



LCA Main Office:
1053 Spruce Road
Wescosville, PA 18106
610-398-2503

Agendas & Minutes Posted:
www.lehighcountyauthority.org

LEHIGH COUNTY AUTHORITY

Published: January 2, 2024

BOARD MEETING AGENDA – January 8, 2024 – 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

- *December 11, 2023 Board Meeting minutes*

4. Public Comments

5. Action / Discussion Items:

FINANCE AND ADMINISTRATION

- *Resolution No. 1-2024-1: Authorizing Redevelopment Assistance Capital Program Grant application for the Pretreatment Plant Upgrade and Expansion (Approval) (digital Board packet, pages 8-9)*
- *Procore Project Management / Construction Management Software (Approval) (blue) (digital Board packet, pages 10-14)*

WATER

- *Memorial Road Emergency Water Main Realignment (Approval) (yellow) (digital Board packet, pages 15-16)*

WASTEWATER

- *LCA Meter Stations 1 and 2 Upgrades (Approval) (green) (digital Board packet, pages 17-24)*

6. Monthly Project Updates / Information Items (1st Board meeting per month) (digital Board packet, pages 25-33) – **January 2024 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		
January 22, 2024	February 12, 2024	February 26, 2024

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

December 11, 2023

The Regular Meeting of the Lehigh County Authority Board of Directors was called to order at 12:00 p.m. on Monday, December 11, 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, Amir Famili, Linda Rosenfeld, Kevin Baker, Jeff Morgan, and Marc Grammes were present for Roll Call, and remained for the duration of the meeting. Ted Lyons arrived at the meeting at 12:03 p.m.

Attorneys Kevin Reid and Rich Campbell of KingSpry, the Authority's Solicitor, were present along with Authority Staff, Liesel Gross, Ed Klein, Chris Moughan, Andrew Moore, AJ Capuzzi, Phil DePoe, Chuck Volk, and Lisa Miller.

Chairman Nagle announced that the Board received their electronic and hard copies of the Board packet in advance. He then 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 to the agenda. An Executive Session is planned after the regular meeting to discuss a security matter and a personnel matter.

APPROVAL OF MINUTES

November 13, 2023 Meeting Minutes

On a motion by Linda Rosenfeld, seconded by Amir Famili, the Board approved the minutes from the November 13, 2023 meeting as presented (7-0).

PUBLIC COMMENTS

None.

LCA Strategic Plan – 2023 Quarterly Progress Reporting

Albert Capuzzi gave an overview of the work completed in 2023 regarding Asset Management. Some of the goals and objectives for the program are to maximize existing resources, maintain affordable rates with cost-effective Asset Management processes, instill consistency with standard procedures, enhance organizational credibility, and prioritize financial investments. The framework for the Strategic Asset Management Plan was developed by the Institute of Asset Management and includes 39 elements under six core groups. The Authority's consultant, Hazen & Sawyer, conducted a maturity assessment using these 39 elements. Important components of the planning process were determining the desired levels of service which align with the Authority's mission and establishing the risk framework to assess the Authority's assets for likelihood of failure and consequence of failure. The next steps in the planning process include developing plans for key Suburban Division wastewater treatment plants and the Kline's Island Wastewater Treatment Plant, updating the Authority's asset inventory using the new asset definition and framework, upgrading the computerized maintenance management system to better address the needs to the Authority's vertical assets, and creating a materials and parts inventory.

Mr. Capuzzi then described the Project Excellence Initiative that was developed to improve tracking of capital projects and their adherence to performance standards, schedule, and budget. The goal is to improve results through collaboration and communication across the organization and manage the Authority's projects in a consistent manner. The initial phase of this initiative included using an online tool to track all projects in a centralized manner. However, this is a manual process that doesn't capture all financial and contract data. Authority staff are evaluating new software systems that will provide a more integrated method to manage projects, which will increase efficiency and transparency for the staff and Board.

There was some Board discussion regarding risk factors, cost and project tracking tool, and software implementation. The Board thanked Mr. Capuzzi for the presentation and commented that significant progress on the Authority's asset management programs appears to have been made in the past year.

Chris Moughan provided a summary of 2023 Employee Health & Safety metrics. He noted that the way incidents are recorded and followed up on has improved, and a corrective action plan review step has been added to the process. The number of incidents in 2023 show a significant increase from the prior year, which is due to the improvements being made in tracking and internal communication about the importance of safety. There was some discussion regarding insurance reporting. Marc Grammes commented that getting employees to report incidents and near misses is vital to a good safety program. There was additional discussion regarding the importance of consistency in reporting and also implementation of incentives for a good safety record.

Capital Works Planning Room Organizing, Secure Storage and Digitizing – Phase 2

Matt Dorner explained Phase 2 of the project to have all the remaining 14,000 as-builts and archived plans scanned. After scanning the plans, Reynolds Business Systems will return the plans to the Authority in storage boxes and in digital form through a secure hosted site.

On a motion by Marc Grammes, seconded by Amir Famili, the Board approved the Professional Services Authorization to Reynolds Business Systems in the amount of \$90,000.00 (7-0)

Resolution No. 12-2023-1: Customer Facility Fees & Connection Fees

Liesel Gross explained the Resolution regarding the customer facilities fees and connection fees and provided details of specific costs and fees charged. These costs are within 5 percent of last year's fees and will be incorporated into the existing rate schedule.

On a motion by Linda Rosenfeld, seconded by Ted Lyons, the Board approved Resolution No. 12-2023-1 (7-0).

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

Brian Nagle – yes
Amir Famili – yes
Ted Lyons – yes
Linda Rosenfeld – yes
Kevin Baker – yes
Jeff Morgan – yes
Marc Grammes – yes

Water Filtration Plant: Filter Upgrade Project

Amy Rohrbach provided an overview of the project that was identified in the 2017 and 2022 Allentown Water System Master Plan. Hazen & Sawyer performed design and bidding phase services for the project and recommended upgrading the filter underdrain, replacing the filter media, and installing an air scour filter backwash system. Approximately 50 percent of this project will be funded by the City of Allentown via an allocation of their American Rescue Plan Act funds. The remainder of the project cost will be paid via the Suburban Division under the terms of the bulk water purchase agreement with the City. Chuck Volk explained the increased cost estimate due to equipment and material increases. He also noted that the eight filters need to be taken down one at a time, which is very time consuming and adds to the construction cost. There was some discussion regarding the cost escalation.

