

Chattanooga Credits & Incentives :

Integrating Development Incentives into
New Stormwater Regulations



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Water Quality Manager

Outline

- Requirements
- WQ Volume Trading?
- How does it work?
 - How you earn Coupons?
 - How you redeem Coupons?
- WQ Fee Discount

got coupons?

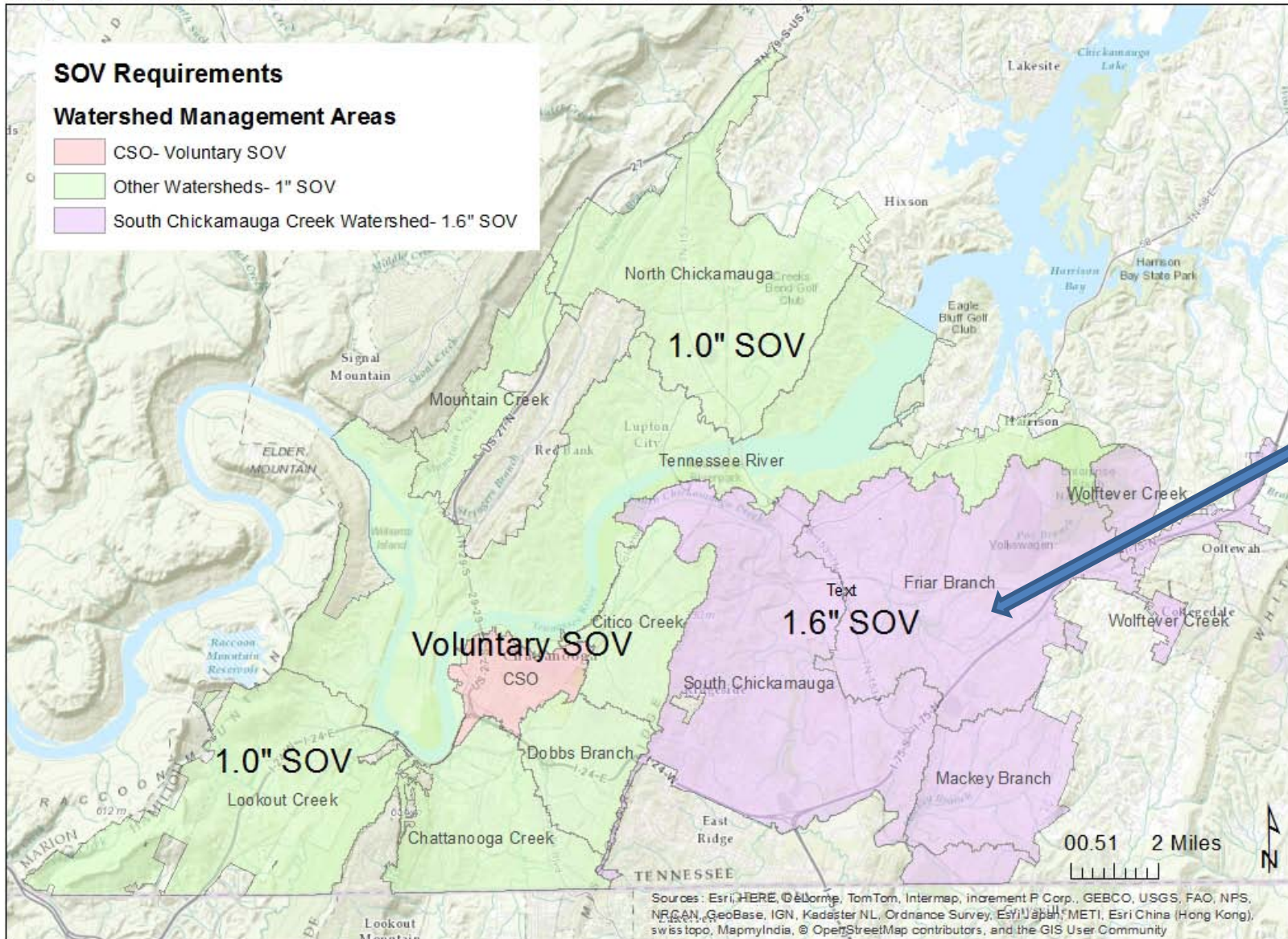


SOV CREDIT COUPON PROGRAM

Credit Coupons (earned or applied)

