Ferguson Township
Stormwater Advisory Committee

Meeting No. 8
Final Program Recommendation
Cost of Services & Credit Review

Phase II

Stormwater User Fee Feasibility Study

June 17, 2020

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Agenda

Welcome & Introductions

Final Program Recommendation – 10 Year Plan

Cost of Services:

- Cost Model for Program Plan
- Rate Strategies and Estimated Rate Impacts
  - Equivalent Residential Unit Basis – By Growth Boundary
  - 1,000 Square Foot Unit Basis – By Growth Boundary

Credits

Review of Public Engagement Activities

Final Program Recommendation – 10 Year Plan

Study Goals

- What is the Township's current stormwater management program?
- What are the stormwater related problems, issues, needs, and opportunities currently faced by the Ferguson Township? What is the compelling case to change current funding methods?
- What stormwater program priorities should guide Ferguson Township in the next three to five years? What is the long-range goal for these services?
- What is the optimal organizational structure to deliver services to the community? Are there staffing needs that should be considered?
- What specific Township program elements require additional funding or a change in funding strategy?
- What is (are) the best way(s) to pay for stormwater management? Are there multiple funding strategies that can be used to accomplish the goals of the program?
- Is it feasible to establish a user-fee based funding strategy? What are the steps to implementation?

Top Priorities

- Assessment of all components of the drainage system
- Invest in system repair/rehab based on assessment – transition from current CIP to future CIP focused on assessment
- Compliance with the MS4 permit mandates
- Drive changes in LOS by feedback from assessment
- Increase LOS for cross pipes and ditches outside of the urban area
- Critical repairs identified in assessment and regular inspection should drive maintenance program
- Continued partnership with Transportation Improvement Program

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Infrastructure Inspection and Assessment Program

Initial Assessment

Program Element	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**FY27**	**FY28**	**FY29**	**FY30**
Develop Database for pre 2003 BMPs/Basins	■	■	■	■	■					
Inspect Inlets	■	■	■	■	■					
35 Mile Pipe CCTV Inspection (Contracted)	■	■	■	■	■	■	■			
Develop Database for West End cross pipe & ditches	■	■	■	■	■	■	■			
Develop Long Range Inspection Program					■					

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Infrastructure Inspection and Assessment Program

Ongoing Inspection & Maintenance

Program Element	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**FY27**	**FY28**	**FY29**	**FY30**
Develop Long Range Inspection Program										
Develop Maintenance Plan for Above Ground System										
Develop protocols for ongoing inspection program										

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Infrastructure Inspection and Assessment Program

Staff

Program Element	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
PT Inspector → FT MS4 Coordinator/Engineer	■	■	■	■	■	■	■	■	■	■
Stormwater Maintenance: Foreman							■	■	■	■
Stormwater Maintenance: Equipment Operator							■	■	■	■
Stormwater Maintenance: Stormwater Worker (2)			■	■	■	■	■	■	■	■

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Infrastructure Inspection and Assessment Program

Equipment

Program Element	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29	FY30
Evaluate staff/material/equip needs based on assessment										
Purchase vactor truck & continue borrow/share										
Purchase CCTV camera & truck										
Purchase Foreman vehicle										
Sinking Fund for Equipment Purchase & Replacement										

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Infrastructure Inspection and Assessment Program

Long Term Planning

Program Element	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**FY26**	**FY27**	**FY28**	**FY29**	**FY30**
System-Wide Master Plan								■	■	■
Above Ground Infrastructure Program		■								
Pipe Inspection Program								■	■	■
Evaluate GSI program										■
Maintain ongoing operations for Stormwater Infrastructure	■	■	■	■	■	■	■	■	■	■

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Cost of Services
Cost Model for Program Plan

Financial Assumptions

- Priority #1 is to complete system assessment, using interns and contractors (complete within 7 years).
- Capital investments will be driven initially by roadway improvements and non-roadway adopted CIP projects.
- Interns provide great a value for capturing one-time data on inlets and on pre-2003 systems as well as assess inlets throughout the Township.
- Leadership will remain consistent – Public Works and City Engineer support
- MS4 compliance must be achieved each year.
- Intern opportunities should be considered each year to fill-in gaps in information and to support continuing inspection program.

