



LEHIGH COUNTY AUTHORITY
ALLENTOWN, PA

DRAFT 5-YEAR CAPITAL PLAN

ADMINISTRATION

2022-2026

FEBRUARY 2021

**LEHIGH COUNTY AUTHORITY
5-YEAR CAPITAL PLAN
2022-2026**

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2022-2026 Capital Plan

Glossary of Acronyms & Terms

The following is a listing of acronyms and terms used in the Capital Plan Summary and Project Detail Sheets.

LCA Water and/or Wastewater Divisions/Systems

LCA Water and/or Wastewater Divisions/Systems			
		Water	Wastewater
AD	Allentown Division	X	X
AWD	Arcadia West Division	X	X
BHD	Beverly Hills Division	X	
CLD	Central Lehigh Division	X	
CFD	Clear View Farms Division	X	
ECD	Emmaus Consecutive Division	X	
HHD	Heidelberg Heights Division	X	X
LLRI-1	Little Lehigh Relief Interceptor, Phase 1		X
LLRI-2	Little Lehigh Relief Interceptor, Phase 2		X
LTD	Lynn Township Division		X
MCD	Mill Creek Division	X	
MND	Madison Park Division	X	
NWD	North Whitehall Division	X	
PLD	Pine Lakes Division	X	
SSD	Sands Spring Division		X
UMD	Upper Milford Division	X	X
UMCD	Upper Central Milford Division (Buss Acres)	X	
WLI	Western Lehigh Interceptor		X
WTD	Washington Township Division	X	X
WWD	Wynnewood Division		X

Project Type

Project Type	Description
AO	Administrative Order
UW	Uncompleted Work ⁽¹⁾
S-7-MCI	Schedule-7 (<i>Lease Required</i>) Major Capital Improvement ⁽²⁾
LCA-MCI	LCA Developed Major Capital Improvement ⁽²⁾
COL	Change of Law ⁽³⁾
Regular	A project that does not fit in any of the aforementioned special categories

(1) *Uncompleted Work: City Projects that were supposed to be complete by the time of settlement. The City and LCA have reached an agreement for LCA to execute them.*

(2) *Major Capital Improvement: In accordance with the Lease, all Major Capital Improvements must be approved by the City.*

(3) *Change of Law: In accordance with the Change of Law Memorandum of Understanding*

Project Funding

Project Funding	Description
<i>LCA</i>	Funded by LCA
<i>100% Reimb</i>	All costs are 100% reimbursable by fees charged
<i>Fees & LCA</i>	Costs partly recovered through fees charged and partly funded by LCA
<i>Allentown</i>	Funded by the City of Allentown
<i>CCRC</i>	Capital Cost Recovery Charge ⁽¹⁾ ; Applies only to City approved MCI

(1) Capital Cost Recovery Charge: An on-going user fee that is above the rate caps set forth in the Lease to allow the recovery of the cost of an MCI. Rate payers are charged based upon usage.

Project Category

Projects have been categorized to identify the primary and secondary reasons for the need. In some cases there is no secondary reason that would be applicable.

Project Category	Description
<i>Regulatory</i>	Required to meet Regulatory requirements
<i>New Cust</i>	New Customers
<i>CA/OS</i>	Concession Lease/Operating Standards
<i>Master Plan</i>	Master Plan
<i>AM - Low</i>	Asset Management - Low Risk
<i>AM - Med</i>	Asset Management - Medium Risk
<i>AM - High</i>	Asset Management - High Risk
<i>AM - Varies</i>	Asset Management - Varies ⁽¹⁾
<i>Efficiency</i>	Efficiency
<i>Sys Imp</i>	System Improvement
<i>Rev Opprt</i>	Revenue Opportunity
<i>Planning</i>	Planning
<i>N/A</i>	Not Applicable

(1) Applies to Asset Management Projects, where there are multiple standalone sub-projects of varied levels of "risk".

