avenues. This project is identified in the City's 5 -year Stormwater Capital Improvement Plan. Currently (FY07) design and engineering is underway. The next phase of the project includes the completion of the engineering and construction of a new outfall to connect existing inlets on Dale Mabry Highway to Hillsborough Bay at the intersection of Granada Street and Bayshore Boulevard. Along the route, new inlets and laterals will be added in order to pick up existing street and yard flooding problems in the Palma Ceia area. A large box culvert system will be constructed under the CSX Transportation railroad tracks and the Crosstown Expressway in order to reach the Bay. This route is the preferred alternative in a series of solutions investigated for this flooding problem. With FY2007 funding the work on the design phase of the Dale Mabry Project will be completed.

Describe your organizations efforts in developing, implementing and enforcing water conservation and flood protection ordinances. The City of Tampa has the following codes in place relating to water conservation: 1) standard Plumbing code (Ord. No. 92-67, 2,5-7-92; Ord. No. 96-64,62,3-14-96;ord. No.98-40,19 2-26-98),2) Water Use Restrictions
 Increase in Water Restriction Violation fines (Ord. NO. 2001-19,23,1-4-1) Landscaping Code (Ord. No, $97-34,2,2-648 \mathrm{~F})$, 5)

## 

Rain Sensor Requirement (part of Plumbing Code, Ord. NO 98-40,19,2-26-98,6) Schedule of Water Rates ( Ord. NO. 2001-0987,26-31,8-30-01). The city has adopted a Flood Damage control Ordinance ( Ord. NO. 92-67,2,5-7-92, ord. NO 92-134,3,4,81-3-92; Ord. NO> 96-64, 73-75, 3-14-96) as required to participate as a community in the National Flood Insurance Program administred through FEMA.

| Funding Source | Prior <br> Funding | FY 2007 <br> Budget | FY 2008 <br> Budget | Future <br> Funding | Total <br> Funding |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Applicant Share | $\$ 1,590,209$ | $\$ 4,500,000$ | $\$ 4,000,000$ | $\$ 1,409,791$ | $\$ 11,500,000$ |
| Basin Board(s) Share |  |  |  |  |  |
| Northwest Hillsborough |  | $\$ 4,500,000$ | $\$ 3,000,000$ | $\$ 1,000,000$ | $\$ 8,500,000$ |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Other Funding Sources |  |  |  |  |  |
| TOTAL | $\$ 1,590,209$ | $\$ 9,000,000$ | $\$ 7,000,000$ | $\$ 2,409,791$ | $\$ 20,000,000$ |

$\square$ Check here if requesting a waiver or reduction in matching fund requirements pursuant to s. 288.06561, F.S. See Guidelines for Submittal of Cooperative Funding Projects for Which a Waiver or Reduction in Matching Fund Requirements is Requested Pursuant to the Rural Economic Development Initiative. Please provide documentation of qualification under the Rural Economic Development Initiative.

Critical Project Milestones:
Engineering Design


Timelines:
FY2007
FY2007-2009

## 2008 COOPERATIVE FUNDING INITIATIVE APPLICATION FORM

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## ALTERATIONS TO THE APPLICATION ARE NOT PERMITTED. E-MAILSIFAXES WILL NOT BE ACCEPTED. <br> (Computer users: select form fields with mouse or navigate fields with tab or arrow key)

| Project Name | Brooker Creek Watershed Community Outreach Program, Phase 2 |
| :---: | :---: |
| Project \# |  |
| Cooperator | Pinellas County Dept. of Environmental Management |
| Contact Person | Holly Shiralipour |
| Address | Pinellas County ELD, 3620 Fletch Haven Drive, Tarpon Springs, FL 34688 |
| Phone \# | 727-453-6905 |
| Email Address | hshiralipour@pinellascounty.org RECNEO N |
| District Project Manager | CDE - 3 A 5 |
| PROJECT TYPE: (Check all that apply. Computer users: mouse-select box ornavigate with tab or arrow key; use space |  |
| ® Water Supply | $\boxtimes$ Water Quality $\quad \square$ Flood Protection $\quad \square$ Natural Systems |

## Indicate All Counties To Benefit from Project:

Citrus Levy$\square$ DeSoto
$\square \begin{aligned} & \text { Hardee } \\ & \square \text { Marion }\end{aligned}$Hernando Pasco
$\square$ Highlands
区 Hillsborough
Pinellas
$\square$ Poik

PROJECT DESCRIPTION: This project builds on the Brooker Creek Watershed Community Outreach Program begun in 2006. It includes three neighborhoods that border Brooker Creek Preserve; two Pinellas County neighborhoods that are currently part of the program and one new neighborhood in Hillsborough County. Neighborhood associations are readymade political, social, and geographic entities that lend themselves weil to educational outreach programs. Residents often look toward their neighbors to observe model behaviors and obtain information. Project goals are to increase residents' awareness and knowledge of specific actions they can take in their yards to reduce negative impacts on watersheds and encourage the development of neighborhood role models. Another goal is to comprehensively evaluate changes in residents' knowledge, attitudes and behaviors. See Education Projects Addendum for more detailed information.

Describe your organizations efforts in developing, implementing and enforcing water conservation and flood protection ordinances. Pinellas County is dedicated to improving flood protection as documented in the County's Comprehensive Plan (CP). The Surface Water Element of the CP obligates the County to protect, enhance and improve water quality through water quality monitoring, watershed management pian development and environmental enforcement. In addition, Pinellas County continues to expand its reclaimed water service areas to reduce demand on potable water for irrigation, to enforce watering restrictions, and to educate the public on the benefits of Florida Friendly Landscaping and proper irrigation.

| Funding Source | Prior <br> Funding | FY 2007 <br> Budget | FY 2008 <br> Budget | Future <br> Funding | Total <br> Funding |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Applicant Share | $\$$ | $\$ 27,500$ | $\$ 26,578$ | $\$$ | $\$ 54,078$ |

## SOUTHWEST FlORIDA WATER MANAGEMENT DISTRICT

| Basin Boards) Share |  |  |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: |
| Pinellas Anclote BB |  |  |  |  |  |
| NWHBB |  | 27,500 | 14,706 |  | 42,206 |
|  |  |  | 10,437 |  | 10,437 |
|  |  |  |  |  |  |
| Other Funding Sources |  |  |  |  |  |
| TOTAL | $\$$ | $\$ 55,000$ | $\$ 51,721$ | $\$$ | $\$ 106,721$ |

Check here if requesting a waiver or reduction in matching fund requirements pursuant to $\mathbf{s}$. 288.06561, F.S. See Guidelines for Submittal of Cooperative Funding Projects for Which a Waiver or Reduction in Matching Fund Requirements is Requested Pursuant to the Rural Economic Development Initiative. Please provide documentation of qualification under the Rural Economic Development Initiative.

