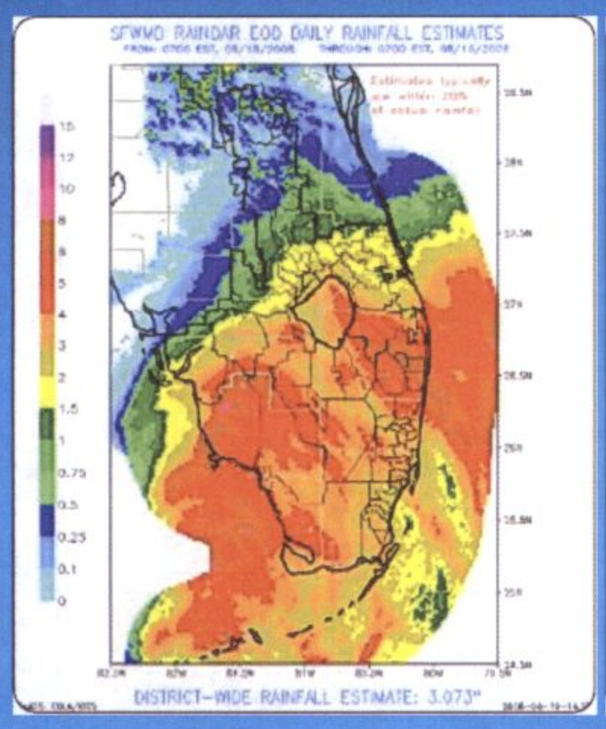
EASTERN WATERSHED IMPROVEMENT PROJECT

CITY COUNCIL RETREAT
JULY 2012

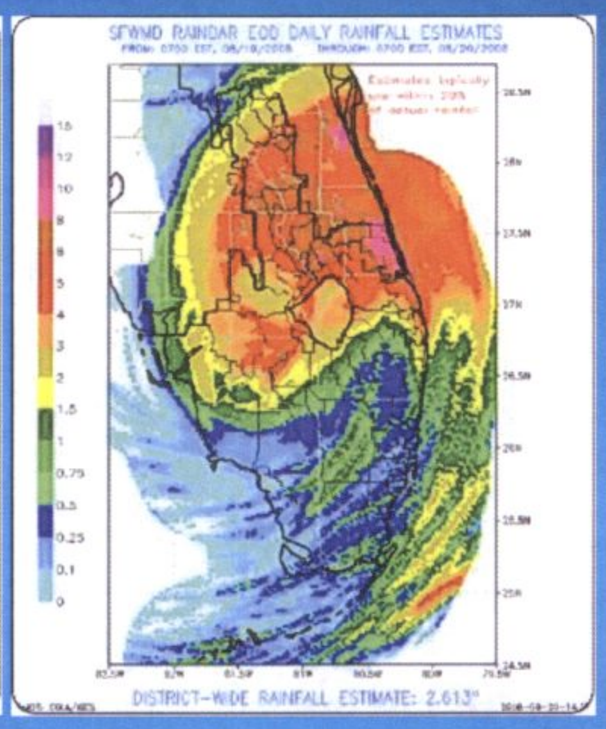
TROPICAL STORM FAY

24-48 hour Rainfall

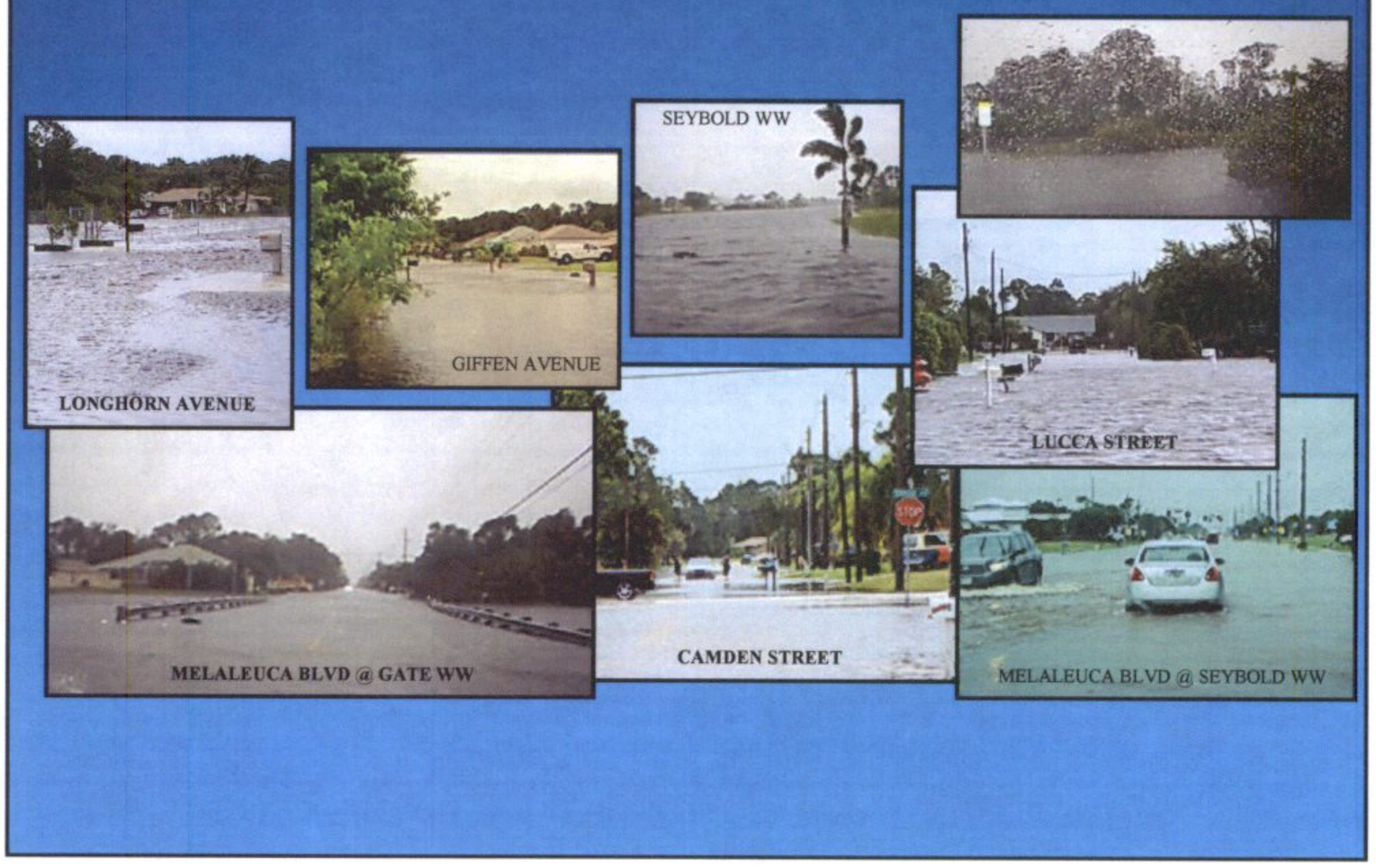
AUGUST 18-19



AUGUST 19-20