Approval Stage

Approval Stage	Description
<i>A</i>	Annual Project, no approvals required
<i>S</i>	Study/Planning Phase
<i>D</i>	Design Phase
<i>C</i>	Construction/Implementation Phase
<i>E</i>	Entire Project
<i>V</i>	Various Phases
<i>P</i>	Pending Board approval

**ADMINISTRATION
5-YEAR CAPITAL PLAN
2022-2026**

CAPITAL FINANCING JUSTIFICATION

The Administrative projects of the Authority are funded through charge-backs to the various operating and capital budgets.

The Administrative projects are either a strictly Suburban Division (SD) project or a project which benefits both the City and Suburban Division (CON). In the case of the multi-division projects in 2021, the total costs have been apportioned 50% to the Suburban Division and 50% to the Allentown Division.

Project SD-A-1 is an Information Technology (IT) project to upgrade the Suburban SCADA capabilities. Water fund operating reserves will be used to finance the projects with partial recovery through charge-backs to Authority wastewater funds.

Project CON-A-1 is an organization-wide project related to the annual upgrades of computer hardware and software.

Project CON-A-2 is an organizational-wide upgrade to the Geographic Information System (GIS).

Project CON-A-3 is an organization-wide update and implementation of the LCA IT Master Plan.

Project CON-A-4 is an organization-wide project to develop an electronic document management system.

Project CON-A-5 is an organization-wide project to add additional security and disaster recovery tools to the existing IT system.

Project CON-A-6 is an organization-wide project to upgrade the existing CMMS system.

Funding Sources for each project are shown below.

ADMINISTRATION	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>TOTAL</u>
Project Costs	<u>\$1,100,000</u>	<u>\$1,050,000</u>	<u>\$1,025,000</u>	<u>\$725,000</u>	<u>\$175,000</u>	<u>\$4,075,000</u>
Funding Sources:						
Operating/Capital Reserves	\$1,100,000	\$1,050,000	\$1,025,000	\$725,000	\$175,000	\$4,075,000
New Borrowing	-	-	-	-	-	-
Total Funding	<u>\$1,100,000</u>	<u>\$1,050,000</u>	<u>\$1,025,000</u>	<u>\$725,000</u>	<u>\$175,000</u>	<u>\$4,075,000</u>

ADMINISTRATION

LEHIGH COUNTY AUTHORITY
ADMINISTRATION
2022-2026 CAPITAL PROGRAM

Project #	Name or Title of Proposal	Prj. Category	Approvals Stage (1)	Plan Total Cost	This Capital Program							Prior Project Cost (2)	Future Project Cost (2)	Total Project Cost
					2021 <i>Budget Approved</i>	2022 <i>Year 1</i>	2023 <i>Year 2</i>	2024 <i>Year 3</i>	2025 <i>Year 4</i>	2026 <i>Year 5</i>	2022-2026 Total			
	<u>Operating/Capital Reserve Funds</u>													
SD-A-1	SCADA Programming, Hardware Upgrades, Software & Training	AM - Varies	A	\$ 3,100,000	\$ 300,000	\$ 750,000	\$ 750,000	\$ 750,000	\$ 500,000	\$ 50,000	\$ 2,800,000			\$3,100,000
CON-A-1*	Computer System Hardware & Software Upgrades	AM - High	A	\$ 390,000	\$ 140,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 250,000	\$40,000		\$430,000
CON-A-2*	GIS Upgrades & Application Development	Efficiency	V	\$ 350,000	\$ 50,000	\$ 75,000	\$ 50,000	\$ 50,000	\$ 75,000	\$ 50,000	\$ 300,000	\$46,000		\$396,000
CON-A-3*	Information Technology Master Plan Update	Planning	P	\$ 475,000	\$ 125,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 50,000	\$ -	\$ 350,000	\$85,000		\$560,000
CON-A-4*	Document Management	Efficiency	V	\$ 275,000	\$ 200,000	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ 75,000	\$2,000		\$277,000
CON-A-5*	Disaster Recovery/Security Upgrades	Sys Imp	A	\$ 150,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 50,000	\$ 25,000	\$ -	\$ 125,000	\$18,000		\$168,000
CON-A-6*	CMMS Upgrades	Sys Imp	A	\$ 275,000	\$ 100,000	\$ 25,000	\$ 75,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 175,000	\$21,000		\$296,000
GRAND TOTAL				\$ 5,015,000	\$ 940,000	\$ 1,100,000	\$ 1,050,000	\$ 1,025,000	\$ 725,000	\$ 175,000	\$ 4,075,000	\$ 212,000	\$ -	\$ 5,227,000

