



## BOARD MEETING AGENDA – May 9, 2022 – 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](mailto: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](http://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

- *April 25, 2022 Board meeting minutes*

4. Public Comments

5. Action / Discussion Items:

**FINANCE AND ADMINISTRATION**

- *Chief Executive Officer Salary (Approval)*
- *Suburban Water & Sewer Facilities - SCADA System Upgrade (Approval) (blue) (digital Board packet, pages 8-11)*

**WATER**

- *2022 Commercial Meter Replacement Project Repair (Approval) (salmon) (digital Board packet, pages 12-14)*

**WASTEWATER**

- *Sanitary Sewer Collection System: Rain Derived Inflow and Infiltration (RDII) Analysis (Discussion)*

6. Monthly Project Updates / Information Items (1<sup>st</sup> Board meeting per month) (digital Board packet, pages 15-21) - **May report attached**

7. Monthly Financial Review (2<sup>nd</sup> Board meeting per month) (digital Board packet, pages)

8. Monthly System Operations Overview (2<sup>nd</sup> Board meeting per month) (digital Board packet, pages)

- 9. Staff Comments
- 10. Solicitor's Comments
- 11. Public Comments / Other Comments
- 12. Executive Sessions
- 13. Adjournment

<b>UPCOMING BOARD MEETINGS</b>		
May 23, 2022	June 13, 2022	June 27, 2022

**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**

### **April 25, 2022**

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The Regular Meeting of the Lehigh County Authority Board of Directors was called to order at 12:01 p.m. on Monday, April 25, 2022. 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, Scott Bieber, Richard Bohner, Norma Cusick, Ted Lyons, Linda Rosenfeld, Jeff Morgan, and Amir Famili were present for the duration of the meeting.

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

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

#### **REVIEW OF AGENDA**

Liesel Gross announced that there are no changes to the agenda. An Executive Session is planned after the close of the regular meeting to discuss personnel.

#### **APPROVAL OF MINUTES**

##### **March 28, 2022 Meeting Minutes**

Richard Bohner noted a grammatical error. On a motion by Richard Bohner, seconded by Amir Famili, the Board approved the minutes of the April 11, 2022 Board meeting as corrected (7-0). Scott Bieber abstained.

#### **PUBLIC COMMENTS**

None.

#### **ACTION AND DISCUSSION ITEMS**

Kevin Baker entered the meeting at 12:05 p.m.

##### **Resolution No. 4-2022-1: Destruction of Authority Documents**

Liesel Gross explained that the Resolution is an annual process whereby the Authority Board must formally approve the disposition of certain records in accordance with the Pennsylvania Municipal Records Act.

On a motion by Richard Bohner, seconded by Amir Famili, the Board approved Resolution No. 4-2022-1 for the Destruction of Authority Documents (9-0).

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

Brian Nagle – yes  
Scott Bieber – yes  
Richard Bohner – yes  
Norma Cusick – yes  
Ted Lyons – yes  
Kevin Baker – yes  
Linda Rosenfeld – yes  
Jeff Morgan – yes  
Amir Famili – yes

### **LCA Strategic Plan – Quarterly Progress Report**

Liesel Gross presented the 1<sup>st</sup> Quarter Progress Report for the Strategic Plan. The key focus areas for 2022 are Asset Management, Water & Sewer Capacity, Process Improvements, Employee Engagement and Safety, and Specific Operational Excellence Projects. Ms. Gross highlighted milestones of each of these areas that will be reported on a quarterly basis. Some discussion followed regarding the strategic planning process, tracking progress on the large volume of work included in the plan, and staff accountabilities for specific performance targets.

Scott Bieber commented that he would like to see the detailed 2021 flow monitoring and inflow and infiltration data for four of the sewer signatories. Ms. Gross said that information from all of the sewer signatories has been combined into a single report that can be shared at the next Board meeting.

Ms. Gross reviewed the one-page dashboard showing the Strategic Plan Metrics. The Board offered feedback on the metrics for staff consideration.

