



Lehigh County Authority

FINAL 5-YEAR CAPITAL PLAN

SUBURBAN DIVISION

2025-2029

OCTOBER 2024

**LEHIGH COUNTY AUTHORITY
5-YEAR CAPITAL PLAN
2025-2029**

TABLE OF CONTENTS

	Page
Glossary of Acronyms & Terms	1-2
Water	
Capital Financing Justification	3-4
Department Summary	5
Project Details	6-23
Wastewater	
Capital Financing Justification	24-25
Department Summary	26
Project Details	27-70

2025-2029 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
<i>AD</i>	Allentown Division	X	X
<i>AWD</i>	Arcadia West Division	X	X
<i>BHD</i>	Beverly Hills Division	X	
<i>CLD</i>	Central Lehigh Division	X	
<i>CFD</i>	Clear View Farms Division	X	
<i>ECD</i>	Emmaus Consecutive Division	X	
<i>HHD</i>	Heidelberg Heights Division	X	X
<i>LLRI-1</i>	Little Lehigh Relief Interceptor, Phase 1		X
<i>LLRI-2</i>	Little Lehigh Relief Interceptor, Phase 2		X
<i>LTD</i>	Lynn Township Division		X
<i>MCD</i>	Mill Creek Division	X	
<i>MND</i>	Madison Park Division	X	
<i>NWD</i>	North Whitehall Division	X	
<i>PLD</i>	Pine Lakes Division	X	
<i>SSD</i>	Sands Spring Division		X
<i>UMD</i>	Upper Milford Division	X	X
<i>UMCD</i>	Upper Central Milford Division (Buss Acres)	X	
<i>WLI</i>	Western Lehigh Interceptor		X
<i>WTD</i>	Washington Township Division	X	X
<i>WWD</i>	Wynnewood Division		X

Project Type

Project Type	Description
<i>AO</i>	Administrative Order
<i>UW</i>	Uncompleted Work ⁽¹⁾
<i>S-7-MCI</i>	Schedule-7 (<i>Lease Required</i>) Major Capital Improvement ⁽²⁾
<i>LCA-MCI</i>	LCA Developed Major Capital Improvement ⁽²⁾
<i>Regular</i>	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.*

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>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>Change of Law</i>	Change of Law
<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

WATER

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION WATER
5-YEAR CAPITAL PLAN
2025–2029**

CAPITAL FINANCING JUSTIFICATION

Capital additions to the Water System are justified by using six revenue sources: user charges, assessments or distribution tapping fees, supply tapping fees, contributions-in-aid of construction, reimbursements from the wastewater funds, and grants. This would comprise the amount of cash available from operations for capital projects.

Beyond the operating cash available, remaining sources are project reserves from previous debt issuance and any new borrowing required.

The table below summarizes the capital project sourcing by year and each major financial sourcing category:

CAPITAL FINANCING SOURCES						
	2025	2026	2027	2028	2029	TOTAL
Project Costs	\$4,362,000	\$10,342,500	\$10,352,500	\$6,012,500	\$6,622,500	\$37,692,000
<i>Sources of Funding:</i>						
Current Cash Flows	\$3,140,569	\$2,738,887	\$2,162,500	\$2,012,500	\$4,786,034	\$14,840,490
Cash Reserves	\$1,221,431	\$211,113	-	-	\$1,718,966	\$3,151,510
New Borrowing	-	\$7,392,500	\$8,190,000	\$4,000,000	\$117,500	\$19,700,000
TOTAL FUNDING	\$4,362,000	\$10,342,500	\$10,352,500	\$6,012,500	\$6,622,500	\$37,692,000

Total spending on capital projects for the five-year period totals \$37,692,000. Current cash flows and cash reserves over the period will provide \$17,992,000 for capital projects. New borrowing for plan period projects will be in the amount of \$19,700,000 and is expected to occur in Year 2026 to fund the projects for the plan period.

The \$19,700,000 borrowing is to fund main replacement projects, water meter replacement projects, North Whitehall improvement projects, and Upper System pump station and water main extension projects. To support the additional debt service an increase in rates of 4.6% in years 1-5 will be required. Modestly conservative growth of 1% annually is included to reflect expected new customer connections during the plan period.

CONDENSED CASH FLOW - SUBURBAN WATER

US DOLLARS	2025	2026	2027	2028	2029
User Charges	18,108,762	19,131,183	20,211,330	21,352,462	22,558,022
Other Operating Revenues	383,412	383,412	383,412	383,412	383,412
Non-Operating Revenues	727,940	727,940	727,940	727,940	727,940
Operating expenses	(12,192,178)	(12,683,523)	(13,162,643)	(13,626,627)	(14,106,965)
Debt Service - Current Debt	(3,474,867)	(3,474,867)	(3,474,867)	(3,474,867)	(3,474,867)
Debt Service - NEW Debt	-	(1,221,508)	(1,221,508)	(1,221,508)	(1,221,508)
Investments Converting to Cash	-	-	-	-	-
Proceeds From NEW Debt	-	19,700,000	-	-	-
Capex	(4,774,500)	(10,466,250)	(10,456,250)	(6,092,500)	(6,702,500)
NET FUND FLOWS	(1,221,431)	12,096,387	(6,992,586)	(1,951,688)	(1,836,466)
Plan Volume Increase %	1.00%	1.00%	1.00%	1.00%	1.00%
User Charge Rate Increase %	4.60%	4.60%	4.60%	4.60%	4.60%
Total User Charge Revenue Increase %	5.65%	5.65%	5.65%	5.65%	5.65%
Unrestricted Cash Balance	9,263,525	21,359,912	14,367,326	12,415,638	10,579,172
Unrestricted Investments	3,023,129	3,023,129	3,023,129	3,023,129	3,023,129
Total Unrestricted Balances	12,286,654	24,383,041	17,390,455	15,438,767	13,602,301
Days on Hand	277	261	284	329	274
DEBT SERVICE COVERAGE RATIO	2.02	1.61	1.74	1.88	2.04

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION
2025-2029 CAPITAL PROGRAM
WATER**

Project #	Name or Title of Proposal	Prj. Category	(1) Prj. Funding	Approval Stage (1)	This Capital Program						
					2024 Budget Approved	2025 Year 1	2026 Year 2	2027 Year 3	2028 Year 4	2029 Year 5	2025-2029 Total
SD-W-A	Annual Projects	AM - Varies	LCA	A	\$ 2,367,000	\$ 2,492,000	\$ 2,512,500	\$ 2,162,500	\$ 2,012,500	\$ 2,622,500	\$ 11,802,000
SD-W-10	Water Main Replacement Projects	AM - Varies	LCA	V	\$ 2,900,000	\$ -	\$ 3,000,000	\$ 3,000,000	\$ 3,150,000	\$ 3,150,000	\$ 12,300,000
SD-W-11	North Whitehall Division Water System Supply Study & Improvements	Sys Imp	LCA	S	\$ 100,000	\$ 120,000	\$ 1,250,000	\$ 1,780,000	\$ -	\$ -	\$ 3,150,000
SD-W-12	Water Systems Master Planning and Water Quality Studies	Sys Imp	LCA	S	\$ 200,000	\$ 150,000	\$ 150,000	\$ 50,000	\$ -	\$ -	\$ 350,000
SD-W-13	Upper System Pump Station & Water Main Extension	New Cust	LCA	D	\$ 50,000	\$ 50,000	\$ 900,000	\$ 1,100,000	\$ -	\$ -	\$ 2,050,000
SD-W-14	Water Meter Replacement Program	AM-Rev Opprt	LCA	C	\$ 800,000	\$ 1,000,000	\$ 1,050,000	\$ 1,050,000	\$ 1,050,000	\$ 1,000,000	\$ 5,150,000
SD-W-15	Central Lehigh System Supply Improvements	Sys Imp	LCA	S	\$ 100,000	\$ 180,000	\$ 330,000	\$ 20,000	\$ -	\$ -	\$ 530,000
SD-W-16	Buss Acres Water Quality Upgrade	Sys Imp	LCA	S	\$ 50,000	\$ 270,000	\$ 750,000	\$ 640,000	\$ -	\$ -	\$ 1,660,000
SD-W-17	Applewood Pump Station Upgrade	Sys Imp	LCA	D	\$ -	\$ 100,000	\$ 500,000	\$ 100,000	\$ -	\$ -	\$ 700,000
	GRAND TOTAL				\$ 6,567,000	\$ 4,362,000	\$ 10,442,500	\$ 9,902,500	\$ 6,212,500	\$ 6,772,500	\$ 37,692,000

(1) Reference Glossary of Acronyms & Terms found immediately after the Table of Contents. All projects are LCA funded

(2) If blank , cost is not applicable (annual project) or to be determined

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	SUBURBAN WATER ANNUAL PROJECT				
Budget Area	Water	Department	Capital Works		Project No. SD-W-A
Location	Suburban	Prj. Type	Both		Prj. Score 65
Prj Initiator	Volk		Prj Manager	Geissel	

Detailed Project Description
This annual project consists of separate smaller procurement and improvement projects. The consolidated project includes the following: general water system improvements, other equipment, mobile equipment, new and replacement water meters, reservoir rehab/maintenance, facility asset management upgrades, SCADA system upgrades, development service connections and extensions, water company acquisitions, and capital management.

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	50	13%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	75	19%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	100	15%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	75	4%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	25	3%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	25	3%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	100	10%

Additional Information

System Location UNC – OTHER WATER OR SEWER **Will this project require Land Rights?**

Project inception Date 1/2/2016 **Anticipated Project Completion Date** 12/31/2029

Project No.	SD-W-A	Project Name	SUBURBAN WATER ANNUAL PROJECT
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Primary Prj Category System Improvement **Secondary Prj Category** Asset Management Plan

Project Drivers and Needs

- | | |
|---|--|
| <input type="checkbox"/> New Facility | <input checked="" type="checkbox"/> End of Useful Life |
| <input checked="" type="checkbox"/> Existing Facility - Upgrade | <input checked="" type="checkbox"/> Obsolescence |
| <input checked="" type="checkbox"/> Scheduled Replacement | <input type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input type="checkbox"/> Regulatory |

Notes

Annual improvements provide for needed equipment and technology support to maintain systems operation and address high risk system components to maintain satisfactory level of service of various water facilities in LCA's Suburban Division.

Capital Funds Requested for Project			
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LCA Staff	\$300,000	Project Estimated Level	Planning
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$10,500,000	Grant Eligibility	No
Professional Services	\$700,000	Future Spending	\$0
Contingencies	\$302,000		
Total	\$11,802,000		

Current Budget 2024	\$2,367,000	
First Year Budget 2025	\$2,492,000	Construction
Second Year Budget 2026	\$2,512,500	Construction
Third Year Budget 2027	\$2,162,500	Construction
Fourth Year Budget 2028	\$2,012,500	Construction
Fifth Year Budget 2029	\$2,622,500	Construction
Total 2025-2029	\$11,802,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	SUBURBAN WATER MAIN REPLACEMENT PROJECT				
Budget Area	Water	Department	Capital Works	Project No.	SD-W-10
Location	Suburban	Prj. Type	Linear	Prj. Score	69
Prj Initiator	Peters	Prj Manager	Peters		

Detailed Project Description
This project entails replacement of aging and problematic cast iron (CI) and plastic water mains in LCA Central Lehigh and satellite water systems. Scope of work is prioritized based on break history, geology (sinkholes), pipe condition, pipe age, and probability and consequence of failure. The Capital Plan reflects the replacement of approximately one mile of water main per year, per annual prioritization efforts. Annual funding is provided in the Capital Plan for replacing mains that exhibit high failure rates.

