



TOWNSHIP OF FERGUSON

Summary of Policy Options on Private Systems Serving a Public Purpose

Scenario #1: Stormwater originates solely within the “development” and is conveyed to (or through) the private system and/or BMPs for the same development.

Issue: Current Township Responsibility is Complaint Driven, and there is no Maintenance Agreement on Pre-2003 BMP

Recommended Actions Scenario #1:

- Add the pre-2003 facilities to the inspection program (update inventory and then add to schedule).
- Township was involved in original engineering design; make sure standards are appropriate and met.

Scenario #2: Stormwater originates from outside the “development” and is conveyed to (or through) a private stormwater system and/or BMPs (not owned by the Township or State).

Recommended Actions Scenario #2:

- Inspect system to identify condition and potential problems or issues; place pipe into program for continuing evaluation of the conveyance system condition.
- Based on findings from initial inspection, determine source of the problems identified, if any.
- Research to determine if an easement exists and the type of easement, if found.
- Provide technical assistance, as appropriate to status of facility.
- Potential Actions:
 - Partner with owner to establish/negotiate a maintenance agreement.
 - Township should ensure that a maintenance agreement “runs with the land” so regardless of a sale of property, the agreement is binding to owner.
 - Routine maintenance should be the responsibility of the private land owner.
 - Manage by “exception” based on the degree of impact from upstream runoff from public conveyance for rehabilitation/replacement of the system.
 - Add privately owned pipe to an on-going inspection program.
- The policy for pipe connections would apply in the same manner to open channels.
- Township potentially partners with private conveyance system owners to provide operation, maintenance, or repairs to private system conveying “public” stormwater discharging to public system, the cost to be shared based on stormwater flow.

Scenario #3: Stormwater originates from outside the development, is combined with private “development” runoff and then flows to and through a privately-owned BMP, ultimately ending up back in a private stormwater system (or to public system) and no HOA exists nor defined ownership of the drainage components.

Issue: Complex “bridging” of ownership and maintenance obligation that creates critical links of public drainage system relying on private initiative to perform maintenance.

Recommended Actions Scenario #3:

- If the Township can force the creation of an HOA it should work with the neighborhood served by the system and establish the HOA to take responsibility for maintaining the private components.
- Township partner with all homeowners within an intended but non-existent HOA to provide operation, maintenance, or repairs to private facilities conveying “public” and “private” stormwater.
 - The conditions include: there is no functioning HOA and multiple properties are served including no designated ownership of infrastructure.
 - If partnering is not legally permitted, the Township should provide operation, maintenance, and repair to these facilities. The Township should notify the homeowners of the decision made.

Scenario #4: Stormwater originates within a development and possibly carries flows from upstream, is conveyed with the addition of public runoff, and ends up discharging to a single-owner BMP (typically a basin). The BMP is not dedicated to an HOA, nor the Township.

Issue: Is there a Township responsibility to individual owner, where the Township takes an expanded role beyond oversight of BMP condition?

Recommended Actions Scenario #4:

- Consider the option of creating an HOA and determine if the Township be a party to such an agreement.
- The Township should partner with the single-owner with a formal agreement on responsibilities (e.g., owner does routine maintenance such as mowing, and any debris removal and the Township takes care of the structural components).
- Add the BMP to the inspection program if it is not currently. Do an assessment and determine the nature of issues that may be present today.
- The Township partner with all properties being served by a single-owner basin to provide operation, maintenance, or repairs to private facilities conveying “public” and “private” stormwater.
- The Township will work with the homeowners to establish an agreement of responsibility for the on-going maintenance and repair of the basin.

Scenario #5: Stormwater originates within a development and possibly some from upstream, is conveyed with the addition of public runoff, and discharges to a single BMP is dedicated/owned by an HOA.

Issue: Is there a Township responsibility to an HOA when public stormwater runoff is managed, along with private land runoff, by the HOA in a BMP/facility? Should there be an "option" to have Township involved?

Recommended Action Scenario #5:

- The Township includes in the inspection program, if not already included.
- The Township evaluates these situations on a case by case basis to determine the degree to which the BMP serves a public purpose.
- The Township, at a minimum, should have an agreement in place to either shared responsibility or, with a dedicated easement, take over the maintenance and operation of these BMPs. The key is the degree to which public stormwater flows are served by the BMP.
- The Township could have an operating agreement with the HOA to provide O&M and capital for major repairs to structural components and the HOA do minor maintenance (mowing and debris removal).



