

City of Valdosta
Stormwater Committee (SWC) Meeting No. 2
Agenda

1. Summary of Meeting No. 1 - Introduction
2. Stormwater Related Regulations
3. City Stormwater Functions
4. Quantity Level of Service
5. Quality Level of Service
6. Proposed Meeting Schedule

Summary of Meeting No. 1

Introduction

November 17 2009

- ◆ Introduction of each SWC member
- ◆ Overall Program
- ◆ Current Stormwater Problems
- ◆ Ongoing City efforts to address issues
- ◆ SWC objective is to establish the desired:
 - ◆ Quantity Level of Service
 - ◆ Quality Level of Service



Stormwater Related Regulations

- ◆ Currently the City coordinates its stormwater functions with several agencies
- ◆ Federal Agencies have specific programs:
 - ◆ FEMA, EPA, NRCS, USACOE, FHWA
- ◆ Federal agencies delegate to State agencies the program funding and enforcement
 - ◆ GA DNR, GA EPD, GA Dam Safety Board
 - ◆ GA DOT, GEMA



In response to the current regulations the City performs several activities

- ◆ Sediment and Erosion Control
- ◆ Operation and Maintenance
- ◆ Floodplain Protection and Flood Control
- ◆ Dam Safety
- ◆ Wetland Protection/Dredge and Fill
- ◆ Total Maximum Daily Loads

Sediment and Erosion Control

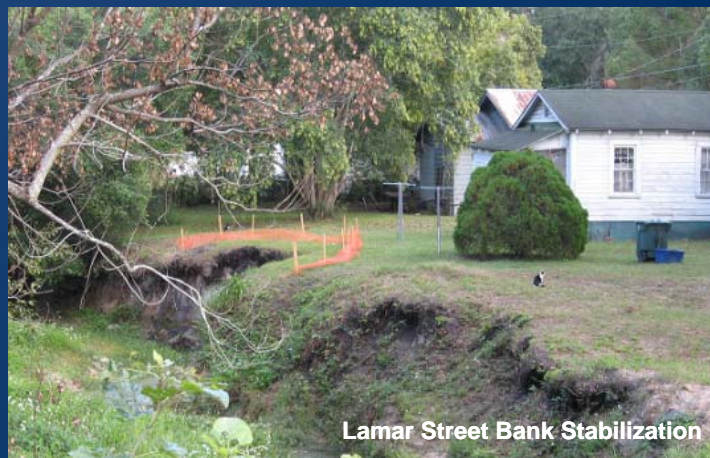
- ◆ Engineering Department reviews construction plans
- ◆ City has to maintain Level 1A/1B certification from the GA Soil and Water Conservation Commission in order to do field inspections
- ◆ City maintains a Level 2 Certification for plan preparation and review
- ◆ The City submits every 6 months a Memorandum of Agreement (MoA) documenting the work completed
- ◆ The NRCS has potential funds to stabilize stream banks



Typical Situations in Sediment and Erosion Control



Stream Bank Erosion



Operation and Maintenance

- ◆ City falls in the Phase 2 category of the National Pollutant Discharge Elimination Program
- ◆ City has to comply with the Compliance with GA SW Manual
- ◆ A portion of the permit renewal relates to the sediment/erosion control activities
- ◆ The City needs to submit a yearly report
- ◆ GA EPD renews permit every five years



The NPDES Phase II Program includes several activities

1. Public Education and Outreach: City has printed brochures, and added articles to City publications (City Beat, Channel 17, Valdosta Daily Times, brochures)



The NPDES Phase II Program includes several activities

2. Public Involvement: River clean up activities, and stormwater committees



The NPDES Phase II Program includes several activities

3. Illicit Discharge Detection: City surveyed structures in the field and created a GIS database of the current stormwater system



The NPDES Phase II Program includes several activities

4. City staff inspects sites to oversee runoff control during construction
5. City staff responds to sediment control related issues after construction



The NPDES Phase II Program includes several activities

6. Pollution prevention and good house keeping



- ☐ Cleaning Catch Basins
- ☐ Street Sweeping
- ☐ Inspecting Flood Control Structures
- ☐ Training City Employees
- ☐ Accident spills containment/removal

- ☐ Catch basin inspection
- ☐ Municipal facility pollution prevention plans inspection
- ☐ Cleaning major canals w/ inmates
- ☐ Maintenance of City ponds
- ☐ Cleaning storm pipes

The NPDES Phase II Program includes several activities (Summary)

1. Public Education and Outreach: City has printed brochures, and added articles to City publications (City Beat, Valdosta Times)
2. Public Involvement: River clean up activities, and stormwater committees
3. Illicit Discharge Detection
4. City staff inspects sites to oversee runoff control during
5. City staff responds to sediment control related issues after construction
6. Pollution prevention and Good House Keeping

