2021-2025 CAPITAL IMPROVEMENT PROGRAM

SUPPLEMENTAL SUBMISSION

PUBLIC WORKS AND WATER RESOURCES DEPARTMENT

WATER DIVISION

AS PRESENTED ON:
SEPTEMBER 21, 2020

Summary of Changes

Please note, this document has been modified from the Departmental Budget Presentation (as presented on 9/21/20) to include the following changes:

- The below specified projects and funding have been added to this 2021-2025 Capital Improvements Program for our Water Division:

  W2101 - Evergreen Booster Station Rehabilitation

  - Added $250,000 in current resources in 2022.

  W2102 - Highfield Drive Booster Station Rehabilitation

  - Added $100,000 in current resources in 2022.

  W2103 - New London Water Tank Chlorination

  - Added $265,000 in current resources in 2021.

- The below specified projects and funding have been modified in this 2021-2025 Capital Improvements Program for our Water Division:

  W1602 - Roseville Park Pressure District

  - Reduced 2021 current resources from $275,000 to $100,000.

  W1503 - Academy Street Interconnection Pump Station

  - Reduced 2022 current resources from $590,000 to $0.
  - Increased 2023 current resources from $0 to $300,000.

Net effect on Current Resources in 2021-2025 Capital Improvements Program for our Water Division:

2021 Current Resources = Increased 90,000

2022 Current Resources = Decreased 240,000

2023 Current Resources = Increased 300,000

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PUBLIC WORKS AND WATER RESOURCES DEPARTMENT
WATER DIVISION

2021-2025 CAPITAL IMPROVEMENT PROGRAM

CITY OF NEWARK, DELAWARE
CAPITAL IMPROVEMENTS PROGRAM 2021-2025
(with current year amended budget)

WATER FUND - PUBLIC WORKS AND WATER RESOURCES DEPARTMENT - WATER DIVISION

FUNDING SUMMARY

	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	$ 3,248,070	$ 3,994,000	$ 1,854,000	$ 3,175,000	$ 1,500,000	$ 13,771,070
*Prior Authorized Balance:	$ 1,386,949	$ -	$ -	$ -	$ -	$ 1,386,949
2021-2025 Funding:	**$ 4,635,019**	**$ 3,994,000**	**$ 1,854,000**	**$ 3,175,000**	**$ 1,500,000**	**$ 15,158,019**

*Prior Authorized Balance includes 2020 carryover funding only.

PROJECT NUMBER	PROJECT NAME	*	2020 BUDGET AS AMENDED	2021 RESERVES AND OTHER FUNDING	2021 CURRENT FUNDING	2021	2022	2023	2024	2025	TOTAL
W2101	Evergreen Booster Station Rehabilitation	B	$ -	$ -	$ -	$ -	$ 250,000	$ -	$ -	$ -	$ 250,000
W2102	Highfield Drive Booster Station Rehabilitation	B	-	-	-	-	100,000	-	-	-	100,000
W2103	New London Water Tank Chlorination	B	-	-	265,000	265,000	-	-	-	-	265,000
W2001	Newark Reservoir Upgrades	B	-	-	-	-	-	100,000	1,500,000	-	1,600,000
W1701	Valve Inspection, Exercising and Rehabilitation	B	165,000	165,000	-	165,000	125,000	125,000	125,000	-	540,000
W1703	Laird Tract Well Field Restoration	A	-	50,000	50,000	100,000	1,925,000	-	-	-	2,025,000
W1601	Backup Generation at Water Facilities	A	125,000	100,000	-	100,000	-	-	-	-	100,000
W1602	Roseville Park Pressure District	B	-	-	100,000	100,000	-	-	-	-	100,000
W1503	Academy Street Interconnection Pump Station	B	-	-	-	-	-	300,000	-	-	300,000
W1402	Air Stripper Replacement - South Well Field	B	2,582,695	-	-	-	-	-	-	-	-
W0503	Well Restoration Program	B	58,000	41,019	29,000	70,019	29,000	29,000	-	-	128,019
W9302	Water SCADA System	B	350,000	-	-	-	-	-	-	-	-
W9308	Water Main Replacement Program	B	1,000,000	2,000,000	-	2,000,000	1,000,000	1,250,000	1,500,000	1,500,000	7,250,000
W8605	Water Tank Maintenance	B	450,000	1,800,000	-	1,800,000	500,000	-	-	-	2,300,000
WEQSF	Equipment Replacement Program	B	302,701	25,011	9,989	35,000	65,000	50,000	50,000	-	200,000
Total Water Fund - Water Division			**$ 5,033,396**	**$ 4,181,030**	**$ 453,989**	**$ 4,635,019**	**$ 3,994,000**	**$ 1,854,000**	**$ 3,175,000**	**$ 1,500,000**	**$ 15,158,019**
PLANNED FINANCING SOURCES											
	GROSS CAPITAL IMPROVEMENTS		$ 5,033,396	$ 4,181,030	$ 453,989	$ 4,635,019	$ 3,994,000	$ 1,854,000	$ 3,175,000	$ 1,500,000	$ 15,158,019
	LESS: USE OF RESERVES		(215,000)	(231,019)	-	(231,019)	-	-	-	-	(231,019)
	VEHICLE & EQUIPMENT REPLACEMENT		(213,546)	(25,011)	-	(25,011)	(34,436)	(37,999)	(19,541)	-	(116,987)
	GRANTS		(75,000)	(125,000)	-	(125,000)	-	(50,000)	-	-	(175,000)
	BOND ISSUES		-	-	-	-	-	-	-	-	-
	STATE REVOLVING LOANS		(4,382,695)	(3,800,000)	-	(3,800,000)	(2,925,000)	-	-	-	(6,725,000)
	OTHER FINANCING SOURCES		-	-	-	-	-	-	-	-	-
	NET CAPITAL IMPROVEMENTS		$ 147,155	$ -	$ 453,989	$ 453,989	$ 1,034,564	$ 1,766,001	$ 3,155,459	$ 1,500,000	$ 7,910,013

* Justification Codes:
A - Return on Investment
B - Public Safety
C - Community Health
D - Efficiency/Other

PROJECT NO: W2101

PROJECT TITLE: Evergreen Booster Station Rehabilitation

PROJECT STATUS: New Project

*Prior Authorized Balance includes 2020 carryover funding only.

FUNDING SUMMARY:

	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	$ -	$ 250,000	$ -	$ -	$ -	$ 250,000
*Prior Authorized Balance:	$ -	$ -	$ -	$ -	$ -	$ -
2021-2025 Funding:	**$ -**	**$ 250,000**	**$ -**	**$ -**	**$ -**	**$ 250,000**

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	PWWR
DIVISION:	Water
FUND:	Water
PROJECT LOCATION:	Varies
PROJECT PRIORITY:	3 - Medium-High
The City would be taking a calculated risk in the deferral of this item	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2021
Est. Completion Date:	2022
Est. Useful Life (in years):	20
Est. Total Cost:	$ 250,000
Est. Spend @ 12/31/2020 (if underway)[1]:	$ -
% Complete (if underway):	0.0%
Balance to be funded[1]:	$ 250,000

[1] For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	**ACCOUNT NUMBER**	**AMOUNT**
Labor:		$ -
Materials:		$ -
Other Contracts:	5295206.9960	$ 250,000
TOTAL PROJECT COST		$ 250,000

[2] Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

Evergreen Booster Station is a small booster station that supplies fire flow and pressure to the Evergreen development off of New London Road. The station needs to be rehabilitated along with additional work required to be fully operational through our SCADA system.

PROJECT FINANCING BY PLAN YEAR

§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized[2]	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance[2] 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	$ -	-	250,000	-	-	-	$ 250,000
CAPITAL RESERVES	-	-	-	$ -	-	-	-	-	-	$ -
EQUIPMENT REPLACEMENT	-	-	-	$ -	-	-	-	-	-	$ -
GRANTS (SPECIFY)	-	-	-	$ -	-	-	-	-	-	$ -
BOND ISSUES	-	-	-	$ -	-	-	-	-	-	$ -
STATE REVOLVING LOAN	-	-	-	$ -	-	-	-	-	-	$ -
OTHER (SPECIFY)	-	-	-	$ -	-	-	-	-	-	$ -
TOTAL:	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 250,000**	**$ -**	**$ -**	**$ -**	**$ 250,000**

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:	2021	2022	2023	2024	2025	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)	-	-	-	-	-	$ -

PROJECT NO: W2102

PROJECT TITLE: Highfield Drive Booster Station Rehabilitation

PROJECT STATUS: New Project

*Prior Authorized Balance includes 2020 carryover funding only.

FUNDING SUMMARY:	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	$ -	$ 100,000	$ -	$ -	$ -	$ 100,000
*Prior Authorized Balance:	$ -	$ -	$ -	$ -	$ -	$ -
2021-2025 Funding:	**$ -**	**$ 100,000**	**$ -**	**$ -**	**$ -**	**$ 100,000**

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	PWWR
DIVISION:	Water
FUND:	Water
PROJECT LOCATION:	Varies
PROJECT PRIORITY:	3 - Medium-High
The City would be taking a calculated risk in the deferral of this item	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2021
Est. Completion Date:	2022
Est. Useful Life (in years):	20
Est. Total Cost:	$ 100,000
Est. Spend @ 12/31/2020 (if underway)[1]:	$ -
% Complete (if underway):	0.0%
Balance to be funded[1]:	$ 100,000

[1] For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	**ACCOUNT NUMBER**	**AMOUNT**
Labor:		$ -
Materials:		$ -
Other Contracts:	5295206.9960	$ 100,000
TOTAL PROJECT COST		$ 100,000

[2] Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

Highfield Drive Booster Station is a vault located in West Chesnut Hil Road which is dufficult to access and maintain. The station needs to be rehabilitated or relocated, including SCADA upgrades. We are currently leaning toward rehabilitation as any relocation would likely require an easment or property acquisition.

