

# PUBLIC WORKS AND WATER RESOURCES 2018 BUDGET PRESENTATION TO CITY COUNCIL

(Version 2: Updated 8/18/2017)

Version	Date Submitted		Description of Change(s):								
1	8/14/2017	Initial Submission									
2	0/40/2047	The fellowing and	- <b>.</b>	a to the course and date that all believes							
2	8/18/2017	The following upo	ates were mad	e to the pages and data listed below:							
		Description of Cha	inge(s):								
				tion Vacancy total for Refuse.							
		Page Number:	4	Division: PWWR (Department Total)							
		TITLE:	/C-IIt	# (of vacancies)							
		Before: Refuse Di After: None	river/Collector	1 0							
		Arter. None		U							
		Description of Cha		et updated for the following:							
		Deprecia	tion detail snee	t updated for the following.							
		Page Number:	17	Division: Refuse							
		Description:	Updated la	inguage in Description section for further explained							
		Page Number:	46	Division: Water							
		Description:	Updated la	inguage in Description section for further explained							
		Added no		es for Operational Expenses only:  Division: Water							
		Page Number:	40	Division: Water							
		Page Number:	88	Division: Sewer							
		Page Number:	89	Division: Sewer							
		Page Number:	120	Division: Fleet							
				e to show budget excluding Inter-Dept. Charges:							
		Page Number:	119	Division: Fleet							
			, ,								
		Description of Cha	· · ·	pdated for the following:							
		Position i	Jetali Sheets u	puated for the following.							
		Page Number:	14	Division: Refuse							
		Description:	Maintenac	ne I updated to show Grade 1.							
		Page Number:	28	Division: Engineering							
		Description:		dded to Engineering Technician II stating,							
				e advised that the Engineering Technician II position will be							
			partially fu	nded through Capital in 2018". Grade of 17 added.							

Version	Date Submitted				Description of Change(s):						
2		Page Nu	mber:	42	Division: Wa	ter					
(continued)			Description:  Full Time Position Engineer I updated to Engineering Technician II. Grade of 17 added and removed 2018 designated full time employee. Also removed footnote related to position. This update will affect the Full Time position totals on page 4.								
			2018 # of	Positions:	Total # of 2018 Position	nns.					
		Before:		1	19						
		After:		0	18						
		Descript	ion of Chang	re(s):							
		<b>-</b>	For the follo	owing CIP s	heets, the below values and fue changes, the "total" calculation	unding allocations have been ons for the project may change.					
			·			, , ,					
		Page Nu	mber:	36	Project: TEQSF	Division: Engineering					
			Updated lar	nguage for	"Description & Justification" to	o elaborate on type of vehicles					
		Page Nu	mber:	55	Project: W1302	Division: Water					
			Amount	Year	Funding Source						
		Before:	\$40,000	2018	Current Resources						
		After:	\$40,000	Prior	Current Resources						
		Page Nu	mber:	57	Project: W1402	Division: Water					
			Amount	Year	Funding Source						
		Before:	•	n/a	n/a						
		After:	\$1,475,000	2018	Referendum						
		Page Nu	mber:	59	Project: W1601	Division: Water					
			Amount	Year	Funding Source						
			\$70,000	2019	Current Resources						
		After:	\$70,000	2019	Grants						
		Page Nu	mber:	63	Project: W1703	Division: Water					
			Amount	Year	Funding Source						
		Before:	\$400,000	2018	Current Resources						
		After:	\$75,000	2018	Current Resources						
			\$1,200,000	2019	Current Resources						
		After:	\$325,000	2019	Current Resources						
		Before:		2018	n/a						
		After:	\$150,000	2018	Grants						
		Before:		2019	n/a						
		After:	\$1,600,000	2019	Referendum						

ersion	Date Submitted				Description of Change(s):	5						
2		Page Nu		64	Project: W8605	Division: Water						
ntinued)				-	odates, language in the detailed des	scription was updated						
			Amount	Year	Funding Source							
			\$700,000	2018	Current Resources							
		After:	\$700,000	2018	Referendum							
		Page Nu		66	Project: W9308	Division: Water						
			Updated titl	e of proje	ct, removed "2017" as this is an rec	occuring project						
		Page Nu	mber:	67	Project: WEQSF	Division: Water						
			Updated language for "Description & Justification" to state that there a no anticipated replacements for 2018									
		Page Nu	mber:	81	Project: H0206	Division: Street						
			Removed va	lues and i	updated language for "Description 8	& Justification" to state that						
			this project	has been	moved and is now included in Capit	al Project H1801						
		Page Nu	mber:	82	Project: H1503	Division: Street						
			Amount	Year	Funding Source							
		Before:	•	2021	Current Resources							
		After:	\$20,000	2021	Current Resources							
		Before:	\$0	2022	Current Resources							
		After:	\$20,000	2022	Current Resources							
		Page Nu	mber:	83	Project: H1801	Division: Street						
			Updated values and language for "Description & Justification" to now include detail									
			and funding from previous Capital Project H0206									
			Amount	Year	Funding Source							
		Before:	\$1,053,329	2018	Current Resources							
		After:	\$1,373,329	2018	Current Resources							
		Page Nu	mber:	115	Project: Q1802	Division: Stormwate						
			Amount	Year	Funding Source							
		Before:	\$3,250,000	2018	Current Resources							
		After:			Referendum							
			\$3,250,000		Current Resources							
		After:	\$3,250,000		Referendum							
		Page Nu	mber:	130	Project: M1101	Division: Fleet						
			Removed va	lues and i	updated language for "Description 8	& Justification" to state that						
			this project FOC Master		moved to Facilities Maintenance an	d is now identified as N180						
		Page Nu	mber:	131	Project: M1401	Division: Fleet						
					"Description & Justification"							
		Page Nu	mber:	132	Project: MEQSF	Division: Fleet						
			Amount	Year	Funding Source							
		Before:	\$40,000	2018	Equipment Replacement							

#### Version Date Submitted Description of Change(s):

#### 2 Description of Change(s):

(continued)

For the following CIP Total sheets, funding allocation values were updated to reflect changes made to above Capital Projects.

Page Number:	51*	Division: Water
Page Number:	80	Division: Street
Page Number:	112*	Division: Stormwater

<sup>\*</sup>For pages 51 and 112, language was added to identify Capital Projects that could be funded or partially funded via referendum if approved

#### **Description of Change(s):**

Appendix B has been added to display the amounts and positions of Part Time employees from 2017-2018. A note was also added to page 4 for reference

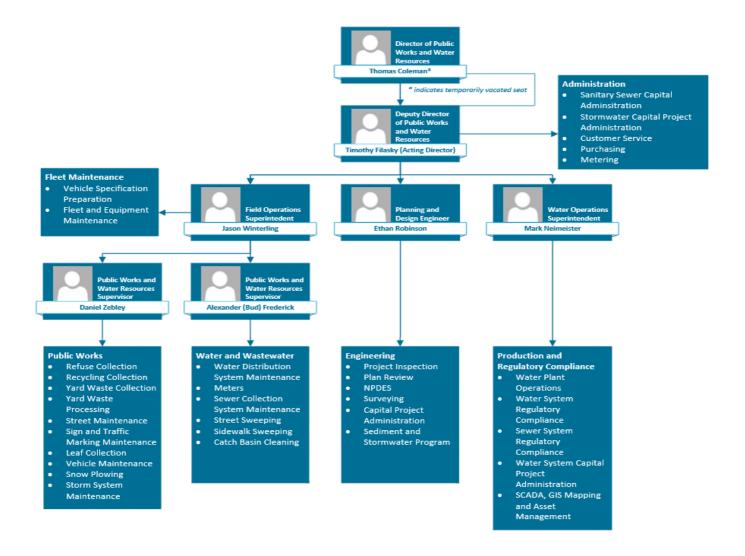
Page Number: 139

#### **Description of Change(s):**

Appendix C has been added to include the "Infrastructure Replacement Sheet"

Page Number: 140

#### PUBLIC WORKS AND WATER RESOURCES FY2017 ORGANIZATIONAL CHART



#### PUBLIC WORKS & WATER RESOURCES Full Time History/Vacancies as of July 1, 2017



FULL TIME VACANCIES (Included Above)										
Division	Title	#	Reason for Vacancy (date)							
Refuse	None	0.0								
Engineering	PW Project Manager/Estimator	1.0								
Water	None	0.0								
Street	None	0.0								
Sewer	None	0.0								
Stormwater	None	0.0								
Maintenance (Fleet)	None	0.0								
Total		1.0								

	COMMENTS		
Division	Title	Change (+/-)	Reason for Adjustment
Refuse	Refuse Driver/Collector	(1.0)	
	Refuse Driver I	1.0	
	Refuse Collector	(1.0)	
	Maintenance I	1.0	
Engineering	Special Project Coordinator	(1.0)	
	Utility Inspector I	1.0	
	Engineering Technician II	1.0	
Water	Equipment Operator	(1.0)	
Street	None	0.0	
Sewer	Maintenance IV	1.0	
	Maintenance I	1.0	
	Equipment Operator	(2.0)	
Stormwater	None	0.0	
Maintenance (Fleet)	Senior Mechanic	(1.0)	
	Mechanic II	1.0	
Total		0.0	

<sup>\*</sup>Please refer to page 139, APPENDIX B, for Part Time totals from 2017-2018

#### PUBLIC WORKS AND WATER RESOURCES PROGRAM NARRATIVE

#### City of Newark: Public Works and Water Resources Department (PWWR)

The Public Works and Water Resources Department is responsible for potable water treatment and delivery, sanitary sewage collection and transmission services, refuse collection, vehicle and equipment maintenance, engineering, surveying, street maintenance and stormwater management through its program divisions.

#### PUBLIC WORKS AND WATER RESOURCES FY2018 CHALLENGES/GOALS

#### Goals of PWWR for 2018 are:

Get Tom back.

Ramp up our use of the water and sewer SCADA systems through Water Plant Operator training and mobile tablet use.

Utilize GIS data and tablets by our field crews to document and optimize our sewer maintenance schedules.

Continue work to shift more production to groundwater to improve drought resilience by rehabilitating and redeveloping Wells 12 and 23, investigating old South Well Field wells 18 and 19 to see if they can be re-drilled, and review water quality at Laird Tract Wells 20, 21, 22, and 23 to see if they can be brought back online via a new treatment process at the Curtis Water Treatment Plant.

Stormwater Utility Implementation. If approved by Council, we anticipate the Utility would begin operation on January 1, 2018. PWWR would expect 2018 to include many of the appeals and credits applications to be submitted by property owners. Application review and processing will require a time commitment from staff to keep up with the expected number of initial applications.

We expect to have the final version of our NPDES MS4 stormwater permit in late 2017. This permit will require staff to draft and implement a new stormwater pollution prevention plan, while continuing the requirements of previous plans, including the annual reporting of stormwater quality initiatives.

Utilize our in-house staff in order to update the City's Standards and Specifications for Construction, last updated in 2001.

Create Standard Operating Procedures for each Division within the Department.

#### PUBLIC WORKS AND WATER RESOURCES FY2017 ACCOMPLISHMENTS

#### Significant Departmental accomplishments in 2017 include:

Took delivery of a new sewer jet truck and brought our four sewer employees up to speed on it's operation and capabilities. We contracted with a sewer maintenance expert to come in and train our staff for 2 days on the proper tool usage, spray patterns, and flow regulation for our specific type of sewer system and equipment. Began a proactive sewer flushing program to eventually be able to flush every main in the city every 5 years in accordance with accepted best management practices.

Finalized the GIS based sewer system master plan and creation of the sewer capacity model to assist with asset management, maintenance recordkeeping, capital project optimization and mobile workforce applications. Using the sewer capacity model, identify mains at or near capacity. This will eliminate the current conflict of interest for developers who have to determine whether or not our system has adequate capacity for their project before we can approve it. We will also be able to designate locations as lacking capacity proactively so there isn't any appearance of retaliation or impartiality on the City's part toward developers.

Replacement of approximately 2543 feet of 6" and 8" water main located on East Park Place and Dallam Road. Areas were identified as deficient using a non-destructive testing technology by Echologics which yields an esitmated service life remaining on the tested segments of pipe. Many segments tested were beyond their expected service life and will likely be part of our replacement or rehabilitation program over the next 5 years.

Completed a secondary water feed across the White Clay Creek in Windy Hills to Mary Ella Drive. Project goal is to increase flow and reliability to nearly all of our customers east of the City limits, south of Capital Trail. Upon completion, further review of this pressure zone for future planning can be completed using the water model in GIS.

Water System Planning per AECOM. (Details not complete)

Hired and onboarded new PWWR Engineering Technician and Water/Wastewater Inspector. We are extremely happy with the hiring decisions we have made to replace our longtime inspector and fill the new PWWR Engineer position. Both employees were able to hit the ground running and have been an asset to the department since their hire.

Continued GIS database development and maintenance of the water, sanitary sewer and storm sewer systems which will be used for advanced asset management, maintenance recordkeeping, and stormwater conveyance/treatment retrofit optimization. Leveraged this new GIS database to prepare a pilot area water main flushing plan to optimize our flushing operations and reduce lost water and effort.

Completed inspection of all corrugated metal storm pipe in the City and created a ranking and prioritization for replacement and rehabilitation for inclusion in the proposed Stormwater Utility and guiding our Storm System Capital spending for the next 10 years.

Completed construction on a new Salt Shed at the Field Operations Complex. As part of a Master Plan for the complex, the old salt shed was undersized and not structurally sound for continued use as a salt shed, however, it will continue to be used for covered storage of vehicles and equipment while the old warehouses are demolished and replaced.

#### PUBLIC WORKS AND WATER RESOURCES FY2017 ACCOMPLISHMENTS

Had another successful year of our Annual Intern Program. Five University of Delaware Students spent there summer working with our Field Operations Superintendent, Water Operations Superintendent and our Engineering Technician on Sewer manhole inspections, street sign inventories, street sweeper route optimizations and database updates.

# REFUSE DIVISION

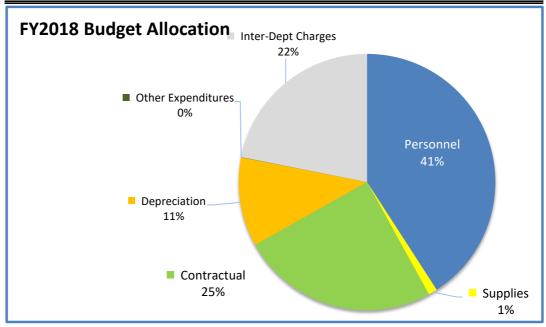
# PUBLIC WORKS & WATER RESOURCES PROGRAM NARRATIVE REFUSE

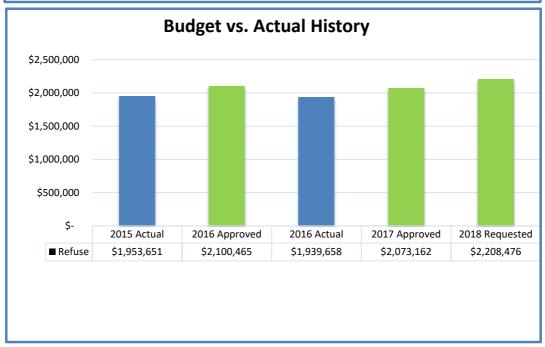
#### **Refuse Division:**

Performs numerous services including regular trash collection, curbside recycling collection, bulk or special pick-up service, yard waste collection, and Main Street Big Belly Compactor collection. The Refuse Division also assists various operating departments for trash collection at special events throughout the year.

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION REFUSE

Object Level	FY2017 Approved	FY2018 Recommended	FY2017 Approved vs. FY2018 Recomm'd	% Incr (Decr) over FY2017 Approved
Personnel Services	\$844,084	\$902,688	\$58,604	6.94%
Materials and Supplies	\$27,400	\$24,700	(\$2,700)	-9.85%
Contractual Services	\$520,650	\$548,997	\$28,347	5.44%
Depreciation	\$154,637	\$248,300	\$93,663	60.57%
Other Expenditures	\$500	\$750	\$250	50.00%
Inter-Dept Charges	\$525,891	\$483,041	(\$42,850)	-8.15%
Total:	\$2,073,162	\$2,208,476	\$135,314	6.53%

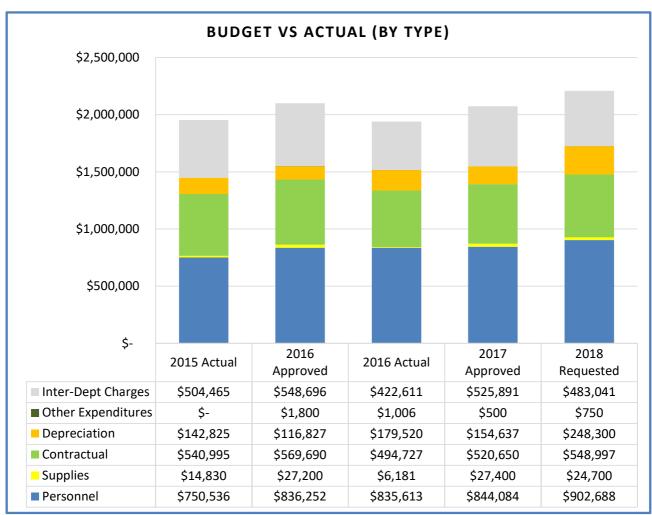




#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION REFUSE

Object Level		2015 Actual		2016		2016 Actual		2017	2018
Object Level		2015 Actual	Approved 2016 Act		ZUIO ACLUAI		Approved	Requested	
Personnel Services	\$	750,536	\$	836,252	\$	835,613	\$	844,084	\$ 902,688
Materials and Supplies	\$	14,830	\$	27,200	\$	6,181	\$	27,400	\$ 24,700
Contractual Services	\$	540,995	\$	569,690	\$	494,727	\$	520,650	\$ 548,997
Depreciation	\$	142,825	\$	116,827	\$	179,520	\$	154,637	\$ 248,300
Other Expenditures	\$	-	\$	1,800	\$	1,006	\$	500	\$ 750
Inter-Dept Charges	\$	504,465	\$	548,696	\$	422,611	\$	525,891	\$ 483,041
Total:	\$	1,953,651	\$	2,100,465	\$	1,939,658	\$	2,073,162	\$ 2,208,476

Object Level	2015 Actual	2016	201C Actual	2017	2018
Object Level	2015 Actual	Approved	2016 Actual	Approved	Requested
Personnel Services	38.4%	39.8%	43.1%	40.7%	40.9%
Materials and Supplies	0.8%	1.3%	0.3%	1.3%	1.1%
Contractual Services	27.7%	27.1%	25.5%	25.1%	24.9%
Depreciation	7.3%	5.6%	9.3%	7.5%	11.2%
Other Expenditures	0.0%	0.1%	0.1%	0.0%	0.0%
Inter-Dept Charges	25.8%	26.1%	21.8%	25.4%	21.9%
Total:	100.0%	100.0%	100.0%	100.0%	100.0%



#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET PERSONNEL SERVICES - REFUSE

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Personnel Services:	\$902,688	\$58,604	6.94%

Health insurance assumes an increase of 8% for 2018, which is equal to the increase experienced by the City in 2017. Salary assumptions include anticipated step increases when due per contract, and cost of living adjustments of 1.5% for Management, CWA and FOP employees.

#### Personnel Services (Org: 0141042)

Objec	t Line	2017	2018	Ş	Difference	% Difference
6240	Refuse Workers	\$ 480,389	\$ 496,003	\$	15,614	3.3%
6580	Service Award	\$ 12,718	\$ 14,087	\$	1,369	10.8%
6590	Sick Pay	\$ 3,299	\$ 3,693	\$	394	11.9%
6620	Overtime	\$ 20,000	\$ 20,000	\$	-	0.0%
6880	Uniform Allowance	\$ 2,700	\$ 5,400	\$	2,700	100.0%
6920	Unemployment Comp. Ins.	\$ 3,917	\$ 2,835	\$	(1,082)	-27.6%
6930	Social Security Taxes	\$ 39,712	\$ 39,774	\$	62	0.2%
6940	City Pension Plan	\$ 86,591	\$ 97,473	\$	10,882	12.6%
6941	Defined Contribution 401(a) Plan	\$ 6,696	\$ 10,383	\$	3,687	55.1%
6950	Term Life Insurance	\$ 2,535	\$ 2,406	\$	(129)	-5.1%
6960	Group Hospitalization Ins.	\$ 158,021	\$ 166,973	\$	8,952	5.7%
6961	Long-Term Disability Ins.	\$ 962	\$ 1,083	\$	121	12.6%
6962	Dental Insurance	\$ 9,738	\$ 9,480	\$	(258)	-2.6%
6965	Post-Employment Benefits	\$ 12,349	\$ 27,215	\$	14,866	120.4%
6966	Retirement Health Savings Account	\$ 2,719	\$ 4,140	\$	1,421	52.3%
6967	Emergency Room Reimbursements	\$ 1,305	\$ 1,305	\$	-	0.0%
6968	Vision Insurance Premiums	\$ 433	\$ 438	\$	5	1.2%
Person	nnel Services Total	\$ 844,084	\$ 902,688	\$	58,604	6.9%

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION POSITION DETAIL - REFUSE

Title	Grade	2017 # of Positions	A	2017 Approved	2018 # of Positions	2018 Requested	Position Difference	S Difference		% Change
FULL TIME POSITIONS										
Refuse Coordinator	10	1.0	\$	55,444	1.0	\$ 56,311	0.0	\$	867	1.6%
Refuse Driver/Collector	8	5.0	\$	276,346	4.0	\$ 238,135	(1.0)	\$	(38,211)	-13.8%
Refuse Driver II	8	1.0	\$	56,316	1.0	\$ 59,704	0.0	\$	3,388	6.0%
Refuse Driver I	6		\$	-	1.0	\$ 55,275	1.0	\$	55,275	#DIV/0!
Refuse Collector	3	2.0	\$	92,283	1.0	\$ 44,649	(1.0)	\$	(47,634)	-51.6%
Maintenance I	1		\$	-	1.0	\$ 41,929	1.0	\$	41,929	#DIV/0!
<b>Total Full-Time Positions</b>		9.0	\$	480,389	9.0	\$ 496,003	0.0	\$	15,614	3.3%
OTHER										
Overtime			\$	20,000		\$ 20,000		\$	-	0.0%
Sick Pay			\$	3,299		\$ 3,693		\$	394	11.9%
Service Award			\$	12,718		\$ 14,087		\$	1,369	10.8%
Total Other			\$	36,017		\$ 37,780		\$	1,763	4.9%
Total All		9.0	\$	516,406	9.0	\$ 533,783	0.0	\$	17,377	3%

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET MATERIALS AND SUPPLIES - REFUSE

	Recommended	\$ Change over FY2017	% Change
Materials/Supplies:	\$24,700	(\$2,700)	-9.85%
	<b>\$24,700</b> sks in this division. Revised cart needs after co	1. , ,	

#### Materials/Supplies (Org: 0141043)

Object Line	2017	2018	\$ Difference	% Difference
7110 Safety Shoes and Supplies	\$ 2,500	\$ 2,700	\$ 200	8.0%
7130 Tools, Field Sup., & Small Eq.	\$ 400	\$ 500	\$ 100	25.0%
7132 Refuse Collection Carts	\$ 24,000	\$ 21,000	\$ (3,000)	-12.5%
7270 Station Maintenance	\$ 500	\$ 500	\$ -	0.0%
Materials/Supplies Total	\$ 27,400	\$ 24,700	\$ (2,700)	-9.9%

#### **MATERIALS AND SUPPLIES DETAIL**

	Object Code - Description	Amount Requested	Use of Funds (Description)
7110	Safety Shoes and Supplies	\$ 2,700	Purchase of Safety Shoes and Safety Supplies
7130	Tools, Field Sup., & Small Eq.	\$ 500	Shovels, Rakes, leaf blowers, etc. for refuse vehicles.
7132	Refuse Collection Carts	\$ 21,000	Yard Waste, Refuse and Recycling carts to replace worn or broken carts
7270	Station Maintenance	\$ 500	Materials to keep old transfer station clean and maintained
Total		\$ 24,700	

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET CONTRACTUAL SERVICES - REFUSE

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change						
Contractual Services:	\$548,997	\$28,347	5.44%						
Items necessary to have completed by a third party for this division. Disposal fees have increased based on 2017 quotes and contractual language with DSWA.									

