



LCA Main Office:
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Wescosville, PA 18106
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Agendas & Minutes Posted:
www.lehighcountyauthority.org

LEHIGH COUNTY AUTHORITY

Published: April 7, 2025

BOARD MEETING AGENDA – April 14, 2025 – 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 the 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

- *March 24, 2025 Board Meeting minutes*

4. Public Comments

5. Action / Discussion Items:

FINANCE AND ADMINISTRATION

- *Resolution 4-2025-1: Authorizing the Authority's Application for Grant Funding, North Whitehall Division Water Interconnection Project (Approval) (blue) (digital Board packet, pages 6-7)*

WATER

- *Water Main Replacement Program Cycles 7 & 8 (Discussion)*

WASTEWATER

- *Western Lehigh Interceptor Municipalities Test & Seal Lateral Grouting Project, Year 2 (2025) (Approval) (green) (digital Board packet, pages 8-16)*

6. Monthly Project Updates / Information Items (1st Board meeting per month) (digital Board packet, pages 17-25) – **April 2025 report attached**

7. Monthly Financial Review (2nd Board meeting per month) (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		
April 28, 2025	May 12, 2025	May 19, 2025

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

March 24, 2025

The Regular Meeting of the Lehigh County Authority Board of Directors was called to order at 12:03 p.m. on Monday, March 24, 2025, Chairman Amir Famili 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. Amir Famili, Jeff Morgan, Ted Lyons, Linda Rosenfeld, Norma Cusick and Peter Dent were present for Roll Call and remained for the duration of the meeting. Kevin Baker entered the meeting at 12:29 p.m. and was present for the duration of the meeting. Sean Ziller entered the meeting at 12:34 p.m. and was present for the duration of the meeting.

Attorney Kevin Reid, the Authority's Solicitor, was present along with Authority Staff, Liesel Gross, Ed Klein, Chris Moughan, Andrew Moore, AJ Capuzzi, Phil DePoe and Susan Sampson.

Chairman Famili announced that the Board received their electronic and hard copies of the Board packet in advance. A copy of the packet is also available online.

Chairman Famili introduced a new member of the Board, Peter Dent, and invited him to provide a brief summary of his background and experience.

REVIEW OF AGENDA

Liesel Gross stated there were no changes or additions to the agenda and no executive sessions planned. She noted that the February 2025 financial report will be provided in April, and the Executive Committee would be meeting later in the afternoon after the regular meeting concludes.

APPROVAL OF MINUTES

February 24, 2025 Meeting Minutes

On a motion by Linda Rosenfeld, seconded by Norma Cusick, the Board approved the minutes from the February 24, 2025 meeting as presented (6-0).

PUBLIC COMMENTS

None.

Lehigh River Pump Station Upgrades

Chuck Volk provided a brief overview of the project, which includes several upgrades to the Lehigh River Pump Station that was constructed in 1988. Amy Rohrbach provided additional details about the project including a review of the new powder activated carbon (PAC) chemical feed system to address taste and odor concerns related to the Lehigh River source water. She noted that the existing pumps would remain in place, but new motor-operated discharge valves would be installed, along with new level sensors and other upgrades to the pump station. In addition, additional modifications would be made to the intake structures to improve screening of the raw water to prevent debris from the river entering the intake structures.

Ms. Rohrbach reviewed the consultant selection process, noting that Verdantas is the preferred consultant selected for this project. In their proposal, Verdantas included additional services as requested by the Authority for jar testing work to identify the ideal type of PAC and dosing rate, and

a transient study that would evaluate any additional impacts of pumping changes on the pipeline that runs from the pump station to the water filtration plant.

There was some discussion about the taste and odor concerns with the Lehigh River source of water, and the chemical dosage rate that may be required under different operating conditions or weather conditions. Peter Dent inquired about the pumps that have been in place since 1988 and whether their condition was evaluated. Ms. Rohrbach explained that the pump station is currently used intermittently for brief periods of time, so the pumps have not been in continuous service since 1988 and are in good condition. There was some additional discussion about the intended future use of the Lehigh River as a water source. Andrew Moore explained that the current pump station configuration and taste and odor concerns prevent the Authority from using the Lehigh River source on a regular basis. Following the upgrades described in this project, the Lehigh River would be able to be used as primary water source more frequently, which will provide a more flexible back-up water supply in the event that other sources such as the Little Lehigh Creek need to be taken offline for maintenance.

On a motion by Linda Rosenfeld, seconded by Norma Cusick, the Board approved the Capital Project Authorization for the Lehigh River Pump Station Upgrades, Design and Bid Phase, in the amount of \$319,372.60 which includes the Professional Services Authorization to Verdantas in the amount of \$279,372.60 (6-0).

MONTHLY SYSTEM OPERATIONS OVERVIEW

Andrew Moore reviewed the February 2025 report, noting there were two safety incidents during the month. There was some discussion about the root causes of each incident. He noted a correction on the report regarding the 2025 total for water production in the Central Lehigh Division, which should have been listed as 10.83 million gallons per day. Mr. Moore commented that the region remains in a Drought Watch status due to continued low precipitation. He also reviewed the permit exceedances that occurred in February and reviewed the Notice of Violation (NOV) received for the Kline's Island Wastewater Treatment Plant. A copy of the NOV and the Authority's responses was attached to the report. There was some discussion about the drivers for the NOV and corrective actions taken by the Authority.

