# **Regional Flooding**

Neighborhood Meeting Wood Valley Community Center April 16, 2013



US Highway 84 / Lowndes County Courtesy of Valdosta Daily Times



Lake Drive / Winding Way – City of Valdosta Courtesy of City of Valdosta



Park Lane – City of Valdosta Courtesy of Valdosta Daily Times



Franks Creek – City of Hahira Courtesy of Valdosta Daily Times

### WITHLACOOCHEE WASTEWATER TREATMENT PLANT



Before

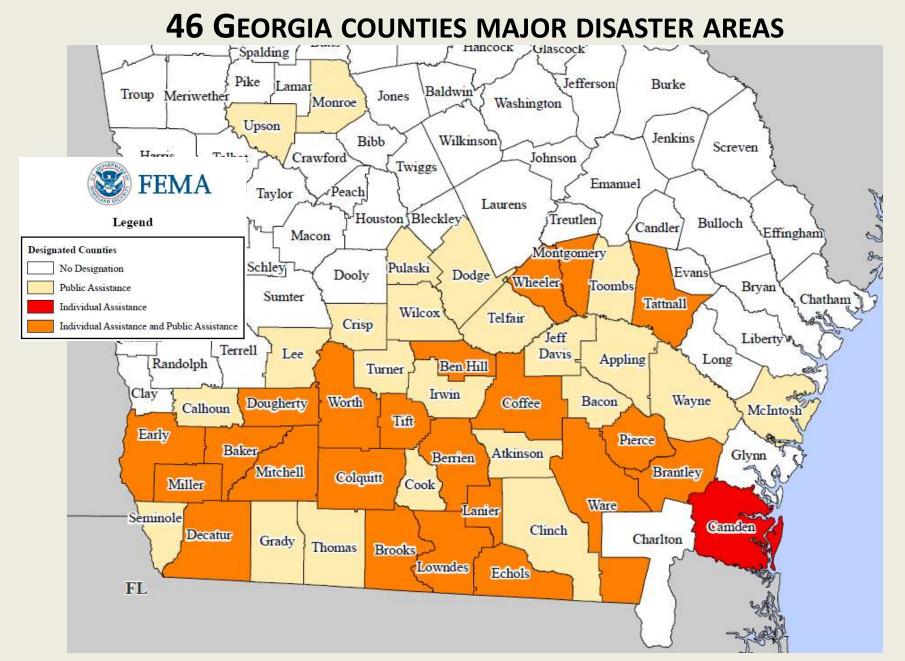
During

#### FEMA 100-Year Flood Plain

**CDM estimated 100-Year Flood Plain** 

The current FEMA flood maps are based on an outdated analysis: Flood levels exceeded the 100 year FEMA estimates.

### **PRESIDENT OBAMA DECLARED**



## USGS RAINFALL GAGES RECORDED SIGNIFICANT RAINFALL BETWEEN MARCH 27 – APRIL 3

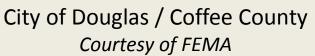
- 6.9 inches Satilla River (Atkinson)
- 7.2 inches Satilla River (Waycross)
- 13.3 inches Alapaha River (Alapaha)
- 14 inches Little River (Adel)
- 9.4 inches Withlacoochee River (Quitman)
- 8.7 inches Withlacoochee River (Valdosta)



THE USGS PUBLISHED A FACT SHEET (2009 – 3079) THAT REPORTED THE FOLLOWING DAMAGE IN 46 COUNTIES DECLARED DISASTER AREAS:

- 1,875 homes
- 29 businesses
- \$60 million in public infrastructure (e.g. roads, culverts, bridges and a wastewater treatment facility)







City of Tifton / Tift County Courtesy of Tifton Gazette



City of Waycross / Ware County Courtesy of First Coast News / Richard Edgy

### **REGIONAL EFFORTS BY THE CITY SINCE THE 2009 FLOOD**

#### • 2009

- Presentation at State Legislative Delegation Luncheon
- 2010
  - Letter to regional Community Leaders encouraging them to participate in the Suwannee Satilla Regional Water Planning Council Meeting in Tifton
  - Presentation at the Suwannee Satilla Regional Water Planning Council Meeting in Douglas
- 2011
  - Submitted public comments to EPD in response to the Suwannee Satilla Recommended Regional Water Plan
  - Presentation to Governor Nathan Deal and staff
  - Presentation at the Suwannee Satilla Regional Watershed Meeting in Tifton