Contractual Services (Org: 0141044)

Objec	t Line	2017	2018	\$ Difference	% Difference
8030	Casualty Insurance	\$ 6,669	\$ 6,736	\$ 67	1.0%
8032	Insurance - Auto	\$ 20,439	\$ 20,644	\$ 205	1.0%
8033	Insurance - Broker	\$ 2,492	\$ 2,517	\$ 25	1.0%
8050	Phone/Communications	\$ 300	\$ 3,000	\$ 2,700	900.0%
8131	Information Technology	\$ 1,250	\$ 600	\$ (650)	-52.0%
8190	Refuse Disposal-Landfill	\$ 445,000	\$ 452,000	\$ 7,000	1.6%
8191	Yard Waste	\$ 40,000	\$ 60,000	\$ 20,000	50.0%
8200	Printing & Reproduction	\$ 2,000	\$ 1,000	\$ (1,000)	-50.0%
8250	Building & Grounds Maintenance	\$ 2,000	\$ 2,000	\$ -	0.0%
8270	Station Maintenance (Pest Control)	\$ 500	\$ 500	\$ -	0.0%
Contr	actual Services Total	\$ 520,650	\$ 548,997	\$ 28,347	5.4%

#### **CONTRACTUAL SERVICES DETAIL**

	Object Code - Description		Amount Requested	Use of Funds (Description)
8030	Casualty Insurance	\$	6,736	Allocation provided by Finance
8032	Insurance - Auto	\$	20,644	Allocation provided by Finance
8033	Insurance - Broker	\$	2,517	Allocation provided by Finance
9050	Dhone/Communications	\$	3,000	Mobile phones and air cards for mobile workforce
8050	Phone/Communications	Ş	3,000	applications and GIS mapping
8131	Information Technology	\$	600	Department's share of IT costs, please see Appendix A
8190	Refuse Disposal-Landfill	\$	452,000	Tipping fees at Cherry Island Landfill
8191	Yard Waste	\$	60,000	Yard waste processing, grinding, and disposal
8200	Printing & Reproduction	\$	1,000	Notices, mailers, door hangars, recycle and yard waste stickers
8250	Building & Grounds Maintenance	\$	2,000	Maintenance of old transfer station property - now a yard waste facility
8270	Station Maintenance (Pest Control)	\$	500	Pest removal at old transfer station property
Total		\$	548,997	

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET DEPRECIATION - REFUSE

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change				
Depreciation Expense:	\$248,300	\$93,663	60.57%				
Depreciation expense is calculate	d annually by the Department of Finance ar	nd is based upon the equipment utilize	d by each				
department. This amount will fluc	cuate depending on asset additions and reti	rements, cost of assets and useful life	of the assets.				
Specifically, this increase is due in large part to four new Refuse Trucks purchased. 2018 reflects a full year for these vehicles.							

#### Other Charges (Org: 0141045) - \*Depreciation Expense Only

Object Line	2017	2018	Ş	\$ Difference	% Difference
9060 Depreciation Expense	\$ 154,637	\$ 248,300	\$	93,663	60.6%
Other Charges Total *	\$ 154,637	\$ 248,300	\$	93,663	60.6%

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET OTHER CHARGES - REFUSE

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Other Charges:	\$750	\$250	50.00%
Training helps keep our staff u	p to date on current trends and safety topics.		
	, ,		

#### Other Charges (Org: 0141045) - \*Excluding Depreciation Expense

Object Line	2017	2018	\$ Difference	% Difference
9070 Training	\$ 500	\$ 750	\$ 250	50.0%
Other Charges Total *	\$ 500	\$ 750	\$ 250	50.0%

#### **OTHER CHARGES DETAIL**

Object Code - Description	Amount Requested	Use of Funds (Description)
9070 Training	\$ 750	Employee group training for safety and job effectiveness
Total	\$ 750	

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET INTER-DEPT. CHARGES - REFUSE

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Inter-Dept. Charges:	\$483,041	(\$42,850)	-8.15%

Billings and Accounting: Various costs of the Finance Department are allocated based on pertinent ratios; for example, the payroll function is allocated based on the percentage of equivalent personnel head count (including temporary part-time), accounts payable function is allocated by the percentage of total budget dollars, and the accounting function is allocated by an average of the two previous ratios.

Buildings and Grounds: Costs of the Facilities Maintenance Division are allocated to other operating divisions by the square footage of the department offices and other buildings compared to the total city facility buildings square footage.

Electricity: Electricity consumption allocated to the department based on square footage of the department offices compared to the total City Hall building. Meter readings are obtained by the Electric Department at the end of each year. Cost is based on budget DEMEC rate.

Information Technology: Costs are allocated based on percentage of equivalent personnel head count (including temporary part-time) with the exception of items identified specifically for utility fund items such as support for Harris billing system and smart meter network.

Other Indirect Charges: Includes charges for work done by other divisions to benefit the receiving division offset by credits for work done by this division for other division. Example: For Parks, the Electric, Street, and Refuse crews performing work for Community Day.

Printing and Reproduction: The costs of supplies for copiers is allocated based on previously observed percentage of use by each department.

Vehicles and Equipment: Includes direct charges of vehicle maintenance and repair performed by the Fleet Maintenance crew and an allocation of indirect Fleet Maintenance costs allocated to each division by the percentage of direct costs for the individual division to the direct costs for all divisions.

Warehousing: Operating costs of the warehouse function allocated to those divisions that store inventory items.

#### Inter-Dept. Charges

Object Line	2017	2018	Ş	\$ Difference	% Difference
Billings & Accounting	\$ 27,393	\$ 29,044	\$	1,651	6.0%
Buildings and Grounds	\$ 4,830	\$ 7,329	\$	2,499	51.7%
Electric Used - Transfer Station	\$ 1,798	\$ 1,444	\$	(354)	-19.7%
Information Technology	\$ 53,988	\$ 62,250	\$	8,262	15.3%
Other Indirect Charges	\$ 47,238	\$ 49,361	\$	2,123	4.5%
Printing and Reproduction	\$ 153	\$ 131	\$	(22)	-14.4%
Vehicles and Equipment	\$ 389,489	\$ 332,328	\$	(57,161)	-14.7%
Warehousing	\$ 1,002	\$ 1,154	\$	152	15.2%
Inter-Dept. Charges Total	\$ 525,891	\$ 483,041	\$	(42,850)	-8.1%

# REFUSE DIVISION CAPITAL IMPROVEMENT PROJECTS

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION CIP - REFUSE

Droiget #	Dept	Description	2017	Balance as of		CAPITAL IMPR	OVEMENTS P	ROGRAM REC	QUESTED FUN	NDING
Project #	Priority	Description	Budget	6/30/2017	2018	2019	2020	2021	2022	<b>Total CIP Request</b>
REQSF	1	Equipment Replacement Prorgram	\$200,000	\$200,000		\$220,000		\$200,000		\$420,000
Total			\$200,000	\$200,000	\$0	\$220,000	\$0	\$200,000	\$0	\$420,000

# CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL Public Works and Water Resources DIVISION: Refuse

PROJECT NO: PROJECT TITLE: PROJECT LOCATION:

REQSF Equipment Replacement Program N/A

PROJECT STATUS (SELECT FROM DROP DOWN):

PRIORITY: 1 - Highest Priority Level Project underway and must be completed

COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT: Sustainable Community

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

DEPARTMENT:

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

§ 806.1(3) SUMMARY OF PROJECT	DATA		PROJECT COST BY CATEGOR	Υ	
First Year in Program	Ongoing	CLASSIFICATION	ACCOUNT NUMBERS		AMOUNT
Est. Completion Date	Ongoing	Labor			
Est. Useful Life (in years)	Various	Materials			
Est. Total Cost	420,000	Other Contracts	3063026.9623		
Est. Spend @ 12/31 (if underway) <sup>1</sup>		Total Project Cost		\$	420,000
Balance to be funded <sup>1</sup>	420,000	<sup>1</sup> For ongoing projects	, we must estimate total	spent sin	ce inception
% Complete (if underway)		through current year	to derive the balance to	be funded	d thereafter.

	PRO.	IECT FINANCII	NG BY PLAN YI	EAR			
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL
CURRENT RESOURCES							-
CAPITAL RESERVES							-
EQUIPMENT REPLACEMENT			220,000		200,000		420,000
BOND ISSUES							-
GRANTS (Specify)							-
OTHER (Specify)							-
OTHER (Specify)							-
TOTAL	-	-	220,000	-	200,000	-	420,000

<sup>&</sup>lt;sup>2</sup>"Prior" refers to that portion of project funding that was authorized in a prior year but which is not expected to be spent through 12/31 of the current year. Accordingly, Council is not required to authorize budget year funding for that portion, but that portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

§ 806.1(4) ESTIMATED ANNUAL	COST OF OPE	ERATING / MA	INTAINING PE	ROJECT OR AS	SET	
OPERATING IMPACT	2018	2019	2020	2021	2022	TOTAL
INCREMENTAL COSTS (NET SAVINGS)						-

# **ENGINEERING DIVISION**

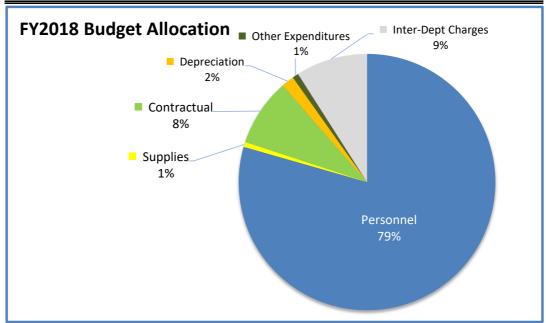
# PUBLIC WORKS & WATER RESOURCES PROGRAM NARRATIVE ENGINEERING

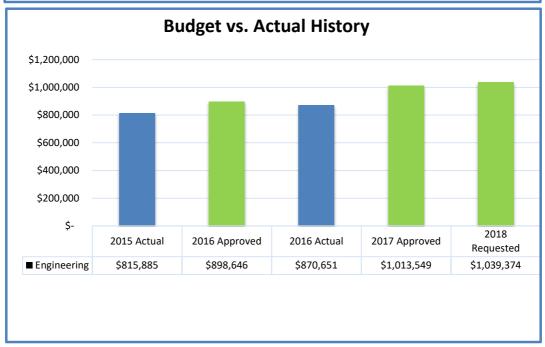
#### **Engineering Division:**

Responsible for the engineering review of new subdivisions and construction improvement plans, sediment and stormwater program implementation, construction inspection, public works capital project development and administration, survey support, GIS database management, and administration of our annual Street and Sidewalk Programs. Staff also responds to resident complaints regarding drainage, erosion, and other related issues. Engineering staff prepare reports and recommendations to the City Manager and City Council on various improvements throughout the City and maintain an active liaison with engineering consultants.

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION ENGINEERING

Object Level	FY2017 Approved	FY2018 Recommended	FY2017 Approved vs. FY2018 Recomm'd	% Incr (Decr) over FY2017 Approved
Personnel Services	\$804,988	\$825,614	\$20,626	2.56%
Materials and Supplies	\$5,700	\$6,500	\$800	14.04%
Contractual Services	\$92,233	\$88,976	(\$3,257)	-3.53%
Depreciation Expense	\$11,870	\$16,300	\$4,430	37.32%
Other Expenditures	\$8,100	\$8,100	\$0	0.00%
Inter-Dept Charges	\$90,658	\$93,884	\$3,226	3.56%
Total:	\$1,013,549	\$1,039,374	\$25,825	2.55%

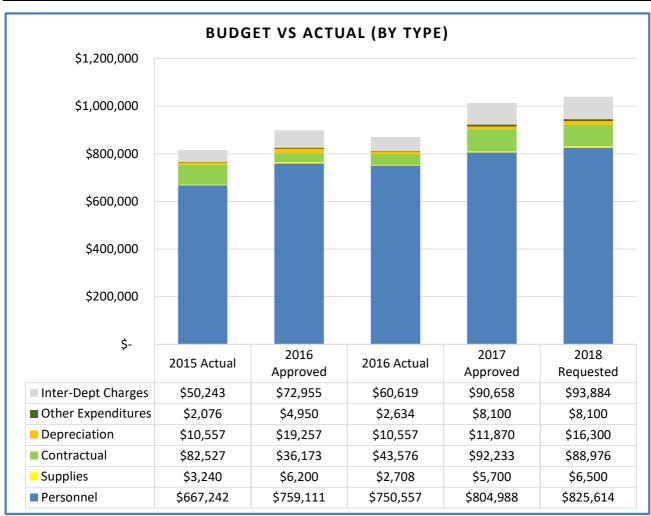




#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION ENGINEERING

Object Level	2015 Actual	2016		2016 Actual	2017	2018
Object Level	2015 Actual	Approved	•	ZUIO ACLUAI	Approved	Requested
Personnel Services	\$ 667,242	\$ 759,111	\$	750,557	\$ 804,988	\$ 825,614
Materials and Supplies	\$ 3,240	\$ 6,200	\$	2,708	\$ 5,700	\$ 6,500
Contractual Services	\$ 82,527	\$ 36,173	\$	43,576	\$ 92,233	\$ 88,976
Depreciation	\$ 10,557	\$ 19,257	\$	10,557	\$ 11,870	\$ 16,300
Other Expenditures	\$ 2,076	\$ 4,950	\$	2,634	\$ 8,100	\$ 8,100
Inter-Dept Charges	\$ 50,243	\$ 72,955	\$	60,619	\$ 90,658	\$ 93,884
Total:	\$ 815,885	\$ 898,646	\$	870,651	\$ 1,013,549	\$ 1,039,374

Object Level	2015 Actual	2016	2016 Actual	2017	2018
Object Level	2015 Actual	Approved	2016 Actual	Approved	Requested
Personnel Services	81.8%	84.5%	86.2%	79.4%	79.4%
Materials and Supplies	0.4%	0.7%	0.3%	0.6%	0.6%
Contractual Services	10.1%	4.0%	5.0%	9.1%	8.6%
Depreciation	1.3%	2.1%	1.2%	1.2%	1.6%
Other Expenditures	0.3%	0.6%	0.3%	0.8%	0.8%
Inter-Dept Charges	6.2%	8.1%	7.0%	8.9%	9.0%
Total:	100.0%	100.0%	100.0%	100.0%	100.0%



#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET PERSONNEL SERVICES - ENGINEERING

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Personnel Services:	\$825,614	\$20,626	2.56%

Health insurance assumes an increase of 8% for 2018, which is equal to the increase experienced by the City in 2017. Salary assumptions include anticipated step increases when due per contract, and cost of living adjustments of 1.5% for Management, CWA and FOP employees.

#### Personnel Services (Org: 0131072)

Obje	ct Line	2017	2018	Ş	Difference	% Difference
6020	Supervisory	\$ 83,649	\$ 83,650	\$	1	0.0%
6030	Engineering/Technical	\$ 252,300	\$ 174,178	\$	(78,122)	-31.0%
6210	Inspectors	\$ 182,466	\$ 238,272	\$	55,806	30.6%
6580	Service Award	\$ 10,474	\$ 5,609	\$	(4,865)	-46.4%
6590	Sick Pay	\$ 4,506	\$ 2,992	\$	(1,514)	-33.6%
6615	Interns	\$ 19,500	\$ 19,500	\$	-	0.0%
6620	Overtime	\$ 15,000	\$ 15,000	\$	-	0.0%
6880	Uniform Allowance	\$ 1,080	\$ 1,080	\$	-	0.0%
6920	Unemployment Comp. Ins.	\$ 3,482	\$ 2,520	\$	(962)	-27.6%
6930	Social Security Taxes	\$ 40,412	\$ 39,311	\$	(1,101)	-2.7%
6940	City Pension Plan	\$ 59,462	\$ 54,659	\$	(4,803)	-8.1%
6941	Defined Contribution 401(a) Plan	\$ 15,907	\$ 22,107	\$	6,200	39.0%
6950	Term Life Insurance	\$ 2,465	\$ 2,469	\$	4	0.2%
6960	Group Hospitalization Ins.	\$ 93,281	\$ 134,652	\$	41,371	44.4%
6961	Long-Term Disability Ins.	\$ 955	\$ 1,144	\$	189	19.8%
6962	Dental Insurance	\$ 6,092	\$ 6,721	\$	629	10.3%
6963	Flexible Spending Account	\$ 78	\$ 156	\$	78	100.0%
6965	Post-Employment Benefits	\$ 8,480	\$ 13,162	\$	4,682	55.2%
6966	Retirement Health Savings Account	\$ 4,078	\$ 6,900	\$	2,822	69.2%
6967	Emergency Room Reimbursements	\$ 1,015	\$ 1,160	\$	145	14.3%
6968	Vision Insurance Premiums	\$ 306	\$ 372	\$	66	21.6%
Perso	nnel Services Total	\$ 804,988	\$ 825,614	\$	20,626	2.6%

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION POSITION DETAIL - ENGINEERING

Title	Grade	2017 # of Positions	2017 Approved	2018 # of Positions	2018 Requested	Position Difference	\$ [	Difference	% Change
FULL TIME POSITIONS									
Field Operations Supt.	22	1.0	\$ 83,649	1.0	\$ 83,649	0.0	\$	_	0.0%
Planning & Design Engineer	22	1.0	\$ 77,099	1.0	\$ 80,441	0.0	\$	3,342	4.3%
Special Project Coordinator	17	1.0	\$ 72,726	1.0	\$ -	(1.0)	\$	(72,726)	-100.0%
Chief Surveyor	15	1.0	\$ 66,691	1.0	\$ 67,672	0.0	\$	981	1.5%
Utility Inspector I	14	2.0	\$ 115,775	3.0	\$ 170,600	1.0	\$	54,825	47.4%
Engineering Technician	14	1.0	\$ 61,762	1.0	\$ 64,519	0.0	\$	2,757	4.5%
Engineering Technician II *	17	1.0	\$ -	1.0	\$ 29,219	1.0	\$	29,219	#DIV/0!
Total Full-Time Positions		7.0	 477,702	8.0	\$ 496,100	1.0	\$	18,398	3.9%
PART-TIME FUNDING									
Interns			\$ 19,500		\$ 19,500		\$	_	0.0%
Total Part-Time Funding			\$ 19,500		\$ 19,500		\$	-	0.0%
OTHER									
Overtime			\$ 15,000		\$ 15,000		\$	-	0.0%
Sick Pay			\$ 4,506		\$ 2,992		\$	(1,514)	-33.6%
Service Award			\$ 10,474		\$ 5,609		\$	(4,865)	-46.4%
Transitional Wages			\$ 40,713		\$ -		\$	(40,713)	-100.0%
Total Other			\$ 70,693		\$ 23,601		\$	(47,092)	-66.6%
Total All		7.0	\$ 567,895	8.0	\$ 539,201	1.0	\$	(28,694)	-5%

<sup>\*</sup>Please be advised that the Engineering Technician II position will be partially funded through Capital in 2018.

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET MATERIALS AND SUPPLIES - ENGINEERING

,500 \$	800 14.04%
tract administration. Slight increase for	or safety equipment.
•	,500 \$ tract administration. Slight increase fo

#### Materials/Supplies (Org: 0131073)

Object Line	2017	2018	\$ Difference	% Difference
7110 Safety Shoes & Supplies	\$ 1,200	\$ 1,500	\$ 300	25.0%
7130 Tools, Field Sup., & Small Eq.	\$ 2,000	\$ 2,000	\$ -	0.0%
7150 Office Supplies	\$ 2,500	\$ 3,000	\$ 500	20.0%
Materials/Supplies Total	\$ 5,700	\$ 6,500	\$ 800	14.0%

#### **MATERIALS AND SUPPLIES DETAIL**

Object Code - Description	Amount Requested	Use of Funds (Description)
7110 Safety Shoes & Supplies	\$ 1,500 Sa	fety shoes, vests, hard hats required on jobsites
7130 Tools, Field Sup., & Small Eq.	\$ 2,000 Me	easuring wheels, tape measures, etc.
7150 Office Supplies	\$ 3,000 Pe	ncils, paper, shipping labels
Total	\$ 6,500	

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET CONTRACTUAL SERVICES - ENGINEERING

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change						
Contractual Services:	\$88,976	(\$3,257)	-3.53%						
Items necessary to have completed by a third party for this division. Groundwater monitoring necesssary due to Brownfield									

Items necessary to have completed by a third party for this division. Groundwater monitoring necesssary due to Brownfield Development Agreement for the sites listed.

#### Contractual Services (Org: 0131074)

Object Line	2017	2018	\$ Difference	% Difference
8020 Advertising	\$ 1,100	\$ 1,100	\$ -	0.0%
8030 Casualty Insurance	\$ 11,892	\$ 12,011	\$ 119	1.0%
8032 Insurance - Auto	\$ 6,454	\$ 6,519	\$ 65	1.0%
8033 Insurance - Broker	\$ 954	\$ 964	\$ 10	1.0%
8050 Phone/Communications	\$ 5,000	\$ 2,000	\$ (3,000)	-60.0%
8120 Outside Engineering	\$ 44,000	\$ 47,600	\$ 3,600	8.2%
8131 Information Technology Cont'l	\$ 22,833	\$ 18,782	\$ (4,051)	-17.7%
Contractual Services Total	\$ 92,233	\$ 88,976	\$ (3,257)	-3.5%

#### **CONTRACTUAL SERVICES DETAIL**

	Object Code - Description	Amount Requested	Use of Funds (Description)
8020	Advertising	\$ 1,100	Advertisement for contracts
8030	Casualty Insurance	\$ 12,011	Allocation provided by Finance
8032	Insurance - Auto	\$ 6,519	Allocation provided by Finance
8033	Insurance - Broker	\$ 964	Allocation provided by Finance
8050	Phone/Communications	\$ 2,000	Mobile phones and air cards for mobile workforce applications and GIS mapping
8120	Outside Engineering	\$ 47,600	Ongoing brownfield groundwater and soil sampling at McKees Landfill and Curtis Park, pavement management optimization for Annual Street Contract
8131	Information Technology Cont'l	\$ 18,782	Department's share of IT costs, please see Appendix A
Total		\$ 88,976	

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET DEPRECIATION - ENGINEERING

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Depreciation Expense:	\$16,300	\$4,430	37.32%
Depreciation expense is calculated	l annually by the Department of Finance a	nd is based upon the equipment utilized	d by each
department. This amount will fluc	uate depending on asset additions and ret	irements, cost of assets and useful life	of the assets.
·		·	

#### Other Charges (Org: 0131075) - \*Depreciation Expense Only

Object Line	2017	2018	Ş	Difference	% Difference
9060 Depreciation Expense	\$ 11,870	\$ 16,300	\$	4,430	37.3%
Other Charges Total *	\$ 11,870	\$ 16,300	\$	4,430	37.3%

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET OTHER CHARGES - ENGINEERING

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Other Charges:	\$8,100	\$0	0.00%
•	to date on current trends and safety topics.	·	
ranning helps keep our stan ap	to date on earrent trends and surety topics.		

#### Other Charges (Org: 0131075) - \*Excluding Depreciation Expense

Object Line	2017	2018	\$ Difference	% Difference
9070 Training	\$ 8,100	\$ 8,100	\$ -	0.0%
Other Charges Total *	\$ 8,100	\$ 8,100	\$ -	0.0%

#### **OTHER CHARGES DETAIL**

Object Code - Description	Amount Requested	Use of Funds (Description)
9070 Training	\$ 8,100	Ongoing license upkeep, job training, industry trend updates
Total	\$ 8,100	

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET INTER-DEPT. CHARGES - ENGINEERING

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Inter-Dept. Charges:	\$93,884	\$3,226	3.56%

Billings and Accounting: Various costs of the Finance Department are allocated based on pertinent ratios; for example, the payroll function is allocated based on the percentage of equivalent personnel head count (including temporary part-time), accounts payable function is allocated by the percentage of total budget dollars, and the accounting function is allocated by an average of the two previous ratios.

Buildings and Grounds: Costs of the Facilities Maintenance Division are allocated to other operating divisions by the square footage of the department offices and other buildings compared to the total city facility buildings square footage.

Electricity: Electricity consumption allocated to the department based on square footage of the department offices compared to the total City Hall building. Meter readings are obtained by the Electric Department at the end of each year. Cost is based on budget DEMEC rate.

Information Technology: Costs are allocated based on percentage of equivalent personnel head count (including temporary part-time) with the exception of items identified specifically for utility fund items such as support for Harris billing system and smart meter network.

Printing and Reproduction: The costs of supplies for copiers is allocated based on previously observed percentage of use by each department.

Vehicles and Equipment: Includes direct charges of vehicle maintenance and repair performed by the Fleet Maintenance crew and an allocation of indirect Fleet Maintenance costs allocated to each division by the percentage of direct costs for the individual division to the direct costs for all divisions.

