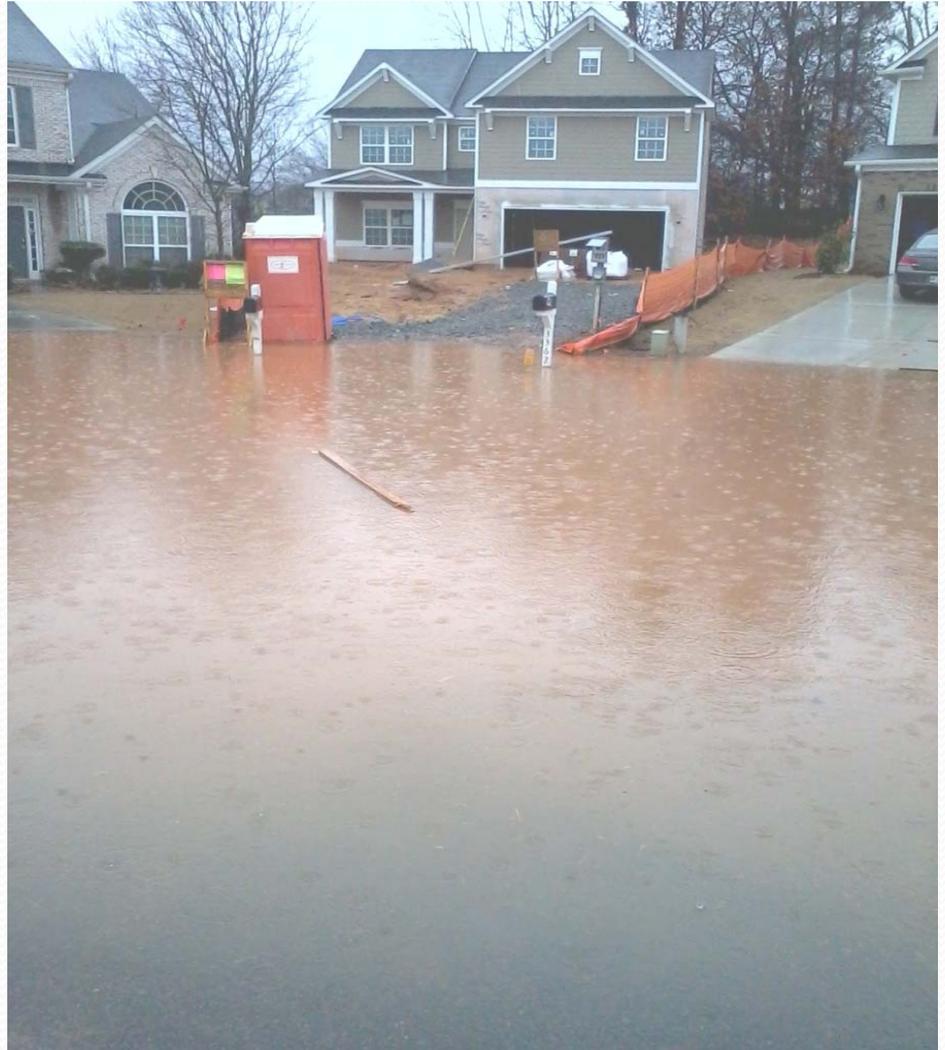




Stormwater Management Stakeholder's Meeting

“Stormwater Management is one of the more important services the City provides”





What is Stormwater?