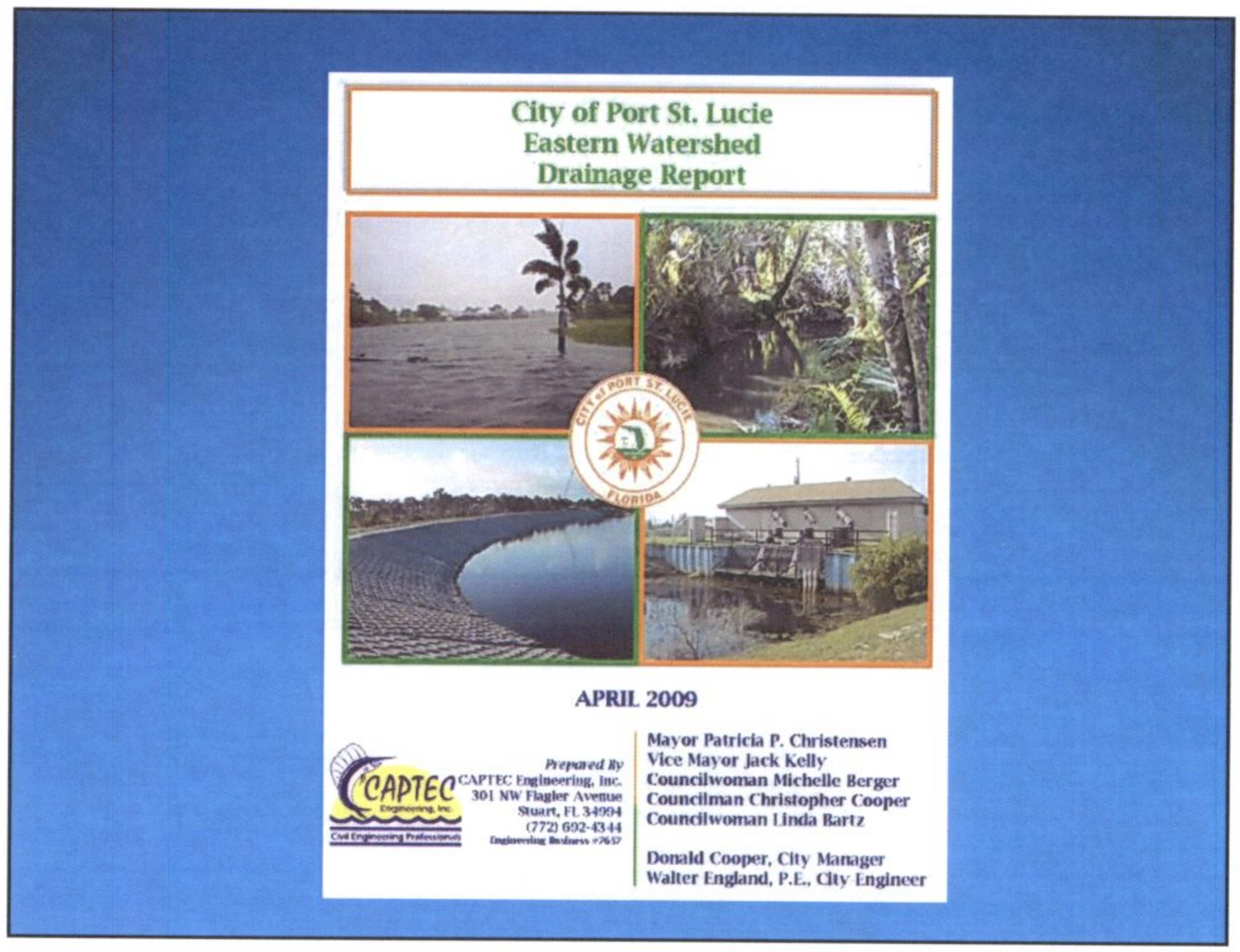


TROPICAL STORM FAY



TROPICAL STORM FAY

LENNARD ROAD @ US 1
LOOKING NORTH TOWARDS SAM'S CLUB



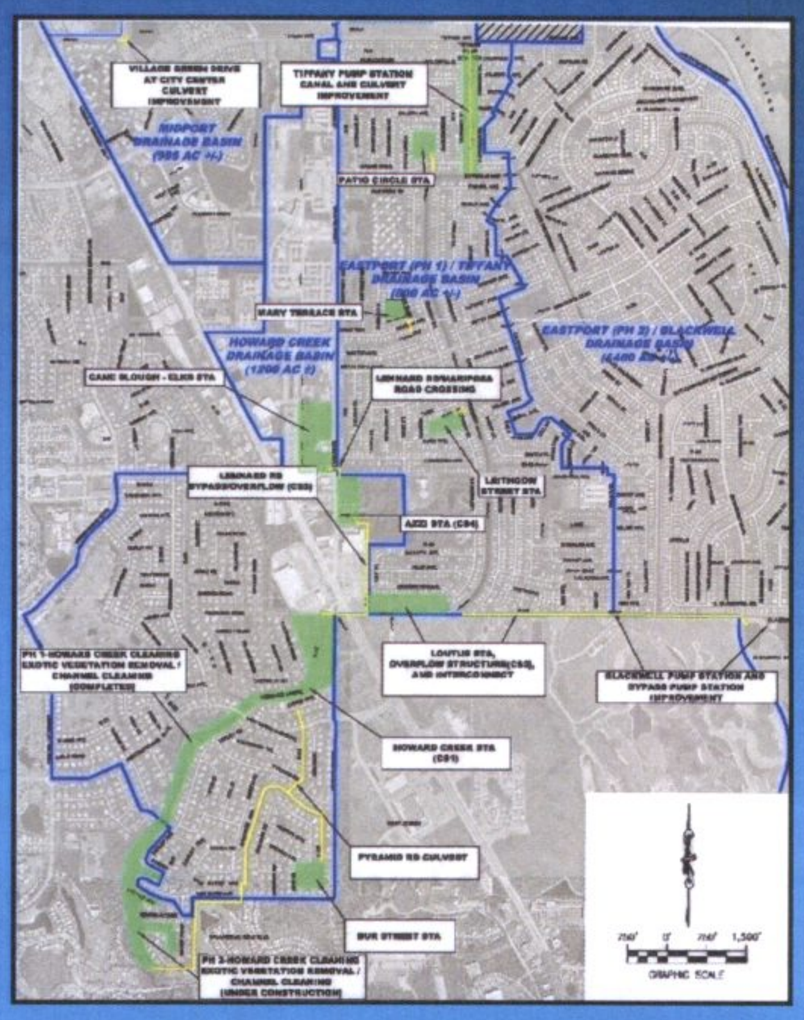
NEW STORMWATER STANDARD

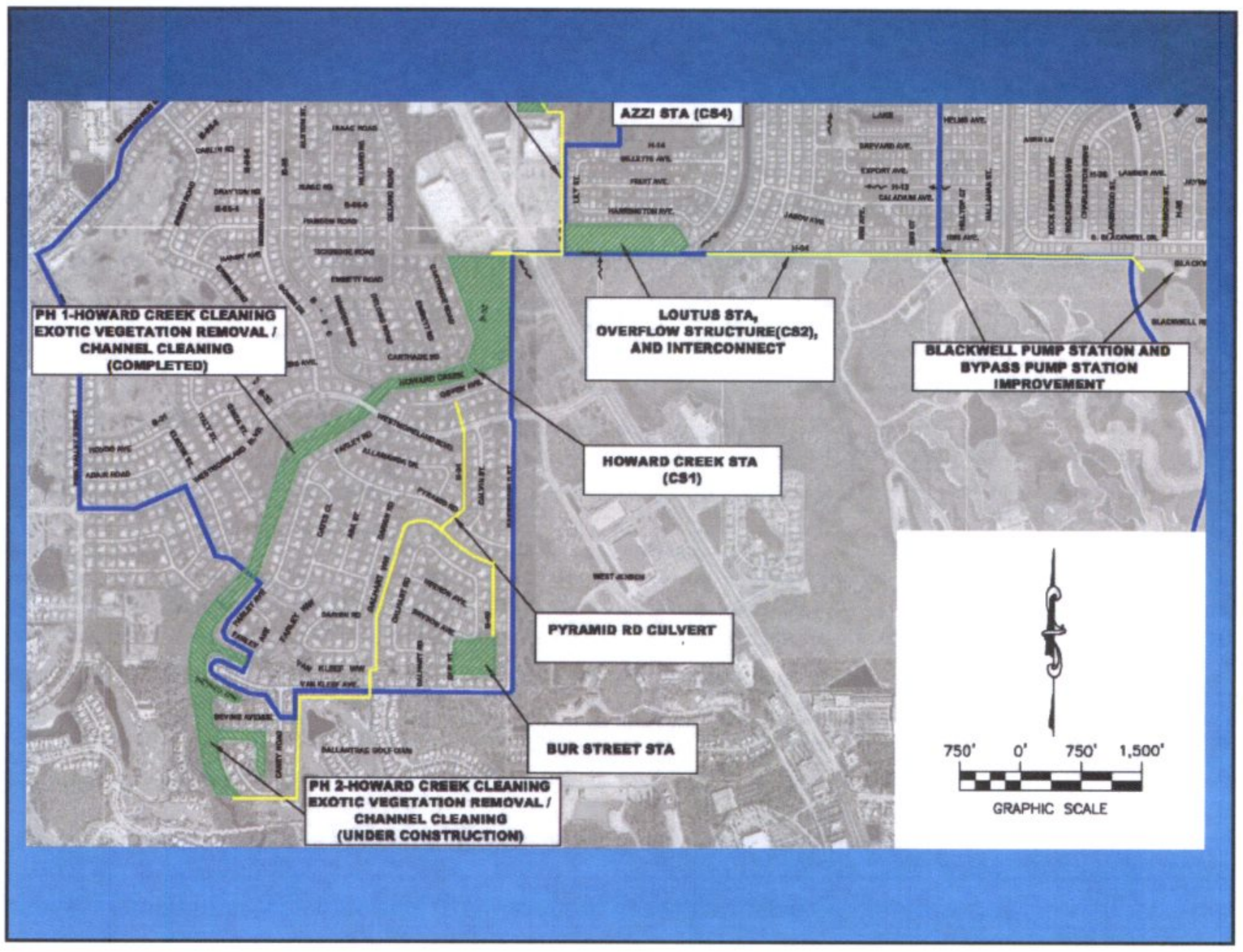
- The Finished Floor Elevations of structures should be at or above the flood elevation of a 100-year, 3-day storm event; and
- Roads should have no greater than 8-inches of stormwater over the crown of the road, 12-hours after the peak stage in a 100-year, 3-day storm event to allow for safe passage.