#### Inter-Dept. Charges

Object Line	2017	2018	\$ Difference	% Difference
Billings & Accounting	\$ 19,743	\$ 20,139	\$ 396	2.0%
Buildings and Grounds	\$ 3,169	\$ 4,808	\$ 1,639	51.7%
Electricity Used	\$ 1,398	\$ 1,444	\$ 46	3.3%
Information Technology	\$ 47,991	\$ 55,334	\$ 7,343	15.3%
Printing and Reproduction	\$ 153	\$ 131	\$ (22)	-14.4%
Vehicles and Equipment	\$ 18,204	\$ 12,028	\$ (6,176)	-33.9%
Inter-Dept. Charges Total	\$ 90,658	\$ 93,884	\$ 3,226	3.6%

# ENGINEERING DIVISION CAPITAL IMPROVEMENT PROJECTS

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION CIP - ENGINEERING

Duoinet #	Dept	Description	2017	Balance as of		NDING				
Project #	Priority	rescription	Budget	udget 6/30/2017		2019	2020	2021	2022	<b>Total CIP Request</b>
TEQSF	1	Equipment Replacement Prorgram	\$21,000	\$168	\$66,000					\$66,000
Total			\$21,000	\$168	\$66,000	\$0	\$0	\$0	\$0	\$66,000

#### **CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL** DEPARTMENT: **Public Works and Water Resources** DIVISION: Engineering PROJECT NO: PROJECT TITLE: PROJECT LOCATION: **TEQSF Equipment Replacement Program** PROJECT STATUS (SELECT FROM DROP DOWN): PRIORITY: 1 - Highest Priority Level Project underway and must be completed COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT: Sustainable Community

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

Planned advance funding accumulated through depreciation to replace two inspector vehicles.

§ 806.1(3) SUMMARY OF PROJECT	DATA		PROJECT COST BY CATEGOR	RY .					
First Year in Program	ONGOING	CLASSIFICATION	ACCOUNT NUMBERS	AMOUNT					
Est. Completion Date	ONGOING	Labor							
Est. Useful Life (in years)	VARIOUS	Materials							
Est. Total Cost	66,000	Other Contracts	3063026.9623						
Est. Spend @ 12/31 (if underway) <sup>1</sup>		Total Project Cost		\$ 66,000					
Balance to be funded <sup>1</sup>	66,000	<sup>1</sup> For ongoing projects, we must estimate total spent since inception							
% Complete (if underway)		through current year	to derive the balance to	be funded thereafter.					

	PRO.	IECT FINANCIN	NG BY PLAN Y	EAR			
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL
CURRENT RESOURCES							-
CAPITAL RESERVES							-
EQUIPMENT REPLACEMENT		66,000					66,000
BOND ISSUES							-
GRANTS (Specify)							-
OTHER (Specify)							-
OTHER (Specify)							-
TOTAL	-	66,000		-	-	-	66,000

<sup>&</sup>lt;sup>2</sup>"Prior" refers to that portion of project funding that was authorized in a prior year but which is not expected to be spent through 12/31 of the current year. Accordingly, Council is not required to authorize budget year funding for that portion, but that portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET											
OPERATING IMPACT	2018	2019	2020	2021	TOTAL						
INCREMENTAL COSTS (NET SAVINGS)	-	-	-	-	-	-					

## WATER DIVISION

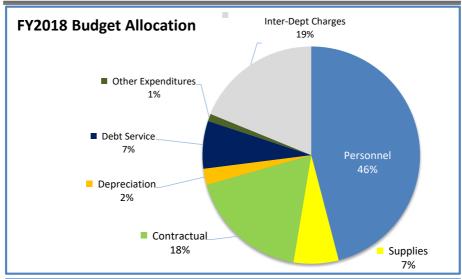
## PUBLIC WORKS & WATER RESOURCES PROGRAM NARRATIVE WATER

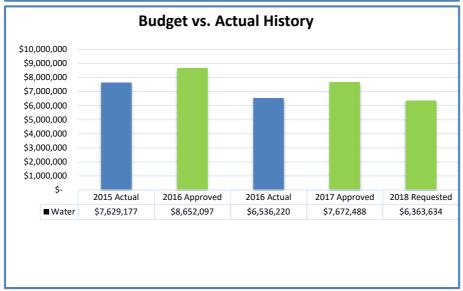
#### **Water Division:**

Responsible for maintaining regulatory compliance, GIS database management, oversight of day to day water system operations, engineering and design of facilities, supervision and inspection of construction projects, and capital project development and administration. Water construction plans and specifications are prepared for bidding under this program. Water Division engineering staff prepare reports and recommendations to the City Manager and City Council on facility improvements and maintain an active liaison with engineering consultants.

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION WATER

			FY2017	% Incr
Object Level	FY2017	FY2018	Approved	(Decr) over
Object Level	Approved	Recommended	vs. FY2018	FY2017
			Recomm'd	Approved
Personnel Services	\$2,295,164	\$2,285,717	(\$9,447)	-0.41%
Materials and Supplies	\$318,500	\$333,000	\$14,500	4.55%
Contractual Services	\$875,872	\$893,549	\$17,677	2.02%
Depreciation	\$72,808	\$119,700	\$46,892	64.41%
Other Expenditures	\$54,806	\$54,352	(\$454)	-0.83%
Inter-Dept Charges	\$850,020	\$936,587	\$86,567	10.18%
Debt Service - Lease Payments	\$1,732,318	\$1,740,729	\$8,411	0.49%
Subtotal (Operational Expenses):	\$6,199,488	\$6,363,634	\$164,146	2.65%
Capital Expenses *	\$1,473,000	\$0	(\$1,473,000)	-100.00%
Total:	\$7,672,488	\$6,363,634	(\$1,308,854)	-17.06%



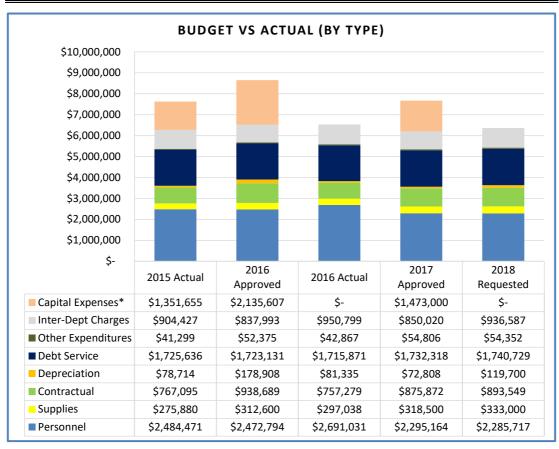


<sup>\*</sup> The allocation of capital expenses between current resources and reserve funding will be determined based on revenue projections.

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION WATER

Object Level		2015 Actual		2016 Approved		2016 Actual		2017 Approved		2018 Requested
Personnel Services	\$	2,484,471	\$		\$	2,691,031	\$	2,295,164	\$	2,285,717
Materials and Supplies	\$	275,880	\$	312,600	\$	297,038	\$	318,500	\$	333,000
Contractual Services	\$	767,095	\$	938,689	\$	757,279	\$	875,872	\$	893,549
Depreciation	\$	78,714	\$	178,908	\$	81,335	\$	72,808	\$	119,700
Debt Service - Lease Payments	\$	1,725,636	\$	1,723,131	\$	1,715,871	\$	1,732,318	\$	1,740,729
Other Expenditures	\$	41,299	\$	52,375	\$	42,867	\$	54,806	\$	54,352
Inter-Dept Charges	\$	904,427	\$	837,993	\$	950,799	\$	850,020	\$	936,587
Subtotal (Operational Expenses):	\$	6,277,522	\$	6,516,490	\$	6,536,220	\$	6,199,488	\$	6,363,634
Capital Expenses *	\$	1,351,655	\$	2,135,607	\$	-	\$	1,473,000	\$	_
Total:	\$	7,629,177	\$	8,652,097	\$	6,536,220	\$	7,672,488	\$	6,363,634

Object Level	2015 Actual	2016	2016 Actual	2017	2018
Object Level	2015 Actual	Approved	2016 Actual	Approved	Requested
Personnel Services	32.6%	28.6%	41.2%	29.9%	35.9%
Materials and Supplies	3.6%	3.6%	4.5%	4.2%	5.2%
Contractual Services	10.1%	10.8%	11.6%	11.4%	14.0%
Depreciation	1.0%	2.1%	1.2%	0.9%	1.9%
Debt Service - Lease Payments	22.6%	19.9%	26.3%	22.6%	27.4%
Other Expenditures	0.5%	0.6%	0.7%	0.7%	0.9%
Inter-Dept Charges	11.9%	9.7%	14.5%	11.1%	14.7%
Capital Expenses *	17.7%	24.7%	0.0%	19.2%	0.0%
Total:	100.0%	100.0%	100.0%	100.0%	100.0%



<sup>\*</sup> The allocation of capital expenses between current resources and reserve funding will be determined based on revenue projections.

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET PERSONNEL SERVICES - WATER

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Personnel Services:	\$2,285,717	(\$9,447)	-0.41%
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Health insurance assumes an increase of 8% for 2018, which is equal to the increase experienced by the City in 2017. Salary assumptions include anticipated step increases when due per contract, and cost of living adjustments of 1.5% for Management, CWA and FOP employees.

#### Personnel Services (Org: 5295202)

Obje	t Line	2017	2018	\$ Difference	% Difference
6020	Supervisory	\$ 371,145	\$ 375,438	\$ 4,293	1.2%
6030	Engineering/Technical	\$ 27,942	\$ -	\$ (27,942)	-100.0%
6080	Clerical	\$ 81,447	\$ 86,441	\$ 4,994	6.1%
6200	Line Maintenance	\$ 474,024	\$ 373,045	\$ (100,979)	-21.3%
6210	Inspectors	\$ 70,007	\$ 58,883	\$ (11,124)	-15.9%
6220	Plant Operators	\$ 275,972	\$ 290,166	\$ 14,194	5.1%
6230	Maintenance Workers	\$ -	\$ 64,355	\$ 64,355	#DIV/0!
6580	Service Award	\$ 23,574	\$ 20,791	\$ (2,783)	-11.8%
6590	Sick Pay	\$ 7,689	\$ 7,930	\$ 241	3.1%
6610	Seasonal	\$ 14,400	\$ 14,400	\$ -	0.0%
6615	Interns	\$ 6,500	\$ 6,500	\$ -	0.0%
6620	Overtime	\$ 190,000	\$ 190,000	\$ -	0.0%
6621	Shift Differential	\$ 5,275	\$ 5,275	\$ -	0.0%
6622	Holiday Premium	\$ 13,400	\$ 13,400	\$ -	0.0%
6623	Weekend Premium	\$ 500	\$ 500	\$ -	0.0%
6880	Uniform Allowances	\$ 4,440	\$ 7,740	\$ 3,300	74.3%
6920	Unemployment Comp. Ins.	\$ 9,677	\$ 5,985	\$ (3,692)	-38.2%
6930	Social Security Taxes	\$ 119,824	\$ 109,165	\$ (10,659)	-8.9%
6940	City Pension Plan	\$ 228,545	\$ 243,880	\$ 15,335	6.7%
6941	Defined Contribution 401(a) Plan	\$ 18,996	\$ 24,914	\$ 5,918	31.2%
6950	Term Life Insurance	\$ 6,345	\$ 5,494	\$ (851)	-13.4%
6960	Group Hospitalization Ins.	\$ 282,829	\$ 287,712	\$ 4,883	1.7%
6961	Long-Term Disability Ins.	\$ 2,500	\$ 2,603	\$ 103	4.1%
6962	Dental Insurance	\$ 17,160	\$ 16,738	\$ (422)	-2.5%
6963	Flexible Spending Account	\$ 234	\$ 234	\$ -	0.0%
6964	Health Savings Account	\$ 1,500	\$ 1,500	\$ -	0.0%
6965	Post-Employment Benefits	\$ 31,915	\$ 62,182	\$ 30,267	94.8%
6966	Retirement Health Savings Account	\$ 5,437	\$ 6,900	\$ 1,463	26.9%
6967	Emergency Room Reimbursements	\$ 2,900	\$ 2,610	\$ (290)	-10.0%
6968	Vision Insurance Premiums	\$ 987	\$ 936	\$ (51)	-5.2%
Perso	nnel Services Total	\$ 2,295,164	\$ 2,285,717	\$ (9,447)	-0.4%

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION POSITION DETAIL - WATER

Title	Grade	2017 # of		2017	2018 # of		2018	Position	¢Γ	Difference	%
Title	Grade	Positions		Approved	Positions		Requested	Difference	ĄL	office effice	Change
FULL TIME POSITIONS											
Director of PWWR	31	1.0	\$	119,058	1.0	\$	119,058	0.0	Ļ		0.0%
Deputy Director of PWWR	26	1.0	\$ \$	93,076	1.0	۶ \$	97,366	0.0	\$ \$	- 4,290	4.6%
Water Operations Supt.	20	1.0	\$ \$	83,649	1.0	۶ \$	83,649	0.0	\$ \$	4,290	0.0%
PWWR Supervisor	22 19	1.0	\$ \$	75,362	1.0	۶ \$	*	0.0	\$ \$	1	0.0%
•	19 16		\$ \$	70,007	1.0	۶ \$	75,363	0.0	۶ \$		-15.9%
Water & Sewer Inspector		1.0					58,883			(11,124)	
Secretary I	10	1.0	\$	55,047	1.0	\$	56,768	0.0	\$	1,721	3.1%
Engineering Technician II	17	1.0	\$	27,942	1.0	\$	-	(1.0)	\$	(27,942)	-100.0%
Heavy Equipment Op/Mech	10	1.0	\$	60,608	1.0	\$	64,355	0.0	\$	3,747	6.2%
Senior Water Plant OP	16	1.0	\$	76,450	1.0	\$	80,530	0.0	\$	4,080	5.3%
Water Plant Operator	14	3.0	\$	199,522	3.0	\$	209,636	0.0	\$	10,114	5.1%
Maintenance IV	8	1.0	\$	56,499	1.0	\$	59,753	0.0	\$	3,254	5.8%
Equipment Operator	3	5.0	\$	243,034	4.0	\$	203,082	(1.0)	\$	(39,952)	-16.4%
Maintenance III	6	1.0	\$	52,275	1.0	\$	45,032	0.0	\$	(7,243)	-13.9%
Water Meter Technician	10	1.0	\$	61,608	1.0	\$	65,180	0.0	\$	3,572	5.8%
Total Full-Time Positions		20.0	Ş	1,274,137	18.0	\$	1,218,655	(2.0)	\$	(55,482)	-4.4%
PART-TIME FUNDING											
Clerk Typist			\$	26,400		\$	29,673		\$	3,273	12.4%
• •			\$	6,500		\$	6,500		\$	-	0.0%
Intern Seasonal				14,400			14,400			-	0.0%
Total Part-Time Funding			\$ <b>\$</b>	47,300		\$ <b>\$</b>	50,573		\$ <b>\$</b>	3,273	6.9%
Total Part-Time Funding			Ą	47,300		Ą	30,373		Ą	3,273	0.5%
OTHER											
Overtime			\$	190,000		\$	190,000		\$	-	0.0%
Sick Pay			\$	7,689		\$	7,930		\$	241	3.1%
Service Award			\$	23,574		\$	20,791		\$	(2,783)	-11.8%
Shift Differential			\$	5,275		\$	5,275		\$	-	0.0%
Holiday Premium			\$	13,400		\$	13,400		\$	-	0.0%
Weekend Premium			\$	500		\$	500		\$	-	0.0%
Total Other			\$	240,438		\$	237,896		\$	(2,542)	-1.1%
										•	
Total All		20.0	\$	1,561,875	18.0	\$	1,507,124	(2.0)	\$	(54,751)	-4%

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET MATERIALS AND SUPPLIES - WATER

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change							
Materials/Supplies:	\$333,000	\$14,500	4.55%							
Upkeep and operation of our water treatment plants and distribution system. Treatment chemicals have increased based on quotes										

Upkeep and operation of our water treatment plants and distribution system. Treatment chemicals have increased based on quotes received in 2017.

#### Materials/Supplies (Org: 5295203)

Objec	tt Line	2017	2018	,	\$ Difference	% Difference
7080	Pumping Station Electric	\$ 40,000	\$ 40,000	\$	-	0.0%
7090	Treatment Plant Chemicals	\$ 113,500	\$ 123,500	\$	10,000	8.8%
7110	Safety Shoes and Supplies	\$ 5,750	\$ 5,750	\$	-	0.0%
7130	Tools, Field Sup., & Small Eq.	\$ 10,500	\$ 10,000	\$	(500)	-4.8%
7150	Office Supplies	\$ 3,250	\$ 3,250	\$	-	0.0%
7260	Line Maintenance	\$ 70,000	\$ 72,500	\$	2,500	3.6%
7270	Station and Well Maintenance	\$ 3,500	\$ 3,500	\$	-	0.0%
7275	Reservoir Maintenance	\$ 5,000	\$ 7,500	\$	2,500	50.0%
7280	Treatment Plant Maintenance	\$ 35,000	\$ 35,000	\$	-	0.0%
7330	Meter Testing and Repairs	\$ 30,000	\$ 30,000	\$	-	0.0%
7440	Conservation Program	\$ 2,000	\$ 2,000	\$	-	0.0%
Mater	ials/Supplies Total	\$ 318,500	\$ 333,000	\$	14,500	4.6%

#### **MATERIALS AND SUPPLIES DETAIL**

	Object Code - Description	Amount Requested	Use of Funds (Description)
7080	Pumping Station Electric	\$ 40,000	Cost of Electricity at various pump stations
7090	Treatment Plant Chemicals	\$ 123,500	Cost of chemicals to treat water before distribution
7110	Safety Shoes and Supplies	\$ 5,750	Safety shoes, vests, hart hats
7130	Tools, Field Sup., & Small Eq.	\$ 10,000	Water main locating tools, field tools
7150	Office Supplies	\$ 3,250	Pens, paper, postage
7260	Line Maintenance	\$ 72,500	Valves, pipe, concrete, etc. for line repairs and maintenance
7270	Station and Well Maintenance	\$ 3,500	Materials bought by crews for general maintenance
7275	Reservoir Maintenance	\$ 7,500	Materials bought by crews for general maintenance
7280	Treatment Plant Maintenance	\$ 35,000	General maintenance of plant piping and structures
7330	Meter Testing and Repairs	\$ 30,000	In place meter testing and third party testing
7440	Conservation Program	\$ 2,000	Water conservation related printing and outreach
Total		\$ 333,000	

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET CONTRACTUAL SERVICES - WATER

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Contractual Services:	\$893,549	\$17,677	2.02%

Contractual services necessary for repair and maintenacne of our sytem which may be beyond staff ability to complete. Lab testing of water samples is required for regulatory compliance. Some road repair can be completed in house, but larger repairs on state roads are completed by a contractor.

#### Contractual Services (Org: 5295204)

Object Line	2017	2018	\$ Difference	% Difference
8020 Advertising	\$ 3,500	\$ 3,500	\$ -	0.0%
8030 Casualty Insurance	\$ 28,040	\$ 28,321	\$ 281	1.0%
8031 Insurance - Property	\$ 82,315	\$ 83,139	\$ 824	1.0%
8032 Insurance - Auto	\$ 26,894	\$ 27,163	\$ 269	1.0%
8033 Insurance - Broker	\$ 12,751	\$ 12,879	\$ 128	1.0%
8040 Merchant Fees and Discounts	\$ 90,000	\$ 100,000	\$ 10,000	11.1%
8050 Phone/Communications	\$ 5,300	\$ 10,000	\$ 4,700	88.7%
8120 Outside Engineering	\$ 105,000	\$ 125,000	\$ 20,000	19.0%
8130 Building & Equipment Rental	\$ 3,500	\$ 3,500	\$ -	0.0%
8131 Information Technology Cont'l	\$ 86,272	\$ 67,147	\$ (19,125)	-22.2%
8150 Water Service Contracts	\$ 92,300	\$ 92,300	\$ -	0.0%
8260 Line Maintenance	\$ 135,000	\$ 135,000	\$ -	0.0%
8270 Station Maintenance	\$ 11,500	\$ 11,500	\$ -	0.0%
8275 Reservoir Maintenance	\$ 45,000	\$ 45,600	\$ 600	1.3%
8280 Treatment Plant Maintenance	\$ 75,000	\$ 75,000	\$ -	0.0%
8320 Well Maintenance	\$ 20,000	\$ 20,000	\$ -	0.0%
8325 Tank Cleaning and Inspection	\$ 10,000	\$ 10,000	\$ -	0.0%
8330 Meter Testing and Repairs	\$ 5,000	\$ 5,000	\$ -	0.0%
8440 Conservation Program	\$ 3,000	\$ 3,000	\$ -	0.0%
8550 Misc. Contracted Services	\$ 10,000	\$ 10,000	\$ -	0.0%
8899 Mowing Contract	\$ 25,500	\$ 25,500	\$ -	0.0%
Contractual Services Total	\$ 875,872	\$ 893,549	\$ 17,677	2.0%

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET

#### **CONTRACTUAL SERVICES DETAIL - WATER**

		Amount	Has of Freedo (Dagwinston)
	Object Code - Description	Requested	Use of Funds (Description)
8020	Advertising	\$ 3,500	Advertising for bid opportunities and annual water quality report
8030	Casualty Insurance	\$ 28,321	Allocation provided by Finance
8031	Insurance - Property	\$ 83,139	Allocation provided by Finance
8032	Insurance - Auto	\$ 27,163	Allocation provided by Finance
8033	Insurance - Broker	\$ 12,879	Allocation provided by Finance
8040	Merchant Fees and Discounts	\$ 100,000	Credit card fees
8050	Phone/Communications	\$ 10,000	Mobile phones and air cards for mobile workforce applications and GIS mapping
8120	Outside Engineering	\$ 125,000	Annual support of the Water Resources Agency, water quality testing for state compliance, on-call contractual engineering support, annual USGS stream gauge maintenance
8130	Building & Equipment Rental	\$ 3,500	Easement rent, specialty equipment rental expenses
8131	Information Technology Cont'l	\$ 67,147	Department's share of IT costs, please see Appendix A
8150	Water Service Contracts	\$ 92,300	Smart Meter measurement and verification, water plant monitoring equipment testing and calibration, altitude valve maintenance, SCADA service charges
8260	Line Maintenance	\$ 135,000	Contractual road patch repair, water system repairs outside the scope of our internal crew capabilities or schedule
8270	Station Maintenance	\$ 11,500	Maintenance and repairs of water pump stations
8275	Reservoir Maintenance	\$ 45,600	Maintenance and repairs of reservoir and equipment
8280	Treatment Plant Maintenance	\$ 75,000	Maintenance and repairs of water treatment plants
8320	Well Maintenance	\$ 20,000	Maintenance and repairs of production wells
8325	Tank Cleaning and Inspection	\$ 10,000	Routine cleaning and inspection of water storage tanks
8330	Meter Testing and Repairs	\$ 5,000	3rd party meter testing expenses
8440	Conservation Program	\$ 3,000	Educational efforts and giveaways for water conservation
8550	Misc. Contracted Services	\$ 10,000	Items that don't fall into a standard category
8899	Mowing Contract	\$ 25,500	Mowing and bed maintenance of water facilities, including reservoir slopes
Total		\$ 893,549	

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET DEPRECIATION - WATER

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Depreciation Expense:	\$119,700	\$46,892	64.41%
Depreciation expense is calculated	annually by the Department of Finance a	nd is based upon the equipment utilized	d by each

Depreciation expense is calculated annually by the Department of Finance and is based upon the equipment utilized by each department. This amount will flucuate depending on asset additions and retirements, cost of assets and useful life of the assets.

Specifically, this increase is due in large part to two new trucks (One Dump Truck, One Standard Truck) purchased. 2018 reflects a full year for these vehicles.

#### Other Charges (Org: 5295205) - \*Depreciation Expense Only

Object Line	2017	2018	\$ Difference	% Difference
9060 Depreciation Expense	\$ 72,808 \$	119,700	\$ 46,892	64.4%
Other Charges Total *	\$ 72,808 \$	119,700	\$ 46,892	64.4%

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET DEBT SERVICE - WATER

#### Other Charges (Org: 5295205) - \*Debt Service Only

Obje	t Line	2017	2018	Ş	Difference	% Difference
9051	Debt Service Principal	\$ 1,070,000	\$ 1,095,000	\$	25,000	2.3%
9052	Debt Service Interest	\$ 199,150	\$ 177,750	\$	(21,400)	-10.7%
9056	Debt Service Principal-Smart Meters	\$ 327,730	\$ 334,940	\$	7,210	2.2%
9057	Debt Service Interest-Smart Meters	\$ 97,797	\$ 95,398	\$	(2,399)	-2.5%
9058	Debt Service Principal-ECM	\$ 33,832	\$ 34,510	\$	678	2.0%
9059	Debt Service Interest-ECM	\$ 3,809	\$ 3,131	\$	(678)	-17.8%
Other	Charges Total *	\$ 1,732,318	\$ 1,740,729	\$	8,411	0.5%

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET OTHER CHARGES - WATER

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#### Other Charges (Org: 5295205) - \*Excluding Depreciation Expense and Debt Service (Principal/Interest)

Object Line	2017	2018	\$ Difference	% Difference
9010 Bad Debt Expense	\$ 1,613	\$ 1,309	\$ (304)	-18.8%
9020 Mileage & Small Bus. Expense	\$ 150	\$ -	\$ (150)	-100.0%
9054 Amortization of Refinance Loss	\$ 34,443	\$ 34,443	\$ -	0.0%
9070 Training	\$ 8,600	\$ 8,600	\$ -	0.0%
9099 Contingencies	\$ 10,000	\$ 10,000	\$ -	0.0%
Other Charges Total *	\$ 54,806	\$ 54,352	\$ (454)	-0.8%

#### **OTHER CHARGES DETAIL**

	Object Code - Description	Amount Requested	Use of Funds (Description)
9010	Bad Debt Expense	\$ 1,309	
9054	Amortization of Refinance Loss	\$ 34,443	
9070	Training	\$ 8,600	License upkeep, industry trend participation, conferences
9099	Contingencies	\$ 10,000	
Total		\$ 54,352	

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET INTER-DEPT. CHARGES - WATER

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Inter-Dept. Charges:	\$936,587	\$86,567	10.18%

Administrative Overhead: Allocations of personnel expense from Finance, Planning, Administration, and Legislative for time spent on utility related issues.