TOWNSHIP OF FERGUSON

Summary of Service and Policy Discussion

Background:

In the initial Phase 1 portion of this study, it was recognized that there is a clear variability of levels of service (LOS) provided to properties throughout the Township. This is recognized by the density of population and by contrast in the use of properties from residential to agricultural. In addition, the drainage system components that are owned and operated by the Township also vary by similar Township attributes, but also by ownership of the roadway network (which is part of the drainage system). A third impact is the presence within the Township of properties owned, operated and regulated by another water quality permittee entity, namely Penn State University (the University). The degree of variability in service and in the attributes of the stormwater infrastructure is significant enough to warrant consideration for varying assignment of the cost of service to property owners/ratepayers.

Levels of Service

Service areas can be established based on the infrastructure complexity. Service areas can be contiguous or can be identified by other infrastructure attributes such as the presence of a pipe network, curb and gutter, ribbon pavement/drainage ditches, or similar features. Service areas can be defined in terms of urban attributes versus rural attributes.

Analysis of the Township by Complexity of Infrastructure

Using GIS tools, an analysis of the community by complexity of the infrastructure serving properties as well as using ownership of the street drainage system and water quality controls under an MS4 permit, it was determined that the distribution of impervious area is approximately equal between two service area classifications. The classifications in this initial analysis were:

Service Area 1 – higher frequency and level of service

- Any lot that fronts on a Township street segment that has 50% or more of that street segment with a parallel storm pipe; or
- Any lot that fronts on a Township street segment that has 50% or more of a street segment with curb on one or both sides.

Service Area 2 – lower frequency and level of service

- Any lot that fronts on a Township street segment that is not in the Service Area 1; or
- Any lot that fronts on a street owned by another MS4 permittee, or a private street; or
- Any lot that is covered by a separate MS4 Permit with DEP.

Each service area has about 24,000,000 square feet of impervious area. See the attached Map.

Attached is a map of the proposed Service Areas. SA 1 is highlighted in RED and GREY.



Cost Allocation by Service Area

The Five-Year Program Plan was updated based on priorities identified, policy refinement, and internal discussion with staff regarding the appropriate sequencing of projects and new initiatives to address system assessment, maintenance capabilities, MS4 permit compliance and Capital Projects. The program areas focus on:

System-wide Assessment: *Allocation between service areas: 80% SA 1; 20% SA2*

Maintenance Initiatives: *Allocation between service areas: 90% SA1; 10% SA2*

MS4 Permit Compliance: *Allocation between service areas 80% SA1; 20% SA2*

CIP: *Allocation between service areas variable – project specific to the service area with shared 80/20 split for CMP repairs, MS4, and inlets.*

Current Operational Costs: *Allocation between service areas 80% SA1; 20% SA2*



TOWNSHIP OF FERGUSON

Credit Program Policy Summary for Stormwater User Fee Structure

Electing to develop a credit program within the Stormwater Utility can provide the Township a variety of benefits, including:

- Providing ratepayers with a method to reduce their stormwater fee
- Increasing public education opportunities
- Increasing public involvement in the stormwater program
- Maintaining a high level of functionality of stormwater infrastructure
- Increasing private investment in stormwater management
- Supporting opportunities for the installation of structural or non-structural BMPs on private property.

Typically, a credit program will offer credits that fall into one of these three categories:

- structural,
- engagement, and
- operational.

Structural credits are associated with a ‘structural’ or ‘non-structural’ BMP, such as installing an infiltration facility or the disconnection of impervious areas. These types of credits have a direct and quantifiable impact to water quality and/or flooding mitigation.

Engagement activities are often aligned with public outreach, and education programs, such as stream clean ups and inlet stenciling. While these types of BMPs are already included in the Township’s MS4 requirements as MCM #1 and MCM #2, incorporating them into a credit or incentive program can help increase involvement. These do not typically have a direct impact on water quality, but by raising awareness to environmentally friendly practices, indirectly benefit the quality of stormwater. For example, when a resident is made aware that inlets do not flow to a treatment facility, they understand it is not appropriate to discard chemicals and harmful items into the inlets.

Operational credits are associated with the operation and maintenance of ‘structural’ and ‘non-structural’ BMPs, including annual inspections and the execution of a maintenance agreement. These types of credits would help to lessen the Township’s administrative burden to conduct and report on inspections of individual BMPs.