1. Can be earned by approved applicants (with executed affidavit) who exceed minimum SOV standards on new and redevelopment sites;
2. Coupons can be applied (redeemed) to achieve site compliance. Coupons cannot be applied to offsite mitigation sites.
3. Coupons are accounted for and issued in denominations of 100 cubic feet of SOV with remaining or residuals issued separately. Credit coupons are issued after As-Builts are approved.
4. Coupons will be numbered, contain original signatures and an issue date. Lost coupons will not be replaced.
5. The City will keep a record of earned and applied credit coupons for reporting purposes (to TDEC). The City does not disclose coupon ownership, advertise coupons for sale or negotiate sales with potential buyers.
6. The coupon holder may sell, transfer, or apply the credit in the amount of the coupons individually or in any combination.
7. Credit coupons have no monetary face value. Earned and unapplied coupons do not expire.
8. Coupons are transferable to other parties and may be marketed and applied to other applicable projects.
9. The City will retire used coupons and issue new coupons for any residual SOV not applied. Coupons will not be issued for residuals less than 10 cubic feet.
10. The maximum available earned credit is the difference between the site's applicable SOV standard and the volume resulting from a 2.1-inch rainfall event. Any SOV captured and treated on-site that results from rainfall events above the 2.1-inch design storm contains significantly fewer pollutants. Therefore, the applicant will not earn coupons for capture, treatment or re-use of these relatively clean surface discharges.
11. During the 1st year of our implementation period, from 12/01/14 to 12/01/15, the City will allow coupons to be applied to meet 100% of the primary site's baseline SOV with no obligation to prove site infeasibility.
12. During the 2nd year of our implementation period, from 12/02/14 to 12/01/15, the City will allow coupons to be applied to meet 50% of the primary site's baseline SOV with no obligation to prove site infeasibility.