Billings and Accounting: Various costs of the Finance Department are allocated based on pertinent ratios; for example, the payroll function is allocated based on the percentage of equivalent personnel head count (including temporary part-time), accounts payable function is allocated by the percentage of total budget dollars, and the accounting function is allocated by an average of the two previous ratios.

Buildings and Grounds: Costs of the Facilities Maintenance Division are allocated to other operating divisions by the square footage of the department offices and other buildings compared to the total city facility buildings square footage.

Electricity: Electricity consumption allocated to the department based on square footage of the department offices compared to the total City Hall building. Meter readings are obtained by the Electric Department at the end of each year. Cost is based on budget DEMEC rate.

Information Technology: Costs are allocated based on percentage of equivalent personnel head count (including temporary parttime) with the exception of items identified specifically for utility fund items such as support for Harris billing system and smart meter network.

Other Indirect Charges: Includes charges for work done by other divisions to benefit the receiving division offset by credits for work done by this division for other division. Example: For Parks, the Electric, Street, and Refuse crews performing work for Community Day.

Printing and Reproduction: The costs of supplies for copiers is allocated based on previously observed percentage of use by each department.

Vehicles and Equipment: Includes direct charges of vehicle maintenance and repair performed by the Fleet Maintenance crew and an allocation of indirect Fleet Maintenance costs allocated to each division by the percentage of direct costs for the individual division to the direct costs for all divisions.

Warehousing: Operating costs of the warehouse function allocated to those divisions that store inventory items.

#### Inter-Dept. Charges

Object Line	2017	2018	\$ Difference	% Difference
Administrative Overhead	\$ 358,494	\$ 364,868	\$ 6,374	1.8%
Billings & Accounting	\$ 79,708	\$ 119,116	\$ 39,408	49.4%
Buildings and Grounds	\$ 14,726	\$ 22,343	\$ 7,617	51.7%
Electricity	\$ 209,782	\$ 214,888	\$ 5,106	2.4%
Information Technology	\$ 137,419	\$ 156,863	\$ 19,444	14.1%
Other Indirect Charges	\$ (113,876)	\$ (115,776)	\$ (1,900)	1.7%
Printing and Reproduction	\$ 181	\$ 155	\$ (26)	-14.4%
Vehicles and Equipment	\$ 151,757	\$ 157,535	\$ 5,778	3.8%
Warehousing	\$ 11,829	\$ 16,595	\$ 4,766	40.3%
Inter-Dept. Charges Total	\$ 850,020	\$ 936,587	\$ 86,567	10.2%

# WATER DIVISION CAPITAL IMPROVEMENT PROJECTS

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION CIP - WATER

Drainet #	Dept	Description	2017 Budget	Balance as of		CAPITAL IMP	ROVEMENTS I	PROGRAM REC	UESTED FUN	DING
Project #	Priority	Description	2017 Budget	6/30/2017	2018	2019	2020	2021	2022	<b>Total CIP Request</b>
W0002*	2	CWTP Alt. Disinfection and Facility Upgrades	\$502,989	\$502,989	\$757,000					\$757,000
W0503	2	Well Restoration Program	\$48,576	\$48,576	\$56,000	\$29,000	\$29,000	\$29,000	\$29,000	\$172,000
W1101	1	Curtis WTP Intake Study and Replacement	\$172,440	\$172,440						\$0
W1302	2	Abandon Old Wells	\$0	\$40,000						\$0
W1303	2	Water System Master Plan and Model	\$52,150	\$50,622	\$50,000					\$50,000
W1402*	3	Air Stripper Replacement South Well Field	\$225,000	\$225,000	\$1,475,000					\$1,475,000
W1503	1	Academy St. Interconnection Pump Station	\$42,500	\$36,486		\$50,000	\$500,000			\$550,000
W1601	3	Backup Generation at Water Facilities	\$0	\$0	\$82,500	\$70,000				\$152,500
W1602	3	Roseville Park Pressure District	\$0	\$16,757			\$25,000	\$250,000		\$275,000
W1701	2	Valve Inspection, Exercising and Rehabilitation	\$0	\$0	\$165,000	\$125,000	\$125,000	\$125,000	\$125,000	\$665,000
W1702	3	Source Water Protection	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$100,000
W1703*	2	Laird Tract Well Field Restoration	\$0	\$0	\$225,000	\$1,925,000				\$2,150,000
W8605*	3	Water Tank Maintenance	\$25,000	\$71,463	\$700,000	\$500,000	\$700,000	\$350,000		\$2,250,000
W9302	1	Water SCADA	\$150,000	\$64,448	\$200,000	\$200,000	\$50,000	\$50,000	\$50,000	\$550,000
W9308	2	Water Main Replacement Program	\$1,000,000	\$237,758	\$500,000	\$1,000,000	\$500,000	\$1,000,000	\$500,000	\$3,500,000
WEQSF	1	Equipment Replacement Program	\$190,000	\$159,488						\$0
Total			\$2,428,655	\$1,646,027	\$4,230,500	\$3,919,000	\$1,949,000	\$1,824,000	\$724,000	\$12,646,500

<sup>\*</sup>To be funded or partially funded via referendum if approved

## CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL Public Works & Water Resources DIVISION: Water

PROJECT NO: PROJECT TITLE: PROJECT LOCATION:

W0002 CWTP Alt. Disinfection and Facility Upgrades Curtis Water Treatment Plant

#### PROJECT STATUS (SELECT FROM DROP DOWN):

PRIORITY: 2 - High Priority Level Critical need to remediate failing service, prevent failure, or generate savings

COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT: Sustainable Community

#### Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

DEPARTMENT:

This project will provide alternative disinfection equipment at the Curtis Water Treatment Plant (CWTP). The gaseous chlorine that we currently use is subject to increasing regulatory action. We plan to replace the gaseous chlorine with bulk sodium hypochlorite with a system similar to what is in use at the South Well Field Treatment Plant. As part of our study to select an appropriate replacement for gaseous chlorine we investigated the need for building upgrades and identified a variety of necessary rehabilitation work including roof replacement, insulation replacement, ventilation upgrades, and interior layout changes.

Funding for this project to proceed should council desire the utilization of debt, via the State of Delaware Revolving Loan or other funding sources, and and public referendum passes.

§ 806.1(3) SUMMARY OF PROJECT	DATA	PROJECT COST BY CATEGORY						
First Year in Program	2015	CLASSIFICATION	CLASSIFICATION ACCOUNT NUMBERS		AMOUNT			
Est. Completion Date	2018	Labor						
Est. Useful Life (in years)	20	Materials						
Est. Total Cost	1,259,989	Other Contracts	5295206.9740					
Est. Spend @ 12/31 (if underway) <sup>1</sup>		Total Project Cost		\$	1,259,989			
Balance to be funded <sup>1</sup>	1,259,989	<sup>1</sup> For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.						
% Complete (if underway)	25%							

/							
	PROJ	ECT FINANCII	NG BY PLAN Y	EAR			
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL
CURRENT RESOURCES							-
CAPITAL RESERVES	502,989						502,989
EQUIPMENT REPLACEMENT							-
BOND ISSUES							-
GRANTS (Specify)							-
OTHER (Specify) (referendum)		757,000					757,000
OTHER (Specify)							-
TOTAL	502,989	757,000	-	-	-	-	1,259,989

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET								
OPERATING IMPACT	2018	2019	2020	2021	2022	TOTAL		
INCREMENTAL COSTS (NET SAVINGS)						-		

### CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL

DEPARTMENT:	Public Works & Water Resources	DIVISION:	Water
PROJECT NO:	PROJECT TITLE:		PROJECT LOCATION:
W0503	Well Restoration Program		Various

#### PROJECT STATUS (SELECT FROM DROP DOWN):

PRIORITY: 2 - High Priority Level Critical need to remediate failing service, prevent failure, or generate savings

COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT: Sustainable Community

#### 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.

§ 806.1(3) SUMMARY OF PROJECT	DATA		Y							
First Year in Program	2005	CLASSIFICATION ACCOUNT NUMBERS			AMOUNT					
Est. Completion Date	Perpetual	Labor								
Est. Useful Life (in years)	5	Materials								
Est. Total Cost	220,576	Other Contracts	5295206.9760							
Est. Spend @ 12/31 (if underway) <sup>1</sup>		Total Project Cost		\$	220,576					
Balance to be funded <sup>1</sup>	220,576	<sup>1</sup> For ongoing projects, we must estimate total spent since inception								
% Complete (if underway)	0%		through current year to derive the balance to be funded thereafter.							

#### PROJECT FINANCING BY PLAN YEAR § 806.1(3) SOURCE OF FUNDS PRIOR<sup>2</sup> 2020 2021 2022 TOTAL 2018 2019 **CURRENT RESOURCES** 56,000 29,000 29,000 29,000 29,000 172,000 CAPITAL RESERVES 48,576 48,576 **EQUIPMENT REPLACEMENT BOND ISSUES** GRANTS (Specify) OTHER (Specify) OTHER (Specify) TOTAL 48,576 56,000 29,000 29,000 29,000 29,000 220,576

<sup>&</sup>lt;sup>2</sup>"Prior" refers to that portion of project funding that was authorized in a prior year but which is not expected to be spent through 12/31 of the current year. Accordingly, Council is not required to authorize budget year funding for that portion, but that portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET								
OPERATING IMPACT	2018	2019	2020	2021	2022	TOTAL		
INCREMENTAL COSTS (NET SAVINGS)						-		

#### **CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL** DEPARTMENT: **Public Works and Water Resources** DIVISION: Water PROJECT NO: PROJECT TITLE: PROJECT LOCATION: **Curtis WTP** W1101 Curtis WTP Intake Study and Replacement PROJECT STATUS (SELECT FROM DROP DOWN): PRIORITY: 1 - Highest Priority Level Project underway and must be completed COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT: Sustainable Community

#### Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

The dam and raceway form the back bone of the system that conveys raw water from the White Clay Creek to the Newark Treatment Plant and Reservoir Pump Station. We have had the dam inspected by our engineering consultant and they determined that there is not an imminent threat of it failing but there is the potential for it to be bypassed should the White Clay Creek change course or wash out the west side embankment during a high water event. The raceway has an antiquated waste way structure and bridge assembly that controls the level in the raceway and provides access to the raceway head gates; however, this system dates back to the late 18th century originally constructed for the curtis paper mill and signs of erosion and undercutting are apparent. Additionally, the raceway continues to sequester sediment resulting in reduced flow to the Newark Treatment Plant and Reservoir Pump Station. Currently there are no effective means to clear debris from the water that flows down the raceway creating problems with the reservoir pumps. Furthermore, efforts are underway to eliminate or mitigate the barriers that this and other dams create which prevent the migration of fish, mollusks, and other aquatic life.

Near term issues to be addressed will be the waste way structure and a possible bar screen on the reservoir intake which would be paid for with reserves already dedicated to the project. The repairs to the waste way, selective sediment removal and new bar screen is scheduled for 2018. Large scale intake work will not occur until 2022 when the reservoir debt service is paid off.

§ 806.1(3) SUMMARY OF PROJECT	DATA	PROJECT COST BY CATEGORY					
First Year in Program	2011	CLASSIFICATION	CLASSIFICATION ACCOUNT NUMBERS		AMOUNT		
Est. Completion Date	2019	Labor					
Est. Useful Life (in years)	15	Materials					
Est. Total Cost	172,440	Other Contracts	5295206.9621				
Est. Spend @ 12/31 (if underway) <sup>1</sup>		Total Project Cost		\$ 1	L72,440		
Balance to be funded <sup>1</sup>	172,440	<sup>1</sup> For ongoing projects	, we must estimate total	spent since inc	eption		
% Complete (if underway)	3%	through current year to derive the balance to be funded thereafter.					
	PRO	IECT FINANCING BY PLAN Y	FAR				

PROJECT FINANCING BY PLAN YEAR								
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL	
CURRENT RESOURCES							-	
CAPITAL RESERVES	172,440						172,440	
EQUIPMENT REPLACEMENT							-	
BOND ISSUES							-	
GRANTS (Specify)							-	
OTHER (Specify)							-	
OTHER (Specify)							-	
TOTAL	172,440	•	-	-	-	-	172,440	

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET							
OPERATING IMPACT         2018         2019         2020         2021         2022         TOTAL						TOTAL	
INCREMENTAL COSTS (NET SAVINGS)	-	-	-	-	-	-	

#### **CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL** DEPARTMENT: **Public Works & Water Resources** DIVISION: Water PROJECT NO: PROJECT TITLE: PROJECT LOCATION: W1302 Abandon Old Wells Various PROJECT STATUS (SELECT FROM DROP DOWN): PRIORITY: 2 - High Priority Level Critical need to remediate failing service, prevent failure, or generate savings COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT: Sustainable Community

#### Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

The Water Department has over time developed various well fields that are no longer in use. In several cases the well head and associated piping including the well itself are still on site and subject to vandalism and possible contamination of the aquifer. This project will allow us to seal the old wells and deactivate the sites. Wells that we will be considering for closure include those associated with the City of Newark's North Well Field at Lewis Park. Any work will be done in coordination with the DNREC Division of Water Water Supply Section to obtain authorized abandonment permits and reports.

§ 806.1(3) SUMMARY OF PROJECT	DATA		PROJECT COST BY CATEGORY						
First Year in Program	2013	CLASSIFICATION ACCOUNT NUMBERS			AMOUNT				
Est. Completion Date	2018	Labor							
Est. Useful Life (in years)		Materials							
Est. Total Cost	40,000	Other Contracts	5295206.9760						
Est. Spend @ 12/31 (if underway) <sup>1</sup>		Total Project Cost		\$	40,000				
Balance to be funded <sup>1</sup>	40,000	<sup>1</sup> For ongoing projects, we must estimate total spent since inception							
% Complete (if underway)		through current year to derive the balance to be funded thereafter.							

PROJECT FINANCING BY PLAN YEAR							
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL
CURRENT RESOURCES	40,000						40,000
CAPITAL RESERVES							-
EQUIPMENT REPLACEMENT							-
BOND ISSUES							-
GRANTS (Specify)							-
OTHER (Specify)							-
OTHER (Specify)							-
TOTAL	40,000	-	-	-	-	-	40,000

<sup>&</sup>lt;sup>2</sup>"Prior" refers to that portion of project funding that was authorized in a prior year but which is not expected to be spent through 12/31 of the current year. Accordingly, Council is not required to authorize budget year funding for that portion, but that portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET								
OPERATING IMPACT 2018 2019 2020 2021 2022 TOTAL								
INCREMENTAL COSTS (NET SAVINGS)						-		

#### **CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL** DEPARTMENT: **Public Works & Water Resources** DIVISION: Water PROJECT NO: PROJECT TITLE: PROJECT LOCATION: W1303 Water System Master Plan and Model Various PROJECT STATUS (SELECT FROM DROP DOWN): 2 - High Priority Level Critical need to remediate failing service, prevent failure, or generate savings PRIORITY: COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT: Sustainable Community

#### Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

This project will build off the water distribution system hydraulic computer model developed in 2016. The current solution models the system under a "snap shot" scenario; meaning, the system is analyzed using a specific tank levels and system demand. This project will utilize the newly collected SCADA data to develop a more sophisticated extended period simulation which will model the diurnal demand and pressure fluctuation throughout the system. The specific simulation will allow the department to more accurately estimate scenarios; such as, predicted fire flow capacity, develop unidirectional flushing plans and prioritize pipe lining and replacement locations.

§ 806.1(3) SUMMARY OF PROJECT	DATA	PROJECT COST BY CATEGORY						
First Year in Program	2013	CLASSIFICATION ACCOUNT NUMBERS			AMOUNT			
Est. Completion Date	2017	Labor						
Est. Useful Life (in years)	10	Materials						
Est. Total Cost	50,000	Other Contracts	5295206.9760					
Est. Spend @ 12/31 (if underway) <sup>1</sup>		Total Project Cost		\$	50,000			
Balance to be funded <sup>1</sup>	50,000	<sup>1</sup> For ongoing projects, we must estimate total spent since inception						
% Complete (if underway)	0%							

#### PROJECT FINANCING BY PLAN YEAR § 806.1(3) SOURCE OF FUNDS PRIOR<sup>2</sup> 2018 2019 2020 2021 2022 TOTAL **CURRENT RESOURCES** 50,000 50,000 CAPITAL RESERVES **EQUIPMENT REPLACEMENT** BOND ISSUES **GRANTS** (Specify) OTHER (Specify) OTHER (Specify) TOTAL 50,000 50,000

<sup>&</sup>lt;sup>2</sup>"Prior" refers to that portion of project funding that was authorized in a prior year but which is not expected to be spent through 12/31 of the current year. Accordingly, Council is not required to authorize budget year funding for that portion, but that portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET								
OPERATING IMPACT         2018         2019         2020         2021         2022         TOTAL								
INCREMENTAL COSTS (NET SAVINGS)						-		

### CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL

DEPARTMENT: Public Works and Water Resources DIVISION: Water

PROJECT NO: PROJECT TITLE: PROJECT LOCATION:

W1402 Air Stripper Replacement South Well Field South Well Field Treatment Plant

#### PROJECT STATUS (SELECT FROM DROP DOWN):

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

#### Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

The current air stripper has been in service for approximately 15 years running 24/7 and is likely nearing the end of it's service life. The system is very difficult to maintain due to its location on top of the raw water tank. Although effective at removing the harmful contaminents in the groundwater, it is unable to adequately treat all of the available source water (wells 14r and 16) resulting in these wells sitting idle. Furthermore, because there is no redundency in the treatment process if the air stripper were to fail the South Well Field Treatment Plant (which accounts to roughly 40% of the City's water production) would need to be shut down.

Funding for this project to proceed past the design phase will occur should council desire the utilization of dept, via the State of Delaware Revolving Loan or other funding sources, and and public referendum passes.

2018 - Design, Referendum, and Bidding

2019 - Construction

§ 806.1(3) SUMMARY OF PROJECT	DATA	PROJECT COST BY CATEGORY							
First Year in Program	2014	CLASSIFICATION ACCOUNT NUMBERS			AMOUNT				
Est. Completion Date	2019	Labor							
Est. Useful Life (in years)	15	Materials							
Est. Total Cost	1,700,000	Other Contracts 5295206.9740		\$	1,700,000				
Est. Spend @ 12/31 (if underway) <sup>1</sup>	-	Total Project Cost		\$	1,700,000				
Balance to be funded <sup>1</sup>	1,700,000	<sup>1</sup> For ongoing projects, we must estimate total spent since inception through current year to derive the balance to be funded thereafter.							
% Complete (if underway)									

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	PROJ	ECT FINANCI	NG BY PLAN Y	EAR			
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL
CURRENT RESOURCES							-
CAPITAL RESERVES	225,000						225,000
EQUIPMENT REPLACEMENT							-
BOND ISSUES							-
GRANTS (Specify)							-
OTHER (Specify) (referendum)		1,475,000					1,475,000
OTHER (Specify)							-
TOTAL	225,000	1,475,000	-	-	-	-	1,700,000

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET								
OPERATING IMPACT         2018         2019         2020         2021         2022         TOTAL								
INCREMENTAL COSTS (NET SAVINGS)						-		

## CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL

DEPARTMENT: Public Works and Water Resources DIVISION: Water

PROJECT NO: PROJECT TITLE: PROJECT LOCATION:

W1503 Academy St. Interconnection Pump Station Academy Street and Waterworks Lane

#### PROJECT STATUS (SELECT FROM DROP DOWN):

PRIORITY: 1 - Highest Priority Level Project underway and must be completed

COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT: Sustainable Community

#### 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 usually 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 will feature standpipes and valves which we will connect a portable pump on a temporary basis. 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.

§ 806.1(3) SUMMARY OF PROJECT	DATA		RY					
First Year in Program	2015	CLASSIFICATION		AMOUNT				
Est. Completion Date	2020	Labor						
Est. Useful Life (in years)	15	Materials						
Est. Total Cost	550,000	Other Contracts	5295206.9760					
Est. Spend @ 12/31 (if underway) <sup>1</sup>		Total Project Cost	\$	550,000				
Balance to be funded <sup>1</sup>	550,000	<sup>1</sup> For ongoing projects, we must estimate total spent since inception						
% Complete (if underway)	2%	through current year to derive the balance to be funded thereafter.						

PROJECT FINANCING BY PLAN YEAR							
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL
CURRENT RESOURCES			50,000	500,000			550,000
CAPITAL RESERVES							-
EQUIPMENT REPLACEMENT							-
BOND ISSUES							-
GRANTS (Specify)							-
OTHER (Specify)							-
OTHER (Specify)							-
TOTAL	-		50,000	500,000		-	550,000

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET								
OPERATING IMPACT         2018         2019         2020         2021         2022         TOTAL								
INCREMENTAL COSTS (NET SAVINGS)	-	-	-	-	-	-		

#### **CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL** DEPARTMENT: **Public Works and Water Resources** DIVISION: Water PROJECT NO: PROJECT TITLE: PROJECT LOCATION: W1601 Backup Generation at Water Facilities Well 17 and Northwest Booster PROJECT STATUS (SELECT FROM DROP DOWN): **New Project** 3 - Medium-High The City would be taking a calculated risk in the deferral of this item PRIORITY:

#### Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:

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 \$5000, 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. 2018 will cover engineering and bid preparation for Well 17 and the NW Booster along with the actual construction at the NW Booster. 2019 will cover construction at Well 17.

§ 806.1(3) SUMMARY OF PROJECT	DATA	PROJECT COST BY CATEGORY						
First Year in Program	2016	CLASSIFICATION	CLASSIFICATION ACCOUNT NUMBERS		AMOUNT			
Est. Completion Date	2019	Labor						
Est. Useful Life (in years)	20	Materials						
Est. Total Cost	152,500	Other Contracts 5295206.9760						
Est. Spend @ 12/31 (if underway) <sup>1</sup>	ı	Total Project Cost		\$	152,500			
Balance to be funded <sup>1</sup>	152,500	<sup>1</sup> For ongoing projects, we must estimate total spent since inception through						
% Complete (if underway)	0%	current year to derive the balance to be funded thereafter.						
PROJECT FINANCING BY PLAN YEAR								

PROJECT FINANCING BY PLAN YEAR							
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL
CURRENT RESOURCES		82,500					82,500
CAPITAL RESERVES							-
EQUIPMENT REPLACEMENT							-
BOND ISSUES							-
GRANTS (Specify)			70,000				70,000
OTHER (Specify)							-
OTHER (Specify)							-
TOTAL	-	82,500	70,000	-	-	-	152,500

<sup>2</sup>"Prior" refers to that portion of project funding that was authorized in a prior year but which is not expected to be spent through 12/31 of the current year. Accordingly, Council is not required to authorize budget year funding for that portion, but that portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET							
OPERATING IMPACT         2018         2019         2020         2021         2022         TOTAL							
INCREMENTAL COSTS (NET SAVINGS)						-	

Healthy & Active Community

## CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL

 DEPARTMENT:
 Public Works and Water Resources
 DIVISION:
 Water

 PROJECT NO:
 PROJECT TITLE:
 PROJECT LOCATION:

 W1602
 Roseville Park Pressure District
 Roseville Park & Delaplane Manor

#### PROJECT STATUS (SELECT FROM DROP DOWN):

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

#### 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 inhouse forces. If we determine otherwise once we get further into the design phase the construction cost estimate will have to be revised upward at that time.

