

ANNUAL ENGINEER'S REPORT MAY 2013

We are pleased to submit this annual engineer's report as a yearly summary of the engineering related activities involved in the operations and functions of the Fellsmere Water Control District (F.W.C.D.), as required under Chapter 298 of the Florida Statutes.

CLIMATOLOGICAL REVIEW

A November 29 National Oceanic and Atmospheric Administration (NOAA) news release on the 2012 tropical storm season notes the following: "NOAA classifies the season as above-normal. 2012 was an active year, but not exceptionally so as there were 10 busier years in the last three decades. This season marks the second consecutive year that the mid-Atlantic and Northeast suffered devastating impacts from a named storm. Sandy (in 2012), and Irene last year, caused fatalities, injuries and tremendous destruction from coastal storm surge, heavy rainfall, inland flooding and wind. Storms struck many parts of the country this year, including tropical storms Beryl and Debby in Florida, Hurricane Isaac in Louisiana and Post-tropical Cyclone Sandy in New Jersey."

None of the 2012 named tropical storms made landfall along the East Central Coast of Florida. Tropical Storm Beryl (May 26-30) made landfall at Jacksonville Beach with 70 MPH winds and quickly weakened to a tropical depression as it tracked northeasterly over Georgia and South Carolina. Beryl's landfall in Jacksonville Beach, Florida was the strongest landfall in the United States for any pre-season Atlantic Tropical Cyclone on record.

Tropical Storm Debby developed on June 23rd in the Gulf of Mexico, and finally made landfall in Steinhatchee, Florida, became a tropical depression as it moved northeasterly across Florida and Georgia and dissipated in the Atlantic Ocean on June 30th.

F.W.C.D. received minimal amounts of rainfall from the outer fringes of Tropical Storms Beryl and Debby.

After crossing Haiti, the eastern tip of Cuba, the Florida Straits and into the Gulf of Mexico, Isaac was upgraded to hurricane status on August 28th. Isaac crossed westerly of the Florida Keys, delaying the Republican National Convention in Tampa for a day, and made landfall near the mouth of the Mississippi River. Based on SunAg's rainfall data, they received approximately six (6) inches of rainfall from the outer bands of Isaac in late August.

The District received approximately 2½" of rain from Hurricane Sandy as it tracked northerly (off the East Coast of the Bahama Islands) on its way to a devastating landfall in New Jersey and New York City.

With all the other "calamities" affecting the production of citrus, weather wise, the F.W.C.D. fared well during the past hurricane and winter season without the devastating effects of a tropical storm or freeze event.

Total rainfall, as measured and recorded at the F.W.C.D. office/shop complex, for Year 2012, totaled 53.40 inches. Total average yearly rainfall as recorded at SunAg was 51.47 inches.

Recent unusual heavy rains in late April and early May, 2013, have quenched the onslaught of a typical drought frequently occurring during the normal dry season.

MAY 10, 2012 ANNUAL LANDOWNER'S BOARD OF SUPERVISOR'S MEETING

At the May 10, 2012 annual landowner's meeting, Michael Monroe was elected, for a three year term.

At the following Board of Supervisor's organizational board meeting, the following officers were elected/appointed to serve for the following year:

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|------------------|----------------|
| President | Michael Monroe |
| Vice-President | Clifford Tyson |
| Secretary | Joyce Hertel |
| Treasurer | Rodney Tillman |
| Deputy Secretary | Jeff Bowen |
| Deputy Treasurer | Judy Warga |

F.W.C.D. ANNUAL PERMIT SUMMARY

Fourteen (14) permit applications (Numbers 114-12 through 127-13) have been submitted for consideration since the prior annual engineer's report.