GEMA enforces and funds floodplain protection programs

- ◆ Issue FEMA floodmaps which identify the floodplain extent
- ◆ Required floodplain compensation if there are encroachments in the floodplain
- ◆ Ensures that no new development is in the floodway (inner section of the channel)



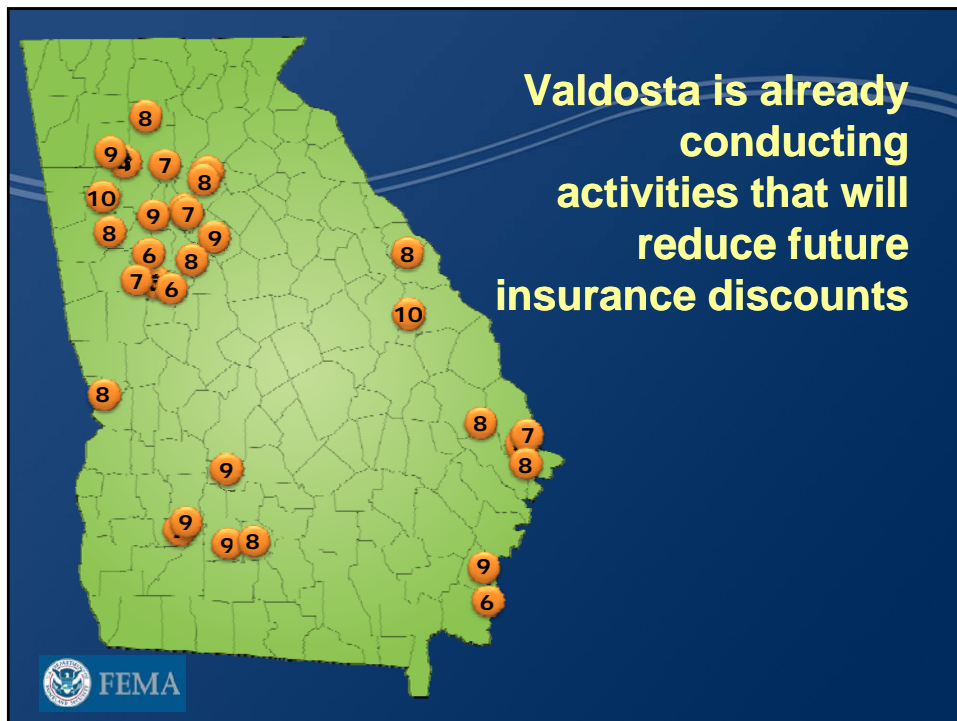
FEMA Community Rating System (CRS) provides flood insurance reduction



- ◆ Credits for dam safety, drainage system maintenance, flood warning programs
- ◆ City is documenting required activities

CRS Premium Discounts

Class	Discount	Class	Discount
1	45%	6	20%
2	40%	7	15%
3	35%	8	10%
4	30%	9	5%
5	25%	10	0%



Dam Safety



- ◆ As part of the bi-annual report to the GSWCC the City needs to report on Dam safety
- ◆ Under jurisdiction of the GA DNR since 1978
- ◆ Currently Valdosta has the following dams:
 - ◆ Gung Lake (Class 1)
 - ◆ Joree Mill Pond



Wetland Protection/Dredge and Fill



- ◆ The Corps of Engineers must review and approve plans that include wetland impacts and Dredge/Fill
- ◆ Any new construction plan that is approved by the Engineering department is checked for wetland impacts and dredge and fill.
- ◆ In case of wetland impact mitigation is determined based on standard district criteria

Total Maximum Daily Loads

- ◆ EPA delegated authority to GA EPD for the TMDL program in Georgia
- ◆ In the State of Georgia there are only a few river basins with requirements
- ◆ In the City of Valdosta there is only one impaired stream: Two Mile Branch (limit set for fecal coliform in 2006 by GA DNR)
- ◆ In the future the City might be required to control other pollutants such as nutrients and heavy metals



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In order to comply with regulations the City of Valdosta has several departments coordinating separate efforts

Engineering Department

Utilities Department

Public Works Department

Planning and Zoning

Engineering Department

- ◆ Plan review and approval
- ◆ Site inspection during construction
- ◆ Technical support to other departments and citizen complaints
- ◆ GIS and survey data collection
- ◆ Coordination with the GDOT and other State and Federal agencies
- ◆ Streets & Maintenance Division maintains anything beyond landscaping and cleaning



Department of Public Works

- ◆ Performs operation and maintenance within the City roadway ROW
- ◆ Spill Emergency Response

Utilities Department

- ◆ Stormwater Division was created in 1999
- ◆ Response to the Stormwater Hotline
- ◆ Performs maintenance outside the City roadway ROW
- ◆ Collection of the Stormwater Utility Fee
- ◆ Community work related to river and ditch cleaning programs