On a motion by Ted Lyons, seconded by Amir Famili, the Board approved the Capital Project Authorization for the Construction Phase in the amount of \$8,447,978.00 which includes the Professional Services Authorization to Hazen & Sawyer in the amount of \$499,378.00, the General Construction Contract Award in the amount of \$6,968,600.00 to Eastern Environmental Contractors, Inc., and the Electrical Construction Contract Award in the amount of \$455,000.00 to Orlando Diefenderfer Electrical Contractors (7-0).

Upper Western Lehigh Pump Station & Force Main

Chuck Volk stated that this project is part of the interim Act 537 plan improvements in the Trexlertown area known as the "Trexlertown bottleneck" until a long-term solution is developed. The purpose of the pump station and force main will be to divert approximately 2.5 million gallons per day of dry-day sewage flow from the Western Lehigh Interceptor to a sanitary trunk line owned by Upper Macungie Township. For this authorization, the Authority will begin construction on the force main portion of the project only. The pump station construction would be authorized at a future meeting when all easements and appropriate bid documents are assembled for review.

Mr. Volk explained the Professional Services Authorization Design Phase Amendment 1 that was needed to cover unforeseen costs. The additional costs were due to the township requesting additional surveying and hydraulic calculations to be performed at the downstream manhole, coordination of the NPDES permits, adjustments to the line at the park at the request of the township, and the separated bid documents due to easement acquisition issues.

Liesel Gross reminded the Board that the Sewage Transportation Agreement required for this project was approved at the previous meeting. Also, this project was submitted to the H2O PA program for consideration of grant funding. The grant, if awarded, would pay for the bulk of the project.

On a motion by Marc Grammes, seconded by Amir Famili, the Board approved the Capital Project Authorization for the Construction Phase, Force Main only, in the amount of \$2,271,335.00 which includes the Construction Contract to Pact One LLC in the amount of \$1,940,050.00, the Professional Services Authorization for Construction Phase Engineering to Entech Engineering in the amount of \$85,000.00, Professional Services Authorization for Construction Phase Inspection to Keystone Consulting Engineers in the amount of \$72,777.00, and a Professional Services Authorization – Amendment 1 (Design Phase) to Entech Engineering in the amount of \$53,508.00 (7-0).

Kline's Island WWTP: Substation No. 1 and Switchgear Replacement

Amy Rohrbach provided an overview of the project to replace Substation No. 1 as it has reached the end of its useful life and not adequate to accommodate future increase in equipment loads from planned capacity improvements projects. Liesel Gross commented that this project is critical to have completed in advance of some of the wet-weather pumping upgrade projects so that the electrical

system is ready for the larger draws from the upgraded pumps. The project has been reviewed and approved by the City of Allentown as a major capital improvement project so there is approval for the capital cost recovery charges.

On a motion by Linda Rosenfeld, seconded by Ted Lyons, the Board approved the Capital Project Authorization for the Construction Phase in the amount of \$6,561,934.00 which includes the Professional Services Authorization for Construction Engineering and Administration to Keystone Engineering Group in the amount of \$136,858.00, the Professional Services Authorization for Construction Inspection to Borton Lawson in the amount of \$102,300.00, the Electrical Construction Contract Award to Philips Brothers Electrical Contractors, Inc. in the amount of \$4,974,999.00, and the General Construction Contract Award to Philips Brothers Electrical Contractors, Inc. in the amount of \$892,777.00 (7-0).

KISS System Selection of Solution (SOS)

Phil DePoe gave an overview of the work completed during the Final Alternatives Analysis phase of the Kline's Island Sewer System (KISS) Act 537 Plan development project. He provided an update on the current consultants' responsibilities regarding the final phase of the Act 537 planning. The Selection of Solution (SOS) is the final phase of the planning.

On a motion by Linda Rosenfeld, seconded by Ted Lyons, the Board approved the Capital Plan Authorization for the KISS Act 537 Selection of Solution in the amount of \$165,000.00 which includes the Professional Services Authorization to Arcadis in the amount of \$125,000.00 (7-0).

MONTHLY PROJECT UPDATES / INFORMATION ITEMS

Liesel Gross commented that this is the last meeting of the year and highlighted that the regular monthly reports will be sent to the Board later this month. She also noted that the current report format could evolve in the upcoming year based on work being completed on upgrades to capital project management and tracking systems.

STAFF COMMENTS

Liesel Gross welcomed Kevin Reid and Rich Campbell, both from KingSpry, to the Board meeting. Ms. Gross also wished everyone a happy holiday and thanked everyone for the support provided during 2023.

SOLICITOR'S COMMENTS

Solicitor Reid thanked the Board and Staff for the opportunity to work for the Authority and gave a brief background of his work experience.

PUBLIC COMMENTS / OTHER COMMENTS

None.

BOARD MEMBER COMMENTS

Chairman Nagle acknowledged the interview that Liesel Gross gave to Good Morning Lehigh Valley to discuss water and sewer in Lehigh County.

EXECUTIVE SESSION

Chairman Nagle announced there will be an Executive Session at 2:10 p.m. to discuss matters of security and personnel.

ADJOURNMENT

There being no further business, the Vice Chairman adjourned the meeting at 2:00 p.m.

Linda A. Rosenfeld
Secretary

RESOLUTION NO. 1-2024-1

(Duly adopted 8 January, 2024)

AUTHORIZING THE SUBMISSION OF A REDEVELOPMENT ASSISTANCE CAPITAL 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 Authority’s Board has determined to request a grant under the Redevelopment Assistance Capital Program (the “RACP” program) for financial assistance for the Industrial Pretreatment Plant Upgrade & Expansion Project (the “Project”); and

WHEREAS, in accordance with the RACP 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 RACP grant of Thirty Million Dollars (\$30,000,000) 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 8th day of January 2024.