### **Emergency Declaration – Reservoir 1 Repair**

Liesel Gross reviewed the detailed memo that had been distributed to the Board regarding damage sustained at Reservoir 1 in the Authority's Central Lehigh Division, Upper System. The repair is time sensitive due to the criticality of the facility and the need to complete the work prior to fall's cooler weather conditions. She explained the Emergency Declaration includes two main components: (1) providing for an emergency back-up water supply for the Upper System, and (2) completing the tank rehabilitation. For the emergency back-up water supply, progress is underway to design and construct a system interconnection with South Whitehall Township. For the tank rehabilitation, a cost estimate has been provided by Suez, who is currently under contract with the Authority for the annual reservoir maintenance program. The total estimated cost is \$800,000.

Some discussion followed regarding the status and future use of the system interconnection, the potential recovery of costs through an insurance claim, and the source of funds for this emergency repair. The Board asked about improvements to prevent recurrence of this kind of damage. Staff members explained potential site improvements as well as the project to install a second storage facility in this area to provide system redundancy.

On a motion by Ted Lyons, seconded by Jeff Morgan, the Board approved the Emergency Declaration in the amount of \$800,000.00 (9-0).

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

Brian Nagle – yes  
Scott Bieber – yes

Richard Bohner – yes  
Norma Cusick – yes  
Ted Lyons – yes  
Kevin Baker – yes  
Linda Rosenfeld – yes  
Jeff Morgan – yes  
Amir Famili – yes

### **Allentown Division Cycle 6 Water Main Replacement**

Chuck Volk described the project and explained challenges with the project schedule due to supply chain issues, material availability, and unpredictable price escalations. In order to complete the project in 2022 as planned, and provide assurance on project cost, staff researched options to procure the ductile iron pipe for this project in advance of construction. Favorable pricing was obtained from a supplier, and authorization of the purchase is requested. There was some discussion about storage of the pipe material, security, and warranty issues. Jason Peters, the Authority's project manager for this project, provided additional background and details.

On a motion by Jeff Morgan, seconded by Ted Lyons, the Board approved the Capital Project Authorization – Cycle 6 Water Main Replacement project for the construction phase, pipe procurement cost only, in the amount of \$316,634.00 which includes the contract award to Core & Main in the amount of \$287,849.00 (9-0).

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

Brian Nagle – yes  
Scott Bieber – yes  
Richard Bohner – yes  
Norma Cusick – yes  
Ted Lyons – yes  
Kevin Baker – yes  
Linda Rosenfeld – yes  
Jeff Morgan – yes  
Amir Famili – yes

### **Wastewater System Easement Clearing & Maintenance**

Andrew Moore gave an overview of the Allentown and Suburban Easement Clearing project that involves large areas of clearing, vegetation cutting and tree removal for access to the Authority's assets and also allow for any emergency access. The project requires seasonal work in both the spring and fall months and will continue for three years.

Scott Bieber asked what herbicides will be applied. Mr. Moore said that they are an approved mandated herbicide and acceptable to use in a waterway. Jeff Morgan asked how these areas will be maintained once the clearing is complete and whether staff is available to continue maintenance. Mr. Moore said that this will be an ongoing maintenance project. This work had been done last year but the company had gone out of business due to COVID.

On a motion by Linda Rosenfeld, seconded by Amir Famili, the Board approved the Professional Services Authorization to Adirondack Land Management in the amount of \$429,859.95 (9-0).

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

Brian Nagle – yes  
Scott Bieber – yes  
Richard Bohner – yes  
Norma Cusick – yes  
Ted Lyons – yes  
Kevin Baker – yes  
Linda Rosenfeld – yes  
Jeff Morgan – yes  
Amir Famili – yes

### **MONTHLY FINANCIAL REVIEW**

Ed Klein informed the Board about the changes made to the presentation by adding more graphics and focusing the variance analysis by fund. He then gave an overview of the March 2022 financial statements, highlighting variances between actual expenses and budgeted or forecasted expenses. Some discussion followed regarding key financial metrics, variances in capital spending, and forecasting approaches to address unforeseen expenses such as emergencies.

