Suwannee – Satilla Regional Water Council Meeting

City of Valdosta Update

March 26, 2014

Waycross, Georgia

Key Activities / Projects

<u>Sewer Improvements</u>

- New Force Main
- New Plant
- Smoke Testing
- Other Items

<u>Regional Flooding</u>

- Silver Jackets
- USGS
- LiDAR
- USACE PAS Project

Sewer Improvements

New Force Main Project / New Withlacoochee Wastewater Treatment Plant

Total project cost is $56+ million

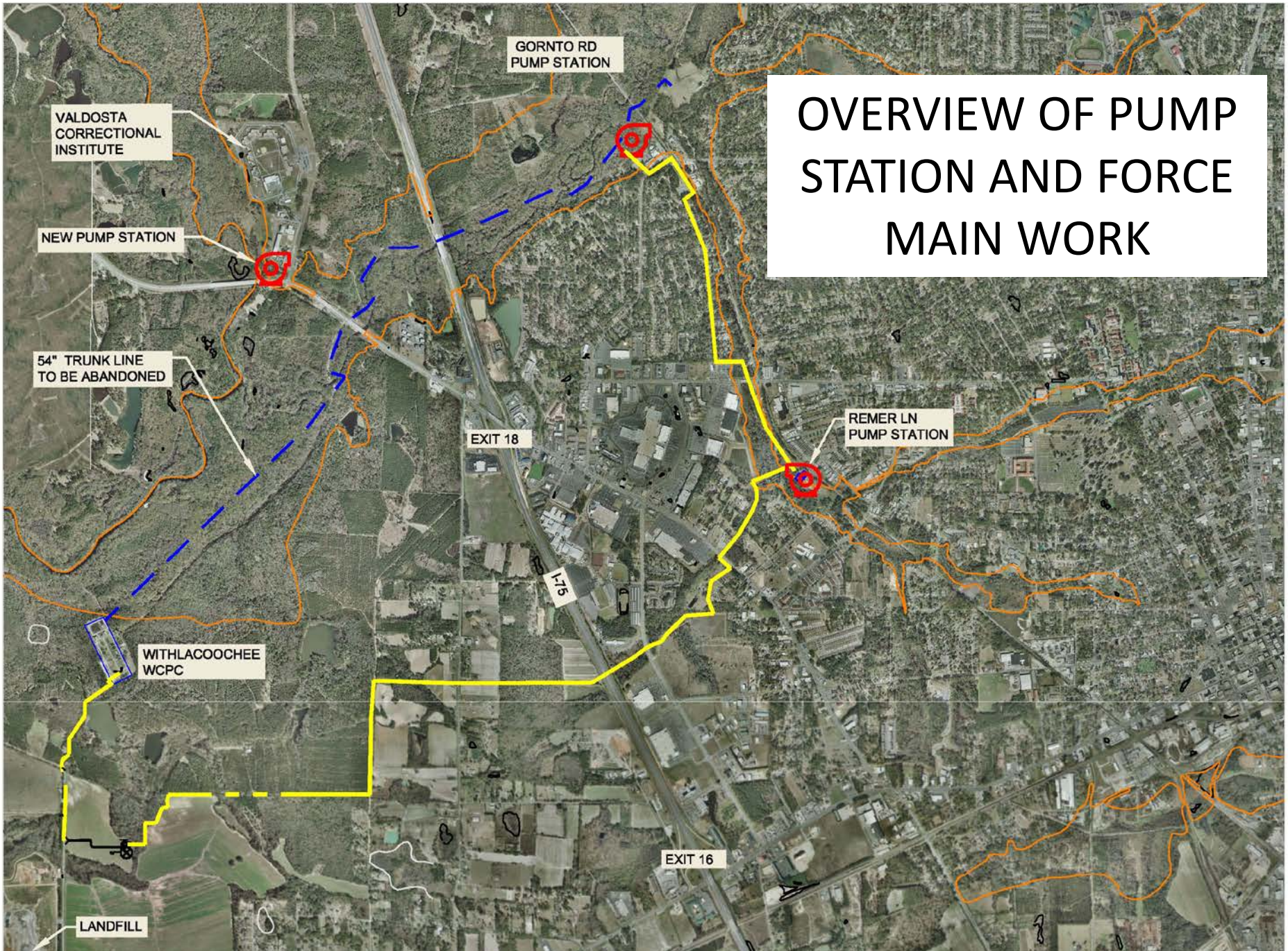
Force Main Project:

- 2 master pump stations
- 2 minor pump stations
- Over 6 miles of force main
- New headworks structure
- 6 million gallon per day (MGD) flow equalization (EQ) basin
- $36 million – Georgia Environmental Finance Authority (GEFA) Funding
- Completion prior to July 2016

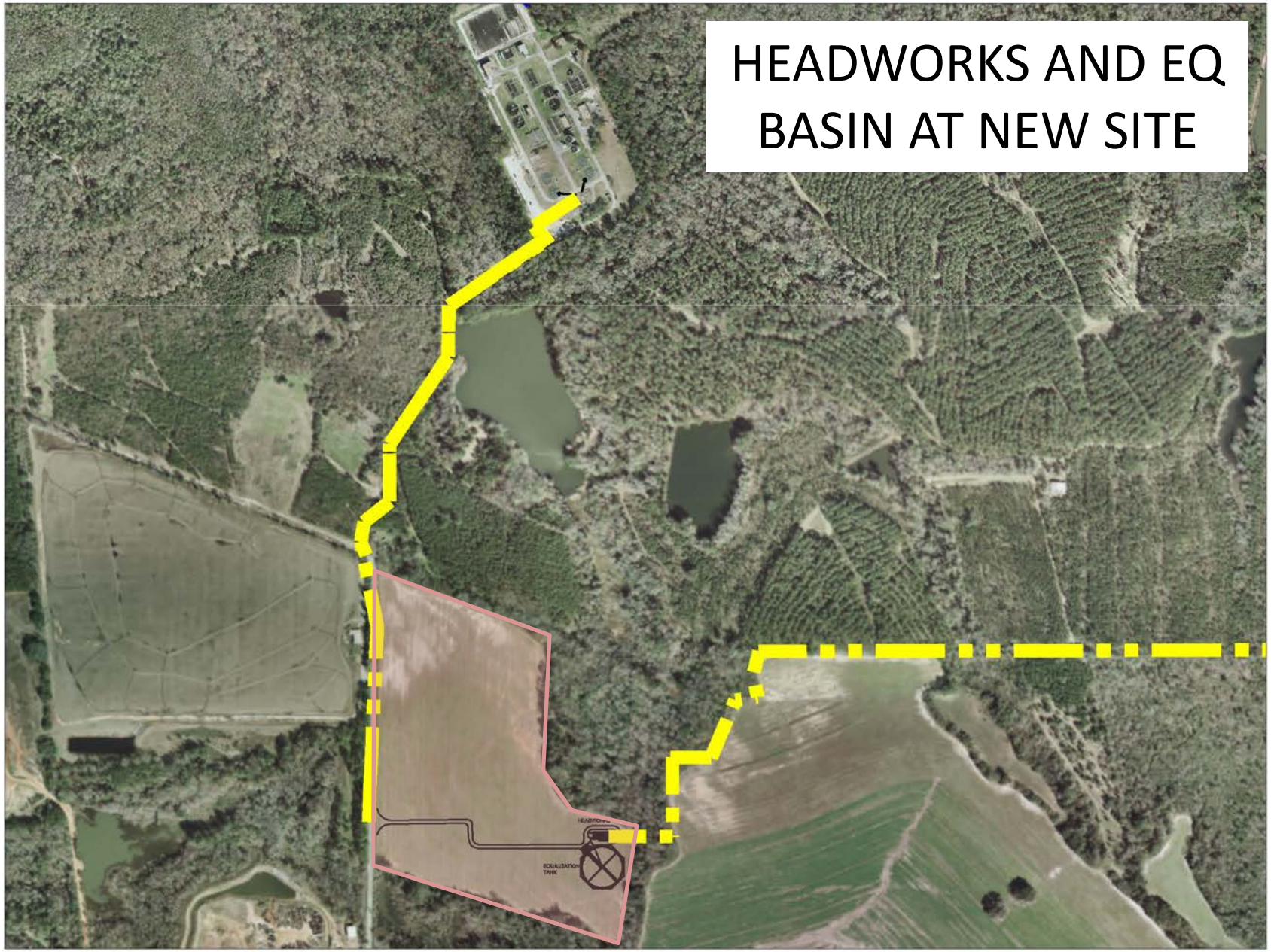
New Plant Project:

- Relocation of the remainder of the old plant to the new site
- $20+ million – SPLOST VII
- Completion prior to August 2017

OVERVIEW OF PUMP STATION AND FORCE MAIN WORK



HEADWORKS AND EQ BASIN AT NEW SITE



Sewer Improvements (Continued)

Smoke Testing Sanitary Sewer System

- Hired Constantine Engineering
- Estimated $700,000 to test 300 miles of sewer lines
- 4 year process
- Timeframe: January 2014 – December 2018

Sewer Improvements (Continued)

Other Items

- $2,250,000: Annual sewer manhole replacement / rehabilitation program
  - Minimum 30 manholes each year
  - Complete by December 2018
- $5,000,000: Pump station replacement / rehabilitation program
  - Complete by December 2018
- $250,000: Pump station emergency portable generators
  - Over 4 years (e.g. 1 per year for 4 years)
  - Complete by December 2018

Sewer Improvements (Continued)

Additional Information

- $2,500,000 in short term projects:
  - In Progress / Completed (e.g. mobile belt filter press, new bar screens, new Return Activated Sludge (RAS) piping, air piping to nitrification tanks for ammonia removal, two new blowers for the aerobic digester, converting old primary clarifiers to storage basins for flow equalization during heavy rain events, etc.)
- $4 - 5 million each year on regular repairs, maintenance, etc. throughout the system
- Since 1992, the City has received $179 million in SPLOST funds and utilized on capital improvement projects. During the same timeframe, the City has expended $167 million for water/sewer projects from SPLOST proceeds, system revenues, bonds, and GEFA loans.
- SPLOST VII is expected to generate about $150 million, of which Valdosta will receive $80 million. Nearly 70 percent of the funding will be dedicated to wastewater projects, which is $55.4 million.

Regional Flooding

Silver Jackets Meeting April 2013

The Silver Jackets is an innovative program that provides an opportunity to bring together multiple state, federal, and sometimes tribal and local agencies to learn from one another and apply their knowledge to reduce risk.

Attendees Represented

- City of Tifton
- City of Valdosta
- GEMA
- Georgia DNR
- Georgia EPD
- Lowndes County
- Office of Congressman Austin Scott
- Office of Congressman Jack Kingston
- Office of Congressman Sanford Bishop
- Office of Senator Johnny Isakson
- Office of Senator Saxby Chambliss
- Southern Georgia Regional Commission
- Suwannee Satilla Water Planning Council
- Tift County
- USACE (Jacksonville and Savannah offices)
- USGS

Regional Flooding (Continued)

U.S. Geological Survey (USGS) Meeting June 2013

- Hosted a Regional Flood Preparedness Meeting
  - Flood threats and existing monitoring in the Withlacoochee River and Little River basins
  - Potential new monitoring (e.g. Little River at Hwy 133 and New River at Hwy 82) / forecasting needs
  - Current challenges (e.g. areas not monitored, funding, etc.)
  - Water quality monitoring during floods
  - **Flood tracking charts** and flood inundation mapping

Attendees Represented

- City of Moultrie
- City of Sylvester
- City of Tifton
- City of Valdosta
- Florida Division of Emergency Management
- GEMA
- Georgia DNR
- Georgia EPD
- Lowndes County
- NOAA / NWS
- Office of Senator Johnny Isakson
- Office of Senator Saxby Chambliss
- Southern Georgia Regional Commission
- Suwannee River Water Management District
- Turner County
- USACE Jacksonville District
- USACE Savannah District

USGS
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Flood-Tracking Chart

Withlacoochee and Little River Basins in South-Central Georgia and Northern Florida

Prepared in cooperation with

U.S. Department of the Interior
U.S. Geological Survey

General Information Product 155

For More Information

If you would like more information about one of the following agencies, please call, e-mail, or check the following Web sites:

U.S. Geological Survey
Georgia Water Science Center
phone: (678) 924-6700
e-mail: dc_ga@usgs.gov
http://ga.water.usgs.gov