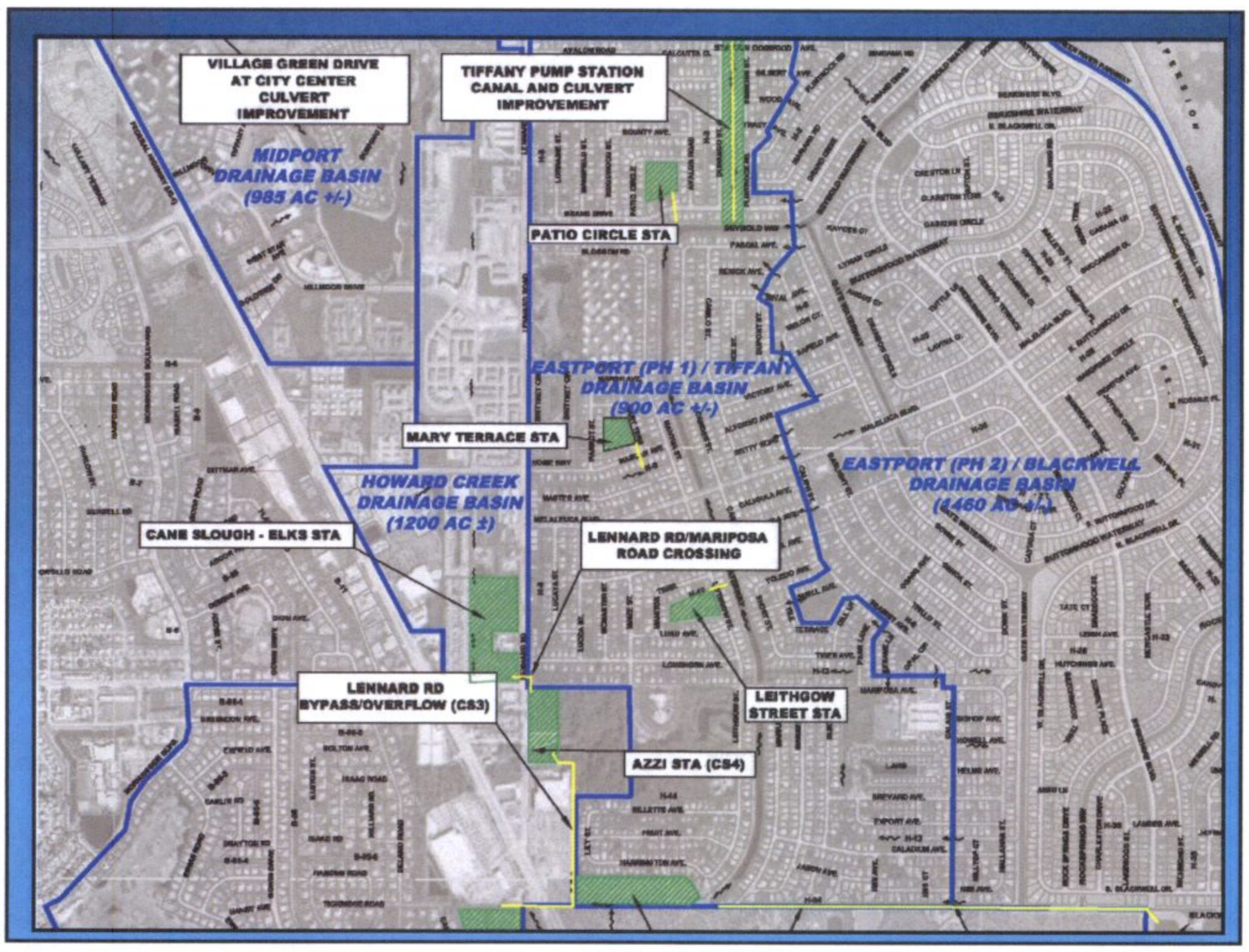
PROJECT IMPROVEMENTS

- Howard Creek Channel Clearing Improvement (Ph 1 & 2)
- Howard Creek STA / Bur Street STA / BY-PASS PIPING
- Patio Circle STA Improvements
- Lennard Road / Mariposa Road Crossing
- Cane Slough/Elks STA Improvements
- Mary Terrace / Leithgow STA Improvements
- Azzi STA / Lennard Road Bypass Improvement
- Tiffany Pump Station / Canal Improvements
- Village Green Drive @ City Center Improvement
- Loutus STA and Inter-connect Improvement
- Blackwell Pump Station Improvement / By-Pass Pump Station Improvement

MAP OF PROJECT IMPROVEMENTS




AZZI STA (CS4)
PH 1-HOWARD CREEK CLEANING EXOTIC VEGETATION REMOVAL / CHANNEL CLEANING (COMPLETED)
LOUTUS STA, OVERFLOW STRUCTURE(CS2), AND INTERCONNECT
BLACKWELL PUMP STATION AND BYPASS PUMP STATION IMPROVEMENT
HOWARD CREEK STA (CS1)
PYRAMID RD CULVERT
BUR STREET STA
PH 2-HOWARD CREEK CLEANING EXOTIC VEGETATION REMOVAL / CHANNEL CLEANING (UNDER CONSTRUCTION)
750' 0' 750' 1,500'
GRAPHIC SCALE