### **MONTHLY SYSTEM OPERATIONS OVERVIEW**

Andrew Moore reviewed the March 2022 report, noting that there were no significant variances from normal seasonal water and wastewater flows for the month. There was a lost-time safety incident in March due to a finger injury. A Notice of Violation from the Pa. Department of Environmental Protection (DEP) was issued to the Pretreatment Plant regarding a sanitary sewer overflow (SSO) that occurred at the plant in February. A copy of the letter from DEP, and the Authority's response, is provided. The SSO reported in the Allentown Division was due to a grease build up. Some discussion followed.

### **STAFF COMMENTS**

None.

### **SOLICITOR'S COMMENTS**

None.

### **PUBLIC COMMENTS / OTHER COMMENTS**

None.

### **EXECUTIVE SESSION**

Chairman Nagle announced that an Executive Session will be held after the regular meeting to discuss matters of personnel.

### **ADJOURNMENT**

There being no further business, the Chairman adjourned the meeting at 1:38 p.m.

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Richard Bohner  
Secretary

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## MEMORANDUM

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**Date:** May 9, 2022

**To:** LCA Board of Directors  
**From:** Christopher Moughan, Director of Service and Technology  
**Subject:** Suburban Water/Wastewater SCADA Upgrade

**MOTIONS / APPROVALS REQUESTED:**

No.	Item	Amount
1	Suburban Division SCADA Upgrade – Capital Project Authorization (Construction Phase)	\$3,055,421
1A*	Construction Contract – Optimum Controls Corporation (OCC)	\$2,670,421
1B*	Professional Services Authorization – Keystone Engineering	\$235,000

*\*Included in the Capital Project Authorization*

**PROJECT OVERVIEW:**

This project is focused on upgrading the Supervisory Control and Data Acquisition (SCADA) system for 42 facilities within the Suburban Division water and sewer systems. The project will be completed over a four-year period and will result in a standardized system for all facilities for system management, operational data collection, and alarm protocols for operational events. The project will be phased by priority, determined by LCA staff and Keystone Engineering, considering system issues, SCADA system age, and remote support capabilities. This will increase operational efficiencies and decrease response times.

Due to the size and large geographic area of the Suburban Division water and wastewater service areas, real-time communication and control are paramount in identifying and addressing operational issues affecting our customers such as loss of pressure and changes in treatment performance. Some of our remote systems are up to an hour's drive from LCA's operations center. Upgrading the SCADA system will allow staff to view and address some issues remotely and respond more quickly to incidents. This improved response time and real-time control will improve service to our customers, enhance regulatory compliance performance, and reduce expenses associated with traveling to remote facilities.

Over time, SCADA upgrades have been completed on a case-by-case basis as facilities are upgraded or additional needs are identified. This has been met with limited success as many facilities remain outdated using older communications systems or non-standard SCADA platforms. In August of 2020, Keystone Engineering Group delivered a preliminary engineering report that outlined specific recommendations related to a systemwide SCADA upgrade to a standardized platform. In June 2021, Keystone was further authorized to provide detailed bid drawings and bid specifications for the installation of new equipment. This authorization includes the upgrade of all sites over a four-year period to complete the project.

**FINANCIAL:**

This project is listed in the 2022-2026 Suburban Division Administration Capital Plan.

**PROJECT STATUS:**

Pending Board approval.



**BIDDING SUMMARY – CONSTRUCTION CONTRACT:**

This project requires a General Construction contract. The project was advertised for bid on February 3rd, 2022. A mandatory pre-bid meeting was held on February 14, 2022. Bids were received on March 8, 2022.

