

# Lehigh County Authority

## 2022-2026

### Suburban Division and Administration Capital Plan

Preliminary Plan Board Presentation – February 22, 2021

## Planning Process & Board Reviews / Approvals

- **Five-Year Capital Plan → Conceptual**
- **Annual Budget → One-year funding for upcoming projects**
- **Project Approval → Authorization to complete a specific project**
- **Financing → Funding for specific group of projects**

## 2022- 2026 Capital Plan Timeline:

- Suburban Division - Draft Capital Plan Board presentation – 2/22/2021
- Allentown Division - Draft Capital Plan Board presentation – 3/8/2021
- Public comment period – 3/8/2021 to 4/8/2021
  - Lehigh Valley Planning Commission review
  - Lehigh County Commissioners review
- Final Board Review & Request for Approval – 4/12/2021

## Administration – 2021 and 5-Year Plan Projects

CP#	Project	Prior \$	2021 \$	2022-2026 \$	Responsibility
<b>Operating/Capital Reserve Funds</b>					
SD-A-1	SCADA Programming, Hardware & Software Upgrades	\$0	\$300,000	\$2,800,000	Moughan
CON-A-1 *	Computer System Hardware & Software Upgrades	\$40,00	\$140,000	\$250,000	Moughan.
CON-A-2 *	Geographic Information System Upgrades & Application Dev.	\$46,000	\$50,000	\$300,000	Moughan/ Bowen
CON-A-3 *	Information Technology Master Plan Update	\$85,000	\$125,000	\$350,000	Moughan
CON-A-4 *	Document Management	\$2,000	\$200,000	\$75.000	Moughan
CON-A-5*	Disaster Recovery/Security Upgrades	\$18,000	\$25,000	\$125,000	German
CON-A-6*	CMMS Upgrades	\$21,000	\$100,000	\$175,000	Moughan

*\* Projects benefit both Suburban and Allentown Divisions.*



# SCADA Programming, Hardware & Software Upgrades

- Project plan for all Suburban SCADA stations
- Improve communications reliability
- Programming and hardware
- Replace obsolete systems that create operating risk
- Reduce compliance risk (boil advisories, etc.)
- Staff training on updated systems

