

Lehigh County
Authority
2024-2028
Administration &
Suburban Division
Capital Plans

Draft Plan Board Presentation
August 28, 2023

Planning Process & Board Reviews / Approvals



Five-Year Capital Plan → Conceptual approval of planned capital program



Annual Budget → One-year funding for upcoming projects



Project Approval → Authorization to complete a specific project



Financing → Funding for specific project or group of projects

2024-2028 Capital Plan Review Process

Review Timeline:

- May-July 2023 – Staff plan preparation
- 8/14/2023 – Allentown Div. Draft Plan presentation
- 8/28/2023 – Suburban Div. Draft Plan presentation
- 9/30/2023 – Public comment period ends
- 10/9/2023 – Final review & approval request
- Sept-Oct 2023 – 2024 Budget review process

Public Reviews:

- Lehigh Valley Planning Commission
- Lehigh County Board of Commissioners
- City of Allentown
- Municipalities
- Public (website)

2024-2028 Suburban Division Capital Plan Highlights

Increase from prior 5-year plan

- 2023-2027 Plan Total = \$44,622,000
- 2024-2028 Draft Plan Total = \$67,080,500

Key drivers for increase in capital requirements

- Increase in smaller maintenance projects (Annual) - \$7.5M increase
- Ramp up on Pretreatment Plant annual projects - \$1.6M increase
- Western Lehigh Interceptor projects - \$11M increase

Major differences from Allentown Division plan

- Lead service line replacements excluded pending further study
- PFAS treatment costs excluded pending further study
- Pass-through costs from Allentown Division costs excluded – will show in future rates via cost-sharing agreements

What about regional Act 537 Plan projects?

- Significant additional investment needed, not captured in this plan
- Act 537 Plan to be finalized in 2024, will include detailed financial analysis
- Future capital plans will include projects resulting from Act 537 Plan
- Expect more significant increases in capital requirements in 2025-2029 Plan

Administration – Technology & Building Projects

CP#	Project	Prior \$	2023 \$	2024-2028 \$	Responsibility
CON-A-1	Computer System Hardware & Software Upgrades	\$100,000	\$50,000	\$200,000	Moughan
CON-A-2	Geographic Information System Upgrades & Application Dev.	\$150,000	\$75,000	\$235,000	Stevens
CON-A-3	Information Technology Master Plan Update	\$340,000	\$50,000	\$50,000	Moughan
CON-A-4	Document Management	\$75,000	\$5,000	\$50,000	Moughan
CON-A-5	Disaster Recovery/Security Upgrades	\$50,000	\$25,000	\$175,000	German
CON-A-6	CMMS Upgrades	\$100,000	\$75,000	\$185,000	Schantz

Projects with organizational benefit, not specific to one system, are shared equally between Allentown and Suburban Divisions.

Administration – NEW Projects

CP#	PROJECT	Prior \$	2023 \$	2024-2028 \$	Major Drivers	Responsibility
CON-A-7	NEW MUNIS IMPLEMENTATION	N/A	\$0	\$800,000	Improved Service; Efficiency	Klein/Moughan
CON-A-8	MAIN OFFICE IMPROVEMENTS	N/A	\$0	\$1,150,000	Workspace capacity; Efficiency	Klein/German

Projects with organizational benefit, not specific to one system, are shared equally between Allentown and Suburban Divisions.

Suburban Division Water – Annual Projects

CP#	PROJECT	Prior \$	2023 \$	2024-2028 \$	Major Drivers	Responsibility
SD-W-A	ANNUAL PROJECTS <i>(breakdown of projects to follow)</i>	N/A	\$2,315,000	\$10,613,000	Required rehab; Asset management	Operations/Volk
SD-W-12	WATER MAIN REPLACEMENT PROJECTS	N/A	\$2,900,000	\$12,100,000	Asset management	Peters

Suburban Division Annual Water Projects

Distribution Mains – Development & Upsizing

General Water System Improvements

Mobile Equipment

New & Replacement Meter Installations

Other Equipment

Reservoir Rehabilitation & Maintenance

Water Company Acquisitions

Water Facility Asset Management Upgrades

Capital Management

Capital Works Miscellaneous Expenses (includes PennDOT permitting)

