



LCA Main Office:
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Agendas & Minutes Posted:
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LEHIGH COUNTY AUTHORITY

Published: February 6, 2023

BOARD MEETING AGENDA – February 13, 2023 – 12:00 p.m.

In-Person or Virtual Meeting Attendance Options Available: Meetings of the LCA Board of Directors will be held at LCA's Main Office as well as online using the Zoom Meetings application, which includes a telephone option. Public participation is welcomed both in-person or virtually. Instructions for joining the meeting online or by phone are posted on the LCA website in the morning on the day of the meeting, prior to the start of each meeting. You may also issue comment to LCA via email to LCABoard@lehighcountyauthority.org in advance of any meeting or view the meeting at a later time by visiting the LCA website. Please visit <https://www.lehighcountyauthority.org/about/lca-board-meeting-videos/> for specific instructions to join the meeting if you are attending virtually. If attending in-person at LCA's Main Office, please follow all safety and sanitation protocols posted.

1. Call to Order

- NOTICE OF MEETING RECORDINGS

Meetings of Lehigh County Authority's Board of Directors that are held at LCA's Main Office at 1053 Spruce Road, Wescosville, PA, may be recorded for viewing online at lehighcountauthority.org. Recordings of LCA meetings are for public convenience and internal use only and are not considered as minutes for the meeting being recorded, nor are they part of public record. Recordings may be retained or destroyed at LCA's discretion.

- *Public Participation Sign-In Request*

2. Review of Agenda / Executive Sessions

- Additions to Agenda (vote required if action will be taken)

3. Approval of Minutes

- *January 23, 2023 Board meeting minutes*

4. Public Comments

5. Action / Discussion Items:

FINANCE AND ADMINISTRATION

WATER

WASTEWATER

- *Allentown Division – Kline's Island WWTP: Primary Digester No. 2 Cleaning and Rehabilitation Project (Approval) (salmon) (digital Board packet, pages 8-11)*

6. Monthly Project Updates / Information Items (1st Board meeting per month) (digital Board packet, pages 12-19) – **February 2023 report attached**

7. Monthly Financial Review (2nd Board meeting per month) -

8. Monthly System Operations Overview (2nd Board meeting per month)

9. Staff Comments

10. Solicitor's Comments

11. Public Comments / Other Comments
12. Board Member Comments
13. Executive Sessions
14. Adjournment

UPCOMING BOARD MEETINGS		
February 27, 2023	March 13, 2023	March 27, 2023

PUBLIC PARTICIPATION POLICY

In accordance with Authority policy, members of the public shall record their name, address, and discussion item on the sign-in sheet at the start of each meeting; this information shall also be stated when addressing the meeting. During the Public Comment portions of the meeting, members of the public will be allowed 5 minutes to make comments/ask questions regarding non-agenda items, but time may be extended at the discretion of the Chair; comments/questions regarding agenda items may be addressed after the presentation of the agenda item. Members of the public may not request that specific items or language be included in the meeting minutes.

REGULAR MEETING MINUTES

January 23, 2023

Notice of Preparation of Authority Meeting Minutes: Authority staff who are in attendance at each Authority Board meeting prepare a draft of the Minutes, which are subsequently distributed to all Board members for review. Board members may offer corrections prior to a vote of the full Board of Directors to approve the Minutes.

The Regular Meeting of the Lehigh County Authority Board of Directors was called to order at 12:00 p.m. on Monday, January 23, 2023, Chairman Brian Nagle presiding. The meeting was hybrid via in-person and video and audio advanced communication technology ("ACT"), using the Zoom internet application, including telephone option. Each Board member and other attendees of the meeting were able to hear each other attendee and be heard by each other attendee. The public could also participate in the meeting in-person or via ACT, using the Zoom internet application, including telephone option. A Roll Call of Board members present was taken. Brian Nagle, Norma Cusick, Linda Rosenfeld, Jeff Morgan, and Amir Famili were present for Roll Call, and remained for the duration of the meeting, except Board member Norma Cusick briefly left the meeting, at the time noted below, due to technical issue with her internet connection. Board member Kevin Baker entered the meeting at the time noted below, and remained for the duration of the meeting thereafter.

Solicitor Michael Gaul of KingSpry was present along with Authority Staff, Liesel Gross, Ed Klein, Chris Moughan, Chuck Volk, Andrew Moore, Phil DePoe, Susan Sampson, Albert Capuzzi, and Lisa Miller.

Chairman Nagle announced that the Board received their electronic and hard copies of the Board packet in advance and asked if anyone did not receive their copy of the packet. A copy of the packet is also available online.

REVIEW OF AGENDA

Liesel Gross announced that there are no changes or additions to the agenda; however, there will be an item under Staff comments and an Executive Session at the end of the regular session to discuss real estate acquisition.

APPROVAL OF MINUTES

December 12, 2022 Meeting Minutes

On a motion by Norma Cusick, seconded by Linda Rosenfeld, the Board approved the minutes of the December 12, 2022, Board meeting as presented (5-0).

PUBLIC COMMENTS

None.