The bidding results are as follows:

<b>Contractor</b>	<b>Base Bid</b>
<i>Optimum Controls Corporation</i>	\$2,670,421
WBA Automation/Ai Controls	\$2,926,289
ENGlobal Government Services, Inc.	\$5,271,565

The base bid of this project is as follows:

- Take the design/build documents from Keystone and build out
  - On site cabinets
  - Install/Wire internal SCADA components
  - Deliver/Install on site
  - Work with integrator startup

References confirmed Optimum Controls Corporation’s work to be satisfactory; therefore, we recommend awarding the General Construction contract to Optimum Controls Corporation subject to receipt of the necessary Performance Bonds, insurance, and other required documentation.

**PROFESSIONAL SERVICES – CONSTRUCTION PHASE:**

Keystone Engineering will serve as the lead integrator and construction manager for this project. Keystone Engineering has served as LCA’s partner with the system evaluation, design/build for the remote sites, and finally bid preparation and review.

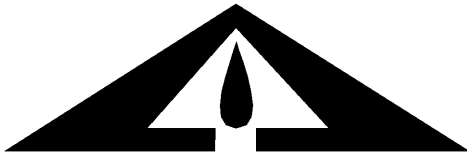
**PROJECT SCHEDULE:**

Assuming Board approval of the Construction Phase Year 1 at the May 9, 2022 meeting, Notice to Proceed will be issued by early June 2022 with an estimated completion date of early November 2022. It should be noted that the OCC contract is for the full four years of the SCADA upgrade project, while Keystone Engineering Group approval is for Phase 1 (year 1) only.

**FUTURE AUTHORIZATIONS – CONSTRUCTION PHASE YEAR 2:**

A Professional Services Authorization (PSA) will be presented to the Board in January of 2023 for Phase 2 (year 2) of Keystone Engineering Groups construction/management phase, as well as January 2024 for Phase 3 (year 3) and January 2025 for Phase 4 (year 4). This will allow us to select the stations and sites per year based on updated priorities while working under a single construction contract with OCC to maintain continuity of system design and implementation. There will be an annual analysis of priorities to determine the following year’s included sites.





**Lehigh County Authority**

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**PROFESSIONAL SERVICES AUTHORIZATION**

**Professional:** Keystone Engineering Group  
590 Lancaster Ave  
Suite 200  
Frazer, PA19355

**Date:** May 2, 2022

**Requested By:** Christopher Moughan

**Approvals**

**Department Head:** \_\_\_\_\_

**Chief Executive**

**Officer:** \_\_\_\_\_

**Suburban Division- SCADA Upgrade Project**

*Prior Authorization – Design Phase: \$214,300 (June 28, 2021)*

**This Authorization – Construction Phase: \$235,000**

Keystone Engineering will provide programming and construction management related services for the aforementioned project. Keystone was the design engineering firm that visited and evaluated each of our locations to evaluate current state and provide design specifications for each of the remote stations. They categorized the station into 5 categories ranging from simple well control to complex development stations to increase programming and build out efficiencies. This phase, Keystone will provide programming and construction management for phase 1 of this project. Phases 2, 3, and 4 will follow in 2023 – 2025.

<b>Professional Services</b>
1. Equipment/Materials ordering and tracking
2. Design/build submittals
3. Functional Descriptions and Programming
4. Construction Management
5. Startup/Training/Documentation

**Cost Estimate** (not to be exceeded without further authorization): \$235,000

**Time Table and Completion Deadline:** As required to meet design timeline requirements



**(For Authority Use Only)**

**Authorization Completion:**

**Approval:** \_\_\_\_\_ **Actual Cost:** \_\_\_\_\_ **Date:** \_\_\_\_\_



**Lehigh County Authority**

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**MEMORANDUM**

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**Date:** May 9, 2022

**To:** Lehigh County Authority Board of Directors

**From:** Amy Kunkel, Capital Works Project Engineer

**Subject:** Suburban Division 2022 Commercial Meter Replacement Project

**MOTIONS /APPROVALS REQUESTED:**

No.	Item	Amount
1	<u>Capital Project Authorization – 2022 Commercial Meter Replacement Project – Construction Phase</u>	\$432,207.63
1a	<u>Contract Award – 2022 Commercial Meter Replacement Project: Core &amp; Main, LP Professional Service Contract</u> <i>(included in Capital Project Authorization)</i>	\$367,207.63

**PROJECT OVERVIEW:**

The project consists of the replacement of older 1-1/2” and 2” commercial water meters that have reached the end of their useful life. Any of the meter replacements requiring upgrades to the meter reading equipment will also have new radio read units installed. Additionally, there are four commercial meters that require meter pit modifications to replace the meter.

