

Lehigh County Authority

2025-2029

Suburban Division and
Administration Capital Plan

Preliminary Plan Board Presentation
August 26, 2024

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

2025-2029 Capital Plan Review Process

Review Timeline:

- ~~May-July 2024 – Staff preparation of plan~~
- ~~8/12/2024 – Allentown Div. Draft Plan presentation~~
- **8/26/2024 – Suburban Div. Draft Plan presentation and begin public comment period**
- 9/30/2024 – Public comment period ends
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Public Reviews:

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

2025-2029 Suburban Division Capital Plan Highlights

Increase from prior 5-year plan

- 2024-2028 Plan Total = \$67,305,500
- 2025-2029 Draft Plan Total = \$101,184,500

Key drivers for increase in capital requirements

- PFAS treatment at Buss Acres – \$1,660,000
- Inclusion of Pretreatment Plant replacement / upgrade – \$37,600,000
- Completion of some projects reduces impact of these new plan additions

Major differences from Allentown Division plan

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

What about Regional Sewer Plan (Act 537) projects?

- Act 537 Plan to be finalized in 2025, will include detailed financial analysis
- First wave of planned projects captured in this capital plan, more to follow
- Most major projects in the next five years occur in Allentown Division
- Future capital plans to be revised based on final Act 537 Plan, and reflecting updated cost-sharing approaches with customers and municipalities

Administration – 2024 and 5-Year Plan Projects

CP#	Project	Prior Year \$	2024 \$	2025-2029 \$	Responsibility
CON-A-1	Computer System Hardware & Software Upgrades	\$50,000	\$50,000	\$140,000	Moughan
CON-A-2	Geographic Information System Upgrades & Application Dev.	\$75,000	\$35,000	\$100,000	Stevens
CON-A-3	Information Technology Master Plan Update	\$50,000	\$50,000	\$70,000	Moughan
CON-A-4	Document Management	\$5,000	\$50,000	\$85,000	Moughan
CON-A-5	Disaster Recovery/Security Upgrades	\$25,000	\$75,000	\$350,000	Moughan
CON-A-6	CMMS Upgrades	\$75,000	\$185,000	\$120,000	Moughan
CON-A-7	New Munis Implementation	\$0	\$750,000	\$385,000	Neve
CON-A-8	Main Office Improvements	\$0	\$550,000	\$1,950,000	Dorner

Suburban Division Water – 2024 and 5-Year Projects

Annual Projects

CP#	PROJECT	Prior Year \$	2024 \$	2025-2029 \$	Major Drivers	Responsibility
SD-W-A	ANNUAL PROJECTS <i>(breakdown of projects to follow)</i>	\$2,315,000	\$2,367,000	\$11,802,000	Required rehab; Asset management	Operations/Volk
SD-W-10	WATER MAIN REPLACEMENT PROJECTS	\$2,900,000	\$2,900,000	\$12,300,000	Asset management	Peters

Suburban
Division
Annual Water
Projects
Include:

