



Lehigh Valley Planning Commission

DR. CHRISTOPHER R. AMATO
Chair

CHRISTINA V. MORGAN
Vice Chair

ARMANDO MORITZ-CHAPELLIQUEN
Treasurer

BECKY A. BRADLEY, AICP
Executive Director

ENVIRONMENT COMMITTEE MEETING Tuesday, June 24, 2025, 10:30 AM AGENDA

THE MEETING CAN BE ACCESSED AT <http://www.tinyurl.com/LVPC2025> OR VIA PHONE
610-477-5793 Conf ID: 651 626 091#.

Roll Call

Courtesy of the Floor

1. Staff Introduction:
 - a. Vincent "Enzo" Fantozzi, Planning Intern
 - b. Giovanna "Gio" Rizkalla, Data and Analytics Planning Intern
 - c. Jacob Engbert, GIS Planning Intern

Committee Business:

1. *ACTION ITEM*: Act 537 Review – Kline's Island Regional Act 537 Plan (CR)
2. *ACTION ITEM*: Lehigh Valley Hazard Mitigation Plan Resolution (SM)
3. *INFORMATION ITEM*: Greater Lehigh Valley Regional Climate Action Plan Update (CM)

Next Environment Committee Meeting
July 22, 2025, 10:30 AM



Lehigh Valley Planning Commission

DR. CHRISTOPHER R. AMATO
Chair

CHRISTINA V. MORGAN
Vice Chair

ARMANDO MORITZ-CHAPELLIQUEN
Treasurer

BECKY A. BRADLEY, AICP
Executive Director

June 13, 2025

Mr. Michael Schober, PE, BCEE
ARRO Consulting, Inc.
108 W. Airport Road
Lititz, PA 17543

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

Dear Mr. Schober:

The Lehigh Valley Planning Commission (LVPC) will consider the review of the above-referenced Regional Act 537 Plan at the Environmental Planning Committee and Full Commission meetings, pursuant to the requirements of the Pennsylvania Sewage Facilities Act (Act 537). Discussion on agenda items primarily takes place during the Committee meeting. The meeting dates are:

- LVPC Environmental Planning Committee Meeting (Virtual)
 - June 24, 2025, at 10:30 AM
 - <https://lvpc.org/meetings.html>
- LVPC Full Commission Meeting (In-Person)
 - June 26, 2025, at 7:00 PM
 - 615 Waterfront Drive, Suite 201, Allentown, PA 18102

The Pennsylvania Sewages Facilities Act (Act 537), enacted by the Pennsylvania Legislature in 1966, requires that every municipality in the state develop and maintain an up-to-date sewage facilities plan. The main purpose of a Sewage Facilities Plan is to protect the health, safety, and welfare of the citizens living in the municipality, to prevent future sewage disposal problems from occurring and to provide protection for both the groundwater and surface waters of the Commonwealth.

The Kline's Island sewer system (KISS) service area consists of all or portions of 15 Lehigh County municipalities. All sanitary sewage in the Kline's Island sewer system service area that discharges to public sewers is treated at the City of Allentown's Kline's Island Wastewater Treatment Plant (KIWWTP) before being discharged to the Lehigh River. The KIWWTP is owned by the City of Allentown and operated and maintained by Lehigh County Authority (LCA). This Regional Act 537 Plan was developed as a Corrective Action Plan, mandated by the Pennsylvania Department of Environmental Protection to address and mitigate Infiltration and Inflow (I&I) issues as well as plan for the long-term regional sewage conveyance and treatment capacity needs in the Kline's Island Sewer System (KISS) service area.

The proposed sewer service area for this Regional Act 537 Plan is limited to the areas currently served by sewers. This Act 537 Plan does not amend the planned sewer service area to the KIWWTP. Additional connections within the sewer service area are anticipated. The KISS is not a combined sewer system; it is designed to convey and treat sanitary sewage only.

Due to record rainfall beginning in August 2018 through July 2019, the Kline's Island plant experienced flows in excess of its permitted design capacity. While the annual average flow for 2019 was below the plant's prior permitted 40 million gallons per day (MGD), the average flow over three consecutive months (42.71 MGD) exceeded the plant's design capacity. According to the PA Department of Environmental Protection's (PADEP) Municipal Wasteload Management (Chapter 94) regulations, the plant was deemed hydraulically overloaded, despite continuously meeting all discharge water quality requirements. The Interim Plan, that was approved by PA DEP in 2021, recommended a rerate of the hydraulic design capacity to 44.6 MGD, which was granted for the KIWWTP in December 2021.