STAFF COMMENTS

Liesel Gross noted that an internal drought task force would be assembled in early April to discuss declining water levels in the Authority's sources. She also noted that she will be participating in the American Water Works Association Water Matters Fly-In event in early April, along with Andrew Moore, and Chris Moughan, to represent Pennsylvania in water policy discussions with members of Congress in Washington D.C. There was some Board discussion about notification and approval process for staff participation in such events.

SOLICITOR'S COMMENTS

None.

PUBLIC COMMENTS / OTHER COMMENTS

None.

BOARD MEMBER COMMENTS

Chairman Famili stated that each Board member would be receiving a phone call from himself or Vice Chair Jeff Morgan in the days ahead as they are seeking feedback on the Board's effectiveness and any improvements that may be needed. This feedback will be compiled for additional Board discussion.

EXECUTIVE SESSION

None.

ADJOURNMENT

There being no further business, the Chairman adjourned the meeting at 12:35 p.m.

Linda A. Rosenfeld
Secretary

RESOLUTION NO. 4-2025-1

(Duly adopted 14 April, 2025)

AUTHORIZING THE SUBMISSION OF A PA SMALL WATER AND SEWER PROGRAM GRANT REQUEST; DESIGNATING LEHIGH COUNTY AUTHORITY OFFICIALS AUTHORIZED TO EXECUTE ALL DOCUMENTS AND AGREEMENTS IN CONNECTION WITH THE REQUESTED GRANT AND ASSIST IN OBTAINING THE REQUESTED GRANT; AND PROVIDING FOR OTHER MISCELLANEOUS MATTERS.

WHEREAS, the Lehigh County Authority (the “Authority”) is a body corporate and politic, organized by the Board of County Commissioners of the County of Lehigh, Pennsylvania (the “County”) under the provisions of the Pennsylvania Municipality Authorities Act, 53 Pa. C.S. §5601 et seq., as amended (the “Act”); and

WHEREAS, the Authority owns, leases, and/or operates public water and sewer systems in the greater Lehigh Valley of Pennsylvania; and

WHEREAS, the Board of the Lehigh County Authority (the “Authority Board”) has determined to request a grant under the PA Small Water and Sewer Program (the “PSWS Grant Program”) for financial assistance for the North Whitehall Division Water System Interconnection Project (the “Project”); and

WHEREAS, in accordance with the PSWS Grant Program requirements, the Board desires to declare its approval of the grant request for the Project, and designate an Authority official(s) authorized to execute documents and agreements and assist in obtaining the requested grant.

NOW, THEREFORE, the Board of the Lehigh County Authority hereby resolves as follows:

SECTION 1. The Lehigh County Authority, of the County of Lehigh, Pennsylvania, hereby requests a PSWS grant of Five Hundred Thousand Dollars (\$500,000) from the Commonwealth Financing Authority to be used for the Project.

SECTION 2. Liesel Gross, Authority Chief Executive Officer, and Edward Klein, Authority Chief Financial Officer, individually and collectively, are hereby designated as the official(s) (the “Designated Officials”) to execute all documents and agreements between the Lehigh County Authority and the Commonwealth Financing Authority, and any other related Commonwealth entities, to facilitate and assist in obtaining the requested grant.

SECTION 3. The Designated Officials, and other Authority officers, individually and collectively, are hereby authorized, empowered and directed on behalf of the Authority to execute any and all papers and documents, and to do and cause to be done any and all acts and things necessary, proper, or convenient, for the execution or carrying out purposes of this Resolution.

On motion of _____, seconded by _____, this resolution was adopted the 14th day of April 2025.

Tally of Votes: Yeas _____ Nays _____



I, Kevin C. Reid, of the law firm of King, Spry, Herman, Freund & Faul, LLC, Solicitor to the Lehigh County Authority, do hereby certify that the foregoing is a true, correct and complete copy of a Resolution No. 4-2025-1 which was duly adopted by the Authority Board at a public meeting of the Authority Board held on April 14, 2025, after notice thereof had been duly given as required by law, at which meeting a quorum was present and voting, and which Resolution has been recorded in the Minutes and is now in full force and effect on the date of this certification.

Kevin C. Reid, Esquire Date
King, Spry, Herman, Freund & Faul, LLC
Lehigh County Authority Solicitor

(SEAL)

Attest:

Mark S. Mason Date
Human Resources Manager



Lehigh County Authority

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MEMORANDUM

Date: April 14, 2025

To: Lehigh County Authority Board of Directors
Liesel Gross, CEO

From: Jason Peters, Capital Works Linear Asset Project Manager
Chuck Volk, P.E., CCWO

Subject: Western Lehigh Interceptor Municipalities Test and Seal Sewer
Rehabilitation Project Year 2- Construction Phase

MOTIONS /APPROVALS REQUESTED:

No.	Item	Amount
1	<u>Capital Project Authorization - Construction Phase</u>	\$1,574,992
2	<u>Professional Services Authorization:</u>	
*	• Construction Engineering and Inspection Service – Arcadis	\$232,000
3	<u>Contract Award (construction):</u>	
*	• General Construction – Vortex Services, LLC	\$1,282,992

() Included in the Capital Project Authorization*

PROJECT BACKGROUND

LCA and its municipal signatories in the Western Lehigh Interceptor service area are working reduce infiltration and inflow (I & I) into the Western Lehigh Interceptor system. Using data from the 2021 Kline’s Island Sewer System (KISS) Flow Characterization Study and 2022 nighttime weiring project, Upper Macungie Township and LCA determined that a second-year lateral rehab project should be performed to address documented I & I problem areas, which includes testing and sealing sewer service lateral connections and main line joints. LCA will administer and manage this project on behalf of Upper Macungie Township (township-owned system) and Upper Milford Township (LCA-owned system). Upper Macungie Township will reimburse LCA for construction and engineering costs for work performed in that municipality.