VILLAGE GREEN DRIVE AT CITY CENTER CULVERT IMPROVEMENT
TIFFANY PUMP STATION CANAL AND CULVERT IMPROVEMENT
MIDPORT DRAINAGE BASIN (985 AC +/-)
PATIO CIRCLE STA
EASTPORT (PH 1) / TIFFANY DRAINAGE BASIN (900 AC +/-)
MARY TERRACE STA
HOWARD CREEK DRAINAGE BASIN (1200 AC ±)
EASTPORT (PH 2) / BLACKWELL DRAINAGE BASIN (1460 AC +/-)
CANE SLOUGH - ELKS STA
LENNARD RD/MARIPOSA ROAD CROSSING
LENNARD RD BYPASS/OVERFLOW (CS3)
LEITHGOW STREET STA
AZZI STA (CS4)

FINANCING

NEW ISSUE - BOOK-ENTRY ONLY

RATINGS: Moody's: "Aa3" (Insured)
S&P: "AAA" (Insured)
Moody's: "A2" (Underlying)
S&P: "A" (Underlying)
(See "BOND INSURANCE" "RATINGS" herein)

In the opinion of Squire, Sanders & Dempsey, L.L.P., Bond Counsel, under existing law, the Series 2010 Bonds and the income thereon are exempt from taxation under the laws of the State of Florida, except estate taxes imposed by Chapter 198, Florida Statutes, as amended, and net income and franchise taxes imposed by Chapter 220, Florida Statutes, as amended. INTEREST ON THE SERIES 2010 IS NOT EXCLUDED FROM GROSS INCOME FOR FEDERAL TAX PURPOSES. For a more complete discussion of the tax aspects, see "TAX MATTERS" herein.

RECEIVED
JAN 15 2010
City Manager's Office

CITY OF PORT ST. LUCIE, FLORIDA

$26,895,000
Stormwater Utility Revenue Bonds, Taxable Series 2010A (Build America Bonds – Direct Payment)

$9,105,000
Stormwater Utility Revenue Bonds, Taxable Series 2010B (Recovery Zone Economic Development Bonds)

Dated: January 15, 2010

Due: May 1, as shown on the inside cover page

The Stormwater Utility Revenue Bonds, Taxable Series 2010A (Build America Bonds – Direct Payment) (the "Series 2010A Bonds") and the Stormwater Utility Revenue Bonds, Taxable Series 2010B (Recovery Zone Economic Development Bonds) (the "Series 2010B Bonds" and, collectively with the Series 2010A Bonds, the "Series 2010 Bonds") of the City of Port St. Lucie, Florida (the "City"), will be issued only as fully registered bonds and will be initially registered only in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC"), which will act as securities depository for the Series 2010 Bonds. The Series 2010 Bonds will be available to purchasers in denominations of $5,000 and any multiple thereof only under the book-entry system maintained by DTC through brokers and dealers who are or act through, DTC Participants. Purchasers will not receive delivery of the Series 2010 Bonds. So long as any purchaser is the Beneficial Owner (as defined herein) of a Series 2010 Bond, he must maintain an account with a broker or dealer who is, or acts through, a DTC Participant to receive payment of principal of and interest on such Series 2010 Bond. See "DESCRIPTION OF THE SERIES 2010 BONDS-Book-Entry Only System" herein. Interest on the Series 2010 Bonds will be payable on May 1 and November 1 of each year, commencing on May 1, 2010. While the Series 2010 Bonds are registered through DTC, principal of and interest on the Series 2010 Bonds will be payable by the Paying Agent to DTC. TD Bank, National Association, Jacksonville, Florida will serve as Paying Agent for the Series 2010 Bonds.

The Series 2010 Bonds are subject to optional, mandatory and extraordinary optional redemption prior to maturity as more specifically set forth herein.

The Series 2010 Bonds are being issued under the authority of, and in full compliance with, the Constitution and laws of the State of Florida, including particularly Chapter 166, Part II, Florida Statutes, Sections 1.01 and 9.09(b) of the Charter of the City, and other applicable provisions of law, and Ordinance 91-49, enacted by the City Council on July 19, 1991, as amended by Ordinance 91-80 enacted by the City Council on December 16, 1991, and Ordinance 97-16, enacted by the City Council on March 10, 1997 (collectively, the "Original Ordinance"), as supplemented by Ordinance 06-61 enacted by the City Council on December 7, 2009, and as further supplemented by Resolution 09-R145 also adopted by the City Council on December 7, 2009 (collectively, with the Original Ordinance, hereinafter referred to as the "Bond Ordinance"). The Series 2010 Bonds are being issued to provide funds, together with other available money, to (i) finance the cost of acquisition, construction and equipping of capital improvements to the System, as more particularly described herein (the "2010 Project"), (ii) purchase a reserve fund financial guaranty policy in the amount of the Reserve Account Requirement for the Series 2010 Bonds for deposit to the Series 2010 Bonds Reserve Subaccount in the Reserve Account, and (iii) pay costs of issuance associated with the Series 2010 Bonds including the cost of the financial guaranty insurance policy. See "PURPOSE OF THE SERIES 2010 BONDS" herein.