LCA Pension Plan – Updated Mandatory Municipal Obligation (MMO)

Ed Klein explained that the normal cost rate that was provided by the Pennsylvania Municipal Retirement System (PMRS) in September was incorrect and an updated MMO worksheet was provided to show the updated cost rate. No action is required.

LCA Strategic Plan – 2022 Quarterly Progress Reporting

Liesel Gross provided an overview of the year-end report showing the Strategic Plan milestones achieved in 2022 and the activities and milestones planned for 2023. Highlights and key

achievements were reviewed for Asset Management, Process Improvement, Water & Wastewater Capacity, Employee Engagement & Safety, and Operational Excellence.

As part of the review of the 2022 achievements in the Employee Engagement category, Ms. Gross explained the need for additional staffing in the Human Resources area to support succession planning needs of the organization. She then introduced the Authority's new Human Resources Manager, Annmarie Still, who began work in early January. Ms. Still gave a brief overview of her background and work experience.

Ms. Gross reviewed the Strategic Plan key performance indicators, highlighting areas that are still under development. Performance in the Environmental Compliance category in 2022 shows an increase in permit exceedances, which is primarily related to poor performance at the Sand Springs Wastewater Treatment Plant. Within the Environmental Compliance category, Andrew Moore noted that wastewater treatment plant bypasses have improved in 2022 in terms of the total volume of sewage being discharged. Although the number of events that occurred has not decreased, the actual amount of sewage being discharged has been reduced through the continued efforts of the Authority to address system deficiencies.

Amir Famili asked about the metrics related to employee safety and specifically lost time incidents. Liesel Gross explained that improving the Authority's ability to report on safety metrics is a key goal for 2023, as noted within the Strategic Plan report for Employee Engagement and Safety.

Kevin Baker joined the meeting at approximately 12:20 p.m.

Resolution 1-2023-1: Re-Authorizing the Authority's Application for Pennvest Funding

Liesel Gross explained that in April 2021, the Authority authorized a loan through Pennvest for the project to upgrade the high service pumps and variable frequency drives at the Water Filtration Plant in the Allentown Division. However, the closing of the loan was delayed due to Pennvest requirements and delays on the delivery of project equipment. The loan is now ready to close as the project is nearing completion. Solicitor Mike Gaul explained that an updated Borrower's Resolution is needed to update references related to the bond indenture and supplemental indenture reflecting the updated loan date.

On a motion by Jeff Morgan, seconded by Linda Rosenfeld, the Board approved Resolution 1-2023-1 (5-0).

A roll call vote was taken, with the following votes cast:

Brian Nagle – yes
Kevin Baker – yes
Linda Rosenfeld – yes
Jeff Morgan – yes
Amir Famili – yes

Board member Norma Cusick, Assistant Secretary, briefly left the meeting at approximately 12:30 p.m. due to a technical issue with her internet connection, and did not participate in the vote. By consensus of the Board, and at the request of Chairman Nagle, Liesel Gross acted as the Temporary Recording Secretary for the period of time when Ms. Cusick was absent from the meeting.

Board member Norma Cusick re-joined the meeting at 12:36 p.m.

Resolution 1-2023-2: Authorizing the Authority's Application for Pennvest Funding

Liesel Gross explained that the resolution is to authorize the Authority to apply for Pennvest funding for lead service line replacements in the Allentown Division water system. She explained the project, which will include replacement of approximately 150 lead service lines in a distinct project area within the City. Both the public and private side of the service lines will be replaced if needed and if the funding is provided. The application will be designed to request grant funding for the project through the Infrastructure Investment and Jobs Act funding provided to Pennvest, but a full grant award is not guaranteed. The Authority is pursuing this as an initial phase of a larger future lead service line replacement program that will be required under the terms of the Lead and Copper Rule Revision (LCRR) that was passed in 2021. This initial phase will allow the Authority to develop appropriate protocols for applying for grant funding, working with customers on private property issues, and documenting procedures that will be used for the future phases of the work. She explained that replacing infrastructure that is privately owned by Authority customers will require careful thought and review by the Solicitor, but will be a requirement of the new regulatory framework under the LCRR.

There was some Board discussion regarding the Authority's records related to lead service line materials. Andrew Moore explained the sources of data that are being used to develop a lead service line inventory, and stated there is still a lot more work to do to ensure a complete and accurate inventory.

On a motion by Norma Cusick, seconded by Jeff Morgan, the Board approved Resolution 1-2023-2 (6-0).

A roll call vote was taken, with the following votes cast:

Brian Nagle – yes
Norma Cusick – yes
Kevin Baker – yes
Linda Rosenfeld – yes
Jeff Morgan – yes
Amir Famili – yes

Allentown Division – Emergency Declaration – Water Main Break at Mosser Road

Chris Moughan reviewed the emergency declaration for the main replacement on Mosser Street from South 23rd to South Leh Streets in Allentown. After being dispatched to a sinkhole, Authority crews realized that a 12-inch cast iron main was cracked at the bell. Since this was the fifth break in this line within a block and a half section during the prior 12 months and the roadway was already excavated due to the sinkhole, staff recommended replacement of the full section of water main. This water main was already planned for replacement in the Cycle 7 Main Replacement Project that is in design phase, and the City of Allentown was consulted to ensure the work could be completed in advance and would not disrupt the project approval process. Mr. Moughan is requesting approval of \$127,232.43 to retroactively cover the costs to replace the water main. Final course paving and sidewalk restoration will be contracted and completed in the spring in accordance with normal procedures.

