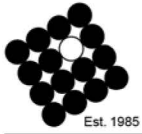


## **EXHIBIT 05**



# Lennon, Smith, Souleret Engineering, Inc.

Civil Engineers and Surveyors

846 Fourth Avenue, Coraopolis, PA 15108  
(412) 264-4400 • (412) 264-1200 Fax

Managing Principals:  
Kevin A. Brett, P.E.  
Ned Mitrovich, P.E.  
Jason E. Stanton, P.E.

September 10, 2020

S. O. No. 0291-21

**VIA EMAIL ONLY**  
**(droote@pa.gov)**

Mr. David J. Roote, Water Quality Specialist Supervisor  
Clean Water Program  
Pennsylvania Department of Environmental Protection  
Southwest Regional Office  
400 Waterfront Drive  
Pittsburgh, Pennsylvania 15222-4745

**Subject: North Sewickley Township Sewer Authority  
Beaver Falls Service Area Corrective Action Plan (CAP)**

Dear Mr. Roote:

Please accept this letter and the attached Corrective Action Plan (CAP) as a response to the Pennsylvania Department of Environmental Protection's (PADEP) letter dated June 22, 2020 and received by the Authority on July 9, 2020.

The North Sewickley Township Sewer Authority (NSTSA) has engaged Lennon, Smith, Souleret Engineering, Inc. (LSSE) to assist in quantifying the magnitude of the "excessive wastewater flows" in the NSTSA sewer system tributary to the City of Beaver Falls conveyance system as reported in your referenced letter. Please see the following discussion, sewer system general arrangement drawing, and attached schedule briefly outlining the proposed corrective action plan.

The referenced letter indicates that Beaver Falls has conducted a flow monitoring program in their system to isolate flow contributions. NSTSA was not advised that there was an overload in the Beaver Falls conveyance system, the location of said overload, that a flow monitoring program was to be conducted or underway, and has not received the results of the program identifying the NSTSA flow contribution.

Please be advised that the NSTSA system tributary to Beaver Falls was constructed primarily from 2006-2008 with several extensions added in 2015 for an additional 100 customers (of which Beaver

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Falls approved, advised capacity was available in a planning module approved by the PADEP, and accepted the tap fees paid by NSTSA). The sewers are constructed of PVC, ductile iron, or HDPE. Flows in the NSTSA system are tributary to the Bennetts Run Lift Station which is restricted by agreement with Beaver Falls.

Despite the lack of information and problem statement from the Department and Beaver Falls, NSTSA nonetheless proposes the following:

**1. Flow Monitoring Program:**

This program will consist of one strategically placed flow monitor upstream of the Bennetts Run Lift Station to initiate an understanding of system response during precipitation. The monitoring program is planned for 9 months beginning in Fall 2020 and concluding in the Spring of 2021.

**2. Night-Time Flow Isolation (NFI) Measurements:**

Flow isolation studies screening/monitoring in the NSTSA sewer system, consisting of approximately 15 key manholes in the sanitary sewer system tributary to the Beaver Falls system are planned for Spring 2021 and performed between the hours of 12:00 a.m. and 5:00 a.m., during which time it is presumed that the domestic sewage component of the wastewater is minimal, and therefore the measured flow essentially represents system groundwater infiltration. Flow isolation studies typically are performed during periods of high groundwater when sustained infiltration rates are elevated. Typically, in western Pennsylvania, the predominant months for these elevated groundwater conditions are February through April. The measurements are not planned to be done during or immediately after precipitation events so as not to include any potential direct inflow sources. Two rounds of measurements are proposed.

These measurements would be performed contingent on data analysis associated with Task No. 1 suggesting that NFI Measurements are warranted. Should the data suggest that the NSTSA system tributary to Beaver Falls is responding in accordance with industry standards, NSTSA would request PaDEP's consideration to defer the measurements.

**3. System Evaluation**

After the conclusion of the Flow Monitoring Program and Night-Time Flow Isolation (NFI) Measurements, the results shall be evaluated to determine which areas of NSTSA's sewer system require additional investigation, if necessary. This additional programming may include additional nighttime flow isolation measurements, CCTV, smoke testing, dye testing, and/or sewer line repairs identified during the additional evaluations. A schedule for this additional evaluation, if necessary, will be provided with the January 2022 progress report and tap request. Any additional evaluations will likely be split into approximately five separate areas and work completed over a period of several years.