- Runoff water from rain or melting snow that “runs off” of the land instead of seeping into the ground.
- Stormwater cannot infiltrate ***impervious*** surfaces (roads, roofs, driveways, parking lots, sidewalks, etc.)
- Runoff water is polluted
 - Picks up litter, debris, sediment, oil, pet waste, spills, bacteria, etc. and runs into receiving streams
 - **Number one cause of water pollution in Georgia (USA)!**

Elements of a Stormwater System

- **Street Gutters**
- Catch Basins/Inlets
- Piping
- Ditches
- Detention Ponds



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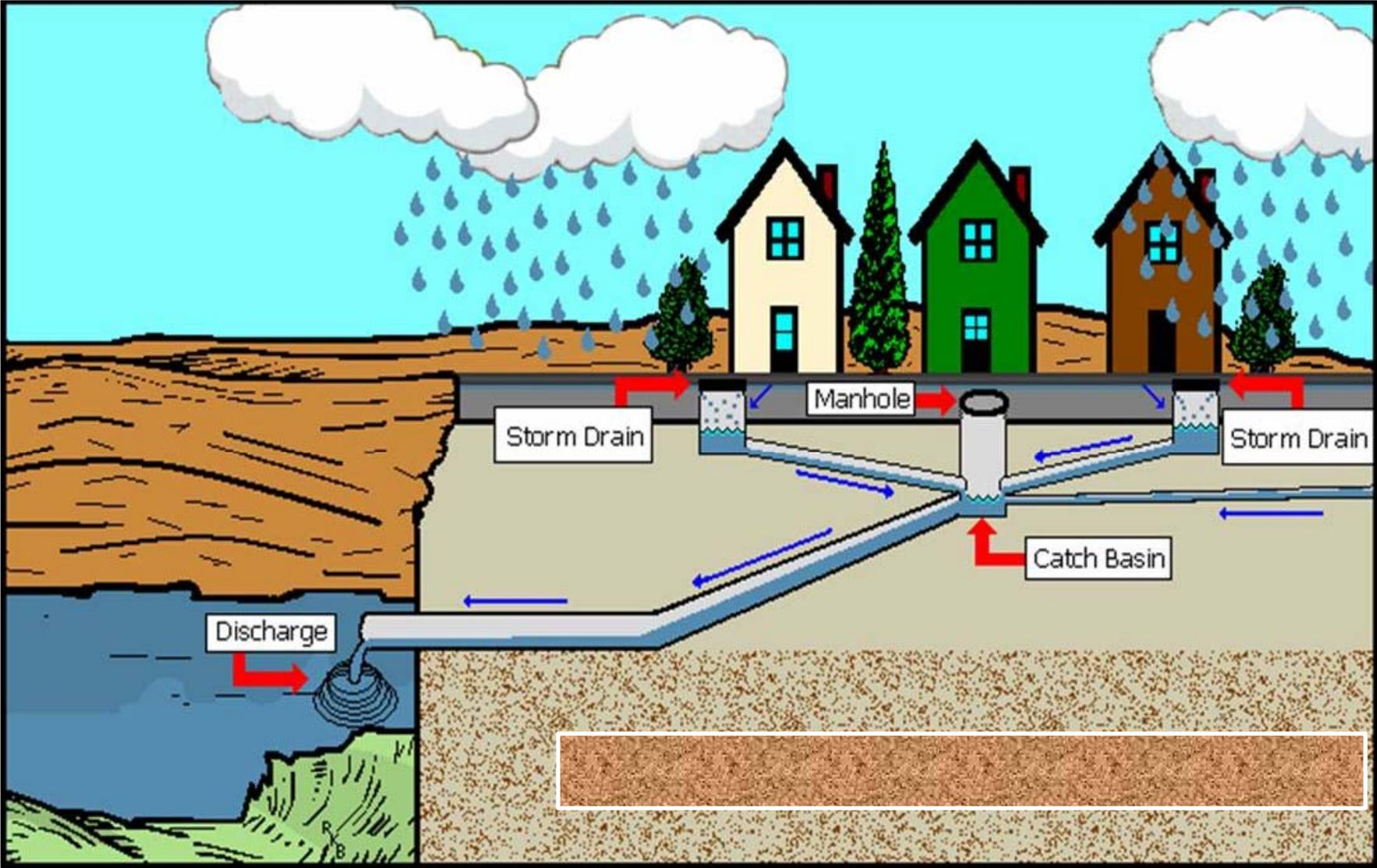


Elements of a Stormwater System

- Street Gutters
- Catch Basins/Inlets
- Piping
- Ditches
- **Detention Ponds**



Stormwater runoff is collected & carried through various stormwater structures to disposal





Why Manage Stormwater?