Georgia Emergency Management Agency
phone: 1 (800) TRY-GEMA or (404) 635-7000
http://www.gema.ga.gov

Georgia Department of Natural Resources
phone: (404) 656-3500
http://www.gadnr.org

Georgia Floodplain Management Unit
phone: (404) 675-1757

National Weather Service
Southeast River Forecast Center
phone: (770) 486-0028
http://www.srh.noaa.gov/serfc

National Weather Service
Tallahassee Weather Field Office
Phone: (850) 942-8851
http://www.srh.noaa.gov/tlh

American Red Cross
South Georgia Chapter
phone: (229) 242-7404
www.valdostaredcross.org

Withlacoochee and Little River Basins streamgaging network funded in part by (in alphabetical order):
City of Valdosta
Georgia Environmental Protection Division
Lowndes County
Suwannee River Water Management District
USGS Cooperative Water Program
USGS National Streamflow Information Program (NSIP)

By Anthony J. Gotvald, Brian E. McCallum, and Jaime A. Painter
Layout by Caryl J. Wipperfurth

U.S. Department of the Interior
SALLY JEWELL, Secretary
U.S. Geological Survey
Suzette M. Kimball, Acting Director

Local Flood-Emergency Phone Numbers

(All county numbers are emergency management agency (EMA) offices or best available):

Georgia contacts:

Berrien County	(229) 686-6588
Brooks County	(229) 263-7558
Colquitt County	(229) 616-7025
Cook County	(229) 896-2266
Lowndes County	(229) 671-2790
Tift County	(229) 388-6060
Thomas County	(229) 225-4190
Turner County	(229) 567-4313
Worth County	(229) 776-8211
City of Adel	(229) 896-3771 Police (229) 896-7375 Fire (229) 896-2780 Utilities
City of Ashburn	(229) 567-2323 Police (229) 567-4952 Fire (229) 567-2424 Utilities
City of Nashville	(229) 686-6558 Police (229) 686-3331 Fire
City of Quitman	(229) 263-7556 Police (229) 263-4311 Fire (229) 263-4166 Utilities
City of Sylvester	(229) 776-8500 Police (229) 776-8511 Fire (229) 776-8513 Public Works
City of Tifton	(229) 382-3132 Police (229) 391-3972 Fire (229) 391-3944 Public Works
City of Valdosta	(229) 242-2606 Police (229) 333-1835 Fire (229) 259-3530 Engineering

Florida contacts:

Hamilton County	(386) 792-6447
Madison County	(850) 973-3698

Cover photograph. Little River near Adel, Georgia, April 3, 2009 (Gregory B. Donley, USGS).

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Flood-Monitoring in the Withlacoochee and Little River Basins

The U.S. Geological Survey (USGS), in cooperation with other Federal, State, and local agencies, operates a flood-monitoring system in the Withlacoochee and Little River Basins. This system is a network of automated river stage stations (ten are shown on the reverse side of this publication) that transmit stage data through satellite telemetry to the USGS in Atlanta, Georgia and the National Weather Service (NWS) in Peachtree City, Georgia. During floods, the public and emergency response agencies use this information to make decisions about road closures, evacuations, and other public safety issues. The emergency phone number for your area is listed under "Local flood emergency phone numbers."

U.S. Geological Survey hydrographer servicing the Withlacoochee River at U.S. Highway 84 near Quitman, Georgia, streamgage (02318500), April 3, 2009. (Photograph by Gregory B. Donley, USGS)

Flood-Hazard Areas

Flood maps and publications from the Federal Emergency Management Agency (FEMA) and the Federal Insurance Administration are available for review at the local department of public works, department of engineering, building permit offices, and local public libraries. Flood-zone determinations are provided by the local department of public works and engineering and building permit offices. Before you build or make any attempt to flood proof your home or property, consult the information provided at these offices to better understand your situation. For more information, visit *http://www.fema.gov/national-flood-insurance-program*.

How Do I Elevate or Flood Proof My Home?

When elevating or flood proofing new or existing structures, consult a design professional, architect, structural engineer, or licensed contractor for advice. They generally are knowledgeable and experienced in flood-proofing methods and updated building codes. Many houses, even those not in the floodplain, have sewers that can back up during heavy rains. One possible solution is to have a plumber install a plug, stand-pipe, or backup valve. FEMA has published manuals on protecting your home from floods at *http://www.fema.gov/protecting-homes*.