Tally of Votes: Yeas _____ Nays _____

☞ ☞

I, Linda A. Rosenfeld, Secretary of the Lehigh County Authority Board of Directors, do hereby certify that the foregoing is a true, correct and complete copy of a resolution which was duly adopted by the Authority at a public meeting of the Authority held on 8 January 2024, after notice thereof had been duly given as required by law, at which meeting a quorum was present and voting and which Resolution No. 1-2024-1 is now in full force and effect on the date of this certification.

_____ Linda A. Rosenfeld Secretary Lehigh County Authority Board of Directors	_____ Date
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Attest:

_____ Lisa J. Miller Executive Administrative Support Specialist	_____ Date
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MEMORANDUM

Date: December 29, 2023

To: LCA Board of Directors

From: Matthew Dorner, Capital Works Project Manager

Subject: Procore Project Management/Construction Management Software

MOTIONS / APPROVALS REQUESTED:

No.	Item	Amount
1	Professional Service Authorization - Procore Software Initial Installation & Year 1 Contract	\$161,971

PROJECT OVERVIEW:

Lehigh County Authority (LCA) staff have identified the need for a tool to help project managers lead and execute projects effectively and consistently from the study phase through design and construction. This is an especially critical need for the organization as the project workload over the next several years is expected to expand dramatically as plans are finalized to related to the regional Act 537 Plan, and growing capital improvements needs to address new state and federal water quality regulations. Current processes for project management include manual tracking using spreadsheet software, paper files, email, and other non-uniform practices that do not support robust project tracking and reporting.

To begin the exploration of software options, LCA team members have attended several presentations by utility peers to preview systems already in use in the industry. In addition, LCA's asset management consultant, Hazen & Sawyer, reviewed options and provided recommendations related to project management software as part of their work on the Strategic Asset Management Plan development. The main objectives of the technical solution include the following:

Data Management – single cloud-based location for all project files;

Communication Tool – solicit, track, document comments among LCA staff and external stakeholders;

Overall Financial and Schedule Management – dashboard to track and manage at a glance the health of the projects, and integration with LCA financial software systems;

Engineering/Operations Collaboration – one-stop shop for O&M Manuals, field inspection photo documentation, asset management data, and other shared documents;

Contractor Management – efficient clearing house for communication and access to design drawings, specs, contracts, shop drawings, requests for information (RFIs), pay requisitions, change orders, etc.

One of the benefits of the software is reduced field time for staff and consultants. The software can streamline managing and distributing meeting minutes, plan and spec reviews, submittals, RFIs, change orders, payment applications, inspections reports, etc. For example, for the 2022 Allentown Division Cycle 6 Water Main Replacement Project, Keystone Consulting Engineers prepared inspection reports using the Procore platform and saved an estimated one hour per day, saving LCA approximately \$8,700 through use of this tool.

In summation, we believe a tool is needed for our current \$50 Million annual capital improvement plan (CIP). Since the CIP is expected to expand over the next 10 years due to the regional Act 537 Plan and related projects, a project management tool will be essential to the implementation and execution of the expanded workload. This is a common software used by many utilities to execute their CIPs.

PROPOSAL SOLICITATION AND RECOMMENDATION:

LCA prepared and issued a request for proposals to the following firms on July 21, 2023: Trimble, Oracle, ProjectMates, Procore, PMWeb. Proposals were submitted August 17, 2023. A five-person internal team was convened to review the proposals. Proposals were evaluated on the basis of company background and experience, project team, security, approach & work plan, and training and support. The team shortlisted three firms (ProjectMates, Procore and eBuilder/Trimble), requested answers to questions and held presentations. The selection team ranked the firms after the presentation, and the costs were reviewed. A survey of the references was completed and phone interviews were held.

Procore was the highest ranked firm. Of the shortlisted firms, Procore's costs were between the high and the low. eBuilder/Trimble came in at \$162,610 for initial installation and setup and \$132,000 for Year One cost while ProjectMates came in at \$71,360 for initial installation and setup and \$50,000 for Year One cost. Procore had far more projects in its experience base compared to the other proposers. Utilities, consultants, and contractors recommended Procore to LCA.

FINANCIAL:

The cost of this project will be shared by all Divisions.

PROJECT STATUS:

Commencement of acquisition pending Board approval.

THIS APPROVAL:

This authorization is for Initial Installation and Setup Cost (\$95,100) plus the Year One Cost for the Program Management/Construction Management Software (\$66,871) for a total authorization request of 161,971. Moving forward, annual contract costs will be incorporated into LCA's operating budget. The scope of services for this phase of work includes the following tasks:

Professional Services	
1.	Procore Launch, Installation and Account Set Up - Includes initial meetings with LCA - Procore Committee to establish the project timeline and provide an overview of the current processes, key stakeholders, and expectations. Discussion of current business processes and definition of those processes within Procore.
2.	Implementation Team Training - The Implementation Team will begin consultation. During that time, each member of the Procore Committee will watch a recommended set of Procore Certification videos,

and receive access to the sandbox test project to practice and review the material covered in the training program.
3. Consultation Sessions – Procore will work with LCA’s team to establish a workflow and standard process for Procore tools, customize system configurations and procedures, establish user permission templates, configure standard project templates, form customization and workflow design, and identify project types, roles, stages, programs, and departments.
4. Roll Out Plan – Based on the rollout strategy selected, Procore will be introduced to new team project members based on the rollout approach decided in implementation.
5. Training and Support – Procore will provide training services for LCA employees to facilitate configuration and implementation. This includes basic training and Software Solution training certifications for external and future users. In addition, they offer documentation, training materials, training webinars, and services such as online support. A User Support Department is available and scheduled maintenance and upgrades will be provided as available.

PROJECT SCHEDULE:

Pending Board approval, this work is anticipated to begin immediately. Three months are anticipated for Project Management and Quality & Safety Tools implementation, and six months for implementing Financial tools. The entire initial setup is anticipated to be completed within nine months.

FUTURE AUTHORIZATIONS:

None.