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Program Cost Projection – 8 Year Plan

Eight Year Plan By Expense Type and Program Focus

		FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
Operating Costs									
	Personnel	$ 323,652	$ 334,063	$ 456,090	$ 471,014	$ 486,411	$ 502,562	$ 696,260	$ 720,148
	Materials/Supplies	$ 415,044	$ 449,448	$ 461,090	$ 474,976	$ 485,725	$ 498,758	$ 522,549	$ 428,130
Capital		$ 515,000	$ 2,170,450	$ 749,914	$ 810,855	$ 843,348	$ 717,471	$ 753,307	$ 790,940
Total		**$ 1,253,696**	**$ 2,953,961**	**$ 1,667,093**	**$ 1,756,844**	**$ 1,815,484**	**$ 1,718,791**	**$ 1,972,116**	**$ 1,939,218**

	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
Administration	$ 63,611	$ 63,590	$ 62,507	$ 64,534	$ 66,633	$ 68,809	$ 66,755	$ 68,984
MS4	$ 129,151	$ 208,750	$ 256,067	$ 289,885	$ 293,844	$ 137,949	$ 133,209	$ 137,401
Infrastructure	$ 1,060,934	$ 2,681,621	$ 1,348,519	$ 1,402,425	$ 1,455,007	$ 1,512,033	$ 1,772,152	$ 1,732,834
Totals	**$ 1,253,696**	**$ 2,953,961**	**$ 1,667,093**	**$ 1,756,844**	**$ 1,815,484**	**$ 1,718,791**	**$ 1,972,116**	**$ 1,939,218**

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Cost of Services
Rate Strategies & Estimated Rate Impact

Two Element Rate Structure

- Baseline Services: Serves all properties in Township
  - Base cost to address administration, MS4 Compliance, and other services
- Infrastructure Management Costs: Operation, Maintenance, & Capital Costs
  - Reviewed and evaluated two methods:
    - By geographic areas; or
    - Type of infrastructure throughout Township
  - Geographic areas was selected after consideration of impacts of both options to provide fairness and equity.
    - Growth Area Boundary selected as method to identify varying levels of service
    - Allocation of costs to each (Growth Area and Non-Growth Area) determined by staff review of services

Costs Allocated By Growth Area/Non-Growth Area

Service Area 1 – Growth Area

- Personnel (92%)
- Direct Costs (allocated by Personnel FTE)
- Pipe Assessment (92%)
- Equipment Purchases (92%)
- CMP Rehabilitation (92%)
- Inlet Repair (93%)

Service Area 2 – Non-Growth Area

- Personnel (8%)
- Direct Costs (allocated by personnel FTE)
- Pipe Assessment (8%)
- Equipment Purchases (8%)
- CMP Rehabilitation (8%)
- Inlet Repair (7%)

Cost Allocated to All Properties

- Costs Allocated to All Properties
  - Personnel Administration
  - Personnel – MS4 Compliance
  - Direct Costs (allocated based on personnel FTE in both categories)
  - Capital Costs – MS4
  - Capital Costs – Partnerships
  - Capital Costs – Park Hills Project

