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To: Stephen Nease  
Township Manager

From: Eileen Nelson and Geoffrey Kolva  
West Chester, PA

File: 174840035

Date: April 9, 2020

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**Reference: Newtown Township Pollution Reduction Plan (PRP) – Public Comments**

As a result of the PADEP August 28, 2019 review of the Township’s PRP, submitted in September of 2018, our office made adjustments to the Existing Sediment Loadings and proposed method of compliance with the required 10% reductions. As part of the plan revisions, we met with the Township’s Environmental Advisory Council (EAC) to gain insight into projects they have proposed to address stormwater. The introduction of Tree Planting and Rain Garden installations, through a grant from PADEP’s Growing Greener Program, have been included. The EAC has also submitted comments as part of the required 30-day Public Comment period.

The purpose of this memorandum is to provide responses to the EAC’s comments (in bold, italic text) and additional information for the Boards information in adopting the PRP.

***I. Pollution Reduction Plan Comments***

- ***Utilize a broader range of Best Management Practices (BMP), rather than exclusive reliance on one BMP—streambank restoration—for all mitigation efforts. Complement in-stream work with bioengineering techniques and upstream stormwater control measures, as recommended by the DEP.***

In preparation for the original PRP, the Township conducted a series of presentations at several Board meetings in 2018, in the process of developing the PRP. During those presentations, it was noted that the Township is limited to the prescribed “Effectiveness Table” for the establishment of the reductions each measure can achieve. We selected the Stream Restoration category for three distinct reasons. The first being the readily available Township owned areas of Greer Park, Brookside Park and Drexel Lodge Park which are in need of restoration. The second was the financial benefit as being the most cost effective to achieve the required result. Lastly, we need to present to PADEP an achievable, definite plan.

To illustrate the cost effectiveness, I have developed the attached spreadsheet with a cost comparison between selected measures and the sediment reduction associated with the Best Management Practice. The stream restoration is the most cost effective for removal per pound of sediment. We have also followed up with PADEP representatives and confirmed we are afforded a degree of flexibility in the Plan by providing a primary method for compliance along with a “Plan B” list of other measures that can assist in attaining full compliance. The additional measures proposed by the EAC will be incorporated into the Plan B listing.

- ***Focus Pollution Reduction Plan efforts on target areas for maximum impact, engaging neighbors and implementing all six Minimum Control Measures***

- o ***Use existing homeowner complaints to identify stormwater “hot spots” and identify BMPs that can be used to both achieve MS4 objectives and address public health, safety and property damage issues.***

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The six Minimum Control Measures of the MS4 permit are as follows:

MCM #1: Public Education and Outreach on Stormwater Impacts

MCM #2 Public Involvement/Participation

MCM #3 Illicit Discharge Detection and Elimination

MCM #4 Construction Site Stormwater Runoff Control

MCM #5 Post-Construction Stormwater Management in New Development and Redevelopment

MCM #6 Pollution Prevention/Good Housekeeping

We envision the heavy emphasis on #1, #2 and #6 for the process of implementing the PRP. Advertised meetings can encourage the engagement of the public in the PRP implementation process. By focusing most of the Township's PRP and resources on stream restoration, we believe this will have the maximum public good by better ensuring the stream channels can safely convey the current stormwater runoff and flood waters from both public and private sources. Other related initiatives are underway with respect to the development of a Master Plan for Greer Park that are an opportunity to incorporate stormwater into the plan and raise awareness of stormwater.

Homeowner complaints registered over the past year, due mostly to significant storm events, have been the subject of several recent proposals submitted to the Board for their consideration for further investigation and options for correction.

**• *Adjust the plan to fully incorporate the proposal to plant 500 trees and convert two acres of impervious surface to green infrastructure (e.g., rain gardens, bioswales, etc.) in the PRP Loading Calculations and cost estimate.***

By being in the PRP document to be sent to PADEP, the proposal to plant 1,000 trees and 4 acres treated by rain gardens and bioretention, the projects are incorporated in Plan B. The locations of these projects are still to be determined. As the calculations for the maximum effectiveness for the 1,000 trees requires the elimination of impervious area, please note the use of planting trees as part of the stream restoration and stream bank stabilization is not yet included in this calculation, but will be documented for submission to PADEP in progress reports which will allow for the corresponding reduction of the stream restoration project's scope so that we achieve as close to the 10% requirement.