Lehigh County Authority

1053 Spruce Road * P.O. Box 3348 * Allentown, PA 18106-0348
(610)398-2503 * FAX (610)398-8413 * Email: service@lehighcountyauthority.org

PROFESSIONAL SERVICES AUTHORIZATION

Professional: PROCORE
6309 Carpinteria Ave
Carpinteria, CA 93013

Date: December 29, 2023

Requested By: Matt Dörner

Approvals

Department Head: _____

Chief Executive Officer: _____

Procore Project Management/Construction Management Software

Lehigh County Authority (LCA) staff have identified the need for a tool to help project managers lead and execute projects effectively and consistently from the study phase through design and construction. This is an especially critical need for the organization as the project workload over the next several years is expected to expand dramatically as plans are finalized to related to the regional Act 537 Plan, and growing capital improvements needs to address new state and federal water quality regulations.

Procore has been selected to provide a technical solution that will include consistent systems and tools for data management, project communication and document management, financial and schedule management, cross-departmental collaboration, and contractor management.

The scope of services includes, but is not limited to, the following:

Professional Services
1. Procore Launch and Account Set Up - Includes initial meetings with LCA - Procore Committee to establish the project timeline and provide an overview of the current processes, key stakeholders, and expectations. Discussion of current business processes and definition of those processes within Procore.
2. Implementation Team Training - The Implementation Team will begin consultation. During that time, each member of the Procore Committee will watch a recommended set of Procore Certification videos, and receive access to the sandbox test project to practice and review the material covered in the training program.
3. Consultation Sessions – Procore will work with LCA’s team to establish a workflow and standard process for Procore tools, customize system configurations and procedures, establish user permission templates, configure standard project templates, form customization and workflow design, and identify project types, roles, stages, programs, and departments.
4. Roll Out Plan – Based on the rollout strategy selected, Procore will be introduced to new team project members based on the rollout approach decided in implementation.
5. Training and Support – Procore will provide training services for LCA employees to facilitate configuration and implementation. This includes basic training and Software Solution training certifications for external and future users. In addition, they offer documentation, training materials, training webinars, and services such as online support. A User Support Department is available and scheduled maintenance and upgrades will be provided as available.

This authorization (December 2023): \$161,971

Approval Amount (not to be exceeded without further authorization): \$161,971

Time Table and Completion Deadline: Pending Board approval, this work is anticipated to begin immediately. Three months are anticipated for Project management and Quality & Safety Tools implementation, and six months for implementing Financial tools. The entire initial setup is anticipated to be completed within nine months.

(For Authority Use Only)

Authorization Completion:

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

MEMORANDUM

Date: January 8, 2024

To: LCA Board of Directors
Liesel Gross, CEO

From: Charles Volk, P.E., Chief Capital Works Officer

Re: Suburban Division - Emergency Declaration: 5228 Memorial Road

During the recent site work for a proposed hotel/restaurant development located at 5228 Memorial Road in the Kuhnsville area (Townplace Suites by Marriot), it was discovered that LCA's existing 12-inch water main, which runs through the interior of the site, was installed shallower than as depicted on the as-built drawings, and that the final grades for the site would create a condition of inadequate cover over a section of pipeline that runs under proposed access drives and parking areas. LCA Operations and Capital Works staff met with the developer and an outside contractor to scope the relocation of this section of water main to nearby Memorial Road. The relocated water main would then allow for the abandonment of approximately 300 linear feet of existing water main running through the site and eliminate the risk of catastrophic damage to the existing main.

A retroactive emergency declaration and construction authorization is to be requested at the January 8, 2024 LCA Board meeting to expedite installation of the relocated water main ahead of the developer's site improvements to avoid potential damage to the existing main.

To allow the engineering and contractor solicitation to proceed quickly, the emergency declaration was approved administratively by Liesel Gross, CEO, on December 5, 2023. Construction scheduling is underway, and construction cost estimates are as follows:



1053 SPRUCE RD * P.O. BOX 3348 * ALLENTOWN, PA 18106-0348
610-398-2503 * Email: service@lehighcountyauthority.org
www.lehighcountyauthority.org

Work to be Completed

Vendor	Service/Materials	Cost*
Scheuermann Excavating, Inc.	Construction Services	\$188,297
Keystone Consulting Engineers	Construction Inspection	\$3,000
Total		\$191,297

*Estimated

The total estimated cost for the emergency work is expected to be \$191,297. Construction is anticipated to mobilize in mid-January 2024 and be completed by the end of the month. The new water main will connect to LCA's existing water main on Blue Barn Road, run approximately 300 feet west along Memorial Road and tie back into LCA's existing water main on the western end of the property in question. The work is to include all taps, valves, fittings and restoration work.

The LCA Board of Directors is asked to approve this declaration retroactively to December 5, 2023 to cover the internal expenses already incurred for Operations and Capital Works staff time, as well as the construction work to install the relocated water main, and waive standard purchasing guidelines as a result of acting as expeditiously as possible to address the emergency.

MEMORANDUM

Date: January 8, 2024

To: LCA Board of Directors
Liesel Gross, CEO

From: Phil DePoe, Senior Planning Engineer

Subject: Meter Stations #1 and #2 Parshall Flume Replacements: Design and Bid Services

MOTIONS / APPROVALS REQUESTED:

No.	Item	Amount
1	Capital Project Authorization: Meter Stations #1 and #2 Parshall Flume Replacements	\$59,000
1A	Professional Services Authorization: Arcadis – Meter Stations #1 and #2 Parshall Flume Replacements	\$49,000

**Included in the Capital Project Authorization*

Meter Stations #1 and #2 Parshall Flume Replacements

AUTHORIZATION OVERVIEW:

All municipalities in the Kline's Island Sewer System are continuing to work on inflow and infiltration (I&I) source removal as part of the approved Interim Act 537 Plan. As part of the on-going Act 537 planning, each municipality will be closely monitoring their flows to quantify I&I reductions. Due to current metering limitations, the boroughs of Macungie and Albury cannot accurately measure their respective sewage flows. Therefore, the primary objective of this proposed work is to expand peak flow capacity of the existing meter stations.

Both existing LCA Meter Stations (MS) #1 and #2 were installed in the late 1970s. MS #1 is just upstream of the Borough of Albury's boundary with Lower Macungie Township and therefore captures the entire Borough's flows. MS #2 captures the flow entering the Borough of Macungie. MS #3 captures the flow exiting the Borough of Macungie and is accurately measuring average and peak sewage flows.