Mr. David J. Roote, Water Quality Specialist Supervisor  
Clean Water Program  
Pennsylvania Department of Environmental Protection  
September 10, 2020  
Page 3

**4. Tap Control Plan:**

As directed, it is our understanding that North Sewickley Township has restricted new connections to the system. In consideration of NSTSA's commitment to this Corrective Action Plan, NSTSA is hereby requesting a tap allocation of 30 taps for the balance of 2020 and 2021. Subsequent tap allocations will be requested annually.

For planning purposes, NSTSA was approached within the last month by a developer about a potential 100 lot residential subdivision. The development is in the early planning phases.

During the term of this Corrective Action Plan, NSTSA or its designee will report to PADEP on a semi-annual basis. This report will be formatted very similar to the schedule presented herein with progress being reported at the end of January and the end of July for each year under the CAP.

In summary, we trust that this Corrective Action Plan addresses the Department's requirements identified in the June 22, 2020 letter and request your approval of the plan.

With submittal of this CAP, NSTSA would also like to request that PADEP and/or the City of Beaver Falls hold a joint sewer users group meeting such that the municipalities tributary to the City's system could be briefed as to the conditions which exist in the Beaver Falls system that are necessitating the CAP. This venue (Joint Sewer User's Group) was once routinely held and administered by the City of Beaver Falls.

This meeting would be a benefit to all parties to understand the issue more fully as well as justify to the tributary municipalities /authorities that CAP efforts should be included in 2021 budgets accordingly.

Should you have any questions, please contact Emily A. Palmer, P.E.

Sincerely,



Jason E. Stanton, P.E.