SCADA Upgrades – Hardware & Software

Suburban Division Water – System Improvement Projects

CP#	PROJECT	Prior \$	2023 \$	2024-2028 \$	Major Drivers	Responsibility
SD-W-50	FIXED BASE METER READING SYSTEM	\$45,000	\$100,000	\$550,000	Meter reading efficiencies; Customer service improvements	Kunkel
SD-W-51	NORTH WHITEHALL WATER SYSTEM IMPROVEMENTS	\$30,000	\$0	\$2,000,000	System improvement; System resiliency	Kunkel
SD-W-55	WATER SYSTEMS MASTER PLANNING	\$0	\$100,000	\$200,000	System resiliency; Future growth	DePoe
SD-W-56	UPPER SYSTEM PUMP STATION & WATER MAIN EXTENSION	\$350,000	\$75,000	\$2,050,000	System resiliency; Future growth	Kunkel
SD-W-57	WATER METER REPLACEMENT PROGRAM	\$1,500,000	\$350,000	\$4,150,000	Improved revenue capture; Meter reading efficiency	Kunkel

Meter Replacement and Fixed Base Metering Programs



Suburban Division Water 2024-2028 Capital Plan

NEW Projects

CP#	PROJECT	Prior \$	2023 \$	2024-2028 \$	Major Drivers	Responsibility
SD-W-37	WATER QUALITY STUDIES AND UPGRADES	N/A	\$0	\$275,000	Regulatory	DePoe, Kunkel
SD-W-58	CENTRAL LEHIGH SYSTEM SUPPLY IMPROVEMENTS	N/A	\$100,000	\$1,650,000	Regulatory	Kunkel

Suburban Water – Financial Analysis 2024-2028

SOURCES	
Cash from operations and reserves	\$14,061,434
New Borrowing	<u>\$20,250,316</u>
Total Sources	<u>\$34,311,750</u>
USES	
Capital project spending	<u>\$34,311,750</u>

- Assumed Volume Increase – 1.0% per year
- Borrowing – \$20,250,316 (\$232,816 remaining from 2023 borrowing; \$20,017,500 of new borrowing)
 - Main Replacements – \$12,100,000
 - Water Meter Replacement Program - \$4,150,000
 - Other System improvements – \$4,000,316
- Rate Impact – 3.5 - 4.0% annual increases

Suburban Water – Financial Analysis 2024-2028

CONDENSED CASH FLOW - SUBURBAN WATER					
US DOLLARS	2024	2025	2026	2027	2028
User Charges	16,800,000	17,640,000	18,522,000	19,355,490	20,226,487
Other Operating Revenues	287,500	287,500	287,500	287,500	287,500
Non-Operating Revenues	261,342	261,342	261,342	261,342	261,342
Operating expenses	(11,290,563)	(11,648,094)	(12,017,010)	(12,397,675)	(12,790,466)
Debt Service - Current Debt	(3,137,124)	(3,138,325)	(2,850,924)	(3,081,325)	(3,064,124)
Debt Service - NEW Debt	(284,362)	(425,727)	(721,045)	(938,965)	(1,088,377)
Investments Converting to Cash	-	-	-	-	-
Proceeds From NEW Debt	5,230,000	2,600,000	5,431,500	4,008,000	2,748,000
Capex	(7,065,750)	(5,458,500)	(8,891,500)	(7,038,000)	(5,858,000)
NET FUND FLOWS	801,043	118,196	21,863	456,367	722,362
Plan Volume Increase %	1.00%	1.00%	1.00%	1.00%	1.00%
User Charge Rate Increase %	4.00%	4.00%	4.00%	3.50%	3.50%
Total User Charge Revenue Increase %	5.00%	5.00%	5.00%	4.50%	4.50%
Unrestricted Cash Balance	9,277,213	9,395,409	9,417,272	9,873,639	10,596,001
Unrestricted Investments	2,975,123	2,975,123	2,975,123	2,975,123	2,975,123
Total Unrestricted Balances	12,252,336	12,370,532	12,392,395	12,848,762	13,571,124
Days on Hand	300	294	286	291	302
DEBT SERVICE COVERAGE RATIO	1.77	1.84	1.97	1.87	1.92

