

# City of Duluth

## Stormwater Utility Set-Up Recommendations



*City Council Presentation #2*

*April 25, 2011*

*Ron Feldner, P.E.*

*Ecological Solutions, Inc.*



*Duluth*  
Capture the Spirit  
of Good Living

# Meeting Discussion Items



- **SWMP Needs & Priorities**
  - Drainage Capital Projects
  - Regulatory Compliance Requirements
- **SWMP Cost of Service & Funding**
  - Current & Future Cost of Service
  - Stormwater Utility (SW Utility) Overview
  - SW Utility Billing Rate Comparison
- **Public Education & Outreach Plan**
- **SW Utility Implementation Schedule & Timeline**
- **City Council Request: *Authorize Phase 3 of the Project***
  - Ordinance Preparation, Master Account File Development, Credit Program, Billing System Coordination, Etc.

# Drainage Capital Construction Projects



Project ID	Location	Description	Cost (Estimated)
1	Bridlewood Drive	Rehabilitate Twin 60" Culverts, Re-align Stream Channel, Repair Streambank Failure	\$345,000
2	Brookshire Way	Remove and Replace 36" Culvert under City street	\$126,800
3	Swilling Creek	Phase 1: Stream Restoration and Streambank Improvements	\$125,000
4	Swilling Creek	Phase 2: Stream Restoration and Streambank Improvements	TBD
5	Swilling Creek Basin	Miscellaneous Detention Pond Retrofits & Improvements.	\$436,600
6	Chelsea Court	Grade stream channel, install headwall and rip rap splash pad.	\$21,500
7	Dover Drive	Replace downstream headwall, install rip rap splash pad.	\$16,000
8	Kenwood Drive	Remove and replace 42-inch pipe with headwalls, remove and replace 30-inch pipe and catch basins, install rip rap splash pads, replace curb and asphalt.	\$197,500

# Drainage Capital Construction Projects



Project ID	Location	Description	Cost (Estimated)
9	Peachtree Walk	Remove and replace 60-inch pipe with headwalls, remove and replace 18-inch pipe and catch basins, install rip rap splash pads, replace curb and asphalt.	\$69,500
10	Pine Cone Lane	Replace downstream headwall, install rip rap splash pad.	\$15,250
11	Wood Acres Boulevard	Remove and replace 48-inch pipe with headwalls, remove and replace 18-inch pipe and catch basins, install rip rap splash pads, replace curb and asphalt.	\$67,500
12	Chattawood Drive	Remove and replace 36-inch pipe with headwalls and catch basins, rip rap splash pads, replace curb and asphalt.	\$68,000
13	Howell Springs Drive	Replace downstream headwalls, install rip rap splash pads.	\$33,000
14	Howell Meadow Drive	Remove and replace 30-inch pipe with headwalls, remove and replace 18-inch pipe and catch basins, install rip rap splash pads, replace curb and asphalt.	\$58,000
15	City Wide Drainage Masterplan	Hydrological & Hydraulic Study for watersheds	\$250,000
		<b>Total</b>	<b>\$1,829,650</b>

# NPDES Phase I Stormwater Permit

## *City of Duluth Requirements*



- **Drainage System Operations & Maintenance**
  - 20% Inspections each year (600+ inspections)
- **Illicit Discharge Detection & Elimination**
- **Waste Handling & Industrial Facilities Pollution Controls**
- **Construction Site Structural & Non-Structural Controls**
- **Impaired Waterway Monitoring**
  - TMDL Monitoring & Implementation
- **Enhanced Pollution Prevention**



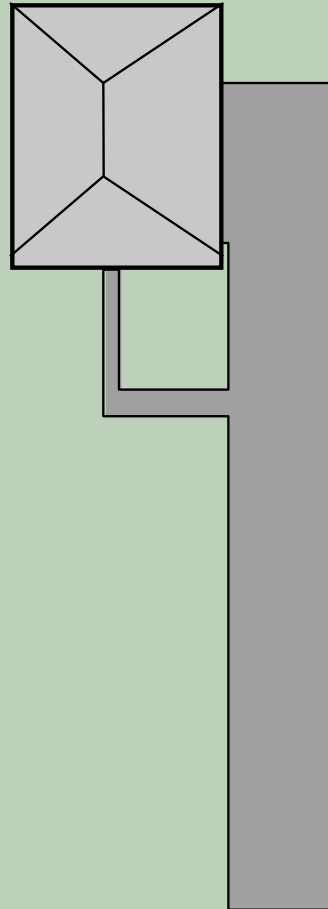
# SWMP Cost Analysis



SWMP Operational Areas	Current FY11	Proposed FY12	Budget Increase
Personnel/Coordination	\$127,875	\$136,175	\$8,300
Regulatory Compliance	\$24,625	\$65,625	\$41,000
Operations & Maintenance	\$202,000	\$282,900	\$80,900
Capital Construction	\$10,000	\$275,000	\$265,000
<b>Totals</b>	<b>\$364,500</b>	<b>\$759,700</b>	<b>\$395,200</b>