Critical Project Milestones: See attached Education Projects Addendum for this information.

Timelines: See attached Education Projects Addendum for this information.

# 2008 COOPERATIVE FUNDING INITIATIVE APPLICATION FORM 

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## ALTERATIONS TO THE APPLICATION ARE NOT PERMITTED. E-MAILS/FAXES WILL NOT BE ACCEPTED. (Computer users: select form fields with mouse or navigate fields with tab or arrow key)

| Project Name | Drew Park Stormwater Improvements |
| ---: | :--- |
| Project \# | 2 |
| Cooperator | City of Tampa |
| Contact Person | Steven Seachrist, P.E., Chief Engineer |
| Address | 306 East Jackson Street, 6N, Tampa, Florida 33602 |
| Phone \# | (813) 274-7049 |
| Email Address | Steven.Seachrist@tampagov.net |
| District Project Manager | Gordon McClung |

PROJECT TYPE: (Check all that apply. Computer users: mouse-select box ornavigate with tab or arrow key; use space barto mark box)
$\square$ Water Supply
Q Water Quality
区 Flood Protection
Q Natural Systems

Indicate All Counties To Benefit from Project:

| $\square$ Charlotte | $\square$ Citrus | $\square$ DeSoto | $\square$ Hardee | $\square$ Hernando | $\square$ Highlands | $\boxed{\text { Hillsborough }}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\square$ Lake | $\square$ Levy | $\square$ Manatee | $\square$ Marion | $\square$ Pasco | $\square$ Pinellas | $\square$ Polk |
| $\square$ Sarasota | $\square$ Sumter |  |  |  |  |  |

PROJECT DESCRIPTION: Drew Park Flood Stormwater Improvements is a multi-year-funded structural project to provide flood protection for the residents and businesses in the Drew Park area. This area currently suffers from widespread flooding of streets, lots, and structures. The project is located in the Northwest Hillsborough Basin, within the City of Tampa, and is bounded by Dale Mabry Highway, Hillsborough Avenue, Tampa Bay Blvd. and the Tampa International Airport. This project is identified in the City's 5-year Stormwater Capital Improvement Plan. The initial phase of this project involves design and land acquisition and will begin using City funds in 2007. The land acquired will be used for one or more stormwater retention/detention facilities to provide treatment and attenuate flow from the area. Water quantity attenuation is necessary because of limitations in the capacity of the downstream Hillsborough County system. Water quality treatment will mitigate for the replacement of vegetated ditches with pipes and will provide benefits beyond what the current system provides. Future phases of the project will consist of the construction of the new pond(s) and a stormwater pipe system. With FY2007 funding the City will identify and acquire land and initiate design. Construction of these improvements will begin in FY2008. When each phase of the project is complete the project budget will be refined based on information gathered.

Describe your organizations efforts in developing, implementing and enforcing water conservation and flood protection ordinances. The City of Tampa has the following codes in place relating to water conservation: 1) standard Plumbing code (Ord. No. 92-67, 2,5-7-92; Ord. No. 96-64,62,3-14-96;ord. No.98-40, 19 2-26-98),2) Water Use Restrictions Code (Ord. No. 2003-316; Ord. No. 2000-69, 97, 3-16-00;ord. No. 2000-43,97,9-14-00; Ord. No. 2001-87,97,3-29-01), 30 Increase in Water Restriction Violation fines (Ord. NO. 2001-19,23,1-4-1) Landscaping Code (Ord. No. 97-34,2,2-6-97), 5) Rain Sensor Requirement (part of Plumbing Code, Ord. NO 98-40,19,2-26-98,6) Schedule of Water Rates fSt $41 / \mathrm{Q}$.


## SOUIIIWISI FLORIDA WAIt MANACIIMLNI DISIRKI

92-134, 3, 4, 81-3-92; Ord. NO> 96-64, 73-75, 3-14-96) as required to participate as a community in the National Flood Insurance Program administred through FEMA.

| Funding Source | Prior <br> Funding | FY 2007 <br> Budget | FY 2008 <br> Budget | Future <br> Funding | Total <br> Funding |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Applicant Share | $\$$ | $\$ 550,000$ | $\$ 1,000,000$ | $\$ 1,200,000$ | $\$ 2,750,000$ |
| Basin Boards) Share |  |  |  |  |  |
| Northwest Hillsborough |  | $\$ 550,000$ | $\$ 1,000,000$ | $\$ 1,200,000$ | $\$ 2,750,000$ |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Other Funding Sources |  |  | $\$ 1,100,000$ | $\$ 2,000,000$ | $\$ 2,400,000$ |

Check here if requesting a waiver or reduction in matching fund requirements pursuant to s. 288.06561, F.S. See Guidelines for Submittal of Cooperative Funding Projects for Which a Waiver or Reduction in Matching Fund Requirements is Requested Pursuant to the Rural Economic Development Initiative. Please provide documentation of qualification under the Rural Economic Development Initiative.

Critical Project Milestones: Land Acquisition and Design Construction

## Timelines:

FY2007
FY2008-FY2009

## 2008 COOPERATIVE FUNDING INITIATIVE APPLICATION FORM

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## ALTERATIONS TO THE APPLICATION ARE NOT PERMITTED. E-MAILS/FAXES WILL NOT BE ACCEPTED. (Computer users: select form fields with mouse or navigate fields with tab or arrow key)

| Project Name | Geographical Information System (GIS) Dataset Development |
| ---: | :--- |
| Project \# | 6 |
| Cooperator | City of Tampa |
| Contact Person | David James, Enterprise Application Integration Manager |
| Address | 306 East Jackson Street, 8E, Tampa, Florida 33602 |
| Phone \# | (813) 274-5541 |
| Email Address | David.James@tampagov.net |
| District Project Manager | Steve Dicks |

PROJECT TYPE: (Check all that apply. Computer users: mouse-select box or navigate with tab or arrow key; use space bar to mark box)
区 Water Supply
X Water Quality
区 Flood Protection
Natural Systems
Indicate All Counties To Benefit from Project:

| $\square$ Charlotte | $\square$ Citrus |
| :--- | :--- |
| $\square$ Lake | $\square$ Levy |
| $\square$ Sarasota | $\square$ Sumter |