Flood Insurance for Homeowners

Regular homeowners' insurance policies do not cover damage from floods; however, in communities that participate in FEMA's National Flood Insurance Program, separate flood insurance is available. This insurance is backed by the Federal Government and is available in the participating communities to everyone, even for properties that have previously flooded. Information about flood insurance is available through local insurance agents. Flood insurance must be purchased 30 days prior to filing any claims.

Some homeowners purchased flood insurance because it was required when they obtained a mortgage or home improvement loan. These policies may cover only the structure and not the contents. During floods, damage to furnishings inside the structure may be costly. Check your flood insurance policy to see if your home's contents are covered; if not, you might want to add this coverage.

Flood Safety and Property Protection Measures

If your property is known to flood or is located in a flood-hazard area and flood warnings are issued, take all necessary and appropriate steps to protect your family and property. These include sandbagging; turning off all electrical circuits and gas lines; and elevating furniture, carpets, and appliances such as refrigerators, washing machines, clothes dryers, water heaters, and air conditioning compressor units.

Surviving During a Flood—Do's and Don'ts

Stay informed. Visit the USGS and NWS Web pages and listen to the local media for the latest information during the flood.

Do leave if local authorities recommend evacuation. Their advice is based on knowledge of the predicted magnitude of the flood and the potential for death and destruction.

If you must evacuate, secure your home. Bring outdoor furniture inside, raise essential items as high as possible, remove only the most important items including pets, and turn off utilities.

Do not walk through flowing water. Drowning is the number one cause of flood-related deaths. Water currents can be deceptive; shallow but fast-moving water can knock you off your feet.

Do not drive through a flooded area. More people drown in their cars than anywhere else. Don't drive around road barriers—they are put up for your protection—the road or bridge beyond the barrier may be washed out. Turn around, don't drown!

Do not drink floodwater. Floodwaters carry harmful pollutants and waterborne diseases that can result in illness or death. When flooding interrupts the normal drinking-water supply, consider bottled water or treating other forms of safe supply such as spring water, rainfall, or lake and stream water from areas not affected by the flood. Treatment methods include boiling, disinfection, and distillation.

Stay away from power lines and electrical wires. The number two cause of flood-related deaths is electrocution. Electrical current can travel through water. Report downed power lines to the power company or city/county emergency management office.

Be alert for gas leaks. Use a flashlight to inspect for damage. Don't smoke or use candles, lanterns, or open flames unless you know the gas has been turned off and the area has been ventilated.

Look before you step. Small animals that have been flooded out of their homes may seek shelter in yours, so use caution when entering flooded buildings. In addition, floodwaters will cover floors with slippery mud that can contain broken or dangerous objects.

Be extremely cautious using recently flooded electrical equipment. Some appliances, such as television sets, remain electrically charged even after they have been unplugged. Don't use appliances or motors that have gotten wet unless they have been taken apart, cleaned, and dried.

The information on this page is provided in the interest of public safety and is taken from various sources including:

American Red Cross Flood Safety Web site at *http://www.redcross.org/prepare/disaster/flood*, accessed July 31, 2013.

Federal Emergency Management Agency Plan, Prepare & Mitigate Website at *http://www.fema.gov/plan-prepare-mitigate*, accessed July 31, 2013.