On a motion by Norma Cusick, seconded by Linda Rosenfeld, the Board approved the retroactive emergency declaration for the water main replacement at Mosser Road in the amount of \$127,232.43 (6-0).

Suburban Division – Emergency Declaration – Realignment of Exposed Water Main in Heidelberg Heights

Chris Moughan gave an overview of the emergency water main relocation on Heidelberg Heights Road. At this location, the water main was located in a swale area that had eroded in a recent rain event, exposing the 8-inch water main. Due to the lack of ground cover and support, the risk of damage and freezing was high. Authority staff recommended installing a new water main in the roadway under the existing storm sewer pipe. Cost for the work was \$75,137.50. Final course paving will be subcontracted and completed in the spring.

On a motion by Linda Rosenfeld, seconded by Norma Cusick, the Board approved the retroactive emergency declaration for the realigned water main in Heidelberg Heights in the amount of \$75,137.50 (6-0).

MONTHLY PROJECT UPDATES / INFORMATION ITEMS

Liesel Gross noted that all items for January have been addressed at today's meeting with the exception of the review of the monthly financial statements. Both the December and January reports will be presented at the February 27 meeting. She highlighted that the Central Lehigh and North Whitehall system water supply study will be presented to the Board in February or March. The Water Filtration Plant: High Lift Pump VFD replacement project was covered under Resolution 1-2023-1 and will move off the list after the Pennvest loan closes in February. The Industrial Pretreatment Plant Master Plan project is almost complete and will also be reported to the Board at an upcoming meeting. She also reported that the Trexlertown Act 537 Special study received DEP approval in January, so this item will be removed from the report and the Upper Western Lehigh Pump Station project will move into permitting phase.

MONTHLY SYSTEM OPERATIONS OVERVIEW

Andrew Moore reviewed the December 2022 Operations report noting that water production and wastewater annual averages were in line with 2021 results. Mr. Moore reported that the Authority received a notice of violation for excessive permit violations at the Sand Springs Wastewater Treatment Plant. The plant continues to be challenged by high influent flows, which affect treatment performance and permit compliance. At a meeting with the Pennsylvania Department of Environmental Protection (DEP) on January 12th, an action plan was discussed. A compliance plan is under development and will be discussed with the Board at a later date.

Mr. Moore also noted that there were two bypasses that occurred at Heidelberg Heights WWTP due to the heavy rain events in December. There was one employee injury in December related to a lifting incident. A boil water advisory was issued to a small section of Allentown in December due to a water main break.

Amir Famili asked what steps are needed to resolve the issue at Sand Springs and what are the lessons learned. Liesel Gross said that once the compliance plan is developed, it will be brought before the Board so the staff can fully answer this question. She expects additional discussions with DEP will take place at that time as well. Jeff Morgan asked if DEP mentioned a fine. Ms. Gross stated that anything related to fines or additional enforcement action will be subject to legal review.

STAFF COMMENTS

Liesel Gross reported that the Lehigh County Executive has found a potential Authority Board member candidate, and the Board of Commissioners will review the candidate at the Governance

Committee meeting on Wednesday. A second candidate is needed to fill the two open positions on the Authority Board.

SOLICITOR'S COMMENTS

None.

PUBLIC COMMENTS / OTHER COMMENTS

None.

BOARD MEMBER COMMENTS

Chairman Nagle asked Norma Cusick to serve as the Nominating Committee for the upcoming Board election of officers. Ms. Cusick will poll the Board members regarding their interest in being nominated to an officer position. Nominations will be finalized and officers will be elected at a future meeting. Chairman Nagle reminded everyone that the positions of Vice Chair and Secretary are currently vacant due to the retirement of Dick Bohner and Scott Bieber from the Board.

Chairman Nagle asked that Liesel prepare a presentation of the Authority's 2022 performance for the Board and put it on an upcoming agenda.

EXECUTIVE SESSION

An Executive Session will be held at the end of the regular meeting to discuss real estate acquisition.

ADJOURNMENT

There being no further business, the Chairman adjourned the meeting at 12:56 p.m.

Norma Cusick
Assistant Secretary

Liesel Gross
Recording Secretary (temporary),
as to part noted

MEMORANDUM

Date: February 13, 2023

To: Lehigh County Authority Board of Directors
From: Charles Volk, P.E., CCWO
Subject: Allentown Division – WWTP: Primary No. 2 Cleaning - Construction Phase

MOTIONS / APPROVALS REQUESTED:

No.	Item	Amount
1	Capital Project Authorization – Construction Phase	\$243,120
2 ⁽¹⁾	General Contract Award – Mobile Solids Solutions	\$212,120
3 ⁽¹⁾	Professional Services Authorization – GHD, Inc.	\$13,500

(1) Included in the Capital Project Authorization.