§ 806.1(3) SUMMARY OF PROJECT	DATA		RY					
First Year in Program	2016	CLASSIFICATION		AMOUNT				
Est. Completion Date	2021	Labor						
Est. Useful Life (in years)	100	Materials						
Est. Total Cost	275,000	Other Contracts	5295206.9760					
Est. Spend @ 12/31 (if underway) <sup>1</sup>		Total Project Cost		\$	275,000			
Balance to be funded <sup>1</sup>	275,000	<sup>1</sup> For ongoing projects, we must estimate total spent since inception						
% Complete (if underway)	0%							

PROJECT FINANCING BY PLAN YEAR							
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL
CURRENT RESOURCES				25,000	250,000		275,000
CAPITAL RESERVES							-
EQUIPMENT REPLACEMENT							-
BOND ISSUES							-
GRANTS (Specify)							-
OTHER (Specify)							-
OTHER (Specify)							-
TOTAL	-		-	25,000	250,000		275,000

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET							
OPERATING IMPACT         2018         2019         2020         2021         2022         TOTAL							
INCREMENTAL COSTS (NET SAVINGS)	-	-	-	-	-	-	

## CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL

 DEPARTMENT:
 Public Works and Water Resources
 DIVISION:
 Water

 PROJECT NO:
 PROJECT TITLE:
 PROJECT LOCATION:

 W1701
 Valve Inspection, Exercising and Rehabilitation
 Various

PROJECT STATUS (SELECT FROM DROP DOWN):

**New Project** 

PRIORITY: 2 - High Priority Level

Critical need to remediate failing service, prevent failure, or generate savings

COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:

Sustainable Community

#### Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

According to AWWA, "Each valve should be operated through a full cycle and returned to it's 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 proposed to develop a valve exercising program utilizing the recently completed GIS database and contract documents in 2018 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.

It is my 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. We will revisit this estimate annually during the program as we have more data to support optimization.

§ 806.1(3) SUMMARY OF PROJECT	DATA	i e	PROJECT COST BY CATEGORY					
First Year in Program	2017	CLASSIFICATION	ACCOUNT NUMBERS		AMOUNT			
Est. Completion Date	2022	Labor						
Est. Useful Life (in years)	100	Materials	5295203.9760	\$	200,000			
Est. Total Cost	665,000	Other Contracts	5295206.9760	\$	465,000			
Est. Spend @ 12/31 (if underway) <sup>1</sup>	ı	Total Project Cost		\$	665,000			
Balance to be funded <sup>1</sup>	665,000	<sup>1</sup> For ongoing projects, we must estimate total spent since inception through						
% Complete (if underway)	0%							

PROJECT FINANCING BY PLAN YEAR							
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL
CURRENT RESOURCES		165,000	125,000	125,000	125,000	125,000	665,000
CAPITAL RESERVES							-
EQUIPMENT REPLACEMENT							-
BOND ISSUES							-
GRANTS (Specify)							-
OTHER (Specify)							-
OTHER (Specify)							-
TOTAL	-	165,000	125,000	125,000	125,000	125,000	665,000

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET							
OPERATING IMPACT         2018         2019         2020         2021         2022         TOTAL							
INCREMENTAL COSTS (NET SAVINGS)						-	

#### **CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL** DEPARTMENT: **Public Works and Water Resources** DIVISION: Water PROJECT NO: PROJECT TITLE: PROJECT LOCATION: W1702 **Source Water Protection** White Clay Creek Watershed PROJECT STATUS (SELECT FROM DROP DOWN): **New Project** 3 - Medium-High The City would be taking a calculated risk in the deferral of this item PRIORITY: COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT: Healthy & Active Community

#### Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

This project will fund source water protection efforts in the White Clay Creek watershed, upstream from our surface water intake at the Curtis Water Treatment Plant. The goal for these projects is to reduce risk of contamination from both point and non point source pollution sources. Additionally, projects may also seek to reduce bacterial, nutrient, and sediment loading in the creek which will improve water quality, improving treatment efficiency, while reducing electrical and chemical costs slowly over time. As an added benefit, in addition to Source Water protection, we are also in discussions with DNREC to allow the efforts from these projects to be included in our NPDES Permit compliance reporting.

Previously, projects of this sort have been funded on an ad-hoc basis using operating funding when available. In order to realize a benefit this will require a long term commitment allowing community partners with leveraging funding a reliable matching funding source. Additionally, the PWWR Department is working with the UD Water Resources Agency and the Nature Conservancy with funding from the William Penn Foundation to develop the Brandywine-Christina Healthy Water Fund. The goal of this fund is to implement a funding mechanism and science-based investment protocol to restore the Brandywine-Christina watershed to fishable, swimmable, and potable status within 10 years. A water fund is a mechanism for downstream beneficiaries to invest in upstream conservation measures designed to secure freshwater resources – both quality and quantity. Our funding would be leveraged to access other funding sources, multiplying our impact. Moving forward there will be a consistent source of projects, prioritized by their cost effectiveness at achieving the fishable, swimmable, potable goal. A pilot project for this fund is currently underway in 2017 and we have provided this funding as described. For more information on the fund please visit: http://www.wra.udel.edu/brandywine-christina-healthy-water-fund/

§ 806.1(3) SUMMARY OF PROJECT	DATA	PROJECT COST BY CATEGORY					
First Year in Program	2017	CLASSIFICATION	ACCOUNT NUMBERS		AMOUNT		
Est. Completion Date	2027	Labor					
Est. Useful Life (in years)	20	Materials					
Est. Total Cost	100,000	Other Contracts	Other Contracts 5295206.9760				
Est. Spend @ 12/31 (if underway) <sup>1</sup>	ı	Total Project Cost		\$	100,000		
Balance to be funded <sup>1</sup>	100,000	<sup>1</sup> For ongoing projects, we must estimate total spent since inception through					
% Complete (if underway)	0%	current year to derive the balance to be funded thereafter.					

PROJECT FINANCING BY PLAN YEAR							
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL
CURRENT RESOURCES		20,000	20,000	20,000	20,000	20,000	100,000
CAPITAL RESERVES							-
EQUIPMENT REPLACEMENT							-
BOND ISSUES							-
GRANTS (Specify)							-
OTHER (Specify)							-
OTHER (Specify)							-
TOTAL	-	20,000	20,000	20,000	20,000	20,000	100,000

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET							
OPERATING IMPACT         2018         2019         2020         2021         2022         TOTAL							
INCREMENTAL COSTS (NET SAVINGS)						-	

#### CITY OF NEWARK, DELAWARE **CAPITAL BUDGET - PROJECT DETAIL** DEPARTMENT: **Public Works and Water Resources** DIVISION: Water PROJECT NO: PROJECT TITLE: PROJECT LOCATION: W1703 Laird Tract Well Field Restoration **Curtis Water Treatment Plant Area** PROJECT STATUS (SELECT FROM DROP DOWN): **New Project** PRIORITY: 2 - High Priority Level Critical need to remediate failing service, prevent failure, or generate savings

#### Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:

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 treatment plant, 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, as government regulations were developed and due to 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 consist 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 2018 along with the design of the collection system upgrades with the full project being constructed in 2019.

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.

§ 806.1(3) SUMMARY OF PROJECT	PROJECT COST BY CATEGORY						
First Year in Program	2017	CLASSIFICATION		AMOUNT			
Est. Completion Date	2027	Labor					
Est. Useful Life (in years)	20	Materials					
Est. Total Cost	2,150,000	Other Contracts					
Est. Spend @ 12/31 (if underway) <sup>1</sup>	ı	Total Project Cost		\$	2,150,000		
Balance to be funded <sup>1</sup>	2,150,000	To ongoing projects, we must estimate total spent since inception through					
% Complete (if underway)	0%						
	PRO	IFCT FINANCING BY PLAN Y	FAR				

PROJECT FINANCING BY PLAN YEAR								
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL	
CURRENT RESOURCES		75,000	325,000				400,000	
CAPITAL RESERVES							1	
EQUIPMENT REPLACEMENT							-	
BOND ISSUES							-	
GRANTS (Specify)		150,000					150,000	
OTHER (Specify) (referendum)			1,600,000				1,600,000	
OTHER (Specify)							-	
TOTAL	-	225,000	1,925,000	-	-	-	2,150,000	

<sup>2</sup>"Prior" refers to that portion of project funding that was authorized in a prior year but which is not expected to be spent through 12/31 of the current year. Accordingly, Council is not required to authorize budget year funding for that portion, but that portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET							
OPERATING IMPACT	2018	2019	2020	2021	2022	TOTAL	
INCREMENTAL COSTS (NET SAVINGS)		20,000	20,000	20,000	20,000	80,000	

Healthy & Active Community

## CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL

 DEPARTMENT:
 Public Works and Water Resources
 DIVISION:
 Water

 PROJECT NO:
 PROJECT TITLE:
 PROJECT LOCATION:

 W8605
 Water Tank Maintenance
 Various

#### PROJECT STATUS (SELECT FROM DROP DOWN):

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

#### Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

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 including to account for addition testing, notification and safety precautions. The current painting schedule is:

2017 - Design and bid package preparation for the South Well Field Tanks

2018 - South Well Field raw and finished water tanks (each 500,000 gallon ground tanks) - Lead present is current coating. \$300,000 each, need to be completed simultaneously because the treatment plant must be taken offline during blasting and painting. May require water purchases during painting so I have included \$100,000 to cover this cost and spread the funding across 2017 and 2018. Last painted in 2003.

Funding for the 2019 project to proceed past the design phase will occur should council desire the utilization of debt, via the State of Delaware Revolving Loan or other funding sources, and public referendum passes.

'2019 - Arbour Park Tank (500,000 gallon ground tank) - \$350,000, last painted in 2003

2020 - Dallam Road Tank (565,000 gallon ground tank) - Lead present is current coating.  $$400,\!000,$  last painted in 2003

2020 - Nottingham Road Tank (220,000 gallon ground tank) -Lead present is current coating. \$300,000, last painted in 2003

2021 - New London Tank (2,000,000 gallon ground tank) - \$500,000, last painted in 1997

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

2031 - Louviers Tank (1,000,000 gallon elevated tank) - \$750,000, last painted in 2016

§ 806.1(3) SUMMARY OF PROJECT	DATA	i e	PROJECT COST BY CATEGOR	Υ				
First Year in Program	1986	CLASSIFICATION	ACCOUNT NUMBERS		AMOUNT			
Est. Completion Date	Perpetual	Labor						
Est. Useful Life (in years)	15	Materials						
Est. Total Cost	2,250,000	Other Contracts	5295206.9760	\$	2,250,000			
Est. Spend @ 12/31 (if underway) <sup>1</sup>	1	Total Project Cost		\$	2,250,000			
Balance to be funded <sup>1</sup>	2,250,000	<sup>1</sup> For ongoing projects, we must estimate total spent since inception						
% Complete (if underway)		through current year	to derive the balance to	be funded	thereafter.			

PROJECT FINANCING BY PLAN YEAR								
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL	
CURRENT RESOURCES			500,000	700,000	350,000		1,550,000	
CAPITAL RESERVES							-	
EQUIPMENT REPLACEMENT							-	
BOND ISSUES							-	
GRANTS (Specify)							-	
OTHER (Specify) (referendum)		700,000					700,000	
OTHER (Specify)							-	
TOTAL	-	700,000	500,000	700,000	350,000	-	2,250,000	

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET							
OPERATING IMPACT	2018	2019	2020	2021	2022	TOTAL	
INCREMENTAL COSTS (NET SAVINGS)						-	

#### **CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL** DEPARTMENT: **Public Works and Water Resources** DIVISION: Water PROJECT NO: PROJECT TITLE: PROJECT LOCATION: W9302 Water SCADA Various Locations PROJECT STATUS (SELECT FROM DROP DOWN): PRIORITY: 1 - Highest Priority Level Project underway and must be completed COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:

#### Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

Development of a SCADA System for the PWWR Department will allow us to more efficiently and effectively manage and monitor the utilities. We currently have four water plant operator positions that work three shifts per day, every day of the year. The four operators use a vehicle which has been lasting less than three years before wearing out from excessive mileage and use. With a SCADA System, we will significantly reduce the mileage driven per day due to the need to check all facilities at least once per shift. This will also free up time for the operators to perform routine preventative maintenance tasks that are currently either contracted out or not completed at all.

Sustainable Community

After a thorough search, the City in 2016 selected a new integrator experienced in the water and wastewater industry to provide a turn-key product. The selected integrator is currently working on a full evaluation of all of our facilities that will allow us to accurately plan out implementation over the next few years. Out year values are our best estimate as of today, Once the evaluation is complete we will update out-year funding estimates.

Through a separate project in the sewer fund we will instrument our sewer pump stations.

§ 806.1(3) SUMMARY OF PROJECT	DATA	PROJECT COST BY CATEGORY						
First Year in Program	1993	CLASSIFICATION	ACCOUNT NUMBERS		AMOUNT			
Est. Completion Date	2021	Labor						
Est. Useful Life (in years)	15	Materials						
Est. Total Cost	550,000	Other Contracts	5295206.9760					
Est. Spend @ 12/31 (if underway) <sup>1</sup>		Total Project Cost		\$	550,000			
Balance to be funded <sup>1</sup>	550,000	<sup>1</sup> For ongoing projects, we must estimate total spent since inception						
% Complete (if underway)	0%	through current year to derive the balance to be funded thereafter.						

PROJECT FINANCING BY PLAN YEAR								
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL	
CURRENT RESOURCES		200,000	200,000	50,000	50,000	50,000	550,000	
CAPITAL RESERVES							-	
EQUIPMENT REPLACEMENT							-	
BOND ISSUES							-	
GRANTS (Specify)							-	
OTHER (Specify)							-	
OTHER (Specify)							-	
TOTAL	-	200,000	200,000	50,000	50,000	50,000	550,000	

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET							
OPERATING IMPACT         2018         2019         2020         2021         2022         TOTAL							
INCREMENTAL COSTS (NET SAVINGS)						-	

#### **CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL** DEPARTMENT: **Public Works and Water Resources** DIVISION: Water PROJECT NO: PROJECT TITLE: PROJECT LOCATION: W9308 Water Main Replacement Program Various Locations PROJECT STATUS (SELECT FROM DROP DOWN): PRIORITY: 2 - High Priority Level Critical need to remediate failing service, prevent failure, or generate savings COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT: Sustainable Community

#### Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

Project involves either replacing mains or lining the interior to minimize main breaks, improve water quality, and improve fire flow. Final determination of water lines to be rehabilitated will be identified closer to contract development so that we can incorporate the latest information we have on system condition and road maintenance activity. In 2017 we completed replacement of the water main along East Park Place from South Chapel to Manuel Street. In 2018, we intend to complete the portion of East Park Place from Manuel to Academt Street. We also intend to perform a significant amount of lining to improve water quality in the Oaklands area, specifically Wilson Road and Cheltenham Road. The unit cost for lining has come down in recent years and will allow us to tackle persistent water quality problem areas where the main is otherwise structurally sufficient. We will compare pricing of lining versus replacement for this section, taking into account overall restoration costs.

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. That said, we have several large, one-time treatment plant projects in the budget over the next 5 years that are going to use up a large portion of our cash financing available so we are not going to meet our target replacement goal without utilizing debt financing. The Reservoir debt is paid off beginning in year 2022 which will allow us to make up for this deferred replacement at that time.

§ 806.1(3) SUMMARY OF PROJECT	DATA		PROJECT COST BY CATEGOR	RY					
First Year in Program	1993	CLASSIFICATION ACCOUNT NUMBERS			AMOUNT				
Est. Completion Date	Perpetual	Labor							
Est. Useful Life (in years)	75+	Materials							
Est. Total Cost	3,500,000	Other Contracts	Other Contracts 5295206.9760						
Est. Spend @ 12/31 (if underway) <sup>1</sup>	1	Total Project Cost	Total Project Cost						
Balance to be funded <sup>1</sup>	3,500,000	<sup>1</sup> For ongoing projects, we must estimate total spent since inception							
% Complete (if underway)		through current year	through current year to derive the balance to be funded thereafter.						

	PROJECT FINANCING BY PLAN YEAR								
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL		
CURRENT RESOURCES		500,000	1,000,000	500,000	1,000,000	500,000	3,500,000		
CAPITAL RESERVES							-		
EQUIPMENT REPLACEMENT							-		
BOND ISSUES							-		
GRANTS (Specify)							-		
OTHER (Specify)							-		
OTHER (Specify)							-		
TOTAL	-	500,000	1,000,000	500,000	1,000,000	500,000	3,500,000		

l	§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET							
I	OPERATING IMPACT         2018         2019         2020         2021         2022         TOTAL							
ĺ	INCREMENTAL COSTS (NET SAVINGS)						-	

#### **CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL** DEPARTMENT: **Public Works and Water Resources** DIVISION: Water/Sewer PROJECT NO: PROJECT TITLE: PROJECT LOCATION: **WEQSF Equipment Replacement Program** PROJECT STATUS (SELECT FROM DROP DOWN): PRIORITY: 1 - Highest Priority Level Project underway and must be completed COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT: Sustainable Community

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

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

\*Please be advised there are currently no anticipated replacements for 2018

§ 806.1(3) SUMMARY OF PROJECT	DATA		PROJECT COST BY CATEGOR	RY				
First Year in Program	ONGOING	CLASSIFICATION	CLASSIFICATION ACCOUNT NUMBERS		AMOUNT			
Est. Completion Date	ONGOING	Labor						
Est. Useful Life (in years)	VARIOUS	Materials						
Est. Total Cost	-	Other Contracts	5295206.9623	ζ,	-			
Est. Spend @ 12/31 (if underway) <sup>1</sup>	1	Total Project Cost		\$	-			
Balance to be funded <sup>1</sup>	1	<sup>1</sup> For ongoing projects, we must estimate total spent since inception						
% Complete (if underway)		through current year	to derive the balance to	be funded	thereafter.			

/										
	PROJECT FINANCING BY PLAN YEAR									
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL			
CURRENT RESOURCES							-			
CAPITAL RESERVES							-			
EQUIPMENT REPLACEMENT							-			
BOND ISSUES							-			
GRANTS (Specify)							-			
OTHER (Specify)							-			
OTHER (Specify)							-			
TOTAL	-	-	-	-	-	-	-			

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET						
OPERATING IMPACT	2018	2019	2020	2021	2022	TOTAL
INCREMENTAL COSTS (NET SAVINGS)	-	-	-	-	-	-

## STREET DIVISION

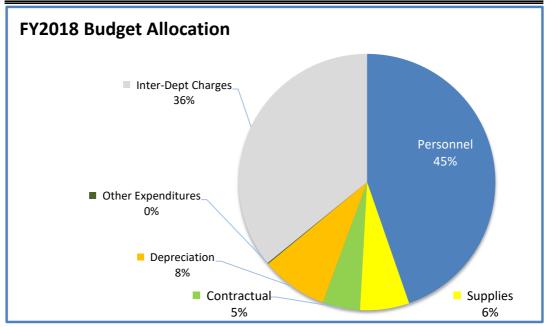
## PUBLIC WORKS & WATER RESOURCES PROGRAM NARRATIVE STREET

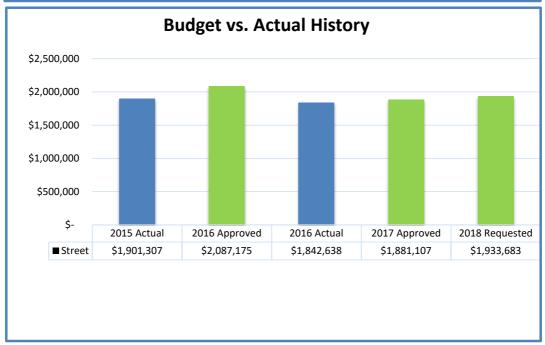
#### **Street Division:**

Responsible for minor repairs of streets and curbs, repair of city owned sidewalks, maintenance of the City's yard waste processing areas, the application of traffic control signage and striping, leaf collection, and snow plowing. In addition, this division routinely assists other departments and PWWR divisions as required.

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION STREET

Object Level	FY2017 Approved	FY2018 Recommended	FY2017 Approved vs. FY2018 Recomm'd	% Incr (Decr) over FY2017 Approved
Personnel Services	\$853,303	\$864,105	\$10,802	1.27%
Materials and Supplies	\$143,600	\$119,800	(\$23,800)	-16.57%
Contractual Services	\$86,924	\$91,351	\$4,427	5.09%
Depreciation	\$171,243	\$162,200	(\$9,043)	-5.28%
Other Expenditures	\$400	\$2,500	\$2,100	525.00%
Inter-Dept Charges	\$625,637	\$693,727	\$68,090	10.88%
Total:	\$1,881,107	\$1,933,683	\$52,576	2.79%

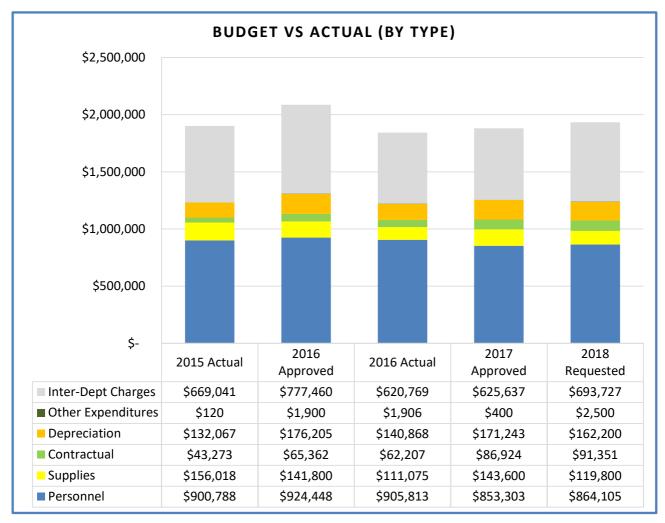




#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION STREET

Object Level		2015 Actual	2016		2016 Actual			2017	2018
Object Level		2015 Actual		Approved		2010 Actual		Approved	Requested
Personnel Services	\$	900,788	\$	924,448	\$	905,813	\$	853,303	\$ 864,105
Materials and Supplies	\$	156,018	\$	141,800	\$	111,075	\$	143,600	\$ 119,800
Contractual Services	\$	43,273	\$	65,362	\$	62,207	\$	86,924	\$ 91,351
Depreciation	\$	132,067	\$	176,205	\$	140,868	\$	171,243	\$ 162,200
Other Expenditures	\$	120	\$	1,900	\$	1,906	\$	400	\$ 2,500
Inter-Dept Charges	\$	669,041	\$	777,460	\$	620,769	\$	625,637	\$ 693,727
Total:	\$	1,901,307	\$	2,087,175	\$	1,842,638	\$	1,881,107	\$ 1,933,683

Object Level	2015 Actual	2016	2016 Actual	2017	2018
Object Level	2015 Actual	Approved	2016 Actual	Approved	Requested
Personnel Services	47.4%	44.3%	49.2%	45.4%	44.7%
Materials and Supplies	8.2%	6.8%	6.0%	7.6%	6.2%
Contractual Services	2.3%	3.1%	3.4%	4.6%	4.7%
Depreciation	6.9%	8.4%	7.6%	9.1%	8.4%
Other Expenditures	0.0%	0.1%	0.1%	0.0%	0.1%
Inter-Dept Charges	35.2%	37.2%	33.7%	33.3%	35.9%
Total:	100.0%	100.0%	100.0%	100.0%	100.0%



#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET PERSONNEL SERVICES - STREET

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Personnel Services:	\$864,105	\$10,802	1.27%
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Health insurance assumes an increase of 8% for 2018, which is equal to the increase experienced by the City in 2017. Salary assumptions include anticipated step increases when due per contract, and cost of living adjustments of 1.5% for Management, CWA and FOP employees.