PROJECT FINANCING BY PLAN YEAR

§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized[2]	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance[2] 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	$ -	-	100,000	-	-	-	$ 100,000
CAPITAL RESERVES	-	-	-	$ -	-	-	-	-	-	$ -
EQUIPMENT REPLACEMENT	-	-	-	$ -	-	-	-	-	-	$ -
GRANTS (SPECIFY)	-	-	-	$ -	-	-	-	-	-	$ -
BOND ISSUES	-	-	-	$ -	-	-	-	-	-	$ -
STATE REVOLVING LOAN	-	-	-	$ -	-	-	-	-	-	$ -
OTHER (SPECIFY)	-	-	-	$ -	-	-	-	-	-	$ -
TOTAL:	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 100,000**	**$ -**	**$ -**	**$ -**	**$ 100,000**

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:	2021	2022	2023	2024	2025	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)	-	-	-	-	-	$ -

PROJECT NO: W2103

PROJECT TITLE: New London Water Tank Chlorination

PROJECT STATUS: New Project

*Prior Authorized Balance includes 2020 carryover funding only.

FUNDING SUMMARY:

	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	$ 265,000	$ -	$ -	$ -	$ -	$ 265,000
*Prior Authorized Balance:	$ -	$ -	$ -	$ -	$ -	$ -
2021-2025 Funding:	**$ 265,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 265,000**

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	PWWR
DIVISION:	Water
FUND:	Water
PROJECT LOCATION:	New London Road
PROJECT PRIORITY:	2 - High Priority Level
Critical need to remediate failing service, prevent failure, or generate savings	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	Perpetual
Est. Completion Date:	Perpetual
Est. Useful Life (in years):	20
Est. Total Cost:	$ 265,000
Est. Spend @ 12/31/2020 (if underway)[1]:	$ -
% Complete (if underway):	0.0%
Balance to be funded[1]:	$ 265,000

[1] For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	**ACCOUNT NUMBER**	**AMOUNT**
Labor:		$ -
Materials:		$ -
Other Contracts:	5295206.9960	$ 265,000
TOTAL PROJECT COST		$ 265,000

[2] Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

This project will provide a permanent solution to maintain chlorine residual levels in the areas served by the New London Water Storage Tank.

PROJECT FINANCING BY PLAN YEAR

§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized[2]	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance[2] 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	$ -	265,000	-	-	-	-	$ 265,000
CAPITAL RESERVES	-	-	-	$ -	-	-	-	-	-	$ -
EQUIPMENT REPLACEMENT	-	-	-	$ -	-	-	-	-	-	$ -
GRANTS (SPECIFY)	-	-	-	$ -	-	-	-	-	-	$ -
BOND ISSUES	-	-	-	$ -	-	-	-	-	-	$ -
STATE REVOLVING LOAN	-	-	-	$ -	-	-	-	-	-	$ -
OTHER (SPECIFY)	-	-	-	$ -	-	-	-	-	-	$ -
TOTAL:	**$ -**	**$ -**	**$ -**	**$ -**	**$ 265,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 265,000**

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:	2021	2022	2023	2024	2025	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)	-	-	-	-	-	$ -

PROJECT NO: W2001

PROJECT TITLE: Newark Reservoir Upgrades

PROJECT STATUS: In Progress (with end date)

*Prior Authorized Balance includes 2020 carryover funding only.

FUNDING SUMMARY:

	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	$ -	$ -	$ 100,000	$ 1,500,000	$ -	$ 1,600,000
*Prior Authorized Balance:	$ -	$ -	$ -	$ -	$ -	$ -
2021-2025 Funding:	**$ -**	**$ -**	**$ 100,000**	**$ 1,500,000**	**$ -**	**$ 1,600,000**

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	PWWR
DIVISION:	Water
FUND:	Water
PROJECT LOCATION:	Newark Reservoir
PROJECT PRIORITY:	2 - High Priority Level
Critical need to remediate failing service, prevent failure, or generate savings	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2020
Est. Completion Date:	2024
Est. Useful Life (in years):	20
Est. Total Cost:	$ 1,600,000
Est. Spend @ 12/31/2020 (if underway)[1]:	$ -
% Complete (if underway):	0.0%
Balance to be funded[1]:	$ 1,600,000

[1] For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	**ACCOUNT NUMBER**	**AMOUNT**
Labor:		$ -
Materials:		$ -
Other Contracts:	5295206.9960	$ 1,600,000
TOTAL PROJECT COST		$ 1,600,000

[2] Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

The Newark Reservoir has been in use since 2008 and there are upgrades and changes necessary to continue operations. Among the work contemplated for this project include:

Rehabilitation of the 'moat' area that surrounds the reservoir and moves water from the I/O Tower to the wetlands bench on the north end of the reservoir. This includes replacing rock protection and pest deterents that have degraded over the years.

Replacement of the wetland bench on the north end to restore and enhance the filtering capabilities.

The original design for the reservoir called for a concrete liner or armor on the interior of the reservoir. This was omitted during the construction phase of the project. In times of drought, if the reservoir was to be used below the existing armor, special considerations would need to be followed during refill in order to keep the liner intact. Extending the liner would increase the confidence PWWR would have in times of drought.

Many recreational uses and operational needs have been realized at the reservoir property since it's opening and this has changed the vegetative and facility needs, this project would alllow us to do a comprehensive review for possible future uses.

2023 Funding includes 50/50 Planning Grant through SRF Program.

Verify with SRF that Resevoir work is allowable under the program. They have not in the past. See emails from Heather Warren.

PROJECT FINANCING BY PLAN YEAR

§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized[2]	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance[2] 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	$ -	-	-	50,000	1,500,000	-	$ 1,550,000
CAPITAL RESERVES	-	-	-	$ -	-	-	-	-	-	$ -
EQUIPMENT REPLACEMENT	-	-	-	$ -	-	-	-	-	-	$ -
GRANTS SRF possible	-	-	-	$ -	-	-	50,000	-	-	$ 50,000
BOND ISSUES	-	-	-	$ -	-	-	-	-	-	$ -
STATE REVOLVING LOAN	-	-	-	$ -	-	-	-	-	-	$ -
OTHER (SPECIFY)	-	-	-	$ -	-	-	-	-	-	$ -
TOTAL:	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 100,000**	**$ 1,500,000**	**$ -**	**$ 1,600,000**

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:	2021	2022	2023	2024	2025	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)	-	-	-	-	-	$ -

PROJECT NO: W1701

PROJECT TITLE: Valve Inspection, Exercising and Rehabilitation

PROJECT STATUS: In Progress (with end date)

*Prior Authorized Balance includes 2020 carryover funding only.

FUNDING SUMMARY:

	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	$ -	$ 125,000	$ 125,000	$ 125,000	$ -	$ 375,000
*Prior Authorized Balance:	$ 165,000	$ -	$ -	$ -	$ -	$ 165,000
2021-2025 Funding:	**$ 165,000**	**$ 125,000**	**$ 125,000**	**$ 125,000**	**$ -**	**$ 540,000**

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	PWWR
DIVISION:	Water
FUND:	Water
PROJECT LOCATION:	Various
PROJECT PRIORITY:	2 - High Priority Level
Critical need to remediate failing service, prevent failure, or generate savings	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2017
Est. Completion Date:	2024
Est. Useful Life (in years):	100
Est. Total Cost:	$ 540,000
Est. Spend @ 12/31/2020 (if underway)[1]:	$ -
% Complete (if underway):	0.0%
Balance to be funded[1]:	$ 540,000

[1] For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	**ACCOUNT NUMBER**	**AMOUNT**
Labor:		$ -
Materials:	5295206.9760	$ 180,000
Other Contracts:	5295206.9960	$ 360,000
TOTAL PROJECT COST		$ 540,000

[2] Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

According to AWWA, "Each valve should be operated through a full cycle and returned to its normal position on a schedule that is designed to prevent a buildup of tuberculation [rust formation in pipes as a result of corrosion] or other deposits that could render the valve inoperable or prevent a tight shutoff. The interval of time between operations of valves in critical locations or valves subjected to severe operating conditions should be shorter than for other less important installations, but can be whatever time period is found to be satisfactory based on local experience. The number of turns required to complete the operation cycle should be recorded and compared with permanent installation records to ensure that full gate travel (i.e., it can be opened and closed) is maintained.

This project proposes to develop a valve exercising program utilizing our GIS database and contract documents in 2019 that would be put out to bid in a multi-year contract with an initial goal of exercising all valves in the system within the first 5 years. During this period we would also re-visit previously exercised valves to attempt to determine the appropriate return interval for service in the coming years. Once the first round of this program is complete, this program can be moved into the operating budget.

It is our current expectation that we should exercise valves no less frequently than every 2 to 3 years but we have spread out the initial round over 5 years because it is our expectation that there will be a higher than normal failure rate resulting in higher than normal replacement costs. Each valve that cannot be successfully excercised will be recommended for replacement. If the valve should fail, the replacement will occur as soon as possible to avoid service disruption. We will revisit this estimate annually during the program as we have more data to support optimization.