**PROJECT OBJECTIVE:**

The project objective is to replace and upgrade older and non-functioning meter reading equipment to increase meter reading accuracy and efficiency, which in turn should increase revenue.

**FUNDING:**

The Project will be funded by the LCA Suburban Division.

**PROJECT STATUS**

Project scope, design, and specifications were developed in house. Board approval is requested for the Construction Phase.

**THIS APPROVAL: CONTRACT AWARD – 2022 COMMERCIAL METER REPLACEMENT PROJECT**

Core and Main, LP, is the authorized distributor for Sensus, which is also the meter and radio equipment manufacturer used exclusively in LCA's Suburban Division. They have acted as the general contractor on the last two meter replacement/upgrade projects. They are now listed on COSTARS as an approved service provider for meter equipment installation. It is through the COSTARS program that we have received this proposal. Both the firm and its subcontractor's qualifications and experience statements indicate numerous projects of similar scope and type. The contract documents are in order and the company appears well qualified to perform the work. The proposal submitted is within the budgeted amount for this project.

**SCHEDULE**

Based on contract award following the May 9, 2022 Board meeting, we anticipate material deliveries by September 2022, and substantial completion at the end of 2022.

# CAPITAL PROJECT AUTHORIZATION

<b>PROJECT NO.:</b>	SD-W-22-1	<b>BUDGET FUND:</b>	Suburban Div\Water\Capital
<b>PROJECT TITLE:</b>	Suburban Division 2022 Commercial Meter Replacements – Construction Phase -	<b>PROJECT TYPE:</b>	<input checked="" type="checkbox"/> Construction <input type="checkbox"/> Engineering Study <input checked="" type="checkbox"/> Equipment Purchase <input type="checkbox"/> Amendment
<b>THIS AUTHORIZATION:</b>	\$432,207.63		
<b>TO DATE (W/ ABOVE)</b>	\$432,207.63		

**DESCRIPTION AND BENEFITS:**

This Authorization is for the replacement of approximately 145 1-1/2” and 2” commercial water meters and miscellaneous incidental equipment. This authorization takes the project through construction phase.

Previous Authorizations	
None	

REQUESTED THIS AUTHORIZATION	
Construction Phase	
<b>Staff</b>	<b>\$30,000</b>
<b>Contract 1-General Construction</b>	<b>\$367,207.63</b>
<b>Contingency</b>	<b>\$35,000</b>
<b>Total This Authorization</b>	<b>\$432,207.63</b>

Future Authorization	
None	

<i>Total Estimated Project</i>	<i>\$432,207.63</i>
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**REVIEW AND APPROVALS:**

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

# Lehigh County Authority – Monthly Report to Board of Directors

## Upcoming Board Agenda Items & Project Updates – May 2022

Published: May 2, 2022

### ***PART 1 – Upcoming Agenda Items – Action & Discussion Items***

#### **FINANCE & ADMINISTRATION**

**Project Title: Suburban Water & Sewer Facilities - SCADA System Upgrade**

Division / Funding: Suburban Division

Board Action Date: 5/9/2022

Status or Action Desired: Approval

Project Phase: Construction Phase

Project Notes: This project is focused on upgrading the Supervisory Control and Data Acquisition (SCADA) system for 42 facilities within the Suburban Division water and sewer systems. The project will be completed over a four-year period, and will result in a standardized system for all facilities for system management, operational data collection, and alarm protocols for operational events. This will increase operational efficiencies and decrease response times. At the May 9, 2022 Board meeting, approval will be requested for a capital project authorization, contract award, and professional services necessary to complete the project. Staff Responsibility: Chris Moughan