PROJECT OVERVIEW:

Cleaning of the digester tanks is performed on a 5-year cycle at KIWWTP. Primary Digester No. 2 was last cleaned in 2018 and is due this year for cleaning. The work is to be performed by an outside contractor specializing in tank cleaning and sludge removal services.

FINANCIAL:

This Project will be funded by the LCA Allentown Division.

PROJECT STATUS:

The project was advertised for bid on December 24, 2022. A pre-bid meeting was held on January 3, 2023, and bids were received on January 19, 2023.

THIS APPROVAL – CONSTRUCTION PHASE:

The construction phase includes activities that are necessary to clean Primary No. 2 Digester tank. The General Contractor will be responsible for all construction activities, including but not limited to the following:

- Removal of residuals content
- Dewatering removed residuals and transfer of residuals to trucks for LCA disposal
- Internal cleaning of digester with high pressure plant utility water

The design engineer will perform construction phase engineering services, including periodic site visits to verify construction progress and document substantial completion, to be supplemented by in-house project management provided by LCA.

BIDDING SUMMARY:

The project consists of a single General Construction (GC) Contract. The bid results are summarized below:

Bidder	Bid Results
Mobile Solids Solutions	\$212,120.00
Spectraserv Inc.	\$406,500.00
Synagro Central, LLC	\$425,992.00

The low bidder on the project is Mobile Solids Solutions. Mobile Solids Solutions (MSS), located in Somerset, PA, specializes in digester cleaning and sludge removal, and has been in business for approximately five years. MSS has not previously performed digester cleaning for LCA; however, MSS has completed numerous digester dewatering and cleaning projects in the Northeast and has worked for both Synagro Central and Denali (both large residual waste firms) as a subcontractor. GHD contacted their project references, and the firm was given positive reviews. The documents submitted with the Bid are complete and satisfactory.

Regarding the discrepancy in the bid results, MSS's unit cost for sludge removal and dewatering is \$564 per dry ton. Spectraserv's unit cost for the same item is \$1,050 per dry ton. From last year's project, the winning bidder's (Spectraserv) unit cost for the same bid item was \$600 per dry ton (and the second-lowest bidder was over \$1,000 per dry ton). MSS reported that they used the same unit cost on recent projects, including a current project with Philadelphia Water Department and they are comfortable with their bid. We recommend award of the digester cleaning contract to Mobile Solids Solutions, subject to the receipt of the necessary Performance and Payment Bonds, Insurance, and other required documentation.

PROFESSIONAL SERVICES:

GHD Inc. has been our design consultant on this project (and prior digester cleaning and rehabilitation projects at KIWWTP) and will provide engineering services for construction phase.

PROJECT SCHEDULE:

The specifications require that the tank cleaning and associated rehabilitation work be completed within 60 days of the Notice to Proceed (date when the digester tank is ready for cleaning). The cleaning will be completed by early summer.

FUTURE AUTHORIZATIONS:

An upcoming project in Q2 of 2023 is the mechanical rehabilitation of Primary Digester No. 2, which is to include replacement of tank level sample lines, replacement of external stairs and ramp, and installation of previously procured blower for the tank mixing system. That project to be advertised for bid in early spring.

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	AD-S-A	BUDGET FUND:	Allentown Div\Wastewater\Capital
PROJECT TITLE:	Allentown Division – WWTP: Primary No 2 Digester Cleaning - Construction Phase		PROJECT TYPE:
		<input checked="" type="checkbox"/>	Construction
		<input type="checkbox"/>	Engineering Study
THIS AUTHORIZATION:	\$243,120	<input type="checkbox"/>	Equipment Purchase
TO DATE (W/ ABOVE)	\$283,102	<input type="checkbox"/>	Amendment No. 1

DESCRIPTION AND BENEFITS:

Cleaning of the digester tanks is performed on a 5-year cycle at KIWWTP. Primary Digester No. 2 is due for cleaning this year. This work is to be performed by an outside contractor. This capital project will be funded by the LCA Allentown Division. Please see attached Board Memo for further project details.

Authorization Status:

<i>Previous Authorizations</i>	
<i>Design/Bid Phase</i>	<i>\$39,982</i>

Requested This Authorization	
Construction Phase	
Construction Contractor – Mobile Solids Solutions	\$212,120
Engineering Consultant – GHD	\$13,500
Staff	\$7,500
Contingency	\$10,000
Total This Authorization	\$243,120

Future Authorizations:	Mechanical Rehabilitation Dig. #2	
Total Estimated Project		\$375,000

REVIEW AND APPROVALS:

Project Manager	Date	Chief Executive Officer	Date
Chief Capital Works Officer	Date	Chairman	Date



Lehigh County Authority

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PROFESSIONAL SERVICES AUTHORIZATION

Professional: GHD INC.
1140 Welsh Rd, Suite 120
North Wales, PA 19454

Date: February 13, 2023

Requested By: Charles Volk

Approvals

Department Head: _____

Chief Executive

Officer: _____

Allentown Division – KIWWTP Primary Digester No. 2 Cleaning: Construction Phase

GHD Inc. will perform construction phase related services for Primary No.2 Digester Cleaning at the Kline’s Island Wastewater Treatment Plant (KIWWTP). The construction phase services include the following tasks:

Professional Services ⁽¹⁾
1. Attend pre-construction and two progress meetings
2. Shop drawing review
3. Respond to contractor RFIs
4. Perform periodic site visits to inspect progress of work in accordance with the contract specifications
5. Payment application review
6. Substantial completion inspection
7. Contract closeout administration

Not to be exceeded without further authorization: **\$13,500**

Time Table and Completion Deadline: As required to meet various critical deadlines as set forth in the proposal.