#### Personnel Services (Org: 0131052)

Objec	t Line	2017	2018	Ş	Difference	% Difference
6020	Supervisory	\$ 75,362	\$ 61,121	\$	(14,241)	-18.9%
6230	Maintenance Workers	\$ 365,983	\$ 380,732	\$	14,749	4.0%
6580	Service Award	\$ 12,071	\$ 9,389	\$	(2,682)	-22.2%
6590	Sick Pay	\$ 4,068	\$ 2,991	\$	(1,077)	-26.5%
6610	Seasonal Workers	\$ 48,000	\$ 48,000	\$	-	0.0%
6620	Overtime	\$ 51,500	\$ 51,500	\$	-	0.0%
6880	Uniform Allowance	\$ 2,280	\$ 4,380	\$	2,100	92.1%
6920	Unemployment Compensation Ins	\$ 4,582	\$ 2,520	\$	(2,062)	-45.0%
6930	Social Security Taxes	\$ 42,784	\$ 41,745	\$	(1,039)	-2.4%
6940	City Pension Plan	\$ 77,828	\$ 92,937	\$	15,109	19.4%
6941	Defined Contrib 401A Plan	\$ 7,028	\$ 7,480	\$	452	6.4%
6950	Term Life Insurance	\$ 2,327	\$ 2,143	\$	(184)	-7.9%
6960	Group Hospitalization Ins	\$ 135,342	\$ 123,589	\$	(11,753)	-8.7%
6961	Ltd Insurance	\$ 882	\$ 961	\$	79	9.0%
6962	Dental Insurance	\$ 7,915	\$ 7,162	\$	(753)	-9.5%
6964	HSA City Contributions	\$ -	\$ 750	\$	750	#DIV/0!
6965	Post-Employment Benefits	\$ 11,099	\$ 22,380	\$	11,281	101.6%
6966	Retirement HIth Sav Acct	\$ 2,719	\$ 2,760	\$	41	1.5%
6967	Reimbursement-Emergency Room	\$ 1,160	\$ 1,160	\$	-	0.0%
6968	Vision Insurance Premiums	\$ 373	\$ 405	\$	32	8.6%
Perso	nnel Services Total	\$ 853,303	\$ 864,105	\$	10,802	1.3%

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION POSITION DETAIL - STREET

Tial.	Cuada	2017 # of		2017	2018 # of		2018	Position		D:tt	%
Title	Grade	Positions		Approved	Positions		Requested	Difference	\$	Difference	Change
FULL TIME POSITIONS											
PW & Water Supervisor	19	1.0	\$	75,362	1.0	\$	61,121	0.0	\$	(14,241)	-18.9%
Heavy Equipment Mech/Operator	10	1.0	\$	61,058	1.0	\$	54,482	0.0	\$	(6,576)	-10.8%
Maintenance IV	8	2.0	\$	112,998	2.0	\$	119,130	0.0	\$	6,132	5.4%
Equipment Operator	3	4.0	\$	191,927	4.0	\$	207,120	0.0	\$	15,193	7.9%
Total Full-Time Positions		8.0	\$	441,345	8.0	\$	441,853	0.0	\$	508	0.1%
PART-TIME FUNDING											
Seasonal			\$	48,000		\$	48,000		\$	-	0.0%
Total Part-Time Funding			\$	48,000		\$	48,000		\$	-	0.0%
OTHER											
Overtime			\$	51,500		\$	51,500		\$	-	0.0%
Sick Pay			\$	4,068		\$	2,991		\$	(1,077)	-26.5%
Service Award			\$	12,071		\$	9,389		\$	(2,682)	-22.2%
Total Other			\$	67,639		\$	63,880		\$	(3,759)	-5.6%
			•	•		•	,		•		
Total All		8.0	\$	556,984	8.0	\$	553,733	0.0	\$	(3,251)	-1%

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET MATERIALS AND SUPPLIES - STREET

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change					
Materials/Supplies:	\$119,800	(\$23,800)	-16.57%					
Materials necessary to complete division work. Street sign inventory is complete and replacement program for compliance with								

Materials necessary to complete division work. Street sign inventory is complete and replacement program for compliance with retroreflectivity standards. Salt budget is down due to 2017 funding and current inventory levels.

#### Materials/Supplies (Org: 0131053)

Obje	t Line	2017	2018	Ş	\$ Difference	% Difference
7110	Safety Shoes & Supplies	\$ 3,300	\$ 3,300	\$	-	0.0%
7130	Small Equip/ Tools/ Field Sup	\$ 3,200	\$ 3,200	\$	-	0.0%
7340	Street Sign Maint/Striping	\$ 26,000	\$ 24,000	\$	(2,000)	-7.7%
7380	Street Maintenance Supplies	\$ 30,000	\$ 30,000	\$	-	0.0%
7450	Salt/Snow Removal Supplies	\$ 61,800	\$ 40,000	\$	(21,800)	-35.3%
7470	Curb & Gutter Maint Supplies	\$ 18,000	\$ 18,000	\$	-	0.0%
7550	Miscellaneous Supplies	\$ 1,300	\$ 1,300	\$	-	0.0%
Mate	ials/Supplies Total	\$ 143,600	\$ 119,800	\$	(23,800)	-16.6%

#### **MATERIALS AND SUPPLIES DETAIL**

	Object Code - Description	Amount Requested	Use of Funds (Description)
7110	Safety Shoes & Supplies	\$ 3,300	Safety shoes, vests, gloves for jobsite safety
7130	Small Equip/ Tools/ Field Sup	\$ 3,200	Small paving equipment, shovels, rakes, etc.
7340	Street Sign Maint/Striping	\$ 24,000	Street sign replacement and striping areas
7380	Street Maintenance Supplies	\$ 30,000	Asphalt, bricks, mortar, cold patch
7450	Salt/Snow Removal Supplies	\$ 40,000	Salt
7470	Curb & Gutter Maint Supplies	\$ 18,000	Concrete and wood for forming
7550	Miscellaneous Supplies	\$ 1,300	Paint, wood, nails, mailboxes
Total		\$ 119,800	

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET CONTRACTUAL SERVICES - STREET

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Contractual Services:	\$91,351	\$4,427	5.09%
Contractual items necessary to comp	lete street maintenance. Snow and Ice remo	oval is for clearing Main Street in large	e events.

#### Contractual Services (Org: 0131054)

Object Li	ine	2017	2018	\$ Difference	% Difference
8030 Cas	sualty Insurance	\$ 7,202	\$ 7,275	\$ 73	1.0%
8031 Ins	surance - Property	\$ 4,186	\$ 4,228	\$ 42	1.0%
8032 Ins	surance - Auto	\$ 26,894	\$ 27,163	\$ 269	1.0%
8033 Ins	surance - Broker	\$ 3,518	\$ 3,554	\$ 36	1.0%
8050 Pho	one/Communications	\$ 550	\$ 3,000	\$ 2,450	445.5%
8130 Bld	dg & Equip Rental	\$ 5,000	\$ 5,000	\$ -	0.0%
8131 IT E	Expense Contractual	\$ 2,574	\$ 5,131	\$ 2,557	99.3%
8380 Str	reet Maintenance-Cont Svc	\$ 15,000	\$ 15,000	\$ -	0.0%
8450 Sno	ow & Ice Removal-Cont Svc	\$ 20,000	\$ 20,000	\$ -	0.0%
8550 Mis	scellaneous Contracted Svc	\$ 2,000	\$ 1,000	\$ (1,000)	-50.0%
Contractu	ual Services Total	\$ 86,924	\$ 91,351	\$ 4,427	5.1%

#### **CONTRACTUAL SERVICES DETAIL**

	Object Code - Description	Amount Requested	Use of Funds (Description)
8030	Casualty Insurance	\$ 7,275	Allocation provided by Finance
8031	Insurance - Property	\$ 4,228	Allocation provided by Finance
8032	Insurance - Auto	\$ 27,163	Allocation provided by Finance
8033	Insurance - Broker	\$ 3,554	Allocation provided by Finance
8050	Phone/Communications	\$ 3,000	Mobile phones and air cards for mobile workforce applications and GIS mapping
8130	Bldg & Equip Rental	\$ 5,000	Heavy or specialty construction equipment rental
8131	IT Expense Contractual	\$ 5,131	Department's share of IT costs, please see Appendix A
8380	Street Maintenance-Cont Svc	\$ 15,000	Street repairs that exceed the capabilities of our internal crews due to either the scope of the repairs or workload
8450	Snow & Ice Removal-Cont Svc	\$ 20,000	Snow hauling from Main Street
8550	Miscellaneous Contracted Svc	\$ 1,000	Items that do not fall into the above categories
Total		\$ 91,351	

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET DEPRECIATION - STREET

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Depreciation Expense:	\$162,200	(\$9,043)	-5.28%
Depreciation expense is calculated	l annually by the Department of Finance ar	nd is based upon the equipment utilize	d by each
department. This amount will fluct	uate depending on asset additions and reti	rements, cost of assets and useful life	of the assets.
•	, ,	ŕ	

#### Other Charges (Org: 0131055) - \*Depreciation Expense Only

Object Line	2017	2018	\$ Difference	% Difference
9060 Depreciation Expense	\$ 171,243 \$	162,200	\$ (9,043)	-5.3%
Other Charges Total *	\$ 171,243 \$	162,200	\$ (9,043)	-5.3%

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET OTHER CHARGES - STREET

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Other Charges:	\$2,500	\$2,100	525.00%
Training helps keep our staff up	to date on current trends and safety topics.		
a 8 c. po neep our otar up	to date on carrein tremas and saret, topics.		

#### Other Charges (Org: 0131055) - \*Excluding Depreciation Expense

Object Line	2017	2018	:	\$ Difference	% Difference
9070 Training	\$ 400	\$ 2,500	\$	2,100	525.0%
Other Charges Total *	\$ 400	\$ 2,500	\$	2,100	525.0%

#### **OTHER CHARGES DETAIL**

Object Code - Description	Amount Requested	Use of Funds (Description)
9070 Training	\$ 2,500	Trade shows, conferences, license upkeep
Total	\$ 2,500	

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET INTER-DEPT. CHARGES - STREET

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Inter-Dept. Charges:	\$693,727	\$68,090	10.88%

Billings and Accounting: Various costs of the Finance Department are allocated based on pertinent ratios; for example, the payroll function is allocated based on the percentage of equivalent personnel head count (including temporary part-time), accounts payable function is allocated by the percentage of total budget dollars, and the accounting function is allocated by an average of the two previous ratios.

Buildings and Grounds: Costs of the Facilities Maintenance Division are allocated to other operating divisions by the square footage of the department offices and other buildings compared to the total city facility buildings square footage.

Electricity: Electricity consumption allocated to the department based on square footage of the department offices compared to the total City Hall building. Meter readings are obtained by the Electric Department at the end of each year. Cost is based on budget DEMEC rate.

Information Technology: Costs are allocated based on percentage of equivalent personnel head count (including temporary part-time) with the exception of items identified specifically for utility fund items such as support for Harris billing system and smart meter network.

Other Indirect Charges: Includes charges for work done by other divisions to benefit the receiving division offset by credits for work done by this division for other division. Example: For Parks, the Electric, Street, and Refuse crews performing work for Community Day.

Printing and Reproduction: The costs of supplies for copiers is allocated based on previously observed percentage of use by each department.

Vehicles and Equipment: Includes direct charges of vehicle maintenance and repair performed by the Fleet Maintenance crew and an allocation of indirect Fleet Maintenance costs allocated to each division by the percentage of direct costs for the individual division to the direct costs for all divisions.

Street Lights: Cost of electricity plus maintenance costs for these devices incurred by the Electric Department charged at 110%.

Traffic Signals: Cost of electricity plus maintenance costs for these devices incurred by the Electric Department charged at 110%.

Warehousing: Operating costs of the warehouse function allocated to those divisions that store inventory items.

#### Inter-Dept. Charges

Object Line	2017	2018	Ş	\$ Difference	% Difference
Billings & Accounting	\$ 37,365	\$ 36,742	\$	(623)	-1.7%
Buildings and Grounds	\$ 26,128	\$ 39,644	\$	13,516	51.7%
Electric Used - Transfer Station	\$ 1,398	\$ 1,444	\$	46	3.3%
Information Technology	\$ 114,017	\$ 124,498	\$	10,481	9.2%
Other Indirect Charges	\$ 116,638	\$ 123,049	\$	6,411	5.5%
Printing and Reproduction	\$ 153	\$ 131	\$	(22)	-14.4%
Vehicles and Equipment	\$ 150,264	\$ 190,192	\$	39,928	26.6%
Street Lights	\$ 168,390	\$ 169,983	\$	1,593	0.9%
Traffic Signals	\$ 9,445	\$ 6,490	\$	(2,955)	-31.3%
Warehousing	\$ 1,839	\$ 1,554	\$	(285)	-15.5%
Inter-Dept. Charges Total	\$ 625,637	\$ 693,727	\$	68,090	10.9%

# STREET DIVISION CAPITAL IMPROVEMENT PROJECTS

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION CIP - STREET

Project #	Dept	Description	2017	Balance as of		CAPITAL IMP	ROVEMENTS	PROGRAM RE	QUESTED FUN	IDING
Project #	Priority	Description	Budget	6/30/2017	2018	2019	2020	2021	2022	<b>Total CIP Request</b>
H0206	2	Municipal Building Parking Lot Improvements	\$30,000	\$30,000						\$0
H1503	2	Newark Transportation Plan Implementation	\$252,000	\$253,759	\$848,000	\$20,000	\$20,000	\$20,000	\$20,000	\$928,000
H1801	2	Annual Street Program			\$1,865,000	\$1,600,000	\$1,625,000	\$1,650,000	\$1,675,000	\$8,415,000
H1802	1	ADA Accessibility Transition Plan			\$130,000	\$133,150	\$136,395	\$139,736	\$143,178	\$682,459
HEQSF	1	Equipment Replacement Program	\$220,000	\$496,254	\$190,000	\$175,000				\$365,000
Total	•		\$502,000	\$780,013	\$3,033,000	\$1,928,150	\$1,781,395	\$1,809,736	\$1,838,178	\$10,390,459

#### **CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL** DEPARTMENT: **Public Works and Water Resources** DIVISION: Street PROJECT NO: PROJECT TITLE: PROJECT LOCATION: H0206 Municipal Building Parking Lot Improvements City Hall PROJECT STATUS (SELECT FROM DROP DOWN): PRIORITY: 2 - High Priority Level Critical need to remediate failing service, prevent failure, or generate savings COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT: Sustainable Community Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

\*Please be advised that this project has been combined with H1801.

§ 806.1(3) SUMMARY OF PROJECT	DATA		PROJECT COST BY CATEGOR	Υ			
First Year in Program	2002	CLASSIFICATION	AMOUNT				
Est. Completion Date	2018	Labor					
Est. Useful Life (in years)	15	Materials	Materials				
Est. Total Cost	-	Other Contracts	3063006.9620				
Est. Spend @ 12/31 (if underway) <sup>1</sup>		Total Project Cost		\$ -			
Balance to be funded <sup>1</sup>	-	<sup>1</sup> For ongoing projects, we must estimate total spent since inception					
% Complete (if underway)		through current year to derive the balance to be funded thereafter.					

PROJECT FINANCING BY PLAN YEAR										
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL			
CURRENT RESOURCES							-			
CAPITAL RESERVES							-			
EQUIPMENT REPLACEMENT							-			
BOND ISSUES							-			
GRANTS (Specify) GREEN ENER							-			
OTHER (Specify)							-			
OTHER (Specify)							-			
TOTAL	-	-	-	-	-	-	-			

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET								
OPERATING IMPACT         2018         2019         2020         2021         2022         TOTAL								
INCREMENTAL COSTS (NET SAVINGS)	-	-	-	-	-	-		

#### **CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL** DEPARTMENT: **Public Works and Water Resources** DIVISION: Street PROJECT NO: PROJECT TITLE: PROJECT LOCATION: H1503 Newark Transportation Plan Implementation Various Locations PROJECT STATUS (SELECT FROM DROP DOWN): Critical need to remediate failing service, prevent failure, or generate savings PRIORITY: 2 - High Priority Level

COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT: Healthy & Active Community

#### Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

Newark City Council has approved the "Newark Transportation Plan" and "Newark Bicycle Plan" and this project intends to begin implementing the recommendations contained within each plan. During 2015, two potential projects have come into focus that will require funding in 2016: Pedestrian improvements on East Main Street and investigation of the existing traffic signals on West Park Place to determine if they are warranted and if so what pedestrian improvements should be made.

During 2015, the PWWR Department, in coordination with the DNP and our community affairs officer prepared and submitted a "Transportation Alternatives Program" grant application for a project that would expand on the already successful curb extensions on Main Street. The current crossings would be extended to the full length of the no parking areas, preventing the illegal parking of vehicles just upstream of crosswalks that block the view of pedestrians to oncoming drivers. These new sidewalk areas will be used to install benches that can be used by the disabled and senior citizens to rest while walking on Main Street. Additional bike parking will be included in the islands, promoting alternative transportation methods. DelDOT's consultant has begun design and as of now construction is scheduled to be coordinated with the resurfacing project now set for 2018. \$20k in additional funding to 2017 for construction because we now believe the total project cost will exceed our original estimate.

Additionally, DelDOT has begun a signal warrant analysis of the West Park Place signalized intersections that we expect to have in-hand by the end of 2016. Improvements here are not grant eligible so I have placed a \$30k to cover initial design costs.

§ 806.1(3) SUMMARY OF PROJECT	DATA	PROJECT COST BY CATEGORY					
First Year in Program	2015	CLASSIFICATION		AMOUNT			
Est. Completion Date	2018	Labor					
Est. Useful Life (in years)	20	Materials					
Est. Total Cost	1,180,000	Other Contracts	3063006.9760				
Est. Spend @ 12/31 (if underway) <sup>1</sup>		Total Project Cost		\$	1,180,000		
Balance to be funded <sup>1</sup>	1,180,000	<sup>1</sup> For ongoing projects, we must estimate total spent since inception					
% Complete (if underway)		through current year to derive the balance to be funded thereafter.					

PROJECT FINANCING BY PLAN YEAR							
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL
CURRENT RESOURCES			20,000	20,000	20,000	20,000	80,000
CAPITAL RESERVES	252,000						252,000
EQUIPMENT REPLACEMENT							-
BOND ISSUES							-
GRANTS (Specify)							-
OTHER (Specify) DelDOT		848,000					848,000
OTHER (Specify)							-
TOTAL	252,000	848,000	20,000	20,000	20,000	20,000	1,180,000

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET							
OPERATING IMPACT 2018 2019 2020 2021 2022 TOTAL							
INCREMENTAL COSTS (NET SAVINGS)						-	

### CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL

DEPARTMENT: Public Works and Water Resources DIVISION: Street

PROJECT NO: PROJECT TITLE: PROJECT LOCATION:
H1801 Annual Street Program Various Locations

#### PROJECT STATUS (SELECT FROM DROP DOWN):

PRIORITY: 2 - High Priority Level Critical need to remediate failing service, prevent failure, or generate savings

COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT: Sustainable Community

#### Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

In 2010 we contracted with a consultant to utilize an optimization software to analyze our road survey data. This program provided the City the optimal street repair locations and methods to use for the most economical use of our funding. We used the projected out years provided with the 2011 work plan to prioritize streets through the 2015 program year. In 2016 we again contracted with the same firm and have developed another 5-year work plan. The result of the analysis was confirmation of the need for an increase in funding for road rehabilitation or else the average Pavement Conditions Index (PCI) for the city will continue to decline and the backlog of needed improvements will continue to increase.

As discussed during the budget process last year we estimated that we would need to spend approximately \$1.5 - \$2.0 Million each year to maintain our current roadway conditions. Our consultant has confirmed that assumption. We ran deterioration simulations using five different annual funding levels: \$750M, \$1MM, \$1.5MM, "Maintain Current Conditions" and "Improve to average PCI of 80."

\$750M - Backlog increases from \$14.5MM to \$29.2MM, PCI decreases from 76 to 61, % "Poor/Very Poor" increases from 20% to 27% \$1MM - Backlog increases from \$14.5MM to \$24.8MM, PCI decreases from 76 to 65, % "Poor/Very Poor" increases from 20% to 22% \$1.5MM - Backlog increases from \$14.5MM to \$17.2MM, PCI decreases from 76 to 73, % "Poor/Very Poor" decreases from 20% to 13% \$1.75MM - Backlog decreases from \$14.5MM to \$12.9MM, PCI remains the same, % "Poor/Very Poor" decreases from 20% to 8% \$2.1MM - Backlog decreases from \$14.5MM to \$8.8MM, PCI increases from 76 to 80, % "Poor/Very Poor" decreases from 20% to 4%

The parking lot at City Hall is showing serious signs of deterioration and poor drainage. This project proposes to make minor changes to the lot configuration to add parking spaces as well as remove the existing hot mix, install underdrains and repave this parking lot. Current estimate is \$320,000 for full mill, curb replacement, under drain installation, and repaving.

§ 806.1(3) SUMMARY OF PROJECT	DATA	PROJECT COST BY CATEGORY						
First Year in Program	ONGOING	CLASSIFICATION ACCOUNT NUMBERS		AMOUN'				
Est. Completion Date	ONGOING	Labor						
Est. Useful Life (in years)	15	Materials						
Est. Total Cost	8,415,000	Other Contracts	3063006.9760					
Est. Spend @ 12/31 (if underway) <sup>1</sup>		Total Project Cost		\$	8,415,000			
Balance to be funded <sup>1</sup>	8,415,000	<sup>1</sup> For ongoing projects, we must estimate total spent since inception						
% Complete (if underway)		through current year to derive the balance to be funded thereafter.						

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	PROJECT FINANCING BY PLAN YEAR								
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL		
CURRENT RESOURCES		1,373,329	1,108,329	1,133,329	1,158,329	1,183,329	5,956,645		
CAPITAL RESERVES							-		
EQUIPMENT REPLACEMENT							-		
BOND ISSUES							-		
GRANTS (Specify) MSA - Updated 2017		491,671	491,671	491,671	491,671	491,671	2,458,355		
OTHER (Specify)							-		
OTHER (Specify)							-		
TOTAL	-	1,865,000	1,600,000	1,625,000	1,650,000	1,675,000	8,415,000		

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET							
OPERATING IMPACT         2018         2019         2020         2021         2022         TOTAL							
INCREMENTAL COSTS (NET SAVINGS)	-	-	-	-	-	-	

### CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL

 DEPARTMENT:
 Public Works and Water Resources
 DIVISION:
 Street

 PROJECT NO:
 PROJECT TITLE:
 PROJECT LOCATION:

 H1802
 ADA Accessibility Transition Plan
 Various Locations

#### PROJECT STATUS (SELECT FROM DROP DOWN):

PRIORITY: 1 - Highest Priority Level Project underway and must be completed

COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT: Inclusive Community

#### Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

The US Department of Justice per the ADA (American with Disabilities Act) requires incorporated communities to establish a transition plan to upgrade their public facilities to meet ADA accessibility standards. At the start of 2016 we had 1689 ramps in the City and 20 locations that are in need of ramps. Out of this total, 1347 were ADA compliant and 342 are non-compliant. This is down from the first year of the program when there were 1076 ramps out of compliance.

The 2016 ADA Accessibility Contract will address 51 of these non-compliant ramps, assuming favorable bid results that allow us to execute the entire proposed contract. That will leave 291 non compliant ramps by the end of 2016. Using last year's pricing of approximately \$2,800 per ramp and 3% inflation will require \$120,000 per year for the next eight years. \$360,000 of the Balance to be funded amount is beyond the five year period detailed below.

Since we have a plan in place to address non-compliant ramps and are successfully following the plan we are in compliance with the ADA.

§ 806.1(3) SUMMARY OF PROJECT	DATA		RY .						
First Year in Program	2009	CLASSIFICATION ACCOUNT NUMBERS			AMOUNT				
Est. Completion Date	2024	Labor							
Est. Useful Life (in years)	20	Other Contracts 1191196.9621							
Est. Total Cost	682,459	Other Contracts	3063006.9760						
Est. Spend @ 12/31 (if underway) <sup>1</sup>		Total Project Cost \$ 68							
Balance to be funded <sup>1</sup>	682,459	<sup>1</sup> For ongoing projects, we must estimate total spent since inception							
% Complete (if underway)	80%	through current year	through current year to derive the balance to be funded thereafter.						

1 ( //									
	PROJECT FINANCING BY PLAN YEAR								
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL		
CURRENT RESOURCES		130,000	108,150	111,395	114,736	118,178	582,459		
CAPITAL RESERVES							-		
EQUIPMENT REPLACEMENT							-		
BOND ISSUES							-		
GRANTS (Specify) CDBG			25,000	25,000	25,000	25,000	100,000		
OTHER (Specify)							-		
OTHER (Specify)							-		
TOTAL	-	130,000	133,150	136,395	139,736	143,178	682,459		

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET							
OPERATING IMPACT 2018 2019 2020 2021 2022 TOTAL							
INCREMENTAL COSTS (NET SAVINGS)	-	-	-	-	-	-	

#### **CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL Public Works and Water Resources** DIVISION:

Street

PROJECT NO: PROJECT TITLE: PROJECT LOCATION:

**HEQSF Equipment Replacement Program** 

PROJECT STATUS (SELECT FROM DROP DOWN):

PRIORITY: 1 - Highest Priority Level Project underway and must be completed

COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT: Sustainable Community

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

DEPARTMENT:

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

§ 806.1(3) SUMMARY OF PROJECT	DATA	PROJECT COST BY CATEGORY						
First Year in Program	ONGOING	CLASSIFICATION ACCOUNT NUMBERS		AMOUNT				
Est. Completion Date	ONGOING	Labor						
Est. Useful Life (in years)	VARIOUS	Materials						
Est. Total Cost	365,000	Other Contracts	3063026.9623					
Est. Spend @ 12/31 (if underway) <sup>1</sup>	-	Total Project Cost		\$	365,000			
Balance to be funded <sup>1</sup>	365,000	<sup>1</sup> For ongoing projects, we must estimate total spent since inception						
% Complete (if underway)		through current year	to derive the balance to	be funded	thereafter.			