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	50	13%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	75	19%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	100	15%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	0	0%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	75	8%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	50	5%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	100	10%

Additional Information

System Location CLD – SD WATER CENTRAL **Will this project require Land Rights?**

Project inception Date 1/2/2013 **Anticipated Project Completion Date** 1/2/2034

Project No.	SD-W-10	Project Name	SUBURBAN WATER MAIN REPLACEMENT PROJECT
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Primary Prj Category Asset Management Plan **Secondary Prj Category** System Improvement

Project Drivers and Needs

- | | |
|---|--|
| <input type="checkbox"/> New Facility | <input checked="" type="checkbox"/> End of Useful Life |
| <input type="checkbox"/> Existing Facility - Upgrade | <input type="checkbox"/> Obsolescence |
| <input checked="" type="checkbox"/> Scheduled Replacement | <input type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input type="checkbox"/> Regulatory |

Notes

Replacing cast iron and plastic mains will reduce the frequency of breaks in the system thereby saving the Authority repair costs, customer outages and reducing the potential for damage which can occur to private property.

Capital Funds Requested for Project

LCA Staff	\$500,000	Project Estimated Level	Construction
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$9,550,000	Grant Eligibility	TBD
Professional Services	\$1,500,000	Future Spending	\$0
Contingencies	\$750,000		
Total	\$12,300,000		

Current Budget 2024	\$2,900,000	
First Year Budget 2025	\$0	None
Second Year Budget 2026	\$3,000,000	Construction
Third Year Budget 2027	\$3,000,000	Construction
Fourth Year Budget 2028	\$3,150,000	Construction
Fifth Year Budget 2029	\$3,150,000	Construction
Total 2025-2029	\$12,300,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	NORTH WHITEHALL DIVISION WATER SYSTEM SUPPLY STUDY & IMPROVEMENTS				
Budget Area	Water	Department	Capital Works	Project No.	SD-W-11
Location	Suburban	Prj. Type	Both	Prj. Score	64
Prj Initiator	Kunkel	Prj Manager	Kunkel		

Detailed Project Description
A source water assessment study for the North Whitehall Division was completed in June 2024. The study identified vulnerabilities in emergency supply due to the system's single source of supply from Northampton Borough Municipal Authority. (NBMA). This project will further evaluate cost alternatives for a second interconnection with NBMA, and benefits of additional water storage within the system to improve reliability. Construction of a second interconnect with NBMA is included as part of this project.

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	75	19%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	50	13%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	100	15%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	0	0%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	50	5%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	25	3%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	100	10%

Additional Information

System Location	NWC – NORTH WHITEHALL WATER	Will this project require Land Rights?	<input checked="" type="checkbox"/>
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Project inception Date 2/1/2022	Anticipated Project Completion Date 12/31/2027
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Project No.	SD-W-11	Project Name	NORTH WHITEHALL DIVISION WATER SYSTEM SUPPLY STUDY & IMPROVEMENTS
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Primary Prj Category System Improvement **Secondary Prj Category** Planning

Project Drivers and Needs

- | | |
|---|--|
| <input checked="" type="checkbox"/> New Facility | <input type="checkbox"/> End of Useful Life |
| <input type="checkbox"/> Existing Facility - Upgrade | <input type="checkbox"/> Obsolescence |
| <input type="checkbox"/> Scheduled Replacement | <input type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input type="checkbox"/> Regulatory |

Notes

Having a single source of supply leaves the system vulnerable should an emergency occur at that supply source.

Capital Funds Requested for Project

LCA Staff	\$50,000	Project Estimated Level	Planning
Land Acquisition	\$100,000	Project Funding	LCA
Construction/Equipment	\$2,600,000	Grant Eligibility	TBD
Professional Services	\$250,000	Future Spending	\$0
Contingencies	\$150,000		
Total	\$3,150,000		

Current Budget 2024	\$100,000	
First Year Budget 2025	\$120,000	Design
Second Year Budget 2026	\$1,250,000	Construction
Third Year Budget 2027	\$1,780,000	Construction
Fourth Year Budget 2028	\$0	None
Fifth Year Budget 2029	\$0	None
Total 2025-2029	\$3,150,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	SUBURBAN WATER SYSTEMS MASTER PLANNING AND WATER QUALITY STUDIES				
Budget Area	Water	Department	Capital Works	Project No.	SD-W-12
Location	Suburban	Prj. Type	Both	Prj. Score	73
Prj Initiator	DePoe	Prj Manager	DePoe		

Detailed Project Description
<p>This project originally involved the preparation of a preliminary water supply study for two major Suburban Water Systems (Central Lehigh and North Whitehall Division). The study reviewed supply capacity requirements to meet current and future demands, and evaluate existing water sources, storage, and interconnections to ensure long-term supply needs can be met. From this study, additional engineering work will follow to develop and design water supply projects that enhance the region's water system resiliency and redundancy. This water supply study will serve as the backbone for future development of a Master Plan for the entire LCA Suburban Water System. Additional studies (continuation of pipeline assessment and comprehensive storage assessment) will occur in 2025 and beyond. In addition, this project includes development of a Master Plan for LCA's numerous small water systems ("satellite systems") that will include water quality studies to comply with evolving state and federal water quality standards.</p>

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	50	13%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	75	19%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	100	15%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	50	3%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	90	9%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	80	8%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	75	8%

Additional Information

System Location Will this project require Land Rights?

Project inception Date 7/1/2022 Anticipated Project Completion Date 12/31/2027

Project No.	SD-W-12	Project Name	SUBURBAN WATER SYSTEMS MASTER PLANNING AND WATER QUALITY STUDIES
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Primary Prj Category Planning **Secondary Prj Category** System Improvement

Project Drivers and Needs

- | | |
|---|---|
| <input checked="" type="checkbox"/> New Facility | <input type="checkbox"/> End of Useful Life |
| <input checked="" type="checkbox"/> Existing Facility - Upgrade | <input type="checkbox"/> Obsolescence |
| <input type="checkbox"/> Scheduled Replacement | <input checked="" type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input type="checkbox"/> Regulatory |

Notes

Project drivers include system supply and distribution improvements, customer service, redundancy, resiliency and regulatory.

Capital Funds Requested for Project
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LCA Staff	\$30,000	Project Estimated Level	Planning
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$0	Grant Eligibility	No
Professional Services	\$250,000	Future Spending	\$0
Contingencies	\$70,000		
Total	\$350,000		

Current Budget 2024	\$100,000	
First Year Budget 2025	\$150,000	Planning
Second Year Budget 2026	\$150,000	Planning
Third Year Budget 2027	\$50,000	Planning
Fourth Year Budget 2028	\$0	None
Fifth Year Budget 2029	\$0	None
Total 2025-2029	\$350,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	UPPER SYSTEM PUMP STATION & WATER MAIN EXTENSION				
Budget Area	Water	Department	Capital Works		Project No. SD-W-13
Location	Suburban	Prj. Type	Vertical	Prj. Score	61
Prj Initiator	Kunkel	Prj Manager	Kunkel		

Detailed Project Description
The project consists of improvements to LCA's Western Lehigh water distribution system ("CLD Upper System") that is located north of I-78 and west of the village of Fogelsville. A study done in 2020 recommended an interconnection with the CLD Lower system to provide adequate water supply and pressure to future industrial customers. This consists of a new pump station on the north side of I-78 to convey water from the Lower System to the Upper system. Design has progressed to approximately 80% "DEP Permit Level". The final design and construction of improvements will be contingent upon the timing of execution of a Developer Water Service Agreement (DWSA) with a potential large user and/or approved development(s) in the Upper System. It is assumed that a portion of the project costs will be shared by a TBD developer(s).

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	25	6%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	50	13%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	100	15%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	50	3%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	100	10%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	100	10%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	50	5%

Additional Information

System Location	CLD – SD WATER CENTRAL	Will this project require Land Rights?	<input checked="" type="checkbox"/>
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Project inception Date 1/1/2020	Anticipated Project Completion Date 12/31/2027
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Project No.	SD-W-13	Project Name	UPPER SYSTEM PUMP STATION & WATER MAIN EXTENSION
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Primary Prj Category New Customer **Secondary Prj Category** System Improvement

Project Drivers and Needs

- | | |
|---|---|
| <input checked="" type="checkbox"/> New Facility | <input type="checkbox"/> End of Useful Life |
| <input type="checkbox"/> Existing Facility - Upgrade | <input type="checkbox"/> Obsolescence |
| <input type="checkbox"/> Scheduled Replacement | <input checked="" type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input type="checkbox"/> Regulatory |

Notes

The project will meet the supply needs of a potential large water user(s) in the CLD Upper system.
--

Capital Funds Requested for Project
--

LCA Staff	\$30,000	Project Estimated Level	Design
Land Acquisition	\$20,000	Project Funding	LCA
Construction/Equipment	\$1,700,000	Grant Eligibility	Yes
Professional Services	\$175,000	Future Spending	\$0
Contingencies	\$125,000		
Total	\$2,050,000		

Current Budget 2024	\$50,000	
First Year Budget 2025	\$50,000	Design
Second Year Budget 2026	\$900,000	Construction
Third Year Budget 2027	\$1,100,000	Construction
Fourth Year Budget 2028	\$0	None
Fifth Year Budget 2029	\$0	None
Total 2025-2029	\$2,050,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	SUBURBAN WATER METER REPLACEMENT PROGRAM				
Budget Area	Water	Department	Capital Works	Project No.	SD-W-14
Location	Suburban	Prj. Type	Linear	Prj. Score	35
Prj Initiator	Kunkel	Prj Manager	Kunkel		

Detailed Project Description
The program consists of annual projects to replace aging and/or inoperable water meters. The program consists of annual meter replacements, which is prioritized internally with a higher priority assigned to meters that are non-functioning and/or have reached the end of their useful lives. All new meters will have radio-read (RR) capability.

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	0	0%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	25	6%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	100	15%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	75	4%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	50	5%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	20	2%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	25	3%

Additional Information

System Location UNC – OTHER WATER OR SEWER **Will this project require Land Rights?**

Project inception Date 1/1/2022 **Anticipated Project Completion Date** 12/31/2029

Project No.	SD-W-14	Project Name	SUBURBAN WATER METER REPLACEMENT PROGRAM
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Primary Prj Category Revenue Opportunity **Secondary Prj Category** Efficiency

Project Drivers and Needs

- | | |
|---|--|
| <input type="checkbox"/> New Facility | <input checked="" type="checkbox"/> End of Useful Life |
| <input checked="" type="checkbox"/> Existing Facility - Upgrade | <input type="checkbox"/> Obsolescence |
| <input checked="" type="checkbox"/> Scheduled Replacement | <input type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input type="checkbox"/> Regulatory |

Notes

The probability of inaccuracies in meter readings increases with age and usage of the meters. The improved accuracy of the new meters creates the potential to increase water system revenues.

Capital Funds Requested for Project

LCA Staff	\$75,000	Project Estimated Level	Planning
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$4,950,000	Grant Eligibility	No
Professional Services	\$0	Future Spending	\$0
Contingencies	\$125,000		
Total	\$5,150,000		

Current Budget 2024	\$800,000	
First Year Budget 2025	\$1,000,000	Construction
Second Year Budget 2026	\$1,050,000	Construction
Third Year Budget 2027	\$1,050,000	Construction
Fourth Year Budget 2028	\$1,050,000	Construction
Fifth Year Budget 2029	\$1,000,000	Construction
Total 2025-2029	\$5,150,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	CENTRAL LEHIGH SYSTEM SUPPLY IMPROVEMENTS				
Budget Area	Water	Department	Capital Works		Project No. SD-W-15
Location	Suburban	Prj. Type	Both		Prj. Score 88
Prj Initiator	Kunkel		Prj Manager	Kunkel	

Detailed Project Description
A source water assessment study for the Central Lehigh Division was completed in June 2024. The study identified vulnerabilities in emergency supply should the largest water source (Schantz Spring) be taken out of service. Re-establishing the Bortz interconnect with South Whitehall Township and re-establishing the Schantz Spring Secondary Booster Station are two alternatives for additional emergency supply that were identified in the study and will be implemented in 2025/2026.

