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**Stormwater User Fee Study – Phase 2**

**Ferguson Township Program of Stormwater Services**

A. Background:

Phase I of this study was initiated to answer a series of questions regarding the stormwater services provided by the Township and to evaluate the potential for user fee funding as the primary financial resource for these services. The questions focused on the analysis and the strategy for addressing drainage system and water quality program needs.

The questions focused on in Phase 1 were:

1. What is the Township's current stormwater management program?
2. 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?
3. What stormwater program priorities should guide Ferguson Township in the next three to five years? What is the long-range goal for these services?
4. What is the optimal organizational structure to deliver services to the community? Are there staffing needs that should be considered?
5. What specific Township program elements require additional funding or a change in funding strategy?
6. 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?
7. Is it feasible to establish a user-fee based funding strategy? What are the steps to implementation?

B. Program Recommendations:

In answering questions 1 through 5, the analysis of current services indicated a need to focus more resources for maintenance and operation of the drainage system while ensuring compliance with water quality mandates from the Pennsylvania Department of the Environment (PADEP). Working with the Stormwater Advisory Committee and staff through Phase 1 and now Phase 2, with feedback from the Board of Supervisors, priorities were identified and ranked.

The following stormwater program initiatives were recommended to the Board of Supervisors and discussed throughout both Phases:

- Assessment of infrastructure system including expanded documentation on facilities built prior to 2003, as well as current and complete data on infrastructure condition, age, material, location, ownership, and other key elements. This data drives future capital investment as well as maintenance practices.
- Investment in pipe rehabilitation, lining corrugated metal pipe in neighborhoods as well as replacement when critical condition failure is identified.

- On-going compliance with mandated water quality permit requirements including engineering design and construction of MS4 Permit Pollution Reduction Plan projects.
- Operation and maintenance enhancements for all components of the drainage infrastructure, to address both quantity and quality management. Short term and long-term objectives will be met with support by contractors, additional staff, and equipment purchases. These resources will address immediate support in infrastructure assessment and long-term support for system maintenance and operations.
- Increased level of service for maintenance of ditches and cross-pipe system components outside the urban area.
- Inspection of infrastructure on a routine basis for inlets, pipes, open channels, and stormwater management facilities.
- Continued partnership with the Transportation Improvement Program for system components within the Township roadway network.

C. Program Focus – Current, Expanded and Additional Services

To achieve the goals and recommendations from the Study Phase I, clarified and refined during the Phase 2 of the Study, the following Table 2 captures the draft program major initiatives and the Fiscal Year (FY) in which activities will occur. Based on this overall program, reviewed with the Stormwater Advisory Committee, the Board of Supervisors and staff, a cost of service was developed and analyzed for primary funding with user fees. Over the period October 2019 to June 2020, the sequencing of workload and staff augmentation was reviewed and the costs projected as follows:

**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** |

In FY22, a significant increase in costs is attributed to a major capital project for Park Hills drainage improvements and the funding recommendation includes debt financing for a 15-year payback period.

All program areas addressing the priorities are presented in the follow table, and timing is indicated by an "X" in the fiscal year in which effort expended. Cost factors were developed working with the Township Finance Director, to provide cash demand and rate estimate that are presented in the Cost Capture and Fee Analysis – Summary dated 6-3-2020.