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

Main Office Improvements

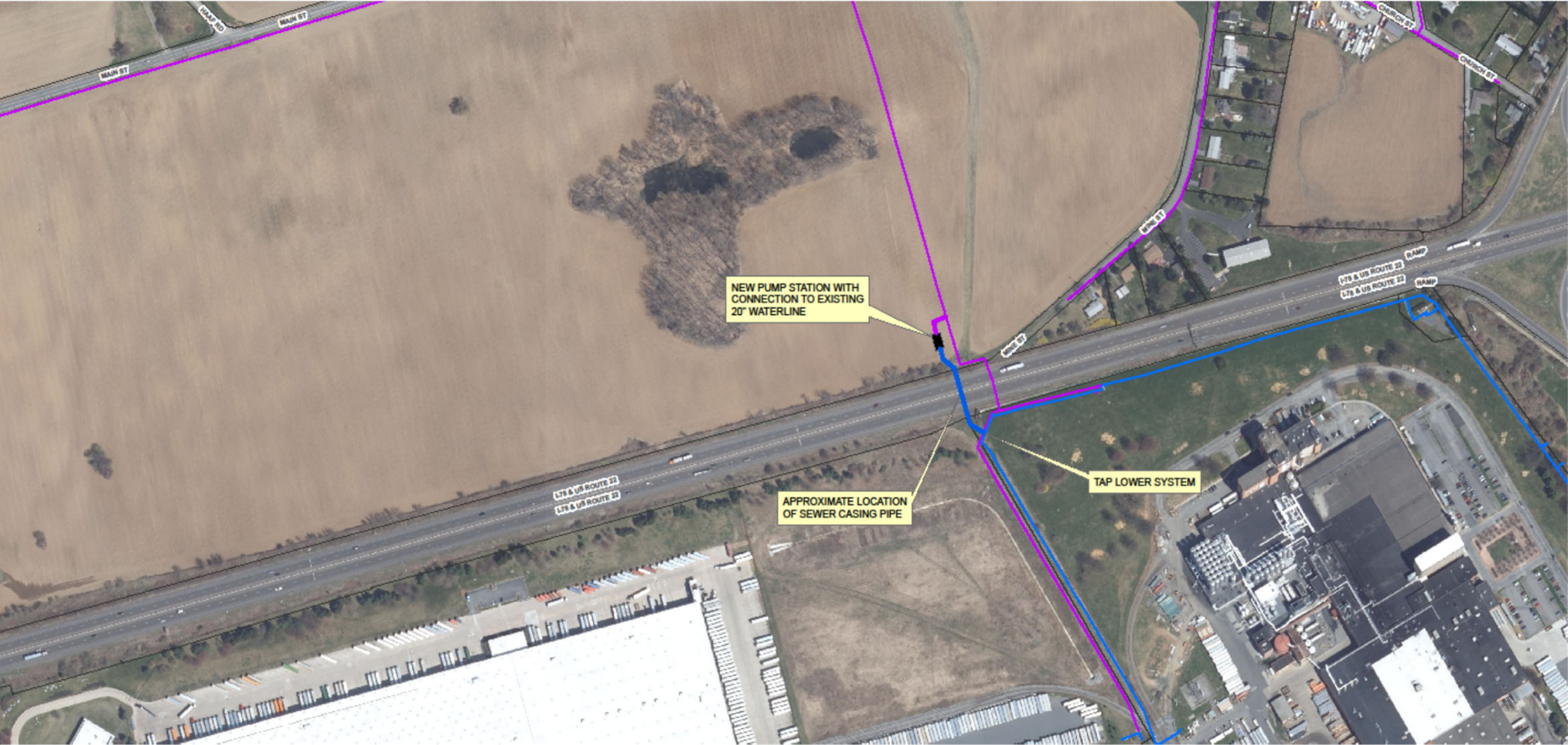
Capital Works Miscellaneous Expenses (includes PennDOT permitting)

SCADA Upgrades – Hardware & Software

Suburban Division Water – 2024 and 5-Year System Improvement Projects

CP#4	PROJECT	Prior Year \$	2024 \$	2025-2029 \$	Major Drivers	Responsibility
SD-W-12	CLOUD BASED AMI METER READING SYSTEM (<i>retitled</i>)	\$100,000	\$50,000	\$750,000	Efficiency; Customer service improvements	Kunkel
SD-W-14	WATER SYSTEMS MASTER PLANNING AND WATER QUALITY STUDIES	\$0	\$200,000	\$350,000	Resiliency; Future Growth	Depoe
SD-W-15	UPPER SYSTEM PUMP STATION & WATER MAIN EXTENSION	\$75,000	\$50,000	\$2,050,000	System Improvement; Future Growth	Kunkel
SD-W-16	WATER METER REPLACEMENT PROGRAM	\$350,000	\$800,000	\$4,400,000	Revenue, efficiency	Kunkel
SD-W-17	CENTRAL LEHIGH SYSTEM SUPPLY IMPROVEMENTS	\$100,000	\$150,000	\$530,000	System Improvement; Efficiency; Future Growth	Kunkel

Upper System Pump Station and Water Main Extension



Suburban Division Water 2025-2029 Capital Plan

NEW Projects

CP#	PROJECT	Prior Year \$	2024 \$	2025-2029 \$	Major Drivers	Responsibility
SD-W-18	BUSS ACRES WATER QUALITY UPGRADE	\$0	\$0	\$1,660,000	Regulatory	Kunkel
SD-W-19	APPLEWOOD PUMP STATION UPGRADE	\$0	\$0	\$600,000	Asset Management; System Improvement	Dorner