2021 Update:
This work was funded in Year 1 and pushed ever since. This should be prioritized for 2021 using the reserve funds. We have had several issues with closed and inoperable valves in the past 2 years.

PROJECT FINANCING BY PLAN YEAR

§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized[2]	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance[2] 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	$ -		125,000	125,000	125,000	-	$ 375,000
CAPITAL RESERVES	165,000	-	-	$ 165,000	165,000	-	-	-	-	$ 165,000
EQUIPMENT REPLACEMENT	-	-	-	$ -	-	-	-	-	-	$ -
GRANTS (SPECIFY)	-	-	-	$ -	-	-	-	-	-	$ -
BOND ISSUES	-	-	-	$ -	-	-	-	-	-	$ -
STATE REVOLVING LOAN	-	-	-	$ -	-	-	-	-	-	$ -
OTHER (SPECIFY)	-	-	-	$ -	-	-	-	-	-	$ -
TOTAL:	**$ 165,000**	**$ -**	**$ -**	**$ 165,000**	**$ 165,000**	**$ 125,000**	**$ 125,000**	**$ 125,000**	**$ -**	**$ 540,000**

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:	2021	2022	2023	2024	2025	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)	-	-	-	-	-	$ -

PROJECT NO: W1703

PROJECT TITLE: Laird Tract Well Field Restoration

PROJECT STATUS: In Progress (with end date)

*Prior Authorized Balance includes 2020 carryover funding only.

FUNDING SUMMARY:

	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	$ 100,000	$ 1,925,000	$ -	$ -	$ -	$ 2,025,000
*Prior Authorized Balance:	$ -	$ -	$ -	$ -	$ -	$ -
2021-2025 Funding:	**$ 100,000**	**$ 1,925,000**	**$ -**	**$ -**	**$ -**	**$ 2,025,000**

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	PWWR
DIVISION:	Water
FUND:	Water
PROJECT LOCATION:	Curtis Water Treatment Plant
PROJECT PRIORITY:	2 - High Priority Level
Critical need to remediate failing service, prevent failure, or generate savings	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Healthy & Active Community

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2017
Est. Completion Date:	2022
Est. Useful Life (in years):	20
Est. Total Cost:	$ 2,025,000
Est. Spend @ 12/31/2020 (if underway)[1]:	$ -
% Complete (if underway):	0.0%
Balance to be funded[1]:	$ 2,025,000

[1] For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	**ACCOUNT NUMBER**	**AMOUNT**
Labor:		$ -
Materials:		$ -
Other Contracts:	5295206.9760	$ 2,025,000
TOTAL PROJECT COST		$ 2,025,000

[2] Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

REFERENDUM PROJECT

'This project will fund the design and construction of a new drinking water treatment plant or supply configuration changes necessary for the reliable supply for the existing Newark Water Treatment Plant (NWTP), capable of processing the existing public supply wells in the City's Laird Tract Well Field (LTWF). The wells, installed in 1971 (Wells 23 & 25) and 1990 (Well 20 & 21), pumped groundwater directly into the system with no filtration; however, increased drinking water regulations and the City's commitment to providing high quality drinking water, the Laird well water is no longer adequate for direct distribution. Specifically, the water quality of the wells consists of elevated levels of iron, manganese, and hydrogen sulfide, none of which present a risk to human health but do result in poor aesthetics (i.e. taste, color, odor).

The reintroduction of the LTWF wells would provide the City with up to 1.5 million gallons per day, which becomes more important in times of drought, when we would be able to continue to draw up to 1.5 mgd when our creek passby requirements are not being met and our surface water intake is shut down. Alternatives include additional feeds that would introduce well water to the Newark Reservoir, which can have nutrient problems due to pumping of nutrient rich water from our surface water intake. We anticipate testing and rehabilitating the wells in 2021 along with the design of the collection system upgrades with the full project being constructed in 2022.

The wells located in, or adjacent to, the protected lands of the White Clay Creek State Park provide the City a reliable long-term water supply solution. The parkland surrounding the LTWF is in direct contrast to the City's South Well Field Treatment Plant (SWF) where the land use is predominantly commercial/industrial resulting in higher risk of contamination.

We will submit for funding through the State Revolving Loan Fund based on the successful passage of the 2018 Referendum. We anticipate being eligible for Project Planning Advances and Planning Grants to help offset the costs of planning and design.

PROJECT FINANCING BY PLAN YEAR

§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized[2]	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance[2] 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	$ -	50,000	-	-	-	-	$ 50,000
CAPITAL RESERVES	-	-	-	$ -	-	-	-	-	-	$ -
EQUIPMENT REPLACEMENT	-	-	-	$ -	-	-	-	-	-	$ -
GRANTS PPA and Planning Grants	-	-	-	$ -	50,000	-	-	-	-	$ 50,000
BOND ISSUES	-	-	-	$ -	-	-	-	-	-	$ -
STATE REVOLVING LOAN	-	-	-	$ -	-	1,925,000	-	-	-	$ 1,925,000
OTHER (SPECIFY)	-	-	-	$ -	-	-	-	-	-	$ -
TOTAL:	**$ -**	**$ -**	**$ -**	**$ -**	**$ 100,000**	**$ 1,925,000**	**$ -**	**$ -**	**$ -**	**$ 2,025,000**

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:	2021	2022	2023	2024	2025	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)	-	-	-	-	-	$ -

PROJECT NO: W1601

PROJECT TITLE: Backup Generation at Water Facilities

PROJECT STATUS: In Progress (with end date)

*Prior Authorized Balance includes 2020 carryover funding only.

FUNDING SUMMARY:

	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	$ -	$ -	$ -	$ -	$ -	$ -
*Prior Authorized Balance:	$ 100,000	$ -	$ -	$ -	$ -	$ 100,000
2021-2025 Funding:	**$ 100,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 100,000**

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	PWWR
DIVISION:	Water
FUND:	Water
PROJECT LOCATION:	Well 17 and Northwest Booster
PROJECT PRIORITY:	1 - Highest Priority Level
	Project underway and must be completed
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	
	Healthy & Active Community

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2016
Est. Completion Date:	2021
Est. Useful Life (in years):	20
Est. Total Cost:	$ 195,000
Est. Spend @ 12/31/2020 (if underway)[1]:	$ 95,000
% Complete (if underway):	48.7%
Balance to be funded[1]:	$ 100,000

[1] For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	**ACCOUNT NUMBER**	**AMOUNT**
Labor:		$ -
Materials:		$ -
Other Contracts:	5295206.9760	$ 100,000
TOTAL PROJECT COST		$ 100,000

[2] Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

We currently have backup generation at the South Well Field Treatment Plant (SWF) which would allow the plant to continue operating during an emergency. Unfortunately, there are only three wells that also have backup generation capability and of those, only one could be used during a widespread power outage due to groundwater contamination. Due to this, the fact that we have backup power at SWF is generally irrelevant and the plant would be basically offline during emergencies. Fortunately, as long as the Curtis Treatment Plant is online and fully operational we can go without SWF if needed, albeit at a higher cost of production and the potential need for water restrictions depending on the time of year.

When this project was originally created, two of our three current high production wells - wells 15 and 17 - lacked backup power. This project originally proposed the installation of generators at each well. The sites will be served by natural gas or diesel generators with a preference toward natural gas, if available. Since the original proposal of the project, we have been able to repurpose an obsolete generator from the old Arbour Park booster station to operate Well 15. The cost was less than $5,000, saving approximately $50,000 from this project.

Total estimated cost for backup power for a well is $70,000 for natural gas or $58,000 for diesel, per location.

We have secured Grant Funding through the FEMA Pre-Disaster Mitigation Grant and we anticipate receiving this funding once we have the specifications written for the NW Booster Installation. If the grant remains open, we will apply for the Well 17 installation.

2020 - Added $50,000 due to local match necessary to recieve grant for 2019 and 2020. Potential for in kind services performed by City staff originally was not allowed by grant, but the rules have been relaxed. Well 17 grant included in 2020.

PROJECT FINANCING BY PLAN YEAR

§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized[2]	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance[2] 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	$ -	-	-	-	-	-	$ -
CAPITAL RESERVES	50,000	-	25,000	$ 25,000	25,000	-	-	-	-	$ 25,000
EQUIPMENT REPLACEMENT	-	-	-	$ -	-	-	-	-	-	$ -
GRANTS FEMA Pre-Disaster Mitigation Grant	145,000	-	70,000	$ 75,000	75,000	-	-	-	-	$ 75,000
BOND ISSUES	-	-	-	$ -	-	-	-	-	-	$ -
STATE REVOLVING LOAN	-	-	-	$ -	-	-	-	-	-	$ -
OTHER (SPECIFY)	-	-	-	$ -	-	-	-	-	-	$ -
TOTAL:	**$ 195,000**	**$ -**	**$ 95,000**	**$ 100,000**	**$ 100,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 100,000**

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:	2021	2022	2023	2024	2025	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)	2,000	2,000	2,000	2,000	2,000	$ 10,000

PROJECT NO: W1602

PROJECT TITLE: Roseville Park Pressure District

PROJECT STATUS: In Progress (with end date)

*Prior Authorized Balance includes 2020 carryover funding only.