## Suburban Division Water – 2021 and 5-Year Projects

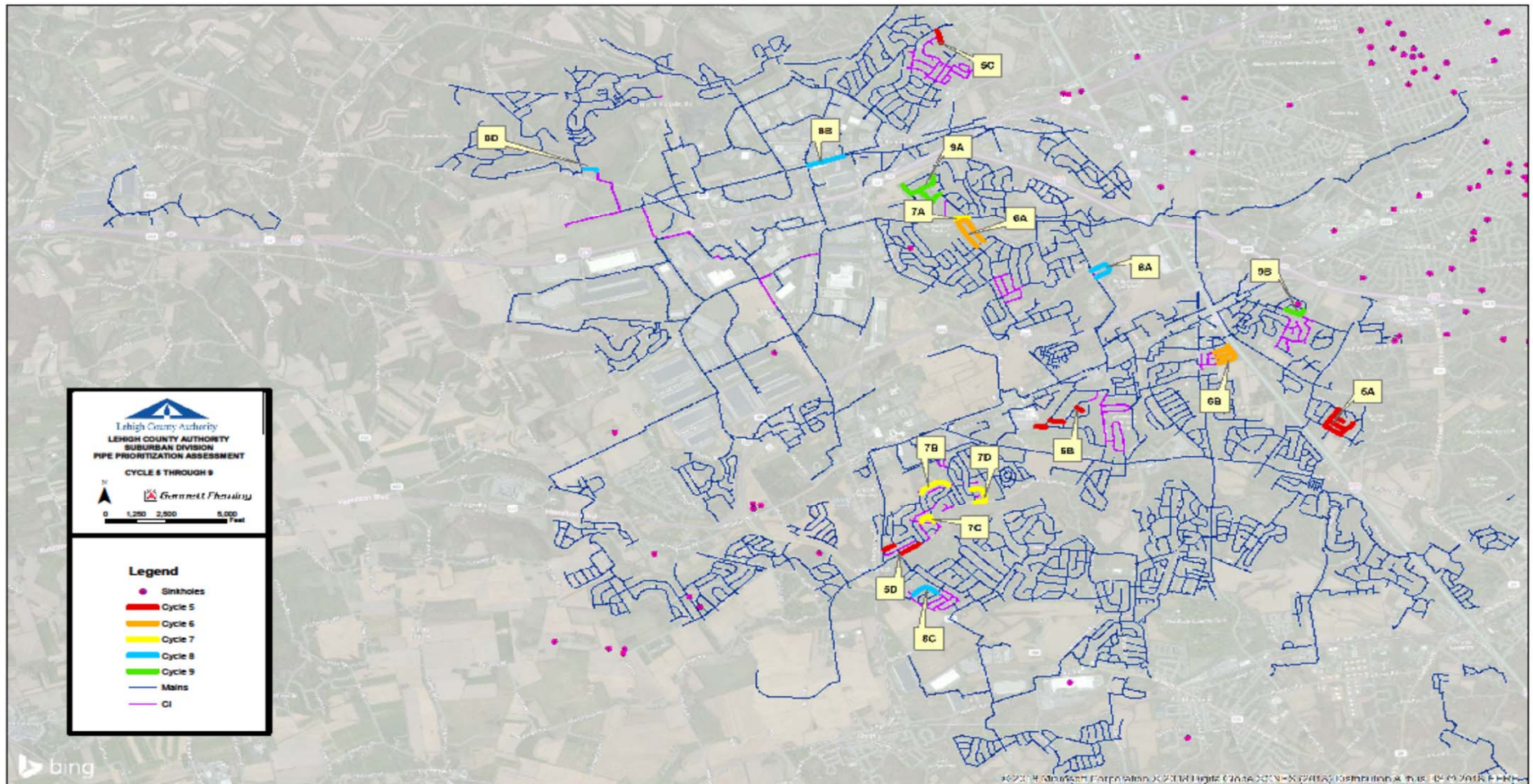
### Annual/Recurring projects

CP#	PROJECT	Prior \$	2021 \$	2022-2026 \$	Major Drivers	Responsibility
SD-W-A	ANNUAL PROJECTS <i>(breakdown of projects to follow)</i>	N/A	\$1,747,500	\$6,853,500	Required rehab; Asset management; Efficiency	Volk/Parsons
SD-W-12	WATER MAIN REPLACEMENT PROJECTS <i>(2022 - 2024 borrowed funding; 2025 &amp; 2026 funding by operating revenues/capital reserves)</i>	N/A	\$0	\$12,100,000	Asset management	Peters

## Suburban Division Annual Water Projects Include:

- Distribution Mains – Development & Upsizing
- Distribution System Improvements (3<sup>rd</sup> party)
- General Water System Improvements
- Mobile Equipment
- New & Replacement Meter Installation
- 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)

## SD Water Main Replacements – 5 year prioritization



# Suburban Division Water – 2021 and 5-Year Projects

System Improvement Projects – new borrowing

CP#	PROJECT	Prior \$	2021 \$	2022-2026 \$	Major Drivers	Responsibility
SD-W-37	REDUNDANT WATER SUPPLY – SMALL SATELLITE DIVISIONS	\$186,000	\$100,000	\$770,000	System resiliency	Kunkel
SD-W-50	FIXED BASE METER READING SYSTEM	\$13,000	\$100,000	\$910,000	Meter reading efficiencies; Customer service improvements	Kunkel
SD-W-51	NORTH WHITEHALL DIVISION WATER SYSTEM STUDY	\$0	\$50,000	\$30,000	System resiliency	Hoyle
SD-W-52	ARCADIA WATER TANK REPLACEMENT	\$66,000	\$500,000	\$700,000	Required rehab	Kunkel
SD-W-55	CLD WELL IMPROVEMENTS STUDY	\$10,500	\$60,000	\$20,000	System resiliency; Future growth	Kunkel
SD-W-56	CLD DISTRIBUTION SYSTEM IMPROVEMENTS STUDY	\$74,000	\$50,000	\$125,000	System resiliency; Future growth	Hoyle
SD-W-57	WATER METER REPLACEMENT PROGRAM	\$1,500,000	\$0	\$2,462,000	Improved revenue capture; Meter reading efficiency	Kunkel

## Meter Replacement and Fixed Base Metering Programs



## Completed Suburban Division Water Projects

(removed from Capital Plan this year)

- Upper Milford Central Division Improvements - Buss Acres Station *(new tank and pump station to be started up Spring 2021)*
- CLD Auxiliary Pumping Station & Main Extension *(new booster station started up early 2020)*
- Water Meter Reading Equipment Upgrade *(completed in 2020)*
- Central Lehigh to Upper Milford Division Interconnection - Kohler Tract Booster Station *(new booster station started up early 2021)*