$\begin{array}{ll}\square \text { DeSoto } \\ \square \text { Manatee } & \square \\ \square\end{array}$ Hardee
MarionHernando
PascoHighlands
X Hillsborough Polk

PROJECT DESCRIPTION: . The City of Tampa is planning an extensive GIS data capture program to support improved water resource management, analysis and planning and coordination with other regional agencies such as Hillsborough County and the District. The following provides an overview of the proposed data capture initiatives:

1. Field verification surveys using GPS and other surveying methods to improve the accuracy and completeness of the Water distribution and supply networks. The survey work will focus on gathering accurate positional data for valves and attribute data for all facilities. This information can be used to analyze customer and land use information for the evaluation of reclaimed water line expansions. Further, the analysis will aid in leak detection and system improvements to gain water distribution efficiency and water consumption savings.
2. Field verification surveys using GPS and other survey methods to improve the accuracy and completeness of the Waste Water network. This survey program will be concentrated on the collection of attribute data for all facilities. The work will enable the City to perform critical leak detection analysis to assist in determining possible sources of fecal coliform contamination of waterbodies subject to TMDL restrictions.
3. Verification and correction of parcel, addresses and easement data using field survey or other data capture methods, including GPS, record research, and aerial photography. This work will be combined with the City's obligations to support the Census Bureau's LUCA program that is aimed at improving the census address database. This initiative will support the need for the City and other regional water agencies to map construction permits more accurately and ensure development does not encroach on existing easements and rights-of-way.

Describe your organizations efforts in developing, implementing and enforcing water conservation and flood protection ordinances. The City of Tampa has the following codes in place relating to water conservation: 1) standard Plumbing code (Ord. No. 92-67, 2,5-7-92; Ord. No. 96-64,62,3-14-96;ord. No.98-40,19 2-26-98),2) Water Use Restrictions Code (Ord. No. 2003-316; Ord. No. 2000-69, 97, 3-16-00;ord. No. 2000-43,97,9-14-00; Ord. No. 2001-87,97,3-29-01), 30 Increase in Water Restriction Violation fines (Ord. NO. 2001-19,23,1-4-1) Landscaping Code (Ord. No. 97-34,2,2-6-97), 5) Rain Sensor Requirement (part of Plumbing Code, Ord. NO 98-40,19,2-26-98,6) Schedule of Water Rates (Ord. NO. 2001-0987,26-31,8-30-01). The city has adopted a Flood Damage control Ordinance ( Ord. NO. 92-67,2,5-7-92, ord. NO 92-134,3,4,81-3-92; Ord. NO> 96-64, 73-75, 3-14-96) as required to participate as a community in the National Flood Insurance Program administred through FEMA.

| Funding Source | Prior <br> Funding | FY 2007 <br> Budget | FY 2008 <br> Budget | Future <br> Funding | Total <br> Funding |
| :---: | :---: | :---: | ---: | ---: | ---: |
| Applicant Share | $\$$ | $\$$ | $\$ 350,000$ | $\$ 350,000$ | $\$ 700,000$ |
| Basin Board(s) Share |  |  |  |  |  |
| Hillsborough River 70\% |  |  | $\$ 245,000$ | $\$ 245,000$ | $\$ 490,000$ |
| NW Hillsborough 25\% |  |  | $\$ 87,500$ | $\$ 87,500$ | $\$ 175,000$ |
| Alafia 5\% |  |  | $\$ 17,500$ | $\$ 17,500$ | $\$ 35,000$ |
|  |  |  |  |  |  |
| Other Funding Sources |  |  |  |  |  |
| TOTAL | $\$$ | $\$$ | $\$ 700,000$ | $\$ 700,000$ | $\$ 1,400,000$ |

$\square$
Check here if requesting a waiver or reduction in matching fund requirements pursuant to s. 288.06561, F.S. See Guidelines for Submittal of Cooperative Funding Projects for Which a Waiver or Reduction in Matching Fund Requirements is Requested Pursuant to the Rural Economic Development Initiative. Please provide documentation of qualification under the Rural Economic Development Initiative.

## Critical Project Milestones:

Updated Water network dataset
Updated Wastewater network dataset
Updated Parcel, Address and Easements dataset


Benior Administrator Signfature

## Timelines:

FY2008
FY2008
FY2008

## 2008 COOPERATIVE FUNDING INITIATIVE APPLICATION FORM

Proposals more than two pages in length will not be recommended for funding by staff. The only supplemental information to be provided is a location map, a single page to document that the applicant's matching funds are in an existing or proposed budget or capital improvement plan, and a PC-compatible CD-ROM or 3.5 -inch diskette containing the completed application in Microsoft Word 2000 or equivalent. Additional Information may be required for the four project types as well as education projects. Please refer to the specific guidelines. Four copies of each project proposal must be submitted.

ALTERATIONS TO THE APPLICATION ARE NOT PERMITTED. E-MAILS/FAXES WILL NOT BE ACCEPTED.
(Computer users: select form fields with mouse or navigate fields with tab or arrow key)

| Project Name | City of Tampa Water Conservation Education Project |
| ---: | :--- |
| Project \# | 7 |
| Cooperator | City of Tampa Water Department |
| Contact Person | Sandra E. Anderson, APR |
| Address | 306 E Jackson St, 5E, Tampa, FL 33602 |
| Phone \# | (813) 274-8121, ext. 1009 |
| Email Address | Sandra.Anderson@TampaGov.net |
| District Project Manager | Raina O'Neil |

PROJECT TYPE: (Check all that apply. Computer users: mouse-select box or navigate with tab or arrow key, use space bar to mark box)
区 Water Supply
$\boxtimes$ Water Quality
区 Flood Protection
X Natural Systems

Indicate All Counties To Benefit from Project:

| $\square$ Chartotte | $\square$ Citrus | $\square$ DeSoto | $\square$ Hardee | $\square$ Hernando | $\square$ Highlands | Hillsborough |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\square$ Lake | $\square$ Levy | $\square$ Manatee | $\square$ Marion | $\square$ Pasco | $\square$ Pinellas | $\square$ Polk |
| $\square$ Sarasota | $\square$ Sumter |  |  |  |  |  |

PROJECT DESCRIPTION: The City of Tampa Water Conservation Education Project is an in-school, arts-based project fostering individual responsibility to protect water resources and conserve drinking water. As the project enters its 15th year, a comprehensive project evaluation will be conducted to identify strengths and weaknesses to determine what changes may be needed based on analyses of collected data. Evaluation will include focus groups and surveys involving students, teachers, Principais and Assistant Principals from schools participating in the project and schools that have never participated. The evaluation will be conducted during the Fiscal Year 2006 and 2007 projects, and the Fiscal Year 2008 project will be designed and shaped based on findings. Performances will still occur during Fiscal Year 2008, but may be reduced and combined with other components such as guest speakers, storytellers, teacher workshops and the River of Words curriculum. An online component may also be added utilizing the existing Theatre Project Web site. Staff will formally request City Council to include project funds in the Fiscal Year 2008 budget.