(For Authority Use Only)

Authorization Completion:

Approval: _____ **Actual Cost:** _____ **Date:** _____

Lehigh County Authority – Monthly Report to Board of Directors

Upcoming Board Agenda Items & Project Updates – February 2023

Published: February 6, 2023

PART 1 – Upcoming Agenda Items – Action & Discussion Items

FINANCE & ADMINISTRATION

Project Title: Monthly Financial Review

Division / Funding: n/a

Status or Action Desired: Discussion

Board Action Date: 2/27/2023

Project Phase: n/a

Project Notes: December 2022 and January 2023 monthly financial reports will be presented. Staff Responsibility: Ed Klein

Project Title: Board of Directors - Election of Officers

Division / Funding: n/a

Status or Action Desired: Election Vote

Board Action Date: 2/27/2023

Project Phase: n/a

Project Notes: The Board of Directors will nominate and elect officers for 2023 at the February 27, 2022 Board meeting. Staff Responsibility: Liesel Gross

SYSTEM OPERATIONS

Project Title: Monthly Operations Report

Division / Funding: n/a

Status or Action Desired: Discussion

Board Action Date: 2/27/2023

Project Phase: n/a

Project Notes: January 2023 monthly operations report will be presented. Staff Responsibility: Andrew Moore & Chris Moughan

WASTEWATER PROJECTS

Project Title: Western Lehigh Interceptor Municipalities Test & Seal Lateral Grouting Project

Division / Funding: Suburban Division

Board Action Date: 2/27/2023

Status or Action Desired: Approval

Project Phase: Construction Phase

Project Notes: This project is driven by the DEP requirement that each KISS municipality provide a Source Reduction Plan (SRP) for years 2024-2033 and reduce I/I flows. Using data from the 2021 KISS Flow Characterization Study and 2022 nighttime weiring, Upper Macungie, Lower Macungie, and Upper Milford Townships opted to address strategic neighborhoods with high I/I flows with a project to test and seal service lateral connections. LCA is going to administer and manage this project on behalf of Upper and Lower Macungie Townships. The project was advertised for bid in mid-January 2023 and bids will be opened on 2/10/23. Construction authorization is to be requested at the 2/27/23 LCA Board meeting. Staff Responsibility: Jason Peters

Project Title: Kline's Island WWTP: Primary Digester No. 2 Cleaning and Rehabilitation Project

Division / Funding: Allentown Division

Board Action Date: 2/13/2023

Status or Action Desired: Approval

Project Phase: Construction Phase

Project Notes: The anaerobic digesters at the KIWWTP are emptied, cleaned and upgraded every 5 years. Primary digester No. 2 is on schedule for cleaning in 2023. The cleaning project was advertised for bid in December 2022 and bids were opened on 1/19/23. Construction phase authorization is to be requested at the 2/13/23 LCA Board meeting. A mechanical rehabilitation project for this unit will follow later in 2023. Staff Responsibility: Chuck Volk

Project Title: Sanitary Sewer Collection System: I&I Source Reduction Program Plan (City Year 4)

Division / Funding: City of Allentown (AO)

Board Action Date: 2/27/2023

Status or Action Desired: Approval

Project Phase: Construction Phase

Project Notes: In 2014, Video Pipe Services complete various CCTV inspections throughout twenty Primary and Secondary Basins. All pipe segments that called for complete pipe replacement have already been repaired. The remaining source reduction activities within the twenty Basins have been organized into a 5-Year Plan, with each year focusing on a different geographic region of the City's sewer collection system. Design has been approved for all five years, with the first project completed in 2020 and the last project finishing in 2023 (the Year 5 project has been incorporated into the Year 3 and Year 4 projects). The Year 1 and Year 2 projects have been successfully completed. Construction authorization for the Year 3 project was granted at the March 14, 2022 Board Meeting. Construction started in late May of 2022 and was completed in late December 2022 (punchlist items remain). Year 4 construction authorization will be requested at the February 27, 2023 Board meeting. This project is considered an AO expense under terms of the Lease and is City funded. Staff Responsibility: Phil DePoe

Project Title: Sanitary Sewer Collection System: I&I Source Reduction Program Plan (LCA Year 1)

Division / Funding: Allentown Division

Board Action Date: 2/27/2023

Status or Action Desired: Approval

Project Phase: Design Phase

Project Notes: As the EPA driven 5 year Regional Flow Management Strategy (RFMS) concludes, the next phase of system I&I work shifts to the amended Lease Agreement and ongoing Act 537 commitments. With the amended Lease Agreement, responsibility of the City's I&I program now shifts to LCA in 2024. Following terms of the Lease, LCA and the City have collaborated in 2022 to prepare a 10 Year I&I source reduction plan. The first year of construction authorization will occur in 2024, with design services being requested at the February 27, 2023 Board Meeting. The City, along with the majority of the KIWWTP municipalities, have prepared these Source Reduction Plans (SRPs) that will submitted with the Final Act 537 Plan. Staff Responsibility: AJ Capuzzi