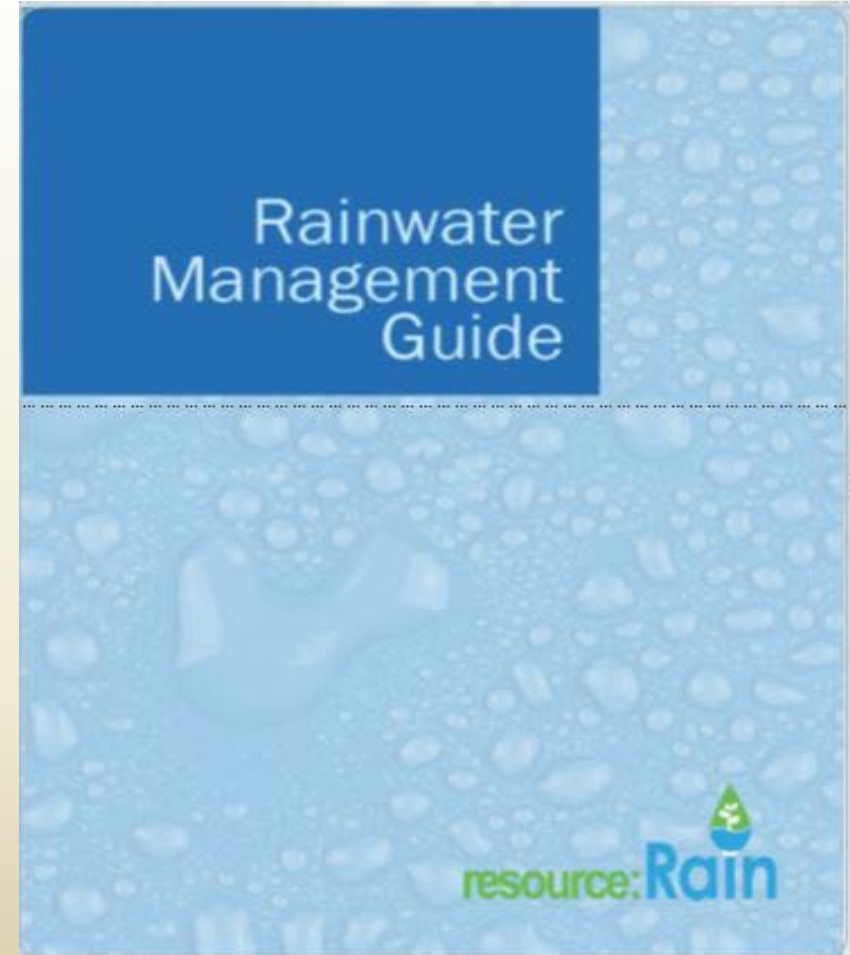
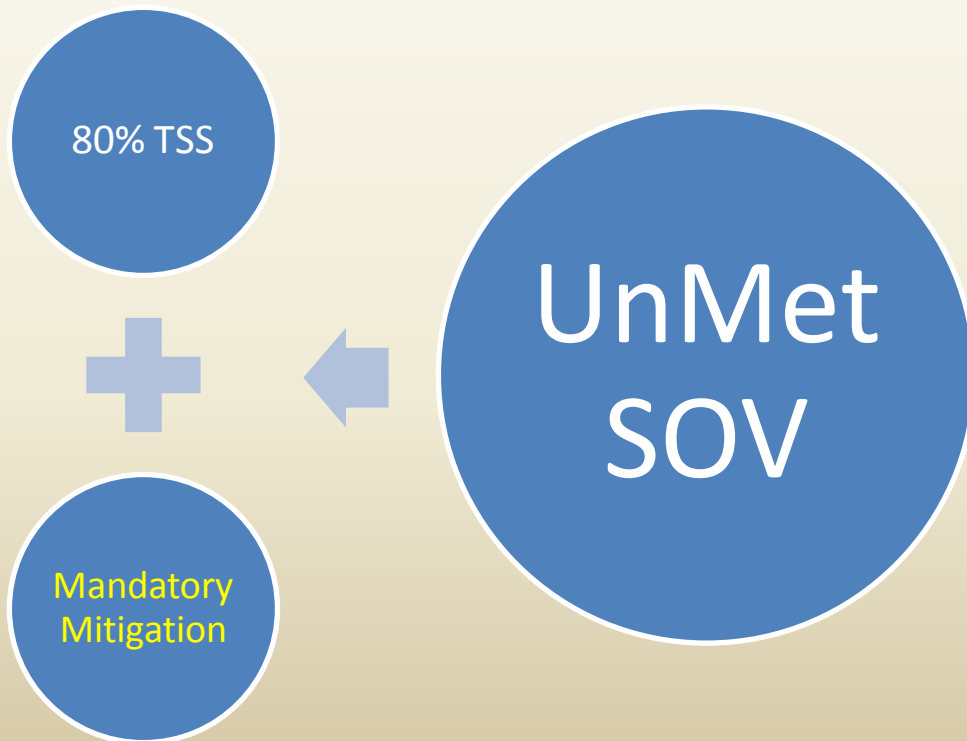
City of Chattanooga Stormwater Stay on Volume Requirements



Threatened
&
Endangered
Species

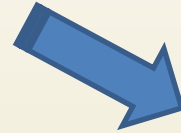
Chattanooga Requirements

- Rainwater Management Guide (RMG)
- 1" minimum Stay-On-Volume (SOV) (on-site volume reduction)
 - 1.6 " SOV for S. Chick Watershed