Secondary project objectives include refurbishment of architectural and ventilation aspects of these sites. No changes to the meter stations' electrical or communications systems are included in this work. LCA is in the middle of a SCADA project and proper coordination will occur with this meter station project.

FINANCIAL

These design and bid services will be funded via the LCA Suburban Division.

CURRENT STATUS

Pending Board approval of these design and bid services.

THIS APPROVAL – DESIGN AND BID PHASE

Lehigh County Authority (LCA) intends to retain the services of an engineering consulting firm to provide these services. The work includes the following:

Professional Services	
•	Data gathering and design
•	Preparation of construction plans and specification documents
•	Bid and bid evaluation support

CONSULTANT SELECTION PROCESS

Arcadis has been LCA's engineering consultant for annual ongoing sewer program support services.

SCHEDULE

The draft bid package is anticipated to be ready for review by the second quarter of 2024.

FUTURE AUTHORIZATIONS

Construction phase authorizations are anticipated by the middle of 2024.

Mr. Philip DePoe
Capital Works Program Manager
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:
Meter Station 1 and Meter Station 2
Parshall Flume Replacement
Design and Bid Phase Services Scope and Budget Proposal

Date:
December 22, 2023

Dear Mr. DePoe:

Arcadis U.S., Inc. (Arcadis) is pleased to submit this proposal to provide design and procurement services to LCA for the Parshall flume replacement and station refurbishment of Meter Station 1 (Alburtis) and Meter Station 2 (Lower Macungie). This scope and budget cover work from project initiation through evaluation of received bids. A separate proposal for construction engineering will be provided once the construction project scope and schedule have been fully defined.

Contact:

Jim Shelton

Phone:
302.723.1450

Email:
James.Shelton@arcadis.com

OBJECTIVES

The primary objective of this work is to expand peak flow capacity of these meter stations so that peak wet weather flows no longer overtop the undersized parshall flumes. Secondary objectives include refurbishment of architectural and ventilation aspects of these sites. For the purposes of this scope and budget, we have assumed replacement of ventilation systems, roofs, doors, flumes, floor covers, and CSE entry anchors as well as reinstallation of existing meter hardware. No changes to the meter stations' electrical or communications systems are included in this work.

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.

<https://Arcadiso365.Sharepoint.Com/Teams/LCA2021Model/Shared Documents/General/Proposals/MS 1 And 2 Parshall Flume Replacement/MS 1 And 2 Parshall Flume Replacement.Docx>

SCOPE OF WORK

Task 1 – Data Gathering and Design

Arcadis will determine the proper size of each Parshall flume for Meter Stations 1 and 2. Arcadis will conduct site reconnaissance and confined space entries to prepare scale figures and take photographs of existing conditions of upper and lower levels of each meter station to support construction bid drawings and specifications.

Arcadis will prepare CAD-based plans of the work showing the bottom and top floors of each meter station, existing concrete to be removed, and other needed information for completing the work.

Task 2 – Preparation of Construction Plan and Specification Documents

The construction plans will include the following sheets:

- Cover sheet
- Site maps showing the location of each meter station
- Detailed drawings depicting the existing conditions, materials to be removed, and new Parshall flumes and materials to be installed in plan and section views
- Relevant notes and details, if needed

Arcadis will prepare technical specifications for bidding and for construction of the work. This will include a measurement and payment section describing pay basis and a matched Bid Form.

Specifications will include:

- 01 11 13 Summary of Work
- 01 22 13 Measurement and Payment
- 01 33 00 Submittal Procedures
- 01 35 26.23 Requirements for Confined Space Entry
- 01 41 25 Permitting
- 01 51 41 Temporary Pumping
- 01 52 11 Temporary Construction Facilities
- 01 71 23 Construction Engineering and Management
- 01 71 33 Protection of the Work and Property
- 02 41 00 Demolition
- 03 01 31 Concrete and Masonry Repair
- 05 54 00 Metal Floor Plates
- 07 50 00 Membrane Roofing
- 07 62 00 Sheet Metal Flashing and Trim
- 08 13 13 Hollow Metal Doors
- 23 31 16 HVAC Metal Ducts
- 23 34 00 HVAC Fans

- 26 05 00 Electrical
- 26 54 119 LED Classified Location Lighting
- 40 71 86 Flow metering Weirs
- 41 22 19 Lifting Hooks
-

Arcadis will prepare front end contract documents to support solicitation of bids from contractors for the construction. These front-end documents follow LCA standard front-end templates with embedded Supplementary Conditions. These will include LCA-provided latest version of:

- Notice to Bidders
- Instructions to Bidders
- Bid Form
- General Conditions with embedded Supplementary Conditions
- Bond Forms

Arcadis will prepare an Engineer's Estimate of Probable Construction Cost. LCA will request and provide the appropriate Davis-Bacon prevailing wage forms for this work.

Task 3 – Bid and Bid Evaluation Support

Arcadis will:

- Email prospective Bidders the Notice to Bidders and links to LCA's procurement site.
- Conduct pre-bid meeting (assumed virtual), including preparation of topics.
- Prepare pre-bid meeting minutes and addendum for distribution of minutes.
- Prepare addenda for Requests for Information from subcontractors during bidding.
- Identify and assess any exceptions or notes provided with bids.

DELIVERABLES

Arcadis will prepare the following deliverables:

- Draft and Final Technical Specifications
- Draft and Final Measurement and Payment Specification
- Draft and Final Bid Form
- Draft and Final Front End Documents
- Draft and Final Construction Plans
- Draft and Final Construction Cost Estimate
- Draft and Final Construction Schedule (contract time)
- Pre-bid meeting agenda and minutes
- Addenda

SCHEDULE

Arcadis will begin work upon receipt of executed agreement. We anticipate the draft bid package will be ready for LCA review 4 months after authorization.

BUDGET ESTIMATE

We estimate the cost and level of effort of this work as shown in the below table.