- Federal/State EPA Mandates (Clean Water Act)
- Much of system is outdated, dirty, or approaching end of lifespan
- Minimize Flood Risk & raise FEMA Community Rating System
- Affects Property Values
- Save Tax Dollars

City Stormwater System

Impervious area increases with growth

- 75% of city is developed
- 64.6 million square feet of impervious surface
- Additional development will increase impervious runoff volumes

Legacy Park - 1993



City Stormwater System

Legacy Park - 2010

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Stormwater System Condition

Pipe: 290,000 feet (55 miles)

- **Failed Pipe:** 1% - replace immediately (\$500,000)
- **Failing Pipe:** 5% - replace within 5 years (\$2.5 million)
- **Poor Condition:** 20% - replace in 10-15 years (\$10 million)
- **Good Condition:** 74% - 15-20 years lifespan (\$35 million)



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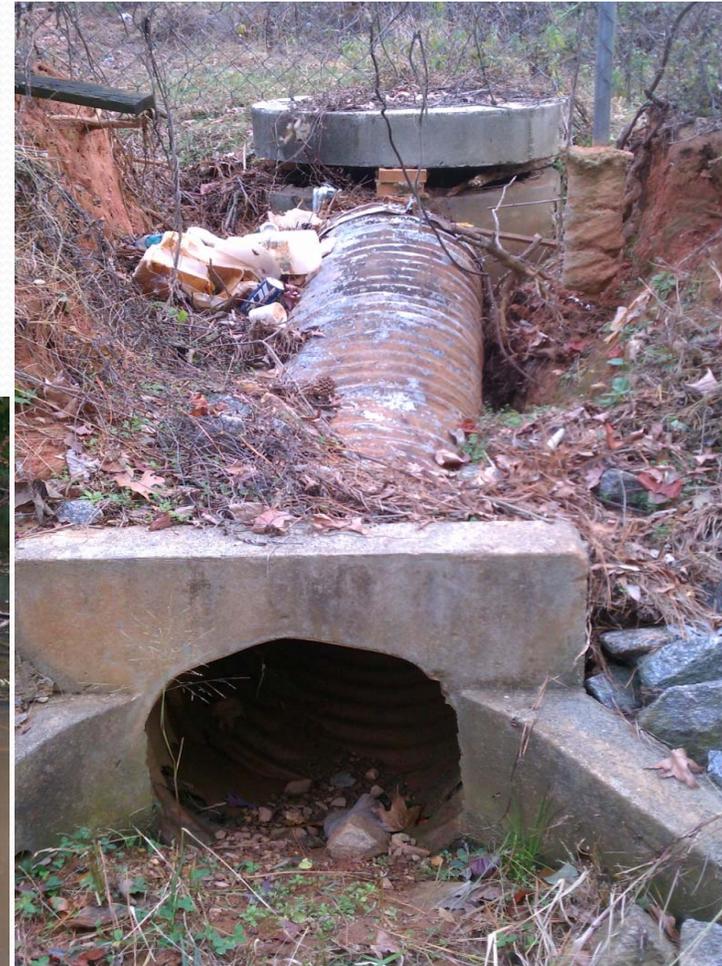


Dirty Pipe

Stormwater System Condition (cont.)

Structures: 4,000 (catch basin, junction boxes, outlets)

- Expansive Maintenance Needed



Stormwater System Condition (cont.)

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Stormwater System Condition (cont.)