Site Hardship

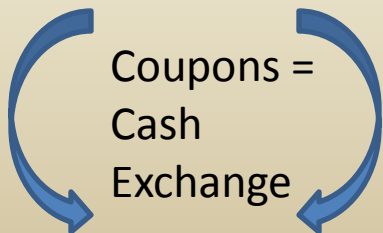
- Sink holes or karst features
- Potential ground water contamination
- Pre-existing ground water contamination
- Site infiltration capacity



Chattanooga Hardship Management

For Unmet SOV:


- Must do 80% TSS Removal **and**
- **Must** do Either
 - Off-Site Mitigation or
 - Pay Mitigation Fee (\$45/CF) or
 - Buy “Coupons” => WQ Volume Trading
 - » Earned when exceeding the requirements at another site
 - Generated by same developer or other developer
 - » Sold, transferred or applied
 - » Coupons will be issued in 10 CF multiplier.





Issued To: Authorized Agent/Approved Applicant _____ MONTH DAY YEAR
 Print: _____ Coupon #: A 20141208 0000
 Signature: _____

Issued By: City Representative
 Print: _____
 Signature: _____



Location of Primary Development: _____
 SOV Required on Primary Development: 1050 _____ CF
 SOV Met on Primary Development: _____ CF
 SOV Met with Credit Coupons: _____ CF
 Location of Offsite Mitigation: _____
 SOV Required for Offsite Mitigation: _____ CF
 Mitigation Fee Paid: \$ _____

Seller: _____
 Buyer: _____
 Price per cubic foot (optional): \$ _____

Stormwater Management Practice	Location	SOV (CF)
Pervious Pavement	Rear Parking Lot	550
Green Roof	East side of roof	230
Total SOV Installed	1550	
Total Credit Coupons Earned		500

Why Coupons were introduced?

I  **COUPONS**



Why Coupons were introduced?

- Options for sites with hardships
 - More economically feasible to purchase coupons than:
 - Off-site Mitigation
 - Paying Mitigation Fee
 - Or installing (above ground) very expensive GIs.
- Managing TMDLs & Protecting Endangered and Threatened Species:
 - Exceeding standards at new development or redevelopment sites
 - Higher standard in S. Chickamauga Creek Watershed
 - Retrofitting sites standard is only 0.1"

Chickamauga Crayfish

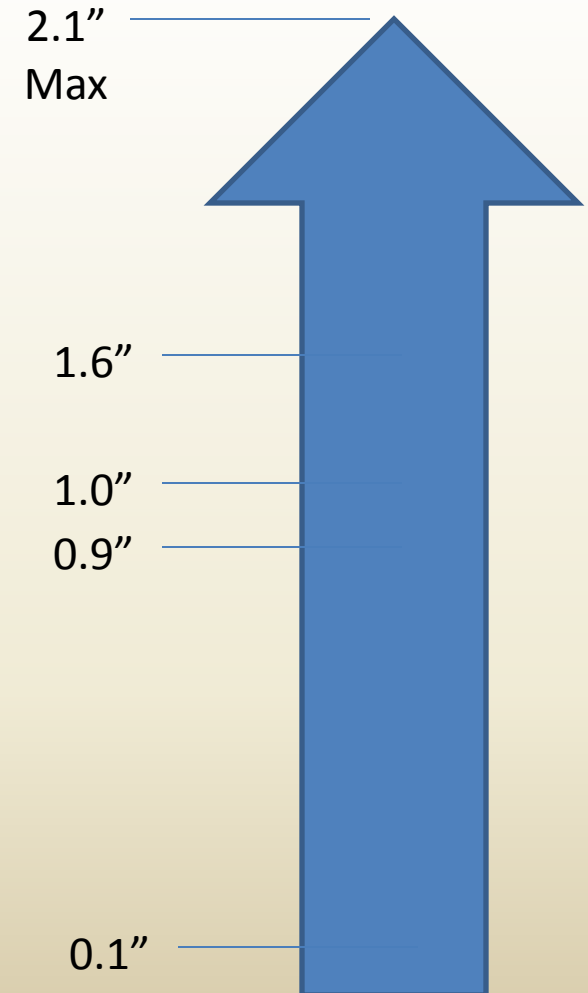


SPECIAL
1st Year No Hardship
required to Apply
Coupons !!