FUNDING SUMMARY:	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	$ 100,000	$ -	$ -	$ -	$ -	$ 100,000
*Prior Authorized Balance:	$ -	$ -	$ -	$ -	$ -	$ -
2021-2025 Funding:	**$ 100,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 100,000**

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	PWWR
DIVISION:	Water
FUND:	Water
PROJECT LOCATION:	Roseville Park and Delaplane Manor
PROJECT PRIORITY:	3 - Medium-High
The City would be taking a calculated risk in the deferral of this item	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2016
Est. Completion Date:	2021
Est. Useful Life (in years):	50
Est. Total Cost:	$ 100,000
Est. Spend @ 12/31/2020 (if underway)[1]:	$ -
% Complete (if underway):	0.0%
Balance to be funded[1]:	$ 100,000

[1] For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	**ACCOUNT NUMBER**	**AMOUNT**
Labor:		$ -
Materials:		$ -
Other Contracts:	5295206.9760	$ 100,000
TOTAL PROJECT COST		$ 100,000

[2] Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

The higher elevation areas of Roseville Park and Delaplane Manor subdivisions have very low water pressure and little fire protection water flows, often losing pressure entirely when a hydrant downhill is opened creating potential for backflows and excessive water discoloration. The first year of this project was to investigate alternative solutions with costs to be used to budget for design and construction in 2021 depending on funding availability.

We have identified the best solution which is a booster station that will be located on Laurel Avenue. This solution was more cost effective than the other options while providing a larger improvement to pressures. Due to the piping configuration we believe this installation can be performed using in-house forces.

PROJECT FINANCING BY PLAN YEAR

§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized[2]	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance[2] 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	$ -	100,000	-	-	-	-	$ 100,000
CAPITAL RESERVES	-	-	-	$ -	-	-	-	-	-	$ -
EQUIPMENT REPLACEMENT	-	-	-	$ -	-	-	-	-	-	$ -
GRANTS (SPECIFY)	-	-	-	$ -	-	-	-	-	-	$ -
BOND ISSUES	-	-	-	$ -	-	-	-	-	-	$ -
STATE REVOLVING LOAN	-	-	-	$ -	-	-	-	-	-	$ -
OTHER (SPECIFY)	-	-	-	$ -	-	-	-	-	-	$ -
TOTAL:	**$ -**	**$ -**	**$ -**	**$ -**	**$ 100,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 100,000**

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:	2021	2022	2023	2024	2025	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)	2,500	2,500	2,500	2,500	2,500	$ 12,500

PROJECT NO: W1503

PROJECT TITLE: Academy Street Interconnection Pump Station

PROJECT STATUS: In Progress (with end date)

*Prior Authorized Balance includes 2020 carryover funding only.

FUNDING SUMMARY:

	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	$ -	$ -	$ 300,000	$ -	$ -	$ 300,000
*Prior Authorized Balance:	$ -	$ -	$ -	$ -	$ -	$ -
2021-2025 Funding:	**$ -**	**$ -**	**$ 300,000**	**$ -**	**$ -**	**$ 300,000**

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	PWWR
DIVISION:	Water
FUND:	Water
PROJECT LOCATION:	Academy Street and Waterworks Lane
PROJECT PRIORITY:	3 - Medium-High
The City would be taking a calculated risk in the deferral of this item	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2015
Est. Completion Date:	2023
Est. Useful Life (in years):	15
Est. Total Cost:	$ 300,000
Est. Spend @ 12/31/2020 (if underway)[1]:	$ -
% Complete (if underway):	0.0%
Balance to be funded[1]:	$ 300,000

[1] For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	**ACCOUNT NUMBER**	**AMOUNT**
Labor:		$ -
Materials:	5295206.9760	$ 300,000
Other Contracts:		$ -
TOTAL PROJECT COST		$ 300,000

[2] Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

The City of Newark's drinking water currently comes from one of three sources, the Newark Water Treatment Plant (NWTP), South Well Field (SWF), and interconnections with Suez (formerly United Water) and Artesian Water Companies. If we were to have a long term outage at the NWTP (plant maintenance or failure resulting in NWTP being fully or partially offline for several days), SWF will be unable to keep up with demand, requiring the purchase of water from either Suez or Artesian. NWTP can typically keep up with demand if SWF were to be out of service but may require water purchases if the SWF were to fail during the peak season. In 2014 we had to purchase water from United during the NWTP filter rehab project and experienced a failure of the 2.0 MGD pump, requiring significant repairs.

Our interconnection with Suez, located at the intersection of Academy Street and Waterworks Lane, is the existing interconnection location best suited to serve as the backup supply for the NWTP. The existing station has three pumps which produce 1.0, 1.5 and 2.0 million gallons per day, located in the basement of the old brick building. The pumps and building at this location are in exceedingly poor condition and will require significant repairs and possibly complete replacement if we are to rely on them for backup water service long term. This project scope has been modified in 2017 and beyond due to the relocation of the interconnection because of a relocation of the Suez water interconnection location to the south side of the railroad tracks due to the construction of the new Train Station. The new location features standpipes and valves to which we will connect a portable pump on a temporary basis if the need for water purchases arises. We have an on-call availability agreement with Godwin Pumps to be able to have this interconnection up and running within 24 hours. The planning for the out years contemplates a permanent building and pumps or self contained pump package similar to recent upgrades at the Northwest Booster Station and the Arbour Park Booster Station. 2023 funding includes design and permitting followed by construction.

The funding also includes the eventual decommisioning and repurposing of the existing pump building on Academy Street and Waterworks Lane. It is adjacent to Lewis Park and the James F. Hall Trail, which positions it well for some type of concession, bathroom facility, or rest area.

Please note, $40,000 (of Current Resources listed in 2023) were moved from Capital Project W1302 - Abandon Old Wells.

PROJECT FINANCING BY PLAN YEAR

§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized[2]	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance[2] 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	$ -	-	-	300,000	-	-	$ 300,000
CAPITAL RESERVES	-	-	-	$ -	-	-	-	-	-	$ -
EQUIPMENT REPLACEMENT	-	-	-	$ -	-	-	-	-	-	$ -
GRANTS (SPECIFY)	-	-	-	$ -	-	-	-	-	-	$ -
BOND ISSUES	-	-	-	$ -	-	-	-	-	-	$ -
STATE REVOLVING LOAN	-	-	-	$ -	-	-	-	-	-	$ -
OTHER (SPECIFY)	-	-	-	$ -	-	-	-	-	-	$ -
TOTAL:	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 300,000**	**$ -**	**$ -**	**$ 300,000**

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:	2021	2022	2023	2024	2025	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)	-	-	-	-	-	$ -

PROJECT NO: W0503

PROJECT TITLE: Well Restoration Program

PROJECT STATUS: Reoccurring (with no end date)

*Prior Authorized Balance includes 2020 carryover funding only.

FUNDING SUMMARY:	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	$ 29,000	$ 29,000	$ 29,000	$ -	$ -	$ 87,000
*Prior Authorized Balance:	$ 41,019	$ -	$ -	$ -	$ -	$ 41,019
2021-2025 Funding:	**$ 70,019**	**$ 29,000**	**$ 29,000**	**$ -**	**$ -**	**$ 128,019**

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	PWWR
DIVISION:	Water
FUND:	Water
PROJECT LOCATION:	Various
PROJECT PRIORITY:	1 - Highest Priority Level
	Project underway and must be completed
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	
	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	2005
Est. Completion Date:	Perpetual
Est. Useful Life (in years):	5
Est. Total Cost:	$ 221,576
Est. Spend @ 12/31/2020 (if underway)[1]:	$ 93,557
% Complete (if underway):	42.2%
Balance to be funded[1]:	$ 128,019

[1] For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	**ACCOUNT NUMBER**	**AMOUNT**
Labor:		$ -
Materials:	5295206.9760	$ 128,019
Other Contracts:		$ -
TOTAL PROJECT COST		$ 128,019

[2] Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

Restore / Redevelop Wells 11, 12, 13, 14, 15, 16, 17, 20, 23, 25 as needed in anticipation of routine maintenance and rehabilitation.

Well 15 - Completed in 2016
Well 11 - Completed in 2017

Approximately $75,000 in well redevelopment needed prior to turning on SWFWTP. Mark Neimeister is getting the final quote from Shultes as of 6/26/2020. The reserves from prior years will cover this amount with the current 2020 remaining funding can be carried over and reduce the current resources needed in 2021.

PROJECT FINANCING BY PLAN YEAR

§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized[2]	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance[2] 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	58,000	16,981	-	$ 41,019	29,000	29,000	29,000	-	-	$ 87,000
CAPITAL RESERVES	76,576	-	76,576	$ -	41,019	-	-	-	-	$ 41,019
EQUIPMENT REPLACEMENT	-	-	-	$ -	-	-	-	-	-	$ -
GRANTS (SPECIFY)	-	-	-	$ -	-	-	-	-	-	$ -
BOND ISSUES	-	-	-	$ -	-	-	-	-	-	$ -
STATE REVOLVING LOAN	-	-	-	$ -	-	-	-	-	-	$ -
OTHER (SPECIFY)	-	-	-	$ -	-	-	-	-	-	$ -
TOTAL:	**$ 134,576**	**$ 16,981**	**$ 76,576**	**$ 41,019**	**$ 70,019**	**$ 29,000**	**$ 29,000**	**$ -**	**$ -**	**$ 128,019**

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:	2021	2022	2023	2024	2025	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)	-	-	-	-	-	$ -

PROJECT NO: W9308

PROJECT TITLE: Water Main Replacement Program

PROJECT STATUS: Reoccurring (with no end date)

*Prior Authorized Balance includes 2020 carryover funding only.