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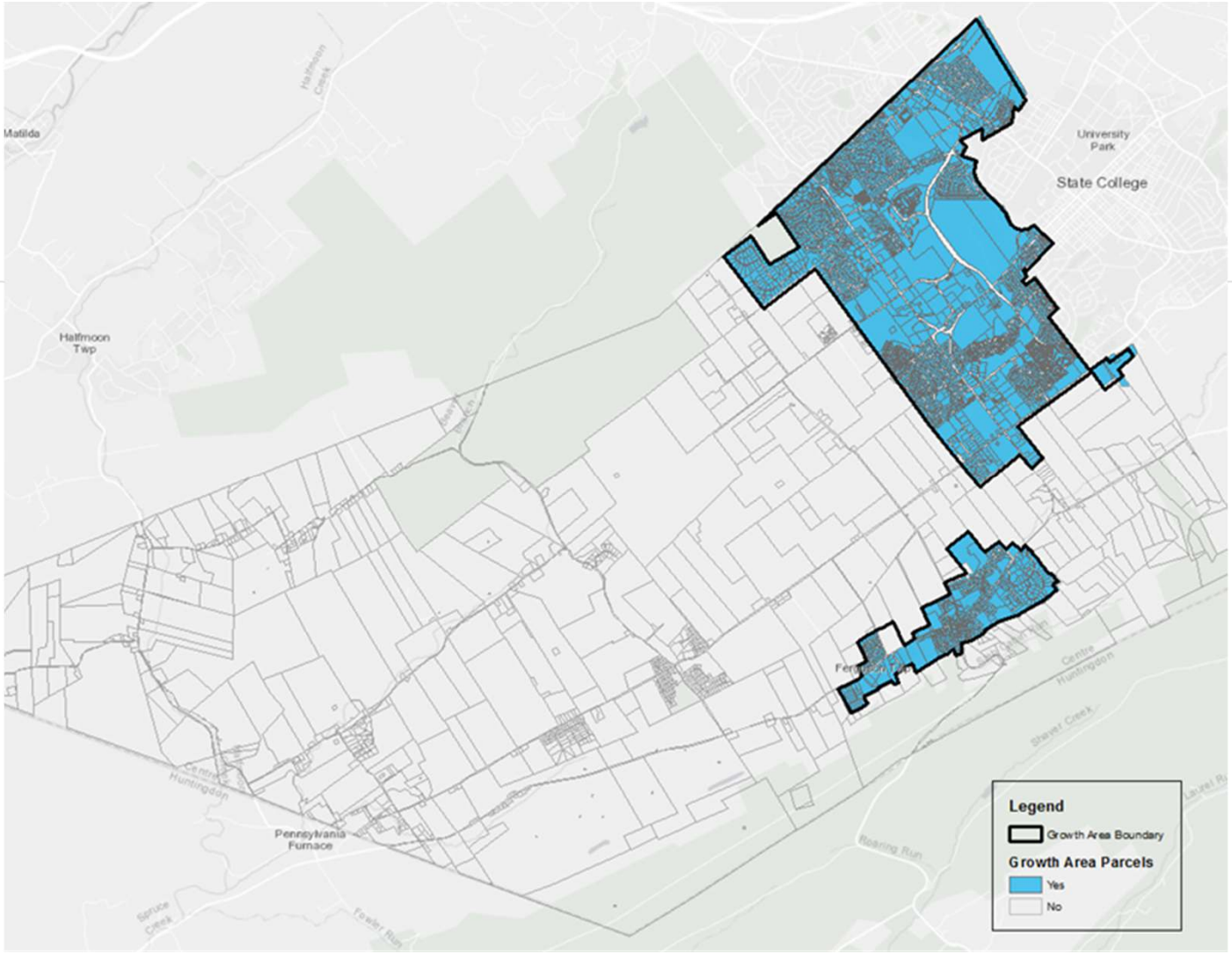
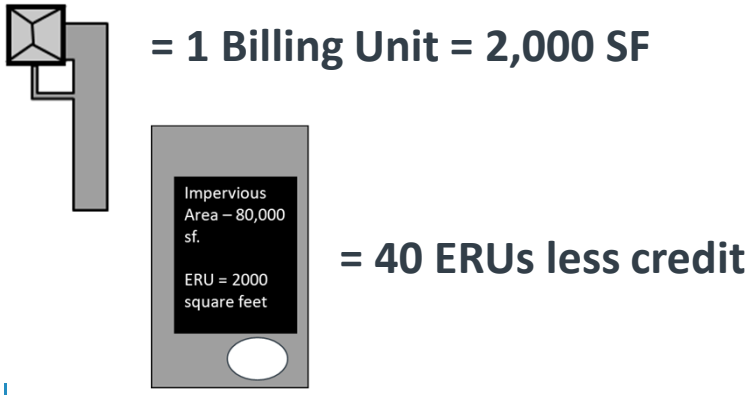