(*) CON = a Project that benefits both the Allentown and Suburban Divisions. All projects are LCA funded.
(1) Reference Glossary of Acronyms & Terms found immediately after the Table of Contents
(2) If blank project cost is not applicable (annual project) or to be determined

**LEHIGH COUNTY AUTHORITY
ADMINISTRATION - CAPITAL IMPROVEMENTS PLAN
PROJECT DETAIL SHEET**

Project Name	SUPERVISORY CONTROL & DATA ACQUISITION (SCADA) PROGRAMMING, HARDWARE UPGRADES, SOFTWARE & TRAINING						
Budget Area	Administration	Department	IT	Date	1/15/2021	Project No.	SD-A-1
Location	Various LCA Divisions located in multiple municipalities			Prj. Type	Regular	Prj. Funding	LCA
Prj. Category	Primary	AM - Varies	Secondary	Efficiency	Preparer		CM

Purpose of Expenditure (check all that apply)		
☐	New Facility	☐ Correct Known or Potential Safety Issue
☒	Existing Facility - Rehabilitation/Upgrade	☒ Equipment Obsolete
☐	Scheduled Replacement	☐ Comply with Regulatory Requirements
☐	Improved Service	☒ Equipment/Infrastructure at End of Useful Life
☐	Study	☒ Other (explain): Improve Operational Efficiencies

Additional Information			
Expected Useful Life (Years)	5	Project inception date	2010
Approx. No. of Customers Benefitted	*Varies		
Is this System part of a Common User Rate?	Yes	Anticipated Project completion date	2035
Will the Project Require Obtaining Land Rights	No		
*Dependent upon the system			

Detailed Project Description
This annual on-going project includes both programming and hardware enhancements to the SCADA system to provide reliable telemetry and effective/proactive/flexible control of our facilities. It also includes an upgrade to SCADA & Telog communications and radio replacement of Telco lines to reduce monthly Telco charges to resolve ongoing communication problems with critical facilities. Training on the Historian software package is also included. The larger scope of this project will include a study and design project that will result in a project plan to upgrade all of our Suburban SCADA stations.

Project Drivers and Needs to be Met by the Project
The SCADA system currently provides real-time data and control for CLD water facilities and WLI related wastewater facilities and must be updated. The Telog system provides real-time data (no control) for satellite water and wastewater systems. Both are necessary to allow efficient operation of the water and wastewater system facilities.

Project Status - Describe what work, if any has been completed or underway for this project
SCADA upgrades have been completed at Pine Lakes and Crestwood water systems in 2017 and 2018.

Annual Cost Impact	
Operating - Increase/(Decrease)	N/A
Debt Service	\$ -
Net	\$ -

Revenue Impact	
Gain/(Loss) in Annual Revenue	N/A
Assessment, Contribution in Aid-of-Construction	N/A
Other	

Borrowing Information	
Interest Rate	5.5000%
Term (Years)	30

Explanation if Necessary

Project No.	SD-A-1
Project Name	SUPERVISORY CONTROL & DATA ACQUISITION (SCADA) PROGRAMMING, HARDWARE UPGRADES, SOFTWARE & TRAINING

