Lynn Township & Heidelberg Heights Sanitary Sewer Systems
Inflow/Infiltration Mitigation Action Plan

Preliminary Plan – Board Presentation – January 28, 2019
Program Objectives:

- Reduce Wet Weather hydraulic overloads and plant bypasses
- Avoid DEP NOVs
- Eliminate plant bypasses
- Reduce public health risks/concerns
- Repair/Replace damaged and leaking sewer main and manholes
- Incur long range reduction in treatment plant operating expenses
- Improve communication with host municipality and customers on importance of I/I mitigation program
- Allow for growth within sewer service area (Lynn Twp)
Lynn Township Sanitary Sewer System:

- System installed in 1978
- Corrective Action Plan submitted to DEP by Lynn Township Sewer Authority in 2007; objective to reduce hydraulic overload condition
- Sewer System acquired by LCA in 2012
- 40,890 linear feet of sewer main pipe
- 185 manholes
- 80,000 gpd permitted capacity WWTP (2018 ave flow = 89,000 gpd)
- 386 customer accounts (largest is Northwestern Lehigh school campus)
Lynn Township Sanitary Sewer System
Northwestern Lehigh On-Site Sewer System
Heidelberg Heights Sanitary Sewer System:

• System installed in late 1970s; WWTP upgraded to SBR process in 2000
• Sewer System acquired by LCA in 1998
• 6,455 linear feet of sewer main pipe
• 28 manholes
• 60,000 gpd WWTP (2018 ave flow xxxx)
• 138 customer accounts (residential)
Heidelberg Heights Sanitary Sewer System – General Location
Heidelberg Heights Sanitary Sewer System
Program Deficiencies Both Systems:

• Historical system repairs and rehab did not keep up with aging infrastructure
• No current condition information on private sewer system components
• No current data on number/location of sump pumps and roof drains connected
• No township ordinance giving LCA authority to inspect residential plumbing and enforce sump pump and roof drain disconnects
• No municipal public outreach on sewer system rules and regulations and I/I flow reduction program
• Minimal historical investigation work on private side system
2018 DEP Notifications Summary:

• Lynn Township: 5 plant bypass events; 0 SSO; 0 NOVs

• Heidelberg Heights: 19 plant bypass events; 2 SSOs; 0 NOVs
Action Plan Items Common to Both Systems

- Sewer system rules and regulations ordinance development and Township outreach (Legal): February – March 2019
- Updated CCTV work, including suspected problem areas (Operations): February 2019
- Scope system repair needs; assemble bid documents and bid sewer repair project (Capital Works): March – April 2019
- Township adoption sewer rules and regs ordinance (Legal): April 2019
- Public outreach I/I mitigation program (Customer Service): May 2019
- Perform residential plumbing inspection and smoke testing (Operations & Capital Works): June – September 2019
- Construct sewer repair project (Capital Works): June – October 2019
- Assess/quantify I/I reduction program success (all): end of 2019
Lynn Township Additional Action Items

- Repair “gusher” found on Oswald Rd (Operations): January 2019 (done!)
- Install flow meter for Northwestern Lehigh campus sewer line, as recommended by DEP (Compliance & Capital Works): February 2019
- Obtain DEP determination of scope for revised Corrective Action Plan (Compliance): March 2019
- Northwestern Lehigh construction of on-site sewer main replacement and storm drain repairs; condition was documented by LCA via CCTV & smoke testing (Capital Works & Operations): April 2019
- Draft and submit to DEP revised Corrective Action Plan (contingent upon receiving DEP direction/criteria; Compliance): Summer 2019
- Demonstrate/quantify reduction in wet weather peak flows (Compliance): September 2019
- Township provide updated growth projections for future plant expansion planning: 2019
- Secure additional sewer allocations from DEP: 2020?
Heidelberg Township Additional Action Items

• Replacement of approximately 1,100 feet of sanitary sewer main line and 25 laterals; in-house design & bid (Capital Works): Spring 2019
Discussion

Questions?