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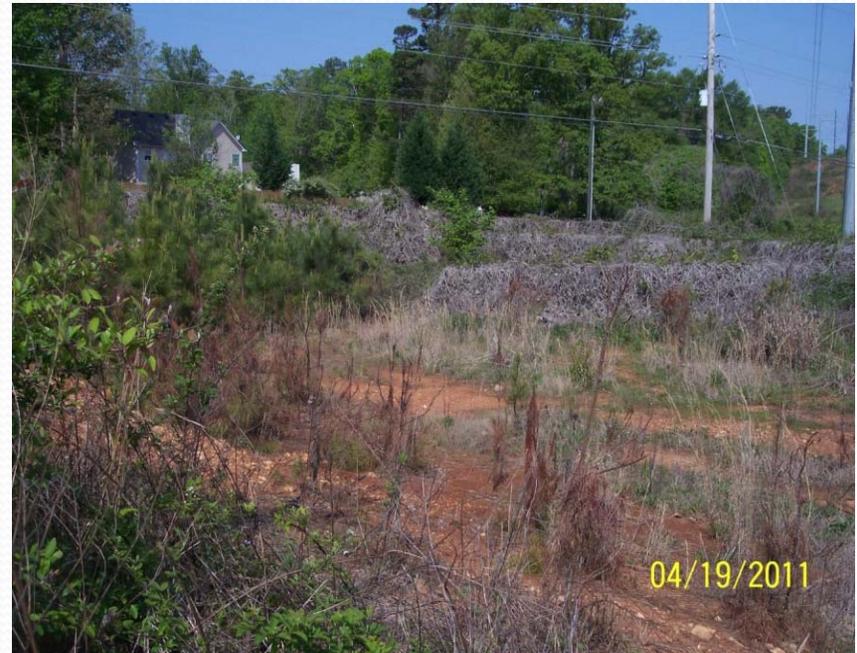
- Expansive Maintenance Needed



City Stormwater System (cont.)

Stormwater Ponds

- 250 Ponds in City
 - 229 Private
 - 12 City
- 99% of private ponds not maintained or functional



City Stormwater System (cont.)

Stormwater Ponds

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Funding Required

- System Replacement Cost: *\$50,000,000*
- Annual Budget Needed: \$1,100,000
 - Operating Budget: \$550,000
 - Capital Projects: \$550,000 (spread repair & replacement cost of failed/failing pipes across 5+years - \$3,000,000)



Funding Alternatives

- Ad Valorem Taxes
 - Based on Property Value
 - Does Not Include Tax Exempt Properties
 - Part of General Fund
- Stormwater Utility
 - Based on Impervious Area
 - Includes All Developed Parcels With Runoff
 - **Fair & Equitable**
 - Separate Enterprise Fund
- Other/Combinations
 - SPLOST Projects
 - Grants



What is a SW Utility?

A *Stormwater Utility* is an organizational and financial entity whose purpose is to manage and fund a local government stormwater program and to provide stormwater management services to customers. Each user of the system is charged a user fee and services are provided to customers.