PART 2 – Project Updates – Information Items

Project Title: Central Lehigh and North Whitehall Systems – Water Supply Study

Division / Funding: Suburban Division

Board Action Date: n/a

Status or Action Desired: Updated

Project Phase: Planning Phase

Project Notes: This project involves the preparation of a water supply study (the “Study”) to identify and evaluate feasible means to address current and long-term water supply needs in the Central Lehigh Division (CLD) and North Whitehall Division (NWD). Recently completed planning studies have identified the need for additional supply in these two systems. Authorization was granted at the February 14, 2022 Board meeting and the draft Study will be completed in early 2023. The final study and Board presentation will follow in the first or second quarter of 2023. From this study, additional engineering work will be initiated to develop water supply projects that enhance the region’s water system resiliency and redundancy. This water supply study will serve as the backbone for the future development of a comprehensive Master Plan update for the entire LCA Suburban Division Water System. Staff Responsibility: Phil DePoe

Project Title: I-78 Water Main Crossing

Division / Funding: Suburban Division

Board Action Date: n/a

Status or Action Desired: Updated

Project Phase: Construction Phase

Project Notes: This project consists of the installation of 170 LF of 20" HDPE pipe and appurtenances in an existing 36-inch diameter steel casing pipe under Interstate 1-78 that was recently acquired from Upper Macungie Township. The crossing will be utilized by the Upper System pump station that is in the design phase (see the Upper System Pump Station and Main Extension project for additional information). Design of the I-78 crossing was completed earlier this year and the bid phase commenced on August 1, 2022. Bids were opened on August 24, 2022. The Board granted authorization to award the contract at the September 19, 2022 meeting. The contract was executed and a preconstruction meeting was held on November 16, 2022. The Notice to Proceed has been issued and construction will begin at the end of January. Staff Responsibility: Amy Kunkel

Project Title: Water Filtration Plant & System Master Plan

Division / Funding: Allentown Division

Board Action Date: n/a

Status or Action Desired: Updated

Project Phase: Planning Phase

Project Notes: This project involves the preparation of a Master Plan for the Allentown Water Filtration Plant, water storage tanks, water storage reservoirs, pressure booster stations, raw water springs, and surface water intakes. The Master Plan will involve several key sections including, but not limited to: full-scale condition assessments, treatment process optimization, and development of short-term and long-term capital plans. The Master Plan is a requirement included within the Allentown Water & Sewer Lease, to be updated every five years throughout the life of the lease. The first Master Plan was prepared in 2017. Board authorization was granted at the January 10, 2022 Board Meeting. The project will be funded by the LCA Allentown Division. Arcadis provided a presentation of their draft conclusions at the September 19, 2022 Board Meeting. The final document was delivered to the City on December 30, 2022. Staff Responsibility: Phil DePoe

Project Title: Sanitary Sewer Collection System: City of Allentown Manhole Inspections

Division / Funding: Allentown Division

Board Action Date: n/a

Status or Action Desired: Updated

Project Phase: Planning Phase

Project Notes: As part of the Act 537 planning process, a rainfall derived inflow and infiltration (RDII) analysis was performed in the first quarter of 2022 for the City of Allentown system. This analysis shows the overall system suffers from inflow problems. Some of the existing manholes in the City system have inflow dishes and some have been previously inspected. However, due to the critical nature of Act 537 planning, all the manholes need to be inspected. The inspections and subsequent rehabilitation work will be phased over the next 10 years. The Phase 1 inspection is scheduled to start in March 2023, Phase 2 inspections and Phase 1 rehab work will be completed in 2024, and the project will continue until all manholes in the City system have been inspected and rehabilitated as necessary. Board authorization for the Phase 1 inspection work was granted at the December 12, 2022 meeting. Staff Responsibility: Phil DePoe

Project Title: Kline's Island WWTP - High-Rate Wet-Weather Treatment Pilot Study

Division / Funding: Allentown Division

Board Action Date: n/a

Status or Action Desired: Updated

Project Phase: Planning Phase

Project Notes: As part of the final Act 537 Plan that is due to DEP by March 2025, three separate alternatives are being evaluated to address current and future wet-weather events at the Kline's Island WWTP. One alternative involves construction of flow equalization tanks to store wet-weather flow. The second alternative involves constructing internal plumbing modifications and control systems to temporarily run plant treatment systems in parallel (vs. sequentially) during wet-weather scenarios. These first two alternatives are well understood and can be evaluated and costs estimated without further testing. The third alternative involves the construction of a high-rate wet-weather treatment system known as "BioActiflo," which is expected to be similar or lower in cost to other options being explored. Due to this being a newer technology, three rounds of bench scale testing for BioActiflo occurred in 2021 for proof-of-concept validation. The next step to determine if BioActiflo is a viable alternative is a full-scale pilot project, which would be required for permitting in the future if this option is selected. An authorization request for this pilot was granted at the November 14, 2022 Board meeting. The Pilot study is scheduled to occur in April and May of 2023, with full results available by the Summer. Staff Responsibility: Phil DePoe