FUNDING SUMMARY:

	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	$ 1,000,000	$ 1,000,000	$ 1,250,000	$ 1,500,000	$ 1,500,000	$ 6,250,000
*Prior Authorized Balance:	$ 1,000,000	$ -	$ -	$ -	$ -	$ 1,000,000
2021-2025 Funding:	**$ 2,000,000**	**$ 1,000,000**	**$ 1,250,000**	**$ 1,500,000**	**$ 1,500,000**	**$ 7,250,000**

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	PWWR
DIVISION:	Water
FUND:	Water
PROJECT LOCATION:	Various
PROJECT PRIORITY:	1 - Highest Priority Level
	Project underway and must be completed
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	
	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	1993
Est. Completion Date:	Perpetual
Est. Useful Life (in years):	75+
Est. Total Cost:	$ 8,753,506
Est. Spend @ 12/31/2020 (if underway)[1]:	$ 1,503,506
% Complete (if underway):	17.2%
Balance to be funded[1]:	$ 7,250,000

[1] For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	**ACCOUNT NUMBER**	**AMOUNT**
Labor:		$ -
Materials:		$ -
Other Contracts:	5295206.9760	$ 7,250,000
TOTAL PROJECT COST		$ 7,250,000

[2] Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

REFERENDUM PROJECT

Ductile and cast iron water mains have an expected lifespan of between 75 and 100 years and make up over 95% of our distribution network. There are a large number of mains in Newark's system that are either approaching the end of their expected lifespan or have experienced a higher than normal rate of failure (main breaks). In order to properly replace mains with a 100 year lifespan, we should be replacing 1% per year, assuming an even distribution of pipe age. Current year pricing for replacement of 6" water main was $240 per foot which means that in order to sustainably manage our distribution network, we should be spending a minimum of $1,500,000 per year.

This project involves either replacing mains or lining the interior to minimize main breaks, improve water quality, and improve fire flow. In 2017 we completed replacement of the water main along East Park Place from South Chapel to Manuel Street and replacement of the main on Dallam Road from Old Oak to Bent Lane. In 2018, we did not complete a project as funding was not available prior to passage of the 2018 Referendum. In 2019, using State revolving Loan Funds, plans have changed based on our water model and instead of upgrades along West main, we intend to begin an upgrade to the main on Dallam Road and replace the water main along Wilson Road. Exhibits are attached to this CIP sheet. Due to the Main Street Improvements, the East Park work that was contemplated in 2018 and 2019 will be completed in 2020, along with the continuation on the upgraded main in Dallam Road.

We also intend to initiate the evaluation of several conditions assessment technologies to help guide the decision process for the segments to address in the out-years.

$30,000 was added in 2019 in order to recognize the capitalized interest payments for debt service for the State Revolving Loan.

$30,000 of Current Resources previously listed in 2019 were transferred to W1901 per budget amendment.

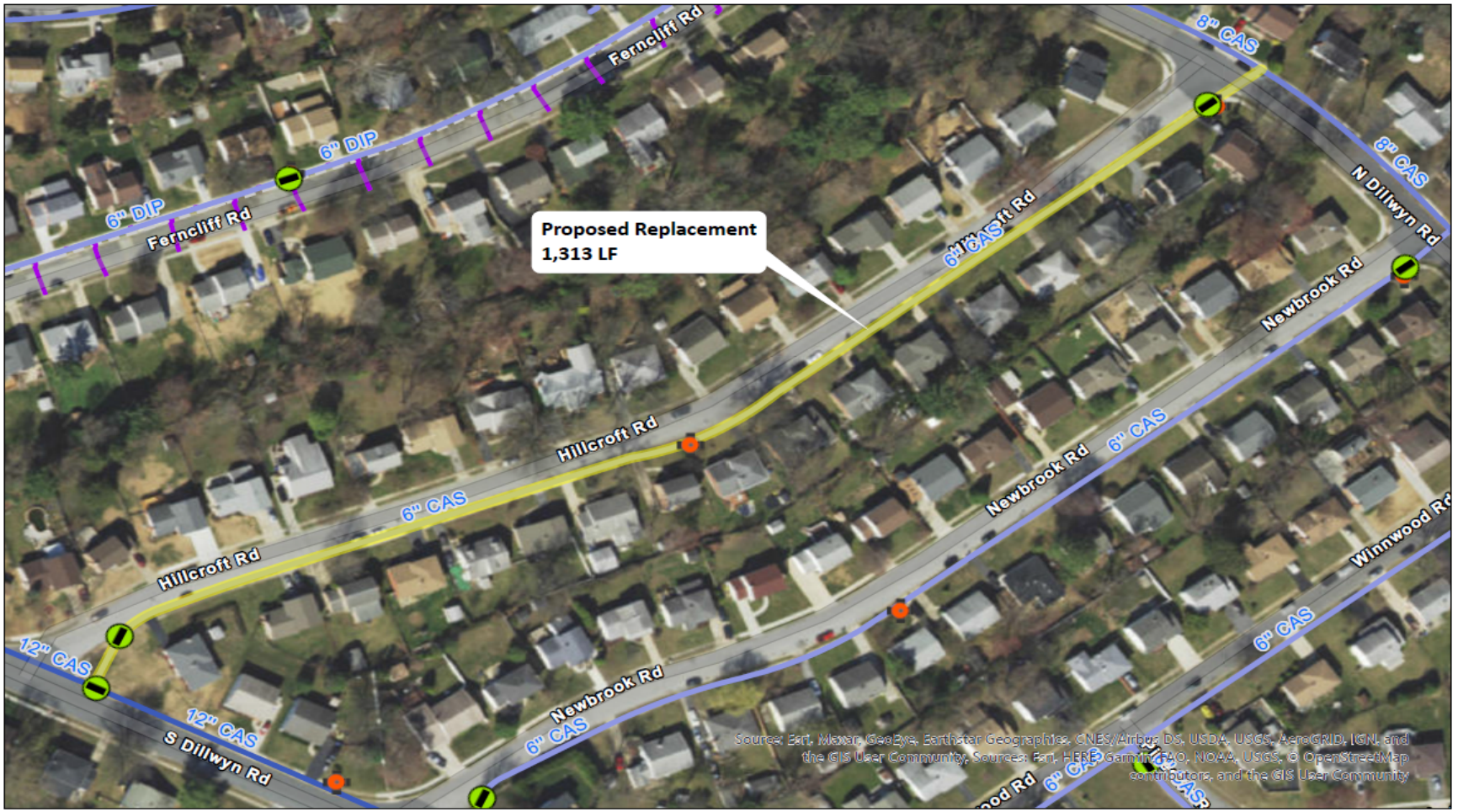
2021 update - Completion of Dallam Road 10" and Park Place will be in 2021. No project in 2020 due to Covid. 2020 funding moved to 2023, however, we may not be able to use SRF due to $1mm supplemental at SWF project may put us over our authorized borrowing limit.

PROJECT FINANCING BY PLAN YEAR

§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized[2]	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance[2] 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	$ -	-	-	1,250,000	1,500,000	1,500,000	$ 4,250,000
CAPITAL RESERVES	-	-	-	$ -	-	-		-	-	$ -
EQUIPMENT REPLACEMENT	-	-	-	$ -	-	-	-	-	-	$ -
GRANTS (SPECIFY)	-	-	-	$ -	-	-	-	-	-	$ -
BOND ISSUES	-	-	-	$ -	-	-	-	-	-	$ -
STATE REVOLVING LOAN	2,000,000	290,584	709,416	$ 1,000,000	2,000,000	1,000,000		-	-	$ 3,000,000
OTHER (SPECIFY)	-	-	-	$ -	-	-	-	-	-	$ -
TOTAL:	**$ 2,000,000**	**$ 290,584**	**$ 709,416**	**$ 1,000,000**	**$ 2,000,000**	**$ 1,000,000**	**$ 1,250,000**	**$ 1,500,000**	**$ 1,500,000**	**$ 7,250,000**

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:	2021	2022	2023	2024	2025	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)	-	-	-	-	-	$ -

W9308: Water Main Replacement Program
Supporting Documentation - Page 1
Hillcroft Road