## LOCAL EFFORTS BY THE CITY

- <u>February 2009</u>: City Stormwater Management Plan (SWMP) update began
- March 2010: Streambank stabilization / sediment removal near Creekside Tavern
- <u>November 2010</u>: SWMP Adopted by Council and available online at <u>www.valdostacity.com/stormwater</u>
- January 2011: Letter to Flood Residents on the Status of Key Activities
- <u>February 2011</u>: Annual mail-out to all utility customers on the SWMP update
- October 2011 and 2012: Rivers Alive Cleanup included Sugar Creek
- <u>February 2012</u>: Streambank stabilization on Browns Canal
- October 2012: Browns Canal Pond Upgrade (design)
- Continuous monitoring of Millpond and storm preparations for storage

### **CITY STORMWATER MANAGEMENT PLAN PROJECTS**

#### 2010 Stormwater Master Plan CIP

	2010 Stormwater Master Plan CIP							
Rank	ID	Project		otal Project	Status	District		
1	000	Stream Restoration and Grade Control between Lamar St and West St (NRCS)	Ś	posed Cost	Completed - SPLOST VI (2012)			
	<u> </u>		ş Ś	1,277,321	Proposed - SPLOST VI (2012)	3		
2		Grade Control Structure Downstream of St. Augustine Road (1 location)		74,000		3		
3	<u> </u>	Park Ave Culvert Improvement + RSF near Lakeland Ave	\$	1,008,000	Culvert Completed w/plate - SPLOST VI (2011)	2		
4		Upgrade of Browns Canal Ponds between West St and 3rd Ave	\$	278,962	In Progress - SPLOST VI (Design) and VII (Construction) Under Review	3		
5	<u> </u>	Shirley Place Detention Pond Rehabilitation	\$	242,000		5		
6	CC1	Lake Laurie Drainage Pipe Improvements	\$	414,000	In Progress - SPLOST VI (Field Investigation)	5		
7		RSF at Five Points	\$	493,000		5		
8		Stream Restoration - Berkley Dr to Millpond	\$	1,987,000		5 and 6		
9		Culvert Improvement at Country Club + RSF	\$	1,546,000	Culvert Completed w/plate - SPLOST VI (2011)	5		
10		Patterson Street Culvert Improvement + McKey Park RSF	\$	1,228,000		4 and 5		
11			\$	148,000		5		
12		RSF near Hightower Circle	\$	1,369,000	Proposed - SPLOST VII	3		
13		Millpond Dam Rehabilitation	\$	1,486,000		5 and 6		
14		Ashley Street Culvert Improvement + RSF near VSU north campus	\$	1,573,000		4		
15	SG1	RSF near End Dr	\$	937,000	Proposed - SPLOST VII	3		
16	DK2	Toombs St Culvert Upgrade + Channel Improvements	\$	1,028,000		2		
17	TM8	Grade Control - Seymour Street to University Dr	\$	246,000		4		
18	SH1	Stream Restoration in Stillhouse Branch South of Lake Laurie Dr and near Country Club Golf Course	\$	565,000		5		
19	SG3	Sugar Creek Stream Restoration + Grade Control Structures - North of Baytree Rd	\$	1,590,000		6		
20	DK4	Retrofit of Existing Samuel Street Pond	\$	617,000		2		
21	OM1	Patterson Street Culvert Upgrade + RSF near Patterson St	\$	1,447,000		2		
22	TM5	Grade Control - Ashley Street to Patterson Street	\$	251,000		4		
23	BR2	Grade Control Structure between Railroad and Confluence with Sugar Creek (1 location)	\$	77,000		3		
24	DK1	Dampier Street Culvert Upgrade + RSF	\$	1,868,000		3		
25	DK3	Myddleton Street and R/R Culvert Improvements + RSF	\$	1,668,000		3		
26	SG4	Basinwide Grade Control Structures (6 at 4 locations)	\$	503,000		3		
27	OM7	Grade Control South of Gordon St to confluence witih Sugar Creek (2 structures)	\$	131,000		3		
28	SG2	RSF near Lankford Dr	Ś	1,724,000		3		
29	TM3	RSF upstream of Berkley Dr	\$	929,000		5		
30		Railroad Ave and Railroad Crossing Culvert Improvements + RSF	Ś	1,124,000		1		
31		Ashley Street Culvert Improvement + RSF near Vallotton Dr	Ś	1,711,000		2		
32		University Drive Culvert Improvement	Ś	545,000		4		
33		Installation of Baffle Box to provide end of pipe treatment at Lee Street	Ś	151,000		2		
34		Installation of Baffle Boxes to provide end of pipe treatment at Vallotton Dr	Ś	180,000		2		
35		Installation of Baffle Boxes to provide end of pipe treatment at VSU Parking Lot	Ś	243,000		3		
TOTAL PROJECT COSTS			Ś	30,659,283				
10 mail			Y	55,055,205				