Prior Project Cost	\$42,000
Estimated Project Costs:	2022-2026
LCA Staff	\$ 225,000
Land Acquisition	\$ -
Construction/Equipment	\$ 2,000,000
Professional Services	\$ 800,000
Other	\$ -
Contingencies	\$ 33,000
Total Project Cost	\$ 3,100,000

Project Estimate Level	
	Conceptual Estimate
	Preliminary Estimate
☒	Budget Estimate
	Definitive Estimate

Requested in this Capital Program	\$ 2,800,000
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		Need	Phase of Work
	2021 Budget	\$ 300,000	\$250k for Keystone Eng Study for subsequent years, \$50k for general support
1st Year	2022	\$ 750,000	Multi year project upgrading Suburban SCADA stations
2nd Year	2023	\$ 750,000	Multi year project upgrading Suburban SCADA stations
3rd Year	2024	\$ 750,000	Multi year project upgrading Suburban SCADA stations
4th Year	2025	\$ 500,000	Multi year project upgrading Suburban SCADA stations
5th Year	2026	\$ 50,000	Multi year project upgrading Suburban SCADA stations

**LEHIGH COUNTY AUTHORITY
ADMINISTRATION - CAPITAL IMPROVEMENTS PLAN
PROJECT DETAIL SHEET**

Project Name	COMPUTER SYSTEM HARDWARE & SOFTWARE UPGRADES						
Budget Area	Administration	Department	IT	Date	1/15/2021	Project No.	CON-A-1
Location	Allentown & Suburban Divisions			Prj. Type	Regular	Prj. Funding	LCA
Prj. Category	Primary	AM - High	Secondary	Efficiency	Preparer		PB

Purpose of Expenditure (check all that apply)	
New Facility	Correct Known or Potential Safety Issue
Existing Facility - Rehabilitation/Upgrade	Equipment Obsolete
Scheduled Replacement	Comply with Regulatory Requirements
Improved Service	☒ Equipment/Infrastructure at End of Useful Life
Study	Other (explain):

Additional Information			
Expected Useful Life (Years)	6	Project inception date	2010
Approx. No. of Customers Benefitted	N/A		
Is this System part of a Common User Rate?	N/A	Anticipated Project completion date	Ongoing
Will the Project Require Obtaining Land Rights	No		

Detailed Project Description
This project includes both hardware and software costs for server replacements for units older than 6 years.

Project Drivers and Needs to be Met by the Project
Improved efficiencies will assist employees in becoming more productive.

Project Status - Describe what work, if any has been completed or underway for this project
Hardware replaced annually as needed. Software upgraded annually as needed.

Annual Cost Impact	
Operating - Increase/(Decrease)	N/A
Debt Service	\$ -
Net	\$ -

Revenue Impact	
Gain/(Loss) in Annual Revenue	N/A
Assessment, Contribution in Aid-of-Construction	N/A
Other	

Borrowing Information	
Interest Rate	5.5000%
Term (Years)	30

Explanation if Necessary

Project No.	CON-A-1
Project Name	COMPUTER SYSTEM HARDWARE & SOFTWARE UPGRADES

Prior Project Cost	\$40,000
Estimated Project Costs:	2022-2026
LCA Staff	\$ 40,000
Land Acquisition	\$ -
Construction/Equipment	\$ 300,000
Professional Services	\$ 20,000
Other	\$ -
Contingencies	\$ 30,000
Total Project Cost	\$ 430,000

Project Estimate Level	
	Conceptual Estimate
	Preliminary Estimate
x	Budget Estimate
	Definitive Estimate

Requested in this Capital Program	\$ 250,000
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		Need	Phase of Work
2021 Budget		\$ 140,000	
1st Year	2022	\$ 50,000	
2nd Year	2023	\$ 50,000	
3rd Year	2024	\$ 50,000	
4th Year	2025	\$ 50,000	
5th Year	2026	\$ 50,000	