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	100	25%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	80	20%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	100	15%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	50	3%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	75	8%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	75	8%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	100	10%

Additional Information

System Location CLD – SD WATER CENTRAL **Will this project require Land Rights?**

Project inception Date 1/2/2022 **Anticipated Project Completion Date** 1/6/2027

Project No.	SD-W-15	Project Name	CENTRAL LEHIGH SYSTEM SUPPLY IMPROVEMENTS
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Primary Prj Category System Improvement **Secondary Prj Category** Regulatory

Project Drivers and Needs

- | | |
|---|---|
| <input type="checkbox"/> New Facility | <input type="checkbox"/> End of Useful Life |
| <input checked="" type="checkbox"/> Existing Facility - Upgrade | <input type="checkbox"/> Obsolescence |
| <input type="checkbox"/> Scheduled Replacement | <input checked="" type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input checked="" type="checkbox"/> Regulatory |

Notes

This project addresses the need to have adequate source capacity with the largest source out of service during an emergency.
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Capital Funds Requested for Project
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LCA Staff	\$30,000	Project Estimated Level	Planning
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$350,000	Grant Eligibility	TBD
Professional Services	\$120,000	Future Spending	\$0
Contingencies	\$30,000		
Total	\$530,000		

Current Budget 2024	\$100,000	
First Year Budget 2025	\$180,000	Design
Second Year Budget 2026	\$330,000	Construction
Third Year Budget 2027	\$20,000	Construction
Fourth Year Budget 2028	\$0	None
Fifth Year Budget 2029	\$0	None
Total 2025-2029	\$530,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	BUSS ACRES WATER QUALITY UPGRADE				
Budget Area	Water	Department	Capital Works	Project No.	SD-W-16
Location	Suburban	Prj. Type	Vertical	Prj. Score	81
Prj Initiator	Kunkel	Prj Manager	Kunkel		

Detailed Project Description

In January 2023, Pennsylvania's PFAS maximum contaminant levels (MCLs) were established by DEP. Water quality analysis of the two wells serving the Buss Acres Water System show some levels in exceedance of these MCLs. A study to identify PFAS treatment options for the two wells as well as an option to connect Buss Acres to the CLD system will be completed in the fourth quarter of 2024. This project will implement the option selected from that study. Treatment system pilot studies (if option selected) and engineering design will begin in 2025, with final design and construction occurring in subsequent years.

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	100	25%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	100	25%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	100	15%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	25	1%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	75	8%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	0	0%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	75	8%

Additional Information

System Location UCC – BUSS ACRES WATER **Will this project require Land Rights?**

Project inception Date 2/1/2024 **Anticipated Project Completion Date** 12/31/2027

Project No.	SD-W-16	Project Name	BUSS ACRES WATER QUALITY UPGRADE
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Primary Prj Category Regulatory **Secondary Prj Category** System Improvement

Project Drivers and Needs

- | | |
|---|--|
| <input type="checkbox"/> New Facility | <input type="checkbox"/> End of Useful Life |
| <input checked="" type="checkbox"/> Existing Facility - Upgrade | <input type="checkbox"/> Obsolescence |
| <input type="checkbox"/> Scheduled Replacement | <input type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input checked="" type="checkbox"/> Regulatory |

Notes

Treatment of the wells is required for continued use as a source of supply.

Capital Funds Requested for Project
--

LCA Staff	\$30,000	Project Estimated Level	Planning
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$1,300,000	Grant Eligibility	Yes
Professional Services	\$230,000	Future Spending	\$0
Contingencies	\$100,000		
Total	\$1,660,000		

Current Budget 2024	\$50,000	
First Year Budget 2025	\$270,000	Design
Second Year Budget 2026	\$750,000	Construction
Third Year Budget 2027	\$640,000	Construction
Fourth Year Budget 2028	\$0	None
Fifth Year Budget 2029	\$0	None
Total 2025-2029	\$1,660,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	APPLEWOOD PUMP STATION UPGRADE				
Budget Area	Water	Department	Operations	Project No.	SD-W-17
Location	Suburban	Prj. Type	Vertical	Prj. Score	70
Prj Initiator	Lynn	Prj Manager	Dorner		

Detailed Project Description
This project involves a mechanical upgrade to the Applewood Pump Station, including replacing pumps and control valves which have reached the end of their service life. The project will also include hypochlorite system improvements at several well station sites within the Central Lehigh Division.

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	50	13%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	75	19%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	100	15%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	25	1%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	50	5%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	75	8%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	100	10%

Additional Information

System Location UNC – OTHER WATER OR SEWER **Will this project require Land Rights?**

Project inception Date 7/1/2024 **Anticipated Project Completion Date** 11/28/2025

Project No.	SD-W-17	Project Name	APPLEWOOD PUMP STATION UPGRADE
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Primary Prj Category System Improvement **Secondary Prj Category** New Customer

Project Drivers and Needs

- | | |
|---|---|
| <input type="checkbox"/> New Facility | <input checked="" type="checkbox"/> End of Useful Life |
| <input checked="" type="checkbox"/> Existing Facility - Upgrade | <input type="checkbox"/> Obsolescence |
| <input type="checkbox"/> Scheduled Replacement | <input checked="" type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input type="checkbox"/> Regulatory |

Notes

Project drivers include asset management, system improvements and fire flow capacity.

Capital Funds Requested for Project
--

LCA Staff	\$10,000	Project Estimated Level	Planning
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$550,000	Grant Eligibility	No
Professional Services	\$90,000	Future Spending	\$0
Contingencies	\$50,000		
Total	\$700,000		

Current Budget 2024	\$0	
First Year Budget 2025	\$100,000	Design
Second Year Budget 2026	\$500,000	Construction
Third Year Budget 2027	\$100,000	Construction
Fourth Year Budget 2028	\$0	None
Fifth Year Budget 2029	\$0	None
Total 2025-2029	\$700,000	

WASTEWATER

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION
WASTEWATER
5-YEAR CAPITAL PLAN
2025–2029**

CAPITAL FINANCING JUSTIFICATION

Capital additions to the Wastewater System are justified by calculating the operating cash available based upon projections of revenues over the five-year period. Beyond the operating cash available, remaining sources are project reserves from previous debt issuance and any new borrowing required.

The table below summarizes the capital project sourcing by year and each major financial sourcing category:

CAPITAL FINANCING SOURCES						
	2025	2026	2027	2028	2029	TOTAL
Project Costs	13,825,500	\$21,818,000	\$20,483,000	\$7,128,000	\$1,238,000	\$63,992,500
<i>Sources of Funding:</i>						
Current Cash Flows	\$2,725,500	\$4,218,000	\$4,083,000	\$4,155,283	\$1,238,000	\$16,419,783
Cash Reserves		-	-	\$2,972,717	-	\$2,972,717
New Borrowing	\$10,600,000	\$17,600,000	\$16,400,000	-	-	\$44,600,000
TOTAL FUNDING	\$13,325,500	\$21,818,000	\$20,483,000	\$7,128,000	\$1,238,000	\$63,992,500

Total spending on capital projects for the five-year period totals \$63,992,500. Current cash flows and cash reserves over the period will provide \$19,392,500 for capital projects. New borrowing will provide \$44,600,000 of project funding. This approach is recommended to allow for continued growth of reserves, which will be needed in the future as additional projects are incorporated into the plan as a result of the regional Act 537 Plan that is currently under development. The regional Act 537 Plan will provide details for sewage facility plans and significant capital improvements in the Suburban Division to address sanitary sewer overflows and overall capacity challenges of the system. The Act 537 Plan is expected to be submitted to state regulators in 2025 for review and approval and will include a separate detailed financial analysis outlining intermunicipal cost-sharing approaches for these projects as well as financing strategies and an analysis of rate impacts. This financial analysis and full plan overview will be presented later in 2024. However, due to the project timing, including some projects commencing in 2025, LCA has incorporated these projects into this Capital Plan to offer a preliminary view of borrowing and rate impacts. This information will be further refined in the Act 537 Plan and subsequent Capital Plans.

Revenue requirements will also be impacted by inflation for both the Western Lehigh Interceptor (WLI) group along with other users of the system. Signatory Revenue increases by year to support the Capital Plan are as shown below, but do not include and analysis of pass-through costs from the Allentown Division projects at this time:

	2025	2026	2027	2028	2029
Projected WLI Rate Increase	6.4%	2.9%	2.7%	2.4%	2.4%

CONDENSED CASH FLOW - SUBURBAN WASTEWATER

Dollars	2025	2026	2027	2028	2029
User Charges	20,281,604	21,757,832	23,137,287	23,414,347	23,698,333
Other Operating Revenues	273,624	273,624	273,624	273,624	273,624
Non-Operating Revenues	1,691,216	1,691,216	1,691,216	1,691,216	1,691,216
Operating expenses	(15,673,794)	(16,144,009)	(16,587,971)	(17,002,671)	(17,427,738)
Debt Service - Current Debt	(1,196,420)	(1,196,420)	(1,196,420)	(1,196,420)	(1,196,420)
Debt Service - NEW Debt	(699,888)	(1,861,967)	(2,944,813)	(2,944,813)	(2,944,813)
Investments Converting to Cash	-	-	-	-	-
Proceeds From NEW Debt	10,600,000	17,600,000	16,400,000	-	-
Capex	(13,738,000)	(21,941,750)	(20,586,750)	(7,208,000)	(1,318,000)
NET FUND FLOWS	1,538,342	178,526	186,173	(2,972,717)	2,776,202
User Charge Revenue Increase %	5.6%	7.3%	6.3%	1.2%	1.2%
Unrestricted Cash Balance	12,529,718	12,708,244	12,894,417	9,921,700	12,697,902
Unrestricted Investments	6,465,467	6,465,467	6,465,467	6,465,467	6,465,467
Total Unrestricted Balances	18,995,185	19,173,711	19,359,884	16,387,167	19,163,369
Unrestricted Cash - Days on Hand	292	287	284	213	266
DEBT SERVICE COVERAGE RATIO	3.47	2.48	2.06	2.02	1.99

Sourcing of Projects and Debt Service related to various systems is as follows:

BY SYSTEM	TOTAL	CURRENT CASH FLOWS	RESERVES	NEW DEBT
Annual Projects	\$3,182,500	\$3,182,500	-	-
Western Lehigh Interceptor	\$7,000,000	\$7,000,000	-	-
LCA Wastewater Pretreatment Plant	\$47,400,000	-	\$2,800,000	\$44,600,000
Common Rate Collector Systems	\$3,690,000	\$3,528,342	\$161,658	-
Arcadia West	\$620,000	\$620,000	-	-
Lynn Township	\$1,300,000	\$1,300,000	-	-
Little Lehigh Relief Interceptor System	\$800,000	\$788,941	\$11,059	-
	\$63,992,500	\$16,419,783	\$2,972,717	\$44,600,000

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION
2025-2029 CAPITAL PROGRAM
WASTEWATER**