Project Title: Sanitary Sewer Collection System: City of Allentown Interceptor Inspections

Division / Funding: City of Allentown (AO)

Board Action Date: n/a

Status or Action Desired: Updated

Project Phase: Planning Phase

Project Notes: As part of the Act 537 planning process, the condition and rehabilitation needs for each major interceptor in the system needs to be detailed for inclusion in the plan. In the City of Allentown, the condition of each interceptor is not currently known. Since all sewage generated by the Kline's Island Sewer System flows through one or more of the City's main interceptors, the condition of each interceptor must be determined and a rehabilitation plan developed if needed. This interceptor inspection work will identify any needed rehabilitation, repairs, or modifications needed to suit the regional sewer needs that will be determined by the Act 537 Plan. Board authorization for this interceptor inspection work was granted at the December 12, 2022 meeting. The inspections are slated to occur in February 2023. Staff Responsibility: Phil DePoe

Project Title: Upper Western Lehigh Pump Station and Force Main

Division / Funding: Suburban Division

Status or Action Desired: Updated

Board Action Date: n/a

Project Phase: Design Phase

Project Notes: Per the DEP-approved Interim 537 Plan, action is required to alleviate the current sanitary sewer interceptor system bottleneck in the Trexlertown area. The Upper Western Lehigh Pump Station and Force Main is the recommended alternative identified in the Special Act 537 Study being prepared as part of the Trexlertown Area Capacity Solution Alternatives project. The selection of this alternative is also supported by both Upper and Lower Macungie townships. Project implementation is required in order to meet the compliance timeline in the Interim Act 537 Plan. Design phase authorization was granted at the February 14, 2022 LCA Board meeting. Permit applications have been submitted to various regulatory agencies, including the DEP for a Part II Water Quality Management Permit. Staff Responsibility: Amy Kunkel

Project Title: Industrial Pretreatment Plant Master Plan

Division / Funding: Suburban Division

Status or Action Desired: Updated

Board Action Date: n/a

Project Phase: Planning Phase

Project Notes: This project involves the preparation of a Master Plan for the LCA Industrial Pretreatment Plant, the first of its kind for this facility. The Master Plan will involve several key sections including, but not limited to: full-scale condition assessments, treatment process optimization, and development of short term/long term capital plans. The Master Plan will be incorporated into the ongoing final Act 537 Plan that is due to DEP by March 2025. As part of the Act 537 planning process that is currently underway, a detailed upgrade analysis was recently completed by the plant operator (Jacobs). That analysis was incorporated into this proposed Master Plan. Board authorization was approved on December 13, 2021. The project will be funded by the LCA Suburban Division. Draft report submission occurred in late December of 2022, with final report delivery and a Board presentation slated for the second quarter of 2023. Staff Responsibility: Phil DePoe

Project Title: Spring Creek Pump Station Upgrades

Division / Funding: Suburban Division

Status or Action Desired: NEW

Board Action Date: n/a

Project Phase: Planning Phase

Project Notes: The Spring Creek Pump Station is an integral component of the Western Lehigh Sewerage service area. The station was constructed in 1996 and an upgrade project was completed in 2018. Equipment continues to age and become obsolete and this project is intended to address operational concerns, most notably the replacement of the pump variable frequency drives (VFDs). A RFP is being developed for engineering design services. An electrical condition assessment is currently being performed by Keystone Consulting Group to determine the extent of electrical improvements that are needed. The recommendations of the assessment will be incorporated into the RFP. Staff Responsibility: Amy Kunkel

Project Title: Spring Creek Force Main Relocation - PA Turnpike Commission

Division / Funding: Suburban Division

Status or Action Desired: NEW

Board Action Date: n/a

Project Phase: Design Phase

Project Notes: As part of an ongoing Turnpike widening project, the PA Turnpike Commission and PennDOT will be relocating and replacing the Lower Macungie Road bridge that crosses over the turnpike. The Spring Creek Force Main will be impacted by this work and approximately 1700 LF of force main will be relocated. The force main work will be included as part of the overall construction project designed by Gannett Fleming with an expected 50/50 cost share between LCA and the PTC. The project is in design with an anticipated bid date of June 2023 and construction completion in 2024. Staff Responsibility: Amy Kunkel