SWU Will Be An Enterprise Fund

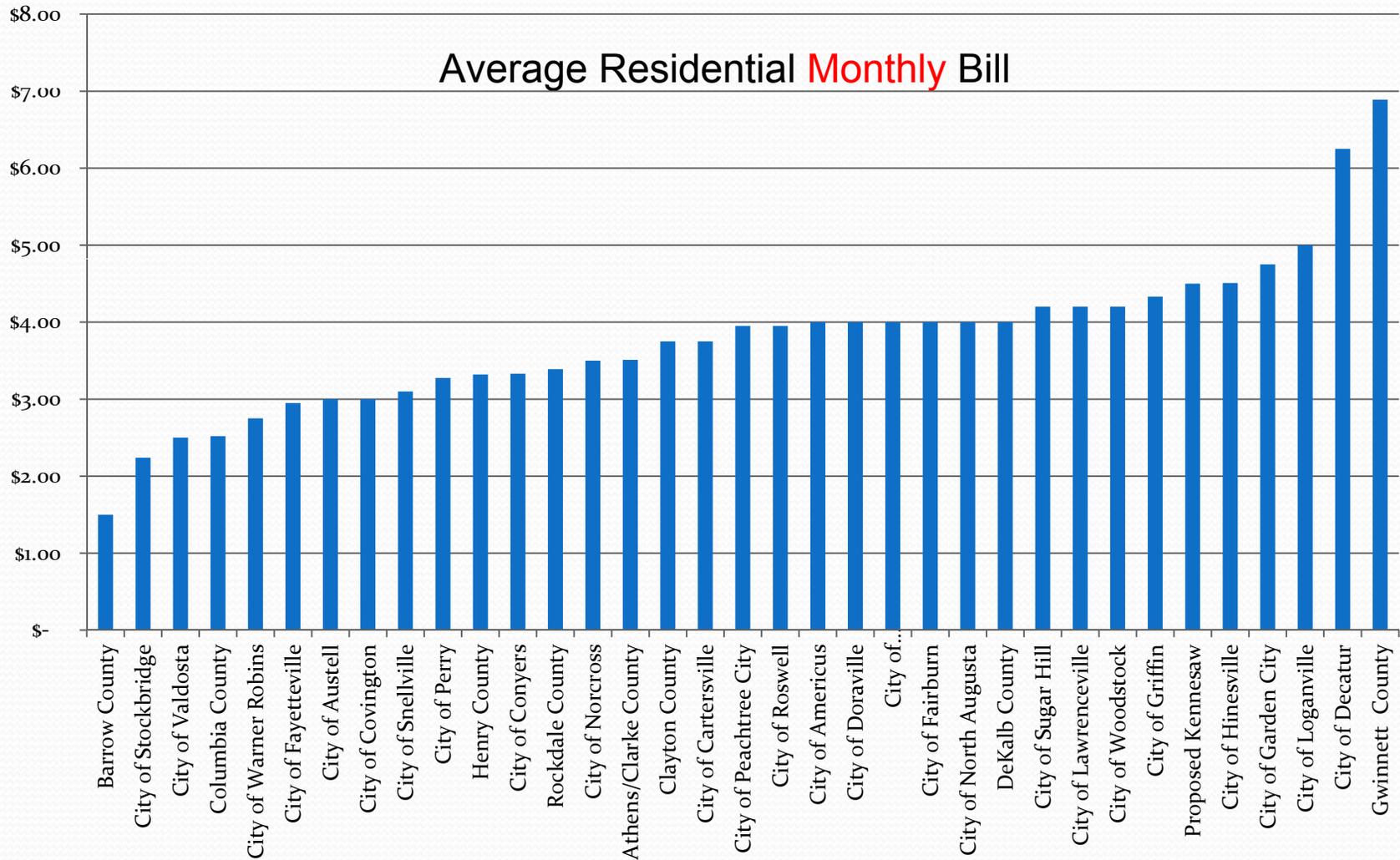
- Definition: An *enterprise fund* is operated to account for revenue received for services and goods offered to members of a community on a continuing basis. Surplus funds from the operation of a service can also be kept in the enterprise fund for use in the future.
- An Enterprise Fund segregates funds by a specific function.
- All proceeds from Stormwater Utility will go to the SWU Enterprise Fund
- All expenses for stormwater operations will be paid out of this Enterprise Fund including; billing, collections, manpower, equipment, capital projects, management, etc.