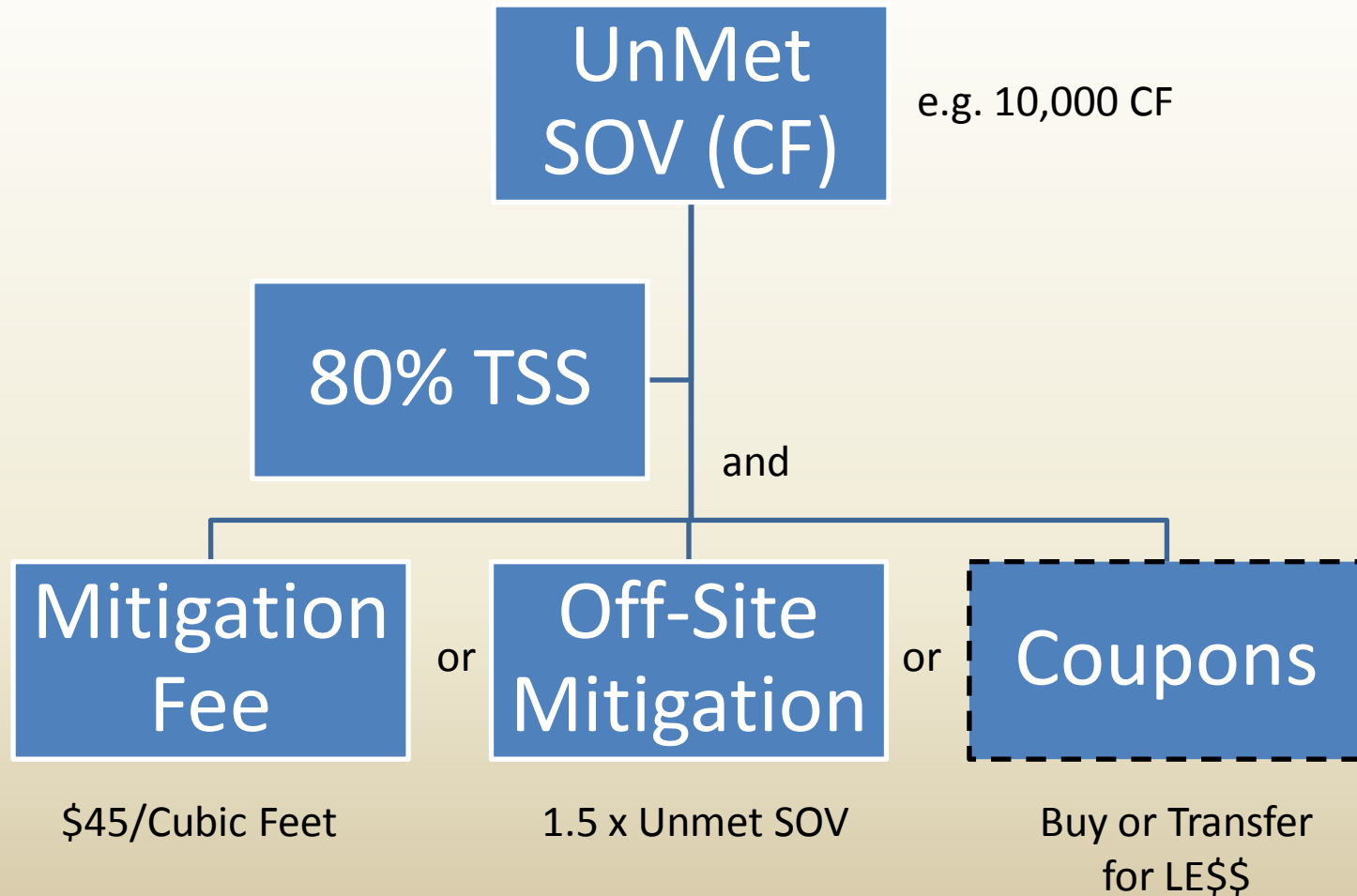
1st Year: Any site can just do 80% TSS and
Apply Coupons with No SOV controls !!