Matilda
Halfmoon Creek
University Park
State College
Halfmoon Twp
Centre Huntingdon
Pennsylvania Furnace
Spruce Creek
Fowler Run
Roaring Run
Shaver Creek
Legend
Growth Area Boundary
Growth Area Parcels
Yes
No

Two Methods for Charging Fee - Example

ERU – Equivalent Residential Unit

- Evaluation of impervious cover from Single-Family Detached residential (SFDR) parcels
- Same fee for all SFDR Parcels (1 ERU)
- All other parcels have a detailed impervious evaluation

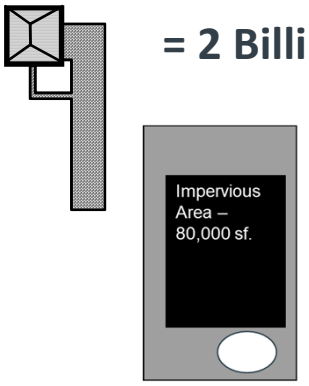


= 1 Billing Unit = 2,000 SF

= 40 ERUs less credit

Fixed Billing Unit / Tiered Approach

- Fee associated for a set SF or range of impervious cover, i.e. 1,000 SF
- 1,000 SF



= 2 Billing Unit = 2,000 SF

= 80 ERUs less credit

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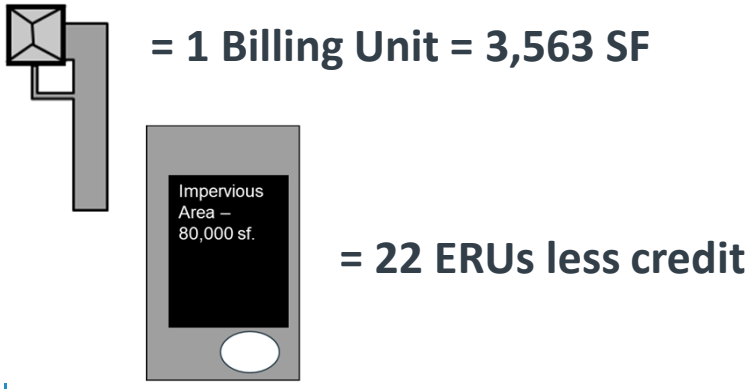
Billing Units Analysis - Ferguson

ERU – Equivalent Residential Unit

- Evaluation of impervious cover from Single-Family Detached residential (SFDR) parcels
- Same fee for all SFDR Parcels (1 ERU)
- All other parcels have a detailed impervious evaluation



Fixed Billing Unit / Tiered Approach

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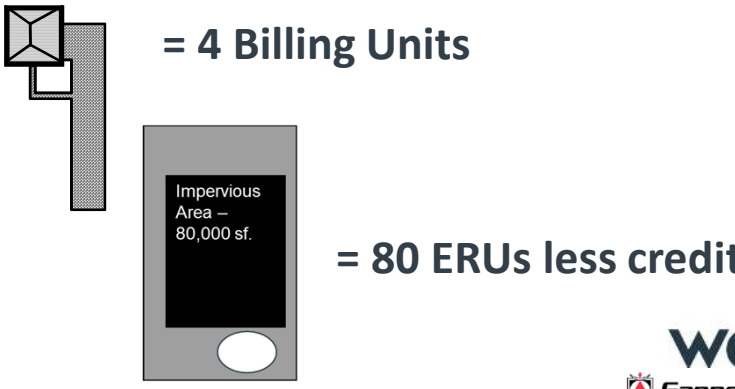

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Billing Units - Benefits

ERU – Equivalent Residential Unit

Benefits

- Less administrative effort
- Increases in impervious area that may occur by owner on SFDR – no change in billing units
- Perceived inequities between owners with large impervious areas versus small properties with limited impervious area