Describe your organizations efforts in developing, implementing and enforcing water conservation and flood protection ordinances. The City of Tampa has the following codes in place relating to water conservation: 1) Standard Plumbing Code (Ord. No. 92-67, § 2, 5-7-92; Ord. No. 96-64, § 62, 3-14-96; Ord. No. 98-40, § 19, 2-26-98), 2) Water Use Restrictions Code (Ord. No. 2000-69, § 97, 3-16-00; Ord. No. 2000-243, § 97, 9-14-00; Ord. No. 2001-87, § 97, 3-29-01), 3) Increase in Water Restriction Violation Fines (Ord. No. 2001-19, § 23, 1-4-01), 4) Landscaping Code (Ord. No. 97-34, § 2, 2-6-97; Ord. No. 2002-33, §§§§§ 1, 2, 3, 4, 5, 1-24-02), 5) Rain Sensor Requirement (part of Plumbing Code, Ord. No. $98-40, \S 19,2-26-98,6$ ) Schedule of Water Rates (Ord. No. 2001-0987, § 26-31, 8-30-01). The City's Business and Community Services Department enforces the City's codes. The City has adopted a Flood Damage Control Ordinance (Ord. No. 92-67,§ 2,5-7-92; Ord. No. 92-134, § 3,4, 8-13-92; Ord. No. 96-64, § 73-75, 3-14-96) as required to participate as a community in the National Flood Insurance Program administered through the Federal Emergency Management Agency. Copies of ordinances are available on request.

| Funding Source | Prior <br> Funding | FY 2007 <br> Budget | FY 2008 <br> Budget | Future <br> Funding | Total <br> Funding |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Applicant Share | $\$$ | $\$$ | $\$ 40,000$ | $\$$ | $\$ 40,000$ |
| Basin Boards) Share |  |  |  |  |  |
| Hillsborough River (49\%) |  |  | $\$ 19,600$ |  |  |
| NW Hillsborough (29\%) |  |  | $\$ 11,600$ |  |  |
| Alafia River (22\%) |  |  | $\$ 8,800$ |  |  |
|  |  |  |  |  |  |
| Other Funding Sources |  |  |  |  |  |
| TOTAL | $\$$ | $\$$ | $\$ 80,000$ | $\$$ | $\$ 80,000$ |

Check here if requesting a waiver or reduction in matching fund requirements pursuant to s. 288.06561, F.S. See Guidelines for Submittal of Cooperative Funding Projects for Which a Waiver or Reduction in Matching Fund Requirements is Requested Pursuant to the Rural Economic Development Initiative. Please provide documentation of qualification under the Rural Economic Development Initiative.

## Critical Project Milestones:

Agreement w/ SWFWMD
Agreement w/ Arts Council
Selection of Performers/Script Development
Student/Teacher Materials Development
Theatre Performances
Evaluation
Final Report


## Timelines:

November 2007
December 2007
Jan - April 2008
Jan - June 2008
Sept - January 2009
March 2009
May 2009

Southwest Florida
Water Management District

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## 2008 COOPERATIVE FUNDING INITIATIVE APPLICATION FORM

Proposals more than two pages in length will not be recommended for funding by staff. The only supplemental information to be provided is a location map, a single page to document that the applicant's matching funds are in an existing or proposed budget or capital improvement plan, and a PC-compatible CD-ROM or 3.5 -inch diskette containing the completed application in Microsoft Word 2000 or equivalent. Additional Information may be required for the four project types as well as education projects. Please refer to the specific guidelines. Four copies of each project proposal must be submitted.

## ALTERATIONS TO THE APPLICATION ARE NOT PERMITTED. E-MAILS/FAXES WILL NOT BE ACCEPTED. (Computer users: select form fields with mouse or navigate fields with tab or arrow key)

| Project Name | Tampa Plumbing Retrofit \& Education Project |
| ---: | :--- |
| Project \# | 8 |
| Cooperator | Tampa Water Department |
| Contact Person | Sandra E. Anderson, APR |
| Address | 306 E. Jackson St., 5E |
| Phone \# | 813-274-8121, ext. 1010 |
| Email Address | Sandra.Anderson@TampaGov.net |
| District Project Manager | Melissa Musacaro |

PROJECT TYPE: (Check all that apply. Computer users: mouse-select box or navigate with tab or arrow key, use space bar to mark box)
$\boxtimes$ Water Supply $\quad \square$ Water QualityFlood Protection
$\square$ Natural Systems

Indicate All Counties To Benefit from Project:

| $\square$ Charlotte | $\square$ Citrus | $\square$ DeSoto | $\square$ Hardee | $\square$ Hernando | $\square$ Highlands | Hillsborough |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\square$ Lake | $\square$ Levy | $\square$ Manatee | $\square$ Marion | $\square$ Pasco | $\square$ Pinellas | $\square$ Polk |
| $\square$ Sarasota | $\square$ Sumter |  |  |  |  |  |

## PROJECT DESCRIPTION:

Describe your organizations efforts in developing, implementing and enforcing water conservation and flood protection ordinances. This project provides toilet rebates and plumbing retrofits (toilets, showerheads, faucet aerators) to approximately 2,200 single-family, multi-family and/or commercial sites in the Tampa Water Department (TWD) service area. This project also provides approximately 25,000 customers in current-year and past-year toilet rebate locations with information about toilet leak detection and flapper replacement. Project objectives are to 1) reduce the water demand; 2) educate restaurants and businesses about the need for water conservation; 3) provide financial incentive for approximately 2,200 toilet replacements; and (4) retain achieved water demand savings in exsiting and future rebated toilets. A rebate contractor, responsible for processing applications, inspecting plumbing retrofits, mailing rebate checks, compiling/mailing location-specific information about leak detection and proper toilet flapper replacement to Tampa's entire toilet rebate database, mailing/compiling customer satisfaction data (survey), and reporting water savings, numbers of retrofits, costs per toilet, and rebate (by Basin Board) locations, will manage the program. Deliverables include quarterly reports and a final report containing numbers of toilets/showerheads/aerators installed, cost breakdown, actual and estimated water savings, number of toilet flapper packets mailed, and customer satisfaction survey results.