Project #	Name or Title of Proposal	Prj. Category	(1) Prj. Funding	Approval Stage (1)	This Capital Program						
					2024 Budget Approved	2025 Year 1	2026 Year 2	2027 Year 3	2028 Year 4	2029 Year 5	2025-2029 Total
	<u>Operating/Capital Reserve Funds</u>										
	<u>Annual</u>										
SD-S-A	Annual Projects	AM - Varies	LCA	A	\$ 912,500	\$ 835,500	\$ 948,000	\$ 378,000	\$ 593,000	\$ 428,000	\$ 3,182,500
	Subtotal				\$ 912,500	\$ 835,500	\$ 948,000	\$ 378,000	\$ 593,000	\$ 428,000	\$ 3,182,500
	<u>Pretreatment Plant</u>										
SD-S-10	Pretreatment Plant Improvements	AM - Varies	LCA	A	\$ 1,000,000	\$ 600,000	\$ 500,000	\$ 500,000	\$ 400,000	\$ 300,000	\$ 2,300,000
SD-S-11	Pretreatment Plant Critical Upgrades	AM - Varies	LCA	A	\$ -	\$ 4,000,000	\$ 3,500,000	\$ -	\$ -	\$ -	\$ 7,500,000
SD-S-12	Pretreatment Plant Upgrades and Replacement	AM - Varies	LCA	A	\$ -	\$ 1,000,000	\$ 15,000,000	\$ 16,600,000	\$ 5,000,000	\$ -	\$ 37,600,000
	Subtotal				\$ 1,000,000	\$ 5,600,000	\$ 19,000,000	\$ 17,100,000	\$ 5,400,000	\$ 300,000	\$ 47,400,000
	<u>Western Lehigh Interceptor</u>										
SD-S-20	Central Lehigh County WW Capacity Planning & Expansion	New Cust	LCA	S	\$ 325,000	\$ 400,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 1,000,000
SD-S-21	WLI Major Rehabilitation and Repairs	Regulatory	LCA	V	\$ 225,000	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000
SD-S-22	Spring Creek Force Main Condition Assessment	AM-High	LCA	S	\$ 150,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ 100,000
SD-S-23	Spring Creek Pump Station Upgrades	AM-High	LCA	C	\$ 700,000	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000
SD-S-24	Spring Creek Force Main Relocation	Regulatory	LCA	D	\$ 100,000	\$ 900,000	\$ -	\$ -	\$ -	\$ -	\$ 900,000
SD-S-25	Signatory I & I Investigation & Remediation Program	Regulatory	LCA	V	\$ 1,000,000	\$ 500,000	\$ 200,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 1,000,000
SD-S-26	Upper Western Lehigh Interceptor Pump Station & Force Main	Regulatory	LCA	C	\$ 3,500,000	\$ 1,300,000	\$ -	\$ -	\$ -	\$ -	\$ 1,300,000
SD-S-27	Western Lehigh Interceptor Parallel Alignment (Special Act 537 Study)	Regulatory	LCA	S	\$ -	\$ -	\$ -	\$ 750,000	\$ 750,000	\$ 150,000	\$ 1,650,000
	Subtotal				\$ 6,000,000	\$ 4,250,000	\$ 350,000	\$ 1,000,000	\$ 1,000,000	\$ 400,000	\$ 7,000,000
	<u>Satellite Systems</u>										
SD-S-30	Wynnewood I & I Investigation & Remediation Program	AM - Varies	LCA	C	\$ 125,000	\$ 150,000	\$ 150,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 375,000
SD-S-31	Wynnewood Wastewater Treatment Plant Expansion	New Cust	LCA	D	\$ -	\$ 50,000	\$ 500,000	\$ 1,750,000	\$ -	\$ -	\$ 2,300,000
SD-S-32	Arcadia West WWTP Mechanical Screen	Efficiency	LCA	D	\$ 75,000	\$ 220,000	\$ 400,000	\$ -	\$ -	\$ -	\$ 620,000
SD-S-33	North Whitehall Township Act 537 Sewage Facilities Planning	Regulatory	LCA	S	\$ 70,000	\$ 70,000	\$ 20,000	\$ -	\$ -	\$ -	\$ 90,000
SD-S-34	Heidelberg Heights I & I Investigation & Remediation Program	AM - Varies	LCA	D	\$ 350,000	\$ 300,000	\$ 100,000	\$ 50,000	\$ 50,000	\$ 25,000	\$ 525,000
SD-S-35	Heidelberg Heights WWTP Rehabilitation	AM - Varies	LCA	S	\$ 160,000	\$ 25,000	\$ 50,000	\$ 75,000	\$ 25,000	\$ 25,000	\$ 200,000
SD-S-36	Sand Spring WWTP improvements	Regulatory	LCA	C	\$ 100,000	\$ 100,000	\$ 50,000	\$ 30,000	\$ 10,000	\$ 10,000	\$ 200,000
SD-S-37	Lynn Township WWTP Improvements	AM - High	LCA	C	\$ 500,000	\$ 900,000	\$ 150,000	\$ 50,000	\$ -	\$ -	\$ 1,100,000
SD-S-38	Lynn Township I & I Investigation & Remediation Program	Regulatory	LCA	P	\$ 50,000	\$ 25,000	\$ 100,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 200,000
	Subtotal				\$ 1,430,000	\$ 1,840,000	\$ 1,520,000	\$ 2,005,000	\$ 135,000	\$ 110,000	\$ 5,610,000
	<u>Little Lehigh Relief Interceptor System</u>										
SD-S-40	Park Pump Station Upgrade - Phase 2	AM - High	LCA	C	\$ 2,300,000	\$ 800,000	\$ -	\$ -	\$ -	\$ -	\$ 800,000
	Subtotal				\$ 2,300,000	\$ 800,000	\$ -	\$ -	\$ -	\$ -	\$ 800,000
	GRAND TOTAL WASTEWATER PROJECTS										
					\$ 11,642,500	\$ 13,325,500	\$ 21,818,000	\$ 20,483,000	\$ 7,128,000	\$ 1,238,000	\$ 63,992,500

(1) Reference Glossary of Acronyms & Terms found immediately after the Table of Contents. All projects are LCA funded.

(2) If blank , cost is not applicable (annual project) or to be determined

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	SUBURBAN WASTEWATER ANNUAL PROJECT				
Budget Area	Wastewater	Department	Capital Works	Project No.	SD-S-A
Location	Suburban	Prj. Type	Both	Prj. Score	74
Prj Initiator	Volk	Prj Manager	Geissel		

Detailed Project Description
This annual project consists of separate smaller procurement and improvement projects. The consolidated project includes the following: general sewer system improvements, other equipment, mobile equipment, facility asset management upgrades, SCADA system upgrades, development service connections and extensions, sewer company acquisitions, and capital management.

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	75	19%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	75	19%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	100	15%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	75	4%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	75	8%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	25	3%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	75	8%

Additional Information

System Location UNC – OTHER WATER OR SEWER **Will this project require Land Rights?**

Project inception Date 1/2/2016 **Anticipated Project Completion Date** 12/31/2029

Project No.	SD-S-A	Project Name	SUBURBAN WASTEWATER ANNUAL PROJECT
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Primary Prj Category System Improvement **Secondary Prj Category** Asset Management Plan

Project Drivers and Needs

- | | |
|---|--|
| <input type="checkbox"/> New Facility | <input checked="" type="checkbox"/> End of Useful Life |
| <input checked="" type="checkbox"/> Existing Facility - Upgrade | <input checked="" type="checkbox"/> Obsolescence |
| <input checked="" type="checkbox"/> Scheduled Replacement | <input type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input type="checkbox"/> Regulatory |

Notes

Annual projects provide for needed equipment and technology support to maintain systems operation and address high risk system components to maintain satisfactory level of service of various wastewater facilities in LCA's Suburban

Capital Funds Requested for Project

LCA Staff	\$200,000	Project Estimated Level	Planning
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$2,600,000	Grant Eligibility	No
Professional Services	\$250,000	Future Spending	\$0
Contingencies	\$132,500		
Total	\$3,182,500		

Current Budget 2024	\$912,500	
First Year Budget 2025	\$835,500	Construction
Second Year Budget 2026	\$948,000	Construction
Third Year Budget 2027	\$378,000	Construction
Fourth Year Budget 2028	\$593,000	Construction
Fifth Year Budget 2029	\$428,000	Construction
Total 2025-2029	\$3,182,500	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	PRETREATMENT PLANT ANNUAL IMPROVEMENTS				
Budget Area	Wastewater	Department	Capital Works	Project No.	SD-S-10
Location	Suburban	Prj. Type	Vertical	Prj. Score	89
Prj Initiator	Volk	Prj Manager	Volk		

Detailed Project Description
<p>This project is comprised of asset management driven upgrades to address the reliability and functionality of the LCA pretreatment plant. Prioritization of separate capital improvement projects utilizes asset management protocols to replace equipment and upgrade processes, in order to maintain level of service and compliance with City of Allentown mandated discharge requirements. Electrical system components will be upgraded in 2025 as a result of a comprehensive electrical testing program being conducted in 2024. Annual paving projects, SCADA/security upgrades, building repairs, and major equipment replacements are also part of this program.</p>

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	100	25%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	75	19%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	100	15%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	50	3%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	75	8%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	100	10%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	100	10%

Additional Information

System Location TPC – PRETREATMENT PLANT **Will this project require Land Rights?**

Project inception Date 1/2/2010 **Anticipated Project Completion Date** 12/31/2029

Project No.	SD-S-10	Project Name	PRETREATMENT PLANT ANNUAL IMPROVEMENTS
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Primary Prj Category Asset Management Plan **Secondary Prj Category** System Improvement

Project Drivers and Needs

- | | |
|---|--|
| <input type="checkbox"/> New Facility | <input checked="" type="checkbox"/> End of Useful Life |
| <input checked="" type="checkbox"/> Existing Facility - Upgrade | <input checked="" type="checkbox"/> Obsolescence |
| <input type="checkbox"/> Scheduled Replacement | <input type="checkbox"/> Inadequate Capacity |
| <input type="checkbox"/> System Improvements | <input type="checkbox"/> Regulatory |

Notes

This facility is critical to support local economic growth in the Western Lehigh sewer service area, and annual improvements are required to maintain level of service for the pretreatment plant, which has been in continuous operation since 1990.

Capital Funds Requested for Project
--

LCA Staff	\$100,000	Project Estimated Level	Design
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$2,000,000	Grant Eligibility	TBD
Professional Services	\$100,000	Future Spending	\$0
Contingencies	\$100,000		
Total	\$2,300,000		

Current Budget 2024	\$1,000,000	
First Year Budget 2025	\$600,000	Construction
Second Year Budget 2026	\$500,000	Construction
Third Year Budget 2027	\$500,000	Construction
Fourth Year Budget 2028	\$400,000	Construction
Fifth Year Budget 2029	\$300,000	Construction
Total 2025-2029	\$2,300,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	PRETREATMENT PLANT CRITICAL UPGRADES				
Budget Area	Wastewater	Department	Capital Works	Project No.	SD-S-11
Location	Suburban	Prj. Type	Vertical	Prj. Score	55
Prj Initiator	Volk	Prj Manager	Volk		

Detailed Project Description
A critical upgrade project is being designed in 2024 and will be constructed in 2025 and 2026 to address four primary process areas that have major equipment at the end of its service life. The process areas are - aeration (air deck mixers and instrumentation), final settling (final clarifier mechanical equipment), cryogenic plant (mechanical), and solids processing (solids buildings HVAC systems). The objective of the critical plant upgrade project is to address high risk areas and maintain treatment performance in the short term.