Buss Acres Pump Station

Control/Chemical Building & Tank



Control/Chemical Building



Applewood Pump Station

Pump Station with Res. 1 and generator



Pump Station interior



Suburban Water – Financial Analysis 2025-2029

SOURCES	
Cash from operations and reserves	\$18,792,000
New Borrowing	<u>\$19,700,000</u>
Total Sources	<u>\$38,492,000</u>
USES	
Capital project spending	<u>\$38,492,000</u>

- Cash from operations and reserves – \$18,792,000
 - Admin projects – \$800,000
 - Annual projects – \$11,802,000
 - Water meter replacement projects – \$4,400,000
 - Other projects – \$1,790,000
- Volume – 1.0% increase per year
- Rates – Years 1-5 – 4.6%
- Borrowing – \$20,250,316 (\$232,816 from Year 2023 borrowing and \$2,017,500 of new borrowing in Plan Years)
 - Main replacement – \$12,300,000
 - North Whitehall System – \$3,150,000
 - Upper System Pump Station – \$2,050,000
 - Other System improvements – \$2,200,000

Suburban Water – Financial Analysis

2025-2029

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

Suburban Division Wastewater – 2024 and 5-Year Projects Western Lehigh Interceptor/Little Lehigh Relief Interceptor

CP#	Project	Prior \$	2024 \$	2025-2029 \$	Major Drivers	Responsibility
SD-S-20	CENTRAL LEHIGH WW CAPACITY PLANNING & EXPANSION	\$325,000	\$350,000	\$750,000	Future growth; Regulatory	DePoe
SD-S-21	WESTERN LEHIGH INTERCEPTOR REHABILITATION & REPAIRS	\$200,000	\$225,000	\$50,000	Regulatory; asset management	Peters
SD-S-22	SPRING CREEK PUMP STATION FORCE MAIN CONDITION ASSESSMENT	\$0	\$150,000	\$100,000	Asset management	Kunkel
SD-S-23	SPRING CREEK PUMP STATION UPGRADES	\$0	\$700,000	\$1,000,000	Asset management	Kunkel
SD-S-24	SPRING CREEK FORCE MAIN RELOCATION	\$0	\$100,000	\$900,000	Regulatory	Kunkel
SD-S-25	SIGNATORY I/I INVESTIGATION & REMEDIATION	\$1,700,000	\$1,000,000	\$1,000,000	Required rehab; Regulatory	DePoe
SD-S-28	UPPER WESTERN LEHIGH INTERCEPTOR PUMP STATION & FORCE MAIN	\$250,000	\$3,500,000	\$1,300,000	Future growth; Regulatory	Kunkel
SD-S-40	PARK PUMP STATION UPGRADE (PHASE 2)	\$1,500,000	\$1,800,000	\$800,000	Asset management	Kunkel

Western Lehigh Interceptor Challenges



KLINE'S ISLAND SEWER SYSTEM

Interim Act 537 Plan

SUBMITTED TO:

PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

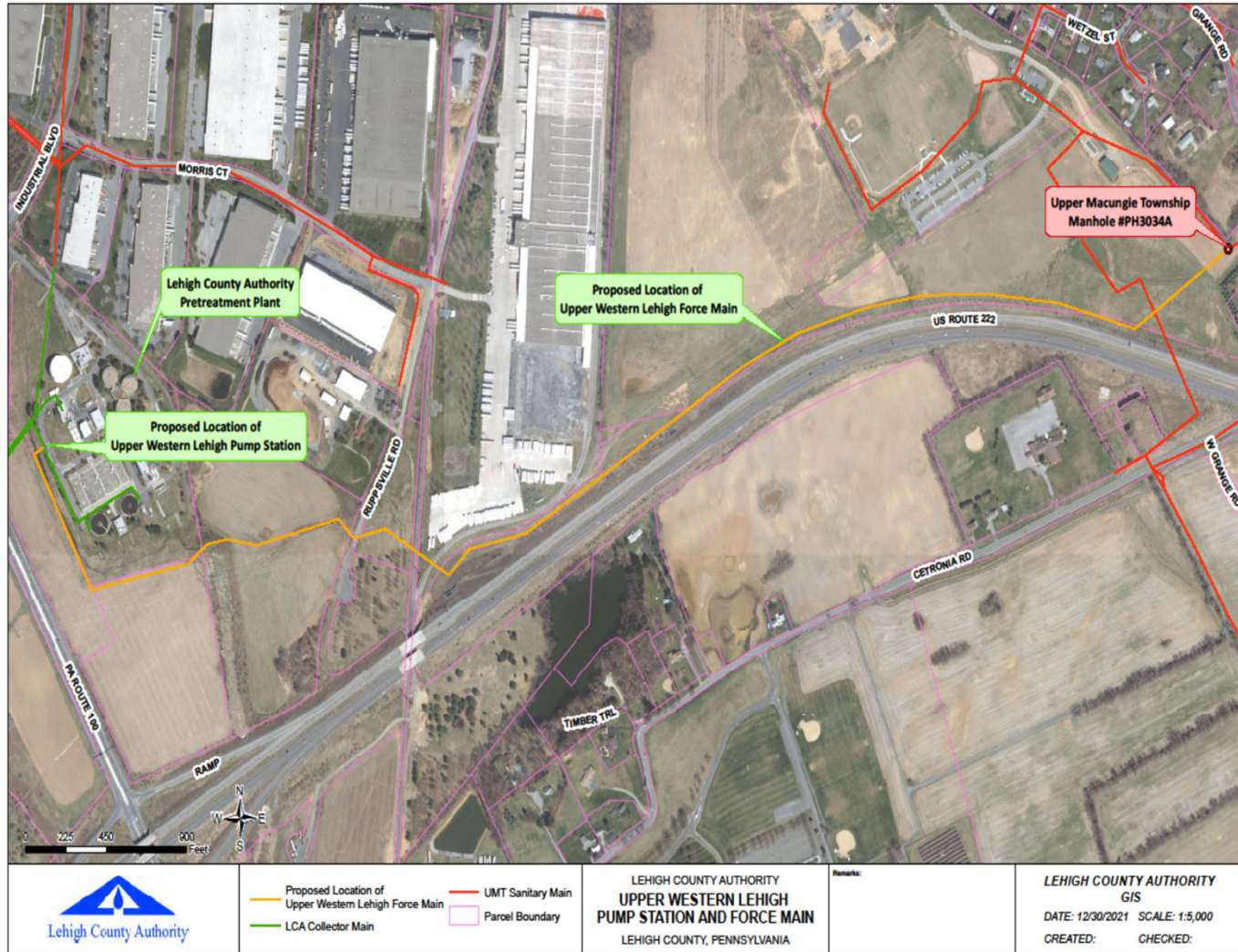
SUBMITTED BY:

KLINE'S ISLAND SEWER SYSTEM MUNICIPALITIES

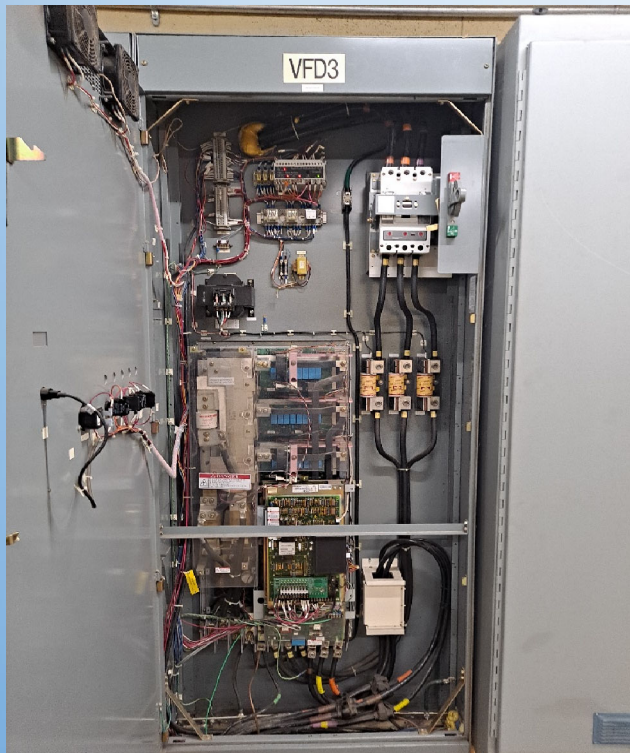
Prepared by:
 ARRO Consulting, Inc.
 108 W. Airport Road
 Lititz, PA 17543



