



April 16, 2025

To: Municipal Planning Commissions
See Attached Distribution

RE: Kline's Island Sewer System
Regional Act 537 Plan

Corporate Headquarters

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Dear Planning Commission:

On behalf of the municipalities and authorities who participate in the Kline's Island Sewer System (KISS), we are submitting one copy of the enclosed draft Regional Act 537 Plan for your review and comment. As required by the Pennsylvania Sewage Facilities Act (25 PA Code § 71), the Draft Plan must be reviewed by municipal planning agencies prior to public notice and municipal adoption.

Background

Beginning in August 2018 and continuing through July 2019, the Lehigh Valley received the most annual rainfall since data was collected in 124 years since 1895. 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 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 significantly increased flows to Kline's Island WWTP (KIWWTP) to over 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 have ranged between 29 and 33 MGD. More importantly is that for three consecutive months the flows 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, it was none the less considered to be hydraulically overloaded.

As a result of the hydraulic overload condition, the KISS Signatories developed this Regional Plan for the period of 2025 to 2035. Part of the planning process includes sewage flow projections for new construction during this time period. Additional flows are projected to be approximately 3.80 million gallons per day.

Selected Alternatives

This Regional Act 537 Plan is the culmination of a multi-year effort to characterize the Kline's Island Sewer System (KISS) to better understand how the system reacts to Inflow and Infiltration (I&I) and develop a comprehensive plan to address it. Through extensive flow monitoring and hydraulic modeling, the KISS municipalities now recognize the sources of I&I and have developed robust I&I Source Reduction Plans (SRPs).

The overarching goals of this Regional Act 537 Plan include the following:

- Implement I&I reduction projects to cost effectively reduce both the volume of wastewater needing treatment and the scope of upgrades needed to address peak flows
- Significantly reduce the frequency of Kline's Island Wastewater Treatment Plant (KIWWTP) bypasses at Outfall 003
- Reduce the existing surcharge and future model-predicted surcharge conditions within the core interceptor system
- Eliminate sufficient I&I to avoid unnecessary interceptor expansions outside the core interceptor system
- Minimize environmental and public health risks associated with sanitary sewer overflows during storm events
- Future elimination of the existing Connection Management Plan (CMP)

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

This Regional Act 537 Plan constitutes a corrective action plan intended to address sewerage needs in the KISS service area. Your timely review is necessary to address ongoing sewage conveyance and treatment needs. Should you have any comments, please email them directly to the attention of Michael A. Schober at ARRO Consulting: Michael.schober@arroconsulting.com

Thank you for your timely review.
Sincerely,

Michael A. Schober, PE, BCEE
Senior Vice President