

Stormwater Stakeholder Advisory Committee

Derry Township Municipal Authority Stormwater Management Program

Meeting #9 - November 2, 2016



Providing a cost effective public service to protect and enhance the water environment and quality of life for our local and regional community

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Agenda

1. Review of Credit Policy Framework
2. Introduction to Draft Credit Policy
3. Appeals
4. Single-Family Residential Credits
5. Non-Single-Family Residential Credits
6. Universal Credits
7. Examples of Multiple Credits
8. Homework

A Brief Review of Credit Policy Framework



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DTMA's Credit Policy - Objectives *Revisited*

What Should Our Credit Policy Achieve?

- A. Stimulate interest in making certain types of stormwater improvements - *Incentivize preferred solutions*
- B. Ensure improvements undertaken result in a long term cost reduction impact on the system - *Incentivized activities can't burden the program financially or in terms of resources*
- C. Improve Water Quality, Reduce Volume and Rate of Runoff - *Pollution Reduction Plan Requirements*
- D. Public Education and Awareness - *Need to move beyond just satisfying permit requirements*
- E. Positive Change in Thinking and Behavior - *Need to address this on all levels including homeowners, developers, community planning, etc.*
- F. Data Gathering - *Significant portions of our infrastructure (both public and private) are not well documented or documentation is scattered*



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What are the Benefits to DTMA?

- MS4 Permit Needs:
 - Increased BMP documentation
 - Pollution Reduction Plans
 - Local Impaired Waters
 - Chesapeake Bay
 - Education and Outreach
- Long Term O&M:
 - Stormwater infrastructure assets will be owned by DTMA
 - Credits can help incentivize improvements and best practices
- Water Quality
 - Credit Policy can help DTMA gather data needed to make informed decisions on how to best address water quality issues



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Credit Policy Structure

Policy needs to...

- Provide mechanism for landowner to make improvements without being too burdensome
 - If process is too complicated or costly, few will participate
- Address existing practices that are providing benefit
- Avoid burdening DTMA staff with administrative tasks and costs
- Be robust enough to result in system improvement
- Be rooted in *clear* long-term goals for system improvement



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Barriers to Participation

- COST and TIME!
- High administrative burden
- Concerns about code compliance when applying for permits
- Need HOA approval
- High perceived maintenance and uncertainty about responsibility
- Dealing with contractor to design/construct the BMP
- Unsure of what can be done on their property
- Unaware of BMP benefits or incentive program
- Others???



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DTMA's Draft Credit Policy



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Credit Policy Components

- Policy Covers Credits, Incentives, and Appeals
- Includes Requirements for:
 - Eligibility
 - Application Process
 - Calculating Credits
 - Renewals and Expiration
 - Termination
 - Inspections

Appeals

- Appeals apply when customer believes:
 - IA amount was incorrectly calculated
 - IA was incorrectly assigned to their parcel
 - They are not the owner of the parcel
- Customer will submit an Appeals form to correct errors
 - Supporting documentation may be required
- Corrected IA will result in a bill adjustment for that month and all future billings

Two Main Categories of Owners

Single-Family Residential

- Residential properties
- Includes
 - Single-Family Units/Houses
 - Condominiums
 - Townhomes
 - Manufactured Homes
 - Mobile Homes (individual lot)

Non-Single-Family Residential

- Everything Else
- Includes
 - Apartments
 - Boarding Houses
 - Hotels/Motels
 - Churches
 - Industrial
 - Commercial/Retail
 - Mobile Home Parks
 - Office Buildings
 - Storage Areas
 - Parking lots
 - Parks and Rec
 - Schools, Hospitals, Government
 - Other Impervious

Property Type Classifications

- SFR: Single-Family Residential
- NSFR: Non-Single-Family Residential
 - ALL: Any NSFR Owners who are charged a Stormwater Management Program Fee
 - EDUC: Any public or private educational systems (K-12)
 - NPDES: Properties with a NPDES Industrial Stormwater Permit
 - MS4: Properties assigned a Non-Municipal MS4 Permit



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Credit	Eligible Property Type					Maximum Credit
	SFR	NSFR				
		ALL	EDUC	NPDES	MS4	
Rate, Volume, and Water Quality		X				45%
Low Impact Parcel	X	X				30%
Public Participation	X	X				15%
Public Participation Credit Donation	X	X				15%
Rain Barrels and Downspout Disconnection	X					20%
Fertilizer Management Program	X	X				15%
Residential BMPs	X					45%
NPDES Industrial Stormwater Permit Compliance				X		20%
Separate MS4 Permit					X	20%
Education Credit			X			20%
Riparian Buffer	X	X				45%
Stream Restoration	X	X				45%
Tree Canopy	X	X				45%
Pervious Pavement	X	X				45%
Green Roofs	X	X				45%