PROJECT FINANCING BY PLAN YEAR								
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL	
CURRENT RESOURCES							-	
CAPITAL RESERVES							-	
EQUIPMENT REPLACEMENT		190,000	175,000				365,000	
BOND ISSUES							-	
GRANTS (Specify)							-	
OTHER (Specify)							-	
OTHER (Specify)							-	
TOTAL	-	190,000	175,000	•	-	-	365,000	

<sup>&</sup>lt;sup>2</sup>"Prior" refers to that portion of project funding that was authorized in a prior year but which is not expected to be spent through 12/31 of the current year. Accordingly, Council is not required to authorize budget year funding for that portion, but that portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET							
OPERATING IMPACT         2018         2019         2020         2021         2022         TOTAL							
INCREMENTAL COSTS (NET SAVINGS)	-	-	-	-	-	-	

## SEWER DIVISION

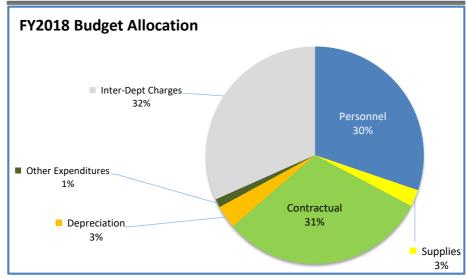
## PUBLIC WORKS & WATER RESOURCES PROGRAM NARRATIVE SEWER

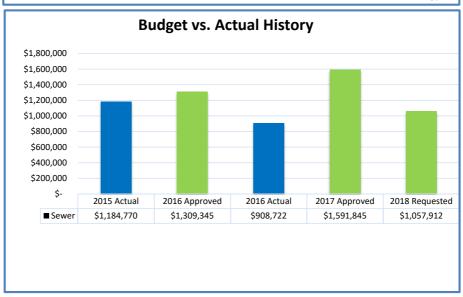
#### **Sewer Division:**

The sewer division is responsible for maintaining regulatory compliance, oversight of day to day sanitary sewer system operations, engineering and design of facilities, supervision and inspection of construction projects, and capital project development and administration. Staff prepares reports and recommendations to the City Manager and City Council on asset, equipment and facility improvements and maintain an active liaison with engineering consultants as well as the general public.

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION SEWER

			FY2017	% Incr
Object Loyal	FY2017	FY2018	Approved	(Decr) over
Object Level	Approved	Recommended	vs. FY2018	FY2017
			Recomm'd	Approved
Personnel Services	\$335,822	\$319,919	(\$15,903)	-4.74%
Materials and Supplies	\$26,300	\$26,700	\$400	1.52%
Contractual Services	\$307,585	\$326,413	\$18,828	6.12%
Depreciation	\$32,586	\$36,400	\$3,814	11.70%
Other Expenditures	\$12,708	\$13,392	\$684	5.38%
Inter-Dept Charges	\$306,844	\$335,088	\$28,244	9.20%
Subtotal (Operational Expenses):	\$1,021,845	\$1,057,912	\$36,067	3.53%
Capital Expenses *	\$570,000	\$0	(\$570,000)	-100.00%
Total:	\$1,591,845	\$1,057,912	(\$533,933)	-33.54%



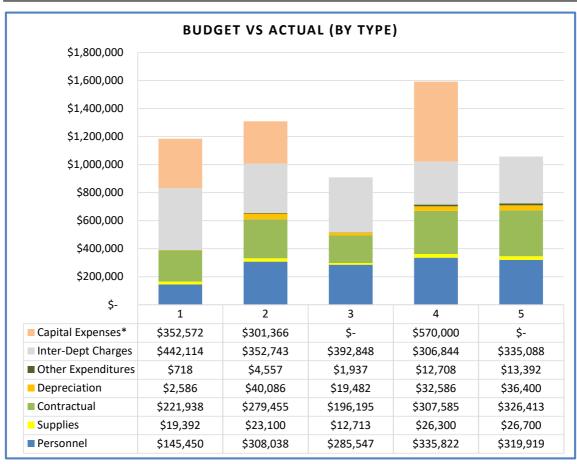


<sup>\*</sup> The allocation of capital expenses between current resources and reserve funding will be determined based on revenue projections.

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION SEWER

Object Level	2015 Actual	2016 Approved		2016 Actual		2017 Approved		2018 Requested
Personnel Services	\$ 145,450	\$ 308,038	\$	285,547	\$	335,822	\$	319,919
Materials and Supplies	\$ 19,392	\$ 23,100	\$	12,713	\$	26,300	\$	26,700
Contractual Services	\$ 221,938	\$ 279,455	\$	196,195	\$	307,585	\$	326,413
Depreciation	\$ 2,586	\$ 40,086	\$	19,482	\$	32,586	\$	36,400
Other Expenditures	\$ 718	\$ 4,557	\$	1,937	\$	12,708	\$	13,392
Inter-Dept Charges	\$ 442,114	\$ 352,743	\$	392,848	\$	306,844	\$	335,088
Subtotal (Operational Expenses):	\$ 832,198	\$ 1,007,979	\$	908,722	\$	1,021,845	\$	1,057,912
Capital Expenses *	\$ 352,572	\$ 301,366	\$	-	\$	570,000	\$	-
Total:	\$ 1,184,770	\$ 1,309,345	\$	908,722	\$	1,591,845	\$	1,057,912

Object Level	2015 Actual	2016 Approved	2016 Actual	2017 Approved	2018 Requested
Personnel Services	12.3%	23.5%	31.4%	21.1%	30.2%
Materials and Supplies	1.6%	1.8%	1.4%	1.7%	2.5%
Contractual Services	18.7%	21.3%	21.6%	19.3%	30.9%
Depreciation	0.2%	3.1%	2.1%	2.0%	3.4%
Other Expenditures	0.1%	0.3%	0.2%	0.8%	1.3%
Inter-Dept Charges	37.3%	26.9%	43.2%	19.3%	31.7%
Capital Expenses *	29.8%	23.0%	0.0%	35.8%	0.0%
Total:	100%	100%	100%	100.0%	100.0%



<sup>\*</sup> The allocation of capital expenses between current resources and reserve funding will be determined based on revenue projections.

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET PERSONNEL SERVICES - SEWER

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Personnel Services:	\$319,919	(\$15,903)	-4.74%

Health insurance assumes an increase of 8% for 2018, which is equal to the increase experienced by the City in 2017. Salary assumptions include anticipated step increases when due per contract, and cost of living adjustments of 1.5% for Management, CWA and FOP employees.

#### Personnel Services (Org: 5395302)

Obje	ct Line	2017	2018	Ş	Difference	% Difference
6200	Line Maintenance	\$ 185,672	\$ 195,038	\$	9,366	5.0%
6580	Service Award	\$ 1,463	\$ 1,413	\$	(50)	-3.4%
6590	Sick Pay	\$ 1,291	\$ 1,186	\$	(105)	-8.1%
6610	Seasonal	\$ 6,500	\$ -	\$	(6,500)	-100.0%
6615	Interns	\$ -	\$ 6,500	\$	6,500	#DIV/0!
6620	Overtime	\$ 12,000	\$ 12,000	\$	-	0.0%
6880	Uniform Allowances	\$ 1,200	\$ 2,400	\$	1,200	100.0%
6920	Unemployment Comp. Ins.	\$ 1,926	\$ 1,260	\$	(666)	-34.6%
6930	Social Security Taxes	\$ 15,922	\$ 16,491	\$	569	3.6%
6940	City Pension Plan	\$ 12,526	\$ 15,926	\$	3,400	27.1%
6941	Defined Contribution 401(a) Plan	\$ 9,730	\$ 10,302	\$	572	5.9%
6950	Term Life Insurance	\$ 980	\$ 947	\$	(33)	-3.4%
6960	Group Hospitalization Ins.	\$ 74,966	\$ 44,853	\$	(30,113)	-40.2%
6961	Long-Term Disability Ins.	\$ 371	\$ 425	\$	54	14.6%
6962	Dental Insurance	\$ 4,615	\$ 2,470	\$	(2,145)	-46.5%
6965	Post-Employment Benefits	\$ 1,786	\$ 3,835	\$	2,049	114.7%
6966	Retirement Health Savings Account	\$ 4,078	\$ 4,140	\$	62	1.5%
6967	Emergency Room Reimbursements	\$ 580	\$ 580	\$	-	0.0%
6968	Vision Insurance Premiums	\$ 216	\$ 153	\$	(63)	-29.2%
Perso	nnel Services Total	\$ 335,822	\$ 319,919	\$	(15,903)	-4.7%

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION POSITION DETAIL - SEWER

Title	Grade	2017 # of		2017	2018 # of	2018	Position	¢ F	ifference	%
Title	Graue	Positions	1	Approved	Positions	Requested	Difference	erence		Change
FULL TIME POSITIONS										
Maintenance IV	8	1.0	\$	55,949	2.0	\$ 108,972	1.0	\$	53,023	94.8%
Maintenance I	1		\$	-	1.0	\$ 41,929	1.0	\$	41,929	#DIV/0!
Equipment Operator	3	3.0	\$	129,723	1.0	\$ 44,137	(2.0)	\$	(85,586)	-66.0%
<b>Total Full-Time Positions</b>		4.0	\$	185,672	4.0	\$ 195,038	0.0	\$	9,366	5.0%
PART-TIME FUNDING										
Intern			\$	6,500		\$ 6,500		\$	-	0.0%
<b>Total Part-Time Funding</b>			\$	6,500		\$ 6,500		\$	-	0.0%
OTHER										
Overtime			\$	12,000		\$ 12,000		\$	-	0.0%
Sick Pay			\$	1,291		\$ 1,186		\$	(105)	-8.1%
Service Award			\$	1,463		\$ 1,413		\$	(50)	-3.4%
Total Other			\$	14,754		\$ 14,599		\$	(155)	-1.1%
Total All		4.0	\$	206,926	4.0	\$ 216,137	0.0	\$	9,211	4%

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET MATERIALS AND SUPPLIES - SEWER

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Materials/Supplies:	\$26,700	\$400	1.52%
Materials necessary for use by t	the sewer division. For obvious reasons, they	need their own tools.	

#### Materials/Supplies (Org: 5395303)

Object Line	2017	2018	\$ Difference	% Difference
7110 Safety Shoes and Supplies	\$ 800	\$ 1,200	\$ 400	50.0%
7130 Tools, Field Sup., & Small Eq.	\$ 8,000	\$ 8,000	\$ -	0.0%
7260 Line Maintenance	\$ 16,000	\$ 16,000	\$ -	0.0%
7270 Station Maintenance	\$ 1,500	\$ 1,500	\$ -	0.0%
Materials/Supplies Total	\$ 26,300	\$ 26,700	\$ 400	1.5%

#### **MATERIALS AND SUPPLIES DETAIL**

	Object Code - Description	Amount Requested	Use of Funds (Description)
7110	Safety Shoes and Supplies	\$ 1,200	Safety shoes, vests, gloves for jobsite safety
7130	Tools, Field Sup., & Small Eq.	\$ 8,000	Scoops, baskets, wrenches, etc.
7260	Line Maintenance	\$ 16,000	Pipe, couplings, mortar, concrete
7270	Station Maintenance	\$ 1,500	Paint, switches, floor cleaner
Total		\$ 26,700	

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET CONTRACTUAL SERVICES - SEWER

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Contractual Services:	\$326,413	\$18,828	6.12%
Contractual items that are outside th	ne normal scope of our crew capabilities. Lin	e maintenacne is typically utilized for	emergency
repairs.			

#### Contractual Services (Org: 5395304)

Object Line	2017	2018	\$ Difference	% Difference
8030 Casualty Insurance	\$ 2,091	\$ 2,112	\$ 21	1.0%
8031 Insurance - Property	\$ 2,394	\$ 2,418	\$ 24	1.0%
8033 Insurance - Broker	\$ 415	\$ 420	\$ 5	1.2%
8040 Merchant Fees and Discounts	\$ 70,000	\$ 75,000	\$ 5,000	7.1%
8050 Phone/Communications	\$ 1,000	\$ 1,200	\$ 200	20.0%
8120 Outside Engineering	\$ 37,500	\$ 40,000	\$ 2,500	6.7%
8131 Information Technology Cont'l	\$ 59,185	\$ 55,263	\$ (3,922)	-6.6%
8260 Line Maintenance	\$ 100,000	\$ 115,000	\$ 15,000	15.0%
8265 Easement Clearing	\$ 20,000	\$ 20,000	\$ -	0.0%
8270 Station Maintenance	\$ 15,000	\$ 15,000	\$ -	0.0%
Contractual Services Total	\$ 307,585	\$ 326,413	\$ 18,828	6.1%

#### **CONTRACTUAL SERVICES DETAIL**

	Object Code - Description	Amount Requested	Use of Funds (Description)
8030	Casualty Insurance	\$ 2,112	Allocation provided by Finance
8031	Insurance - Property	\$ 2,418	Allocation provided by Finance
8033	Insurance - Broker	\$ 420	Allocation provided by Finance
8040	Merchant Fees and Discounts	\$ 75,000	Credit card fees
8050	Phone/Communications	\$ 1,200	Mobile phones and air cards for mobile workforce applications and GIS mapping
8120	Outside Engineering	\$ 40,000	Annual support of the Water Resources Agency, sewer
8131	Information Technology Cont'l	\$ 55,263	Department's share of IT costs, please see Appendix A
8260	Line Maintenance	\$ 115,000	Contractual road patch repair, sewer system repairs outside the scope of our internal crew capabilities as well as emergency repairs
8265	Easement Clearing	\$ 20,000	Regular mowing and clearing of brush in sewer easements
8270	Station Maintenance	\$ 15,000	Routine maintenance and repairs of sewer pump stations
Total		\$ 326,413	

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET DEPRECIATION - SEWER

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Depreciation Expense:	\$36,400	\$3,814	11.70%
Depreciation expense is calculated	d annually by the Department of Finance a	nd is based upon the equipment utilize	d by each
department. This amount will fluc	uate depending on asset additions and ret	irements, cost of assets and useful life	of the assets.
·	,	·	

#### Other Charges (Org: 5395305) - \*Depreciation Expense Only

Object Line	2017	2018	\$ Difference	% Difference
9060 Depreciation Expense	\$ 32,586 \$	36,400	\$ 3,814	11.7%
Other Charges Total *	\$ 32,586 \$	36,400	\$ 3,814	11.7%

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET OTHER CHARGES - SEWER

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Other Charges:	\$13,392	\$684	5.38%
Training helps keep our staff up	to date on current trends and safety topics.		

#### Other Charges (Org: 5395305) - \*Excluding Depreciation Expense

Object Line	2017	2018	Ş	\$ Difference	% Difference
9010 Bad Debt Expense	\$ 708	\$ 892	\$	184	26.0%
9070 Training	\$ 2,000	\$ 2,500	\$	500	25.0%
9099 Contingencies	\$ 10,000	\$ 10,000	\$	-	0.0%
Other Charges Total *	\$ 12,708	\$ 13,392	\$	684	5.4%

#### **OTHER CHARGES DETAIL**

Object Code - Description	Amount Requested	Use of Funds (Description)
9010 Bad Debt Expense	\$ 892	
9070 Training	\$ 2,500	Flushing training, equipment recommendations, licenses
9099 Contingencies	\$ 10,000	
Total	\$ 13,392	

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET INTER-DEPT. CHARGES - SEWER

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Inter-Dept. Charges:	\$335,088	\$28,244	9.20%

Administrative Overhead: Allocations of personnel expense from Finance, Planning, Administration, and Legislative for time spent on utility related issues.

Billings and Accounting: Various costs of the Finance Department are allocated based on pertinent ratios; for example, the payroll function is allocated based on the percentage of equivalent personnel head count (including temporary part-time), accounts payable function is allocated by the percentage of total budget dollars, and the accounting function is allocated by an average of the two previous ratios.

Buildings and Grounds: Costs of the Facilities Maintenance Division are allocated to other operating divisions by the square footage of the department offices and other buildings compared to the total city facility buildings square footage.

Electricity: Electricity consumption allocated to the department based on square footage of the department offices compared to the total City Hall building. Meter readings are obtained by the Electric Department at the end of each year. Cost is based on budget DEMEC rate.

Information Technology: Costs are allocated based on percentage of equivalent personnel head count (including temporary part-time) with the exception of items identified specifically for utility fund items such as support for Harris billing system and smart meter network.

Other Indirect Charges: Includes charges for work done by other divisions to benefit the receiving division offset by credits for work done by this division for other division. Example: For Parks, the Electric, Street, and Refuse crews performing work for Community Day.

Vehicles and Equipment: Includes direct charges of vehicle maintenance and repair performed by the Fleet Maintenance crew and an allocation of indirect Fleet Maintenance costs allocated to each division by the percentage of direct costs for the individual division to the direct costs for all divisions.

Warehousing: Operating costs of the warehouse function allocated to those divisions that store inventory items.

#### Inter-Dept. Charges

mer Depti enarges				
Object Line	2017	2018	\$ Difference	% Difference
Administrative Overhead	\$ 134,478	\$ 136,583	\$ 2,105	1.6%
Billings & Accounting	\$ 62,626	\$ 97,952	\$ 35,326	56.4%
Buildings and Grounds	\$ 4,972	\$ 7,544	\$ 2,572	51.7%
Electricity	\$ 11,582	\$ 11,388	\$ (194)	-1.7%
Information Technology	\$ 117,286	\$ 117,055	\$ (231)	-0.2%
Other Indirect Charges	\$ (36,699)	\$ (42,465)	\$ (5,766)	15.7%
Vehicles and Equipment	\$ 10,464	\$ 5,499	\$ (4,965)	-47.4%
Warehousing	\$ 2,135	\$ 1,532	\$ (603)	-28.2%
Inter-Dept. Charges Total	\$ 306,844	\$ 335,088	\$ 28,244	9.2%

# SEWER DIVISION CAPITAL IMPROVEMENT PROJECTS

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION CIP - SEWER

Duningt #	Dept	Description	2017	Balance as of	CAPITAL IMPROVEMENTS PROGRAM REQUESTED FUNDING					
Project #	Priority	Description	Budget	6/30/2017	2018	2019	2020	2021	2022	<b>Total CIP Request</b>
S0904	1	Sanitary Sewer Study and Repairs	\$500,000	\$836,701	\$700,000	\$800,000	\$1,000,000	\$800,000	\$800,000	\$4,100,000
S1602	1	Sewer SCADA	\$93,675	\$33,285	\$75,000					\$75,000
Total			\$593,675	\$869,986	\$775,000	\$800,000	\$1,000,000	\$800,000	\$800,000	\$4,175,000

#### **CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL** DEPARTMENT: **Public Works and Water Resources** DIVISION: Sewer PROJECT NO: PROJECT TITLE: PROJECT LOCATION: S0904 Sanitary Sewer Study and Repairs Various Locations PROJECT STATUS (SELECT FROM DROP DOWN): PRIORITY: 1 - Highest Priority Level Project underway and must be completed COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT: Sustainable Community

#### Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

This project affords the continuation of our cleaning and investigation of the condition of the sanitary sewer system and will result in recommendations for repair. To date we have inspected approximately 10 miles of the 95 miles of sanitary sewer main in our system. Using results from 10 miles of inspections we have identified and prioritized approximately \$2,600,000 worth of necessary repairs.

To date our inspections have been prioritized based on line size and backup history. As part of the ongoing sanitary sewer master plan project we have completed sanitary sewer flow monitoring in the Christina Basin (approximately 2/3rds of the system) and are applying for a grant to do the same in the White Clay Basin in 2016-2017. This flow monitoring will allow us to target inspections on those areas where we are experiencing the most rainfall derived inflow and infiltration (RDII) which is a good indicator of structural damage in pipes. (rainfall can get into the pipes through cracks and holes). This will allow for a more targeted, data driven approach to investigations. The flow monitoring will also be used for a capacity model that will allow us to target select lines for capacity increases when performing rehabilitation efforts.

In 2017 we completed repairs in the Kells Avenue basin and along Bogy Run north of Ray Street and we also performed inspections to the critical main between the Cooches Bridge and Silverbrook pump stations. During 2016 we also performed non-destructive pipe testing on the Silverbrook force main which is failure critical and heretofore uninspected since installation. In 2018 we plan to continue targeted inspections based on data derived from flow testing. We also plan to begin rehabilitation/replacement as determined by the prioritization and capacity model driven pipe diameter increases. Specific locations will be available prior to CIP adoption.

§ 806.1(3) SUMMARY OF PROJECT	DATA	PROJECT COST BY CATEGORY						
First Year in Program	2009	CLASSIFICATION	CLASSIFICATION ACCOUNT NUMBERS					
Est. Completion Date	ONGOING	Labor						
Est. Useful Life (in years)	50+	Materials						
Est. Total Cost	4,100,000	Other Contracts	Other Contracts 5395306.9760					
Est. Spend @ 12/31 (if underway) <sup>1</sup>		Total Project Cost		\$	4,100,000			
Balance to be funded <sup>1</sup>	4,100,000	<sup>1</sup> For ongoing projects, we must estimate total spent since inception						
% Complete (if underway)	2%	through current year to derive the balance to be funded thereafter.						
DROJECT EINANCING DV DI AN VEAR								

	PROJECT FINANCING BY PLAN YEAR									
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL			
CURRENT RESOURCES		700,000	800,000	1,000,000	800,000	800,000	4,100,000			
CAPITAL RESERVES							-			
EQUIPMENT REPLACEMENT							-			
BOND ISSUES							-			
GRANTS (Specify)							-			
OTHER (Specify)							-			
OTHER (Specify)							-			
TOTAL		700,000	800,000	1,000,000	800,000	800,000	4,100,000			

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET								
OPERATING IMPACT	2018	2019	2020	2021	2022	TOTAL		
INCREMENTAL COSTS (NET SAVINGS)						-		

## CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL orks and Water Resources DIVISION: Sewer

 DEPARTMENT:
 Public Works and Water Resources
 DIVISION:
 Sewer

 PROJECT NO:
 PROJECT TITLE:
 PROJECT LOCATION:

 S1602
 Sewer SCADA
 Three Sewer Pump Stations

PROJECT STATUS (SELECT FROM DROP DOWN):

PRIORITY: 1 - Highest Priority Level Project underway and must be completed

COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT: Sustainable Community

#### Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

Development of a SCADA System for the PWWR Department will allow us to more efficiently and effectively manage the utilities. We currently have four water plant operator positions that work three shifts per day, every day of the year. The four operators use a vehicle which has been lasting less than three years before wearing out from excessive mileage and use. With a SCADA System, we will significantly reduce the mileage driven per day due to the need to check all facilities at least once per shift. This will also free up time for the operators to perform routine preventative maintenance tasks that are currently either contracted out or not completed at all.

The radio communications and HMI portions of this project are being handled through the Water SCADA project. Now that they will be in place by 2016 we plan to instrument and bring online one of our three pump station per year for the next three years. This system will allow us to monitor, among other things, pump status, pumping rates, runtimes, flow rates, backup generator fuel levels, generator runtimes, power quality, estimate inflow and infiltration rates during storms, track error codes, and quickly identify problems. Flow rates and characteristics measured at the pump stations will be able to be fed into the sewer capacity model under development to more accurately model pumping effects on system capacity.

Operating budget impact will be a reduction in vehicle fuel cost and wear and tear slightly offset by annual service subscription fees and sensor/equipment maintenance costs. We have conservatively pegged this cost at \$2000 per station per year in year 1, increasing at 3% in the out years.

§ 806.1(3) SUMMARY OF PROJECT	DATA	PROJECT COST BY CATEGORY						
First Year in Program	2016	CLASSIFICATION	AMOUNT					
Est. Completion Date	2018	Labor						
Est. Useful Life (in years)	15	Materials	Materials					
Est. Total Cost	75,000	Other Contracts	5395306.9760					
Est. Spend @ 12/31 (if underway) <sup>1</sup>		Total Project Cost		\$	75,000			
Balance to be funded <sup>1</sup>	75,000	<sup>1</sup> For ongoing projects, we must estimate total spent since inception						
% Complete (if underway)	33%	through current year to derive the balance to be funded thereafter.						