The Series 2010 Bonds are special obligations of the City payable solely from and secured by a lien upon and pledge of (i) the Pledged Revenues (as defined herein) received by the City from the operation of its stormwater collection and drainage system; (ii) Franchise Revenues (as defined herein) derived from the Electric Franchise Fees imposed on and collected from Florida Power & Light Company (the Stormwater Revenues and Franchise Revenues are hereinafter sometimes collectively referred to as the "Pledged Revenues"), and (iii) until applied in accordance with the provisions of the Bond Ordinance, all in the manner provided in the moneys, including the income from the investment thereof, in certain funds and accounts established by the Bond Ordinance, all in the manner provided in and subject to the terms and conditions of the Bond Ordinance. The Series 2010 Bonds are payable on a parity with the City's Stormwater Utility Revenue and Refunding Bonds, Series 2002. For a discussion of the security for the Series 2010 Bonds, see SECURITY FOR THE SERIES 2010 BONDS" herein.

The scheduled payment of the principal of and interest on the Series 2010 Bonds when due will be insured by a financial guaranty insurance policy to be issued by Assured Guaranty Corp. simultaneously with the delivery of the Series 2010 Bonds.

PROJECT TIMELINE

- Federal regulations applicable to the bonds require the project to be completed within 36 months of issuance—January 15, 2013.
- The Project is anticipated to be substantially complete sooner…the fall of the 2012 Calendar Year.

PROGRESS TO DATE

- DESIGN -COMPLETE
- LAND ACQUISITION - COMPLETE
- PERMITTING - COMPLETE
- CONSTRUCTION – ON GOING
- PUBLIC OUTREACH – ON GOING
- LEVERAGING – ON GOING

CONSTRUCTION

- Howard Creek clean out is complete.
- Selective hand clearing of Howard Creek is complete.
- The Patio Circle STA is complete and landscaped.
- The Howard Creek STA / Burr Street STA is complete and landscaped.
- Elks-Cane Slough STA is complete and landscaped.
- Lennard Square STA is operational. Landscaping is underway.
- Tiffany Pump Station Improvements are complete.
- Tiffany Channel Improvements are complete.
- Mary Terrace/Leithgow Street Ponds are complete and landscaped.

CONSTRUCTION

- Mobile Pump system is operational/Primary service location is under construction.
- Blackwell Pump Station Improvements are complete.
- Loutus Pond is under construction.
- Upon completion of the Loutus Pond, landscaping will follow.
- Anticipated completion of construction and landscaping is October 2012.