## ***II. Stormwater Management Approach Recommendations***

***We would recommend that the Township adopt broader approach for dealing with stormwater management.***

**• *Pursue land protection and acquisition***

***o Selectively obtain permanent easements on parcels of land that significantly contribute to sensitive areas, e.g. headwaters of Foxes Run, Hunters Run, and other first-order streams and unnamed tributaries***

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***o Adopt an Official Map***

***o Adopt an Open Space financing mechanism***

The acquisition and protection of Open Space is inextricably related to stormwater management and it would be an undertaking best accomplished with full participation of the EAC and supported in any way necessary from our office and Township staff. With respect to the adoption of an Open Space funding mechanism, there does exist the Recreational set aside or Fee in lieu of as part of the Subdivision and Land Development Ordinance – Section 148.41 which provides for either a land or monetary contribution.

***• Engage a stormwater engineering firm with deep expertise in this specialized area to lead MS4 efforts (see Appendix)***

No comment.

***• Fully utilize ordinances to support effective stormwater management***

***o Review and update Stormwater ordinances, policies and implementation***

***o Strengthen ordinances to includes properties that predate current stormwater ordinances and reflect new weather patterns***

***o Enforce all stormwater, flood zone, riparian buffer, steep slope and ordinances***

***o Educate township personnel, ex. Planning Board and Zoning board***

***o Ensure that existing stormwater BMPs are functioning as designed***

The existing Stormwater Ordinance (Chapter 143) was adopted in 2013 in full compliance with the model ordinance developed by PADEP. It is being implemented to the letter of the law with the exception of when an applicant petitions the Board of Supervisors for a waiver from the requirements. Inclusion of properties that pre-date current stormwater ordinances is a matter for review by the Solicitor as to the legality of such a requirement. Again, enforcement of all stormwater, flood zone, riparian buffer and steep slope ordinances is being carried out between our office and Code Enforcement. In conjunction with the Public Works director, periodic sessions have been conducted with staff, in order to educate them on the overall MS-4 program but specifically for the Good Housekeeping Measures contained in MCM#6 mentioned above. If similar sessions are desired for Planning and Zoning we would be happy to accommodate that request. Ensuring proper functioning of existing BMP's is also an integral part of the existing stormwater ordinance. As part of the permitting process for all earth disturbance, we evaluate the need for stormwater controls. If they are required, the applicant must submit for recording an Operations and Maintenance Agreement along with a fee that covers inspections of the facility for a period of 10 years. In order to conduct those inspections, we prepare notification letters which are copied to the Police, so the property owner understands the inspection will take place. If the BMP's are not functioning properly, the owner is given a deficiency letter and requested to correct the issue. We have experienced a very good track record of corrections being implemented. By tracking and inspecting the facilities installed on private property we have been able to reduce the overall burden of Pollution Reduction by 124,204 lbs of sediment (or 4.6% of the total sediment loading for the Twp.) Without that credit the Township would be responsible for addressing an additional 12,420 lbs of removal.

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**• Engage residents as stewards of our community and water, cultivating them as partners in protecting our watersheds**

Agreed that the engagement of residents is key to the success of the program.

**• Look for opportunities to piggyback MS4 projects on other construction projects, e.g. sewer installation remediation, West Chester Pike widening, culvert replacements, sidewalk repairs, etc.**

We just recently put out the Road Program project whereby we requested an Alternate Bid for a porous asphalt bike lane in order to obtain a price for comparison to what is proposed in the PRP Plan. The spreadsheet attached shows the bid price of \$1.667 million which translates to 169 per pound of sediment removed. Similarly, the request for authorization to put the Clearbrook Culvert replacement project out to bid includes an alternate to provide a three-sided box culvert in lieu of the twin 30" diameter pipe culverts as a more ecological installation. We have also had discussions with Public Works regarding incorporation of water quality devices in inlets when possible. These measures will also be included in our Plan B list for the Plan submission.

**• Pursue grants that could lessen the Township expense for MS4 compliance**

The PRP includes grant opportunities which can be pursued.

The remainder of the comments below are matters for the Board to consider.

**• Work to achieve a growing, vibrant community tree canopy**

***o Increase budget allocations to provide better ongoing tree maintenance and deal with pests such as Spotted Lanternfly and Emerald Ash borer, and fund tree planting efforts***

***o Fill the vacant Township Arborist position with a qualified professional to proactively and comprehensively assume responsibility for the health of all the trees on Township property. This function cannot be properly performed through the current reactive, ad hoc arrangement.***

***o Adopt a comprehensive digital inventory to document and monitor the condition of all trees on Township property***

If there are any questions, please contact me.

**Stantec Consulting Services Inc.**

**Eileen Nelson**

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Attachment: BMP Cost Comparison spreadsheet

Design with community in mind

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c.c: Suzanne Wolanin, George Sharretts, Bruce Killan