Toilet replacements are a successful tool used by the TWD to decrease potable water demand. Retrofitting high-volume toilets ( 3.5 gallons per flush [gpf] or more) with low-flow models has documented average savings of up to 30.4 gallons per day per toilet. The project would save an estimated 20.7 million gallons per year. Single family customers account for 40 percent of the City's total water use; multi-family customers account for 20 percent and the remaining 40 percent is consumed by commercial account holders. Approximately 30,200 toilets have been replaced in thg (1) since 1993. An estimated 475,000 plus toilets that use 3.5 gpf or more remain. There are aboy
homes (pre-1995 construction) to be retrofitted with one or more low-flow toilets. There is overwhelming need for continuance of a toilet rebate program in the TWD service area. Linked leak detection and toilet flapper replacement education is believed to be the best approach to maintaining water use savings achieved through a toilet rebate program. The project will complete within one year from the notice to proceed.

Project benefits include long-term water savings as well as reduced demand during cyclically-occurring drought conditions. The water saved will reduce potable demand on the City of Tampa Water Department and the Tampa Bay Water Regional System accordingly. The project is part of the City's five-year plan and is also one of the Best Management Practices listed in the Tampa Bay Water (TBW) Partnership Guidelines established between the District, TBW, and its member governments. Rebate and plumbing retrofit programs are included in the City of Tampa's Comprehensive Plan, Policy 1.4.3. Water conservation is a priority included in both the Hillsborough River and the Northwest Hillsborough Basin Five-Year Plans. Also, water conservation and education are included in the Hillsborough River Comprehensive Watershed Management Plan.as critical approaches to protecting the area water supply.

Staff will formally request City Council to include project funds in the fiscal year budget 2008 budget.

| Funding Source | Prior <br> Funding | FY 2007 <br> Budget | FY 2008 <br> Budget | Future <br> Funding | Total <br> Funding |
| :---: | ---: | ---: | :---: | :---: | :---: |
| Applicant Share | $\$ 200,000$ | $\$ 220,000$ | $\$ 220,000$ | $\$$ | $\$ 640,000$ |
| Basin Board(s) Share |  |  |  |  |  |
| Hills. River (49\%) | $\$ 100,000$ | $\$ 53,900$ | $\$ 53,900$ |  | $\$ 320,000$ |
| NW Hillsborough (29\%) |  | $\$ 31,900$ | $\$ 31,900$ |  |  |
| Alafia River (22\%) |  | $\$ 24,200$ | $\$ 24,200$ |  |  |
|  |  |  |  |  |  |
| Other Funding Sources |  |  |  |  |  |
| TOTAL | $\$ 300,000$ | $\$ 330,000$ | $\$ 330,000$ | $\$$ | $\$ 960,000$ |

Check here if requesting a waiver or reduction in matching fund requirements pursuant to $\mathbf{s . 2 8 8 . 0 6 5 6 1}$, F.S. See Guidelines for Submittal of Cooperative Funding Projects for Which a Waiver or Reduction in Matching Fund Requirements is Requested Pursuant to the Rural Economic Development Initiative. Please provide documentation of qualification under the Rural Economic Development Initiative.

## Critical Project Milestones:

Contract Executed
Notice to Proceed
Release RFP for Rebate Contract Coordinator
Select Rebate Contract Coordinator State Program and Education Campaign
Project Evaluation
Contract Closeout


Timelines:
January 2007
March 2007
March 2007
April 2007
April 2007
December 2007
March 2008
March 2008

## 2008 COOPERATIVE FUNDING INITIATIVE APPLICATION FORM

Proposals more than two pages in length will not be recommended for funding by staff. The only supplemental information to be provided is a location map, a single page to document that the applicant's matching funds are in an existing or proposed budget or capital improvement plan, and a PC-compatible CD-ROM or 3.5 -inch diskette containing the completed application in Microsoft Word 2000 or equivalent. Additional Information may be required for the four project types as well as education projects. Please refer to the specific guidelines. Four copies of each project proposal must be submitted.

## ALTERATIONS TO THE APPLICATION ARE NOT PERMITTED. E-MAILS/FAXES WILL NOT BE ACCEPTED.

(Computer users: select form fields with mouse or navigate fields with tab or arrow key)

| Project Name | Masterplan Maintenance Interface Tool Development |
| :---: | :---: |
| Project \# |  |
| Cooperator | Hillsborough County |
| Contact Person | Junshan Su |
| Address | 601 E. Kennedy Blvd. 22nd Floor, P.O.Box1110, Tampa,FL33601\%iON |
| Phone \# | 813-307-1791 |
| Email Address | suj@hillsboroughcounty.org |
| District Project Manager | David Arnold |

PROJECT TYPE: (Check all that apply. Computer users: mouse-select box or navigate with tab or arrow key, use space barto mark box)
$\square$
Water Supply
Q Water Quality
区 Flood Protection
$\square$ Natural Systems

Indicate All Counties To Benefit from Project:
$\square$ Charlotte
$\square$ Lake
$\square$ Sarasota
$\square$
$\square$
$\square$
Citrus Levy Sumter
$\square$ DeSoto Manatee
$\square$ Hardee Marion
$\square$ Hernando
PascoHighlands Pinellas
X Hillsborough
$\square$ Polk

PROJECT DESCRIPTION: Hillsborough County is a fast growing county. Every year, the land use changes dramatically. The watershed management master plan computer models and GIS files need to be updated regularly. The information will be not reliable, if the updates take place only every 5 years which is currently being done. To ensure the master plan information is up-to-date, a special tool is necessary to dynamically update the masterplan models and GIS files monthly or quarterly. The tool will be GIS based. The users will be able to update the GIS layers based on as-built plans. The model input will be automatically updated accordingly. Then, the model will be re-run and the model output feature classes will be automatically updated. When a user changes the land use layer, and/or basin delineation, the curve numbers and other hydrologic parameters will be automatically re-calculated. With this tool, users can clip a sub-model from a watershed (check out), and update it with new information, and then check it into the main model and GeoDatabase, which will benefit the SWFWMD Regulation Department, Hillsborough County Planning and Growth Management Department and the engineering/consultant community. This tool will be a stand alone software product, which will not depend on any commercial GIS software.