PROJECT OVERVIEW:

Similar work will be performed in Upper Macungie Township and Upper Milford Township. However, the quantity of work to be performed will be according to budget figures provided by the Township and LCA prior to design phase, which are \$1,000,000 for Upper Macungie and \$200,000 for the LCA Upper Milford system (budget cost figures include engineering services). The project consists of the following major items of work:

- Pre-construction sewer cleaning and CCTV inspection of sewer main
- Pre-construction sewer cleaning and CCTV inspection of lateral connections
- Testing of main line joints and lateral connection joints
- Root removal
- Grouting of main line joints
- Grouting of lateral connection joints
- Removal of protruding lateral connections
- Manhole injection grouting and lining
- Post-construction cleaning and CCTV inspection
- Warranty certification - cleaning and CCTV inspection

The work to be performed as part of this project should have a positive impact on reducing infiltration and inflow within the targeted neighborhoods of each municipality.

FINANCIAL:

The Project will be funded by the LCA Suburban Division. Upper Macungie’s proportionate share of project costs will be assessed at the conclusion of construction.

PROJECT STATUS:

Design was completed in early 2025, the project was advertised for bid on February 7, 2025, a mandatory pre-bid meeting was held on February 24, 2025, and bids were opened on March 10, 2025. The bids were reviewed by Capital Works staff and Arcadis.

THIS APPROVAL: CONSTRUCTION PHASE YEAR 2

The Western Lehigh Interceptor Municipalities Test and Seal Sewer Rehabilitation Project Year 2 includes cleaning of 4-inch through 12-inch sewer mains and laterals, CCTV inspection of 4-inch through 12-inch sewer mains and laterals, testing and chemical sealing of 8-inch and 12-inch mainline sewer joints, testing and chemically sealing tap connections and lower riser laterals, and testing and chemically sealing laterals connected to manholes.

BIDDING SUMMARY:

Two bids were submitted for this project; results are summarized in the following table:

Table 1	
General Construction	
Bidder	Amount
<i>Vortex Services, LLC</i>	<i>\$1,282,992</i>
Mobile Dredge & Video Pipe, Inc.	\$2,351,196

Vortex Services, LLC (Vortex), located in Freehold, NJ, is the lowest bidder. Reference checks for Vortex have identified no issues, and the company has completed many projects of similar scope and size. Vortex also successfully completed three prior I&I source reduction projects in LCA's Allentown Division – all work was performed satisfactorily and in accordance with the contracts.

Arcadis reviewed Vortex's bid submission and all documents are complete and in accordance with the bid requirements. Based on reference checks and previous experience working with Vortex, LCA recommends contract award to Vortex Services, LLC.

PROFESSIONAL SERVICES:

Arcadis will perform construction phase engineering, including the following:

- Provide full-time on-site inspection services
- Prepare daily inspection reports
- Daily job quantities tracking
- Payment application review certification
- Document performance of the work (including review of pre- and post-construction CCTV data)
- Attend progress meetings
- Perform Substantial Completion inspection and provide certification of completion
- Prepare and verify punchlist completion
- Contract closeout administration
- Warranty review and certification

SCHEDULE:

Assuming approval at the April 14, 2025 LCA Board meeting, the work is anticipated to begin in May 2025 and will be substantially completed by the end of the year.

FUTURE AUTHORIZATIONS:

TBD. Due to the limited number of contractors performing this type of work, LCA may consider leveraging the Costars program in the future to negotiate a multi-year I & I mitigation project in order to reduce engineering costs, obtain fair pricing, and expedite the work.

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	SD-S-25-1	BUDGET FUND:	Suburban Div\Wastewater\Capital
PROJECT TITLE:	Western Lehigh Interceptor Municipalities Test and Seal Sewer Rehabilitation Project Year 2 Construction Phase	PROJECT TYPE:	
THIS AUTHORIZATION	<u>\$ 1,574,992</u>	<input checked="" type="checkbox"/> Construction	
		<input type="checkbox"/> Engineering Study	
		<input type="checkbox"/> Equipment Purchase	
		<input type="checkbox"/> Amendment No.	

DESCRIPTION AND BENEFITS:

Western Lehigh Interceptor Municipalities Test & Seal Sewer Rehabilitation Project (Year 2)

This project is being implemented as part of the DEP Act 537 requirement that the KISS municipalities develop and implement Source Reduction Plans addressing I & I flows. The work is to be performed in Upper Macungie Township and Upper Milford Township and involves the following items:

- Pre and post-construction cleaning, joint testing and CCTV inspection
- Grouting of main line joints
- Grouting of service lateral connections
- Manhole injection grouting and lining
- Warranty cleaning and warranty CCTV inspection

LCA is administering the majority of this project on behalf of Upper Macungie Township.