The major problem investigated in the 2021 Interim Act 537 Plan and addressed in this Regional Act 537 Plan is a response to the above-referenced Chapter 94 violations. Through its approval of the Interim Act 537 Plan, PADEP has previously granted the KISS municipalities 4.6 MGD of allocation for new connections, managed under a Connection Management Plan that includes quarterly reporting to PADEP and full sewage planning module implementation.

Since entering the Connection Management Plan in 2020, the KISS municipalities have completed a significant number of I&I rehabilitation projects within their systems. Beyond the allocation available in the current CMP, which will be carried over into the new planning period, an additional 3.80 MGD is being requested for new connections expected through 2035. This would be justified in part by the confirmed I&I reduction achieved through the source reduction plans. The allocation will be administered, disbursed and tracked by Lehigh County Authority, with quarterly reports provided to PADEP. New sewer connections during the 2026-2035 planning period will be contingent upon PADEP's approval of this Regional Act 537 Plan and progress made as reported in the quarterly PADEP reports. According to the plan, sewer service connections during the 2026-2035 planning period will be limited to areas within existing municipal Act 537 Plan sewer service area boundaries.

The Kline's Island Sewer System Regional Act 537 Plan proposes several selected alternatives to reduce inflow and infiltration (I&I) within the plant's service area and address hydraulic overload conditions within the plant identified by the Pennsylvania Department of Environmental Protection (PADEP). The selected alternatives for this Regional Act 537 Plan do not include new infrastructure to address surcharged sewers nor increase permitted peak flow treatment capacity at the KIWWTP. The hydraulic analysis, modeling and alternative evaluations identified infrastructure projects that will be needed to address projected flows through 2050. There are descriptions of the infrastructure projects as well as a financial plan to implement them within this Plan. However, due to these projects not anticipated to begin within the next five years, they are not included in the Implementation Schedule for this Plan. Selected alternatives and commitments proposed in this Plan include:

- Completion of a Flow Characterization Study approximately five years from the approval date of this Act 537 Plan which will be utilized to prepare and submit Act 537 Special Studies in support of future projects described in the Plan as "master plan" projects. Some of these "master plan" projects include the KISS Relief Interceptor project and the Western Lehigh Relief Interceptor Project. Flow Characterization studies are used to understand the composition and behavior of wastewater within a sewer system.

- Negotiation and execution of new intermunicipal agreements that will allow for better coordination and collaboration to address cost sharing for current and future projects as well as operation and maintenance costs, with an emphasis on flow-based billing methodologies to incentivize I&I removal efforts. These new agreements would also allow for more robust, regional collaboration on I&I projects and address consideration of a regional surcharge program, which would assess additional fees on commercial and industrial users for high-strength wastewater discharges, thus offsetting some of the treatment costs. This program would also have the impact of directing more treatment costs to municipalities with more high-strength waste dischargers, which would then lower the flow-based cost allocation to municipalities with fewer high-strength waste dischargers.
- Continuation of the Connection Management Plan under PADEP's direction, which recognizes the value of capacity provided via I&I source reduction to support new connections to the system. This Connection Management Plan will be discontinued once the commitments in this Plan have been achieved.
- Continuation of source reduction plan efforts based on the 2021 Flow Characterization Study prepared by Arcadis for LCA, and any future sanitary sewer evaluation studies work described in each of the participating municipality's I&I Source Reduction Plans. In turn, this will be useful to further prioritize projects during the Plan period.
- Sewage billing meter program implementation that will include continuous data validation and data capture in a read-only combined portal for municipal access to real-time flow data. This purpose of the implementation of this effort is to ensure accurate flow monitoring at the municipality level.
- Regular reporting of the results of the municipal I&I programs, which will include a report of projects completed and leakage that has been removed, updated evaluations of the US EPA benchmark standards for excessive I&I which are 120 gallons per capita per day for average flow and 275 gallons per capita per day for peak flows, as well as an assessment of the cost effectiveness of the programs. It is expected that the program goals will be considered as having been met when the reporting indicates absence of excessive I&I at the Kline's Island WWTP consistent with the US EPA benchmark standards.