CITY OF NEWARK
DELAWARE

W9308
Proposed Water Main Replacement

July 2020

Hillcroft Road

LEGEND

System Valve
Opened

Hydrant
In Service

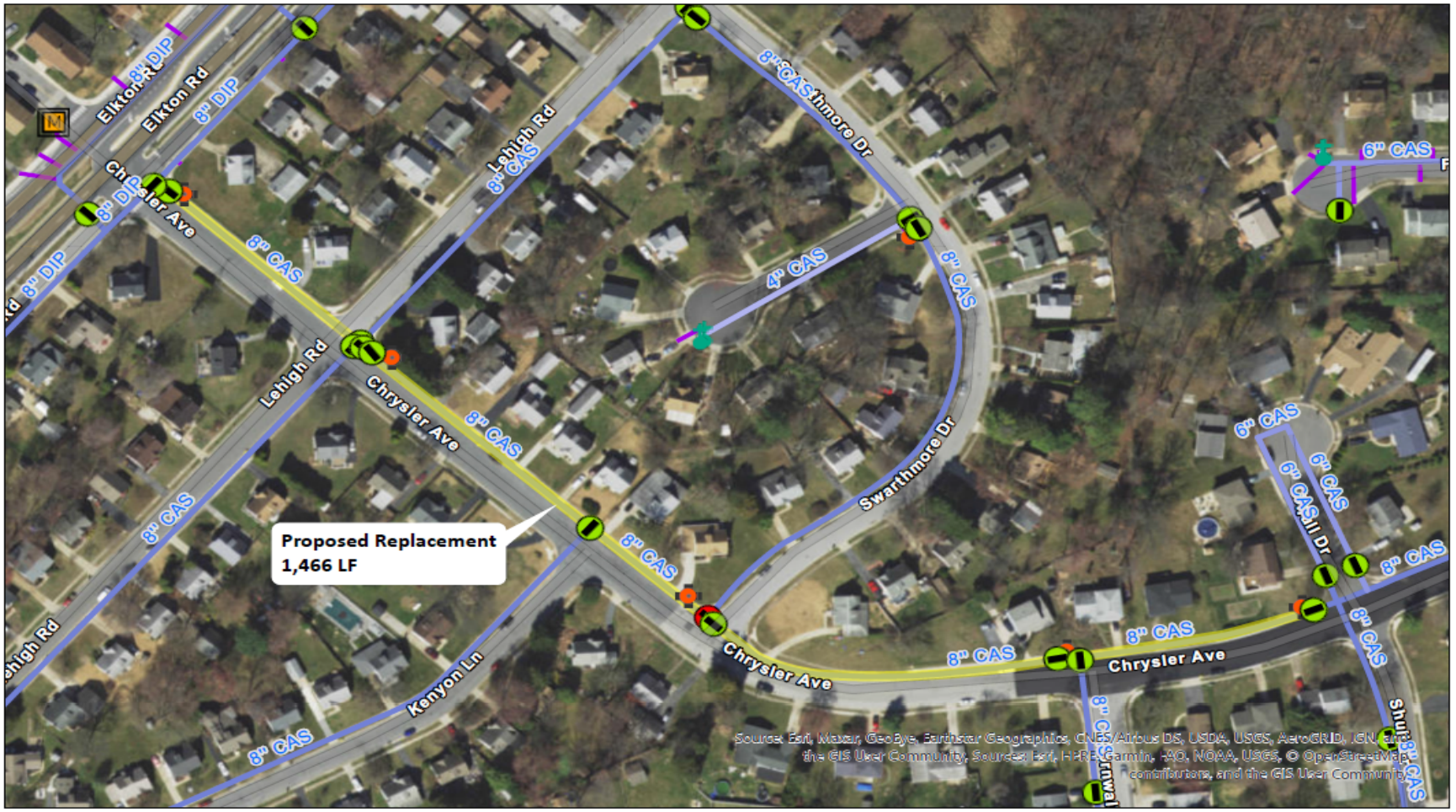
Water Main (Diameter, Owned By)
6", City of Newark
8", City of Newark
12", City of Newark
Water Lateral
Abandoned Line
Water Main to be Replaced

N
W E
S

0 95 190
Feet

NEWARK DELAWARE
Committed to Service Excellence

W9308: Water Main Replacement Program
Supporting Documentation - Page 2
Chrysler Avenue



CITY OF NEWARK
DELAWARE

W9308
Proposed Water Main Replacement

July 2020

Chrysler Avenue

LEGEND

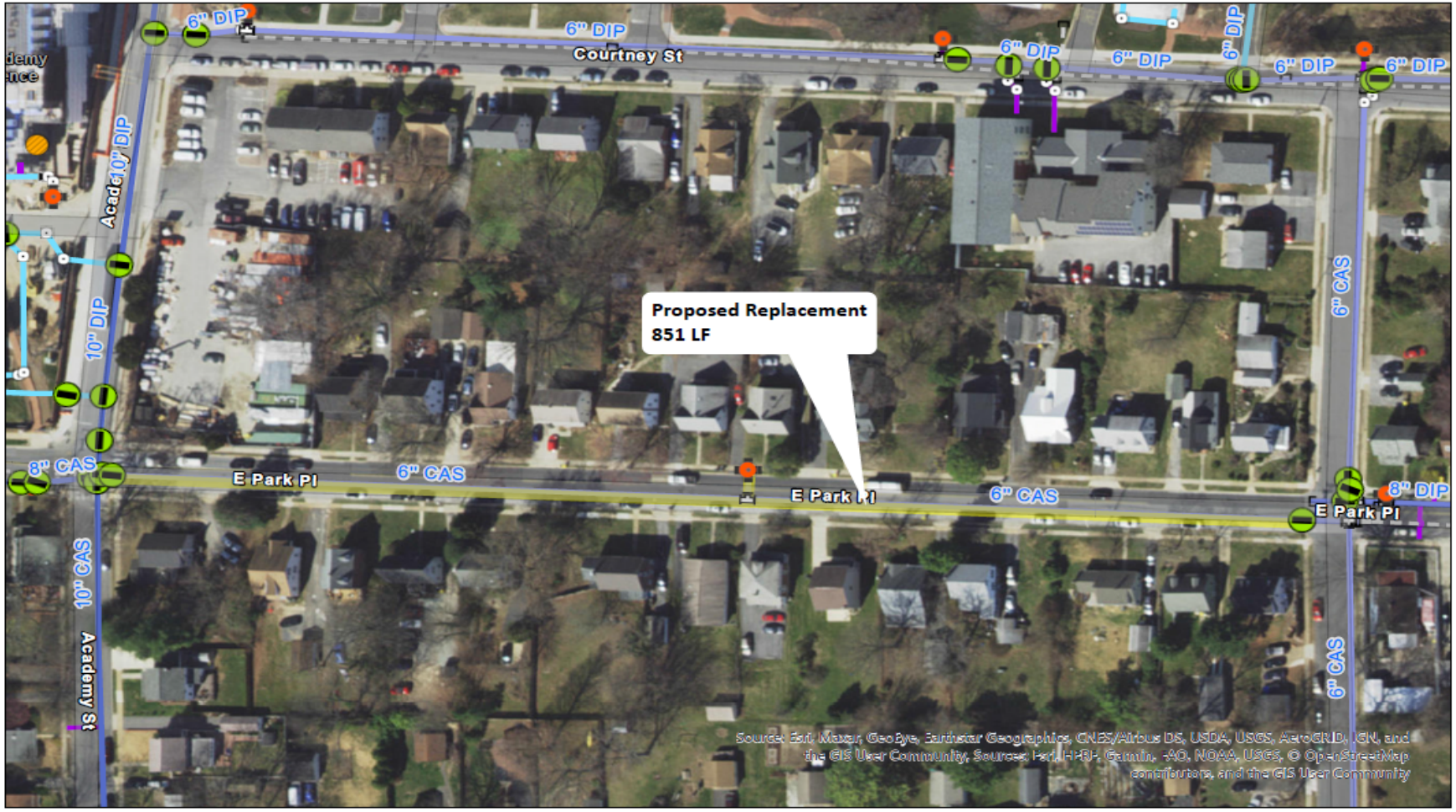
Control Valve	Hydrant	Water Main (Diameter, Owned By)
Blowoff	In Service	Under 4", City of Newark
System Valve	**Network Structure**	4", City of Newark
Closed	Meter Station	6", City of Newark
Opened	Water Lateral	8", City of Newark
		Water Main to be Replaced

N W E S

0 110 220 Feet

NEWARK DELAWARE
Committed to Service Excellence

W9308: Water Main Replacement Program
Supporting Documentation - Page 3
East Park Place