Suburban Division Wastewater: Western Lehigh Interceptor/Little Lehigh Relief Interceptor

CP#	Project	Prior \$	2023 \$	2024-2028 \$	Major Drivers	Responsibility
SD-S-3	CENTRAL LEHIGH WW CAPACITY PLANNING & EXPANSION	\$600,000	\$325,000	\$650,000	Future growth; Regulatory	Depoe
SD-S-9	SPRING CREEK PS FORCE MAIN CONDITION ASSESSMENT	\$0	\$100,000	\$150,000	Asset management	Kunkel
SD-S-24	SIGNATORY I/I INVESTIGATION & REMEDIATION	\$300,000	\$1,700,000	\$1,500,000	Required rehab; Regulatory	DePoe
SD-S-28	UPPER WESTERN LEHIGH INTERCEPTOR PUMP STATION & FORCE MAIN	\$100,000	\$250,000	\$7,750,000	Future growth; Regulatory	Kunkel
SD-S-7	WESTERN LEHIGH INTERCEPTOR REHABILITATION & REPAIRS	\$0	\$200,000	\$7,000,000	Regulatory; asset management	Peters
SD-S-15	PARK PUMP STATION UPGRADE (PHASE 2)	\$4,000,000	\$1,500,000	\$2,100,000	System resiliency; asset management	Volk, Kunkel

Western Lehigh Interceptor Challenges



KLINE'S ISLAND SEWER SYSTEM

Interim Act 537 Plan

SUBMITTED TO:

PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

SUBMITTED BY:

KLINE'S ISLAND SEWER SYSTEM MUNICIPALITIES

Prepared by:

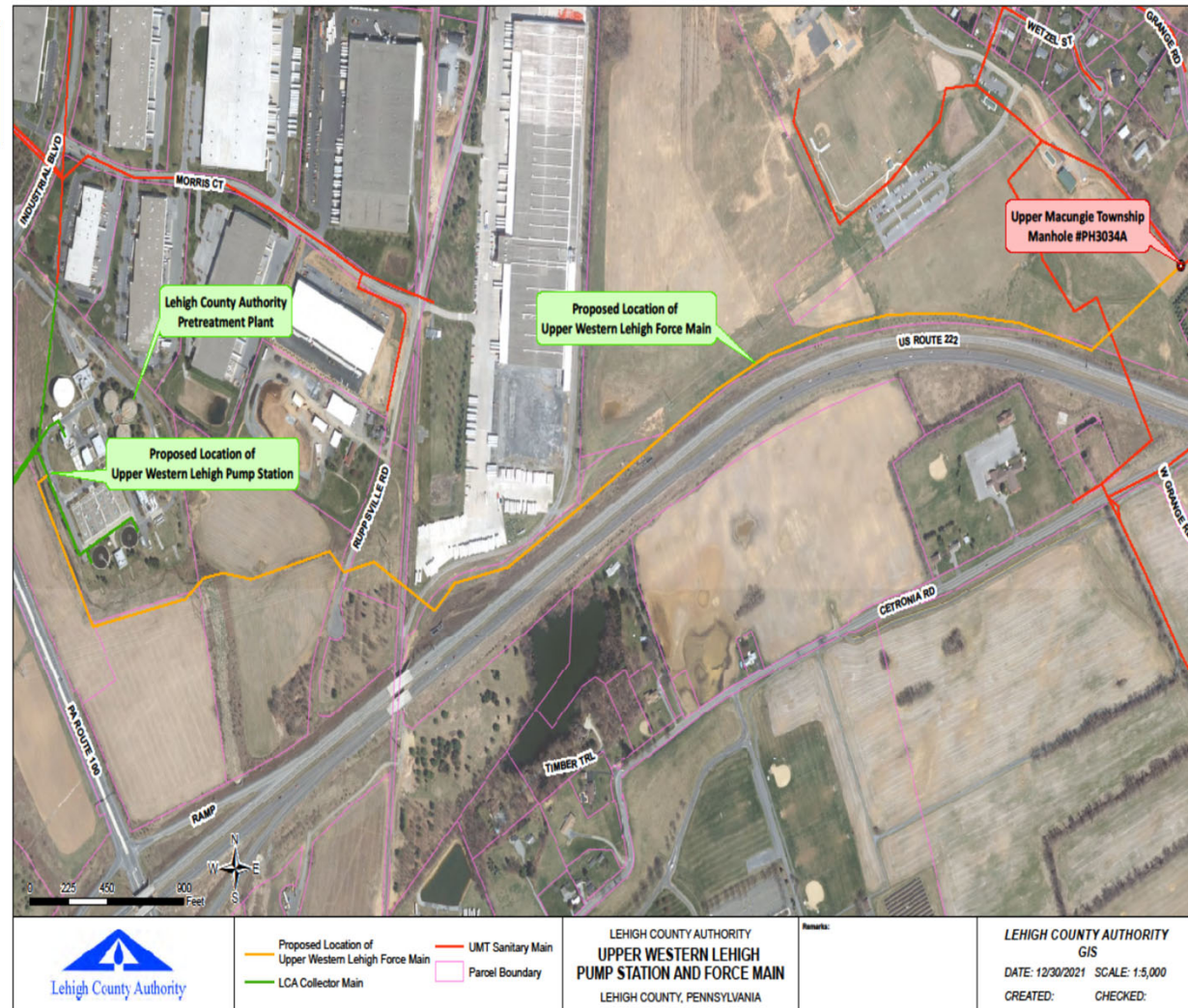
ARRO Consulting, Inc.

