



July 24, 2020

To: Kline's Island Sewer System Municipalities
(see attached distribution)

RE: Kline's Island Sewer System
Final Interim Act 537 Plan – For Adoption Submission

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Dear KISS Municipality:

On behalf of the municipalities and authorities who participate in the Kline's Island Sewer System (KISS), attached please find a copy of the Final Interim Act 537 Plan for municipal adoption by resolution. As required by the Pennsylvania Sewage Facilities Act, and regulations thereunder (25 PA Code § 71), prior to adoption, the Plan must be reviewed by municipal planning agencies and must be publicly advertised for comment for a 30-day period.

On March 16, 2020 the Interim Act 537 Plan was sent to all municipal and county planning agencies for review and comment. Comments received during this period are included and addressed in this Final Plan. On June 10, 2020 the Interim Plan was advertised in the Morning Call and copies of the plan were made available to the public either at the municipal locations or on their respective websites. A copy was also available at the Lehigh County Authority office as well as on their website. Comments received during this period are included and addressed in this Final Plan.

The most significant comments received were changes to the municipal flow projections found on Table 4.1 (page 21). The most recent revision to this Table (dated 07/10/2020) follows this letter and is also found in the Public Comment section of the report.

Background

Beginning in August 2018, and continuing through July 2019, the Lehigh Valley received the highest recorded rainfall amount in a twelve (12) month period, dating back as far as 1895, or 124 years, when data was first collected on local rainfall amounts. The Lehigh Valley experienced an unprecedented, prolonged period of excessive rainfall, totaling 67 inches in 2018 and 61 inches in 2019. In particular, during the twelve (12) month period of August 2018 through July 2019, the region received 80 inches of precipitation. Normal precipitation for the KISS area is about 45 inches per year.

As would be expected, the precipitation caused a significant increase of flows to Kline's Island WWTP (KIWWTP) in excess of its permitted capacity of 40 MGD. The annual average daily flow for 2019 was 37.64MGD. Prior to the August 2018 through July 2019 rainfalls events, the annual average flows over the previous five years had ranged between 29 and 33 MGD. More importantly, however, for three consecutive months the flows to the KIWWTP exceeded 40 MGD, which required the Department of Environmental Protection to respond relative to Chapter 94 requirements. Even though KIWWTP had continuously met all permit requirements, KIWWTP was, nonetheless, considered to be hydraulically overloaded.

As a result of the hydraulic overload condition, the KISS Signatories working group, with the assistance of ARRO Consulting, has developed this Final Interim Plan for the period of 2021 to 2025. Part of the planning process includes sewage flow projections for new development during this time period. Additional flows are projected to be approximately 2.9 million gallons per day.

Selected Alternatives

- The selected alternatives all maintain the current operating, administrative and legal strategies and continued use of existing facilities. The KIWWTP will undergo a paper rerate to increase its Design Hydraulic Capacity. This is not a plant expansion; rather it is recognition that the KIWWTP is capable of adequately treating flows in excess of its permitted capacity for short periods of time. Overall, the permitted annual average flow to the KIWWTP remains unchanged.
- A hydraulic restriction has been identified in the Western Lehigh Interceptor near Trexlertown. A feasibility study is currently under way to assess alternatives to address this challenge. The alternatives being evaluated include traditional storage, in-line storage, or a combination / hybrid approach. Future planning will be required, but this project is anticipated to be constructed during this planning period of 2021 to 2025.
- All municipalities and authorities will continue implementing their respective I/I source reduction program.
- During the 2021-2025 time period, the KISS Signatories will prepare a long-term Act 537 Plan to address sewage facility needs for the next 30 years. The long-term plan will include significant planning components including sewage flow monitoring, conveyance system modeling and calibration, and evaluation of alternatives for both conveyance and treatment.

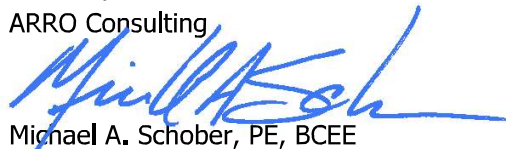
There are no improvements, modifications or additions to the City of Allentown's centralized collection system planned under this Interim Plan. This plan does not increase the sewage service area in any of the contributing municipalities.

This Final Interim Act 537 Plan constitutes a corrective action plan intended to address sewerage needs in the KISS service area. PADEP requires each municipality in the KISS service area to adopt the Plan by resolution.

Please let me know if you have any questions. I can be reached at 717-205-4550 or Michael.schober@arroconsulting.com.

Sincerely,

ARRO Consulting



Michael A. Schober, PE, BCEE

Vice President and Business Development Director