## Suburban Water – Financial Analysis 2022-2026

SOURCES	
Cash from operations and reserves	\$15,733,000
New Borrowing	<u>\$10,275,000</u>
Total Sources	<u>\$26,008,000</u>
USES	
Capital project spending	<u>\$26,008,000</u>

- Cash from operations and reserves – \$15,733,000
  - Admin projects – \$2,037,500
  - Annual projects – \$6,853,500
  - Main replacement for 2025 & 2026 – \$4,800,000
  - Water meter replacement in 2025 – \$2,042,000
  - Volume – 1.0% increase per year
  - Rates – 6.75% increase per year
- Borrowing – \$10,275,000
  - Main replacement 2022, 2023, & 2024 – \$7,300,000
  - System improvements – \$2,975,000

## Suburban Water – Financial Analysis 2022-2026

US DOLLARS	2022	2023	2024	2025	2026
User Charges	12,682,517	13,665,412	14,724,481	15,865,628	17,095,214
Other Operating Revenues	29,124	29,124	29,124	29,124	29,124
Non-Operating Revenues	962,446	962,446	962,446	962,446	962,446
Operating expenses	(8,905,428)	(9,261,644)	(9,632,110)	(10,017,393)	(10,418,089)
Debt Service - Current Debt	(3,056,164)	(3,130,714)	(3,117,714)	(3,128,964)	(2,799,714)
Debt Service - NEW Debt	(205,000)	(205,000)	(205,000)	(205,000)	(205,000)
Investments Converting to Cash	-	-	1,000,000	2,136,930	-
Proceeds From NEW Debt	-	-	-	-	-
Capex - Admin Paygo	(550,000)	(525,000)	(512,500)	(362,500)	(87,500)
Capex - Paygo	(1,722,000)	(1,351,500)	(1,280,000)	(5,692,000)	(3,650,000)
Capex - NEW Borrowing	(4,575,000)	(3,130,000)	(2,570,000)	-	-
<b>NET FUND FLOWS</b>	<b>(5,339,505)</b>	<b>(2,946,876)</b>	<b>(601,273)</b>	<b>(411,729)</b>	<b>926,481</b>
Plan Volume Increase %	1.00%	1.00%	1.00%	1.00%	1.00%
User Charge Revenue Increase %	6.75%	6.75%	6.75%	6.75%	6.75%
Operating Cash Balance	4,391,718	4,567,386	4,750,082	4,940,084	5,137,688
Days on Hand	180	180	180	180	180
Project Reserve Balance	5,428,404	2,305,860	1,521,891	920,160	1,649,037
DEBT SERVICE COVERAGE RATIO	1.46	1.62	1.83	2.05	2.55
Total Capex	(6,847,000)	(5,006,500)	(4,362,500)	(6,054,500)	(3,737,500)

## Suburban Division Wastewater – 2021 and 5-Year Projects

### Western Lehigh Interceptor/Little Lehigh Relief Interceptor

CP#	Project	Prior \$	2021 \$	2022-2026 \$	Major Drivers	Responsibility
SD-S-3	CENTRAL LEHIGH WW CAPACITY PLANNING & EXPANSION	\$600,000	\$799,300	\$600,000	Future growth; Regulatory	Depoe
SD-S-4	SPRING CREEK FORCE MAIN AIR RELEASE VALVE REPLACEMENTS	\$48,000	\$40,000	\$80,000	Required rehab	Kunkel
SD-S-9	SPRING CREEK PS FORCE MAIN CONDITION ASSESSMENT	\$0	\$0	\$350,000	Asset management	Kunkel
SD-S-24	SIGNATORY I/I INVESTIGATION & REMEDIATION	\$0	\$270,000	\$1,500,000	Required rehab; Regulatory	DePoe
SD-S-28	WLI TREXLERTOWN AREA WW CAPACITY SOLUTION ALTERNATIVE	\$60,000	\$200,000	\$5,800,000	Future growth; Regulatory	Kunkel
SD-S-12	PARK PUMP STATION FORCE MAIN REHABILITATION	\$20,000	\$100,000	\$1,200,000	Asset management	Parsons
SD-S-15	PARK PUMP STATION UPGRADE PHASE 2	\$4,020,000	\$100,000	\$1,250,000	System resiliency	Volk