CITY OF NEWARK
DELAWARE

W9308
Proposed Water Main Replacement

July 2020

East Park Place

LEGEND

System Valve
- Opened

Hydrant
- In Service

Network Structure
- Other

Fitting
- Bend
- Tee
- Cap
- Reducer
- Cross
- Water Lateral

Abandoned Line

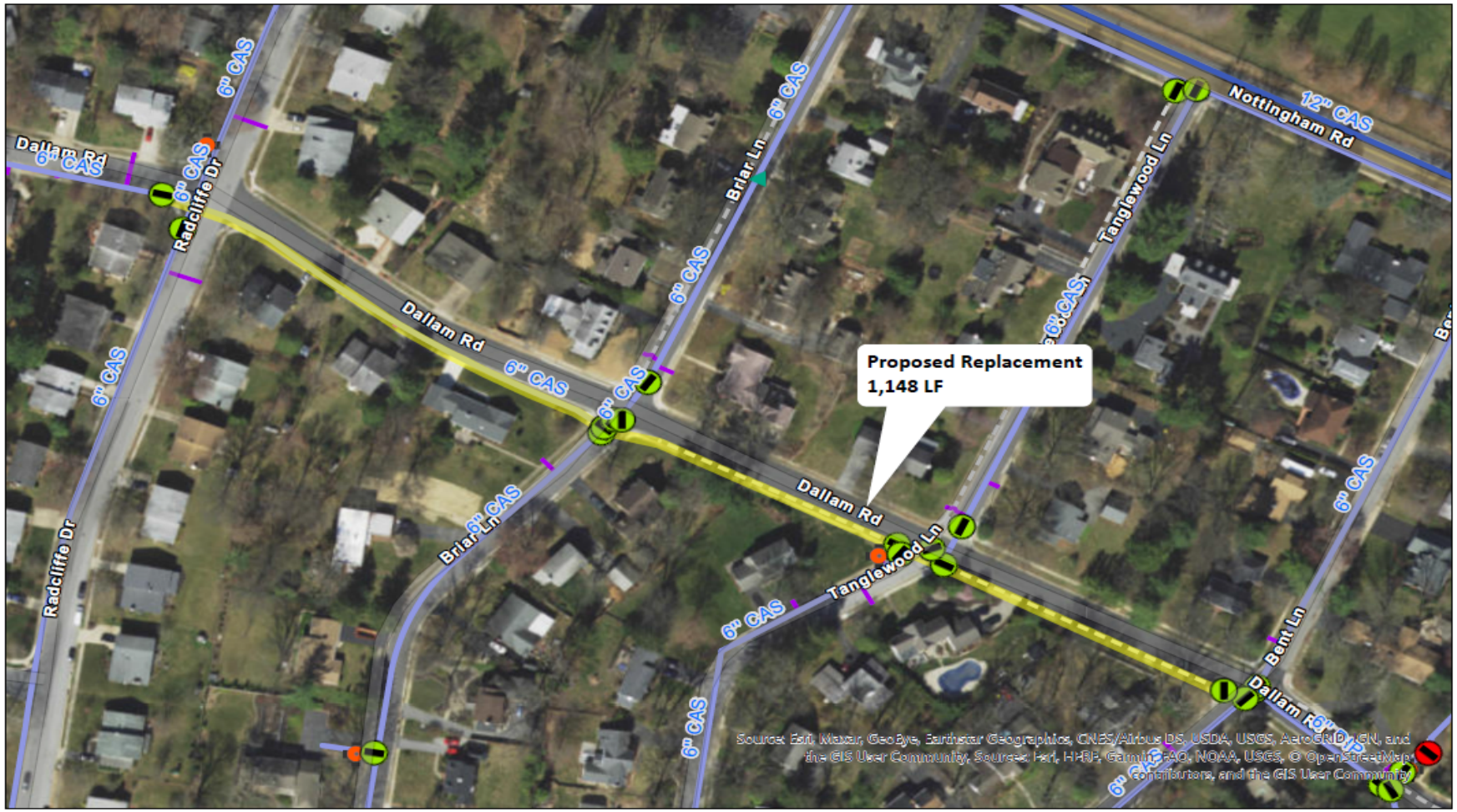
Water Main (Diameter, Owned By)
- 6", City of Newark
- 8", City of Newark
- 10", City of Newark
- All sizes, Private or Unknown
- Water Main to be Replaced

N W E S

0 70 140 Feet

NEWARK DELAWARE
Committed to Service Excellence

W9308: Water Main Replacement Program
Supporting Documentation - Page 4
Dallam Road



CITY OF NEWARK
DELAWARE

W9308
Proposed Water Main Replacement

July 2020

Dallam Road

LEGEND

Control Valve
- Air Release

System Valve
- Closed
- Opened

Hydrant
- In Service

Network Structure
- Tower

Water Lateral

Abandoned Line

Water Main (Diameter, Owned By)
- 6", City of Newark
- 12", City of Newark

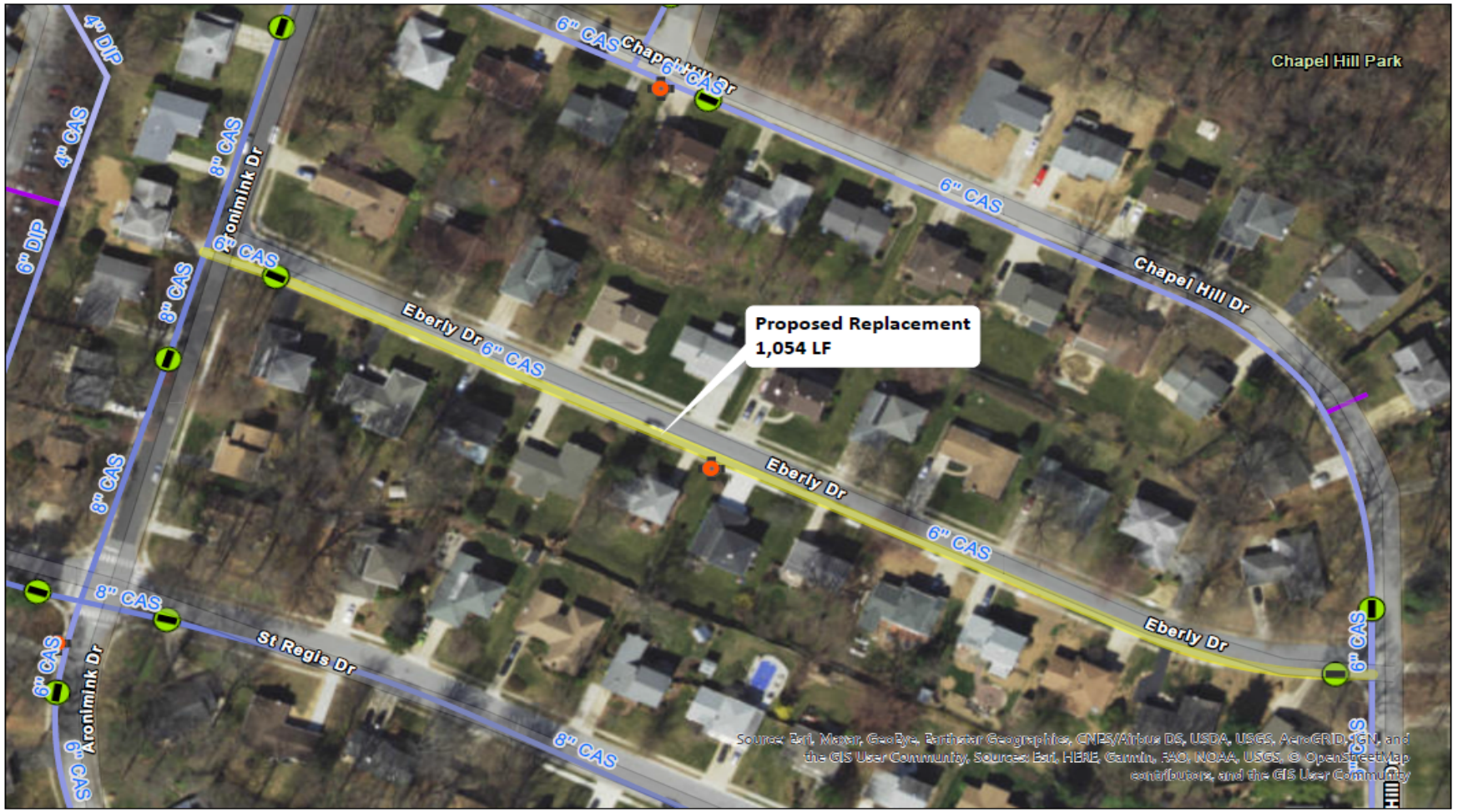
Water Main to be Replaced

N
W E
S

0 95 190
Feet

NEWARK DELAWARE
Committed to Service Excellence

W9308: Water Main Replacement Program
Supporting Documentation - Page 5
Eberly Drive



CITY OF NEWARK
DELAWARE
W9308
Proposed Water Main Replacement
July 2020

Eberly Drive

LEGEND

System Valve
- Opened

Hydrant
- In Service

Water Main (Diameter, Owned By)
- 4", City of Newark
- 6", City of Newark
- 8", City of Newark
- Water Lateral
- Water Main to be Replaced

N W E S

0 85 170 Feet

NEWARK DELAWARE
Committed to Service Excellence

PROJECT NO: W8605

PROJECT TITLE: Water Tank Maintenance

PROJECT STATUS: Reoccurring (with no end date)

*Prior Authorized Balance includes 2020 carryover funding only.

FUNDING SUMMARY:

	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	$ 1,719,070	$ 500,000	$ -	$ -	$ -	$ 2,219,070
*Prior Authorized Balance:	$ 80,930	$ -	$ -	$ -	$ -	$ 80,930
2021-2025 Funding:	**$ 1,800,000**	**$ 500,000**	**$ -**	**$ -**	**$ -**	**$ 2,300,000**

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	PWWR
DIVISION:	Water
FUND:	Water
PROJECT LOCATION:	Various
PROJECT PRIORITY:	2 - High Priority Level
Critical need to remediate failing service, prevent failure, or generate savings	
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	1986
Est. Completion Date:	Perpetual
Est. Useful Life (in years):	15
Est. Total Cost:	$ 2,686,109
Est. Spend @ 12/31/2020 (if underway)[1]:	$ 386,109
% Complete (if underway):	14.4%
Balance to be funded[1]:	$ 2,300,000

[1] For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	**ACCOUNT NUMBER**	**AMOUNT**
Labor:		$ -
Materials:		$ -
Other Contracts:	5295206.9760	$ 2,300,000
TOTAL PROJECT COST		$ 2,300,000

[2] Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

"REFERENDUM PROJECT This project will continue the evaluation and rehabilitation of our water tanks in various locations throughout the City. Water Tank surface coatings generally last 15 years. Several of our tanks have lead present in the existing coatings. Lead removal will be required at the next scheduled painting and additional funding has been included to account for additional testing, notification, specification and contract document updates, and safety precautions.