108 W. Airport Road

Lititz, PA 17543



FINAL - JULY 24, 2020 (REVISED MAY 12, 2021) (REVISED JUNE 18, 2021) ARRO No. 10784.17



Suburban Division Wastewater: Satellite Systems

CP#	Project	Prior \$	2023 \$	2024-2028 \$	Major Drivers	Responsibility
SD-S-6	WYNNEWOOD I/I INVESTIGATION & REMEDIATION	\$20,000	\$25,000	\$150,000	Required rehab	Peters
SD-S-8	WESTERN WEISENBERG MECHANICAL SCREEN (Arcadia West)	\$0	\$100,000	\$350,000	System improvement	Dorner
SD-S-17	HEIDELBERG HEIGHTS I&I INVESTIGATION & REMEDIATION	\$1,000,000	\$350,000	\$300,000	Required rehab; Regulatory	Peters/Volk
SD-S-18	HEIDELBERG HEIGHTS WWTP REHABILITATION – MECHANICAL SCREEN	\$40,000	\$250,000	\$160,000	System Improvement	Dorner
SD-S-25	LYNN TOWNSHIP WWTP IMPROVEMENTS	\$0	\$10,000	\$700,000	System Improvement; Efficiency; Regulatory	Volk
SD-S-26	LYNN TOWNSHIP I/I INVESTIGATION & REMEDIATION	\$200,000	\$50,000	\$150,000	Required rehab; Regulatory	Peters

Heidelberg Heights Annual Sanitary Sewer Replacement



Lynn Township WWTP Improvements

New Final Clarifier



Suburban Division Wastewater – Annual Projects

CP#	Project	Prior \$	2023 \$	2024-2028 \$	Major Drivers	Responsibility
SD-S-A	ANNUAL PROJECTS <i>(breakdown of projects to follow)</i>	N/A	\$332,500	\$3,472,500	Required rehab; Asset management; Efficiency	Volk/Operations
SD-S-22	PRETREATMENT PLANT IMPROVEMENTS	N/A	\$750,000	\$6,000,000	Required rehab; Asset management	Volk