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



Spring Creek Pump Station Upgrade - VFDs



Suburban Division Wastewater – 2024 and 5-Year Projects Satellite Systems

CP#	Project	Prior \$	2024 \$	2025-2029 \$	Major Drivers	Responsibility
SD-S-30	WYNNEWOOD I/I INVESTIGATION & REMEDIATION	\$50,000	\$25,000	\$375,000	Required rehab	Dorner
SD-S-32	ARCADIA WEST MECHANICAL SCREEN	\$0	\$75,000	\$545,000	System improvement	Dorner
SD-S-33	NORTH WHITEHALL TOWNSHIP ACT 537 PLAN UPDATE	\$0	\$70,000	\$90,000	Regulatory	DePoe
SD-S-34	HEIDELBERG HEIGHTS I&I INVESTIGATION & REMEDIATION	\$1,000,000	\$100,000	\$525,000	Required rehab; Regulatory	Dorner
SD-S-35	HEIDELBERG HEIGHTS WWTP REHABILITATION	\$350,000	\$160,000	\$200,000	System Improvement	Dorner
SD-S-36	SAND SPRING WWTP IMPROVEMENTS	\$0	\$100,000	\$200,000	Regulatory	Volk
SD-S-37	LYNN TOWNSHIP WWTP IMPROVEMENTS	\$10,000	\$500,000	\$950,000	Asset Management	Dorner
SD-S-38	LYNN TOWNSHIP I/I INVESTIGATION & REMEDIATION	\$200,000	\$50,000	\$200,000	Required rehab; Regulatory	Peters

Lynn Township WWTP Improvements New Final Clarifier



Suburban Division Wastewater – 2024 and 5-Year Projects Annual Projects

CP#	Project	Prior \$	2024 \$	2025-2029 \$	Major Drivers	Responsibility
SD-S-A	ANNUAL PROJECTS <i>(breakdown of projects to follow)</i>	N/A	\$912,500	\$3,182,500	Required rehab; Asset management; Efficiency	Volk/Operations

Suburban
Division Annual
Wastewater
Projects
Include:

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

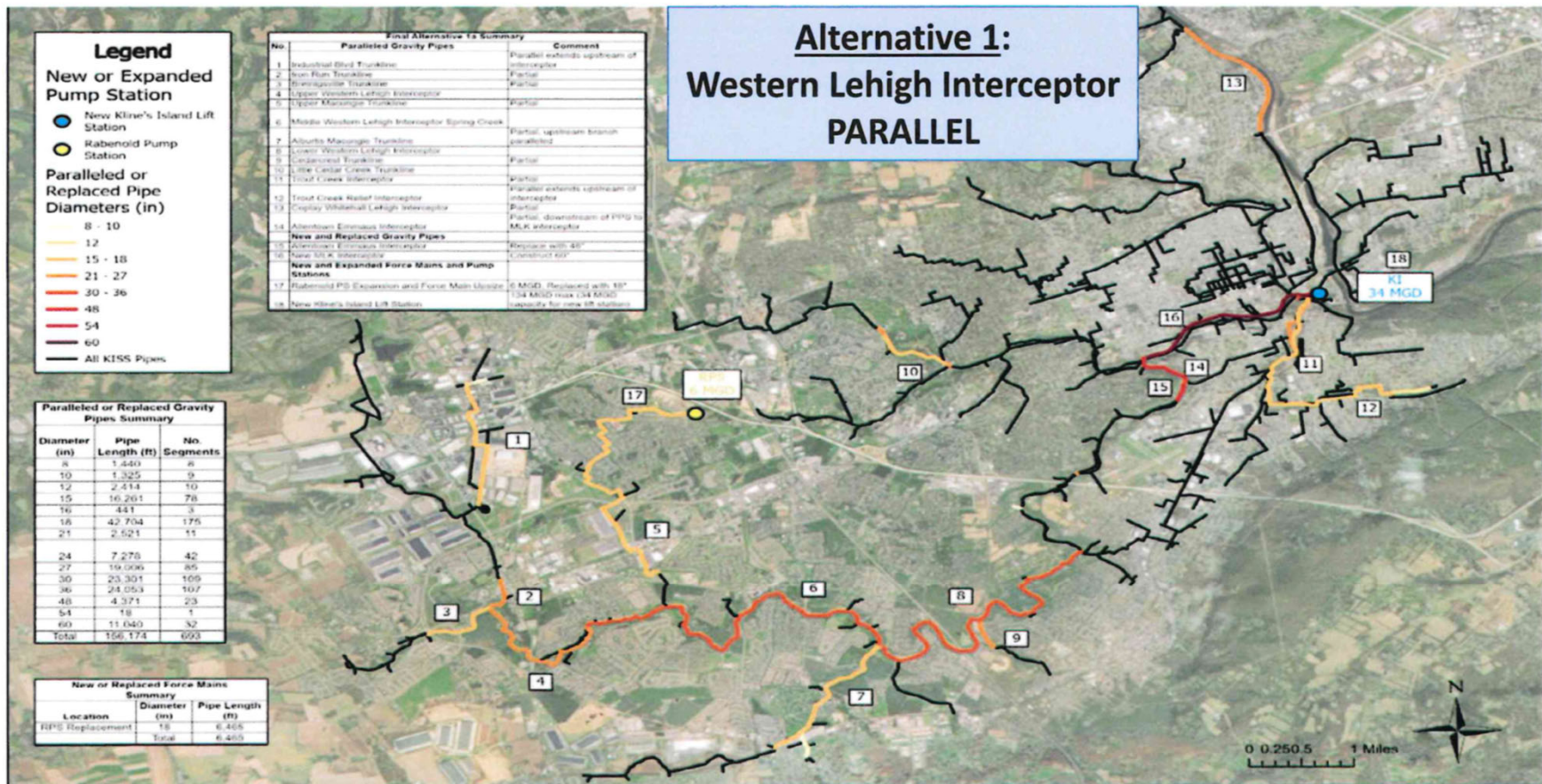
Weisenberg Township Collection System & Service Connections

Lynn Township Collection System & Service Connections

Suburban Division Wastewater New Projects 2025-2029

Cap Plan#	Project	Prior \$	2024 \$	2025-2029 \$	Major Drivers	Responsibility
SD-S-27	WLI PARALLEL ALIGNMENT-SPECIAL ACT 537 STUDY	\$0	\$0	\$1,650,000	Regulatory, System Improvement	DePoe
SD-S-31	WYNNEWOOD WWTP EXPANSION	\$0	\$0	\$2,300,000	Community Impact, Growth	Volk

Western Lehigh Parallel Alignment – Act 537 Special Study



Suburban Division Wastewater Pretreatment Plant Projects 2025-2029

Cap Plan#	Project	Prior \$	2024 \$	2025-2029 \$	Major Drivers	Responsibility
SD-S-10	PRETREATMENT PLANT ANNUAL IMPROVEMENTS	N/A	\$1,000,000	\$2,300,000	Required rehab; Asset management; System Improvement	Volk
SD-S-11	NEW - PRETREATMENT PLANT CRITICAL UPGRADES	\$0	\$0	\$7,500,000	Required rehab; Asset Management	Volk
SD-S-12	NEW - PRETREATMENT PLANT REPLACEMENT AND UPGRADES	\$0	\$0	\$37,600,000	System Improvement, Community Impact	Volk