Two (2) utility permits were issued (one to FP&L for service to B & W Grower's new packing house, and the other to Peninsula Pipeline for high pressure natural gas main service to City of Fellsmere). Connection and use permits include one (1) permit for commercial business (Dollar General Store) site plan improvements; permits issued to landowner includes two outfall culverts, one new driveway culvert, two driveway culvert replacements, one permit for gate across District right-of-way, and one special use permit; one permit to City of Fellsmere for Phase 6 Paving and Drainage project along Wyoming and South Carolina Avenues and Hickory and Pine Streets; one permit to Indian River County for replacement of failed culvert in railroad ditch under Willow Street; one permit to Indian River County School District for renovation and expansion of Fellsmere Elementary School site.

The Fellsmere Elementary School Renovation Project includes the expansion of the existing stormwater lake located on campus and the construction of a second stormwater lake on City of Fellsmere property east of the campus.

A permit for proposed Florida Organic Aquaculture site plan remains outstanding, pending receipt of additional technical information required and resolution of permit compliance criteria.

A permit application with F.D.O.T. from last year, pertaining to replacement of the I-95 Bridge over the Main Canal remains open pending mediation resolution of disputed design and construction issues. The FWCD requires additional fill and rock rip rap slope stabilization treatment for the transition sections of the realigned FWCD maintenance road. The FDOT has taken a position that the rock rip rap was not included in their project scope and therefore funds were not budgeted for it.

CITY OF FELLSMERE (C.O.F.)

The City of Fellsmere continues to develop strategies and implement improvements to its street and drainage infrastructure, including additional paving and drainage grants and developing a city-wide drainage swale plan for driveway culverts.

During the past year, the C.O.F. adopted a Flood Plain Management and Stormwater Utility Ordinance (Ordinance Number 2012-19), entitled, "Stormwater Management Program" for the purpose of delivering to

that area exclusive stormwater services, and exercising within that area the powers provided for by law. The stormwater reserve area contains all the lands lying within the corporate limits of the City.

The C.O.F. Stormwater Management Utility Program primarily addresses the secondary drainage system within the City and water quality issues mandated by other jurisdictional agencies, but does not overlap or duplicate the responsibilities of the F.W.C.D. in the maintenance and operations of the District's primary drainage ditches, canals and flood protection functions.

The F.W.C.D. has entered into an agreement with the City of Fellsmere to participate in the funding of an update to the F.W.C.D. East Master Drainage Plan and Stormwater Hydrologic Analysis of the Gravity Drainage System, completed in 2003. The update will be performed by Carter Associates, Inc. and will benefit both the City and the F.W.C.D.

The F.W.C.D. will benefit by having the study converted to the NAVD datum which was recently adopted by the Indian River County Board of County Commissioners. Also, the update will include the use of recent Lidar topographic information. The Lidar survey method of estimating the existing ground elevations is a significant improvement over the aerial photography method used in the original model and will improve the accuracy of the model results.

The City of Fellsmere has retained Carter Associates, Inc. to work on the Fellsmere Master Drainage Plan and will benefit by having the updated F.W.C.D. Drainage Study to use as the basis to analyze the water quality and quantity improvements of proposed future improvements. The Fellsmere Master Drainage Plan covers the original old town part of Fellsmere and the adjacent parcels annexed into the City in recent years.

The City of Fellsmere has also completed the design and permitting associated with the Fellsmere CDBG Phase 6 Project. This project includes the paving and drainage improvements along Wyoming and South Carolina Avenues and Hickory and Pine Streets. The City applied for Grant funding during the recent CDBG Grant Application Cycle and unfortunately was not successful in obtaining funds. However, the City will re-apply during the next CDBG cycle and will continue to pursue other available grant funds until the project is funded and completed.

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (S.J.R.W.M.D.)

The construction of a new levee along the eastern boundary of S.J.R.W.M.D. property most recently acquired from Fellsmere Joint Venture (F.J.V.) is nearing completion. This levee will be the east levee of the newly created Fellsmere Water Management Area, and will serve as the new western levee of the F.W.C.D.