## Western Lehigh Interceptor Challenges



## Suburban Division Wastewater – 2021 and 5-Year Projects

### Satellite Systems

CP#	Project	Prior \$	2021 \$	2022-2026 \$	Major Drivers	Responsibility
SD-S-6	WYNNEWOOD I/I INVESTIGATION & REMEDIATION	\$25,000	\$25,000	\$95,000	Required rehab	Peters
SD-S-8	WESTERN WEISENBERG MECHANICAL SCREEN (Arcadia West)	\$0	\$0	\$350,000	Required rehab	Volk
SD-S-10	WEISENBERG, LOWHILL, UPPER MILFORD TOWNSHIP SSES	\$0	\$75,000	\$225,000	Asset management; Regulatory	Peters
SD-S-17	HEIDELBERG HEIGHTS I&I INVESTIGATION & REMEDIATION	\$740,000	\$275,000	\$850,000	Required rehab; Regulatory	Volk/Peters
SD-S-18	HEIDELBERG HEIGHTS WWTP REHABILITATION	\$210,000	\$40,000	\$465,000	Required rehab	Volk
SD-S-25	LYNN TOWNSHIP WWTP UPGRADE & EXPANSION DESIGN	\$0	\$50,000	\$255,000	Future growth	Hoyle
SD-S-26	LYNN TOWNSHIP I/I INVESTIGATION & REMEDIATION	\$170,000	\$50,000	\$225,000	Required rehab; Regulatory	Peters

## Suburban Division Wastewater – 2021 and 5-Year Projects

### Annual/Recurring projects

CP#	Project	Prior \$	2021 \$	2022-2026 \$	Major Drivers	Responsibility
SD-S-A	ANNUAL PROJECTS <i>(breakdown of projects to follow)</i>	N/A	\$622,500	\$2,640,000	Required rehab; Asset management; Efficiency	Volk/Parsons
SD-S-22	PRETREATMENT PLANT IMPROVEMENTS	N/A	\$700,000	\$3,500,000	Required rehab; Asset management	Volk

## 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
- 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

## Completed Suburban Division Sewer Projects

(removed from Capital Plan this year)

- Wynnewood Terrace WWTP Upgrade & Replacement (*new plant started up late 2020*)
- Sand Spring WWTP Upgrade & Replacement (*new plant to be started up Spring 2021*)
- Park Pump Station Phase 1 Upgrade (*completed in Q1 of 2020*)
- Regional Park Pump Station (*rolled into Act 537 planning project; timing unknown*)

## Suburban Wastewater – Financial Analysis 2022-2026

SOURCES	
Cash from operations and reserves	\$19,385,000
New borrowing*	<u>\$0</u>
Total sources	<u>\$19,385,000</u>
USES	
Capital project spending	<u>\$19,385,000</u>

- Cash from Operations – \$19,385,000
  - Annual projects – \$2,640,000
  - WWPTP – \$3,500,000
  - WLI – \$8,330,000
  - LLRI – \$2,450,000
  - Satellite Systems – \$2,465,000

## Suburban Wastewater – Financial Analysis 2022-2026

<b>Dollars</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
User Charges	17,342,874	17,569,812	17,803,558	18,044,316	18,292,297
Other Operating Revenues	43,823	43,823	43,823	43,823	43,823
Non-Operating Revenues	1,035,317	1,061,122	1,087,701	1,115,077	1,143,274
Operating expenses	(13,598,036)	(14,005,977)	(14,426,156)	(14,858,941)	(15,304,710)
Debt Service - Current Debt	(731,029)	(731,029)	(731,029)	(731,029)	(731,029)
Debt Service - NEW Debt	-	-	-	-	-
Investments Converting to Cash	-	1,000,000	1,200,000	-	-
Proceeds From NEW Debt	-	-	-	-	-
Capex - Admin Paygo	-	-	-	-	-
Capex - Paygo	(2,959,000)	(6,648,000)	(5,371,000)	(2,391,000)	(2,016,000)
Capex - NEW Borrowing	-	-	-	-	-
<b>NET FUND FLOWS</b>	<b><u>1,133,949</u></b>	<b><u>(1,710,249)</u></b>	<b><u>(393,103)</u></b>	<b><u>1,222,246</u></b>	<b><u>1,427,655</u></b>
User Charge Revenue Increase %	1.0%	1.3%	1.3%	1.4%	1.4%
Operating Cash Balance	6,705,881	6,907,057	7,114,269	7,327,697	7,547,528
Days on Hand	180	180	180	180	180
Project Reserve Balance	4,415,815	2,504,389	1,904,075	2,912,892	4,120,716
DEBT SERVICE COVERAGE RATIO	6.60	6.39	6.17	5.94	5.71

# Discussion

Questions?