REQUESTED THIS AUTHORIZATION	
Construction Phase Year 2	
Staff	\$10,000
Construction Inspection and Engineering Services – Arcadis	\$232,000
General Construction Contract – Vortex Services. LLC	\$1,282,992
Contingency	\$50,000
Total This Authorization	\$1,574,992

REVIEW AND APPROVALS:

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



Lehigh County Authority

1053 Spruce Road * P.O. Box 3348 * Allentown, PA 18106-0348
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PROFESSIONAL SERVICES AUTHORIZATION

Professional: ARCADIS U.S., INC.
1128 Walnut Str, 4th Fl
Philadelphia, PA 19107

Date: April 14, 2025

Requested By: Jason Peters

Approvals

Department Head: _____

Chief Executive

Officer: _____

**Western Lehigh Interceptor Municipalities Test and Seal Sewer Rehabilitation Project (Year 2)
- Construction Phase Engineering**

Arcadis will provide construction management, engineering support, contract administration, and construction observation services for the testing and chemical grouting (sealing) work for targeted service areas in Upper Macungie and Upper Milford Township, in accordance with their proposal dated 3/11/25. A summary of the scope of work includes:

- Provide full-time on-site inspection services
- Prepare daily inspection reports
- Daily job quantities tracking
- Payment application review certification
- Document performance of the Work (including review and verify pre and post-construction CCTV data)
- Attend progress meetings
- Perform Substantial Completion inspection and provide certification of completion
- Prepare and verify punchlist completion
- Contract closeout administration
- Warranty review and certification.

Cost Estimate (not to be exceeded without further authorization):

Proposed consulting service described in the Proposal dated March 11, 2025 is on a time and materials basis estimated not to exceed \$232,000.

Timetable and Completion Deadline: Work to be completed in conjunction with the Test and Seal Contract.



(For Authority Use Only)

Authorization Completion:

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

Mr. Jason Peters
Capital Works
Lehigh County Authority
1053 Spruce Road
Allentown, PA 18106-0348

Arcadis U.S., Inc.
1600 Market Street
Suite 1810
Philadelphia
Pennsylvania 19103
Tel 215 625 0850
www.arcadis.com

Subject:
2025 WLSP Phase 2 Capital Grouting Sewer Rehabilitation
Construction Engineering Scope and Budget Proposal

Dear Mr. Peters:

Arcadis U.S., Inc. (Arcadis) is pleased to offer our continued services as experts in trenchless rehabilitation, especially packer injection grouting techniques, to Lehigh County Authority (LCA) and the Western Lehigh Sewer Partnership (WLSP) for the 2025 Capital Grouting projects in Upper Macungie and Upper Milford to provide infiltration and inflow (I&I) sealing of these key leakage points in the suburban sewers using capital grouting techniques. This scope and budget cover construction engineering, administration, and inspection services for this project.

As both third party construction resident engineer/inspectors and as the actual contractor for Construction Manager at Risk projects, the Arcadis staff proposed for this project have undergone extensive training and have overseen and directed hundreds of miles of packer injection grouting, cured-in-place mainline and lateral liners, and manhole rehabilitation projects. It is rare that a consulting firm can make the claim of being uniquely qualified and have that be completely the case, but for this project, it is truth. Regarding packer injection grouting, which is the primary technology of this project, Arcadis' Buried Infrastructure team has no equal. Arcadis' master technical specification for test and seal work formed the basis for National Association of Sewer Service Companies (NASSCO) Capital Grouting specification published in 2021 and our inspector training program is being used to frame the upcoming ITCP-Grouting Certification program. Our knowledge of the technology application will safeguard LCA's interests.

WATER

Date:
March 11, 2025

Contact:
Jim Shelton

Phone:
302.723.1450

Email:
James.Shelton@
arcadis.com

This proposal and its contents shall not be duplicated, used, or disclosed — in whole or in part — for any purpose other than to evaluate the proposal. This proposal is not intended to be binding or form the terms of a contract. The scope and price of this proposal will be superseded by the contract. If this proposal is accepted and a contract is awarded to Arcadis as a result of — or in connection with — the submission of this proposal, Arcadis and/or the client shall have the right to make appropriate revisions of its terms, including scope and price, for purposes of the contract. Further, client shall have the right to duplicate, use or disclose the data contained in this proposal only to the extent provided in the resulting contract.

This scope and budget covers work from project pre-construction meeting through substantial completion. (It does not cover the contract required warranty inspections or warranty evaluations two years after Substantial Completion).

OBJECTIVES

The objective of this work is to work with the successful contractor, LCA, and the WLSP to ensure the construction plans and specifications for sewer rehabilitation using capital grouting techniques in 2025 grouting projects provide highly effective inflow and infiltration reduction for at least 25 years while adding at least 25 years to the life of the pipes rehabilitated.

ASSUMPTIONS

This project has approximately 6 miles of mains and 330 laterals. An evaluation of production rates anticipates that 2 grouting rigs abetted by sufficient cleaning and CCTV inspection trucks/crews can complete this work in 6 months. Contract time from Notice to Proceed to Substantial Completion is 240 calendar days. This scope assumes 1 month for preconstruction activities, 6 months of construction engineering and inspection, and 1 month of time for the contractor to prepare and submit final documents and deliverables.

This scope also anticipates the construction inspector will continue the public outreach and Partner outreach program initiated during design to ensure homeowner concerns are properly addressed.

SCOPE OF WORK

Successful use of trenchless rehabilitation methods, especially capital grouting, require rigorous evaluation of the contractor's submittals and oversight by knowledgeable, experienced personnel to ensure the work is properly constructed given the field conditions at the time of installation. We will staff the construction oversight of this work with only staff experienced in the capital grouting techniques being used. As a licensed contractor who has built several large grouting projects, we understand this type of construction far better than typical consulting inspectors and usually far better than contractors performing the work, to the point that we usually train the contractor's field staff in the proper installation of capital grouting methods. We know that grout crews will require both significant coaching and sharp attention. The value to LCA and the Partners in having Arcadis conduct these services is the peace of mind that comes from knowing a team of engineers knowledgeable and experienced in the design and construction of these technologies, especially with those aspects that prevent construction and post-construction failures, is overseeing the work.