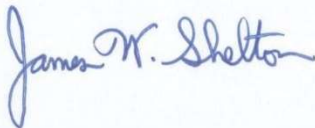
Task	Hours	Cost
Task 1 – Data Gathering and Design	70	\$13,000
Task 2 – Preparation of Construction Plan and Specification Documents	200	\$32,000
Task 3 – Bid and Bid Evaluation Support	20	\$4,000
Total	290	\$49,000

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

Cc: Tony Dill

CAPITAL PROJECT AUTHORIZATION

PROJECT NO.:	<u>SD-S-3</u>	BUDGET FUND:	<u>Suburban Div\Wastewater\Capital</u>
PROJECT TITLE:	<u>Meter Stations #1 and #2 Parshall Flume Replacements: Design and Bid Services</u>	PROJECT TYPE:	<input checked="" type="checkbox"/> Construction <input type="checkbox"/> Engineering Study <input type="checkbox"/> Equipment Purchase <input type="checkbox"/> Amendment
THIS AUTHORIZATION:	<u>\$59,000</u>		
TO DATE (W/ ABOVE)	<u>\$59,000</u>		

DESCRIPTION AND BENEFITS:

All municipalities in the Kline's Island Sewer System are continuing to work on inflow and infiltration (I&I) source removal as part of the approved Interim Act 537 Plan. As part of the on-going Act 537 planning, each municipality will be closely monitoring their flows to quantify I&I reductions. Due to current metering limitations, the boroughs of Macungie and Alburtis cannot accurately measure their respective sewage flows. Therefore, the primary objective of this proposed work is to expand peak flow capacity of the existing meter stations. Both existing LCA Meter Stations (MS) #1 and #2 were installed in the late 1970s. MS #1 is just upstream of the Borough of Alburtis' boundary with Lower Macungie Township and therefore captures the entire Borough's flows. MS #2 captures the flow entering the Borough of Macungie.

Prior Authorization: N/A

This Authorization: Design and bid services for the Parshall flume replacements at LCA Meter Stations #1 and #2.

See attached Board Memo for further project details.

Authorization Status:

Requested This Authorization (LCA MS #1 and 2)	
<i>Design/Bid Phase</i>	
Staff	\$5,000
Contractor	\$0
Engineering Consultant	\$49,000
Contingency	\$5,000
Total This Authorization	\$59,000

Prior Authorization	\$0
Subtotal	\$59,000
<i>Future Authorizations</i>	<i>TBD</i>

REVIEW AND APPROVALS:

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



Lehigh County Authority

1053 Spruce Street * P.O. Box 3348 * Allentown, PA 18106-0348
(610)398-2503 * FAX (610)398-8413 * Email: service@lehighcountyauthority.org

PROFESSIONAL SERVICES AUTHORIZATION

Professional: ARCADIS U.S., INC.
1600 Market Street, Suite 1810
Philadelphia, PA 19103

Date: January 8, 2024

Requested By: Phil DePoe

Approvals

Department Head: _____

Chief Executive

Officer: _____

Suburban Division – Meter Stations #1 and #2 Parshall Flume Replacements: Design and Bid Services

All municipalities in the Kline's Island Sewer System are continuing to work on inflow and infiltration (I&I) source removal as part of the approved Interim Act 537 Plan. As part of the on-going Act 537 planning, each municipality will be closely monitoring their flows to quantify I&I reductions. Due to current metering limitations, the boroughs of Macungie and Alburtis cannot accurately measure their respective sewage flows. Therefore, the primary objective of this proposed work is to expand peak flow capacity of the existing meter stations. Secondary project objectives include refurbishment of architectural and ventilation aspects of these sites.

Work in this proposal includes, but is not limited to, the following:

Professional Services ⁽¹⁾
1. Data gathering and design
2. Preparation of construction plan and specification documents
3. Bid and bid evaluation support

(1) Please reference the cover Memo for additional information.

Prior Approval:

Amount: \$0

This Approval:

Amount: \$49,000

New Amended Amount (not to be exceeded without further authorization): \$49,000

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 – January 2024

Published: January 2, 2024

PART 1 – Upcoming Agenda Items – Action & Discussion Items

FINANCE & ADMINISTRATION

Project Title: Project Management / Construction Management Software Installation & Setup

Division / Funding: All Divisions

Board Action Date: 1/8/2024

Status or Action Desired: Approval

Project Phase: Planning Phase

Project Notes: Lehigh County Authority (LCA) staff have identified the need for a tool to help project managers lead and execute projects effectively and consistently from the study phase through design and construction. This is an especially critical need for the organization as the project workload over the next several years is expected to expand dramatically as plans are finalized to related to the regional Act 537 Plan, and growing capital improvements needs to address new state and federal water quality regulations. A technical solution was reviewed by staff to provide consistent systems and tools for data management, project communication and document management, financial and schedule management, cross-departmental collaboration, and contractor management. A request for proposal was sent to five firms in July 2023, with proposals submitted on August 17, 2023. An internal team reviewed all proposals and interviewed the highest ranked firms. At the January 8, 2024 Board meeting, approval will be sought to authorize Procore for installation and setup of the selected system. Staff Responsibility: Matt Dorner

Project Title: Resolution 1-2024-1: Allentown Water & Sewer Lease Bond Refinancing

Division / Funding: Allentown Division

Board Action Date: 1/22/2024

Status or Action Desired: Approval

Project Phase: n/a

Project Notes: LCA staff, along with a team of professionals assembled in 2023, have been evaluating the option to refinance a portion of the bonds issued in 2013 to fund the Allentown Water & Sewer Lease. In addition, the 2024-2028 Capital Plan calls for approximately \$55 million in new borrowing required to fund the projects included in the plan. Following review of the financial benefits associated with the potential refinancing, the LCA Board will be asked to approve a “parameters resolution” on January 22, 2024 to authorize refinancing of a portion of the Lease Bonds so long as the refinancing falls within the parameters established in the resolution. Staff Responsibility: Ed Klein

Project Title: Monthly Financial Review

Division / Funding: n/a

Board Action Date: 1/22/2024

Status or Action Desired: Information

Project Phase: n/a

Project Notes: The December 2023 monthly financial report will be presented in February 2024. Staff Responsibility: Ed Klein