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	50	13%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	25	6%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	90	14%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	25	1%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	75	8%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	50	5%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	90	9%

Additional Information

System Location TPC – PRETREATMENT PLANT **Will this project require Land Rights?**

Project inception Date 1/2/2024 **Anticipated Project Completion Date** 6/30/2026

Project No.	SD-S-11	Project Name	PRETREATMENT PLANT CRITICAL UPGRADES
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Primary Prj Category Asset Management Plan **Secondary Prj Category** System Improvement

Project Drivers and Needs

- | | |
|---|--|
| <input type="checkbox"/> New Facility | <input checked="" type="checkbox"/> End of Useful Life |
| <input checked="" type="checkbox"/> Existing Facility - Upgrade | <input type="checkbox"/> Obsolescence |
| <input type="checkbox"/> Scheduled Replacement | <input type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input type="checkbox"/> Regulatory |

Notes

Asset management and system improvement are the primary drivers.
--

Capital Funds Requested for Project
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LCA Staff	\$50,000	Project Estimated Level	Design
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$7,000,000	Grant Eligibility	TBD
Professional Services	\$350,000	Future Spending	\$0
Contingencies	\$100,000		
Total	\$7,500,000		

Current Budget 2024	\$0	
First Year Budget 2025	\$4,000,000	Construction
Second Year Budget 2026	\$3,500,000	Construction
Third Year Budget 2027	\$0	None
Fourth Year Budget 2028	\$0	None
Fifth Year Budget 2029	\$0	None
Total 2025-2029	\$7,500,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	PRETREATMENT PLANT UPGRADE AND REPLACEMENT				
Budget Area	Wastewater	Department	Capital Works		Project No. SD-S-12
Location	Suburban	Prj. Type	Vertical	Prj. Score	53
Prj Initiator	Capuzzi	Prj Manager	Volk		

Detailed Project Description
<p>Major modifications to the pretreatment are planned under this project. This project assumes only three major industries are participating in the pretreatment plant replacement - Keurig Doctor Pepper, Sunopta and Coke. Ocean Spray and Boston Beer will treat their wastewater on-site to be conveyed to Kline's Island Wastewater Treatment Plant. The new plant will also treat hauled-in waste. The new treatment facility will include an anaerobic process (upflow anaerobic sludge blanket (UASB)), moving bed bio-reactor and dissolved air flotation. A combined heat and power unit will be installed to convert the biogas to electricity and heat. New solids handling facilities are planned primarily for the hauled waste including new hauled waste receiving station, a redundant boiler for digesters, dewatering equipment replacement and new solids load-out equipment. To convey the wastewater to the plant, a new dedicated pump station and force main for each major industry is planned. Domestic and commercial waste will bypass the new facility and receive treatment at the Kline's Island wastewater treatment plant in Allentown. This segregation is needed for the UASB process. The project includes design, equipment procurement, construction and construction management. Work will start in 4th quarter 2024. The work is anticipated to be completed by the end of 2027</p>

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	50	13%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	25	6%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	75	11%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	50	3%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	75	8%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	50	5%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	75	8%

Additional Information

System Location	TPC – PRETREATMENT PLANT	Will this project require Land Rights?	<input type="checkbox"/>
Project inception Date	6/1/2023	Anticipated Project Completion Date	12/31/2027

Project No.	SD-S-12	Project Name	PRETREATMENT PLANT UPGRADE AND REPLACEMENT
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Primary Prj Category Asset Management Plan **Secondary Prj Category** System Improvement

Project Drivers and Needs

- | | |
|---|--|
| <input checked="" type="checkbox"/> New Facility | <input checked="" type="checkbox"/> End of Useful Life |
| <input checked="" type="checkbox"/> Existing Facility - Upgrade | <input checked="" type="checkbox"/> Obsolescence |
| <input type="checkbox"/> Scheduled Replacement | <input type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input type="checkbox"/> Regulatory |

Notes

The existing pretreatment plant was built in the late 1980s and the majority of its major equipment has reached the end of its service life. The plant requires a major upgrade and rehabilitation.

Capital Funds Requested for Project
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LCA Staff	\$200,000	Project Estimated Level	Planning
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$33,000,000	Grant Eligibility	TBD
Professional Services	\$3,000,000	Future Spending	\$0
Contingencies	\$1,400,000		
Total	\$37,600,000		

Current Budget 2024	\$0	
First Year Budget 2025	\$1,000,000	Design
Second Year Budget 2026	\$15,000,000	Construction
Third Year Budget 2027	\$16,600,000	Construction
Fourth Year Budget 2028	\$5,000,000	None
Fifth Year Budget 2029	\$0	None
Total 2025-2029	\$37,600,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	CENTRAL LEHIGH COUNTY WW CAPACITY PLANNING & EXPANSION				
Budget Area	Wastewater	Department	Capital Works	Project No.	SD-S-20
Location	Suburban	Prj. Type	Both	Prj. Score	87
Prj Initiator	DePoe	Prj Manager	DePoe		

Detailed Project Description
<p>This project has evolved over the past 15 years, starting with the EPA Administrative Orders (AOs) being issued in 2007 and 2009 related to wet weather capacity issues. In 2010, DEP enacted a Connection Management Plan on the Western Lehigh Interceptor (WLI) - known as the "SCARP" (Sewer Capacity Assurance and Rehabilitation Program). LCA initiated its own version of Act 537 during 2013-2016, which was ultimately not submitted to DEP. With a commitment to a flow characterization study and a Regional Flow Management Strategy (RFMS), the EPA lifted both AOs in 2019. The region experienced an abnormal rainfall pattern that lasted from August 2018 through July 2019. This caused a Chapter 94 violation at the Kline's Island WWTP, which forced DEP to place the entire system under Act 537 Planning. This Plan is due to DEP by March 2025. This project includes upgrades to LCA Meter Stations nos. 1 and 2 to restore full functionality in order to trend wet weather flows in the Western Lehigh Interceptor service area.</p>

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	100	25%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	90	23%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	75	11%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	10	1%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	100	10%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	100	10%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	75	8%

Additional Information

System Location WLC – WESTERN LEHIGH SEWER **Will this project require Land Rights?**

Project inception Date 1/1/2007 **Anticipated Project Completion Date** 12/31/2035

Project No.	SD-S-20	Project Name	CENTRAL LEHIGH COUNTY WW CAPACITY PLANNING & EXPANSION
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Primary Prj Category Regulatory **Secondary Prj Category** Planning

Project Drivers and Needs

- | | |
|---|---|
| <input type="checkbox"/> New Facility | <input checked="" type="checkbox"/> End of Useful Life |
| <input type="checkbox"/> Existing Facility - Upgrade | <input type="checkbox"/> Obsolescence |
| <input type="checkbox"/> Scheduled Replacement | <input checked="" type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input checked="" type="checkbox"/> Regulatory |

Notes

Primary project drivers are regulatory, system capacity and economic development.

Capital Funds Requested for Project

LCA Staff	\$125,000	Project Estimated Level	Preliminary
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$250,000	Grant Eligibility	No
Professional Services	\$500,000	Future Spending	\$0
Contingencies	\$125,000		
Total	\$1,000,000		

Current Budget 2024	\$325,000	
First Year Budget 2025	\$400,000	Construction
Second Year Budget 2026	\$150,000	Planning
Third Year Budget 2027	\$150,000	Planning
Fourth Year Budget 2028	\$150,000	Planning
Fifth Year Budget 2029	\$150,000	Planning
Total 2025-2029	\$1,000,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	WLI MAJOR REHABILITATION AND REPAIRS				
Budget Area	Wastewater	Department	Capital Works	Project No.	SD-S-21
Location	Suburban	Prj. Type	Linear	Prj. Score	79
Prj Initiator	DePoe	Prj Manager	Peters		

Detailed Project Description
<p>This project is a result of continued planning and investigatory work in the Western Lehigh Interceptor (WLI) service area. The project scope includes inflow and infiltration investigation and remediation of sanitary sewer manholes and interceptor main line, in order to extend service life and seal the system from wet weather I/I, with the ultimate objective of demonstrating additional conveyance capacity for the WLI area. The work includes testing and sealing pipe joints, internal lining of damaged sewer main line, flood-proofing manholes, replacing manhole frames and covers, structural manhole repairs, and sealing of manhole interiors. In 2025, the focus shifts to performing a test and seal project downstream of Spring Creek Pump Station (all the way to Park Pump Station).</p>

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	90	23%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	75	19%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	100	15%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	25	1%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	80	8%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	80	8%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	50	5%

Additional Information

System Location WLC – WESTERN LEHIGH SEWER **Will this project require Land Rights?**

Project inception Date 8/1/2018 **Anticipated Project Completion Date** 12/31/2029

Project No.	SD-S-21	Project Name	WLI MAJOR REHABILITATION AND REPAIRS
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Primary Prj Category: System Improvement Secondary Prj Category: Planning

Project Drivers and Needs

- New Facility
- Existing Facility - Upgrade
- Scheduled Replacement
- System Improvements
- End of Useful Life
- Obsolescence
- Inadequate Capacity
- Regulatory

Notes

The remainder of the WLI from Manhole #L255 at Spring Creek Pump Station) to MH#L1 at Kecks Bridge (Meter Station 5) and all of the Little Lehigh Relief Interceptor from MH#A17 (Kecks Bridge) to MH#B1 (Park Pump Station).

Capital Funds Requested for Project

LCA Staff	\$10,000	Project Estimated Level	Planning
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$10,000	Grant Eligibility	No
Professional Services	\$20,000	Future Spending	\$0
Contingencies	\$10,000		
Total	\$50,000		

Current Budget 2024	\$225,000	
First Year Budget 2025	\$50,000	Planning
Second Year Budget 2026	\$0	None
Third Year Budget 2027	\$0	None
Fourth Year Budget 2028	\$0	None
Fifth Year Budget 2029	\$0	None
Total 2025-2029	\$50,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	SPRING CREEK FORCE MAIN CONDITION ASSESSMENT				
Budget Area	Wastewater	Department	Capital Works	Project No.	SD-S-22
Location	Suburban	Prj. Type	Linear	Prj. Score	76
Prj Initiator	DePoe	Prj Manager	Kunkel		

Detailed Project Description
A broadband electromagnetic (BEM) test is to be conducted in 2024 at nine locations on the Spring Creek Force Main to determine remaining wall thickness, corrosion, and assess the remaining useful life of the 30-year-old force main. The results of the study have yet to be determined but may indicate the need for pipeline rehabilitation, repair or replacement. Initial engineering design costs are included in this project, but the scope and cost of any construction work is not known and not included at this time.

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	100	25%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	50	13%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	100	15%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	0	0%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	50	5%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	80	8%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	100	10%

Additional Information

System Location WLC – WESTERN LEHIGH SEWER **Will this project require Land Rights?**

Project inception Date 1/1/2023 **Anticipated Project Completion Date** 12/23/2025

Project No.	SD-S-22	Project Name	SPRING CREEK FORCE MAIN CONDITION ASSESSMENT
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Primary Prj Category: System Improvement
 Secondary Prj Category: Asset Management Plan

Project Drivers and Needs

- | | |
|---|--|
| <input type="checkbox"/> New Facility | <input type="checkbox"/> End of Useful Life |
| <input checked="" type="checkbox"/> Existing Facility - Upgrade | <input type="checkbox"/> Obsolescence |
| <input type="checkbox"/> Scheduled Replacement | <input type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input checked="" type="checkbox"/> Regulatory |

Notes

The Spring Creek Pump Station and Force Main is an integral part of the Western Lehigh service area. It is essential to perform necessary rehabilitation of the force main to extend the service life of the infrastructure.
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Capital Funds Requested for Project

LCA Staff	\$10,000	Project Estimated Level	Planning
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$0	Grant Eligibility	No
Professional Services	\$90,000	Future Spending	\$0
Contingencies	\$0		
Total	\$100,000		

Current Budget 2024	\$150,000	
First Year Budget 2025	\$100,000	Planning
Second Year Budget 2026	\$0	None
Third Year Budget 2027	\$0	None
Fourth Year Budget 2028	\$0	None
Fifth Year Budget 2029	\$0	None
Total 2025-2029	\$100,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	SPRING CREEK PUMP STATION UPGRADES				
Budget Area	Wastewater	Department	Capital Works	Project No.	SD-S-23
Location	Suburban	Prj. Type	Vertical	Prj. Score	68
Prj Initiator	Kunkel	Prj Manager	Kunkel		

Detailed Project Description
The Spring Creek Pump Station and Force Main is a critical component of the Western Lehigh Interceptor system. The upgrade project consists of replacing the variable frequency drives (VFDs), mini power system, installing a new wet well weir gate, installing a new gate in the main interceptor channel, and improvements to the access hatches and dry well ventilation system.