**Project Title: 2023-2027 Capital Plan - Public Comments & Final Plan**

Division / Funding: Allentown & Suburban Divisions

Board Action Date: 5/23/2022

Status or Action Desired: Approval

Project Phase: n/a

Project Notes: The preliminary 2023-2027 Allentown Division Capital Plan was presented and distributed to the Board for review and comment. The preliminary plans for the Suburban Division, Allentown Division, and Administration will be out for public comment until mid-May, and Board approval will be requested at the 5/23/2022 meeting. Staff Responsibility: Chuck Volk & Ed Klein

**Project Title: Monthly Financial Review**

Division / Funding: n/a

Board Action Date: 5/23/2022

Status or Action Desired: Discussion

Project Phase: n/a

Project Notes: April 2022 monthly financial report will be presented. Staff Responsibility: Ed Klein

**Project Title: LCA-South Whitehall Township Emergency Water System Interconnection - Agreement**

Division / Funding: Suburban Division

Board Action Date: 5/23/2022

Status or Action Desired: Approval

Project Phase: Design Phase

Project Notes: An emergency water system interconnection is currently being designed to connect LCA's Central Lehigh Division with the South Whitehall Township water system for emergency back-up water supply. An agreement regarding the interconnection is required to complete the required permitting of the interconnection. At the May 23, 2022 Board meeting, a draft agreement will be presented for Board consideration and approval. Staff Responsibility: Liesel Gross

## SYSTEM OPERATIONS

**Project Title: Monthly Operations Report**

Division / Funding: n/a

Status or Action Desired: Discussion

Board Action Date: 5/23/2022

Project Phase: n/a

Project Notes: April 2022 monthly operations report will be presented. Staff Responsibility: Andrew Moore & Chris Moughan

## WATER PROJECTS

**Project Title: 2022 Commercial Meter Replacement Project**

Division / Funding: Suburban Division

Status or Action Desired: Approval

Board Action Date: 5/9/2022

Project Phase: Construction Phase

Project Notes: This project consists of the replacement of approximately 145 1-1/2" and 2" commercial and industrial meters within the Suburban Division. The project will be administered as a service contract with Core and Main, who is LCA's Sensus meter representative and has performed previous metering contracts. Construction phase approval will be requested at the May 9, 2022 Board meeting. Staff Responsibility: Amy Kunkel

**Project Title: Water Filtration Plant: 2022 Indenture Upgrades**

Division / Funding: Allentown Division

Status or Action Desired: Approval

Board Action Date: 5/23/2022

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 with the Manufacturers and Traders Trust Company that requires the preparation of an annual Consulting Engineer's Report (Report). The Report, which is prepared each year by Arcadis, documents the condition of the water and wastewater facilities (KIWWTP and WFP) based on physical inspections by the engineer, identifies repairs and upgrades required, and reflects progress made in addressing deficiencies. This project consists of addressing structural deficiencies at the Water Filtration Plant, with work located at various concrete structures in exterior areas. Award of bids and construction phase authorization will be requested at the May 23, 2022 Board meeting. Staff Responsibility: Bryan Geissel

## WASTEWATER PROJECTS

**Project Title: Sanitary Sewer Collection System: Rain Derived Inflow and Infiltration (RDII) Analysis**

Division / Funding: Allentown Division & City of Allentown (AO)

Status or Action Desired: Discussion

Board Action Date: 5/9/2022

Project Phase: Planning Phase

Project Notes: In April 2022, Arcadis and LCA met with all Kline's Island Sewer System (KISS) municipalities to review the rainfall derived inflow and infiltration (RDII) analysis completed for all sewer collection systems. This information will be included in the regional Act 537 Plan currently under development, and is being used by all KISS municipalities to develop their I&I Source Reduction Plans. A brief review of this analysis will be presented at the May 9, 2022 Board meeting. Staff Responsibility: Phil DePoe