The current painting schedule is:

2020-2024 CIP

2020 - Arbour Park Tank (500,000 gallon ground tank) - Lead present in current coating. $350,000, last painted in 2003
2021 - Dallam Road Tank (565,000 gallon ground tank) - Lead present in current coating. $350,000, last painted in 2003
2021 - Nottingham Road (West Main) Tank (220,000 gallon ground tank) -Lead present is current coating. $350,000, last painted in 2003
2022 - New London Tank (2,000,000 gallon ground tank) - $500,000, last painted in 1997

Future CIP

2030 - Windy Hills Tank (300,000 gallon elevated tank) - $900,000, last painted in 2015
2031 - Concrete Tank (3,200,000 gallon ground tank) - $550,000, last painted in 2015
2032 - Louviers Tank (1,000,000 gallon elevated tank) - $750,000, last painted in 2016

Note - Due to the presence of lead in the existing coatings and the methods required to remove and dispose of the lead properly, we are exploring the option of removing the entire tank and replacing them. Preliminary cost estimates show similar pricing when all things are considered.

We are approved for up to $2,250,000 from the SRF with $674,112 in loan forgiveness at project completion. Revised the funding in each project year to reflect the loan closing in 2019. Expect Southwell Tank to be funded in late 2019 at $350,000 with the remaining funds spread over the next 3 years.

Please note that $350,000 was deauthorized in 2019 to be transferred to Capital Project W1402. In addition, $11,000 was added in 2019 in order to recognize the capitalized interest payments for debt service for the State Revolving Loan.

PROJECT FINANCING BY PLAN YEAR

§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized[2]	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance[2] 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	-	-	-	$ -	-	500,000	-	-	-	$ 500,000
CAPITAL RESERVES	17,039	-	17,039	$ -	-	-	-	-	-	$ -
EQUIPMENT REPLACEMENT	-	-	-	$ -	-	-	-	-	-	$ -
GRANTS (SPECIFY)	-	-	-	$ -	-	-	-	-	-	$ -
BOND ISSUES	-	-	-	$ -	-	-	-	-	-	$ -
STATE REVOLVING LOAN	450,000	-	369,070	$ 80,930	1,800,000		-	-	-	$ 1,800,000
OTHER (SPECIFY)	-	-	-	$ -	-	-	-	-	-	$ -
TOTAL:	**$ 467,039**	**$ -**	**$ 386,109**	**$ 80,930**	**$ 1,800,000**	**$ 500,000**	**$ -**	**$ -**	**$ -**	**$ 2,300,000**

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:	2021	2022	2023	2024	2025	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)	-	-	-	-	-	$ -

PROJECT NO: WEQSF

PROJECT TITLE: Equipment Replacement Program

PROJECT STATUS: Reoccurring (with no end date)

*Prior Authorized Balance includes 2020 carryover funding only.

FUNDING SUMMARY:

	2021	2022	2023	2024	2025	Total 5 Year
New Funding:	$ 35,000	$ 65,000	$ 50,000	$ 50,000	$ -	$ 200,000
*Prior Authorized Balance:	$ -	$ -	$ -	$ -	$ -	$ -
2021-2025 Funding:	**$ 35,000**	**$ 65,000**	**$ 50,000**	**$ 50,000**	**$ -**	**$ 200,000**

CAPITAL BUDGET - PROJECT DETAIL	
DEPARTMENT:	PWWR
DIVISION:	Water
FUND:	Water
PROJECT LOCATION:	Various
PROJECT PRIORITY:	1 - Highest Priority Level
	Project underway and must be completed
COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:	
	Sustainable Community

§ 806.1(3) SUMMARY OF PROJECT DATA	
First Year in Program:	Perpetual
Est. Completion Date:	Perpetual
Est. Useful Life (in years):	Various
Est. Total Cost:	$ 562,263
Est. Spend @ 12/31/2020 (if underway)[1]:	$ 362,263
% Complete (if underway):	64.4%
Balance to be funded[1]:	$ 200,000

[1] For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.

PROJECT COST BY CATEGORY		
CLASSIFICATION	**ACCOUNT NUMBER**	**AMOUNT**
Labor:		$ -
Materials:		$ -
Other Contracts:	5295206.9623	$ 200,000
TOTAL PROJECT COST		$ 200,000

[2] Council is not required to authorize budget year funding for this portion, but this portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

Planned advance funding accumulated through depreciation to replace essential equipment when necessary.

Please reference the supporting documentation on the following page for the Vehicle Replacement Program Schedule (2020-2024).

Truck 206 needs to be replaced. Have spent too much on this truck for repairs coupled with the amount of time out of service. All other vehicles can be pushed to another out year. No major equipment purchases in this department in this CIP. Dump Truck and Backhoe replaced in 2020.

2022 and 2023 need to be revised to reflect the pushed vehicles once final.

PROJECT FINANCING BY PLAN YEAR

§ 806.1(3) SOURCE OF FUNDS:	Prior Authorized[2]	Actual Funds Utilized as of 03/31/20	Estimated Expenditures 04/01/20 - 12/31/20	Estimated Authorized Balance[2] 12/31/20	2021	2022	2023	2024	2025	TOTAL 5 Year CIP
CURRENT RESOURCES	89,155	-	89,155	$ -	9,989	30,564	12,001	30,459	-	$ 83,013
CAPITAL RESERVES	-	-	-	$ -	-	-	-	-	-	$ -
EQUIPMENT REPLACEMENT	213,546	-	273,108	$ (59,562)	25,011	34,436	37,999	19,541	-	$ 116,987
GRANTS (SPECIFY)	-	-	-	$ -	-	-	-	-	-	$ -
BOND ISSUES	-	-	-	$ -	-	-	-	-	-	$ -
STATE REVOLVING LOAN	-	-	-	$ -	-	-	-	-	-	$ -
OTHER (SPECIFY)	-	-	-	$ -	-	-	-	-	-	$ -
TOTAL:	**$ 302,701**	**$ -**	**$ 362,263**	**$ (59,562)**	**$ 35,000**	**$ 65,000**	**$ 50,000**	**$ 50,000**	**$ -**	**$ 200,000**

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET	OPERATING IMPACT:	2021	2022	2023	2024	2025	TOTAL
	INCREMENTAL COSTS (NET SAVINGS)	-	-	-	-	-	$ -

CITY OF NEWARK, DELAWARE
VEHICLE REPLACEMENT PROGRAM SCHEDULE 2021-2025
WATER AND WASTEWATER UTILITIES

VEHICLE NUMBER	DESCRIPTION		PURCHASE DATE	PURCHASE PRICE	MILEAGE AS OF 7/31/2019	RECOM'D MILEAGE AT REPL	NORMAL YEARS LIFE	NORMAL REPL YEAR	BUDGET REPL YEAR	EQUIPMENT SINKING FUND BASIS	REPLACEMENT COSTS 2021	2022	2023	2024	2025
	STAFF VEHICLES														
215	2019 Chevrolet Equinox AWD		06/03/19	22,122	712	60,000	10	2029	2029	22,122					
226	2012 Toyota Camry Hybrid	a.	03/19/12	16,148	10,895	70,000	10	2022	2020	16,148					
	LINE TRUCKS														
202	2012 Ford F350	a.	10/18/12	74,095	41,441	80,000	8	2020	2019	74,095					
207	2005 Int'l 7400 Dump Truck	a.	08/05/05	95,845	43,258	36,000	8	2013	2020	95,845					
	PICK-UPS & VANS														
204	2016 Ford F350 Dump Truck		09/02/16	34,155	7,242	85,000	10	2026	2026	34,155					
206	2014 Ford F150 Pickup Truck		12/31/14	25,011	123,533	120,000	5	2020	2021	25,011	35,000				
211	2009 Ford F250 Pickup Truck, Supercab		06/05/09	25,267	64,229	80,000	10	2019	2022	25,267		40,000			
218	2017 Ford F250 Pickup Truck 4x4		08/30/17	30,512	8,624	100,000	10	2027	2027	30,512					
224	2012 Ford F250 Pickup Truck		10/25/12	37,999	36,746	80,000	10	2022	2023	37,999			50,000		
241	2015 Ford Transit Connect	c.	12/31/14	21,491	36,726	100,000	10	2025	2025	21,491					-
244	2016 Ford F250 Pickup Truck, Reg. Cab 4x4		07/21/16	26,959	17,875	100,000	10	2026	2026	26,959					
299	2013 Ford F150 Pickup Truck, Ext. Cab		06/28/13	19,541	32,955	100,000	10	2023	2024	19,541				50,000	
	OTHER EQUIPMENT														
201	1994 Ingersoll Air Compressor P175 Rand		09/09/94	9,169	--	--	15	2009	2022	9,169		25,000			
220	2011 Case 590 SN Loader/Backhoe	a.	10/14/11	117,701	--	--	9	2020	2020	117,701					
TOTAL WATER AND WASTE WATER UTILITY										**GROSS ACQUISITION COST**	**$ 35,000**	**$ 65,000**	**$ 50,000**	**$ 50,000**	**$ -**
										LESS: USE OF CAPITAL RESERVES	-	-	-	-	-
a. This vehicle is scheduled to be replaced in 2020.										LESS: USE OF CURRENT RESOURCES	(9,989)	(30,564)	(12,001)	(30,459)	-
c. 2025 Replacement Cost will be added when estimate received.										**NET EQUIPMENT SINKING FUND TOTAL**	**$ 25,011**	**$ 34,436**	**$ 37,999**	**$ 19,541**	**$ -**