| Program Elements | FY21 | FY22 | FY23 | FY24 | FY25 | FY26 | FY27 | FY28 | FY29 | FY30 |
|---|---|---|---|---|---|---|---|---|---|---|
| **A. Infrastructure Inspection and Assessment Program** | | | | | | | | | | |
| 1. Research and inventory BMPs/Basins constructed prior to 2003 (back to 1975) capturing specific data on location, type, date constructed, owner and add to overall system inventory for inspection and assessment. | X | X | X | X | X | | | | | |
| 2. Inspect inlets, developing inventory including condition, material, geolocation, photograph. | X | X | X | X | X | | | | | |
| 3. Contract CCTV pipe inspection (35 miles) using NASSCO rating scale. Service includes pipe cleaning in advance, traffic controls, TV footage upload, classification by material type, rating, location. | X | X | X | X | X | X | X | | | |
| 3a. West End cross-pipe inspection and assessment, updating inventory data: location, headwall/outlet condition, material, pipe status (clogged, open, debris build up, sediment buildup) and add inventory to database. | X | X | X | X | X | X | X | | | |
| 4. Convert part-time stormwater inspector position to full-time MS4 Coordinator/Engineer. | X | X | X | X | X | X | X | X | X | X |
| 5. Develop long-range inspection program to maintain current data on system status. | | | | | X | | | | | |
| 6. Add stormwater dedicated maintenance crew to address non-roadway maintenance. | | | | | | | | | | |
| i. Foreman | | | | | | | X | X | X | X |
| ii. Equipment Operator | | | | | | | X | X | X | X |
| iii. Stormwater Worker (2) | | | X | X | X | X | X | X | X | X |
| 7. Establish Maintenance plan for above-ground system repairs based on assessment and prioritization plan. | | | | X | | | | | | |
| 8. Develop protocols for on-going inspection program to ensure that all system components are inspected on routine basis. (Implement after completion of the priority assessments of public and private system components (those addressed in policy regarding public runoff). | | | | | X | | | | | |
| 9. Purchase vactor truck and continue borrowing/sharing equipment as needed for maintenance program – funded by the Equipment Purchase Sinking Fund – Item 12 | | | | | | | X | | | |
| 10. Purchase CCTV camera and truck for long-term inspection of all pipe (roadway, cross-connecting in West End, crossing private property carrying public runoff) – See Item 12 | | | | | | | X | | | |
| 11. Purchase vehicle for Foreman – See Item 12 | | | | | | | X | | | |
| 12. SINKING FUND FOR EQUIPMENT PURCHASE IN 2027 and replacement over time | X | X | X | X | X | X | X | X | X | X |
| 13. Evaluate staffing/material/equipment needs based on initial system assessment and stormwater crew accomplishments | | X | | | | | | | | |
| 14. Prepare system-wide master plan, identifying potential sites for GSI and partnerships to reduce runoff volumes impacting channels and stream erosion. | | | | | | | | X | X | X |
| 15. Sustain above ground infrastructure maintenance program for basins, BMPs, channels. Assess progress in addressing critical/high priority problems identified in the assessment program. | | X | | | | | | | | |
| 16. Maintain pipe inspection program using Township equipment - priority is pipe with poor grade on first round | | | | | | | | X | X | X |
| 17. Evaluate overall investment program in GSI, based on Master Plan prepared in Year Three; identify strategies and opportunities for partnering in Year Four and Five | | | | | | | | | | X |

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|---|---|---|---|---|---|---|---|---|---|---|
| 18. Maintain on-going operations for stormwater infrastructure management based on FY20. | X | X | X | X | X | X | X | X | X | X |
| | | | | | | | | | | |
| **B. Maintain MS4 primary program requirements responding to permit renewal feedback as needed. (Program Plan, Annual Report)** | | | | | | | | | | |
| 1. Public Education and Outreach | X | X | X | X | X | X | X | X | X | X |
| 2. Public Involvement | X | X | X | X | X | X | X | X | X | X |
| 3. Construction Site Inspection/ Enforcement (done by CCCD). | X | X | X | X | X | X | X | X | X | X |
| 4. Post Construction Management (20% inspection of private BMPs/enforcement of maintenance requirements) | X | X | X | X | X | X | X | X | X | X |
| 5. Illicit Discharge – outfall screening of 20% a year including inspection for infrastructure condition | X | X | X | X | X | X | X | X | X | X |
| 6. Good Housekeeping Practices | X | X | X | X | X | X | X | X | X | X |
| | | | | | | | | | | |
| **C. CIP – implement projects as adopted in 5-year plan.** | | | | | | | | | | |
| 1. MS4 Chesapeake Bay Pollutant Reduction Plan Implementation (Design, ROW, Permitting, Construction) | X | X | X | X | | | | | | |
| 2. Park Hill Drainage Improvement | | X | X | X | | | | | | |
| 3. Line CMP - 5000'/year @$100/ft based on priorities for CMP rehab | X | X | X | X | X | X | X | X | X | X |
| 4. Repair stormwater inlets based on assessment/inspection program (10-15) | X | X | X | X | X | X | X | X | X | X |
| 5. Partnership Program | | X | X | X | X | X | X | X | X | X |