USEPA Administrative Order and PADEP Chapter 94 Corrective Action Requirements

SCARP SEWER IMPROVEMENT PLAN

*Understanding proposed cost sharing and implementation mechanisms*
Klines Island WWTP

- Design: 40 MGD average; 87 MGD peak
- 2016 Average: 32 MGD

2017

- Dry day avg. – 32 MGD
- Wet day peak – ~150 MGD
  - 87 MGD - Outfall 001
  - 30 MGD - Outfall 003
  - 23 MGD - SSOs
USEPA and PADEP

- Eliminate SSOs
- 10 year Level of Protection
- I&I Removal must be included
- Account for leakage increases due to age
- Account for growth
- Provide peaking factors to each Signatory

GOALS AND SCOPE

SCHEDULE

FUNDING

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

In The Matter of:
City of Allentown,
Borough of Alburtis,
Borough of Emmaus,
Borough of Macungie,
Coplay-Whitehall Sewer Authority,
Hanover Township,
Lehigh County Authority,
Lower Macungie Township,
Lowhill Township,
Salisbury Township,
South Whitehall Township,
Upper Macungie Township,
Upper Milford Township,
Weisenberg Township,

Proceeding Under Sections 309(a) and 308 of the Clean Water Act, 43 U.S.C. § 1319(a) and §1308
Docket No.: CWA-03-2009-0313DN
FINDINGS OF VIOLATION, ORDER FOR COMPLIANCE, AND REQUEST FOR INFORMATION

V. EFFECTIVE DATE

32. The effective date of this Order shall be the date it is received by the Respondent.

Date: SEP 28 2003

[Signature]
Joe M. Calascia, Director
Water Protection Division
Current Peak Flows
- >3x for all Signatories
  - Billing Meter co-metering
  - Model data
Current Peak Flows

- >3x for all Signatories
  - Billing Meter co-metering
  - Model data
Current Peak Flows

- >3x for all Signatories
  - Billing Meter co-metering
  - Model data
Peak Flow = Sewage + Groundwater leakage + Rainfall I&I + Growth

Peak Flow ~~> Program Cost
Solution Planning must cover both Current and Future flows
Plans must not work against each other
Phase 1 (2012-2025)

LCA and WLSP Source Reduction Programs (2012-2025)

- Mains, manholes
- Western Lehigh Rehab
- Park PS Restoration
- Park FM Rehab
- Klines Island Equalization Tank 1
- Park FM Extension
- Laterals
- Trexlertown Interceptor
- Tioga Street Interceptor
- Trout Creek Interceptor
- Minimal Planned
- TBD

Pay Basis = Base Allocation

Phase 2 (2027-2038)

- Ongoing Sewer Rehab Program
- Bridge Park Interceptor
- Borough Interceptor
- Ancient Oaks Interceptor
- Little Sister Pump Station and Force Main
- KI Blending or EQ Tank 2
- Jordan Creek Interceptor
- TBD

Pay Basis = Peak Flow
### LCA and WLSP Source Reduction Programs (2012-2025)

Gives Signatories a chance to reduce their peak flows before expensive Phase 2 cost shares are determined.

<table>
<thead>
<tr>
<th>Location</th>
<th>Allocation</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Allentown</td>
<td>18.82</td>
<td>47.05%</td>
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<tr>
<td>Coplay Whitehall</td>
<td>3.76</td>
<td>9.40%</td>
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<tr>
<td>Emmaus</td>
<td>1.40</td>
<td>3.50%</td>
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<tr>
<td>Hanover</td>
<td></td>
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<tr>
<td>Lower Macungie (Direct Allocation)</td>
<td>0.25</td>
<td>0.63%</td>
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<tr>
<td>Salisbury</td>
<td>1.99</td>
<td>4.98%</td>
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<tr>
<td>South Whitehall</td>
<td>2.50</td>
<td>6.25%</td>
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<tr>
<td>South Whitehall (City Allocation)</td>
<td>0.50</td>
<td>1.25%</td>
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<tr>
<td>LCA</td>
<td>10.78</td>
<td>26.95%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>40.00</strong></td>
<td><strong>100%</strong></td>
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</tbody>
</table>

Pay Basis = Base Allocation

Pay Basis = Peak Flow
Phase 1 (2012-2025)

LCA and WLSP Source Reduction Programs (2012-2025)

- Mains, manholes
- Western Lehigh Rehab

Phase 1a Improvements (2017-2020)

- Park PS Restoration
- Park FM Rehab

100 meters & WLSP KISS Model Recalibration (2021-2022)

- Klines Island Equalization Tank 1
- Park FM Extension
- Minimal Planned

Phase 1b Improvements (2021-2025)

- Trexlertown Interceptor
- Tioga Street Interceptor
- Trout Creek Interceptor
- TBD

Separate or Common Plan Decision (April 30, 2024)

Interregnum 1 (2026-2027)

- Ongoing Sewer Rehab Program
- Bridge Park Interceptor
- Borough Interceptor
- Ancient Oaks Interceptor
- Little Sister Pump Station and Force Main

Phase 2 (2027-2038)

- KI Blending or EQ Tank 2
- Jordan Creek Interceptor
- TBD

100 meters & WLSP KISS Model Recalibration

Pay Basis = Base Allocation

Pay Basis = Peak Flow

Pay Basis = Base Allocation

Peak hour flow during 10 year event - 3x base allocation

Provides 3x base allocation of storage at KIWWTP

2016-2017 Negotiations

Memo of Cooperation

Memo of Understanding

Capital Plan Submissions to EPA (12/31/17)

City

Other Signatories

Contractual Mechanisms

Pay Basis = Base Allocation

Pay Basis = Peak Flow
Discussion