CONSTRUCTION

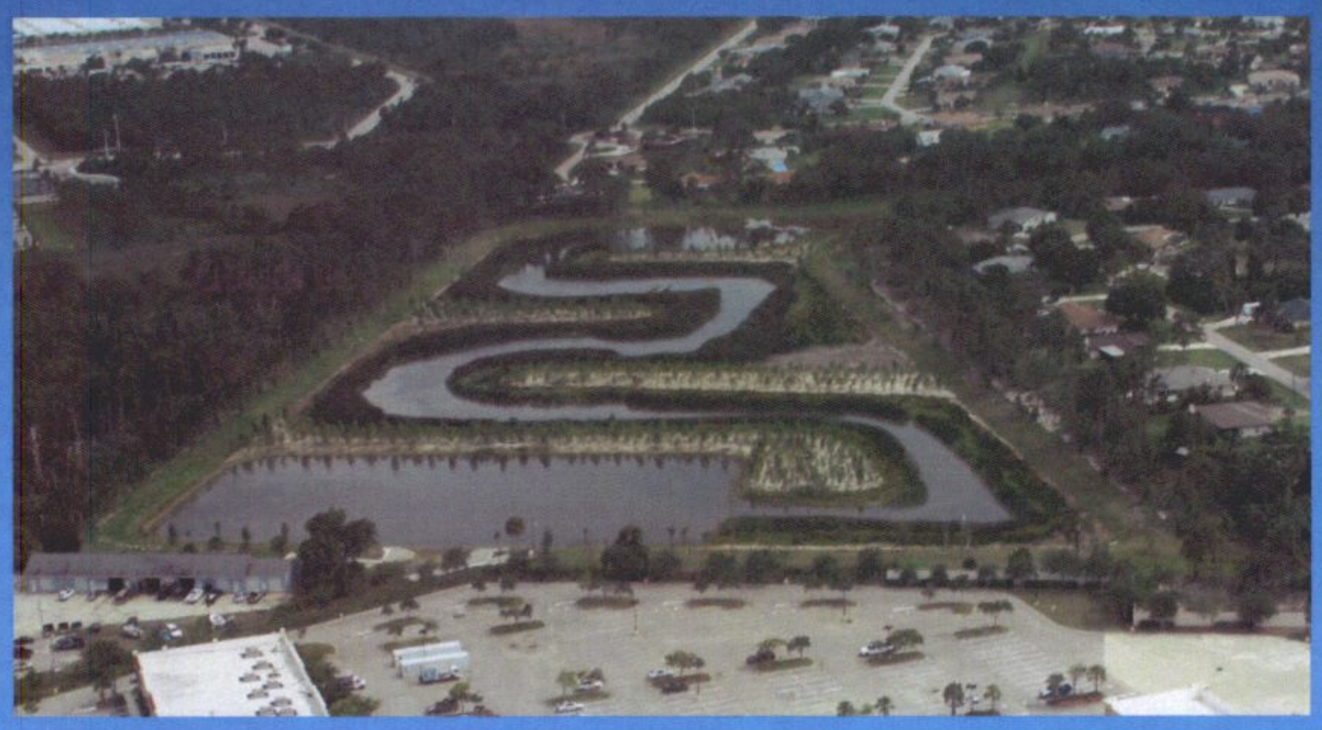
Patio Circle Pond

CONSTRUCTION

Patio Circle Pond

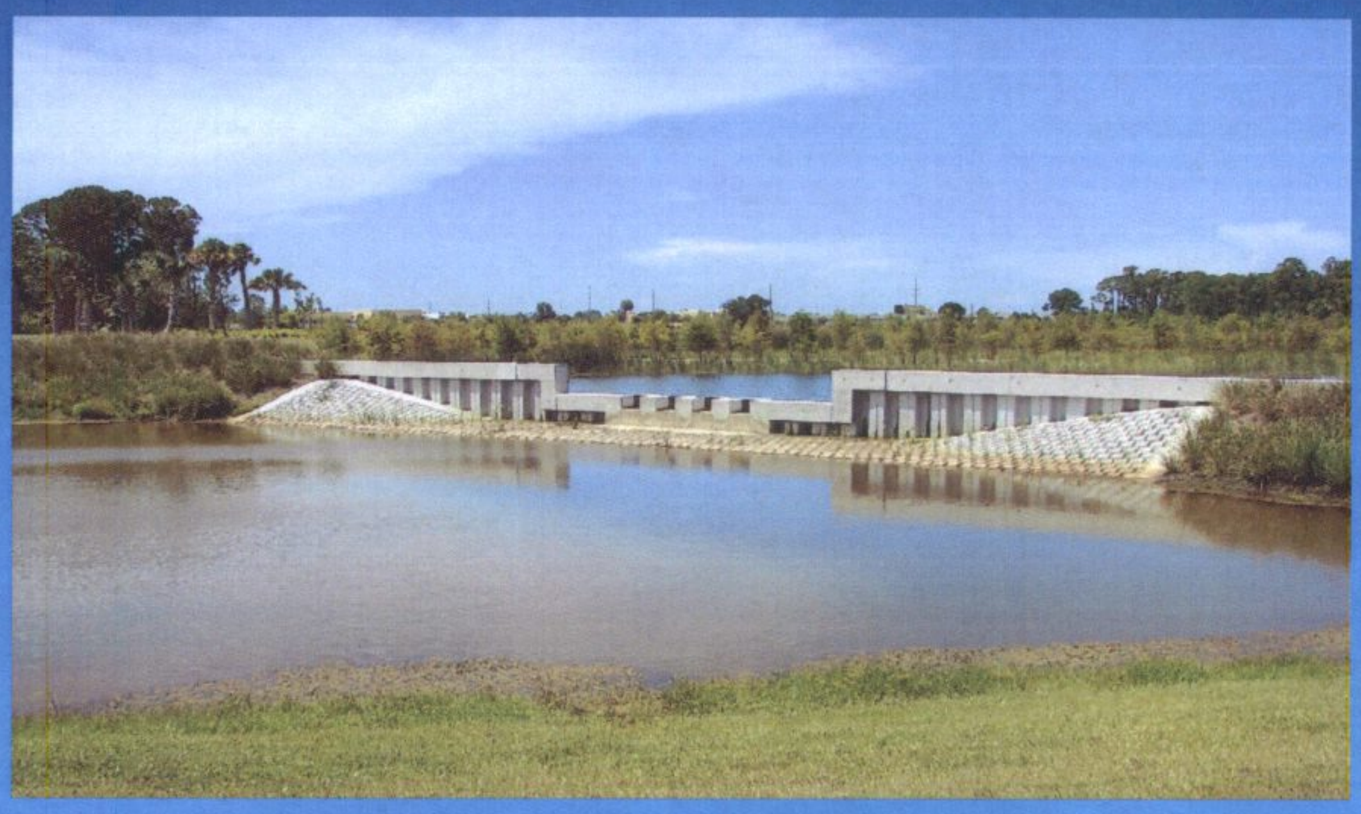
CONSTRUCTION

Howard Creek STA



CONSTRUCTION

Howard Creek STA



CONSTRUCTION

Howard Creek STA

CONSTRUCTION

Howard Creek

STA

CONSTRUCTION

Howard Creek

CONSTRUCTION
Bur Street Pond

CONSTRUCTION
Bur Street Pond

CONSTRUCTION

Elks Cane Slough STA

CONSTRUCTION

Cypress Trees

CONSTRUCTION

Lennard Square STA

CONSTRUCTION

Leithgow Street Pond

CONSTRUCTION

Leithgow Street Pond

CONSTRUCTION

Mary Terrace Pond

CONSTRUCTION

Mary Terrace Pond

CONSTRUCTION

Tiffany Channel Improvements

CONSTRUCTION

Tiffany Channel Improvements

CONSTRUCTION

Tiffany Channel Improvements

CONSTRUCTION

Loutus Pond

CONSTRUCTION

Blackwell Pump Station

CONSTRUCTION

Blackwell Pump Station Improvements

CONSTRUCTION

Roadway Resurfacing

CONSTRUCTION

Roadway Resurfacing

- TIFFANY AVENUE - COMPLETE
- PATIO STREET - COMPLETE
- LEITHGOW STREET - COMPLETE
- MARY TERRACE - COMPLETE
- MASLAN AVENUE - COMPLETE
- PARROT STREET - COMPLETE
- SIMMONS STREET - COMPLETE
- FLINTLOCK ROAD - COMPLETE
- AVALON ROAD - COMPLETE
- GRAND AVENUE - COMPLETE
- MARIPOSA AVENUE
- VAN KLEFF AVENUE
- BUR STREET
- BRYSON AVENUE

IMPACTS TO DATE

- OCT. 6-7 RAIN EVENT, 5.2 INCHES OF RAIN – PROJECT WEATHERED THE EVENT WITH NO ISSUES.

- DEC. 10-12 RAIN EVENT, 6.7 INCHES OF RAIN – PROJECT MET THE REQUIRED STANDARD OF HAVING PASSABLE ROADWAYS WITHIN 12 HOURS OF THE END OF THE EVENT.