Fixed Billing Unit / Tiered Approach

Benefits

- Regardless of land use, all impervious area is treated the same
- Perceived fairness and equity

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Rate Estimate – Annual Charge, FY 21 – Billing Unit

	ERU Billing Unit – 3563 sf	1000 SF Billing Unit
All Properties	$ 15	$ 5
Growth Area	$ 53	$ 31
Non-Growth Area	$ 20	$ 8
Charge Per Billing Unit - GA	$ 68	$ 36
Charge Per Billing Unit - NGA	$ 35	$ 13

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Fee Calculation Impacts, FY 21 – Examples

	Growth Area		Non-Growth Area	
	ERU	1000 SF	ERU	1000 SF
Rate / Billing Unit	*$ 68*	*$ 36*	*$ 35*	*$ 13*
Res. 1,000 SF IA	$ 68	1 BU = $ 36	$ 35	1 BU = $ 13
Res. 3,563 SF IA	$ 68	4 BU = $ 144	$ 35	4 BU = $ 52
Res. 5,000 SF IA	$ 68	5 BU = $ 180	$ 35	5 BU = $ 65
Non - Res. 1,000 SF IA	¼ BU = $17	1 BU = $ 36	¼ BU = $ 9	1 BU = $ 13
Non - Res. 3,563 SF IA	1 BU = $ 68	4 BU = $ 144	1 BU = $ 35	4 BU = $ 52
Non - Res. 5,000 SF IA	1.4 BU = $ 95	5 BU = $ 180	1.4 BU = $ 49	5 BU = $ 65
Non – Res. 26,000 SF IA	7 BU = $476	26 BU = $936	7 BU = $245	26 BU = $338

Billing Units – SAC Feedback

ERU – Equivalent Residential Unit

Benefits

- Less administrative effort
- Allows flexibility with increases in impervious area that may occur by owner
- Perceived inequities between owners with large impervious areas versus small properties with limited impervious area

Fixed Billing Unit / Tiered Approach

Benefits

- Regardless of land use, impervious area is treated the same
- Perceived fairness and equity

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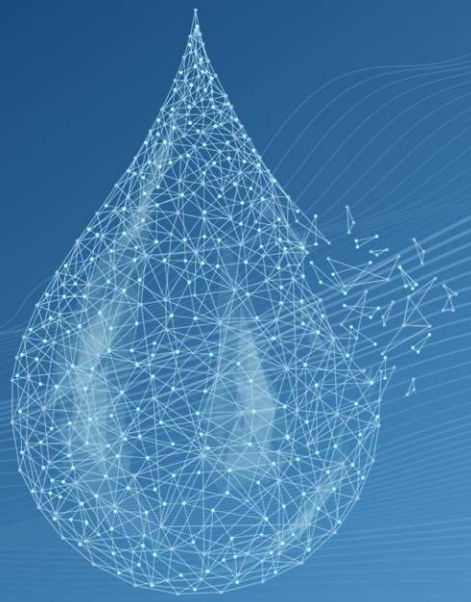
Credit Program



General Takeaway Discussion Points re: Credits

SAC agrees with concept of the Township having a credit program if a user fee is assessed.

Credit programs can provide many different benefits, but each has to be weighed against the value it adds, versus the revenue impacts.

Credits can be offered in general categories such as structural, engagement or operational.

Recognized that some credits could provide “social” value but offer very little in way of actual improvements to flooding or water quality.

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Credit Program – SAC Feedback

Is there a cap on the credits an applicant can earn for a single parcel?

Is there a cap on the value of credits the Township will award annually?

If the Township sets up different service areas, should credits be different in each area?