Planning and Zoning

- ◆ Developed the Land Development Regulations (LDR) in 2009
- ◆ Integrates multiple City ordinances:
 - ◆ Stormwater Management
 - ◆ Stormwater Utility
 - ◆ Soil Erosion and Sedimentation
 - ◆ Flood Damage Prevention
- ◆ Includes design criteria for stormwater

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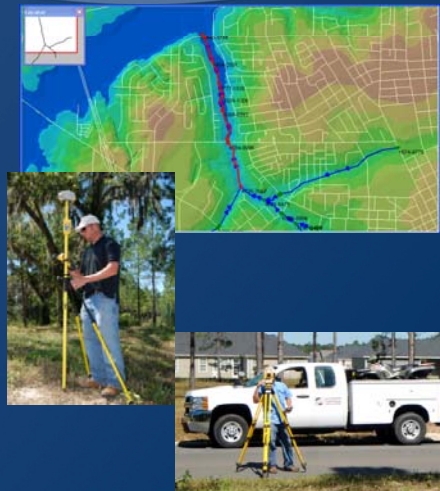
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Establishment of a Level of Service

- ◆ The Master Plan Update includes the analysis of each watershed
- ◆ The outcome of the study is to identify problems at critical locations
- ◆ Once the engineering model is complete, CDM will evaluate the benefit of implementing solutions through individual projects
- ◆ The objective will be to meet the Level of Service throughout the entire City




Example of Sugar Creek



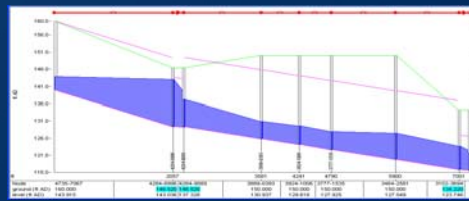
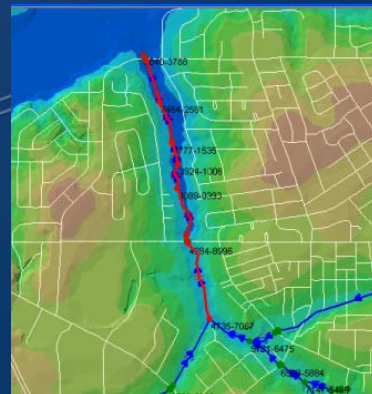
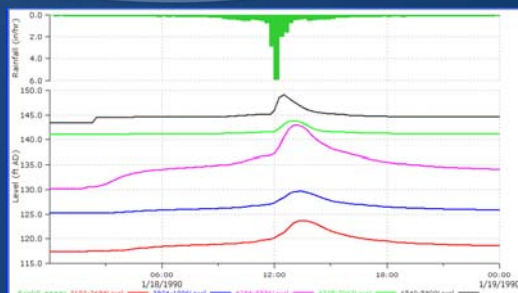
- ◆ The City is collecting field survey and GIS information
- ◆ Topographic information is available from the RDC
- ◆ The CDM Team will delineate the tributary areas for each one of the streams

Hydrology

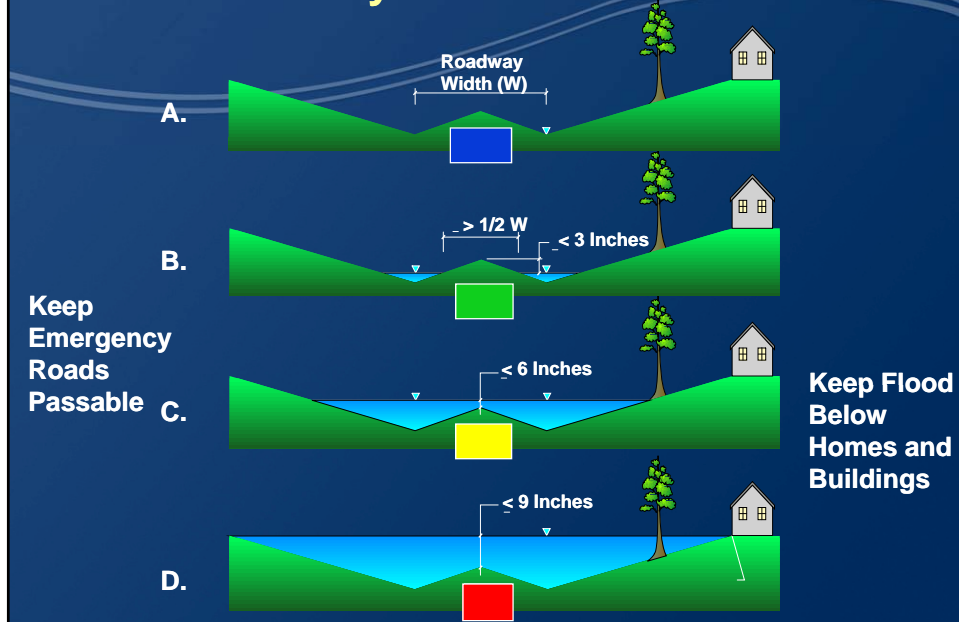
- ◆ **Determination of tributary areas**
 - ◆ **Soil coverages and infiltration capacity**
 - ◆ **Land use coverages and related impervious areas**
 - ◆ **Surface runoff flow paths**
- 