Describe your organizations efforts in developing, implementing and enforcing water conservation and flood protection ordinances. Water Conservation: Hillsborough County was the premier local government to criminalize the violation of water use restrictions, and to adopt a civil citation process for the enforcement of the same in July 1993. A fulltime Water Conservation Manager assures that the County stays abreast of conservation issues. This facilitates amendments to the County's Water Conservation Ordinance (HCO 91-27) as needed to quickly address changing conditions in the regulatory environment and as deemed appropriate by the County's administration.

## SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

Flood Protection: The principal purpose of Hillsborough County's floodplain management program is to protect residents and business owners from flooding risks. Flooding disasters are the leading recurring hazard within the County and have the potential of affecting greater than one-quarter of the population at a value that is greater than five billion dollars in personal property. Construction standards and planning concepts are implemented through the County's Land Development Code, Floodplain Management Plan and Local Mitigation Strategy.

| Funding Source | Prior <br> Funding | FY 2007 <br> Budget | FY 2008 <br> Budget | Future <br> Funding | Total <br> Funding |
| :---: | ---: | ---: | ---: | ---: | ---: |
| Applicant Share | $\$ 0$ | $\$ 40,000$ | $\$ 180,000$ | $\$ 180,000$ | $\$ 400,000$ |
| Basin Board(s) Share | $\$ 0$ |  | $\$ 0$ |  | 60,000 |
| NW BB |  |  | 60,000 | 60,000 | 60,000 |
| Hillsborough River BB |  |  | 60,000 |  |  |
| Alafia River BB |  |  |  |  | 60,000 |
|  |  |  |  |  | 60,000 |
| Other Funding Sources |  |  |  |  |  |
| TOTAL | $\$ 0$ | $\$ 40,000$ | $\$ 360,000$ | $\$ 360,000$ | $\$ 760,000$ |

$\square$ Check here if requesting a waiver or reduction in matching fund requirements pursuant to $\mathbf{s} \mathbf{2 8 8 . 0 6 5 6 1}$, F.S. See Guidelines for Submittal of Cooperative Funding Projects for Which a Waiver or Reduction in Matching Fund Requirements is Requested Pursuant to the Rural Economic Development Initiative. Please provide documentation of qualification under the Rural Economic Development Initiative.


2008 Cooperative Funding Initiative Application Form

## 2008 COOPERATIVE FUNDING INITIATIVE APPLICATION FORM

Proposals more than two pages in length will not be recommended for funding by staff. The only supplemental information to be provided is a location map, a single page to document that the applicant's matching funds are in an existing or proposed budget or capital improvement plan, and a PC-compatible CD-ROM or 3.5 -inch diskette containing the completed application in Microsoft Word 2000 or equivalent. Additional Information may be required for the four project types as well as education projects. Please refer to the specific guidelines. Four copies of each project proposal must be submitted.

## ALTERATIONS TO THE APPLICATION ARE NOT PERMITTED. E-MAILS/FAXES WILL NOT BE ACCEPTED. (Computer users: select form fields with mouse or navigate fields with tab or arrow key)

| Project Name | Closed Basin Percolation Rate Study |
| ---: | :--- |
| Project \# |  |
| Cooperator | Hillsborough County Public Works / Stormwater |
| Contact Person | Junshan Su |
| Address | 601 E. Kennedy Blvd. 22nd Floor, P.O.Box1110, Tampa,FL33601 |
| Phone\# | $813-307-1791$ |
| Email Address | suj@hillsboroughcounty.org |
| District Project Manager |  |

PROJECT TYPE; (Check all that apply. Computer users: mouse-select box or navigate with tab or anrow key, use space bar to mark box)
$\square$ Water Supply
W Water Quality
W Flood Protection
X Natural Systems

Indicate All Counties To Benefit from Project:

| $\square$ Charlotte | $\square$ Citrus | $\square$ DeSoto | $\square$ Hardee | $\square$ Hernando | $\square$ Highlands | Hillsborough |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\square$ Lake | $\square$ Levy | $\square$ Manatee | $\square$ Marion | $\square$ Pasco | $\square$ Pinellas | $\square$ Polk |
| $\square$ Sarasota | $\square$ Sumter |  |  |  |  |  |

PROJECT DESCRIPTION: The percolation rates in closed basins play a very important role in modeling, especially for long term simulation. Based on our testing, in some areas, the percolation rate may lower the peak water levels by more than 5 feet. The proposed project will provide a general methodology, and/or lookup tables to determine any closed basin's percolation rate, based on land use, soil, surface vegetation condition, ground water condition, wet condition, and topographic information. Hillsborough County's SWMM model will be modified based on the study results to take percolation rates into account for more accurate water level predictions.

Describe your organizations efforts in developing, implementing and enforcing water conservation and flood protection ordinances. Water Conservation: Hillsborough County was the premier local government to criminalize the violation of water use restrictions, and to adopt a civil citation process for the enforcement of the same in July 1993. A fulltime Water Conservation Manager assures that the County stays abreast of conservation issues. This facilitates amendments to the County's Water Conservation Ordinance (HCO 91-27) as needed to quickly address changing conditions in the regulatory environment and as deemed appropriate by the County's administration.

Flood Protection: The principal purpose of Hillsborough County's floodplain management program is to protect residents and business owners from flooding risks. Flooding disasters are the leading recurring hazard within the County and have the potential of affecting greater than one-quarter of the population at a value that is greater than five billion dollars in personal property. Construction standards and planning concepts are implemented through the Countyis Land Development Code, Floodplain Management Plan and Local Mitigation Strategy.


SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

| Funding Source | Prior <br> Funding | FY 2007 <br> Budget | FY 2008 <br> Budget | Future <br> Funding | Total <br> Funding |
| :---: | ---: | ---: | ---: | ---: | ---: |
| Applicant Share | $\$ 0$ | $\$ 40,000$ | $\$ 60,000$ | $\$$ | $\$ 100,000$ |
| Basin Board(s) Share |  |  |  |  |  |
| Northwest Hillsborough |  |  | $\$ 20,000$ |  | $\$ 20,000$ |
| Hillsborough River |  |  | $\$ 20,000$ |  | $\$ 20,000$ |
| Alafia River |  |  | $\$ 20,000$ |  | $\$ 20,000$ |
|  |  |  |  |  |  |
| Other Funding Sources |  |  |  |  |  |
| TOTAL | $\$ 0$ | $\$ 40,000$ | $\$ 120,000$ |  | $\$ 0$ |

$\square$
Check here if requesting a waiver or reduction in matching fund requirements pursuant to s. 288.06561, F.S. See Guidelines for Submittal of Cooperative Funding Projects for Which a Waiver or Reduction in Matching Fund Requirements is Requested Pursuant to the Rural Economic Development Initiative. Please provide documentation of qualification under the Rural Economic Development Initiative.