JES/nlk

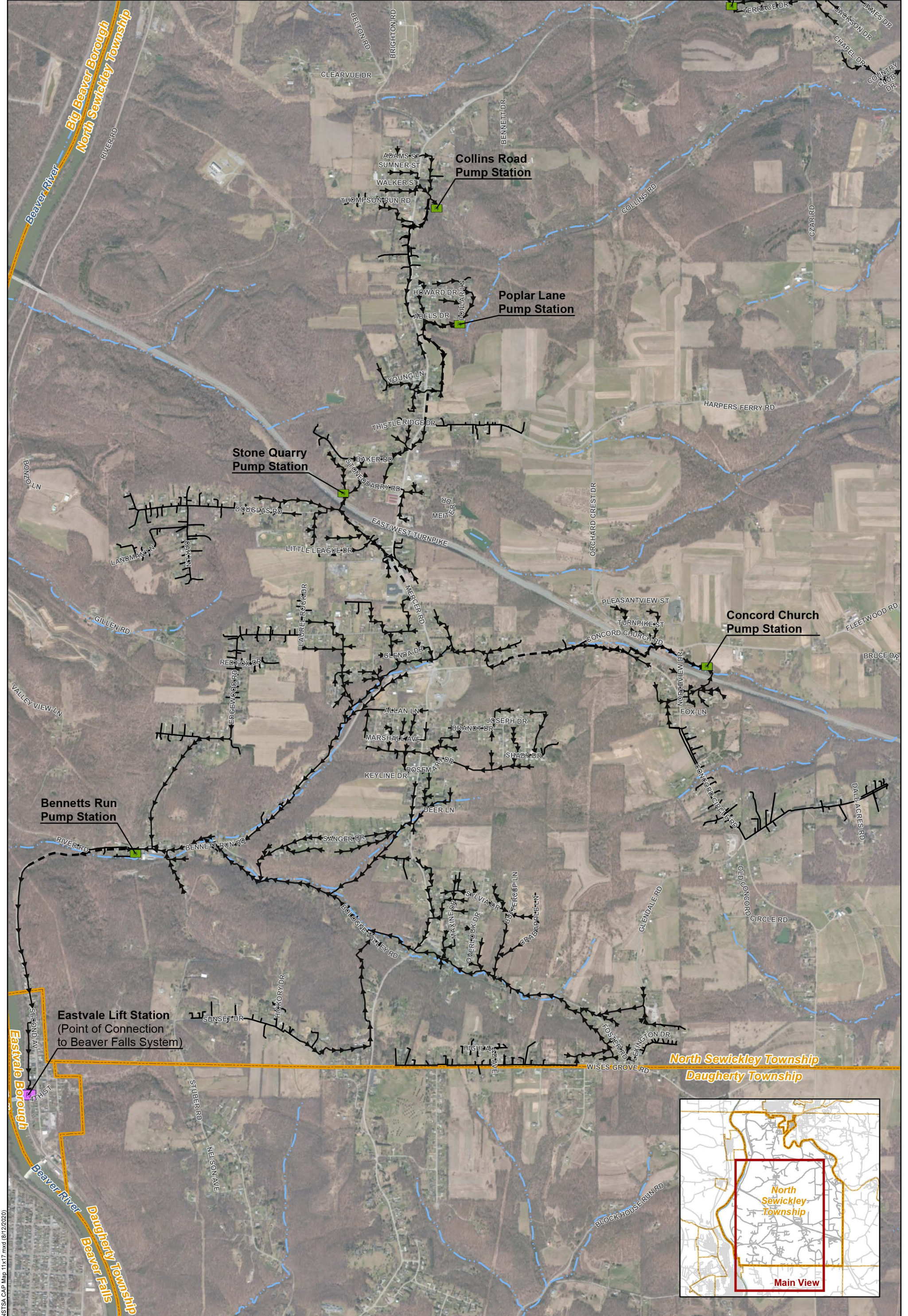
Enclosures

cc/enc: North Sewickley Township (nst@zoominternet.net)  
North Sewickley Township Sewer Authority (lisacrespo@zoominternet.net)

**NORTH SEWICKLEY TOWNSHIP SEWER AUTHORITY  
SANITARY SEWER SYSTEM CORRECTIVE ACTION PLAN  
BEAVER FALLS SERVICE AREA**

Prepared August 2020

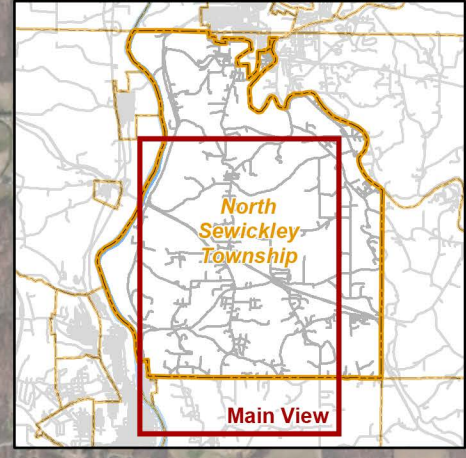
<b>Item No.</b>	<b>Task Description</b>	<b>Target Start Date</b>	<b>Target Completion Date</b>	<b>Notes</b>
1	Review and Evaluate the Township's Dye Test Ordinance and Program. Make recommendations for revision, if necessary	September 2020	December 2020	A summary of the number of dye test performed and any corrective measures will be provided for each reporting period.
2	System Mapping	NA	NA	Task Complete. GIS Base Map prepared in 2017.
3	Flow Monitoring Program	Fall 2020	Summer 2021	
4	Semi-annual Progress Report to DEP	January 1, 2021	January 31, 2021	
5	Night-Time Flow Isolation (NFI) Measurements	Spring 2021	Spring 2021	If required based on flow monitoring findings.
6	Semi-annual Progress Report to DEP	July 1, 2021	July 31, 2021	
7	System Evaluation	Spring 2021	December 31, 2021	If required based on flow monitoring findings.
8	Semi-annual Progress Report to DEP	January 1, 2022	January 31, 2022	
9	Additional Ssystem Evaluations, if necessary, which may include: Additional NTFI measurements, Smoke and Dye Testing, CCTV, and/or defect repair.	TBD	TBD	If required based on flow monitoring findings.



Path: N:\PROJ\2811291-21\_CAP\NISTSA CAP Map 11x17.mxd (8/12/2020)

**Lennon, Smith, Souleret Engineering, Inc.**  
 Civil Engineers and Surveyors  
 845 Fourth Avenue  
 Coraopolis, PA 15108  
 (412) 264-4400  
 (412) 264-1200 Fax  
 info@lse.com  
 www.lse.com

- Beaver Falls Pump Station
- Lift Station
- Force Main
- Low Pressure Force Main
- Municipal Boundary
- Gravity Sewer



**North Sewickley Township Sewer Authority (NSTSA)**  
**Beaver Falls Service Area**  
 North Sewickley Township, PA  
 Page 5 of 10

**NORTH SEWICKLEY TOWNSHIP SEWER AUTHORITY  
SANITARY SEWER SYSTEM CORRECTIVE ACTION PLAN  
BEAVER FALLS SERVICE AREA**

Prepared August 2020

<b>Item No.</b>	<b>Task Description</b>	<b>Target Start Date</b>	<b>Target Completion Date</b>	<b>Notes</b>
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Southwest Regional Office

October 29, 2020

Lisa Crespo, Office & Operations Manager  
North Sewickley Township Sewer Authority  
893 Mercer Road  
Beaver Falls, PA 15010

Re: Corrective Action Plan  
North Sewickley Township  
Beaver County

Dear Ms. Crespo:

We hereby approve the Corrective Action Plan (CAP) submitted by Lennon, Smith, Souleret Engineering, Inc. on behalf of North Sewickley Township Sewer Authority on September 10, 2020. Progress reports (two copies) should be submitted to the Department every six months using the enclosed reporting form. Please add the columns for "Required Completion Date" and "Percent Complete" to this form. Reports are due by July 31 and January 31 of each year. The first Progress Report is due July 31, 2020.