Hydraulic Analysis



Water Quantity Levels of Service



Quantity Level of Service (LOS)



Home Flood Frequency



Arterial Road Flood Frequency



Local Street Flood Frequency

Stream velocity and Water Quality



Water Quality Degradation



Quality Level of Service (LOS)



Stream Peak Velocity



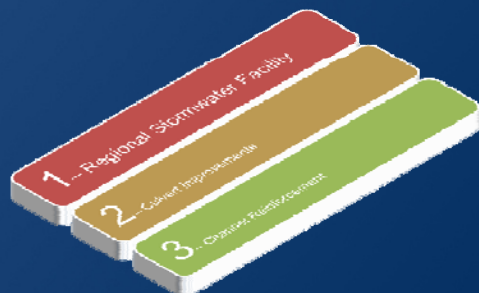
Pollutant Reduction



Wetland Protection

The City will prioritize capital improvement project based on measurable metrics

- ◆ Projects will be prioritized based on
 - ◆ Quantity Levels of Service
 - ◆ Quality Levels of Service
 - ◆ Joint use facilities
 - ◆ Construction and Maintenance Costs

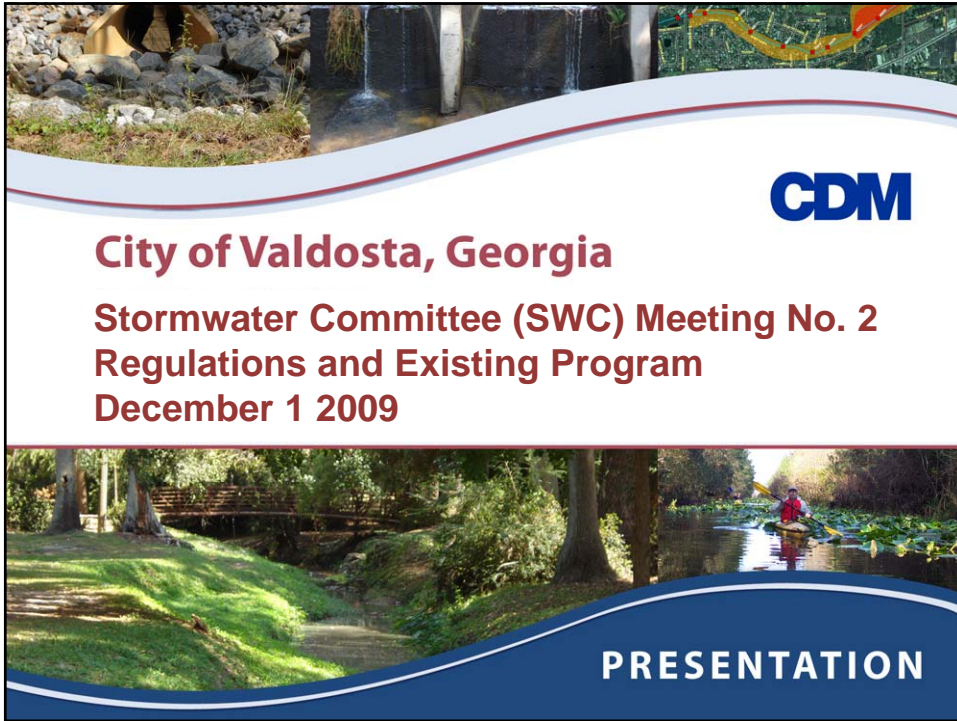


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Stormwater Committee (SWC) Meeting Dates

- ◆ Nov 17 2009 – Introduction
- ◆ Dec 1 2009 – Regulations and Existing Program
- ◆ Jan 19 2010 – Typical Elements of Levels of Service (LOS)
- ◆ Feb 23 2010 – Special Considerations and LOS Discussion
- ◆ Mar 23 2010 – Recommendations to Council
- ◆ Apr 20 2010 – Extra Meeting (if necessary)
- ◆ April 2010 – Final Recommendations to Council



City of Valdosta, Georgia

**Stormwater Committee (SWC) Meeting No. 2
Regulations and Existing Program
December 1 2009**

PRESENTATION