**LEHIGH COUNTY AUTHORITY
ADMINISTRATION - CAPITAL IMPROVEMENTS PLAN
PROJECT DETAIL SHEET**

Project Name	GEOGRAPHIC INFORMATION SYSTEM (GIS) UPGRADES & APPLICATION DEVELOPMENT						
Budget Area	Administration	Department	IT	Date	1/15/2021	Project No.	CON-A-2
Location	Allentown & Suburban Divisions			Prj. Type	Regular	Prj. Funding	LCA
Prj. Category	Primary	Efficiency	Secondary	Sys Imp	Preparer		PB

Purpose of Expenditure (check all that apply)		
☐	New Facility	Correct Known or Potential Safety Issue
☐	Existing Facility - Rehabilitation/Upgrade	Equipment Obsolete
☐	Scheduled Replacement	Comply with Regulatory Requirements
☒	Improved Service	Equipment/Infrastructure at End of Useful Life
☐	Study	Other (explain):

Additional Information			
Expected Useful Life (Years)	N/A	Project inception date	1991
Approx. No. of Customers Benefitted	N/A		
Is this System part of a Common User Rate?	N/A	Anticipated Project completion date	Ongoing
Will the Project Require Obtaining Land Rights	No		

Detailed Project Description
This project will continue to support the development of the Authority's GIS system. The project scope includes implementation of ESRI's event server which will allow SCADA integration with the GIS system, replacement of the existing GIS network/framework which will allow advanced hydraulic modeling and outage solutions, upgrades to the web and mobile GIS platforms to enhance usability and functionality for internal staff, completion and adoption of a GIS Strategic Plan to assist with the utilization of all software and integrations, and enhanced security updates to all GIS systems.

Project Drivers and Needs to be Met by the Project
Adoption of an integrated and complete GIS system is critical for asset management and facility management. Advancements in geospatial technologies require updates on an annual basis. As part of LCA's 2020 Goals, a complete GIS system will help support the implementation of a CMMS system. Applications covered under this project include easement mapping and access, as-built mapping and access, and various internal project based applications to support all Departments.

Project Status - Describe what work, if any has been completed or underway for this project
Transition to the new utility network is currently underway. The adoption of ESRI's event server is underway and being configured with LCA's CMMS system. Multiple applications to support the operations of LCA are also under development.

Annual Cost Impact	
Operating - Increase/(Decrease)	N/A
Debt Service	\$ -
Net	\$ -

Revenue Impact	
Gain/(Loss) in Annual Revenue	N/A
Assessment, Contribution in Aid-of-Construction	N/A
Other	

Borrowing Information	
Interest Rate	5.5000%
Term (Years)	30

Explanation if Necessary

Project No.	CON-A-2
Project Name	GEOGRAPHIC INFORMATION SYSTEM (GIS) UPGRADES & APPLICATION DEVELOPMENT

Prior Project Cost	\$46,000
Estimated Project Costs: 2022-2025	
LCA Staff	\$ 50,000
Land Acquisition	
Construction/Equipment	\$ 250,000
Professional Services	\$ 25,000
Other	
Contingencies	\$ 25,000
Total Project Cost	\$ 396,000

Project Estimate Level	
	Conceptual Estimate
	Preliminary Estimate
x	Budget Estimate
	Definitive Estimate

Requested in this Capital Program	\$ 300,000
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		Need	Phase of Work
	2021 Budget	\$ 50,000	
1st Year	2022	\$ 75,000	
2nd Year	2023	\$ 50,000	
3rd Year	2024	\$ 50,000	
4th Year	2025	\$ 75,000	
5th Year	2026	\$ 50,000	

**LEHIGH COUNTY AUTHORITY
ADMINISTRATION - CAPITAL IMPROVEMENTS PLAN
PROJECT DETAIL SHEET**

Project Name	INFORMATION TECHNOLOGY MASTER PLAN UPDATE						
Budget Area	Administration	Department	IT	Date	1/15/2021	Project No.	CON-A-3
Location	Allentown & Suburban Divisions			Prj. Type	Regular	Prj. Funding	LCA
Prj. Category	Primary	Planning	Secondary	Sys Imp	Preparer		PB