The following review comments are based on the goals, policies and actions of *FutureLV: The Regional Plan*.

The LVPC recognizes that the success of the Regional Act 537 Plan relies on the implementation of LCA's commitments as well as the implementation of the Source Reduction Plans developed by the individual municipalities. The Source Reduction Plans require rehabilitation and upgrades to municipal owned wastewater collection facilities and infrastructure and continuous performance monitoring and reporting. Therefore, updating intermunicipal agreements and participation in the proposed regional I&I program are critically important implementation actions.

Mr. Michael Schober
Kline's Island Regional Act 537 Plan
June 13, 2025
Page 2

The KISS Regional Act 537 Plan includes detailed descriptions of current and proposed source reduction plan activities conducted by the individual municipalities as well as LCA. This represents a long-term effort to address a variety of wastewater conveyance capacity and treatment concerns through efforts including but not limited to the Connection Management Plan, the source reduction plans conducted by each municipality and the intermunicipal agreements. However, the LVPC recommends including documentation that summarizes the system wide flow effectiveness of the Infiltration and Inflow reduction programs to date to provide insight to the future success towards meeting long-term I&I reduction goals generally and within the priority basins.

The Plan's emphasis on reducing I&I aligns with the *FutureLV* action to 'protect the quality and quantity of surface water and groundwater' (of Policy 3.2). Excessive I&I can result in sanitary sewer overflows when flows bypass the wastewater treatment process, causing untreated wastewater to be discharged into our local waterways. Furthermore, the proposed improvements and upgrades to existing wastewater infrastructure aligns with the *FutureLV* action 'to improve the utility and mobility infrastructure of the region' (of Policy 1.1).

The LVPC supports the idea of the proposed regional I&I program, which encourages municipal collaboration and cooperation. This effort aligns with the *FutureLV* action to 'expand collaboration on planning and development between neighboring communities' (of Policy 4.6).

Overall, the selected alternatives presented in the KISS Regional Act 537 Plan provide a necessary path forward in preventing future sewage disposal problems from occurring and to provide protection for both the groundwater and surface waters of the region.

Please call me if you have any questions regarding these comments.

Sincerely,



Corinne Ruggiero, SEO
Environmental Planner



Susan Myerov, AICP
Director of Environmental Planning

cc: Amy Bellanca, PE, PA Department of Environmental Protection
Liesel Gross, Lehigh County Authority
Phil DePoe, Lehigh County Authority

Resolution No. 06-26-25
OF THE LEHIGH VALLEY PLANNING COMMISSION
LEHIGH VALLEY 2024 HAZARD MITIGATION PLAN ADOPTION

- WHEREAS,** The Lehigh Valley Planning Commission (LVPC) is organized by the Counties of Lehigh and Northampton to promote the health, safety, and general welfare of the two-county region in accordance with the provisions of the Pennsylvania Municipalities Planning Code, Pennsylvania Stormwater Management Act of 1978, among other statutes both state and federal; and
- WHEREAS,** Hazard mitigation planning reduces the long-term risk to life and property by minimizing the impact of disasters through identification of the risks and vulnerabilities for an area and then developing actions for protecting life and property from similar events; and
- WHEREAS,** The municipalities, counties and region of the Lehigh Valley, Pennsylvania are most vulnerable to natural and non-natural hazards which may result in loss of life and property, economic hardship, and threats to public health and safety; and
- WHEREAS,** The Lehigh Valley 2024 Hazard Mitigation Plan has been developed by Lehigh County Emergency Services and the Northampton County Emergency Management Services in cooperation with other county departments, and officials and citizens of the Lehigh Valley's municipalities, including the Lehigh Valley Planning Commission, and in accordance with Section 322 of the Disaster Mitigation Act of 2000 (DMA 2000); and
- WHEREAS,** LVPC has participated in the plan's preparation including attending meetings, completing various worksheets and providing actions to mitigate hazards; and
- WHEREAS,** The *2024 Lehigh Valley Hazard Mitigation Plan* recommends mitigation activities that will reduce losses to life and property affected by natural and manmade hazards that face the Lehigh Valley, Lehigh County, Northampton County and its municipal governments; and
- WHEREAS,** The LVPC at a public Environment Committee meeting on March 26, 2024 reviewed the draft *2024 Lehigh Valley Hazard Mitigation Plan* and determined alignment with *FutureLV: The Regional Plan* and recommended the LVPC forward a formal review to the Lehigh County and Northampton County Emergency Management Services; and
- WHEREAS,** The LVPC, on March 28, 2024, at a public board meeting acted to forward assessment of alignment of the draft *2024 Lehigh Valley Hazard Mitigation Plan*, with *FutureLV: The Regional Plan*, to the Lehigh County and Northampton County Emergency Management Services departments; and
- WHEREAS,** The Federal Emergency Management Agency (FEMA) approved the *2024 Lehigh Valley Hazard Mitigation Plan* in September 2024, granting it the status of "Approved Pending Adoption"; and
- WHEREAS,** LVPC acknowledges the requirements of Section 322 of DMA 2000 to have an approved hazard mitigation plan as a prerequisite to receiving post-disaster Hazard Mitigation Grant Program funds; and

