Kline’s Island Sewer System

**LCA / Western Lehigh Service Area**
- Upper Macungie
- Lower Macungie
- Upper Milford
- Macungie
- Alburtis
- Weisenberg
- Lowhill

**Allentown / City Signatories**
- South Whitehall
- Salisbury
- Coplay-Whitehall Sewer Authority
  - North Whitehall
  - Whitehall
  - Coplay
- Emmaus
- Hanover
Today’s Update

- The Western Lehigh service area’s Sewer Capacity Assurance Rehabilitation Program (SCARP) has been discontinued
- New regional connection management plan for the entire Kline’s Island Sewer System (KISS)
- DEP is working with all KISS municipalities to ensure long-term sewage facilities planning (Act 537 Plan) is completed:
  - Today’s discussion will provide details on some of the key steps and milestones along the way

- **Goal: Regional Act 537 Plan (a first for the KISS!)**
Goals for a Regional Act 537 Plan

• Support environmental and economic goals of the region
• Solutions must be regional and comprehensive
• Long term sewer capacity needs quantified through 2050
  • Includes current and future dry day, wet weather, and peak flows
• Ensure existing infrastructure is maintained / rehabilitated
• Develop plan for new infrastructure to meet region’s future needs
Brief History (2009-2019)

• 2009: EPA issues Administrative Order (AO) to all KISS municipalities with 12/31/14 deadline to eliminate sanitary sewer overflows (SSOs)
• 2009: Western Lehigh Sewerage Partnership (WLSP) and SCARP are formed to address conveyance capacity challenges in LCA service area
• 2010: 3-million-gallon flow equalization basin (FEB) constructed
• 2011-2015: Hydraulic modeling, planning and engineering on WLSP options for both conveyance and treatment capacity – preliminary Act 537 Plan
• 2015: EPA extends AO deadline to 12/31/17
Brief History Part 2 (2009-2019)

• 2015: DEP advised WLSP NOT to submit Act 537 – focus on regional wet weather plans instead
• 2016-2017: LCA/City of Allentown collaborate extensively to develop integrated strategy to address the AO with capital intensive upgrades
• Late 2017: EPA advises region that capital intensive strategy is no longer preferred – focus instead on flow monitoring and system rehab
• August 2018: Region submits Regional Flow Management Strategy to DEP/EPA
• August 2018-July 2019: Region received 80” of rain (compared to 45” normal); KISS flows >40 million gallons per day over multiple months
**Brief History Part 3 (2009-2019)**

- November 2018: LCA declares emergency to address high flows in the Western Lehigh Interceptor
- March 2019: EPA withdraws AO, transfers oversight back to DEP
- August 2019-today: DEP collaboration with Region
- September 2019-today: KISS flows return to normal at ~32 MGD
- January 2020: DEP approves 2020 connection management plan for all KISS municipalities
Current Plan Following DEP Guidance

• New development in 2020 approved through KISS connection management plan
• Interim 537 to be submitted to DEP by September 2020 → focused on steps to develop long term plan
• Regional 537 Plan to be submitted to DEP by 2025
• Municipal I&I source reduction programs continue throughout planning process
• KISS connection management plan to continue through 2025 (contingent on Regional compliance with 537 commitments)
Let’s stop for questions...
Phase 1:
2020 Corrective Action & Connection Management Plan

• Status =
  • DEP approved connection management plan *(handouts)*
  • Interim Act 537 due September 2020

• Action Items =
  • Quarterly reports of new connections and progress on Interim 537 plan
  • Municipalities provide 2021-2025 flow projections
  • Submit Interim Act 537 Plan by September 2020
  • Scheduled Signatory I&I work to continue

• Challenges =
  • Requires 15 municipal adoptions by August 2020
Authorizations Needed to Get Started

- Interim Act 537 Plan Preparation
- Western Lehigh Service Area: Engineering & Program Support
- Flow Metering Contract (2020-2022)
- Western Lehigh 2020 Flow Data QA/QC and RDII Analysis

Discussion to follow for each...
Phase 2: Interim Act 537, Corrective Action & Connection Management Plan (2021-2025)

**Status** =
- Regional 537 Plan due to DEP in 2025

**Action Items** =
- New developments approved according to KISS connection management plan
- Municipalities provide flow projections from 2026-2050
- I&I source removal projects by each municipality
- Flow monitoring & KISS hydraulic model update (2022)
- Solutions identified (2023)
- Consensus reached (2024)
- Plan preparation and municipal adoptions (2025)

**Challenges** =
- Aggressive schedule
- Existing intermunicipal agreements / cost sharing
Phase 3: Regional Act 537 Plan Implementation (2026 and beyond)

- **Status** =
  - Assume Regional Act 537 Plan submitted to DEP in 2025 is approved

- **Action Items** =
  - To be determined

- **Challenges** =
  - Existing intermunicipal agreements
  - Unknown cost exposure / cost-sharing arrangements
Keys to Success

• Aggressive schedules require extensive intermunicipal cooperation
• Continued engagement with DEP
• Regional approaches will be most cost effective
• Significant planning and engineering required between now and 2025
• Public communication to drive understanding and support
  • Large capital investment required to meet the Region’s long-term sewer capacity needs
Questions? Discussion