How would you earned Coupons?

- Exceeding standards at new development or redevelopment sites.
- Retrofitting sites standards only 0.1 "
- In S. Chickamauga Creek Watershed:
 - Apply Coupons for the required 0.6" with no-hardship

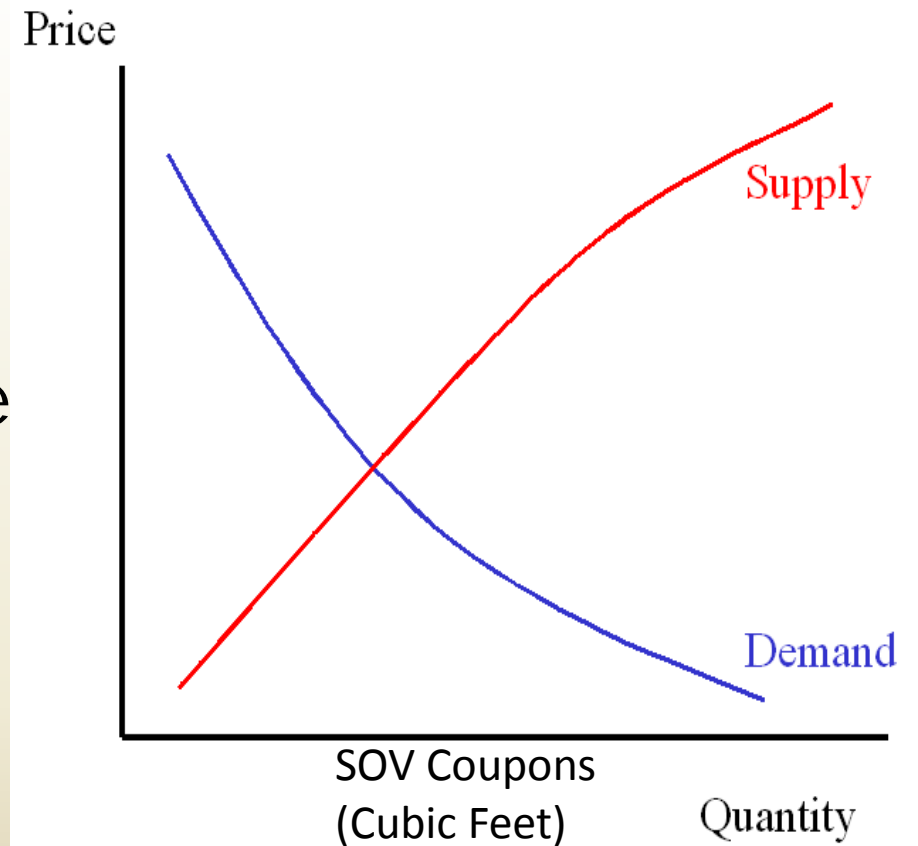


Demand for SOV Coupons!



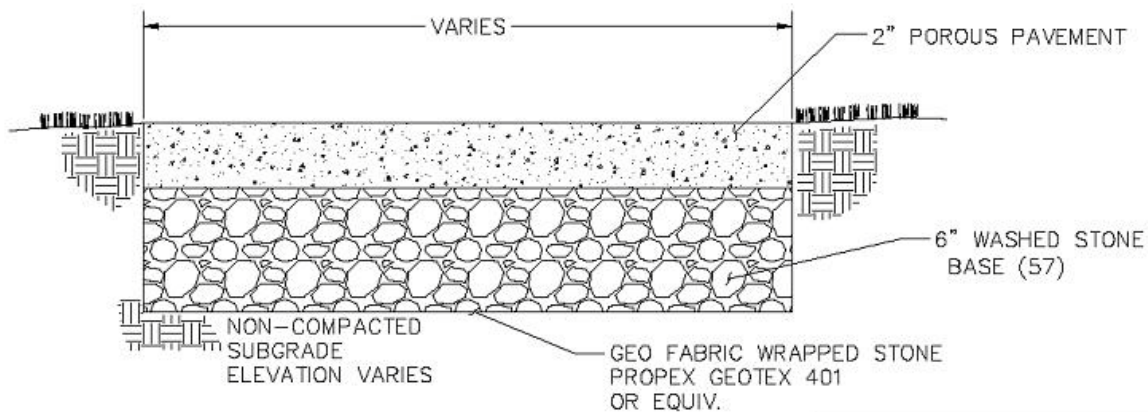
How SOV Coupons Price Determined?