Single-Family Residential Credits



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Rain Barrel and Downspout Disconnection

- Max 20% Credit
- Can be combination of practices
- Will be based on:
 - Number of downspouts, or
 - Area of roof
- Flow directed into lawn/landscape, rain garden, rain barrel, etc
- Grants DTMA access rights for inspection
- Requires O&M

Things to keep in mind

- Should direct flow away from structure
 - Suggested discharge about 10 feet from building and downslope
- Don't discharge into area that might exacerbate sinkhole
- Don't direct flow onto neighbor's property
- Don't discharge onto impervious area (ex. Driveway)

Example Scenario

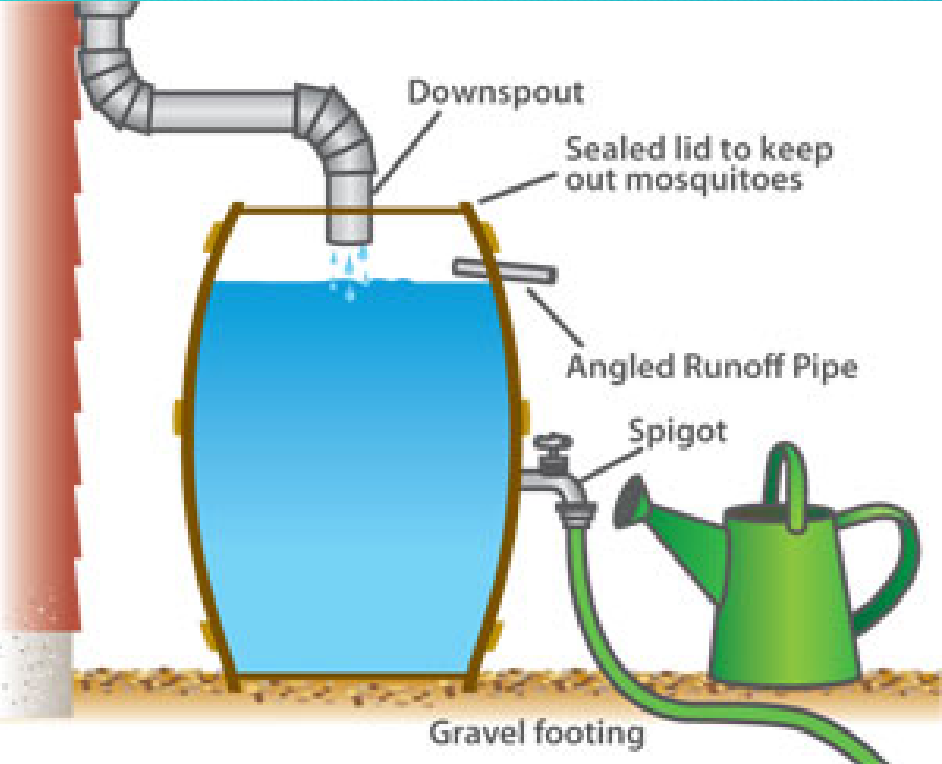


Photo credit NRCS

Residential BMPs

- Max 45% Credit
- Applies to homes that have on-site stormwater controls
 - Infiltration trenches, rain gardens, etc.
- To receive max credit the BMPs must manage all the stormwater on the property
 - 2-year, 24-hour precipitation event
- Requires DTMA access rights and O&M Agreement



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Non-Single-Family Residential Credits



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Rate, Volume, and Water Quality

- Max 45% Credit
 - 10% for rate control
 - 10% for volume control
 - 25% for water quality
- Existing, Retrofits, and new BMPs all eligible
- Credit only applied to IA controlled by BMPs
- Requires DTMA access rights and O&M Agreement



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NPDES Industrial Stormwater Permit Compliance

- Max 20% Credit
- Must be:
 - Covered by NPDES Industrial permit
 - In compliance for preceding 12 months
- Must provide DTMA:
 - Copy of active NPDES permit
 - Copy of DMR for current year
- Credit only applies to IA covered under permit
- Requires DTMA access rights and O&M Agreement



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Separate MS4 Permit

- Max 20% Credit
- Must be:
 - Covered by Non-Municipal MS4 permit
 - In compliance for preceding 12 months
- Must provide DTMA:
 - Copy of active MS4 permit
 - Copy of Annual Report
- Credit only applies to IA covered under permit
- Requires DTMA access rights and O&M Agreement