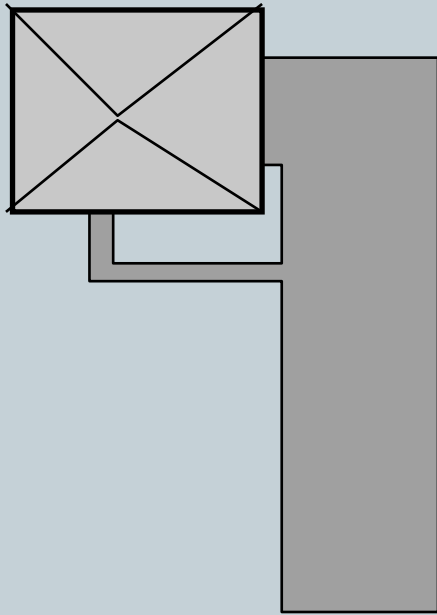
**Note:** *Approximately 87% of the recommended SWMP budget increase will be allocated to drainage system O&M and capital construction.*

# Example Residential User Fee Calculation



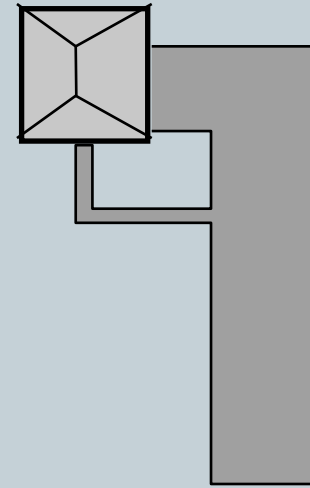
- Parcel Impervious Area (IA)
  - Rooftop
  - Driveway
  - Sidewalk
- Total IA on parcel = 2,654 square feet (sq ft)
- Typical residential property stormwater user fee = **\$36/year**

# How the User Fee is Calculated: *Residential Tiering*



1.0 ERU = 2,654 sq ft

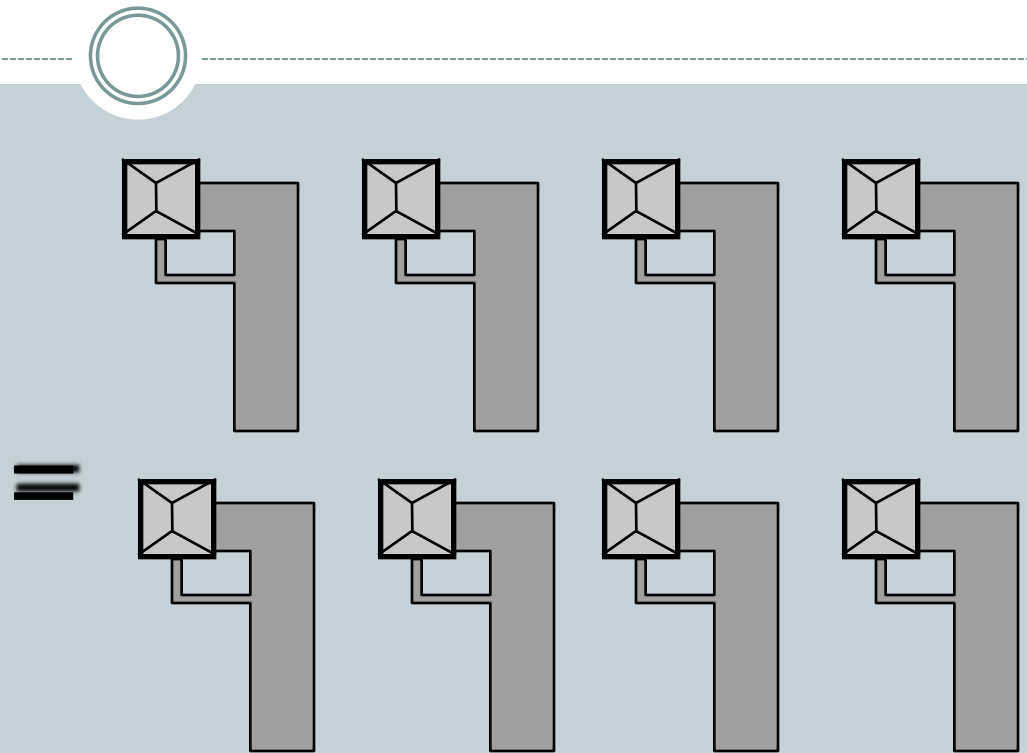
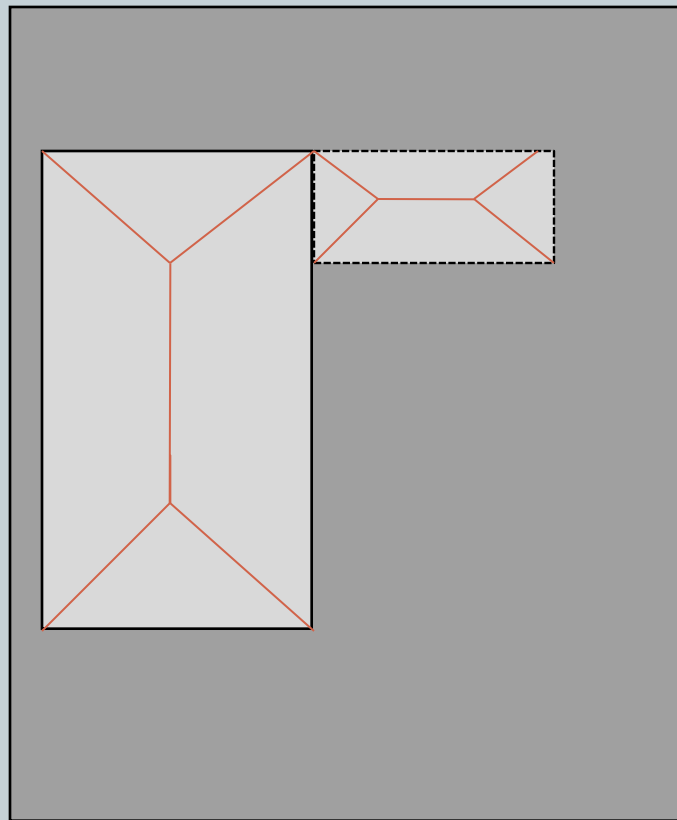
***Detached Single Family Residential***