- WHEREAS,** LVPC identified *the FutureLV: The Regional Plan* goals, policies and actions related to each of the eight hazard mitigation plan goals, illustrating how closely aligned the plans are, integrating hazard mitigation planning with comprehensive planning, including transportation, environment, economy, housing, community facilities, and the interconnection between related areas; and
- WHEREAS,** Because of the comprehensive nature of the LVPC's work through *the FutureLV: The Regional Plan* goals, policies and actions and other specific plans, integration and coordination of objectives outlined in the Lehigh Valley Hazard Mitigation Plan remains a priority for bi-county and metropolitan planning; and
- WHEREAS,** LVPC's Environment Committee discussed and voted to recommend full commission adoption of the *2024 Lehigh Valley Hazard Mitigation Plan* at its public meeting on June 24, 2025.

NOW, THEREFORE, BE IT RESOLVED, that the Lehigh Valley Planning Commission, in a public meeting, hereby adopts the *2024 Lehigh Valley Hazard Mitigation Plan* and supports the implementation of the same.

Adopted by the Lehigh Valley Planning Commission on the 26th day of June 2025.

LEHIGH VALLEY PLANNING COMMISSION

Dr. Christopher Amato, Chair

Christina Morgan, Vice Chair

Armando Moritz-Chapelliquen, Treasurer

ATTEST:

Becky Bradley, AICP, Executive Director



Lehigh Valley Planning Commission

DR. CHRISTOPHER R. AMATO
Chair
CHRISTINA V. MORGAN
Vice Chair
ARMANDO MORITZ-CHAPELLIQUEN
Treasurer
BECKY A. BRADLEY, AICP
Executive Director

March 25, 2024

Mr. Thomas Guth
Hazard Mitigation /Disaster Recovery Manager
Northampton County Emergency Management Services
100 Gracedale Ave
Nazareth, PA 18064

Ms. Tanya Hook, Director
Lehigh County Office of Emergency Management
640 W Hamilton Street, 8th Floor
Allentown, PA 18101

Re: 2024 Lehigh Valley Hazard Mitigation Plan

Dear Mr. Guth and Ms. Hook:

The Lehigh Valley Planning Commission (LVPC) will consider the above-referenced plan at the following Environment Committee and Full Commission meetings. A revised letter will be provided based on any additional comments from the Committee and Commission.

LVPC Environment Committee Meeting:

March 26, 2024, at 10:30AM

<https://tinyurl.com/LVPC2024>

LVPC Full Commission Meeting:

March 28, 2024, at 7:00PM

www.tinyurl.com/LVPC2024

Hazard mitigation planning reduces the long-term risk to life and property by minimizing the impact of disasters through identification of the risks and vulnerabilities for an area then developing actions for protecting life and property from similar events. The Lehigh and Northampton County Emergency Management Agencies recently prepared a draft 2024 Hazard Mitigation Plan for the Lehigh Valley. Federal regulations require that local governments update the plan every five years, while monitoring and evaluating the data, events and actions that make up the plan. The 2024 Lehigh Valley Hazard Mitigation Plan is the fourth for the region, updating plans adopted in 2006, 2013 and 2018. For local communities to have access to federal hazard mitigation funding, they must both participate in and adopt the plan. Participation includes attending meetings, completing various worksheets and providing actions to mitigate hazards.