Suburban Division Annual Wastewater Projects

Mobile Equipment

Other Equipment

General Sewer System Improvements

Wastewater Facilities Asset Management Upgrades

Sewer Company Acquisitions

WLI Capital Management

SCADA Upgrades - Hardware & Software

WLI Collection System & Service Connections

LLRI Collection System & Service Connections

Upper Milford Township Collection System & Service Connections

Northern Lehigh Collection System & Service Connections

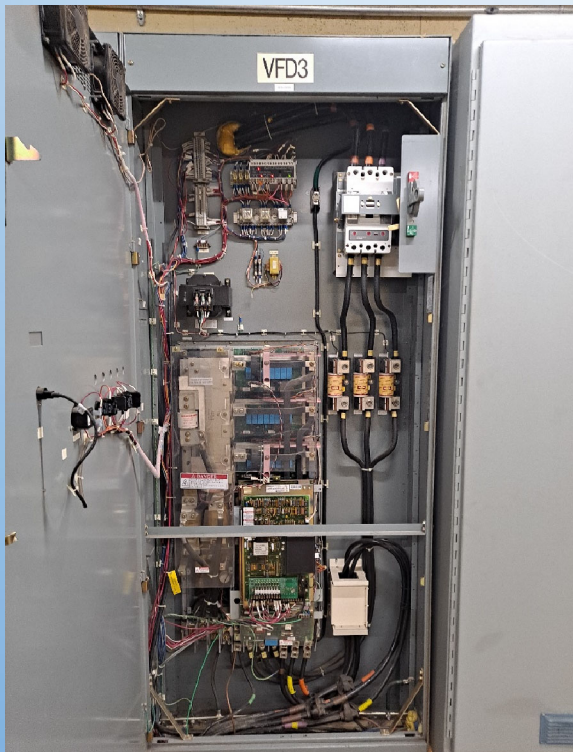
Weisenberg Township Collection System & Service Connections

Lynn Township Collection System & Service Connections

Suburban Division Wastewater: NEW Projects

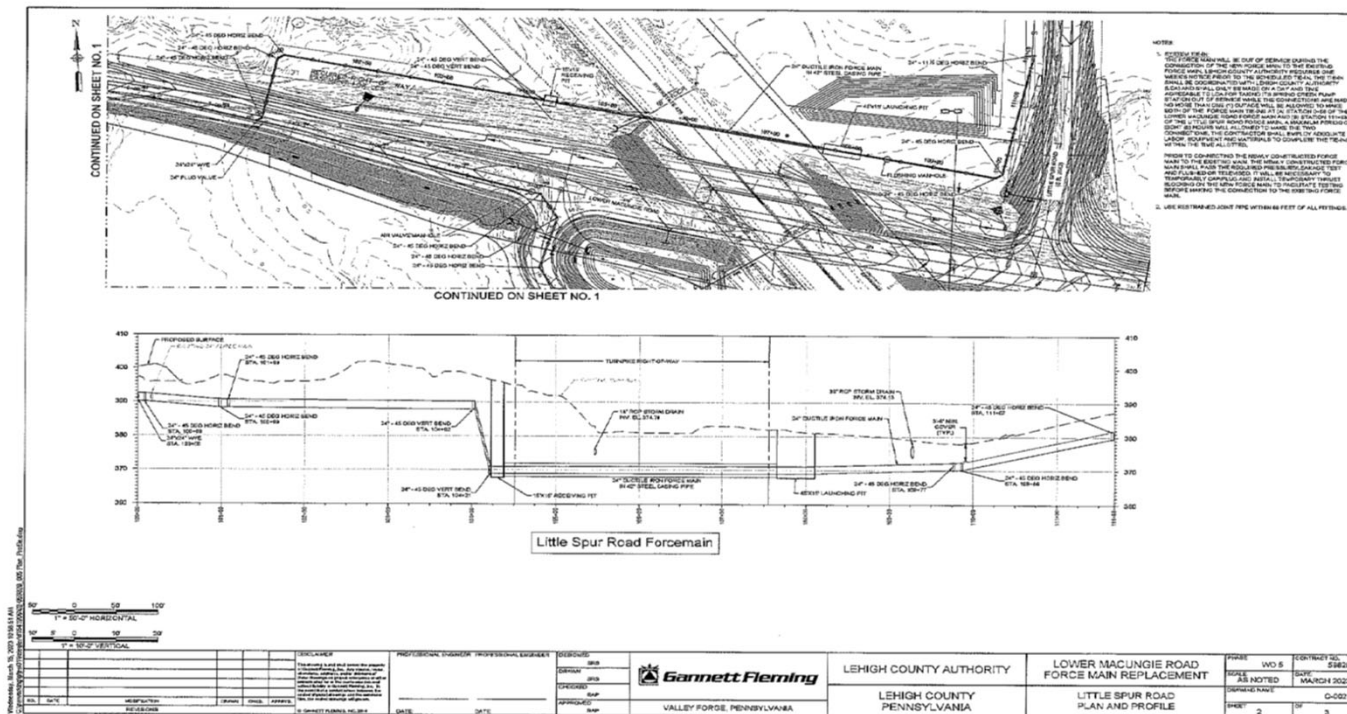
Cap Plan#	Project	Prior \$	2023 \$	2024-2028 \$	Major Drivers	Responsibility
SD-S-10	NORTH WHITEHALL TOWNSHIP ACT 537 PLANNING	\$0	\$0	\$180,000	Regulatory	DePoe
SD-S-12	SPRING CREEK PUMP STATION UPGRADE	\$15,000	100,000	1,430,000	Asset Management	Kunkel
SD-S-18	SAND SPRING WWTP IMPROVEMENTS	\$3,800,000	\$0	\$250,000	Regulatory	Capuzzi
SD-S-13	SPRING CREEK PS FORCE MAIN RELOCATION	\$20,000	\$50,000	\$1,200,000	Regulatory (PennDOT)	Kunkel