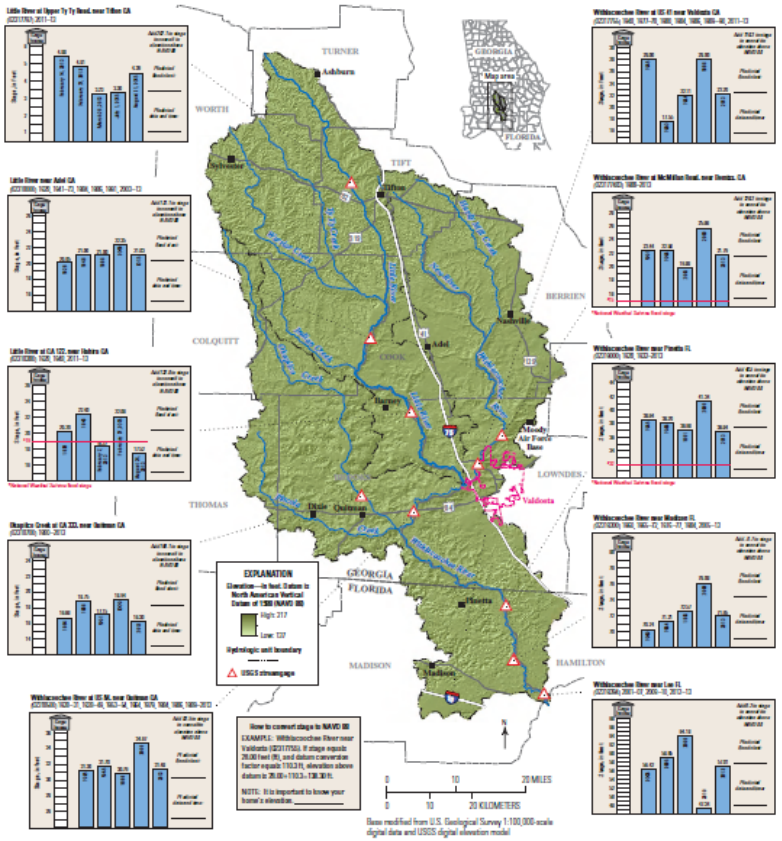
Federal Emergency Management Agency Web site at *http://www.ready.gov/floods*, accessed July 31, 2013.

Flood-Tracking Chart for the Withlacoochee and Little River Basins in South-Central Georgia and Northern Florida

This Withlacoochee and Little River Basins flood-tracking chart can be used by local citizens and emergency response personnel to record the latest river stage and predicted flood-crest information along the Withlacoochee River, Little River, and Okapilco Creek in south-central Georgia and northern Florida. By comparing the current stage (water-surface level above a datum) and predicted flood crest to the recorded peak stages of previous floods, emergency response personnel and residents can make informed decisions concerning the threat to life and property.

This chart shows a map of the basin with the location of selected real-time river stage stations, which are listed by name and station number. For each site, colored bars represent the five highest recorded peak stages and the years in which they occurred. The white bar provides a scale to record the most recently reported river stage from the U.S. Geological Survey (USGS). The USGS Georgia Water Science Center displays available real-time river stage data on the Web at *http://water.usgs.gov/ga/nwis/rt*.

For each of the selected stations that is a flood-forecast point, the predicted flood-crest information from the National Weather Service (NWS) can be recorded. USGS data are used by the NWS for its flood-forecasting models. The NWS routinely broadcasts this forecast information to the media and on National Oceanic and Atmospheric Administration (NOAA) Weather Radio (NWR). Current NWR broadcast frequencies can be accessed at *http://www.nws.noaa.gov/nwr/nwrfreq.htm*.



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For real-time streamflow data and other water-resources information, access the USGS Georgia Water Science Center home page at *http://ga.water.usgs.gov*

For National Weather Service predicted peaks and other information access the Southeast River Forecast Center home page at *http://www.srh.noaa.gov/serfc*