As part of our scope of work, Arcadis will provide construction engineering and contract administration services for the duration of the contract. Arcadis will:

- Review schedules and shop submittals (of which 10 have been assumed) for compliance with the contract documents.
- Provide half-time senior Construction Engineer oversight during first week of grouting to ensure basic capital grouting techniques are understood by the Contractor.
- Provide part-time Construction Engineer during grouting operations. For the purposes of this proposal, we have assumed contractor will work with 2 crews (four days per week for 6 months, and that our construction oversight will require site presence for 6 hours per day.
- Provide regular senior inspector field oversight. For purposes of this proposal, we have assumed Jim Shelton will be on-site one day per month and that Emily Sadowsky will be on-site one day every three weeks.
- Provide senior oversight remotely daily to construction inspector and Contractor's crews to successfully guide the work.
- Review Pre-construction mainline inspections conducted by the Contractor that are electronically transferred to Arcadis by the Contractor, recommend alternative rehabilitation techniques to LCA and the appropriate Partner and their Consulting Engineer should grouting not be the clear choice for rehabilitation, and communicate desired rehabilitation techniques to Contractor.
- Prepare inspectors daily reports (IDRs), update Sequence Tracker, update Manhole Tracker, update Lateral Tracker, update Pay Item Progress Tracker, and update Issues Tracker daily.
 - Because this work is being billed to two different Partners, Arcadis will track the work as two separate construction projects for the purposes of pay basis. This will not be evident to the Contractor but will make billing simple for LCA.
- Prepare agendas, report progress, chair meetings, and issue minutes for progress meetings every 6 weeks.
- Review monthly pay estimates submitted by the contractor and prepare recommendations to LCA.
- Review Post Construction inspections conducted by the Contractor, recommend remedial action or deductions for out-of-specification defects, and prepare punch list.
- Participate in the preparation of the certificate of completion (issued for Substantial Completion).
- Provide each individual Partner with all inspections and grouting reports, videos, and databases for incorporation into their GIS or CMMS as part of the Record Plan for the project.
- Provide final Sequence Tracker, Lateral Tracker, and Manhole Tracker databases to each individual Partner for incorporation into their GIS or CMMS as part of the Record Plan for the project.
- Provide any GIS corrections via paper map markups to each individual Partner and LCA.

LCA will:

- Attend preconstruction and progress meetings.
- Respond to request for information in a timely fashion.

Budget

We have broken this work into two tasks.

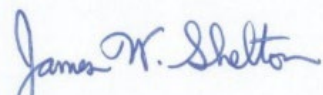
Task Name	Hours	Expenses	Cost
Construction Admin	250	1,000	\$ 46,000
Construction Management	1,000	33,000	\$ 186,000
Totals	1,250	34,000	\$ 232,000

We propose to complete these services on a time and materials basis in accordance with the Agreement between LCA and Malcolm Pirnie, Inc., and the current Summary of Standard Charges for Lehigh County Authority. Arcadis will track the costs associated with this work and report them to LCA monthly throughout the project; we will not exceed the authorized budget without written professional services authorization from LCA. Payment for services will be based upon the actual labor and expenses incurred. Invoicing will be completed monthly. The invoice will include the defined contract tasks listing the day-by-day personnel performing the task with hourly rate and hours worked. The invoice will provide total billed for month. Support documents will be provided if there are any expenses incurred.

Please contact me with your authorization to proceed if this scope and budget are acceptable to you. If you have any questions, please do not hesitate to call me.

Sincerely,

Arcadis U.S., Inc.



James W. Shelton, PE
Vice President – Buried Infrastructure

Copies:

Lehigh County Authority – Monthly Report to Board of Directors

Upcoming Board Agenda Items & Project Updates – April 2025

Published: April 7, 2025

PART 1 – Upcoming Agenda Items – Action & Discussion Items

FINANCE & ADMINISTRATION

Project Title: Resolution 4-2025-1: Authorizing the Authority's Application for Grant Funding, North Whitehall Division Water Interconnection Project

Division / Funding: n/a

Board Action Date: 4/14/2025

Status or Action Desired: Approval

Project Phase: n/a

Project Notes: Through the Pennsylvania Department of Community & Economic Development, grant funding is available to municipalities and municipal authorities for a variety of project types that serve the public's interest, including infrastructure projects. The PA Small Water & Sewer Program is designed for infrastructure projects related to smaller systems, with an application deadline of April 30, 2025. LCA will seek grant funding to support the North Whitehall Division Water Interconnection Project. A Resolution authorizing the grant application is required, and the Board will be asked to approve Resolution 4-2025-1 at the April 14, 2025 Board meeting. Staff Responsibility: Liesel Gross

Project Title: Allentown Water & Sewer Lease Bonds: Bondholder Consent

Division / Funding: Allentown Division

Board Action Date: 4/28/2025

Status or Action Desired: Approval

Project Phase: n/a

Project Notes: LCA staff and financial advisors have been reviewing the opportunity to update language in the Allentown Water & Sewer Lease bond documents, which would improve LCA's ability to take advantage of state and federal grants and loans offered by Pennvest. An authorization for additional consulting services and related costs to achieve bondholder consent will be presented to the Board for approval. Staff Responsibility: Ed Klein

Project Title: Monthly Financial Review

Division / Funding: n/a

Board Action Date: 4/28/2025

Status or Action Desired: Information

Project Phase: n/a

Project Notes: The February 2025 will be submitted to the Board, and the March 2025 monthly financial reports will be presented at the 4/28/2025 meeting. Staff Responsibility: Ed Klein