PUBLIC OUTREACH

- PROJECT SIGNS;
- NEWSLETTER;
- NEIGHBORHOOD MEETINGS;
- ONGOING COORDINATION WITH RESIDENTS VIA ONE-ON-ONE MEETINGS, PHONE CALLS AND E-MAILS.

EWIP Newsletter

Updates on the City of Port St. Lucie Eastern Watershed Improvement Project

Published by the City of Port St. Lucie
121 S.W. Port St. Lucie Blvd. - Port St. Lucie, FL 34984 - (772) 871-5177

Project Overview Issue

STORMWATER IMPROVEMENTS SCHEDULED IN YOUR NEIGHBORHOOD

In August 2004, Tropical Storm Fay inundated the City of Port St. Lucie with as much as 14 inches of rainfall during a 48-hour period. It was more than the City got in 2004 from Hurricanes Frances and Jeanne combined. This amount of rainfall exceeded the South Florida Water Management District's (SFWMD) criteria for a 100-year, three-day storm event and caused flooding of streets, businesses and residences in eastern Port St. Lucie and also flooded one of the City's main transportation corridors, U.S. Highway 1.

As a response to the heavy flooding, the City Council approved a multi-million dollar drainage improvement project that is now under construction in the east side of the City. It is called the Eastern Watershed Improvement Project (EWIP), and is expected to cost the City about $37 million to complete. This monthly newsletter will be distributed in affected neighborhoods to help residents stay informed about the status of the project.

In the inside of this edition, you will find a foldout map of the City's eastern watershed area and the proposed improvements that we plan to do to minimize potential flooding problems in future heavy rain storms.

PROJECT OVERVIEW

The Eastern Watershed Improvement Project is the construction and installation of a system of drainage ditches, stormwater ponds, piping, pumps and other structures that work together to manage stormwater runoff on the east side of the City. It includes all of the City east of U.S. 1, as well a small portion west of U.S. 1 generally around Howard's Creek, just north and south of Westmoreland Boulevard.

The Eastern Watershed Area was developed in the 1980s by General Development Corporation (GDC), which was the original developer of the City. The South Florida Water Management District (SFWMD) permitted the stormwater system utilizing criteria that were acceptable during that time. The 1980s permit criteria for minimum building and roadway elevations were less stringent than current requirements. The original permits allowed more storage of stormwater in roadways and swales, while current SFWMD and City criteria require detention ponds to store runoff and do not allow significant roadway storage.

Within the Eastern Watershed Area are four drainage basins that were planned and defined under the SFWMD permits obtained in the 1980s:

- Howard Creek Drainage Basin (1,200 acres)
- Eastport Phase 1/Tiffany Drainage Basin (900 acres)
- Midport Drainage Basin (1,300 acres
- Eastport Phase 2/Blackwell Drainage Basin (1,460 acres)

The natural grade of the land for these four drainage basins slopes generally from north to south, and from east to west, or from the Eastport Phase 2/Blackwell Basin through the Eastport Phase 1/Tiffany Basin to the Howard Creek Basin.

STORMY WEATHER: *In 2004, Tropical Storm Fay caused heavy flooding at U.S. 1 and Lennard Road, and on other streets throughout eastern Port St. Lucie.*

The Eastport Phase 1/Tiffany Basin and the Eastport Phase 2/Blackwell Basin were designed and permitted to utilize two large pump stations to overcome the natural slope of the land, which also limited the volume of runoff directed toward Howard Creek.

These stormwater systems are designed and permitted to store significant amounts of water in the streets, and if the capacities of these pump stations are exceeded, they will overflow toward the low lying areas of the Howard Creek Basin. The difference in average elevation between the Blackwell Basin and the Howard Creek Basin is approximately seven feet.

The Howard Creek Basin is divided into two sub-basins by U.S. 1. Because U.S. 1 is a primary evacuation route, it was constructed at a higher elevation than the adjacent properties; this becomes especially important during hurricanes. Two large drainage structures near the Lennard Road intersection allow water to flow under U.S. 1, but they have not been used to their full capacity because other drainage systems upstream and downstream were designed to lesser capacities.

In heavy rainfalls, this leads to the Howard Creek Basin becoming inundated with water from the other basins, and the problem was made worse because of an overgrowth of vegetation along Howard Creek where it moves toward the St. Lucie River.

INSIDE—SEE SPECIAL FOLDOUT MAP OF THE PROPOSED IMPROVEMENTS FOR THE EASTERN WATERSHED AREA

LEVERAGING

- THE CITY HAS SOUGHT TO LEVERAGE ITS INVESTMENT BY SEEKING GRANTS FROM FEDERAL, STATE AND REGIONAL PROGRAMS.
- TO DATE, THE CITY HAS RECEIVED APPROXIMATELY $1,965,000 IN GRANT FUNDING:
  - $965,000 FROM THE SLRIT, THROUGH SFWMD, FOR THE HOWARD CREEK STA.
  - $500,000 FROM FDEP FOR THE CANE SLOUGH STA.
  - $500,000 FROM FDEP FOR THE LENNARD SQUARE STA.

PROJECTED BUDGET

- $34,705,832.92 - ORIGINAL BUDGET
- $36,670,832.92 - ADJUSTED BUDGET (INCLUDES GRANTS)
- $35,011,667.91 - ESTIMATED FINAL COSTS
- $1,659,165.01 - ESTIMATED REMAINING FUNDS.

ADDITIONAL CONSIDERATIONS

- PURCHASE OF VAZ INC. PROPERTY
- PURCHASE OF LOWERY PROPERTY
- ADDED AREAS OF ROADWAY PAVING
- PAYING DOWN DEBT

QUESTIONS?