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Education Credit

- Max 20% Credit
- K-12 Eligible
- Valid for one (1) year
 - Renewable each year
- Curriculum not prescribed but must be approved by DTMA
- Credit will apply to facility where education occurs
 - Includes support infrastructure such as parking lots and sidewalks
- Tier One
 - 50% to 74% of grade levels participate within school
 - 10% Credit
- Tier Two
 - 75% to 100% of grade levels participate within school
 - 20% Credit
- Can be parlayed into Public Participation Credit

Universal Credits



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Low Impact Parcel

- Max 30% Credit
- Criteria
 - Total IA \leq 7%
 - No IA direct connections
 - 50 feet IA setback
- Can be applied to portions or all of the IA, but total IA must remain \leq 7%
- Requires DTMA access rights

Impervious Coverage (% of Parcel Covered by Impervious Area)	Credit (%)
Less than or Equal to 5%	30%
Greater than 5% but Less than 6.01%	20%
Greater than 6.0% but Less than 7.01%	10%
7.01% or Greater	0%

Public Participation

- Max 15% Credit
- Valid for one (1) year
 - Credits applied quarterly
- Single-Family Residential
 - At least one member participates (5%)
 - Multiple members (5% each up to 15%)
- Non-Single-Family Residential
 - At least 20% of employees, students, church congregation, members, etc. must participate
- Spending four (4) hours participating in a stream clean-up.
- Spending four (4) hours participating in a roadside clean-up.
- Participating in a DTMA or other approved tree planting activity.
- Hosting a student sponsored educational event at a public venue.
- Participating in any other proposed public participation activity pre-approved by DTMA.
- Sponsoring any other public participation activity pre-approved by DTMA.



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Public Participation Credit Donation

- Max 15% Credit
- Valid for one (1) year
 - Credits applied annually
- Individuals can participate on behalf of a qualifying organization
- Cannot “double dip”

% CREDIT >	5%	10%	15%
RECIPIENT ERU RANGE	NUMBER OF PARTICIPANTS REQUIRED		
<5.0	5-10	11-15	>15
5.0 - 9.99	10-20	21-30	>30
10.0 - 24.99	20-35	36-50	>50
≥25.0	35-55	56-75	>75

Fertilizer Management Program

- Max 15% Credit (SFR)
- Max 10% Credit (NSFR)
- To be eligible
 1. A soil fertility sample must be submitted at least once every three years
 2. Owner must commit to following fertility report findings
 3. Owner must commit to following DTMA fertilizer and lime recommendations
- For NSFR, the IA cannot exceed 40% of the total parcel area



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Riparian Buffer and Stream Restoration

Riparian Buffer

- Max 45% Credit
- Must maintain a minimum 35-foot buffer
- Minimum 50-foot length
- New or existing
- Amount of Credit dependent on site-specific factors

Stream Restoration

- Max 45% Credit
- Minimum 50-foot length
- New or existing
- Dedication of easement can be eligible too
- Amount of Credit dependent on site-specific factors

Tree Canopy

- Max 45% Credit
- New or Existing
- Canopy must cover IA to be eligible
 - New, young trees would be assigned an IA coverage value
- Amount of Credit dependent on site-specific factors

Pervious Pavement and Green Roofs

- Max 45% Credit
- Potentially used to reduce IA
 - Was installed as structural BMP for land development
 - Has existing O&M Agreement with Township
- Requires DTMA access rights and O&M Agreement



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Examples of Multiple Credits



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Single-Family Residential - 1 ERU

- Have two 60-gallon rain barrels connected to two of their four downspouts
- Son and daughter participated in a four-hour roadside clean-up
- Collected and submitted a soil fertility sample and participate in DTMA's Fertilizer Management Program

10% Rain Barrel Credit



10% Public Participation Credit



15% Fertilizer Management Program Credit

35% Total Credit

1 ERU x .65 = .65 Billable ERUs

Non-Single-Family Residential

- Church (15 total ERUs) has one existing detention basin that receives flow from the building (10 ERUs).
- Eagle Scout project completes basin retrofits
 - Raises outlet orifice to add infiltration
 - Installs WQ forebay
- Church hosts two stream clean-up events (spring and fall) for the stream adjacent to their property
 - 20%+ of their members participate
- Church members donate 40 public participant activities

10% Rate Credit



10% Volume Credit



25% Water Quality Credit

45% Total Credit (10 ERUs)

10% Public Participation Credit



10% Public Participation Donation Credit

20% Total Credit (5 ERUs)

$(10 \text{ ERUs} \times .55) + (5 \text{ ERUs} \times .8) = 9.5 \text{ Billable ERUs}$

Approximately 37% Total Credit

Homework

- Please look for email with Credit Application example
- I Will provide Survey Monkey form to allow for feedback

Upcoming Meeting Schedule

Wednesday, December 7th

Mike Callahan – Stormwater Program Coordinator

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