Pretreatment Plant Improvements – Replacement and Upgrades

Final Clarifier #1



Final Clarifier #2

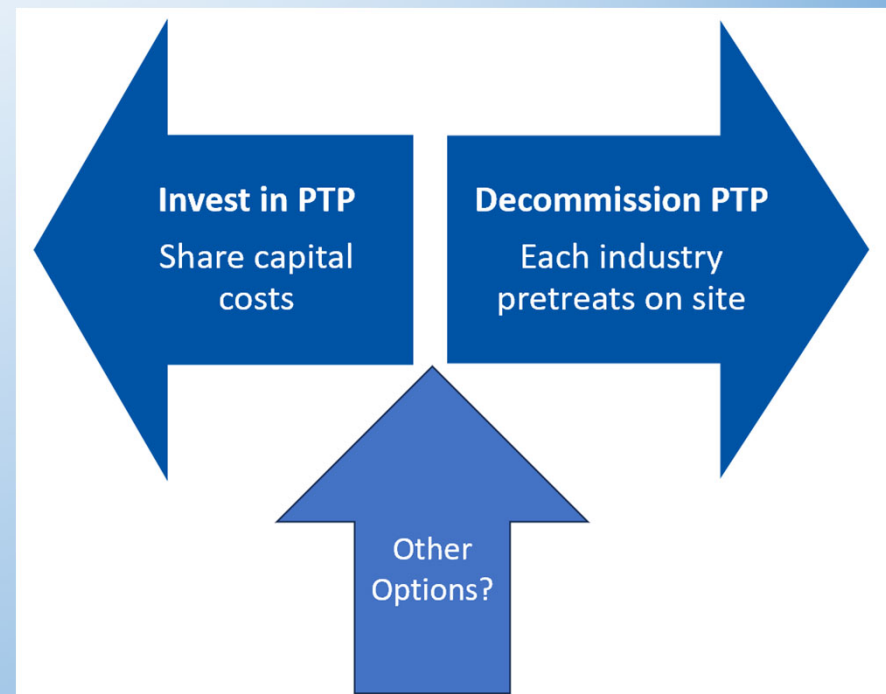


Pretreatment Plant Replacement and Upgrades



Customized Industry Approach:

- Boston Beer
- Ocean Spray
- Keurig Dr Pepper
- SunOpta
- Coca-Cola
- Waste Haulers



Suburban Wastewater – Financial Analysis 2025-2029

SOURCES	
Cash from operations and reserves	\$19,692,500
New borrowing	<u>\$44,600,000</u>
Total sources	<u>\$64,292,500</u>
USES	
Capital project spending	<u>\$64,292,500</u>

- Cash from Operations – \$19,692,500
 - Admin projects – \$800,000
 - Annual projects – \$3,182,500
 - WWPTP – \$2,800,000
 - WLI – \$7,000,000
 - LLRI – \$300,000
 - Satellite Systems – \$5,610,000

- Borrowing – \$44,600,000
 - PTP – \$44,600,000


 Contingent on industry decision-making & financing commitments

Suburban Wastewater – Financial Analysis 2025-2029

CONDENSED CASH FLOW - SUBURBAN WASTEWATER					
Dollars	2025	2026	2027	2028	2029
User Charges	19,581,716	19,895,865	20,192,474	20,469,534	20,753,520
Other Operating Revenues	973,512	2,135,591	3,218,437	3,218,437	3,218,437
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	(18,238,000)	(21,941,750)	(20,586,750)	(2,208,000)	(1,318,000)
NET FUND FLOWS	<u>(2,961,658)</u>	<u>178,526</u>	<u>186,173</u>	<u>2,027,283</u>	<u>2,776,202</u>
User Charge Revenue Increase %	2.0%	1.6%	1.5%	1.4%	1.4%
Unrestricted Cash Balance	8,029,718	8,208,244	8,394,417	10,421,700	13,197,902
Unrestricted Investments	6,465,467	6,465,467	6,465,467	6,465,467	6,465,467
Total Unrestricted Balances	14,495,185	14,673,711	14,859,884	16,887,167	19,663,369
Unrestricted Cash - Days on Hand	187	186	185	224	276
DEBT SERVICE COVERAGE RATIO	3.47	2.48	2.06	2.02	1.99

2025-2029 Suburban Div. Capital Plan: *RECAP OF DRAFT PLAN*

- Capital investments increase by \$34 million
- Increases driven by inclusion of PTP replacement/upgrade; significant unknown factors related to industry decision & commitments
- LCA financial performance maintained with new borrowing
- Modest rate impacts shown, but excludes pass-through from Allentown Division projects – rate refined in annual budget process
- Look for future capital plans to increase as regional Act 537 Plan projects are finalized, with greater impact in future plan years

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Discussion

Questions?