PART 3 – Open Project List – No Updates

Project Category	Project Title	Division / Funding	Project Phase	Staff Responsibility
Finance & Administration	LCA Strategic Plan - 2022 Quarterly Progress Reporting	All Divisions	n/a	Liesel Gross
Finance & Administration	Asset Management Roadmap & Strategic Asset Management Plan (SAMP)	All Divisions	Planning Phase	Albert Capuzzi
Finance & Administration	LCA Munis ERP System Planning & Re-Implementation	All Divisions	Planning Phase	Brooke Neve
System Operations	Large Diameter Valve Prioritization Program	Allentown Division	Planning Phase	Chris Moughan
System Operations	SmartBall Inspection - 30" and 36" Transmission Main - East Side	Allentown Division	Planning Phase	Chris Moughan
System Operations	Suburban Water Facilities - SCADA System Upgrade	Suburban Division	Construction Phase	Chris Moughan
System Operations	Watershed Monitoring Program	Suburban Division	Ongoing	Andrew Moore
Water - Suburban	2022 Commercial Meter Replacement Project	Suburban Division	Construction Phase	Amy Kunkel
Water - Suburban	Water Main Replacement Program Cycle 6	Suburban Division	Construction Phase	Jason Peters
Water - Suburban	Fixed Base Meter Reading Stations	Suburban Division	Planning Phase	Amy Kunkel
Water - Suburban	Upper System Pump Station and Main Extension	Suburban Division	Design Phase	Amy Kunkel
Water - Allentown	Lead Service Line Replacement Program Planning	Allentown Division	Planning Phase	Andrew Moore
Water - Allentown	Water Main Replacement Program Cycles 7 & 8	Allentown Division	Design	Jason Peters
Water - Allentown	Water Main Replacement Program Cycle 6	Allentown Division	Construction Phase	Jason Peters
Water - Allentown	Water Filtration Plant: Filter Upgrade Project	Allentown Division	Design Phase	Chuck Volk

Project Category	Project Title	Division / Funding	Project Phase	Staff Responsibility
Water - Allentown	Water Filtration Plant: 2022-2023 Indenture Upgrades	Allentown Division	Construction Phase	Chuck Volk
Water - Allentown	Water Filtration Plant: High Lift Pump VFD Replacements	Allentown Division	Closeout	Chuck Volk
Sewer - Act 537	KISS Act 537 Planning - Financial & Institutional Evaluation, Phase 1	City of Allentown (AO)	Planning Phase	Liesel Gross
Sewer - Act 537	Regional Sewer Capacity & Wet-Weather Planning - Regional Act 537 Plan Preparation	City of Allentown (AO)	Planning Phase	Phil DePoe
Sewer - Act 537	Kline's Island WWTP: Phase 1 AO Design Improvements	City of Allentown (AO)	On Hold	Phil DePoe
Sewer - Act 537	KISS System Modeling - Sewage Billing Meter QA/QC Data Analytics and 2021 Flow Metering Preparation	City of Allentown (AO)	Planning Phase	Phil DePoe
Sewer - Act 537	KISS System Modeling - Preliminary Screening of Alternatives (PSOA)	City of Allentown (AO)	Planning Phase	Phil DePoe
Sewer - Act 537	Regional Sewer Capacity & Wet-Weather Planning: Engineering & Program Support	Suburban Division	Planning Phase	Phil DePoe
Sewer - Act 537	Western Lehigh Service Area - Engineering & Program Support	Suburban Division	Planning Phase	Phil DePoe
Sewer - Suburban	Western Lehigh Manhole Rehabilitation Project - Phase 3	Suburban Division	Construction Phase	Jason Peters
Sewer - Suburban	Heidelberg Heights 2021 and 2022 Sanitary Sewer Replacement Project	Suburban Division	Closeout	Jason Peters
Sewer - Suburban	Heidelberg Heights Wastewater Treatment Plant - Mechanical Screen Project	Suburban Division	Design Phase	Chuck Volk
Sewer - Suburban	Heidelberg Heights Sanitary Sewer Consent Order & Agreement	Suburban Division	Planning Phase	Chuck Volk
Sewer - Suburban	Lynn Township Corrective Action Plan	Suburban Division	Ongoing	Jason Peters
Sewer - Suburban	Park Pump Station Phase 2 Upgrade	Suburban Division	Construction Phase	Amy Kunkel
Sewer - Allentown	Kline's Island WWTP: Substation No. 1 and Switchgear Replacement	Allentown Division	Design Phase	Chuck Volk

Project Category	Project Title	Division / Funding	Project Phase	Staff Responsibility
Sewer - Allentown	Kline's Island WWTP: Effluent Disinfection and Dechlorination System Improvements	Allentown Division	Construction Phase	Chuck Volk
Sewer - Allentown	Kline's Island WWTP: Solids Process Boiler and HVAC System Upgrade Project	Allentown Division	Construction Phase	Chuck Volk
Sewer - Allentown	Kline's Island WWTP: Wet Weather Capacity Enhancements	Allentown Division	Preliminary Design	Chuck Volk
Sewer - Allentown	Kline's Island WWTP: 2022 Indenture Upgrades	Allentown Division	Closeout	Chuck Volk
Sewer - Allentown	Kline's Island WWTP: Sludge Thickener Tank No. 3 Mechanical Upgrade	Allentown Division	Construction Phase	Chuck Volk
Sewer - Allentown	Kline's Island WWTP: Main and Auxiliary Pump Station Improvements	Allentown Division	Preliminary Design	Chuck Volk
Sewer - Allentown	Kline's Island WWTP: Intermediate Pump Station Improvements	Allentown Division	Preliminary Design	Chuck Volk
Sewer - Allentown	Lehigh Street (Rte. 145) Water and Sewer Main Relocation Project	Allentown Division	Construction Phase	Jason Peters