SYSTEM OPERATIONS

Project Title: Monthly Operations Report

Division / Funding: n/a

Board Action Date: 4/28/2025

Status or Action Desired: Information

Project Phase: n/a

Project Notes: The March 2025 monthly operations report will be presented. Staff Responsibility: Andrew Moore & Chris Moughan

WATER PROJECTS

Project Title: Water Main Replacement Program Cycles 7 & 8

Division / Funding: Allentown Division

Board Action Date: 4/14/2025

Status or Action Desired: Discussion

Project Phase: Project Closeout

Project Notes: Through the Lease Agreement with the City of Allentown as amended in 2020, LCA is required to replace a total of four miles of water main during the period of 2021 through 2024. Approximately one mile of water main replacement was completed in both 2021 and 2022, and Cycles 7 and 8 consists of another 2 miles of main to satisfy the Lease requirement through 2024. This project will be funded by the LCA Allentown Division and has been approved by the City as a Major Capital Improvement. Approval for the Design Phase for Cycles 7 and 8 was granted at the 8/22/22 Board meeting. In the interest of optimizing project timing, construction of cycles 7 and 8 water main replacements were consolidated into one project to be performed in 2024. Design phase was completed in February 2024 and bids were opened in late March 2024. Construction phase authorization was granted at the 4/22/24 LCA Board meeting. A final project update will be provided at the 4/14/2025 Board meeting. Staff Responsibility: Jason Peters

Project Title: 30" & 36" East Side Transmission Main Repair Project

Division / Funding: Allentown Division

Board Action Date: 5/12/2025

Status or Action Desired: Approval

Project Phase: Design Phase

Project Notes: The LCA Board authorized the 30" and 36" East Side Transmission Main leak detection study phase on 6/13/2022 to identify the condition of this critical asset and determine the need for repairs and or spot replacements. Six leak sites were identified in the study, and repair work must be planned carefully to ensure customers remain in service during the project construction. Design phase authorization was granted at the 10/9/2023 LCA Board meeting. Construction phase approval will be requested at the 4/28/2025 meeting. Staff Responsibility: Jason Peters

WASTEWATER PROJECTS

Project Title: Western Lehigh Interceptor Municipalities Test & Seal Lateral Grouting Project, Year 2 (2025)

Division / Funding: Suburban Division

Board Action Date: 4/14/2025

Status or Action Desired: Approval

Project Phase: NEW

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 inflow & infiltration (I&I). Using data from the 2021 KISS Flow Characterization Study and 2022 nighttime weiring, Upper Macungie and Upper Milford townships have opted to strategically address neighborhoods with high I&I flows with a project to test and seal service lateral connections. This project will be managed jointly by LCA and the participating townships, in a similar fashion to the 2024 proejct. The project was advertised for bid in February 2025. Construction authorization will be requested at the 4/14/25 LCA Board meeting. Staff Responsibility: Jason Peters

Project Title: Kline's Island WWTP: Master Plan

Division / Funding: Allentown Division

Board Action Date: 4/28/2025

Status or Action Desired: Discussion

Project Phase: Project Closeout

Project Notes: Per the Concession Lease Agreement with the City, LCA is required to perform a Master Plan of the KIWWTP every 5 years. The first Master Plan was completed in 2019. The Master Plan objectives are to assess the current condition of the KIWWTP infrastructure and identify and prioritize capital projects to enable continued permit compliance, address operational issues, address high risk processes and equipment, and enhance efficiencies. The Master Plan is to include a short term, near term and long term capital improvement plan. A Master Plan update is to be performed in 2024. Professional Service Authorization for Black & Veatch was granted by the Board at the 3/11/2024 meeting. The draft Master Plan was reviewed with the City in December 2024. At the 4/14/2025 Board meeting, staff will present an overview of the Master Plan process and results. Staff Responsibility: Stephen Boone

PART 2 – Project Updates – Information Items

WASTEWATER PROJECTS – SUBURBAN DIVISION

Project Title: Park Pump Station Phase 2 Upgrade

Division / Funding: Suburban Division

Status or Action Desired: Updated

Board Action Date: n/a

Project Phase: Construction Phase

Project Notes: The Park Pump Station Phase 1 Upgrade was completed in early 2020, and consisted of new pumps, new pump control center with variable frequency drives, new automatic transfer switch, new wet well level control system, upgraded HVAC system, roof replacement, and related mechanical improvements. The existing 40-year-old generator does not have the capacity to handle the full loads of the upgraded station at 100% design flow and is at the end of its useful life. The Phase 2 Upgrade project consists of replacement of the original station backup generator system. Authorization for Phase 2 design phase was granted at the 3/22/2021 Board meeting. Design was completed in early 2022 and the project was advertised for bid in May 2022 and bids were opened in June. No bid was received for the General Contract. Construction phase authorization for the Electrical Contract was granted at the 6/27/2022 LCA Board meeting. The General Contract was re-advertised for bid in September 2023. Construction phase authorization for the GC contract was granted at the 10/23/2023 Board meeting. The generator was delivered to the Contractor's facility. Construction is approximately 65% complete. The generator is scheduled to be installed in early April. Staff Responsibility: Amy Kunkel

WASTEWATER PROJECTS – ALLENTOWN DIVISION

Project Title: Sanitary Sewer Collection System: I&I Source Reduction Program (LCA Year 2)