- Typical Cost of GI:
 - Rain Garden \$20-35/CF
 - Porous Pavement \$30-40/CF
 - Green Roof \$250-750/CF
- SOV Mitigation (In-lieu) Fee \$45/CF
- Economy of Scale!



How would you earned Coupons?

- Example: Redevelopment Site Exceeding Standards
 - Required 0.9" (redevelopment) → Designed for 2.1" (Max)



SIDEWALK
N.T.S.

PROPOSED SOV:
POROUS PAVEMENT = 1,200 CF ±
TOTAL SITE SOV = 5,200 CF ±

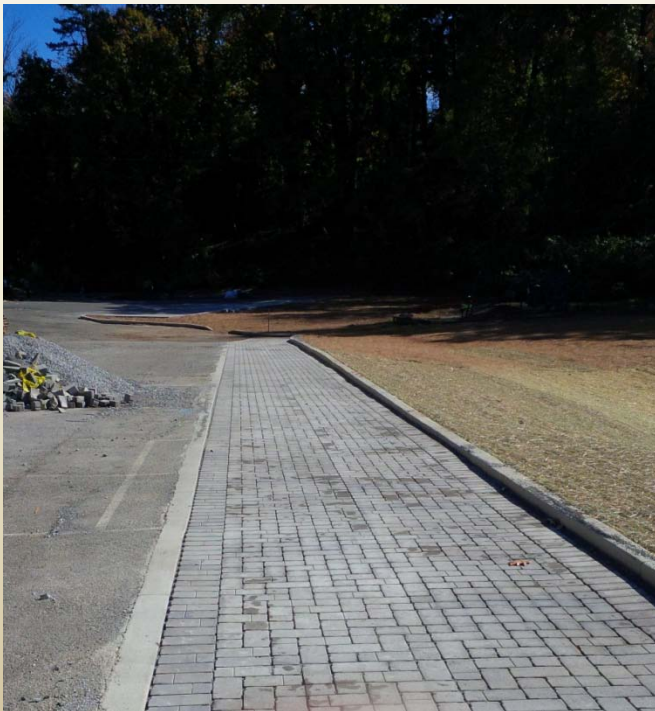
<u>Volume</u>	<u>Volume</u>
<u>Required:</u>	<u>Provided:</u>
750 CF	5,200 CF

Available for
Trading:
4,450 CF

Potential Value up
to of \$200,000!
(\$45/CF charge for
Mitigation Fee)

How can a site Earn Coupons?

- Retrofitting an Existing Site
 - Installing infiltration or water reuse practices such as biosawles, rain gardens, porous pavement, cisterns, green roof, etc.