This letter includes approval for thirty (30) taps requested for the remainder of 2020, and also for 2021. Please remember that the City of Beaver Falls must affirm that adequate capacity in their system is available for each tap request submitted to this Department for approval.

The Authority should take all necessary actions to prevent unpermitted discharges, basement flooding, and the associated public health hazards. At all times, including while the CAP is in effect, the Authority remains responsible for all violations of the Clean Streams Law and is liable for the civil penalties provided for such violations. Bypassing and basement flooding are illegal discharges. Enforcement action may be warranted if the approved schedule is not followed, or if conditions indicate that such action is necessary to protect the environment or public health.

The Authority is responsible for administering the tap control plan, approved as part of this CAP, in accordance with the requirements of Chapter 94 of the Rules and Regulations. Remember that additional flows are not permitted to areas with unresolved basement flooding. Also, the Authority's ability to allocate approved annual connections is contingent on adhering to the schedule in the approved CAP. If the schedule is not being met, the Department may rescind the approval to grant new connections.

Please be aware that requests for CAP revisions will be expected by this Department if the examination of the system shows that additional remedial work is needed, that is not known now. Please notify us immediately when this becomes evident, so we may approve CAP extensions.

The Authority shall submit an Annual Tap Control Plan to the Department by January 31 each year until such time as the CAP is terminated. If unused during the calendar year in which they were awarded, taps expire at the end of the calendar year.

If you have any questions regarding this letter, please contact David Roote of my staff at [droote@pa.gov](mailto:droote@pa.gov) or 412-442-4045.

Sincerely,

*Christopher J Kriley*

Christopher J. Kriley, P.E.  
Program Manager  
Clean Water Program  
Southwest Region

Enclosure

June 22, 2020

Lisa Crespo, Office & Operations Manager  
North Sewickley Township Sewer Authority  
893 Mercer Road  
Beaver Falls, PA 15010

Re: Sewer System Overload Condition  
North Sewickley Township Sewer Authority  
North Sewickley Township  
Beaver County

Dear Ms. Crespo:

Recently this Department received information concerning excessive wastewater flows to the City of Beaver Falls system during precipitation events. These high flows create hydraulic overloads in the conveyance system there prior to reaching the treatment plant. Beaver Falls has implemented a flow monitoring program to determine the source(s) of these high flows by placing meters in locations that isolate the flow contributions of each connected community, with certain exceptions. Because of this, as North Sewickley Township is one of these communities, we are requesting the following from the North Sewickley Township Sewer Authority:

1. Submit a written Corrective Action Plan (CAP) setting forth the actions to be taken to reduce the overload and provide the needed capacity to achieve compliance to the Department within 90 days of receipt of this letter. The plan must also include a program for a limitation on and control of new connections to the overloaded sewerage facilities and a schedule showing the dates each step toward compliance will be completed.
2. Restrict new connections to the sewer system tributary to the overloaded sewerage facilities to those connections fitting the exceptions described in 25 Pa. Code §§ 94.55, 94.56 and 94.57 until the requested plan and schedule is approved by DEP.

Section 7 of the Sewage Facilities Act, as amended by Act 149, does not provide for planning exemptions when sewage facilities have an existing hydraulic or organic overload or projected five-year overload.

Enclosed you will find a table form of the semiannual progress reports required for submission in January and June of each year of the plan implementation. Please use this as a template for noting completion percentages and include it with your reports.

The Authority is responsible for administering the tap control plan, approved as part of this CAP, in accordance with the requirements of Chapter 94 of the Rules and Regulations. Remember that

additional flows are not permitted to areas with unresolved basement flooding and any other unpermitted discharges. Also, the Authority's ability to allocate approved annual connections is contingent on adhering to the schedule in the approved CAP. If the schedule is not being met, the Department may rescind the approval to grant new connections.

The Authority shall submit an Annual Tap Control Plan to the Department by January 31 each year until such time as the CAP is terminated. If unused during the calendar year in which they were awarded, taps expire at the end of the calendar year.

When you have developed a plan and schedule or if you have any questions about this notice, please call me at 412-442-4045 or email me at [Droote@pa.gov](mailto:Droote@pa.gov).

Sincerely,

***David J. Roote***

David J. Roote  
Water Quality Specialist Supervisor  
Clean Water Program

Enclosures