	Total Project		
Other CIP Projects	Proposed Cost	Status	District
Ashley Street Apron (Two Mile at VSU North Campus)	\$ 32,846	Completed - 2012	4
Baytree Road Debris Box	\$ 210,000	Completed - 2012	6
Baytree Bridge Drainage Improvements (Sugar Creek at Kohls)	\$ 121,126	Completed - 2012	6
Fry Street Ditch Piping	\$ 58,896	Completed - 2012	1
Madison Highway Drainage Improvements (Mud Creek at Langdale Fuel)	\$ 127,390	Completed - 2012	3
Streambank Stabilization and Sesdiment Removal (Sugar Creek at Creekside Tavern)	\$ 136,384	Completed - 2011	6
Total Project Costs	\$ 686,642		

### FEBRUARY 2013 FLOOD EVENT

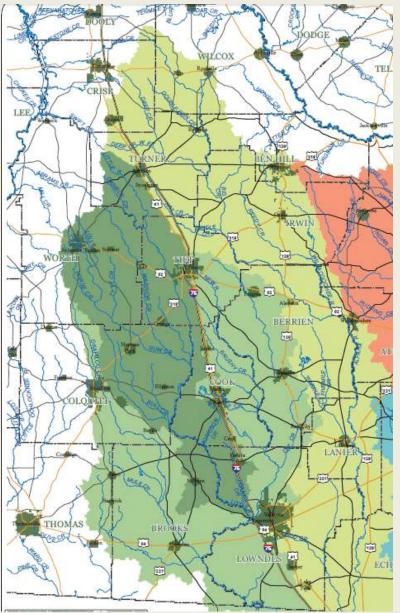
- Withlacoochee waste water treatment plant had to be shut down
- Numerous locations throughout Lowndes county were flooded
- 13 roads / bridges closed in Lowndes County, including US-84





## THE CITY OF VALDOSTA AND LOWNDES COUNTY DO HAVE

### A RISK OF RECURRENT FLOODS



#### Alapaha River sub-watershed:

- 1,720 sq miles
- 17 sq miles of Valdosta drains to the Alapaha

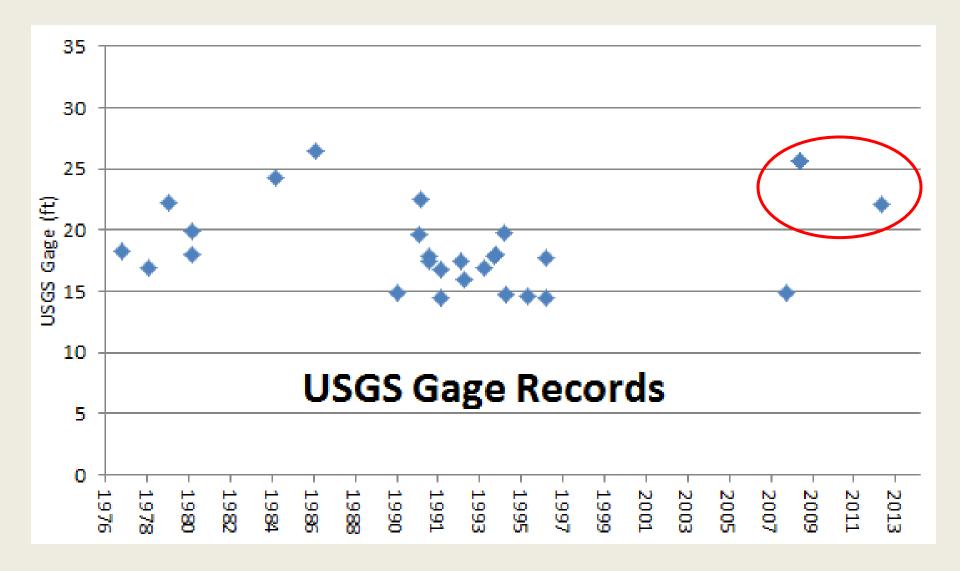
#### Withlacoochee River sub-watershed:

- 1,295 sq miles
- 20 sq miles of Valdosta drains to the Withlacoochee

#### Little River sub-watershed:

- 891 sq miles

### **2009** AND **2013** HAD A SIGNIFICANT IMPACT ON OUR COMMUNITY AND WERE ONLY **4** YEARS APART



### SINCE THE FEBRUARY 2013 EVENT

- The City of Valdosta sent a letter on March 11, 2013 to USACE
- The USACE responded on March 15, 2013 and a meeting with the Silver Jackets Program was scheduled April 11, 2013

Silver Jackets teams are collaborative state-led interagency teams, continuously working together to reduce flood risk at the state level. Often, no single agency has the complete solution, but each may have one or more pieces to contribute. Through partnerships, Silver Jackets optimizes the multiagency utilization of federal resources by leveraging state/local/Tribal resources, including data/information, talent and funding, and preventing duplication of effort.

### **A**TTENDEES **R**EPRESENTED

- 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

### IN ADDITION TO THE REGIONAL INFORMATION SHARED ON THE PREVIOUS SLIDES, WE ALSO DISCUSSED:

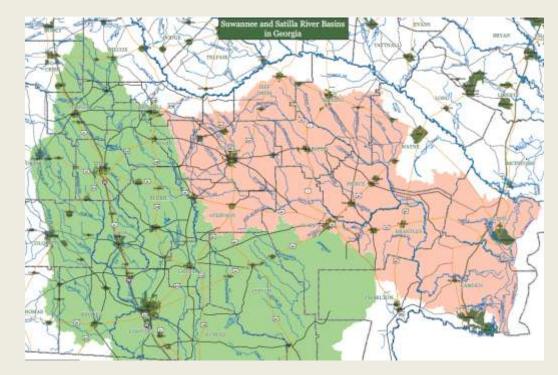
### Potential factors contributing to floods

- 1. Outdated flood map information does not provide a valid planning tool.
- 2. Increase in impervious areas over the years throughout the region.
- 3. Different runoff control measures implemented, without regional coordination.
- 4. Some of the existing dams and levees can release significant volumes of water and require coordination and advance notice to downstream communities.
- 5. Increased frequency rainfall amounts



### LONG TERM ITEMS FOR DISCUSSION

- 1. Coordination with FEMA/GEMA to update flood maps as part of the Risk Map program
- 2. Watershed study
  - Data Collection (LiDAR, land use)
  - Engineering evaluation
  - Geomorphologic evaluation (fallen trees, dredging)
- 3. Development of cost estimate for regional alternatives
- 4. Seek funding



### SHORT TERM ITEMS FOR DISCUSSION

- 1. Conduct a discovery process with communities and agencies to gather available data and studies.
- 2. Development of interim criteria to determine flood elevations for planning purposes.
- 3. Coordination with GEMA to mobilize and alert residents of upcoming floods.
- 4. Acquisition/Relocation of repetitive loss properties. Potential cost share from hazard mitigation grants.
- 5. Enroll communities in the FEMA CRS program to reduce flood insurance policies, and improve coordination with FEMA and the community.



### **KEY ACTION ITEMS FROM MEETING**

#### Action Item #1

- Submit a letter requesting the Silver Jackets serve as the lead on this regional effort to address flooding.

#### Action Item #2

- Meeting with USGS to discuss flood warning and response.

#### Action Item #3

- EPD will discuss with DNR the Reed Bingham dam and O/M

#### **ADDITIONAL ITEMS / DISCUSSION**

- FEMA FIRM Maps
- USACE Tree loss and sedimentation removal
- Regional Coordination
  - Southern Georgia Regional Commission
  - Suwannee Satilla Water Planning Council
  - Georgia / Florida Silver Jackets

## QUESTIONS