**Project Title: Act 537 Design Storm Selections**

Division / Funding: City of Allentown (AO)

Status or Action Desired: Approval

Board Action Date: 5/23/2022

Project Phase: Planning Phase

Project Notes: As preparation work on the Act 537 Plan continues, the next major milestones involve (1) the selection of design storms to be modeled and (2) the development of figures and tables indicating overflow locations under various modeled scenarios. This includes an analysis of the prior 20 years' worth of rainfall data. Upon a thorough review of the data, the 3, 5, 10, and 20 year stand-in events will be selected for alternatives modeling. After these storms are selected, figures will be developed to show overflow locations under 2021 and 2050 flow conditions. Authorization will be requested at the May 23, 2022 Board meeting. Staff Responsibility: Phil DePoe

**Project Title: Kline's Island WWTP: 2022 Indenture Upgrades**

Division / Funding: Allentown Division

Status or Action Desired: Approval

Board Action Date: 5/23/2022

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 with the Manufacturers and Traders Trust Company that requires the preparation of an annual Consulting Engineer's Report (Report). The Report, which is prepared each year by Arcadis, documents the condition of the water and wastewater facilities (KIWWTP and WFP) based on physical inspections by the engineer, identifies repairs and upgrades required, and reflects progress made in addressing deficiencies. This project consists of addressing structural deficiencies at KIWWTP, with work located primarily at the Plastic Media Trickling Filter Towers. Work includes structural steel restoration, concrete crack repair and resurfacing, and pipe painting. Award of bids and construction phase authorization will be requested at the May 23, 2022 LCA Board meeting. Staff Responsibility: Bryan Geissel

**PART 2 – Project Updates – Information Items**

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**WASTEWATER PROJECTS – SUBURBAN DIVISION**

**Project Title: Park Pump Station Phase 2 Upgrade**

Division / Funding: Suburban Division

Board Action Date: n/a

Status or Action Desired: Updated

Project Phase: Design 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, new pump removal access hatch, new pump hoist system, and associated mechanical and instrumentation equipment. 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 is substantially completed and the project will proceed to bid phase in early Summer 2022. Staff Responsibility: Chuck Volk

**PART 3 – Open Project List – No Updates**

<b>Project Category</b>	<b>Project Title</b>	<b>Division / Funding</b>	<b>Project Phase</b>	<b>Staff Responsibility</b>
Finance & Administration	LCA Enterprise Resource Planning (ERP) Needs Assessment & Roadmap	Internal Services	Planning Phase	Liesel Gross
Finance & Administration	LCA Strategic Plan - 2022 Quarterly Progress Reporting	n/a	n/a	Liesel Gross
System Operations	Large Diameter Valve Prioritization Program	Allentown Division	Planning Phase	Chris Moughan
System Operations	Watershed Monitoring Program	Suburban Division	Ongoing	Andrew Moore
System Operations	Lynn Township Corrective Action Plan	Suburban Division	Ongoing	Jason Peters
System Operations	Heidelberg Heights Consent Order & Agreement	Suburban Division	Ongoing	Chuck Volk
Water - Suburban	Far View Farms Pump Station Demolition	Suburban Division	Construction Phase	Ed Hoyle
Water - Suburban	Arcadia West Water Storage Tank Replacement	Suburban Division	Construction Phase	Amy Kunkel
Water - Suburban	Fixed Base Meter Reading Stations	Suburban Division	Planning Phase	Amy Kunkel
Water - Suburban	Water Main Replacement Program Cycle 6	Suburban Division	Design Phase	Jason Peters
Water - Suburban	Upper System Pump Station and Main Extension	Suburban Division	Design Phase	Ed Hoyle
Water - Suburban	Central Lehigh and North Whitehall Systems – Water Supply Study	Suburban Division	Planning Phase	Phil DePoe
Water - Allentown	Water Main Replacement Program Cycle 6	Allentown Division	Design Phase	Jason Peters
Water - Allentown	Water Filtration Plant: Filter Upgrade Project	Allentown Division	Preliminary Design	Chuck Volk
Water - Allentown	Water Filtration Plant: High Lift Pump VFD Replacements	Allentown Division	Construction Phase	Chuck Volk