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Priorities

- BMPs that promote/provide **quantity control** of stormwater runoff (e.g., volume controls promoting practices that retain and manage stormwater onsite).
- BMPs that promote/provide **water quality or recharge** of groundwater.
- Participation in or development and implementation of **educational** programs, or events that promote increased awareness regarding stormwater (not curriculum-based requirements at PSU for example).
- Credit of the value of Phase 2 NPDES permit compliance cost awarded to other **MS4 permittees** who hold an active and compliant permit (i.e., credit reduction awarded is based on the percent of Township budget for NPDES compliance activities).
- Credit for development applicants who **exceed the minimum ordinance requirements** voluntarily. Exceedance shall be considered as applicable when the required pollutant, volume, or rate controls are exceeded by no less than 20%.

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Education and Engagement

Credit Type	Eligible Ratepayers	Eligibility Criteria	Credit Amount
Public Engagement	All non-residential - Community Groups - Businesses - Non-Profits	Provide Township-wide participation in stream clean-up, rain barrel workshop, etc.	10%
Stormwater Education	Schools	Deliver specific messages in coordination with Township PEOP	10%

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Post Construction Stormwater Management (PCSM)

Credit Type	Eligible Ratepayers	Eligibility Criteria	Credit Amt
Vol. Control	All residential & non-residential	Retain 1” of rainfall through infiltration, reuse, or ET. Record BMP O&M Plan/Agreement & Inspections.	10%
Water Quality	All non-residential	BMP improves WQ of surface runoff prior to discharge. Record BMP O&M Plan/Agreement & Inspections.	20%
Recharge	All residential & non-residential*	Retain 1.5” of rainfall volume through infiltration. Record BMP O&M Plan/Agreement & Inspections.	20%
Exceedance of Req.	All residential & non-residential	BMPs exceed min. control req. by at least 20%. Record BMP O&M Plan/Agreement & Inspections.	15%
BMP Maintenance	All residential & non-residential	Record BMP O&M Plan/Agreement & Inspections.	5%

Low Impact Development

Credit Type	Eligible Ratepayers	Eligibility Criteria	Credit Amt
Disconnected Impervious Area	Cemeteries Business Campus - Township - School District Parks Golf Course	Low ratio of IA to total lot area IA discharge to flat vegetated areas Use of vegetated swales v. storm sewer	5%
Riparian Buffer / Floodplain Protection	Township Golf Course	Vegetated Riparian Buffer. Record BMP O&M Plan/Agreement & Inspections	30%
Nutrient Management Plan	Golf Course	Nutrient Management Plan - Not including Chesapeake Bay crediting	20%

Agriculture Business Operations

Credit Type	Eligible Ratepayers	Eligibility Criteria	Credit Amount
State or Federal E&S and/or Manure Plan	Agricultural Business only	Current plans are in place and approved	15%
Stream Buffer or WQ BMPs	Agricultural Business only	Minimum 35’ buffer on streams up to 150’ buffer dedicated, managed, and protected. WQ BMPs reviewed by CCCD and submitted to Township for documentation.	20% - 40%

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Credit Program – SAC Feedback

Is there a cap on the credits an applicant can earn for a single parcel?

Is there a cap on the value of credits the Township will award annually?

If the Township sets up different service areas, should credits be different in each area?

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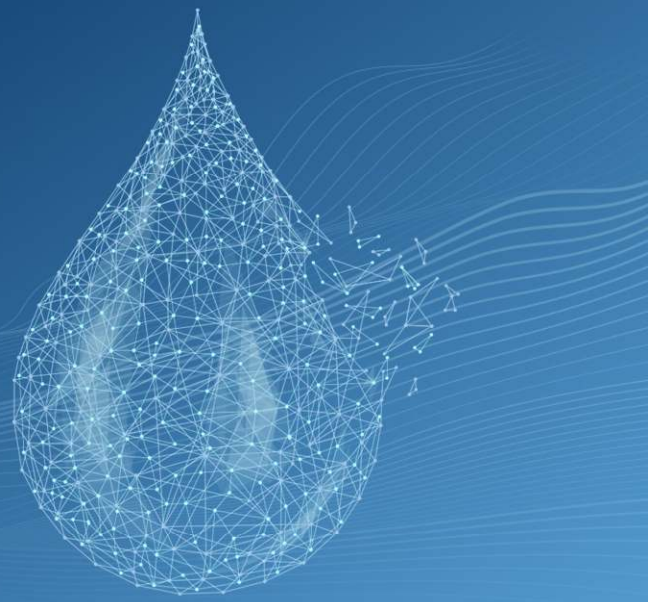
Public Outreach