The LVPC identified the *FutureLV: The Regional Plan* goals, policies and actions related to each of the eight hazard mitigation plan goals, which show how closely aligned the plans are, integrating hazard mitigation planning with comprehensive planning. The Hazard Mitigation Plan goals are:

- 1. Minimize the risk to human life associated with natural and non-natural hazards.**

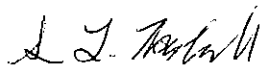
Aligns with *FutureLV*: Goal 5 (Safe, Healthy, Inclusive and Livable Communities) policy to "Promote safe and secure community design and emergency management" and actions to "educate the public on hazard impacts and mitigation techniques" and "enhance planning and emergency response efforts among emergency management personnel."

- 2. Promote hazard avoidance, especially in floodplains.**
Aligns with *FutureLV*: Goal 3 (Protected and Vibrant Environment) policy to “Minimize environmental impacts of development to protect the health, safety and welfare of the public” and action to “discourage development in hazard-prone areas” and Goal 5 (Safe, Healthy, Inclusive and Livable Communities) policy to “Promote safe and secure community design and emergency management” and action to “incorporate resiliency and hazard mitigation into planning and design, including 100- and 500-year floodplains.”
- 3. Reduce the damages and functional loss from natural and non-natural hazards to existing and future public and private assets.**
Aligns with *FutureLV*: Goal 1 (Efficient and Coordinated Development Pattern) policy to “Maintain regional character by preserving priority environmental, historic, cultural, scenic and agricultural assets” and actions to “protect assets from potential threats” and “enhance the long-term viability of assets.”
- 4. Preserve and enhance the effectiveness of natural resources to provide resiliency benefits.**
Aligns with *FutureLV*: Goal 1 (Efficient and Coordinated Development Pattern) policy to “Preserve natural areas and farmland by managing growth and development to enhance and strengthen cities, boroughs, suburbs and rural communities” and Goal 3 (Protected and Vibrant Environment) policies to “Conserve and manage natural lands and water resources for environmental and recreational benefits” and “Minimize environmental impacts of development to protect the health, safety and welfare of the public.”
- 5. Impacts of natural and non-natural hazards.**
Aligns with *FutureLV*: Goal 4 (Competitive, Creative and Sustainable Region) policy to “Promote the fiscal health and sustainability of municipalities” and Goal 5 (Safe, Healthy, Inclusive and Livable Communities) policy to “Promote safe and secure community design and emergency management” and action to “incorporate resiliency and hazard mitigation into planning and design, including 100- and 500-year floodplains.”
- 6. Improve local regulations to reduce the impacts of natural and non-natural hazards.**
Aligns with *FutureLV*: Goal 5 (Safe, Healthy, Inclusive and Livable Communities) policy to “Promote safe and secure community design and emergency management” and action to “incorporate resiliency and hazard mitigation into planning and design, including 100- and 500-year floodplains.”
- 7. Enhance planning and emergency response efforts among federal, state, county, and local emergency management personnel to protect public health and safety.**
Aligns with *FutureLV*: Goal 5 (Safe, Healthy, Inclusive and Livable Communities) policy to “Promote safe and secure community design and emergency management” and action to “enhance planning and emergency response efforts among emergency management personnel.”
- 8. Promote public awareness on both the potential impacts of natural and non-natural hazards and actions to reduce those impacts.**
Aligns with *FutureLV*: Goal 3 (Protected and Vibrant Environment) policy to “Reduce climate change impacts through mitigation and adaptation” and action to “educate elected officials and the public on climate change impacts, adaptation and mitigation” and Goal 5 (Safe, Healthy, Inclusive and Livable Communities) policy to “Promote safe and secure community design and emergency management” and action to “educate the public on hazard impacts and mitigation techniques.”

Please notify us upon plan approval by the Federal Emergency Management Agency.

Please call if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "S. L. Rockwell".

Susan L. Rockwell
Senior Environmental Planner