Purpose of Expenditure (check all that apply)	
☐ New Facility	Correct Known or Potential Safety Issue
☐ Existing Facility - Rehabilitation/Upgrade	Equipment Obsolete
☐ Scheduled Replacement	Comply with Regulatory Requirements
☐ Improved Service	Equipment/Infrastructure at End of Useful Life
☒ Study	Other (explain):

Additional Information			
Expected Useful Life (Years)	10	Project inception date	2016
Approx. No. of Customers Benefitted	N/A		
Is this System part of a Common User Rate?	N/A	Anticipated Project completion date	Ongoing
Will the Project Require Obtaining Land Rights	No		

Detailed Project Description
This project will provide the guidance for update and implementation of the technology systems currently residing (or new systems) for LCA. It contains funding for investigation, purchase, implementation and support.

Project Drivers and Needs to be Met by the Project
The 2019 update identified needs in both technology and software support for LCA's employee base. Moving forward IT and supporting technology in a secure fashion is paramount. This project will support those needs.

Project Status - Describe what work, if any has been completed or underway for this project
IT Master Plan began in 2019 and will be finished in 2020.

Annual Cost Impact	
Operating - Increase/(Decrease)	N/A
Debt Service	\$ -
Net	\$ -

Revenue Impact	
Gain/(Loss) in Annual Revenue	N/A
Assessment, Contribution in Aid-of-Construction	N/A
Other	

Borrowing Information	
Interest Rate	5.5000%
Term (Years)	30

Explanation if Necessary

Project No.	CON-A-3
Project Name	INFORMATION TECHNOLOGY MASTER PLAN UPDATE

Prior Project Cost	\$85,000
Estimated Project Costs:	2022-2026
LCA Staff	\$ 225,000
Land Acquisition	\$ -
Construction/Equipment	\$ 50,000
Professional Services	\$ 150,000
Other	\$ -
Contingencies	\$ 50,000
Total Project Cost	\$ 560,000

Project Estimate Level	
	Conceptual Estimate
	Preliminary Estimate
☒	Budget Estimate
	Definitive Estimate

Requested in this Capital Program	\$ 350,000
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		Need	Phase of Work
	2021 Budget	\$ 125,000	
1st Year	2022	\$ 100,000	
2nd Year	2023	\$ 100,000	
3rd Year	2024	\$ 100,000	
4th Year	2025	\$ 50,000	
5th Year	2026	\$ -	

**LEHIGH COUNTY AUTHORITY
ADMINISTRATION - CAPITAL IMPROVEMENTS PLAN
PROJECT DETAIL SHEET**

Project Name	DOCUMENT MANAGEMENT						
Budget Area	Administration	Department	IT	Date	1/15/2021	Project No.	CON-A-4
Location	Allentown & Suburban Divisions			Prj. Type	Regular	Prj. Funding	LCA
Prj. Category	Primary	Efficiency	Secondary	Sys Imp	Preparer		PB

Purpose of Expenditure (check all that apply)	
New Facility	Correct Known or Potential Safety Issue
Existing Facility - Rehabilitation/Upgrade	Equipment Obsolete
Scheduled Replacement	Comply with Regulatory Requirements
Improved Service	Equipment/Infrastructure at End of Useful Life
Study	☒ Other (explain): Increase Efficiencies

Additional Information			
Expected Useful Life (Years)	10	Project inception date	2008
Approx. No. of Customers Benefitted	N/A		
Is this System part of a Common User Rate?	N/A	Anticipated Project completion date	2022
Will the Project Require Obtaining Land Rights	No		

Detailed Project Description
This project provides for an Electronic Document Management System (EDMS) to store, search and share documents. This project does not plan for the imaging of existing paper documents.