Recommend Stormwater Utility

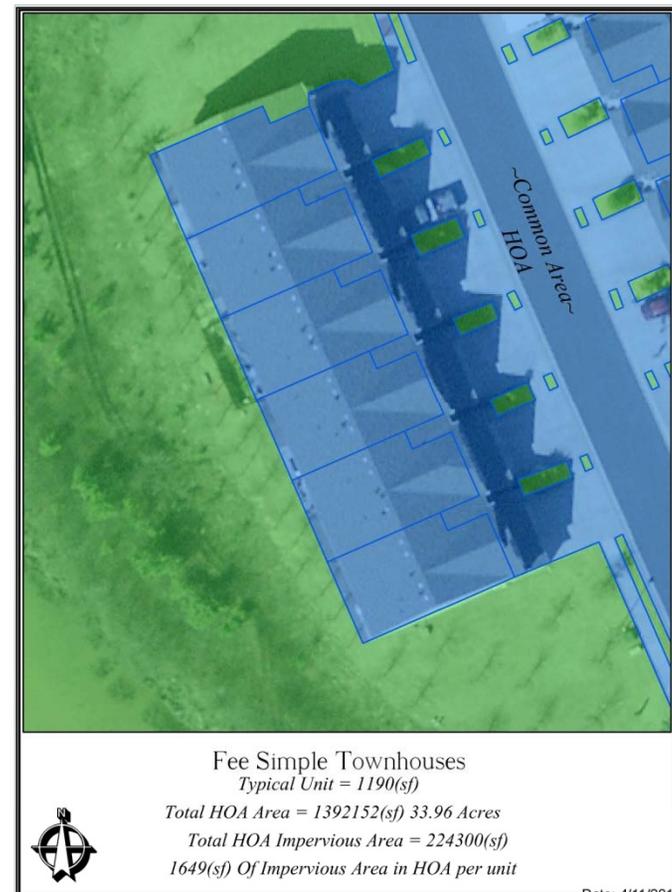
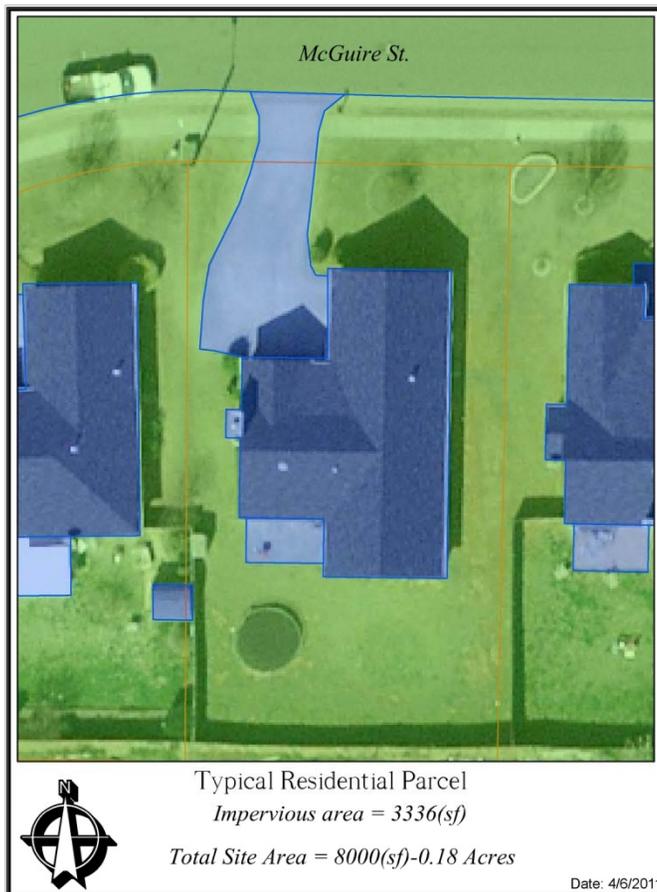
- Based on square feet of impervious service
 - Residential parcels = 27.6 million sq. ft.
 - Non-Residential parcels = 36.6 million sq. ft.
 - No Parcel Less Than 1,000 S.F. Will Be Billed
- Basis: \$1.50/month/1,000 sq. ft. impervious
 - \$18 year per 1,000 sq. ft. impervious
 - Average Home: \$4.50 month - \$54 year