Social Media Campaign – June 1 to June 24

Ferguson Township PA @FergusonTwpPA · Just now
Stormwater is generally defined as water from rain or snow/ice melt that flows across the ground and paved surfaces. This stormwater may soak into the ground, or eventually make its way to local streams or sinkholes, affecting the quality of water. #FergusonStormwaterFee

Ferguson Township PA @FergusonTwpPA · Just now
Township owns almost 2,000 drainage inlets and Township owns approx. 33.5 miles of drainage pipe. Routine inspection & maintenance is currently not conducted. Actual Photo from one of our Pipes.
#FergusonStormwaterFee

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Proposed Stormwater Fee Open House

You're Invited to attend the Upcoming Proposed Stormwater Fee Public Meeting

Join Ferguson Township for an online public meeting to learn about the **Proposed Stormwater Fee** presented by Ferguson Township Staff and Consultants ending with a **Q&A.**

Wednesday, June 24
https://us02web.zoom.us/j/87051196246
Meeting ID: 870 5119 6246
Presentation begins at 6:00 p.m.

Visit the Events Calendar on twp.ferguson.pa.us for instruction on how to join the meeting with video conferencing or by phone

Have a question about Stormwater?
Submit your question before June 19 here: http://ow.ly/WoAT50zY3qq

Event Details: https://www.twp.ferguson.pa.us/home/events/12293

Township of FERGUSON Pennsylvania

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Discussion

Direct Cost Summary

	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
Equipment Maintenance Costs	$ 141,030	$ 144,555	$ 148,169	$ 151,873	$ 155,670	$ 159,562	$ 163,551	$ 167,640
Materials	$ 14,753	$ 40,122	$ 41,125	$ 42,153	$ 43,207	$ 44,287	$ 45,395	$ 46,529
Personnel Support	$ 33,964	$ 34,813	$ 35,684	$ 36,576	$ 37,490	$ 38,427	$ 39,388	$ 40,373
Contracts/Programs/Equip Purchases	$ 225,297	$ 229,958	$ 236,111	$ 244,373	$ 249,358	$ 256,481	$ 274,216	$ 173,588
TOTALS	**$ 415,044**	**$ 449,448**	**$ 461,090**	**$ 474,976**	**$ 485,725**	**$ 498,758**	**$ 522,549**	**$ 428,130**

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Personnel Summary

Township Department	Staff Positions	Pay Grade	Salary Midpoint FY19	Year Position Added or Funded by Utility	Percent of Time Dedicated to Stormwater
FTPW	Public Works Director		$ 89,000		5%
FTPW	Township Engineer	30	$ 81,000		15%
FTPW	Assistant Township Engineer	27	$ 70,000		10%
FTPW	Engineer Technician	22	$ 55,000		10%
FTPW	GIS Technician	21	$ 52,000		30%
FTPW	GIS Technician	21	$ 52,000		10%
FTPW	Road Superintendent	26	$ 67,000		5%
FTPW	Road Foreman	20	$ 50,000		5%
FTPW	Road Foreman	20	$ 50,000		10%
FTPW	Road Workers 11 men	17	$ 467,500		14%
FTPW	MS4 Engineer part time	22	$ 55,000		100%
FTPW	Stormwater Engineer	27	$ 72,800	2021	100%
FTPW	Stormwater Foreman	20	$ 51,500	2027	90%
FTPW	Stormwater Equip Operator	17	$ 47,834	2027	90%
FTPW	Stormwater Workers (2)	17	$ 84,000	2023	90%
FTPW	Interns (2) @$9600 each		$ 19,200	2021	100%

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