Project Drivers and Needs to be Met by the Project
Readily available access to plans, reports and past correspondence will reduce research time. Storage space, files and cabinets for maintaining hard-copy documents will be minimized or eliminated. Digital, cross-referenced documents will improve accessibility and ease workflow.

Project Status - Describe what work, if any has been completed or underway for this project
Preliminary stages of this project began in 2018 and 2019.

Annual Cost Impact	
Operating - Increase/(Decrease)	N/A
Debt Service	\$ -
Net	\$ -

Revenue Impact	
Gain/(Loss) in Annual Revenue	N/A
Assessment, Contribution in Aid-of-Construction	N/A
Other	

Borrowing Information	
Interest Rate	5.5000%
Term (Years)	30

Explanation if Necessary

Project No.	CON-A-4
Project Name	DOCUMENT MANAGEMENT

Prior Project Cost	\$2,000
Estimated Project Costs:	2022-2026
LCA Staff	\$ 125,000
Land Acquisition	\$ -
Construction/Equipment	\$ 30,000
Professional Services	\$ 100,000
Other	\$ -
Contingencies	\$ 20,000
Total Project Cost	\$ 277,000

Project Estimate Level	
	Conceptual Estimate
	Preliminary Estimate
☒	Budget Estimate
	Definitive Estimate

Requested in this Capital Program	\$ 75,000
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	Need	Phase of Work
2021 Budget	\$ 200,000	
1st Year 2022	\$ 75,000	
2nd Year 2023	\$ -	
3rd Year 2024	\$ -	
4th Year 2025	\$ -	
5th Year 2026	\$ -	

**LEHIGH COUNTY AUTHORITY
ADMINISTRATION - CAPITAL IMPROVEMENTS PLAN
PROJECT DETAIL SHEET**

Project Name	DISASTER RECOVERY/SECURITY UPGRADES						
Budget Area	Administration	Department	IT	Date	1/15/2021	Project No.	CON-A-5
Location	Allentown & Suburban Divisions			Prj. Type	Regular	Prj. Funding	LCA
Prj. Category	Primary	Sys Imp	Secondary	Efficiency	Preparer		CWM

Purpose of Expenditure (check all that apply)			
☐	New Facility	☒	Correct Known or Potential Safety Issue
☒	Existing Facility - Rehabilitation/Upgrade	☐	Equipment Obsolete
☐	Scheduled Replacement	☐	Comply with Regulatory Requirements
☒	Improved Service	☐	Equipment/Infrastructure at End of Useful Life
☐	Study	☐	Other (explain):

Additional Information			
Expected Useful Life (Years)	5	Project inception date	2018
Approx. No. of Customers Benefitted	N/A		
Is this System part of a Common User Rate?	N/A	Anticipated Project completion date	Ongoing
Will the Project Require Obtaining Land Rights	NO		

Detailed Project Description
This project will cover several areas to increase or add security, as well as improve our disaster recovery options for catastrophic failure.

Project Drivers and Needs to be Met by the Project
This project will provide on-site back up as well as unlimited cloud storage of all back-ups. It will also encompass spam filters, real time anti virus scanning, as well as Exchange backup. As part of the disaster recovery, a large room scaled UPS system to ensure server uptime will be incorporated.

Project Status - Describe what work, if any has been completed or underway for this project
Project commenced in 2019.

Annual Cost Impact	
Operating - Increase/(Decrease)	N/A
Debt Service	\$ -
Net	\$ -

Revenue Impact	
Gain/(Loss) in Annual Revenue	N/A
Assessment, Contribution in Aid-of-Construction	N/A
Other	

Borrowing Information	
Interest Rate	5.5000%
Term (Years)	30

Explanation if Necessary

Project No.	CON-A-5
Project Name	DISASTER RECOVERY/SECURITY UPGRADES

Prior Project Cost	\$18,000
Estimated Project Costs:	2022-2026
LCA Staff	\$ 25,000
Land Acquisition	\$ -
Construction/Equipment	\$ 50,000
Professional Services	\$ 25,000
Other	\$ -
Contingencies	\$ 50,000
Total Project Cost	\$ 168,000