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	50	13%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	75	19%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	100	15%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	80	4%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	50	5%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	25	3%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	100	10%

Additional Information

System Location	WLC – WESTERN LEHIGH SEWER	Will this project require Land Rights?	<input type="checkbox"/>
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Project inception Date 1/1/2023	Anticipated Project Completion Date 1/7/2025
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Project No.	SD-S-23	Project Name	SPRING CREEK PUMP STATION UPGRADES
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Primary Prj Category System Improvement **Secondary Prj Category** Asset Management Plan

Project Drivers and Needs

- | | |
|---|--|
| <input type="checkbox"/> New Facility | <input checked="" type="checkbox"/> End of Useful Life |
| <input checked="" type="checkbox"/> Existing Facility - Upgrade | <input checked="" type="checkbox"/> Obsolescence |
| <input checked="" type="checkbox"/> Scheduled Replacement | <input type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input type="checkbox"/> Regulatory |

Notes

The primary drivers are asset management, efficiency and maintain level of service.

Capital Funds Requested for Project

LCA Staff	\$15,000	Project Estimated Level	Construction
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$885,000	Grant Eligibility	No
Professional Services	\$50,000	Future Spending	\$0
Contingencies	\$50,000		
Total	\$1,000,000		

Current Budget 2024	\$700,000	
First Year Budget 2025	\$1,000,000	Construction
Second Year Budget 2026	\$0	None
Third Year Budget 2027	\$0	None
Fourth Year Budget 2028	\$0	None
Fifth Year Budget 2029	\$0	None
Total 2025-2029	\$1,000,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	SPRING CREEK FORCE MAIN RELOCATION				
Budget Area	Wastewater	Department	Capital Works	Project No.	SD-S-24
Location	Suburban	Prj. Type	Linear	Prj. Score	61
Prj Initiator	Kunkel	Prj Manager	Kunkel		

Detailed Project Description
The Pennsylvania Turnpike Commission's (PTC) Northeast Extension (I-476) Widening Program will impact a section of the Spring Creek Pump Station Force Main that runs along Lower Macungie Rd at the Turnpike bridge crossing. This will require the relocation of 1800 linear feet of 24-inch diameter pipe, including a new bored crossing underneath the Turnpike. The force main relocation will be incorporated in the PTC construction contract for the Project and costs of relocation will be shared by LCA and the PTC.

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	100	25%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	50	13%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	50	8%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	0	0%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	50	5%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	25	3%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	80	8%

Additional Information

System Location WLC – WESTERN LEHIGH SEWER **Will this project require Land Rights?**

Project inception Date 1/9/2021 **Anticipated Project Completion Date** 12/31/2025

Project No.	SD-S-24	Project Name	SPRING CREEK FORCE MAIN RELOCATION
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Primary Prj Category Regulatory **Secondary Prj Category** Planning

Project Drivers and Needs

- | | |
|---|--|
| <input type="checkbox"/> New Facility | <input type="checkbox"/> End of Useful Life |
| <input checked="" type="checkbox"/> Existing Facility - Upgrade | <input type="checkbox"/> Obsolescence |
| <input checked="" type="checkbox"/> Scheduled Replacement | <input type="checkbox"/> Inadequate Capacity |
| <input type="checkbox"/> System Improvements | <input checked="" type="checkbox"/> Regulatory |

Notes

Relocation is required to accommodate widening of the Turnpike Northeast Extension (I-476).

Capital Funds Requested for Project

LCA Staff	\$20,000	Project Estimated Level	Design
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$830,000	Grant Eligibility	Yes
Professional Services	\$0	Future Spending	\$0
Contingencies	\$50,000		
Total	\$900,000		

Current Budget 2024	\$100,000	
First Year Budget 2025	\$900,000	Construction
Second Year Budget 2026	\$0	None
Third Year Budget 2027	\$0	None
Fourth Year Budget 2028	\$0	None
Fifth Year Budget 2029	\$0	None
Total 2025-2029	\$900,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	SIGNATORY I & I INVESTIGATION & REMEDIATION PROGRAM				
Budget Area	Wastewater	Department	Capital Works	Project No.	SD-S-25
Location	Suburban	Prj. Type	Linear	Prj. Score	81
Prj Initiator	DePoe	Prj Manager	DePoe		

Detailed Project Description
LCA provides the leadership, technical expertise and administration for coordinating the projects located within the Signatory sewer systems. The project included two major components: (1) Investigatory/planning work such as flow monitoring, the SCARP development, SSES, Level of Service Determination, Alternatives Analysis, etc., that are necessary to develop the best course of action to reduce I&I within the system(s). Much of this work has been completed. Part (2) - Design, permitting and the construction for rehabilitation of infrastructure that will be necessary to comply with recent PA DEP Act 537 directives. Annual engineering assistance for the Western Lehigh Sewer group is also included within this project.

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	100	25%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	75	19%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	75	11%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	50	3%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	90	9%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	90	9%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	50	5%

Additional Information

System Location WLC – WESTERN LEHIGH SEWER **Will this project require Land Rights?**

Project inception Date 7/1/2009 **Anticipated Project Completion Date** 12/31/2035

Project No.	SD-S-25	Project Name	SIGNATORY I & I INVESTIGATION & REMEDIATION PROGRAM
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Primary Prj Category Regulatory **Secondary Prj Category** Planning

Project Drivers and Needs

- | | |
|---|---|
| <input checked="" type="checkbox"/> New Facility | <input type="checkbox"/> End of Useful Life |
| <input checked="" type="checkbox"/> Existing Facility - Upgrade | <input type="checkbox"/> Obsolescence |
| <input type="checkbox"/> Scheduled Replacement | <input checked="" type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input checked="" type="checkbox"/> Regulatory |

Notes

Primary project drivers are regulatory and system capacity.

Capital Funds Requested for Project
--

LCA Staff	\$30,000	Project Estimated Level	Planning
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$700,000	Grant Eligibility	TBD
Professional Services	\$200,000	Future Spending	\$0
Contingencies	\$70,000		
Total	\$1,000,000		

Current Budget 2024	\$1,000,000	
First Year Budget 2025	\$500,000	Construction
Second Year Budget 2026	\$200,000	Construction
Third Year Budget 2027	\$100,000	Construction
Fourth Year Budget 2028	\$100,000	Construction
Fifth Year Budget 2029	\$100,000	Construction
Total 2025-2029	\$1,000,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	UPPER WESTERN LEHIGH INTERCEPTOR PUMP STATION & FORCE MAIN				
Budget Area	Wastewater	Department	Capital Works		Project No. SD-S-26
Location	Suburban	Prj. Type	Both		Prj. Score 89
Prj Initiator	DePoe		Prj Manager	Kunkel	

Detailed Project Description
As identified in the Interim Act 537 plan approved by DEP in June 2021, conveyance capacity in the Trexlertown area of the Western Lehigh Interceptor was assigned a high priority due to sanitary surcharging and overflows in the vicinity. This alternative, recommended by Upper Macungie Township (UMT), is to pump 2.5 million gallons per day of effluent flow from LCA's Industrial Pretreatment Plant to a location downstream in the UMT sewer interceptor (near the township park along Grange Rd), which has capacity to handle the additional flows. This would result in a dry weather bypass of 2.5 mgd around the Trexlertown area (the hydraulic "bottleneck"). The pump station and force main were designed and permitted in 2022/2023. Construction began in 2024 and will be completed in 2025.

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	100	25%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	90	23%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	100	15%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	50	3%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	50	5%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	100	10%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	90	9%

Additional Information

System Location WLC – WESTERN LEHIGH SEWER **Will this project require Land Rights?**

Project inception Date 1/1/2021 **Anticipated Project Completion Date**

Project No.	SD-S-26	Project Name	UPPER WESTERN LEHIGH INTERCEPTOR PUMP STATION & FORCE MAIN
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Primary Prj Category Regulatory **Secondary Prj Category** System Improvement

Project Drivers and Needs

- | | |
|---|---|
| <input checked="" type="checkbox"/> New Facility | <input type="checkbox"/> End of Useful Life |
| <input type="checkbox"/> Existing Facility - Upgrade | <input type="checkbox"/> Obsolescence |
| <input type="checkbox"/> Scheduled Replacement | <input checked="" type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input checked="" type="checkbox"/> Regulatory |

Notes

Per the DEP approved Interim 537 Plan, action is required to alleviate the current sanitary sewer interceptor system "bottleneck" in the Trexlertown area. This project is intended to address dry-day surcharging and overflows and allow for future growth.

Capital Funds Requested for Project
--

LCA Staff	\$20,000	Project Estimated Level	Construction
Land Acquisition	\$0	Project Funding	Suburban Grant
Construction/Equipment	\$1,100,000	Grant Eligibility	Yes
Professional Services	\$80,000	Future Spending	\$0
Contingencies	\$100,000		
Total	\$1,300,000		

Current Budget 2024	\$3,500,000	
First Year Budget 2025	\$1,300,000	Construction
Second Year Budget 2026	\$0	None
Third Year Budget 2027	\$0	None
Fourth Year Budget 2028	\$0	None
Fifth Year Budget 2029	\$0	None
Total 2025-2029	\$1,300,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	WESTERN LEHIGH INTECEPTOR PARALLEL ALIGNMENT (Special Act 537 Study)				
Budget Area	Wastewater	Department	Capital Works	Project No.	SD-S-27
Location	Suburban	Prj. Type	Linear	Prj. Score	83
Prj Initiator	DePoe	Prj Manager	DePoe		

Detailed Project Description

During the ongoing Regional Act 537 discussions with DEP and the KISS representatives, it was determined that a Special Act 537 Study is the most appropriate regulatory vehicle to finalize the alignment of the proposed Western Lehigh Interceptor parallel. This will be included in the Implementation Schedule of the Regional Act 537 Plan.

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	90	23%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	90	23%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	90	14%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	20	1%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	90	9%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	95	10%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	50	5%

Additional Information

System Location WLC – WESTERN LEHIGH SEWER **Will this project require Land Rights?**

Project inception Date 8/1/2024 **Anticipated Project Completion Date** 6/1/2029

Project No.	SD-S-27	Project Name	WESTERN LEHIGH INTECEPTOR PARALLEL ALIGNMENT (Special Act 537 Study)
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Primary Prj Category Regulatory **Secondary Prj Category** System Improvement

Project Drivers and Needs

- | | |
|---|---|
| <input checked="" type="checkbox"/> New Facility | <input type="checkbox"/> End of Useful Life |
| <input type="checkbox"/> Existing Facility - Upgrade | <input type="checkbox"/> Obsolescence |
| <input type="checkbox"/> Scheduled Replacement | <input checked="" type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input checked="" type="checkbox"/> Regulatory |

Notes

Land acquisition will be initiated upon alignment finalization and regulatory approval.

Capital Funds Requested for Project

LCA Staff	\$50,000	Project Estimated Level	Planning
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$0	Grant Eligibility	TBD
Professional Services	\$1,500,000	Future Spending	\$69,700,000
Contingencies	\$100,000		
Total	\$1,650,000		

Current Budget 2024	\$0	
First Year Budget 2025	\$0	None
Second Year Budget 2026	\$0	None
Third Year Budget 2027	\$750,000	Design
Fourth Year Budget 2028	\$750,000	Construction
Fifth Year Budget 2029	\$150,000	Construction
Total 2025-2029	\$1,650,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	WYNNEWOOD I & I INVESTIGATION & REMEDIATION PROGRAM				
Budget Area	Wastewater	Department	Capital Works	Project No.	SD-S-30
Location	Suburban	Prj. Type	Linear	Prj. Score	56
Prj Initiator	Volk	Prj Manager	Dorner		

Detailed Project Description
The objective of this project is to mitigate wet weather inflow and infiltration (I/I) into the collection system. Pipe deficiencies identified in LCA's CCTV investigation data are to be repaired under this project, which includes in-line repairs (grouting, lining) and dig-up repairs. An internal main lining project will be completed in 2024, to be followed by annual lining projects to seal leaks due to sewer main pipe deficiencies.