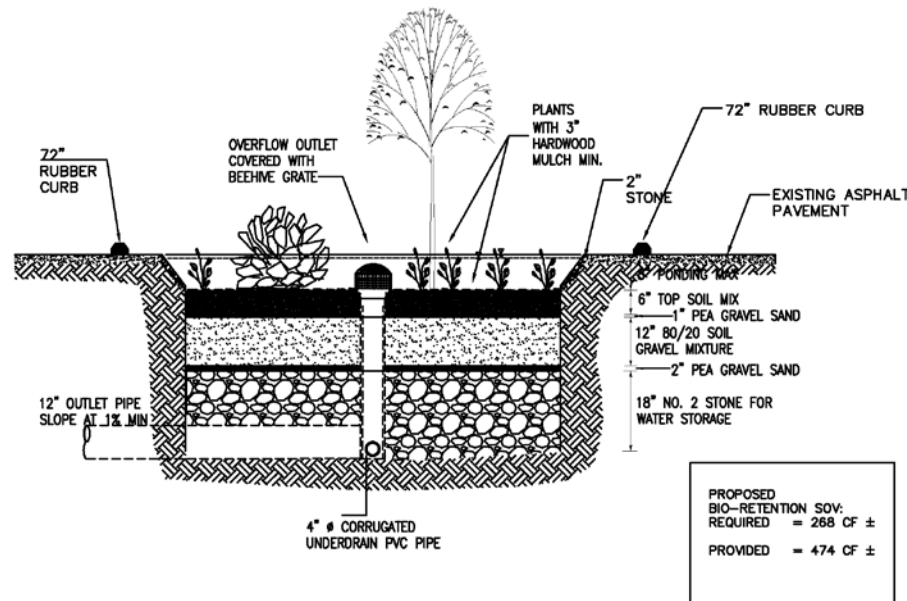
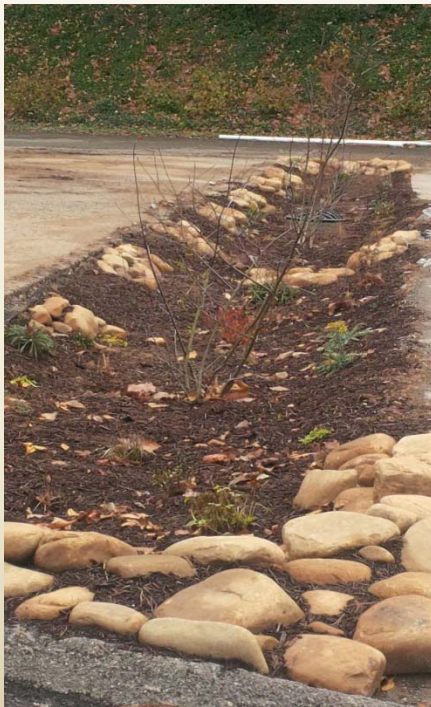
Any capture above the 0.1”
of an inch criteria for
RETROFIT!!



How much can a site Earns through retrofitting?

- Retrofitting an Existing Site
 - e.g. design for 1"

Any capture above the 0.1" of an inch criteria for **RETROFIT!!**



Volume Required:
27 CF

Volume Provided:
474 CF

Available for Trading:
447 CF

Potential Value up to of \$20,115 (\$45/CF charge for Mitigation Fee)

Credit Coupons

- No expiration date
- Issued after As-Built plans are approved
- City will track issued and redeemed coupons
- City will split coupons to facilitate sale or transfer
- City will not track ownership changes nor broker any transaction
- Coupon Multiplier
 - When earned on retrofits/redevelopments...
 - Applied at 1:1 ratio (installed:earned)
 - Used in any watershed except CSS
 - When earned on new developments...
 - Applied at 1.5:1 ratio (installed:earned)
 - Used w/n same watershed where earned

How SOV Coupons Trading Works?

- SOV Coupon could be sold in the open market



- ✓ Can be redeemed by the same developer to meet SOV requirements at another site
- ✓ Can be sold to others
- ✓ Can be exchanged for services
 - ✓ i.e. Developer can exchange them with the engineer or contractor



WQ Fee Discounts

- For SOV baseline exceedance (1% or more)
- For commercial and multi-family residential
- Annual discount
 - Property owner's bill
- Maximums
 - 40% for New development
 - 60% for Redevelopment
 - 70% for Retrofit
- Minimum = 10%

Current WQ Fee credited sites will continue to receive annual Fee discount through Dec. 2039 sunset date.
Previous LID RETROFIT sites are exempt from sunset.



Thank You