Georgia Cities/Counties with SWU



Some SWU's bill monthly, others bill yearly

Sample Area Determination Residential



Sample Area Determination

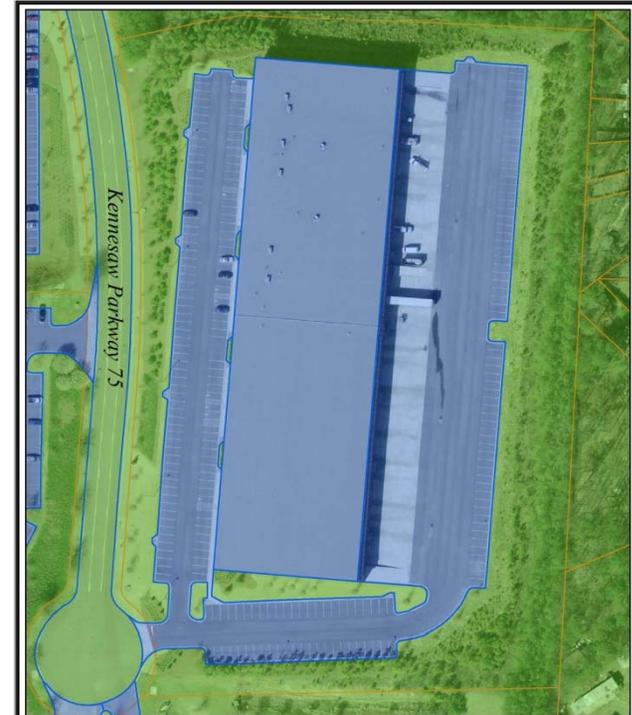
Church



St. Catherine of Siena Catholic Church
Impervious area = 266615(sf)
Total Site Area = 529547(sf)-12.2 Acres

Date: 4/6/2011

Industrial



Typical Commercial Parcel
Impervious area = 239479(sf)
Total Site Area = 377782(sf)-8.7 Acres

Date: 4/6/2011

Credit Program

Table 1: Stormwater User Fee Credit Summary

Credit Description	Credit Term	Potential Stormwater User Fee Credit Customer Types and Amount		
		Single Family Residential (SFR)	Non Single Family Residential (NSFR)	Stormwater User Fee Credit
User Fee Credits				
Residential Environmental Technologies	5 years	x		10%
Rain Barrel	5 years	x		(up to) 10%
Low-Impact Parcel	5 years	x	x	25%
No Direct Discharge	5 years	x	x	(Up to) 40%
Watershed Stewardship	1 year	x	x	5%
Septic Tank Maintenance	5 years	x	x	10%
Stormwater Runoff Infiltration	5 years	x	x	(Up to) 40%
Natural Area Preservation	Unlimited	x	x	(Up to) 20%
Water Resources Education Program	1 year		x	40%
NPDES Industrial Stormwater General Permit	1 year		x	15%
Hot Spot BMP Implementation	5 years		x	15%
<i>GSMU Unified Stormwater Sizing Criteria¹</i>				
Water Quality	5 years		x	(Up to) 10%
Channel Protection	5 years		x	(Up to) 10%
Overbank Flood Protection	5 years		x	(Up to) 10%
Extreme Flood Protection	5 years		x	(Up to) 10%

Credit program mitigates cost for those who go over & above to minimize their impact on the stormwater system

Consequences of No Action....

- EPA/EPD Regulatory Citations & Fines
 - Columbia, SC: \$800K in fines
 - Dallas, TX: \$1.2M fine plus \$800K for corrective actions
 - Chattanooga, TN: \$100K fines plus \$535K for repairs
- Increased flooding, pollution, and system failure
- Higher taxes to fund emergency repairs
- Decline in property values and community rating



Road Failures \$1.4 million in 2009





Going Forward

- Public & Stakeholder Meetings
- Provide feedback to Mayor/Council
- Mayor/Council Decision



Questions & Comments



More Information

- Contact Jon Whitmer, P.E., Stormwater Manager, 770-421-8582 or jwhitmer@kennesaw-ga.gov
- Visit City's website for more stormwater information:
<http://www.kennesaw-ga.gov/city-services/public-works/stormwater>