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	75	19%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	50	13%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	100	15%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	0	0%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	25	3%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	25	3%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	50	5%

Additional Information

System Location WWC – WYNNEWOOD SEWER **Will this project require Land Rights?**

Project inception Date 1/2/2020 **Anticipated Project Completion Date** 12/31/2029

Project No.	SD-S-30	Project Name	WYNNEWOOD I & I INVESTIGATION & REMEDIATION PROGRAM
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Primary Prj Category Regulatory **Secondary Prj Category** Asset Management Plan

Project Drivers and Needs

- | | |
|---|--|
| <input type="checkbox"/> New Facility | <input type="checkbox"/> End of Useful Life |
| <input type="checkbox"/> Existing Facility - Upgrade | <input type="checkbox"/> Obsolescence |
| <input type="checkbox"/> Scheduled Replacement | <input type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input checked="" type="checkbox"/> Regulatory |

Notes

The primary driver is regulatory, to avoid hydraulic overloads at the WWTP and maintain DEP discharge permit compliance.
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Capital Funds Requested for Project
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LCA Staff	\$50,000	Project Estimated Level	Design
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$250,000	Grant Eligibility	TBD
Professional Services	\$25,000	Future Spending	\$0
Contingencies	\$50,000		
Total	\$375,000		

Current Budget 2024	\$125,000	
First Year Budget 2025	\$150,000	Construction
Second Year Budget 2026	\$150,000	Construction
Third Year Budget 2027	\$25,000	Planning
Fourth Year Budget 2028	\$25,000	Construction
Fifth Year Budget 2029	\$25,000	Construction
Total 2025-2029	\$375,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	WYNNEWOOD WASTEWATER TREATMENT PLANT EXPANSION				
Budget Area	Wastewater	Department	Capital Works	Project No.	SD-S-31
Location	Suburban	Prj. Type	Vertical	Prj. Score	48
Prj Initiator	DePoe	Prj Manager	Volk		

Detailed Project Description
<p>The Wynnewood Wastewater Treatment Plant (WWTP), located in North Whitehall Township, was acquired by LCA in 2003 and completely replaced in 2020 with a new 60,000 gallon per day SBR plant. In 2023, representatives of a proposed development in the vicinity of the WWTP (Rising Sun Rd) requested connecting to the plant. LCA then commissioned a feasibility study be performed by an engineering firm to determine the reserve capacity at the WWTP, quantify the WWTP capacity expansion that would be needed, and evaluate facility upgrade alternatives to accommodate the development. The study determined that the existing facility has limited reserve capacity and must be expanded to accommodate the build-out of the proposed development. This project includes design, permitting, and construction of the capacity expansion of the existing WWTP, along with dedicated conveyance facilities to include a proposed pump station and force main. All costs (including design and construction) associated with this project are to be reimbursed by the developer.</p>

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	50	13%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	0	0%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	100	15%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	0	0%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	100	10%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	75	8%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	25	3%

Additional Information

System Location WWC – WYNNEWOOD SEWER **Will this project require Land Rights?**

Project inception Date 1/2/2023 **Anticipated Project Completion Date** 6/30/2027

Project No.	SD-S-31	Project Name	WYNNEWOOD WASTEWATER TREATMENT PLANT EXPANSION
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Primary Prj Category New Customer **Secondary Prj Category** Planning

Project Drivers and Needs

- | | |
|---|---|
| <input type="checkbox"/> New Facility | <input type="checkbox"/> End of Useful Life |
| <input checked="" type="checkbox"/> Existing Facility - Upgrade | <input type="checkbox"/> Obsolescence |
| <input type="checkbox"/> Scheduled Replacement | <input checked="" type="checkbox"/> Inadequate Capacity |
| <input type="checkbox"/> System Improvements | <input type="checkbox"/> Regulatory |

Notes

This project is being by community growht, and is being implemented exclusively for the proposed development (Rising Sun Rd) and will be funded 100% by the developer.

Capital Funds Requested for Project
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LCA Staff	\$50,000	Project Estimated Level	Planning
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$2,000,000	Grant Eligibility	Yes
Professional Services	\$150,000	Future Spending	\$0
Contingencies	\$100,000		
Total	\$2,300,000		

Current Budget 2024	\$0	
First Year Budget 2025	\$50,000	Design
Second Year Budget 2026	\$500,000	Construction
Third Year Budget 2027	\$1,750,000	Construction
Fourth Year Budget 2028	\$0	None
Fifth Year Budget 2029	\$0	None
Total 2025-2029	\$2,300,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	ARCADIA WEST WWTP MECHANICAL SCREEN				
Budget Area	Wastewater	Department	Capital Works	Project No.	SD-S-32
Location	Suburban	Prj. Type	Vertical	Prj. Score	61
Prj Initiator	Lynn	Prj Manager	Dorner		

Detailed Project Description
This project consists of the installation of two automatic mechanical screening units at the head end of each SBR tank at the Arcadia West Wastewater Treatment Plant. Also included is the construction of above-grade platforms and enclosures to support the screening systems and protect against the weather, along with associated piping electrical, and controls for the new screening systems.

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	50	13%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	75	19%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	100	15%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	50	3%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	25	3%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	25	3%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	75	8%

Additional Information

System Location AWC – ARCADIA WEST **Will this project require Land Rights?**

Project inception Date 3/27/2024 **Anticipated Project Completion Date** 3/1/2025

Project No.	SD-S-32	Project Name	ARCADIA WEST WWTP MECHANICAL SCREEN
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Primary Prj Category System Improvement **Secondary Prj Category** Efficiency

Project Drivers and Needs

- | | |
|---|--|
| <input type="checkbox"/> New Facility | <input type="checkbox"/> End of Useful Life |
| <input checked="" type="checkbox"/> Existing Facility - Upgrade | <input type="checkbox"/> Obsolescence |
| <input type="checkbox"/> Scheduled Replacement | <input type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input type="checkbox"/> Regulatory |

Notes

Project drivers include system improvements, safety, and efficiency.
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Capital Funds Requested for Project
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LCA Staff	\$10,000	Project Estimated Level	Design
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$500,000	Grant Eligibility	No
Professional Services	\$60,000	Future Spending	\$0
Contingencies	\$50,000		
Total	\$620,000		

Current Budget 2024	\$75,000	
First Year Budget 2025	\$220,000	Construction
Second Year Budget 2026	\$400,000	Construction
Third Year Budget 2027	\$0	None
Fourth Year Budget 2028	\$0	None
Fifth Year Budget 2029	\$0	None
Total 2025-2029	\$620,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	NORTH WHITEHALL TOWNSHIP ACT 537 PLAN				
Budget Area	Wastewater	Department	Capital Works	Project No.	SD-S-33
Location	Suburban	Prj. Type	Both	Prj. Score	79
Prj Initiator	DePoe	Prj Manager	DePoe		

Detailed Project Description
This project involves the development of an Act 537 Sewage Facilities Plan for North Whitehall Township and is a coordinated effort between the township and LCA. The project will incorporate regional sewer facilities planning concepts to evaluate the feasibility of consolidation of small wastewater treatment plants that currently serve separate small sewer districts/developments.

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	100	25%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	80	20%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	60	9%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	50	3%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	80	8%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	90	9%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	50	5%

Additional Information

System Location	UNC – OTHER WATER OR SEWER	Will this project require Land Rights?	<input checked="" type="checkbox"/>
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Project inception Date 7/1/2023	Anticipated Project Completion Date 7/1/2026
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Project No.	SD-S-33	Project Name	NORTH WHITEHALL TOWNSHIP ACT 537 PLAN
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Primary Prj Category Regulatory **Secondary Prj Category** Planning

Project Drivers and Needs

- | | |
|---|---|
| <input checked="" type="checkbox"/> New Facility | <input type="checkbox"/> End of Useful Life |
| <input checked="" type="checkbox"/> Existing Facility - Upgrade | <input type="checkbox"/> Obsolescence |
| <input type="checkbox"/> Scheduled Replacement | <input checked="" type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input checked="" type="checkbox"/> Regulatory |

Notes

Capital Funds Requested for Project
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LCA Staff	\$10,000	Project Estimated Level	Planning
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$0	Grant Eligibility	No
Professional Services	\$70,000	Future Spending	\$0
Contingencies	\$10,000		
Total	\$90,000		

Current Budget 2024	\$70,000	
First Year Budget 2025	\$70,000	Planning
Second Year Budget 2026	\$20,000	Planning
Third Year Budget 2027	\$0	None
Fourth Year Budget 2028	\$0	None
Fifth Year Budget 2029	\$0	None
Total 2025-2029	\$90,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	HEIDELBERG HEIGHTS I & I INVESTIGATION & REMEDIATION PROGRAM				
Budget Area	Wastewater	Department	Capital Works	Project No.	SD-S-34
Location	Suburban	Prj. Type	Linear	Prj. Score	65
Prj Initiator	Volk	Prj Manager	Dorner		

Detailed Project Description
This project is driven by a DEP Consent Order and Agreement (CO&A) resulting from hydraulic overloads at the Heidelberg Heights WWTP. The CO&A was executed by DEP and LCA in 2020, which memorializes corrective actions and mandates an implementation schedule for LCA to eliminate wet weather overloads at the WWTP by reducing inflow and infiltration into the collection system. Commencing in 2017, all public sewer main and laterals have been replaced in the system and all manholes have been sealed to date. Therefore, leakage within the private side of the sewer system is the focus of this project moving forward.

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	100	25%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	50	13%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	100	15%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	0	0%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	50	5%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	0	0%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	75	8%

Additional Information

System Location HHC – HEIDELBERG HTS **Will this project require Land Rights?**

Project inception Date 1/2/2017 **Anticipated Project Completion Date** 12/31/2029

Project No.	SD-S-34	Project Name	HEIDELBERG HEIGHTS I & I INVESTIGATION & REMEDIATION PROGRAM
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Primary Prj Category Regulatory **Secondary Prj Category** System Improvement

Project Drivers and Needs

- | | |
|---|---|
| <input type="checkbox"/> New Facility | <input type="checkbox"/> End of Useful Life |
| <input type="checkbox"/> Existing Facility - Upgrade | <input type="checkbox"/> Obsolescence |
| <input type="checkbox"/> Scheduled Replacement | <input checked="" type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input type="checkbox"/> Regulatory |

Notes

Private sewer system work includes investigatory (CCTV and residential plumbing inspections), enforcement (disconnect prohibited connections), private lateral lining/grout, and private lateral replacement.

Capital Funds Requested for Project
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LCA Staff	\$50,000	Project Estimated Level	Planning
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$350,000	Grant Eligibility	Yes
Professional Services	\$100,000	Future Spending	\$0
Contingencies	\$25,000		
Total	\$525,000		

Current Budget 2024	\$350,000	
First Year Budget 2025	\$300,000	Construction
Second Year Budget 2026	\$100,000	Construction
Third Year Budget 2027	\$50,000	Planning
Fourth Year Budget 2028	\$50,000	Planning
Fifth Year Budget 2029	\$25,000	Planning
Total 2025-2029	\$525,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	HEIDELBERG HEIGHTS WWTP REHABILITATION				
Budget Area	Wastewater	Department	Capital Works	Project No.	SD-S-35
Location	Suburban	Prj. Type	Vertical	Prj. Score	68
Prj Initiator	Volk	Prj Manager	Dorner		

Detailed Project Description
This is a multi-year project to address asset management, safety, security and regulatory driven upgrades at the Heidelberg Heights Wastewater Treatment Plant (WWTP). The WWTP was acquired by LCA in 1998, and a major upgrade was completed in 2000. Since that time LCA has performed other upgrade work, including recoating the steel SBR tanks, rehabilitating the EQ/Sludge Holding Tank, and adding a mechanical screen at the headworks. Future projects include installation of a catwalk over the open SBR tanks, replacement of blowers, and instrumentation improvements.