Division / Funding: Allentown Division

Status or Action Desired: Updated

Board Action Date: n/a

Project Phase: Planning Phase

Project Notes: In 2023, LCA and the City of Allentown collaborated to prepare a 10 Year inflow & infiltration (I&I) source reduction plan, and the first year of construction was authorized in 2024. The plan, along with the I&I reduction plans developed by the other municipalities in the Kline's Island Sewer System, is required for the regional Act 537 Plan currently under development. LCA Board authorized the year 2 design and bid phases at the May 20, 2024 meeting. After seeking a collaborative effort with the City, LCA paused the design efforts late in 2024 until a more robust SSES program was developed and deployed in the City. With the new approach LCA anticipates seeking Board authorization of the Construction phase of this project in 2026 following the SSES program findings within the system. Staff Responsibility: Jason Peters

Project Title: Kline's Island WWTP: 2023-2024 Architectural and Structural Upgrades

Division / Funding: Allentown Division

Status or Action Desired: Updated

Board Action Date: n/a

Project Phase: Project Closeout

Project Notes: As a condition of the financing of LCA's up-front concession payment to the City, LCA entered into a Trust Indenture that requires the preparation of an annual Consulting Engineer's Report. The report identifies physical plant repairs and upgrades required, and reflects progress made in addressing deficiencies. This is an annual project that consists of addressing structural deficiencies at KIWWTP. The project was designed in 2023 and originally bid in August, as a 2 year contract, with no bids received. The project was repackaged as a single year contract and rebid with an advertisement on 9/18/2023, prebid meeting on 9/21/2023 and bids received 10/3/2023. Construction phase authorization was granted at the 10/23/2023 LCA Board meeting. The project is anticipated to be completed by the end of 2024. All work has been completed and project closeout paperwork should be completed by the end of March 2025. Staff Responsibility: Amy Rohrbach

Project Title: Kline's Island WWTP - Plastic Media Trickling Filter Rehabilitation

Division / Funding: Allentown Division

Board Action Date: n/a

Status or Action Desired: NEW

Project Phase: Design Phase

Project Notes: The Plastic Media Trickling Filter (PMTF) towers are approximately fifty years old and the media has reached the end of its service life. This project includes a condition assesment of the existing PMTFs and a multi-year rehabilitation effort. Improvements will include concrete structural repairs, removal of existing media and installation of new media, replacement of the exterior panels and all necessary structural and piping improvements. Preliminary engineering will commence in the first quarter of 2025 and will be submitted to the City for Major Capital Improvement consideration. Staff Responsibility: Amy Rohrbach

Project Title: Kline's Island WWTP: 2025 Architectural and Structural Upgrades

Division / Funding: Allentown Division

Board Action Date: n/a

Status or Action Desired: NEW

Project Phase: Construction Phase

Project Notes: As a condition of the financing of LCA's up-front concession payment to the City, LCA entered into a Trust Indenture that requires the preparation of an annual Consulting Engineer's Report. The report identifies physical plant repairs and upgrades required, and reflects progress made in addressing deficiencies. This is an annual project that consists of addressing structural deficiencies at KIWWTP. The 2025 project includes structural repairs to the Rock Media Trickling Filter wall. This project is currently in design and will be bid in May. Request for Construction Phase Authorization is anticipated for June of 2025. Staff Responsibility: Amy Rohrbach

PART 3 – Open Project List – No Updates

Project Category	Project Title	Division / Funding	Project Phase	Staff Responsibility
Finance & Administration	LCA Strategic Plan - Progress Reporting	All Divisions	n/a	Liesel Gross
Finance & Administration	LCA Main Office Parking Lot Expansion	All Divisions	Construction Phase	Chuck Volk
Finance & Administration	Project Management / Construction Management Software Installation & Setup	All Divisions	Planning Phase	Jason Peters
Finance & Administration	LCA Munis ERP System Planning & Re-Implementation	All Divisions	Planning Phase	Chris Moughan & Brooke Neve
Finance & Administration	Capital Program Management Services	All Divisions	Planning Phase	Chuck Volk
Finance & Administration	LCA Building Optimization Study & Master Plan	All Divisions	Planning Phase	Stephen Boone
System Operations	Suburban Water Facilities - SCADA System Upgrade	Suburban Division	Construction Phase	Chris Moughan
System Operations	Watershed Monitoring Program	Suburban Division	Planning Phase	Andrew Moore
Water - Suburban	North Whitehall Second Interconnection	Suburban Division	Design Phase	Amy Kunkel
Water - Suburban	Suburban Division Lead Service Line Inventory Program & Compliance Planning	Suburban Division	Planning Phase	Albert Capuzzi
Water - Suburban	2024 Meter Replacements	Suburban Division	Construction Phase	Amy Kunkel
Water - Suburban	Central Lehigh and North Whitehall Systems – Water Supply Study	Suburban Division	Planning Phase	Phil DePoe
Water - Suburban	Upper System Pump Station and Main Extension	Suburban Division	Design Phase	Amy Kunkel
Water - Suburban	Water Main Replacement Program Cycle 8	Suburban Division	Design Phase	Jason Peters
Water - Allentown	Lehigh River Pump Station Upgrades	Allentown Division	Design Phase	Amy Rohrbach