## Critical Project Milestones:

Complete Modeling and Analysis/Recommendations

Timelines:
September 30, 2008

## 2008 COOPERATIVE FUNDING INITIATIVE APPLICATION FORM

Proposals more than two pages in length will not be recommended for funding by staff. The only supplemental information to be provided is a location map, a single page to document that the applicant's matching funds are in an existing or proposed budget or capital improvement plan, and a PC-compatible CD-ROM or 3.5 -inch diskette containing the completed application in Microsoft Word 2000 or equivalent. Additional Information may be required for the four project types as well as education projects. Please refer to the specific guidelines. Four copies of each project proposal must be submitted.

ALTERATIONS TO THE APPLICATION ARE NOT PERMITTED. E-MAILS/FAXES WILL NOT BE ACCEPTED.
(Computer users: select form fields with mouse or navigate fields with tab or arrow key)

| Project Name | Lake Carroll Stormwater Input Determination Study |
| ---: | :--- |
| Project \# |  |
| Cooperator | Hillsborough County |
| Contact Person | Jason Mickel |
| Address | 601 E. Kennedy Blvd. 22nd floor P.O.Box 1110 Tampa, FL 33601 |
| Phone \# | $813 \mathbf{3 0 7} 1824$ |
| Email Address | mickelj@hillsboroughcounty.org |
| District Project Manager |  |

PROJECT TYPE: (Check all that apply. Computer users: mouse-select box or navigate with tab or arrow key; use space bar to mark box)
$\square$ Water Supply
区 Water Quality
® Flood Protection
X Natural Systems

## Indicate All Counties To Benefit from Project:

| $\square$ Charlote | $\square$ Citrus | $\square$ DeSoto | $\square$ Hardee | $\square$ Hernando | $\square$ Highlands | Hillsborough |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\square$ Lake | $\square$ Levy | $\square$ Manatee | $\square$ Marion | $\square$ Pasco | $\square$ Pinellas | $\square$ Polk |
| $\square$ Sarasota | $\square$ Sumter |  |  |  |  |  |

PROJECT DESCRIPTION: The Hillsborough County Stormwater Management Section is planning a drainage study to alleviate flooding for the Lake Carroll watershed. Due to increased development, lack of maintenance, and inadequate stormwater pipes, several neighborhoods immediately surrounding the lake have become susceptible to flooding. We are planning to improve the drainage in this neighborhood by replacing or upgrading these drainage pipes while looking for possible opportunities to provide pre-treatment systems that will improve the water quality of Lake Carroll. The County would like to include in the study, research to determine the source of pollution discharge to Lake Carroll and recommendations of the best pre-treatment system to reduce or eliminate pollution discharges to the lake.

Lake Carroll is iisted as an impaired water body on the Florida Department of Environmental Protection's 303(d) list of Impaired Surface Waters for nutrient levels (nitrogen and phosphorus). Therefore, a Total Maximum Daily Load (TMDL) must be set for Lake Carroll, which means that the level of nutrients entering Lake Carroll must be reduced to an acceptable level. It is the goal of Hillsborough County to work with the community to meet the state requirements by reducing the nutrients entering the lake, through: designing structural treatment options; incorporating innovative and environmentally sound techniques; retrofitting portions of the existing stormwater management system; and educating residents about stormwater pollution.

Describe your organizations efforts in developing, implementing and enforcing water conservation and flood protection ordinances. Water Conservation: Hillsborough County was the premier local government to criminalize the violation of water use restrictions, and to adopt a civil citation process for the enforcement of the same in July 1993. A fulltime Water Conservation Manager assures that the County stays abreast of conservation issues. This facilitates amendments to the County's Water Conservation Ordinance (HCO 91-27) as needed to quickly address changing conditions in the regulatory environment and as deemed appropriate by the County's administration.

## SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

Flood Protection: The principal purpose of Hillsborough County's floodplain management program is to protect residents and business owners from flooding risks. Flooding disasters are the leading recurring hazard within the County and have the potential of affecting greater than one-quarter of the population at a value that is greater than five billion dollars in personal property. Construction standards and planning concepts are implemented through the County's Land Development Code, Floodplain Management Plan and Local Mitigation Strategy.

| Funding Source | Prior <br> Funding | FY 2007 <br> Budget | FY 2008 <br> Budget | Future <br> Funding | Total <br> Funding |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Applicant Share | $\$$ | $\$$ | $\$ 180,000$ | $\$$ | $\$$ |
| Basin Boards) Share |  |  |  |  |  |
| Northwest Hillsborough |  |  | 100,000 |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Other Funding Sources |  |  |  |  |  |
| TOTAL | $\$$ | $\$$ | $\$ 280,000$ | $\$$ | $\$$ |

Check here if requesting a waiver or reduction in matching fund requirements pursuant to s. 288.06561, F.S. See Guidelines for Submittal of Cooperative Funding Projects for Which a Waiver or Reduction in Matching Fund Requirements is Requested Pursuant to the Rural Economic Development Initiative. Please provide documentation of qualification under the Rural Economic Development Initiative.

Critical Project Milestones:
Completed Report and Detailed Recommendations


Timelines:
13 months/continuous

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## 2008 COOPERATIVE FUNDING INITIATIVE APPLICATION FORM

Proposals more than two pages in length will not be recommended for funding by staff. The only supplemental information to be provided is a location map, a single page to document that the applicant's matching funds are in an existing or proposed budget or capital improvement plan, and a PC-compatible CD-ROM or 3.5 -inch diskette containing the completed application in Microsoft Word 2000 or equivalent. Additional Information may be required for the four project types as well as education projects. Please refer to the specific guidelines. Four copies of each project proposal must be submitted.