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	75	19%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	75	19%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	100	15%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	50	3%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	25	3%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	50	5%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	50	5%

Additional Information

System Location HHC – HEIDELBERG HTS **Will this project require Land Rights?**

Project inception Date 1/2/2016 **Anticipated Project Completion Date** 12/31/2029

Project No.	SD-S-35	Project Name	HEIDELBERG HEIGHTS WWTP REHABILITATION
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Primary Prj Category Asset Management Plan **Secondary Prj Category** Efficiency

Project Drivers and Needs

- | | |
|---|--|
| <input type="checkbox"/> New Facility | <input type="checkbox"/> End of Useful Life |
| <input checked="" type="checkbox"/> Existing Facility - Upgrade | <input type="checkbox"/> Obsolescence |
| <input type="checkbox"/> Scheduled Replacement | <input type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input type="checkbox"/> Regulatory |

Notes

Primary project drivers are asset management, efficiency, safety and security.
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Capital Funds Requested for Project
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LCA Staff	\$5,000	Project Estimated Level	Planning
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$150,000	Grant Eligibility	No
Professional Services	\$25,000	Future Spending	\$0
Contingencies	\$20,000		
Total	\$200,000		

Current Budget 2024	\$160,000	
First Year Budget 2025	\$25,000	Design
Second Year Budget 2026	\$50,000	Construction
Third Year Budget 2027	\$75,000	Construction
Fourth Year Budget 2028	\$25,000	Construction
Fifth Year Budget 2029	\$25,000	Construction
Total 2025-2029	\$200,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	SAND SPRING WWTP IMPROVEMENTS				
Budget Area	Wastewater	Department	Capital Works	Project No.	SD-S-36
Location	Suburban	Prj. Type	Vertical	Prj. Score	73
Prj Initiator	Capuzzi	Prj Manager	Volk		

Detailed Project Description
The Sand Spring WWTP was acquired by LCA in 2005 and replaced in 2021. The new plant, which was put online around the same time as the connection of a new warehouse development to the system, has experienced DEP compliance issues related to nitrification performance. This project entails process intensification upgrades to improve plant performance and restore DEP discharge permit compliance. Construction of the Phase 1 process upgrade project commenced in 2024 and will finish in 2025. Phase 2 is TBD depending on the post-construction performance of the Phase 1 project.

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	100	25%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	75	19%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	100	15%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	25	1%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	75	8%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	0	0%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	50	5%

Additional Information

System Location SSC – SAND SPRING **Will this project require Land Rights?**

Project inception Date 6/1/2022 **Anticipated Project Completion Date** 12/31/2025

Project No.	SD-S-36	Project Name	SAND SPRING WWTP IMPROVEMENTS
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Primary Prj Category Regulatory **Secondary Prj Category** System Improvement

Project Drivers and Needs

- | | |
|---|--|
| <input type="checkbox"/> New Facility | <input type="checkbox"/> End of Useful Life |
| <input checked="" type="checkbox"/> Existing Facility - Upgrade | <input type="checkbox"/> Obsolescence |
| <input type="checkbox"/> Scheduled Replacement | <input type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input checked="" type="checkbox"/> Regulatory |

Notes

This project implements the short-term recommendations of a Process Performance Evaluation performed by an engineer consultant in 2023.

Capital Funds Requested for Project

LCA Staff	\$20,000	Project Estimated Level	Construction
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$100,000	Grant Eligibility	No
Professional Services	\$60,000	Future Spending	\$0
Contingencies	\$20,000		
Total	\$200,000		

Current Budget 2024	\$100,000	
First Year Budget 2025	\$100,000	Construction
Second Year Budget 2026	\$50,000	Planning
Third Year Budget 2027	\$30,000	Planning
Fourth Year Budget 2028	\$10,000	Planning
Fifth Year Budget 2029	\$10,000	Planning
Total 2025-2029	\$200,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	LYNN TOWNSHIP WWTP IMPROVEMENTS				
Budget Area	Wastewater	Department	Capital Works	Project No.	SD-S-37
Location	Suburban	Prj. Type	Vertical	Prj. Score	59
Prj Initiator	Volk	Prj Manager	Dorner		

Detailed Project Description
<p>This project consists of facility upgrades at the Lynn Township wastewater treatment plant. The WWTP, which is around 50 years old, was acquired by LCA in 2012. The facility relies on a single final clarifier, which has been in service 24/7 for over 20 years and is in need of cleaning and rehabilitation. In 2023, design commenced on a project to add a second final clarifier, which will provide needed redundancy and improve plant performance, particularly during peak flow periods. Design and permitting were completed in early 2024 and construction will be completed in 2025. Future projects will be driven by an updated asset management plan for the facility.</p>

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	75	19%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	50	13%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	100	15%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	50	3%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	25	3%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	0	0%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	75	8%

Additional Information

System Location LTC – LYNN TWP SEWER **Will this project require Land Rights?**

Project inception Date 6/1/2022 **Anticipated Project Completion Date** 10/3/2025

Project No.	SD-S-37	Project Name	LYNN TOWNSHIP WWTP IMPROVEMENTS
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Primary Prj Category System Improvement **Secondary Prj Category** Efficiency

Project Drivers and Needs

- | | |
|---|---|
| <input type="checkbox"/> New Facility | <input type="checkbox"/> End of Useful Life |
| <input checked="" type="checkbox"/> Existing Facility - Upgrade | <input type="checkbox"/> Obsolescence |
| <input type="checkbox"/> Scheduled Replacement | <input checked="" type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input type="checkbox"/> Regulatory |

Notes

The primary project drivers are asset management, redundancy, and regulatory compliance. The existing clarifier is also undersized based on current plant flows.

Capital Funds Requested for Project

LCA Staff	\$20,000	Project Estimated Level	Construction
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$930,000	Grant Eligibility	No
Professional Services	\$50,000	Future Spending	\$0
Contingencies	\$100,000		
Total	\$1,100,000		

Current Budget 2024	\$500,000	
First Year Budget 2025	\$900,000	Construction
Second Year Budget 2026	\$150,000	Construction
Third Year Budget 2027	\$50,000	Construction
Fourth Year Budget 2028	\$0	None
Fifth Year Budget 2029	\$0	None
Total 2025-2029	\$1,100,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	LYNN TOWNSHIP I & I INVESTIGATION & REMEDIATION PROGRAM				
Budget Area	Wastewater	Department	Capital Works	Project No.	SD-S-38
Location	Suburban	Prj. Type	Linear	Prj. Score	79
Prj Initiator	Volk	Prj Manager	Volk		

Detailed Project Description
This project is the result of a DEP mandated Corrective Action Plan (CAP) to reduce inflow and infiltration (I/I) into the Lynn Township sewage system to prevent system overflows/bypasses and eliminate treatment plant discharge permit violations. The project includes updated CCTV inspection of the sewer system, repairs at leak locations, and private side system investigation and enforcement/removal of prohibited connections.

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	100	25%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	75	19%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	100	15%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	0	0%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	75	8%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	50	5%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	75	8%

Additional Information

System Location LTC – LYNN TWP SEWER **Will this project require Land Rights?**

Project inception Date 1/2/2018 **Anticipated Project Completion Date** 12/31/2029

Project No.	SD-S-38	Project Name	LYNN TOWNSHIP I & I INVESTIGATION & REMEDIATION PROGRAM
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Primary Prj Category Regulatory **Secondary Prj Category** System Improvement

Project Drivers and Needs

- | | |
|---|---|
| <input type="checkbox"/> New Facility | <input type="checkbox"/> End of Useful Life |
| <input type="checkbox"/> Existing Facility - Upgrade | <input type="checkbox"/> Obsolescence |
| <input type="checkbox"/> Scheduled Replacement | <input checked="" type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input checked="" type="checkbox"/> Regulatory |

Notes

Capital rehabilitation projects from the DEP CAP have been on-going since 2019, with the goal of eliminating I/I and restoring sewer allocation capacity of the wastewater treatment plant.

Capital Funds Requested for Project
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LCA Staff	\$25,000	Project Estimated Level	Planning
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$100,000	Grant Eligibility	TBD
Professional Services	\$50,000	Future Spending	\$0
Contingencies	\$25,000		
Total	\$200,000		

Current Budget 2024	\$50,000	
First Year Budget 2025	\$25,000	Planning
Second Year Budget 2026	\$100,000	Construction
Third Year Budget 2027	\$25,000	Planning
Fourth Year Budget 2028	\$25,000	Planning
Fifth Year Budget 2029	\$25,000	Planning
Total 2025-2029	\$200,000	

**LEHIGH COUNTY AUTHORITY
SUBURBAN DIVISION-CAPITAL IMPROVEMENT PLAN
PROJECT DETAIL SHEET**

Project Name	PARK PUMP STATION UPGRADE - PHASE 2				
Budget Area	Wastewater	Department	Capital Works	Project No.	SD-S-40
Location	Suburban	Prj. Type	Vertical	Prj. Score	74
Prj Initiator	Volk	Prj Manager	Kunkel		

Detailed Project Description
Phase 1 improvements to the pump station included replacement of the existing pumps, suction and discharge side valves, pump speed controllers, motor control center (MCC) panel, SCADA system, wet well level instrumentation, building roof and force main drain valve. Construction of Phase 1 was completed in early 2020. Phase 2 of the station upgrade consists of replacement of the original backup diesel generator, which is nearing the end of its service life and is slightly undersized for the upgraded station. The replacement unit will be natural gas powered, which will eliminate the need for diesel fuel storage in the environmentally sensitive area of the Little Lehigh Parkway. Construction will occur in 2024/2025.

Category	Definition	LCA Weight	Prj Score	Weighted Score
Environmental				
Regulatory Requirement	Project will address a local, state and/or federal regulatory requirement.	25%	100	25%
Social				
Health/Safety Improvement	Project provides a human health and/or safety enhancement that may or may not be a regulatory requirement.	25%	70	18%
Level of Service	Project will increase level or quality of service to the community, including addressing increased customer expectations for service, improved response time, reliability, quality, taste, etc.	15%	100	15%
Innovation and Automation Enhancements	Project will enhance achievement of LCA's goals for innovation and/or automation.	5%	25	1%
Community Impact	Project will benefit Community and/or external stakeholders.	10%	50	5%
Economic				
Economic Development	Project is required to meet projected future capacity needs to address economic growth in the service area or provides other economic development benefit to the region.	10%	0	0%
Risk Mitigation	Project addresses asset risk by mitigating likelihood of failure, consequence of failure, and/or resiliency.	10%	100	10%

Additional Information

System Location WLC – WESTERN LEHIGH SEWER **Will this project require Land Rights?**

Project inception Date 1/1/2021 **Anticipated Project Completion Date** 3/1/2025

Project No.	SD-S-40	Project Name	PARK PUMP STATION UPGRADE - PHASE 2
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Primary Prj Category System Improvement **Secondary Prj Category** Regulatory

Project Drivers and Needs

- | | |
|---|---|
| <input type="checkbox"/> New Facility | <input checked="" type="checkbox"/> End of Useful Life |
| <input checked="" type="checkbox"/> Existing Facility - Upgrade | <input checked="" type="checkbox"/> Obsolescence |
| <input type="checkbox"/> Scheduled Replacement | <input checked="" type="checkbox"/> Inadequate Capacity |
| <input checked="" type="checkbox"/> System Improvements | <input type="checkbox"/> Regulatory |

Notes

The current generator is at the end of its useful life. The new generator will insure station operation reliability in the event of an extended power outage.

Capital Funds Requested for Project
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LCA Staff	\$0	Project Estimated Level	Construction
Land Acquisition	\$0	Project Funding	LCA
Construction/Equipment	\$785,000	Grant Eligibility	No
Professional Services	\$15,000	Future Spending	\$0
Contingencies	\$0		
Total	\$800,000		

Current Budget 2024	\$2,300,000	
First Year Budget 2025	\$800,000	Construction
Second Year Budget 2026	\$0	None
Third Year Budget 2027	\$0	None
Fourth Year Budget 2028	\$0	None
Fifth Year Budget 2029	\$0	None
Total 2025-2029	\$800,000	