Project Category	Project Title	Division / Funding	Project Phase	Staff Responsibility
Water - Allentown	Water Filtration Plant: PFAS Treatment	Allentown Division	Design Phase	Amy Rohrbach
Water - Allentown	Allentown Division Lead Service Line Inventory Program & Compliance Planning	Allentown Division	Planning Phase	Albert Capuzzi
Water - Allentown	Badger Meter Replacements	Allentown Division	Construction Phase	Amy Kunkel
Water - Allentown	Lead Service Line Replacement Project Cycle 2	Allentown Division	Design Phase	Albert Capuzzi
Water - Allentown	Water Filtration Plant: Fluoride System Upgrades	Allentown Division	Design Phase	Amy Rohrbach
Water - Allentown	Water Filtration Plant: HVAC Upgrades - Phase 1	Allentown Division	Construction Phase	Amy Rohrbach
Water - Allentown	Water Filtration Plant: Emergency Power Design	Allentown Division	Design Phase	Amy Rohrbach
Water - Allentown	Water Main Replacement Program Cycles 9 - 11	Allentown Division	Design Phase	Jason Peters
Water - Allentown	Water Filtration Plant: Filter Upgrade Project	Allentown Division	Construction Phase	Amy Rohrbach
Water - Allentown	Lead Service Line Replacement Project Cycle 1	Allentown Division	Construction Phase	Liesel Gross & Staff
Water - Allentown	Large Diameter Valve Rehabilitation & Replacement Program	Allentown Division	Construction Phase	Chuck Volk
Sewer - Act 537	Sanitary Sewer Collection System: City of Allentown Manhole Inspections	Allentown Division	Planning Phase	Phil DePoe
Sewer - Act 537	Sanitary Sewer Collection System: City of Allentown Manhole Rehabilitation	Allentown Division	Construction Phase	Jason Peters
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	KISS Act 537 Planning - Financial & Institutional Evaluation, Phase 3	City of Allentown (AO)	Planning Phase	Liesel Gross
Sewer - Act 537	Legal Services: Development of New Intermunicipal Agreement(s)	City of Allentown (AO)	Planning Phase	Liesel Gross

Project Category	Project Title	Division / Funding	Project Phase	Staff Responsibility
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 Act 537 Planning - Selection of Solution (SOS) Phase	City of Allentown (AO)	Planning Phase	Phil DePoe
Sewer - Act 537	Spring Creek Force Main Condition Assessment	Suburban Division	Planning Phase	Amy Kunkel
Sewer - Act 537	KISS Relief Interceptor Pre-Design Study	Suburban Division	Planning Phase	Phil DePoe
Sewer - Act 537	Industrial Pretreatment Plant Master Plan	Suburban Division	Planning Phase	Liesel Gross & Albert Capuzzi
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 - Act 537	Western Lehigh Interceptor Municipalities Test & Seal Lateral Grouting Project	Suburban Division	Construction Phase	Jason Peters
Sewer - Act 537	Upper Western Lehigh Pump Station & Force Main	Suburban Division	Construction Phase	Amy Kunkel
Sewer - Suburban	Spring Creek Force Main Relocation - PA Turnpike Commission	Suburban Division	Construction Phase	Amy Kunkel
Sewer - Suburban	LCA Meter Stations 1 and 2 Upgrades	Suburban Division	Construction Phase	Chuck Volk
Sewer - Suburban	Wynnewood Terrace WWTP Expansion - Developer Cost-Sharing Agreement	Suburban Division	Planning Phase	Chuck Volk
Sewer - Suburban	Heidelberg Heights Sanitary Sewer Consent Order & Agreement	Suburban Division	Planning Phase	Chuck Volk
Sewer - Suburban	Pretreatment Plant - Critical Upgrades	Suburban Division	Construction Phase	Chuck Volk
Sewer - Suburban	Lynn Township WWTP Final Clarifier Project	Suburban Division	Construction Phase	Chuck Volk
Sewer - Suburban	Spring Creek Pump Station Upgrades	Suburban Division	Construction Phase	Amy Kunkel

Project Category	Project Title	Division / Funding	Project Phase	Staff Responsibility
Sewer - Suburban	Arcadia WWTP Screening System Project	Suburban Division	Design Phase	Chuck Volk
Sewer - Suburban	North Whitehall Township Act 537 Plan	Suburban Division	Planning Phase	Phil DePoe
Sewer - Suburban	Pretreatment Plant (PTP) Electrical Study	Suburban Division	Planning Phase	Chuck Volk
Sewer - Suburban	Lynn Township Corrective Action Plan	Suburban Division	Planning Phase	Jason Peters
Sewer - Suburban	Sand Spring WWTP: Treatment Process Modification	Suburban Division	Construction Phase	Chuck Volk
Sewer - Allentown	Kline's Island WWTP: Chemically Enhanced Primary Treatment Study	Allentown Division	Planning Phase	Stephen Boone
Sewer- Allentown	Kline's Island WWTP - Wet Weather Improvements - Phase 1	Allentown Division	Design Phase	Amy Rohrbach
Sewer - Allentown	Kline's Island WWTP - Septage Receiving and Vacuum Truck Unloading Modifications	Allentown Division	Construction Phase	Amy Rohrbach
Sewer - Allentown	Kline's Island WWTP: Substation No. 1 and Switchgear Replacement	Allentown Division	Construction Phase	Amy Rohrbach
Sewer - Allentown	Kline's Island WWTP: Solids Process Boiler and HVAC System Upgrade Project	Allentown Division	Construction Phase	Chuck Volk
Sewer - Allentown	Allentown Division I&I Program – Programmatic Support, Trout Creek & Eastside Basins	Allentown Division	Planning Phase	Stephen Boone
Sewer- Allentown	Kline's Island WWTP - Primary Sludge System Upgrades	Allentown Division	Construction Phase	Amy Rohrbach
Sewer - Allentown	Kline's Island WWTP - Final Settling Tanks 1-4 Upgrades	Allentown Division	Construction Phase	Amy Rohrbach
Sewer - Allentown	Sanitary Sewer Collection System: I&I Source Reduction Program (LCA Year 1)	Allentown Division	Construction Phase	Jason Peters