ALTERATIONS TO THE APPLICATION ARE NOT PERMITTED. E-MAILS/FAXES WILL NOT BE ACCEPTED.
(Computer users: select form fields with mouse or navigate fields with tab or arrow key)

| Project Name | Brooker Creek Watershed - Optimized Gate Operation Schedule |
| ---: | :--- |
| Project \# |  |
| Cooperator | Hillsborough County |
| Contact Person | Junshan Su |
| Address | 601 E. Kennedy Blvd. 22nd Floor, P.O.Box1110, Tampa,FL33601 |
| Phone \# | $813-307-1791$ |
| Email Address | suj@hillsboroughcounty.org |
| District Project Manager |  |

PROJECT TYPE: (Check all that apply. Computer users: mouse-select box or navigate with tab or arrow key, use space bar to mark box)
$\square$ Water Supply
【 Water Quality
区 Flood Protection
Q Natural Systems

Indicate All Counties To Benefit from Project:

| $\square$ Chariotte | $\square$ Citrus | $\square$ DeSoto | $\square$ Hardee | $\square$ Hernando | $\square$ Highlands |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\square$ Lake | $\square$ Levy | $\square$ Manatee | $\square$ Marion | $\square$ Pasco | $\square$ Pinellas |
| $\square$ Sarasota | $\square$ Sumter |  | $\square$ Polk |  |  |

PROJECT DESCRIPTION: Both Hillsborough County and Pinellas County suffered flooding in the Brooker Creek Watershed in September, 2006. Many citizens cmplained that the three gates in the Brooker Creek watershed were not operated correctly. It is important to find out the optimized gate operation schedules to not only protect people from flooding, but also maintain a reasonable high water level in the dry season. The methodology will be: running the Brooker Creek computer model for many different rain fall events and different possible operation schedules with a reasonable level of service both downstream and upstream. Historical information will be used to verify the proposed operational schedule.

Describe your organizations efforts in developing, implementing and enforcing water conservation and flood protection ordinances. Water Conservation: Hillsborough County was the premier local government to criminalize the violation of water use restrictions, and to adopt a civil citation process for the enforcement of the same in July 1993. A fulltime Water Conservation Manager assures that the County stays abreast of conservation issues. This facilitates amendments to the County's Water Conservation Ordinance (HCO 91-27) as needed to quickly address changing conditions in the regulatory environment and as deemed appropriate by the County's administration.

Flood Protection: The principal purpose of Hillsborough County's floodplain management program is to protect residents and business owners from flooding risks. Flooding disasters are the leading recurring hazard within the County and have the potential of affecting greater than one-quarter of the population at a value that is greater than five billion dollars in personal property. Construction standards and planning concepts are implemented through the County's Land Development Code, Floodplain Management Plan and Local Mitigation Strategy.

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

| Funding Source | Prior <br> Funding | FY 2007 <br> Budget | FY 2008 <br> Budget | Future <br> Funding | Total <br> Funding |
| :---: | ---: | ---: | ---: | ---: | ---: |
| Applicant Share | $\$ 0$ | $\$ 0$ | $\$ 25,000$ | $\$ 0$ | $\$ 25,000$ |
| Basin Boards) Share | $\$ 0$ | $\$ 0$ |  |  |  |
| Northwest Hillsborough |  |  | $\$ 25,000$ |  | $\$ 25,000$ |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Other Funding Sources |  |  |  |  |  |
| TOTAL | $\$ 0$ | $\$ 0$ | $\$ 50,000$ |  | $\$ 0$ |

Check here if requesting a waiver or reduction in matching fund requirements pursuant to s. 288.06561, F.S. See Guidelines for Submittal of Cooperative Funding Projects for Which a Waiver or Reduction in Matching Fund Requirements is Requested Pursuant to the Rural Economic Development Initiative. Please provide documentation of qualification under the Rural Economic Development Initiative.

Critical Project Milestones:
Complete Modeling and Analysis/Recommendations


## NORTHWEST HILLSBOROUGH BASIN STRATEGIC BUDGET PRIORITIES

On October 10, 2006, the Northwest Hillsborough Basin Board held its annual planning workshop for the purposes of reviewing recent accomplishments, identifying emerging issues and setting strategic budget priorities for FY 2008. These priorities provide guidance to District staff and the Basin Board's cooperators in identifying and scoping projects for potential Basin Board funding. At the workshop, the Board agreed on the following set of strategic budget priorities.

- Alternative Water Supply Development
- Watershed Management Program
- Public and Youth Education

While the above priorities were developed to help ensure that the most critical needs of the basin are addressed, the Basin Board funds a wide variety of projects to assist in the achievement of the mission of the Southwest Florida Water Management District. These include projects that fall within each of the District's four areas of responsibility: water supply, flood protection, water quality and natural systems.

## Location Map: Temple Terrace City Hall

 11250 N. 56th Street • Temple Terrace


[^0]:    The District does not discriminate based on disability. Anyone requiring reasonable accommodation under the ADA should contact the Executive Department at (352) 796-7211 or 1-800-423-1476 (Florida only), extension 4608; TDD only, 1-800-231-6103 (Florida); fax (352) 754-6874/SunCom 633-6874.

[^1]:    (1) FY2006 Actual Balance from Prior Years was $\$ 1,165,966$ : $\$ 410,680$ additional balance forward from FY2004; $\$ 32,941$ excess fees; $\$ 153,045$ interest earnings over budget; $\$ 83,107$ K539 Race Track Road Stormwater Improvement completed under budget; $\$ 49,689$ reduction in Partnership payment due to Trust (2) FY2007 Balance from Prior Years: $\$ 303,356$ additional balance forward from FY2005; $\$ 40,029$ excess fees; $\$ 375,000$ projected interest earnings over budget; $\$ 100,776$ H040 Pasco County Central/East Regional Reclaimed Water Interconnect withdrawn; $\$ 4,914$ K622 Lowry Park Zoo Groundwater Reuse/ Conservation completed under budget; $\$ 291,600$ projected unspent contingencies; and $\$ 9,380$ projected SWIM transfers under budget.
    3) Historical interest amounts: $\$ 456,167$ in FY2001, $\$ 271,506$ in FY2002, $\$ 212,623$ in FY2003, $\$ 176,213$ in FY2004, and $\$ 343,045$ in $F Y 2005$.
    (4) Historical changes in property valuations: $11.0 \%$ in $F Y 2001,16.24 \%$ in $F Y 2002,8.8 \%$ in $F Y 2003,8.9 \%$ in $F Y 2004,8.8 \%$ in $F Y 2005$, and $13.5 \%$ in $F Y 2006$.

[^2]:    Critical Project Milestones:
    District Recognition/Signage:
    Projected: Amended: Actual:

    Status As Of: 10/23/2006 - To date, cooperator has been notified of approval of funding and District staff is working with cooperator to develop project scope and critical milestones. District staff and members of the BBEC met with cooperator in two planery workshops to help determine the direction museum exhibits will go, and the messages that will be incorporated throughout the museum.