Some communities have utilized “incentive programs” in conjunction with their credit programs. Incentives are not a form of credit, but rather they provide for an opportunity to allow the Township to partner with property owners to implement such BMPs. For instance, the Township may identify a strategic location for a new BMP, yet the lands are privately owned. An incentive program would provide some limited financial relief for the owner to allow the facility to be constructed on their property. In this arrangement, both parties receive a benefit. This concept could certainly be utilized to address a specific SAC suggestion of leveraging a credit program to promote the recharge of groundwater in key geological (water recharge) areas of the Township.



TOWNSHIP OF FERGUSON

Additionally, the SAC recommended evaluating the current stormwater ordinances to ensure the standards regarding discharge requirements and total impervious cover are in alignment with the Stormwater Program goals.

While a credit program can offer various positives aspects to a Stormwater User Fee Program, one question that should always be considered when evaluating the development of a credit program is whether the value of the 'impact to the system' is worth the additional administrative/overhead burdens that may result. For example, Rain Barrels as a best practice, typically require oversight to make sure the collected runoff is utilized yet, due to their scale, they provide a very limited water quality or flooding improvement.

Participation and Initiation of a Program of Credits:

The anticipated level of participation in the credit program and the estimated revenue reduction associated with potential credit holders needs to be accounted for in the cash flow analysis and ultimately the stormwater rate. The Stormwater Advisory Committee acknowledged these implications of “offering and maintaining” a credit program as a reason to introduce the program strategically in order to offset the impact. Specifically, the SAC indicated their desire would be to focus on the Stormwater Program itself with the development and introduction of a credit program be delayed until the stormwater services are fully functioning and asset data has been collected to confirm/refine the scope of the program

More specifically, the SAC has recommended delaying credits to homeowners (residential properties) for a few years after initial program establishment. This roll out will align with the SAC’s goal to minimize the administrative burden of a credit program but maintain the oversight to ensure the credits are appropriate and can contribute real value to the community. The credit program, initially, would be offered to non-residential properties. The non-residential sector offers a greater return on investment for improvements to both water quality and flood control/mitigation. Further, the level of accountability and available resources for non-residential to operate/maintain a BMP is greater than with residential properties. Credits should never be given as a “handout” whereby everyone receives one. This approach denigrates the value of both the credit and of the revenue generating abilities of the fee program. Each credit offered must be considered in the context of revenue versus a gain in some other aspect of the program.

MS4 Credits

Within Ferguson Township, there are some entities that currently are mandated to maintain their own MS4 permit. As such, it was agreed by all that other permitted MS4s should be eligible for a full credit from the MS4 portion of the Stormwater User Fee as they have been parsed out from the Township’s permit. This credit reduce 100% of the User Fee portion dedicated to MS4 compliance activities of the Township. The non-MS4 program costs will be charged since those properties are receiving a benefit from the Township’s Stormwater System and Program. Similar to other properties in the Township, these properties would have the opportunity to apply for various other credits in the program (to some yet to be defined maximum amount).

Structural Credits



TOWNSHIP OF FERGUSON

In order to qualify for a structural credit, the SAC has recommended that the design and impact to the BMP system must exceed the minimum requirements. The following table captures this concept as discussed:

	Voluntary Installation	Mandated Installation
Meets Min. Requirements	Good	
Exceeds Min. Requirements	Best	Good

Retrofits of older existing stormwater facilities are often used by communities to allow a property owner to be eligible for credits. The general thought is that the design standards between the time of “mandated” installation and now will likely provide for a greater water quality and flood mitigation impact. This type of credit scenario could allow for strategic facilities to be retrofitted to minimize downstream flooding, for example.

Credit Process:

The SAC has recommended that the Township be responsible for certifying an application for a credit, which would be valid for a period of 3-5 years. However, it was agreed that annual (self-certification) reports from the property owner be accepted. Structural BMPs are only inspected by the Township on a five-year cycle. It was further agreed that the Township should continue to randomly inspect BMP facilities, both as a mandate of the MS4 permit incorporated into the Townships existing BMP inspection program and also to ensure that rate payers who are receiving credits are properly operating their facilities.

Next Steps

The topic of credits is an integral discussion point in any stormwater user fee-based system. There is no preset template for how a credit program must be established or operated. There are communities that have absolutely no credit in their fee programs, while others are robust and have been successful in engaging ratepayers to achieve common goals. The choice to implement a credit program is one that must carefully deliberated. The increases in the level of administrative effort must be fully weighed to the potential gains that would result from the credit. The SAC unanimously agreed that a credit program is an aspect they would like to see in Ferguson Township’s program. However, they acknowledged that if a user fee is to be implemented, they want the initial focus to be on ensuring that the program is both cost and operationally effective.