Project Estimate Level	
	Conceptual Estimate
	Preliminary Estimate
x	Budget Estimate
	Definitive Estimate

Requested in this Capital Program	\$ 125,000
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		Need	Phase of Work
2021 Budget		\$ 25,000	
1st Year	2022	\$ 25,000	
2nd Year	2023	\$ 25,000	
3rd Year	2024	\$ 50,000	
4th Year	2025	\$ 25,000	
5th Year	2026	\$ -	

**LEHIGH COUNTY AUTHORITY
ADMINISTRATION - CAPITAL IMPROVEMENTS PLAN
PROJECT DETAIL SHEET**

Project Name	CMMS UPGRADES						
Budget Area	Administration	Department	IT	Date	1/15/2021	Project No.	CON-A-6
Location	Allentown & Suburban Divisions			Prj. Type	Regular	Prj. Funding	LCA
Prj. Category	Primary	Sys Imp	Secondary	Efficiency	Preparer		CWM

Purpose of Expenditure (check all that apply)		
☐	New Facility	Correct Known or Potential Safety Issue
☐	Existing Facility - Rehabilitation/Upgrade	Equipment Obsolete
☒	Scheduled Replacement	Comply with Regulatory Requirements
☒	Improved Service	☒ Equipment/Infrastructure at End of Useful Life
☐	Study	Other (explain):

Additional Information			
Expected Useful Life (Years)	5	Project inception date	2017
Approx. No. of Customers Benefitted	N/A		
Is this System part of a Common User Rate?	N/A	Anticipated Project completion date	2025
Will the Project Require Obtaining Land Rights	NO		

Detailed Project Description
This project will upgrade multiple modules of the existing CMMS application, Cityworks. The modules include implementation of a complete inventory system, API integrations with the GIS system, development of an asset strategy plan, site upgrades, and additional security enhancements. This project will also provide more opportunities for automation of vertical asset management through the use of ESRI's Geoevent server and SCADA information.

Project Drivers and Needs to be Met by the Project
As part of LCA's 2020 Goals, this project will support the need for additional integrations, automation, and security to increase availability and reliability of the software. The project will also help initiate the development and adoption of an asset strategy through the identification and interpretation of multiple data integrations.

Project Status - Describe what work, if any has been completed or underway for this project
This project commenced in 2019 with development of the existing Cityworks system and adoption of preventive maintenance practices in the City and Suburban Division. Multiple integrations have been completed; MUNIS integration, WINCAN integration, Customer Records Integration.

Annual Cost Impact	
Operating - Increase/(Decrease)	N/A
Debt Service	\$ -
Net	\$ -

Revenue Impact	
Gain/(Loss) in Annual Revenue	N/A
Assessment, Contribution in Aid-of-Construction	N/A
Other	

Borrowing Information	
Interest Rate	5.5000%
Term (Years)	30

Explanation if Necessary

Project No.	CON-A-6
Project Name	CMMS UPGRADES

Prior Project Cost	\$21,000
Estimated Project Costs:	2022-2025
LCA Staff	\$ 25,000
Land Acquisition	\$ -
Construction/Equipment	\$ 175,000
Professional Services	\$ 50,000
Other	\$ -
Contingencies	\$ 25,000
Total Project Cost	\$ 296,000

Project Estimate Level	
	Conceptual Estimate
	Preliminary Estimate
☒	Budget Estimate
	Definitive Estimate

Requested in this Capital Program	\$ 175,000
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		Need	Phase of Work
2021 Budget		\$ 100,000	
1st Year	2022	\$ 25,000	
2nd Year	2023	\$ 75,000	
3rd Year	2024	\$ 25,000	
4th Year	2025	\$ 25,000	
5th Year	2026	\$ 25,000	