Flood-tracking chart prepared in cooperation with

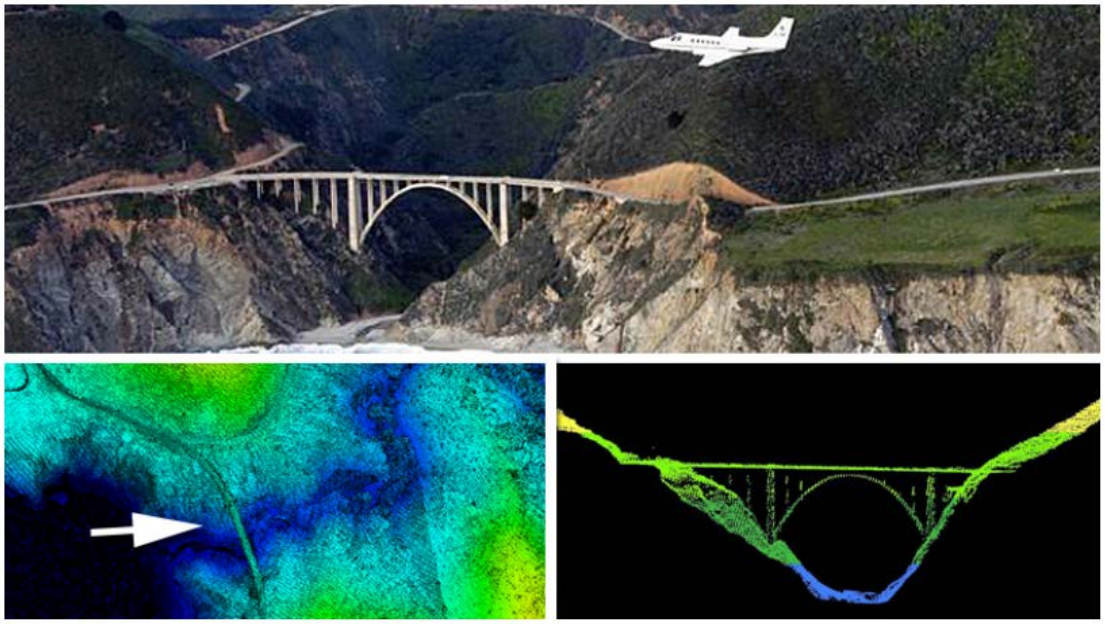
Regional Flooding (Continued)

Light Detection and Ranging (LiDAR)

- LiDAR uses a laser to map the land to provide accurate contours.
- Lowndes and Valdosta have a 5-year agreement with NOAA
  - Tift and Tifton are talking with NOAA
  - Encourage other communities to consider partnering

Benefit for partnering with NOAA:

- Ensures quality product
- Reduced cost (example)
  - $9,900 ($275/sq. mile)
  - $36,000 ($1,000/sq. mile)



Regional Flooding (Continued)

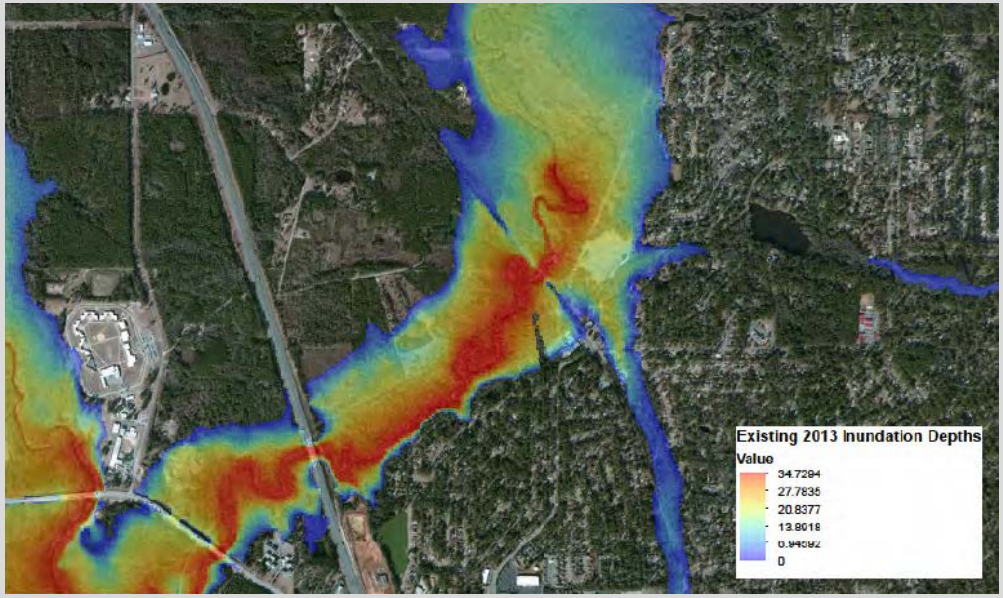
U.S. Army Corps of Engineers PAS Project

- Planning Assistance to States (PAS) Program – Flood Risk Management Study
- $150,000 (50/50 cost share) with the USACE

Project includes:

- Examining existing conditions
- Providing potential structural and non-structural solutions to reduce flooding in this specific area – not regional flooding

Estimated completion date March 28th



Any Questions

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Website: www.valdostacity.com OR
www.valdostacity.com/stormwater