<b>Project Category</b>	<b>Project Title</b>	<b>Division / Funding</b>	<b>Project Phase</b>	<b>Staff Responsibility</b>
Water - Allentown	Water Filtration Plant & System Master Plan	Allentown Division	Planning Phase	Phil DePoe
Sewer - Act 537	Sanitary Sewer Collection System: Rain Derived Inflow and Infiltration (RDII) Analysis - Signatory Systems	Allentown Division	Planning Phase	Phil DePoe
Sewer - Act 537	KISS System Modeling - Rain Derived Inflow and Infiltration (RDII) Analysis - City System	City of Allentown (AO)	Planning Phase	Phil DePoe
Sewer - Act 537	City of Allentown: 2022 Nighttime Weiring	City of Allentown (AO)	Planning Phase	Phil DePoe
Sewer - Act 537	KIWWTP - Wet Weather Treatment Options	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	Kline's Island WWTP: Phase 1 AO Design Improvements	City of Allentown (AO)	On Hold	Phil DePoe
Sewer - Act 537	KISS System Modeling - Sewage Billing Meter QA/QC Data Analytics and 2021 Flow Metering Preparation	City of Allentown (AO)	Planning Phase	Phil DePoe
Sewer - Act 537	KISS System Modeling - 2021 Model Expansion and Calibration	City of Allentown (AO)	Planning Phase	Phil DePoe
Sewer - Act 537	Upper Western Lehigh Pump Station and Force Main	Suburban Division	Design Phase	Amy Kunkel
Sewer - Act 537	Western Lehigh Service Area: 2022 Nighttime Weiring & Budget Amendment	Suburban Division	Planning Phase	Phil DePoe
Sewer - Act 537	Regional Sewer Capacity & Wet-Weather Planning: Engineering & Program Support	Suburban Division	Planning Phase	Phil DePoe
Sewer - Act 537	Western Lehigh Service Area: 2020 Sewer Modeling	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	Industrial Pretreatment Plant Master Plan	Suburban Division	Planning Phase	Phil DePoe

<b>Project Category</b>	<b>Project Title</b>	<b>Division / Funding</b>	<b>Project Phase</b>	<b>Staff Responsibility</b>
Sewer - Suburban	Western Lehigh Manhole Rehabilitation Project - Phase 3	Suburban Division	Design Phase	Jason Peters
Sewer - Suburban	Heidelberg Heights 2021 and 2022 Sanitary Sewer Replacement Project	Suburban Division	Construction Phase	Jason Peters
Sewer - Allentown	Kline's Island WWTP: Dechlorination System Pilot Program	Allentown Division	Preliminary Design	Bryan Geissel
Sewer - Allentown	KIWWTP Primary Digester No. 1 Cleaning	Allentown Division	Construction Phase	Bryan Geissel
Sewer - Allentown	Kline's Island WWTP: Sludge Thickener Tank No. 3 Mechanical Upgrade	Allentown Division	Construction Phase	Bryan Geissel
Sewer - Allentown	Kline's Island WWTP: Main and Auxiliary Pump Station Improvements	Allentown Division	Preliminary Design	Chuck Volk
Sewer - Allentown	Kline's Island WWTP: Intermediate Pump Station Improvements	Allentown Division	Preliminary Design	Chuck Volk
Sewer - Allentown	Kline's Island WWTP: Solids Process Boiler and HVAC System Upgrade Project	Allentown Division	Design Phase	Bryan Geissel
Sewer - Allentown	Lehigh Street (Rte. 145) Water and Sewer Main Relocation Project	Allentown Division	Construction Phase	Jason Peters
Sewer - Allentown	Sanitary Sewer Collection System: I&I Source Reduction Program Plan (Year 3)	City of Allentown (AO)	Construction Phase	Phil DePoe