The levee reportedly has been constructed to United States Army Corps of Engineers (U.S.A.C.O.E.) standards, and as such designation would be beneficial to the landowners within the F.W.C.D. The U.S.A.C.O.E. certifications would be valuable for F.E.M.A. flood zone mapping criteria and result in F.W.C.D. landowners receiving better flood insurance rates. The F.W.C.D. has submitted a letter requesting such certification from the project's engineer of record and continues to pursue such documentation.

Activity on proposed construction of roadway access improvements along Ditch 24, east of Willow Street, and southerly along the eastern (outside) toe of the "East Boundary Levee" to the Sand Lake Conservation Area continues. During this past year, grinding and clearing of palmetto and other exotic growth has been completed. We are advised that further roadbed/roadway improvements remain held in limbo pending wetland permitting issues with the Florida Department of Environmental Protection.

ANNUAL ENGINEER'S RELATED ACTIVITIES

Listed below, please find a brief description of permit reviews, projects and programs requiring technical engineering assistance on behalf of F.W.C.D. during the past year:

- (1) Represented and assisted the F.W.C.D. in the public/stakeholders forums in the development of initial phase of Best Management Action Plan involving the E.P.A. /F.D.E.P. numeric nutrient criteria and related total maximum daily load limitations for stormwater discharges. The BMAP was adopted earlier this year and will be reviewed again in five years. FDEP has notified stakeholders that annual meetings to review progress will be scheduled over the next five years.
- (2) Permit review of Dollar General Store. This project has since been completed and is currently in business.
- (3) The S.J.R.W.M.D. Bailey Bridge across the Main Canal has been completed and placed in service.
- (4) B & W Grower's new packing house has been completed and placed in service.
- (5) City of Fellsmere raw water main from existing wells on F.J.V. lands crossing Park Lateral Sub-lateral 12, 13 and 13-A (railroad) Canals has been completed and placed in service.
- (6) Permit review and processing of Peninsula Pipeline Company's installation of 4" high pressure gas main along the County Road 512 alignment, across and along various District rights-of-way. The installation of this phase of pipeline construction, as permitted, has been completed. The District can expect future permit applications for further extension and expansion of this gas main system.
- (7) Continue to assist F.W.C.D. and legal council in on-going litigation with Florida Department of Transportation regarding design issues and construction of Interstate Highway 95 Bridge over the F.W.C.D. Main Canal. The court has ordered this issue to mediation and such action is currently pending.
- (8) Carter Associates, Inc. has assisted the F.W.C.D. in its legislation action in redefining the western boundary and limits of the District to exclude a portion of lands previously acquired by S.J.R.W.M.D.; providing for applicability of certain provisions of Chapters 189 and 298, Florida Statutes in the conversion from a single purpose water control district to a multi-faceted improvement district, as provided for under Chapter 189 F.S. This act has been approved and passed by the State of Florida Legislature and is currently awaiting the governor's signature to be enacted.

In addition to those activities outlined in this report above, we have also been involved in the regular functions of the District as follows:

- 1) Attend all regularly scheduled meetings of the Board of Supervisors and maintain a District Engineering file.
- 2) Remain on daily call to provide technical assistance and information to District personnel, supervisors, landowners and other governmental and public agencies concerning the operations, functions and regulations of the District.

- 3) Continue to provide technical permit review assistance to Superintendent Rodney Tillman, and project consultants, in the submission and issuance of all permit applications to assure compliance with F.W.C.D. policies and requirements.
- 4) Review and monitor the quarterly stormwater quality analysis from the District.
- 5) Monitor and review the actions and activities of other jurisdictional agencies and related organizations that may affect the operations and functions of the District.
- 6) Review records and files in preparation of the Annual Engineer's Report as required under Florida Statutes – Chapter 298.

Once again, we are pleased to report that Superintendent Rodney Tillman and his staff, under the direction, guidance and support of the District's Board of Supervisors, continues to maintain and protect the works of improvement of the District, and to provide the landowners within the District a most cost-effective level of service for flood protection..

Respectively submitted,

CARTER ASSOCIATES, INC.

Marvin E. Carter

By: Marvin E. Carter