Spring Creek Pump Station Upgrade - VFDs



Spring Creek Force Main Relocation – Turnpike widening

Lower Macungie Road bridge relocation



Suburban Wastewater – Financial Analysis 2024-2028

SOURCES	
Cash from operations and reserves	\$17,836,250
New borrowing	<u>\$16,380,000</u>
Total sources	<u>\$34,216,250</u>
USES	
Capital project spending	<u>\$34,216,250</u>

- Borrowing Recommended – \$16,380,000
 - Western Lehigh Interceptor projects only
 - Allows for continued build-up of reserves
 - Keeps rates flat - municipalities can increase rates to build their own reserves
 - Preparation for future project load from Act 537 Plan
 - To be discussed further with Western Lehigh signatories

Suburban Wastewater – Financial Analysis 2024-2028

CONDENSED CASH FLOW - SUBURBAN WASTEWATER					
Dollars	2024	2025	2026	2027	2028
User Charges	22,142,274	21,691,388	21,796,936	22,211,650	22,635,806
Other Operating Revenues	251,596	251,596	251,596	251,596	251,596
Non-Operating Revenues	1,755,296	1,755,296	1,755,296	1,755,296	1,755,296
Operating expenses	(14,346,603)	(14,777,002)	(15,220,313)	(15,676,923)	(16,147,230)
Debt Service - Current Debt	(727,928)	(727,928)	(727,928)	(727,928)	(727,928)
Debt Service - NEW Debt	(413,077)	(1,065,543)	(1,065,543)	(1,065,543)	(1,065,543)
Investments Converting to Cash	-	-	-	-	-
Proceeds From NEW Debt	6,350,000	10,030,000	-	-	-
Capex	(11,691,250)	(12,957,500)	(5,562,500)	(1,895,000)	(2,110,000)
NET FUND FLOWS	<u>3,320,308</u>	<u>4,200,307</u>	<u>1,227,544</u>	<u>4,853,148</u>	<u>4,591,997</u>
User Charge Revenue Increase %	17.2%	-2.0%	0.5%	1.9%	1.9%
Unrestricted Cash Balance	13,338,735	17,539,042	18,766,585	23,619,734	28,211,731
Unrestricted Investments	7,084,095	7,084,095	7,084,095	7,084,095	7,084,095
Total Unrestricted Balances	20,422,830	24,623,137	25,850,680	30,703,829	35,295,826
Unrestricted Cash - Days on Hand	339	433	450	550	638
DEBT SERVICE COVERAGE RATIO	8.59	4.97	4.79	4.76	4.74

2024-2028 Suburban Div. Capital Plan:

RECAP OF DRAFT PLAN

- Capital investments increase by \$23 million
- Increases driven by increasing larger maintenance & Western Lehigh Interceptor projects
- LCA financial performance maintained with new borrowing for water & sewer
- Modest rate impacts, but forecast may need to be adjusted as pass-through costs from Allentown Division projects are incorporated
- Look for future capital plans to increase significantly as regional Act 537 Plan projects are finalized

2024-2028 Capital Plan Review Process

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Discussion

Questions?