SYSTEM OPERATIONS

Project Title: Monthly Operations Report

Division / Funding: n/a

Status or Action Desired: Discussion

Board Action Date: 1/22/2024

Project Phase: n/a

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

WATER PROJECTS – SUBURBAN DIVISION

Project Title: Memorial Road Emergency Water Main Realignment

Division / Funding: Suburban Division

Status or Action Desired: Approval

Board Action Date: 1/8/2024

Project Phase: Construction Phase

Project Notes: During the recent site work for a proposed hotel/restaurant development located at 5228 Memorial Road (Townplace by Marriot), it was discovered that LCA's existing 12-inch water main, which runs through the interior of the site, was installed more shallow than as depicted on the as-built drawings, and that the final grades for the site would create a condition of inadequate cover over a section of pipeline running under parking areas. LCA Operations and Capital Works staff met with the developer and an outside contractor to scope the relocation of this section of water main to nearby Memorial Road, allowing for the abandonment of the LCA water main running through the site. A retroactive emergency declaration and construction authorization is to be requested at the 1/8/2024 LCA Board meeting to expedite installation of the relocated water main ahead of the developer's site improvements to avoid potential damage to the existing main. Staff Responsibility: Chuck Volk

WATER PROJECTS – ALLENTOWN DIVISION

Project Title: Water Filtration Plant: Emergency Power Design

Division / Funding: Allentown Division

Status or Action Desired: Approval

Board Action Date: 1/22/2024

Project Phase: Design Phase

Project Notes: The Water Filtration plant is currently fed by two separate electrical feeds from the same PPL sub-station. In the event of a sub-station outage, the plant is without power. This situation did occur in October of 2011 during a snowstorm. In an effort to improve power resiliency a study was performed by Keystone Engineering Group to evaluate various alternatives to provide uninterrupted, reliable power and the recommendation was to install a new feed from a different PPL sub-station south of the plant. Keystone Engineering Group provided a proposal for design and bidding services for this new feed. Design phase approval is to be requested at the 1/22/2024 LCA Board meeting. Staff Responsibility: Amy Rohrbach

WASTEWATER PROJECTS – SUBURBAN DIVISION

Project Title: LCA Meter Stations 1 and 2 Upgrades

Division / Funding: Suburban Division

Board Action Date: 1/8/2024

Status or Action Desired: Approval

Project Phase: Design Phase

Project Notes: The LCA sewer system contains five meter stations located strategically throughout. Meter Stations #1 is located on the downstream side of the Borough of Alburtis (the beginning of the Alburtis-Macungie Trunkline) and Meter Station #2 is located on the upstream side of the Borough of Macungie. Both meter stations cannot currently accurately measure peak flows and therefore are in need of parshall flume replacements. The replacement of these flumes will expand the peak flow capacity. This proposed design work is part of the larger KISS Sewer Billing Meter issue that requires a long term solution (a requirement of the Interim Act 537). Board authorization for the design and bid phase is requested at the January 8, 2024 Meeting. Staff Responsibility: Phil DePoe

WASTEWATER PROJECTS – ALLENTOWN DIVISION

Project Title: Kline's Island WWTP - Septage Receiving and Vacuum Truck Unloading Modifications

Division / Funding: Allentown Division

Board Action Date: 1/22/2024

Status or Action Desired: Approval

Project Phase: Construction Phase

Project Notes: The KIWWTP currently receives septage trucks that discharge into a manhole located along the entrance driveway. This situation causes traffic flow issues as well as cleanup and disposal issues in the event of spilled or overflowed waste. The plant also has an undersized vacuum truck unloading area that is in need of expansion and spillage control. A PSA was issued to D'Huy Engineering on October 27, 2022 to design a dedicated septage receiving station that would eliminate the traffic flow and spill concerns as well as provide connectivity for future automation. The design also includes improvements to the vacuum truck unloading area. The bid package was advertised 11/17/2023 and a prebid meeting was held on 11/28/2023, with bids due 1/4/2024. Capital Project Authorization for construction is to be requested at the 1/22/2024 Board Meeting. Staff Responsibility: Amy Rohrbach

WASTEWATER PROJECTS – KISS ACT 537

Project Title: Kline's Island WWTP - High-Rate Wet-Weather Treatment Pilot StudyDivision / Funding: Allentown DivisionBoard Action Date: 12:00:00 AMStatus or Action Desired: UpdatedProject 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 equipment arrived on site in late April of 2023 and the pilot study concluded in mid-July. Full results were published in late September. A recommendation on the preferred alternative will be presented to the KISS Managers and Engineers in January 2024.

Staff Responsibility: Phil DePoe**Project Title: KISS Act 537 Planning - Financial & Institutional Evaluation, Phase 2**Division / Funding: City of Allentown (AO)Board Action Date: 12:00:00 AMStatus or Action Desired: UpdatedProject Phase: Planning Phase

Project Notes: One of the Act 537 Plan requirements is to complete a financial evaluation of the selected alternative, including rate impacts, cost-sharing, and financing approach. Another key requirement is to evaluate the institutional / governance approach to completing the projects, operating and maintaining the facilities, and monitoring performance. In December 2022, authorization was granted to retain a professional consultant (Raftelis) to conduct phase 1 of this work, which included a preliminary financial evaluation focused on gathering data from all municipalities and conducting preliminary analyses on system costs and user rates. This work has been completed, and phase 2 work was authorized in July 2023. Phase 2 services include more detailed analysis of existing agreements and cost-sharing mechanisms, and workshops with the municipalities to develop updated cost-sharing methods. The results will be incorporated into a financial model for further analysis of rate impacts and system capacity to fund the projects included in the Act 537 Plan. As this work is nearing completion, a small number of cost-sharing options have been developed and are under review by the municipalities. Phase 3 work is expected to commence in early 2024, which will include final preparation of financial analyses to be completed in the Act 537 Plan submission. Legal support is likely to be required to formulate draft agreements. Staff Responsibility: Liesel Gross

Project Title: Industrial Pretreatment Plant Master PlanDivision / Funding: Suburban DivisionBoard Action Date: 12:00:00 AMStatus or Action Desired: UpdatedProject 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 process included full-scale condition assessments, review of treatment process optimization, and development of short-term and long-term capital plans. The Master Plan will be incorporated into the ongoing regional Act 537 Plan that is due to DEP in 2025. As part of the Act 537 planning process that is currently under way, a detailed upgrade analysis was recently completed by the plant operator (Jacobs). That analysis was incorporated into the Master Plan as well. Board authorization for the Master Plan was approved on December 13, 2021. The project will be funded by the LCA Suburban Division. A preliminary draft report was submitted in December of 2022 and a final report was delivered in April of 2023. A Board presentation of the Master Plan was provided by Jacobs at the March 27, 2023 meeting. Value engineering and external stakeholder discussions are ongoing with recommended solutions forthcoming by March 2024. Staff Responsibility: Phil DePoe