0.4 ERU = 1,173 sq ft

***Attached Single Family Residential***

# Example Commercial User Fee Calculation



Building Footprint = 10,000 sqft  
Parking Lot = 17,000 sqft  
Total Impervious Area = 27,000 sqft  
Annual SW User Fee = 27,000 sq ft @  
\$36/year/2654 sq ft = **\$366.23/year**

# SW Utility Billing Rate Comparison



<b>Community</b>	<b>Annual Fee for Residential Parcel with 2,654 sq ft of IA</b>
Snellville	<b>\$27.90</b>
Peachtree City	<b>\$32.28</b>
Norcross	<b>\$33.18</b>
<b>**Duluth**</b>	<b>\$36.00</b>
Sugar Hill	<b>\$36.00</b>
Americus	<b>\$48.00</b>
Griffin	<b>\$51.36</b>
Gwinnett Co	<b>\$65.29</b>

# Customer Credit Opportunities



## Residential

- Rain Barrels/LID
- Low Impact Parcel
- Reduced DSFR Footprint
- Watershed Stewardship
- Septic Tank Maintenance
- Stormwater Infiltration
- Natural Area Preservation
- No Direct Discharge

## Non-Residential

- Low Impact Parcel
- No Direct Discharge
- Watershed Stewardship
- Stormwater Infiltration
- Natural Area Preservation
- Education
- NPDES Industrial Permit
- Hot Spot BMPs
- Detention Pond

Maximum Credit – 50%

# FY12 SW Utility Budget Analysis



<b>Customer Class</b>	<b>ERUs</b>	<b>Annual Billing Rate</b>	<b>Total Revenue FY12</b>
Detached SFR	5,540.0	\$36.00	\$199,440
Attached SFR	658.4	\$36.00	\$23,702
Non-Residential	16,824.4	\$36.00	\$605,678
	<b>23,022.8</b>		\$828,821
		<b>Gross Revenue</b>	\$828,821
		<b><i>Net Revenue</i></b>	<b>\$766,659</b>
		<b>FY12 Program Cost</b>	\$759,700
		<b>Fund Balance</b>	\$6,959

# Public Education & Outreach (PE&O) Plan



- Undertaken as of April 25, 2011
  - *City Newsletter & Website*
  - *City Council Presentations*
  - *Public Meetings/Workshops*
  - *Open House Events*
  - *Informational Brochures*
  - *Local Media/Press Releases*
  - *Frequently Asked Questions*
  - *Customer Notifications & Meetings*
- *To Do: Public Hearings (Ordinance)*



# Future Schedule of Activities



- **Oct 13, 2010:** *Public Meeting #1 (complete)*
- **Dec 7, 2010:** *Public Meeting #2 (complete)*
- **Jan 24, 2011:** *City Council Presen. #1 (complete)*
- **Apr 25, 2011:** *City Council Presentation #2*
  - *SW Utility Service Delivery, Cost of Service & User Fee Billing Rate Recommendations*
- **May – Sep 2011:** **Ongoing PE&O Plan Implementation**
- **Jun 2011:** **FY 2012 Budget Adoption & SW Utility Ordinance Adoption**

# Future Schedule of Activities



- **Jun – Aug 2011:** Create SW Utility Master Account File (MAF)
- **Jun – Aug 2011:** Customer Credit Applications
- **Jul 2011:** City Staff Customer Service Training
- **Aug 2011:** Upload MAF to Tax Billing System
- **Sep 2011:** *\*\*Mail Customer Bills\*\**
- **FY2012:** SWMP Implementation at the Defined Service Level & Ongoing Customer Service

# Questions?

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