PART 3 – Open Project List – No Updates

Project Category	Project Title	Division / Funding	Project Phase	Staff Responsibility
Finance & Administration	LCA Strategic Plan - Quarterly Progress Reporting	All Divisions	n/a	Liesel Gross
Finance & Administration	Capital Works Planning Room Organizing, Secure Storage and Digitizing - Phase 2	All Divisions	Planning Phase	Matt Dorner
Finance & Administration	LCA Munis ERP System Planning & Re-Implementation	All Divisions	Planning Phase	Chris Moughan & Brooke Neve
Finance & Administration	Asset Management Roadmap & Strategic Asset Management Plan (SAMP)	All Divisions	Planning Phase	Albert Capuzzi
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	Water Main Replacement Program Cycle 7	Suburban Division	Construction Phase	Jason Peters
Water - Suburban	Central Lehigh and North Whitehall Systems – Water Supply Study	Suburban Division	Planning Phase	Phil DePoe
Water - Suburban	2022 Commercial Meter Replacement Project	Suburban Division	Construction Phase	Amy Kunkel
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 - Suburban	North Whitehall Meter Replacement	Suburban Division	Construction Phase	Amy Kunkel
Water - Suburban	Suburban Division Lead Service Line Inventory Program & Compliance Planning	Suburban Division	Planning Phase	Matt Dorner
Water - Suburban	Water Main Replacement Program Cycle 7 & 8	Suburban Division	Design Phase	Jason Peters
Water - Allentown	Water Filtration Plant: Filter Upgrade Project	Allentown Division	Construction Phase	Amy Rohrbach

Project Category	Project Title	Division / Funding	Project Phase	Staff Responsibility
Water - Allentown	Lead Service Line Replacement Project Cycle 1	Allentown Division	Design Phase	Jason Peters
Water - Allentown	Allentown Division Lead Service Line Inventory Program & Compliance Planning	Allentown Division	Planning Phase	Matt Dorner
Water - Allentown	30" & 36" East Side Transmission Main Repair Project	Allentown Division	Design Phase	Jason Peters
Water - Allentown	Large Meter Chamber Replacement	Allentown Division	Construction Phase	Amy Kunkel
Water - Allentown	Water Filtration Plant: PFAS Compliance Study	Allentown Division	Planning Phase	Albert Capuzzi
Water - Allentown	Water Main Replacement Program Cycles 7 & 8	Allentown Division	Design Phase	Jason Peters
Water - Allentown	Large Diameter Valve Rehabilitation & Replacement Program	Allentown Division	Design Phase	Jason Peters
Water - Allentown	Lead Service Line Replacement Program Planning	Allentown Division	Planning Phase	Andrew Moore
Water - Allentown	Water Filtration Plant: 2022-2023 Indenture Upgrades	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 Interceptor Inspections	City of Allentown (AO)	Planning Phase	Phil DePoe
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 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	Upper Western Lehigh Pump Station & Force Main	Suburban Division	Construction Phase	Amy Kunkel
Sewer - Act 537	Regional Sewer Capacity & Wet-Weather Planning: 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

Project Category	Project Title	Division / Funding	Project Phase	Staff Responsibility
Sewer - Act 537	Western Lehigh Service Area - Engineering & Program Support	Suburban Division	Planning Phase	Phil DePoe
Sewer - Suburban	Lynn Township WWTP Final Clarifier Project	Suburban Division	Design Phase	Chuck Volk
Sewer - Suburban	Pretreatment Plant (PTP) Near-Term Facility Improvements	Suburban Division	Preliminary Design Phase	Albert Capuzzi
Sewer - Suburban	Western Lehigh Manhole Rehabilitation Project - Phase 4	Suburban Division	Construction Phase	Jason Peters
Sewer - Suburban	Park Pump Station Phase 2 Upgrade	Suburban Division	Construction Phase	Amy Kunkel
Sewer - Suburban	North Whitehall Township Act 537 Plan	Suburban Division	Planning Phase	Phil DePoe
Sewer - Suburban	Heidelberg Heights Sanitary Sewer Consent Order & Agreement	Suburban Division	Construction Phase	Jason Peters
Sewer - Suburban	Spring Creek Pump Station Upgrades	Suburban Division	Design Phase	Amy Kunkel
Sewer - Suburban	Pretreatment Plant (PTP) Electrical Study	Suburban Division	Planning Phase	Albert Capuzzi
Sewer - Suburban	Heidelberg Heights Wastewater Treatment Plant - Mechanical Screen Project	Suburban Division	Construction Phase	Chuck Volk
Sewer - Suburban	Spring Creek Force Main Relocation - PA Turnpike Commission	Suburban Division	Design Phase	Amy Kunkel
Sewer - Suburban	Lynn Township Corrective Action Plan	Suburban Division	Planning Phase	Jason Peters
Sewer - Allentown	Kline's Island WWTP: Substation No. 1 and Switchgear Replacement	Allentown Division	Construction Phase	Amy Rohrbach
Sewer - Allentown	Kline's Island WWTP: 2023-2024 Architectural and Structural Upgrades	Allentown Division	Construction Phase	Amy Rohrbach
Sewer - Allentown	Kline's Island WWTP: Main and Auxiliary Pump Station Improvements	Allentown Division	Preliminary Design	Amy Rohrbach
Sewer - Allentown	Sanitary Sewer Collection System: I&I Source Reduction Program (LCA Year 1)	Allentown Division	Design Phase	Albert Capuzzi

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 - Tertiary Bypass	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
Sewer - Allentown	KISS Act 537 Planning - Selection of Solution (SOS) Phase	City of Allentown (AO)	Planning Phase	Phil DePoe
Sewer - Allentown	Sanitary Sewer Collection System: I&I Source Reduction Program (City Year 4)	City of Allentown (AO)	Construction Phase	Phil DePoe