1 ( //							
	PRO.	JECT FINANCII	NG BY PLAN Y	EAR			
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL
CURRENT RESOURCES		75,000					75,000
CAPITAL RESERVES							-
EQUIPMENT REPLACEMENT							-
BOND ISSUES							-
GRANTS (Specify)							-
OTHER (Specify)							-
OTHER (Specify)							-
TOTAL	-	75,000	-	-	-	-	75,000

	§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET									
OPERATING IMPACT		2018	2019	2019 2020		2022	TOTAL			
	INCREMENTAL COSTS (NET SAVINGS)	5,000	5,000	5,000	5,000	5,000	25,000			

## STORMWATER DIVISION

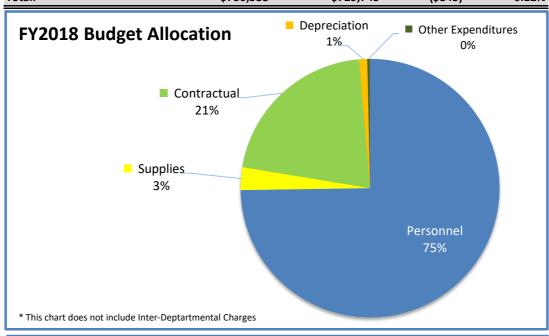
## PUBLIC WORKS & WATER RESOURCES PROGRAM NARRATIVE STORMWATER

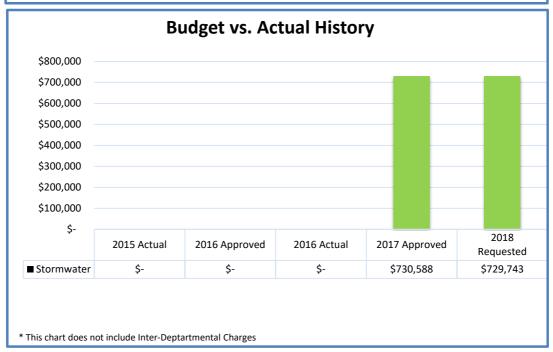
#### **Stormwater Division:**

Responsible for maintaining NPDES Phase II Permit compliance, GIS database management, oversight of day to day system operations, engineering and design of facilities, supervision and inspection of construction projects, and capital project development and administration. Stormwater staff prepare reports and recommendations to the City Manager and City Council on facility improvements. Will be responsible for the administration of the Stormwater Utility, if adopted.

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION STORMWATER

Object Level	FY2017 Approved	FY2018 Recommended	FY2017 Approved vs. FY2018 Recomm'd	% Incr (Decr) over FY2017 Approved
Personnel Services	\$503,539	\$545,530	\$41,991	8.34%
Materials and Supplies	\$20,400	\$20,800	\$400	1.96%
Contractual Services	\$185,900	\$153,413	(\$32,487)	-17.48%
Depreciation	\$18,749	\$7,500	(\$11,249)	-60.00%
Other Expenditures	\$2,000	\$2,500	\$500	25.00%
Total:	\$730,588	\$729,743	(\$845)	-0.12%

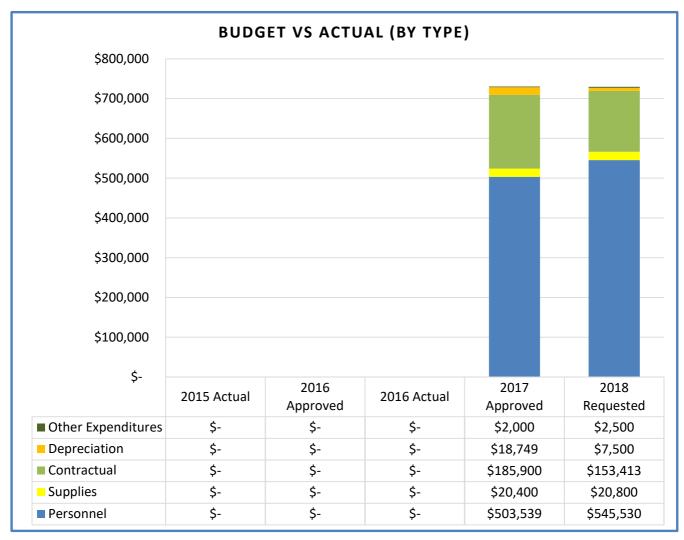




#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION STORMWATER

Object Level		2015 Actual		2016 Approved		2016 Actual		2017		2018	
								Approved		Requested	
Personnel Services	\$	-	\$	-	\$	-	\$	503,539	\$	545,530	
Materials and Supplies	\$	-	\$	-	\$	-	\$	20,400	\$	20,800	
Contractual Services	\$	-	\$	-	\$	-	\$	185,900	\$	153,413	
Depreciation	\$	-	\$	-	\$	-	\$	18,749	\$	7,500	
Other Expenditures	\$	-	\$	-	\$	-	\$	2,000	\$	2,500	
Total:	\$	-	\$	-	\$	-	\$	730,588	\$	729,743	

Object Level	2015 Actual	2016	2016 Actual	2017	2018
Object Level	2015 Actual	Approved	2016 Actual	Approved	Requested
Personnel Services	0.0%	0.0%	0.0%	68.9%	74.8%
Materials and Supplies	0.0%	0.0%	0.0%	2.8%	2.9%
Contractual Services	0.0%	0.0%	0.0%	25.4%	21.0%
Depreciation	0.0%	0.0%	0.0%	2.6%	1.0%
Other Expenditures	0.0%	0.0%	0.0%	0.3%	0.3%
Total:	0.0%	0.0%	0.0%	100.0%	100.0%



#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET PERSONNEL SERVICES - STORMWATER

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Personnel Services:	\$545,530	\$41,991	8.34%

Health insurance assumes an increase of 8% for 2018, which is equal to the increase experienced by the City in 2017. Salary assumptions include anticipated step increases when due per contract, and cost of living adjustments of 1.5% for Management, CWA and FOP employees.

#### Personnel Services (Org: 5295212)

Obje	ct Line	2017	2018	Ş	Difference	% Difference
6030	Engineering/Technical	\$ 71,726	\$ 73,088	\$	1,362	1.9%
6200	Line Maintenance	\$ 45,320	\$ 45,186	\$	(134)	-0.3%
6230	Maintenance Workers	\$ 198,038	\$ 206,831	\$	8,793	4.4%
6580	Service Award	\$ 8,557	\$ 9,371	\$	814	9.5%
6590	Sick Pay	\$ 2,710	\$ 1,425	\$	(1,285)	-47.4%
6880	Uniform Allowance	\$ 2,280	\$ 2,580	\$	300	13.2%
6920	Unemployment Compensation Ins	\$ 2,612	\$ 1,890	\$	(722)	-27.6%
6930	Social Security Taxes	\$ 25,140	\$ 25,331	\$	191	0.8%
6940	City Pension Plan	\$ 53,409	\$ 68,748	\$	15,339	28.7%
6941	Defined Contrib 401A Plan	\$ 2,719	\$ 2,712	\$	(7)	-0.3%
6950	Term Life Insurance	\$ 1,498	\$ 1,432	\$	(66)	-4.4%
6960	Group Hospitalization Ins	\$ 75,332	\$ 83,186	\$	7,854	10.4%
6961	Ltd Insurance	\$ 568	\$ 641	\$	73	12.9%
6962	Dental Insurance	\$ 3,777	\$ 4,296	\$	519	13.7%
6965	Post-Employment Benefits	\$ 7,617	\$ 16,555	\$	8,938	117.3%
6966	Retirement Hlth Sav Acct	\$ 1,359	\$ 1,380	\$	21	1.5%
6967	Reimbursement-Emergency Room	\$ 725	\$ 725	\$	-	0.0%
6968	Vision Insurance Premiums	\$ 152	\$ 153	\$	1	0.7%
Perso	nnel Services Total	\$ 503,539	\$ 545,530	\$	41,991	8.3%

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION POSITION DETAIL - STORMWATER

		2017 # of		2017	2018 # of	2018	Position	- 100	%
Title	Grade	Positions	ļ	Approved	Positions	Requested	Difference	\$ Difference	Change
FULL TIME POSITIONS									
Stormwater Coordinator	17	1.0	\$	71,726	1.0	\$ 73,088	0.0	\$ 1,362	1.9%
Maintenance IV	8	2.0	\$	112,998	2.0	\$ 118,570	0.0	\$ 5,572	4.9%
Street Sweeper Operator	7	1.0	\$	53,838	1.0	\$ 57,394	0.0	\$ 3,556	6.6%
Equipment Operator	1	1.0	\$	45,320	1.0	\$ 45,186	0.0	\$ (134)	-0.3%
<b>Total Full-Time Positions</b>		5.0	\$	283,882	5.0	\$ 294,238	0.0	\$ 10,356	3.6%
PART-TIME FUNDING									
Maintenance Worker (PT)			\$	31,202		\$ 30,867		\$ (335)	-1.1%
<b>Total Part-Time Funding</b>			\$	31,202		\$ 30,867		\$ (335)	-1.1%
OTHER									
Sick Pay			\$	2,710		\$ 1,425		\$ (1,285)	-47.4%
Service Award			\$	8,557		\$ 9,371		\$ 814	9.5%
Total Other			\$	11,267		\$ 10,796		\$ -	0.0%
Total All		5.0	\$	326,351	5.0	\$ 335,901	0.0	\$ 10,021	3%

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET MATERIALS AND SUPPLIES - STORMWATER

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Materials/Supplies:	\$20,800	\$400	1.96%
Materials necessary for both fiel	d work of cleaning basins and repairs of basin	n, as well as office materials for stormy	water education.

#### Materials/Supplies (Org: 5295213)

Object Line	2017	2018	\$ Difference	% Difference
7110 Safety Shoes and Supplies	\$ 1,200	\$ 1,500	\$ 300	25.0%
7130 Tools,Field Sup.,Small Equip.	\$ 1,300	\$ 1,300	\$ -	0.0%
7400 Storm Sewer Maintenance	\$ 10,000	\$ 10,000	\$ -	0.0%
7401 Stormwater Program Supplies	\$ 7,900	\$ 8,000	\$ 100	1.3%
Materials/Supplies Total	\$ 20,400	\$ 20,800	\$ 400	2.0%

#### **MATERIALS AND SUPPLIES DETAIL**

	Object Code - Description	Amount Requested	Use of Funds (Description)
7110	Safety Shoes and Supplies	\$ 1,500	Safety shoes, vests, gloves for jobsite safety
7130	Tools,Field Sup.,Small Equip.	\$ 1,300	Measuring wheels, inspection supplies
7400	Storm Sewer Maintenance	\$ 10,000	Bricks, mortar, concrete
7401	Stormwater Program Supplies	\$ 8,000	Pamphlets, testing supplies
Total		\$ 20,800	

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET CONTRACTUAL SERVICES - STORMWATER

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change	
Contractual Services:	\$153,413	(\$32,487)	-17.48%	
NPDES permit assistance will be nece	essary in 2018 due to new permit requireme	ents.		

#### Contractual Services (Org: 5295214)

Objec	t Line	2017	2018	\$ Difference	% Difference
8120	Outside Engineering	\$ 150,000	\$ 100,000	\$ (50,000)	-33.3%
8131	IT Expense Contractual	\$ -	\$ 17,513	\$ 17,513	#DIV/0!
8401	Stormwater Program Contractual	\$ 35,900	\$ 35,900	\$ -	0.0%
Contr	actual Services Total	\$ 185,900	\$ 153,413	\$ (32,487)	-17.5%

#### **CONTRACTUAL SERVICES DETAIL**

Object Code - Description	Amount Requested	Use of Funds (Description)
8120 Outside Engineering	\$ 100,000	Hire outside consultants to assist with NPDES Permit compliance expected to become effective end of 2017
8131 IT Expense Contractual	\$ 17,513	Department's share of IT costs, please see Appendix A
8401 Stormwater Program Contractual	\$ 35,900	Covers specialty maintenance of BMP plantings, printing costs for educational materials and legal reviews of permit issues by outside counsel specializing in NPDES permits
Total	\$ 153,413	

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET DEPRECIATION - STORMWATER

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Depreciation Expense:	\$7,500	(\$11,249)	-60.00%
Depreciation expense is calculate	ed annually by the Department of Finance ar	d is based upon the equipment utilize	d by each
department. This amount will flu	cuate depending on asset additions and reti	rements, cost of assets and useful life	of the assets.
·	-		

#### Other Charges (Org: 5295215) - \*Depreciation Expense Only

Object Line	2017	2018	<b>Ş</b>	Difference	% Difference
9060 Depreciation Expense	\$ 18,749	\$ 7,500	\$	(11,249)	-60.0%
Other Charges Total *	\$ 18,749	\$ 7,500	\$	(11,249)	-60.0%

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET OTHER CHARGES - STORMWATER

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Other Charges:	\$2,500	\$500	25.00%
•	to date on current trends and safety topics.	·	
ranning helps keep our stan ap	to date on earrent trends and safety topics.		

#### Other Charges (Org: 5295215) - \*Excluding Depreciation Expense

Object Line	2017	2018	\$ Difference	% Difference
9070 Training	\$ 2,000	\$ 2,500	\$ 500	25.0%
Other Charges Total *	\$ 2,000	\$ 2,500	\$ 500	25.0%

#### **OTHER CHARGES DETAIL**

Object Code - Description	Amount Requested	Use of Funds (Description)
9070 Training	\$ 2,500 Licer	nses, GIS updates, continuing education
Total	\$ 2,500	

# STORMWATER DIVISION CAPITAL IMPROVEMENT PROJECTS

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION CIP - STORMWATER

Duois et #	Dept	Description	2017	Balance as of	CAPITAL IMPROVEMENTS PROGRAM REQUESTED FUNDING					
Project #	Priority		Budget	6/30/2017	2018	2019	2020	2021	2022	<b>Total CIP Request</b>
Q0101	1	NPDES Stormwater Quality Program	\$40,000	\$80,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$200,000
Q1301	1	Storm Drainage Improvements	\$0	\$567,338	\$420,000	\$491,000	\$463,050	\$536,203	\$510,513	\$2,420,766
Q1802*	3	Rodney Regional Stormwater Park	\$0	\$0	\$3,300,000	\$3,250,000				\$6,550,000
QEQSF	1	Equipment Replacement Program	\$60,000	\$275,000	\$18,000					\$18,000
Total			\$100,000	\$922,338	\$3,778,000	\$3,781,000	\$503,050	\$576,203	\$550,513	\$9,188,766

<sup>\*</sup>To be funded or partially funded via referendum if approved

## CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL

DEPARTMENT: Public Works and Water Resources DIVISION: Stormwater

PROJECT NO: PROJECT TITLE: PROJECT LOCATION:

Q0101 NPDES Stormwater Quality Program Various Locations

#### PROJECT STATUS (SELECT FROM DROP DOWN):

PRIORITY: 1 - Highest Priority Level Project underway and must be completed

COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT: Sustainable Community

#### Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

Per the 1999 NPDES Phase II Stormwater Quality Regulations, the City of Newark is required to meet approved standards to improve stormwater quality. According to our original plan submittal, we had planned the following: Install in-line storm sewer quality controls at McKees Park, Rahway Park, Handloff Park, and Yorkshire Woods I.

We received a surface water planning grant in 2014, part of which paid for a report to identify and rank water quality Best Management Practices (BMP) retrofits in stormwater basins around the City, which are better suited to retrofits than the original list above.

We chose not to complete a 2015 project due to uncertainty associated with impending changes to our permit which we have been provided a prepublication draft. We have commented on the pre-publication draft and anticipate the final draft permit by September 30 and the Final Permit by Decmeber 31. We plain to utilize the funding appropriated for 2017 in order to complete two projects in 2018. We are planning on \$40,000 annually to help with permit compliance.

Depending on the type of facility constructed, ongoing maintenance will be required including mowing, invasive weed removal, inspections, etc. I have assumed \$5000 per year per facility in maintenance costs.

§ 806.1(3) SUMMARY OF PROJECT	DATA	PROJECT COST BY CATEGORY					
First Year in Program	2009	CLASSIFICATION	CLASSIFICATION ACCOUNT NUMBERS				
Est. Completion Date	Perpetual	Labor					
Est. Useful Life (in years)	20	Materials					
Est. Total Cost	240,000	Other Contracts	Other Contracts 3063006.9720				
Est. Spend @ 12/31 (if underway) <sup>1</sup>		Total Project Cost		\$	240,000		
Balance to be funded <sup>1</sup>	240,000	<sup>1</sup> For ongoing projects, we must estimate total spent since inception					
% Complete (if underway)		through current year	to derive the balance to	be funde	d thereafter.		

PROJECT FINANCING BY PLAN YEAR									
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL		
CURRENT RESOURCES		40,000	40,000	40,000	40,000	40,000	200,000		
CAPITAL RESERVES	40,000						40,000		
EQUIPMENT REPLACEMENT							-		
BOND ISSUES							-		
GRANTS (Specify)							-		
OTHER (Specify)							-		
OTHER (Specify)							-		
TOTAL	40,000	40,000	40,000	40,000	40,000	40,000	240,000		

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET								
OPERATING IMPACT	2018	2019	2020	2021	2022	TOTAL		
INCREMENTAL COSTS (NET SAVINGS)	5,000	5,000	5,000	5,000	5,000	25,000		

#### CITY OF NEWARK, DELAWARE **CAPITAL BUDGET - PROJECT DETAIL** DEPARTMENT: **Public Works and Water Resources** DIVISION: Stormwater PROJECT NO: PROJECT TITLE: PROJECT LOCATION: Q1301 Storm Drainage Improvements Various Locations PROJECT STATUS (SELECT FROM DROP DOWN): PRIORITY: 1 - Highest Priority Level Project underway and must be completed COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT: Sustainable Community

#### Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

An engineering consultant has completed a detailed CCTV Inspection and Priority Ranking in order to aid the decision making for the future replacement or rehabilitation of all of the known Corrugated Metal Pipe (CMP) in the City. The issues with the premature failure and deterioration of CMP has been well documented over the past several years and will be the focus of this Capital Project over the next 10 years. The memorandum from JMT identifies approximately \$3.5mm in lining and replacement of CMP over the next 10 years. PWWR recommends the CIP reflect approximately \$350,000 per year over the next 10 years to address the problem pipe. JMT will prepare a 10 year plan for the repairs and annual repair locations will be presented as part of any Contract Recommendation btough to Council in 2018 and annual budget presentations each following year. Emergent and newly identified problems may arise over the term of this project and will be paid for under this project. Examples of this type of emergent work are the Jenneys Run Culvert Removal in 2016 and the Creek Bend Court Outfall Failure in 2014. In 2017 we anticipate replacing the outfall of a culvert crossing on Wyoming Road which has recently failed. We have also identified City owned Parcels The City has ownership of numerous parks throughout the city, some of which are simply maintained as open area and are very underutilized. Several of those parks are around or near critical drainageways and the opportunity exists to design detention basins or water quality facilities at those locations. The parks department could realize savings by removing the maintenance responsibilities and the public works and water resources department could utilize these areas to mitigate flooding and water quality issues throughout the City. The areas were identified for a number of reasons, including, but not limited to, location within a watershed, level of probable benefit, ease of construction, reduction in maintenance burden on Parks staff and aesthetic benefit of plantings. Par

§ 806.1(3) SUMMARY OF PROJECT	DATA	PROJECT COST BY CATEGORY					
First Year in Program	2013	CLASSIFICATION	ACCOUNT NUMBERS		AMOUNT		
Est. Completion Date	Perpetual	Labor					
Est. Useful Life (in years)	75+	Materials					
Est. Total Cost	2,420,766	Other Contracts	5295216.9720				
Est. Spend @ 12/31 (if underway) <sup>1</sup>	-	Total Project Cost		\$	2,420,766		
Balance to be funded <sup>1</sup>	2,420,766	<sup>1</sup> For ongoing projects, we must estimate total spent since inception					
% Complete (if underway)		through current year	to derive the balance to	be funde	d thereafter.		

1 ( //							
	PRO.	JECT FINANCI	NG BY PLAN YI	EAR			
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL
CURRENT RESOURCES		420,000	441,000	463,050	486,203	510,513	2,320,766
CAPITAL RESERVES							-
EQUIPMENT REPLACEMENT							-
BOND ISSUES							-
GRANTS (Specify) SRF Planning Gra	nts		50,000		50,000		100,000
OTHER (Specify)							-
OTHER (Specify)							-
TOTAL	-	420,000	491,000	463,050	536,203	510,513	2,420,766

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET								
OPERATING IMPACT	2018	2019	2020	2021	2022	TOTAL		
INCREMENTAL COSTS (NET SAVINGS)	-	-	-	-	-	-		

#### **CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL** DEPARTMENT: **Public Works and Water Resources** DIVISION: Stormwater PROJECT NO: PROJECT TITLE: PROJECT LOCATION: Q1802 Rodney Regional Stormwater Park 103 Hillside Road PROJECT STATUS (SELECT FROM DROP DOWN): **New Project** PRIORITY: 3 - Medium-High The City would be taking a calculated risk in the deferral of this item

#### Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT:

City staff has identified the recently shuttered Rodney Dormitory parcel as ideally located at the top of a watershed in Newark with downstream drainage problems. The City has entered into a contract to purchase the parcel from the University of Delaware and has begun a public relations campaign in order to solicit feedback from the residents of Newark on what type of park amenities and extent of the stormwater management possible on the site. The funds shown below are contemplated to come from a State Revolving Loan Fund, subject to public referendum process. Associated Planning Grants have already been secured.

§ 806.1(3) SUMMARY OF PROJECT	DATA		PROJECT COST BY CATEGORY					
First Year in Program	2018	CLASSIFICATION	ACCOUNT NUMBERS		AMOUNT			
Est. Completion Date	2019	Labor						
Est. Useful Life (in years)	100	Materials						
Est. Total Cost	6,550,000	Other Contracts	3063006.9622					
Est. Spend @ 12/31 (if underway) <sup>1</sup>	ı	Total Project Cost		\$	6,550,000			
Balance to be funded <sup>1</sup>	6,550,000	<sup>1</sup> For ongoing projects, we must estimate total spent since inception throug						
% Complete (if underway)	0%	current year to derive the balance to be funded thereafter.						

1 ( //							
	PRO.	JECT FINANCIN	NG BY PLAN YI	EAR			
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL
CURRENT RESOURCES							-
CAPITAL RESERVES							-
EQUIPMENT REPLACEMENT							-
BOND ISSUES							-
GRANTS (Specify) Planning Grants		50,000					50,000
OTHER (Specify) (referendum)		3,250,000	3,250,000				6,500,000
OTHER (Specify)							-
TOTAL	-	3,300,000	3,250,000	-	-	-	6,550,000

<sup>&</sup>lt;sup>2</sup>"Prior" refers to that portion of project funding that was authorized in a prior year but which is not expected to be spent through 12/31 of the current year. Accordingly, Council is not required to authorize budget year funding for that portion, but that portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET								
OPERATING IMPACT	2018	2019	2020	2021	2022	TOTAL		
INCREMENTAL COSTS (NET SAVINGS)		10,000	10,000	10,000	10,000	40,000		

Healthy & Active Community

# CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL

 DEPARTMENT:
 Public Works and Water Resources
 DIVISION:
 Stormwater

 PROJECT NO:
 PROJECT TITLE:
 PROJECT LOCATION:

 QEQSF
 Equipment Replacement Program

PROJECT STATUS (SELECT FROM DROP DOWN):

PRIORITY: 1 - Highest Priority Level Project underway and must be completed

COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT: Sustainable Community

Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

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

§ 806.1(3) SUMMARY OF PROJECT	DATA		PROJECT COST BY CATEGORY						
First Year in Program	ONGOING	CLASSIFICATION	ACCOUNT NUMBERS		AMOUNT				
Est. Completion Date	ONGOING	Labor							
Est. Useful Life (in years)	VARIOUS	Materials							
Est. Total Cost	18,000	Other Contracts	5295216.9623						
Est. Spend @ 12/31 (if underway) <sup>1</sup>		Total Project Cost		\$	18,000				
Balance to be funded <sup>1</sup>	18,000	<sup>1</sup> For ongoing projects, we must estimate total spent since inception							
% Complete (if underway)		through current year	to derive the balance to	be funded	thereafter.				

	PROJECT FINANCING BY PLAN YEAR									
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL			
CURRENT RESOURCES							-			
CAPITAL RESERVES							-			
EQUIPMENT REPLACEMENT		18,000					18,000			
BOND ISSUES							-			
GRANTS (Specify)							-			
OTHER (Specify)							-			
OTHER (Specify)							-			
TOTAL	-	18,000	-	-	-	-	18,000			

<sup>&</sup>lt;sup>2</sup>"Prior" refers to that portion of project funding that was authorized in a prior year but which is not expected to be spent through 12/31 of the current year. Accordingly, Council is not required to authorize budget year funding for that portion, but that portion of the project will indeed represent a cash outflow in the budget year and/or "out years."

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET											
OPERATING IMPACT         2018         2019         2020         2021         2022         TOTAL											
INCREMENTAL COSTS (NET SAVINGS)	-	-	-	-	-	-					

# FLEET MAINTENANCE DIVISION

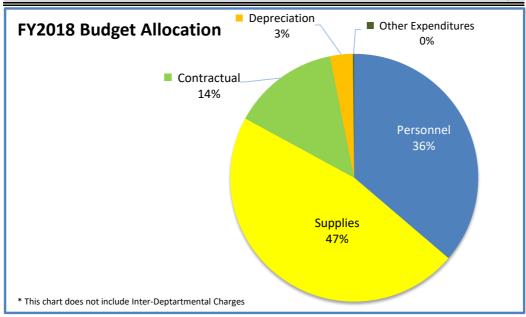
# PUBLIC WORKS & WATER RESOURCES PROGRAM NARRATIVE FLEET MAINTENANCE

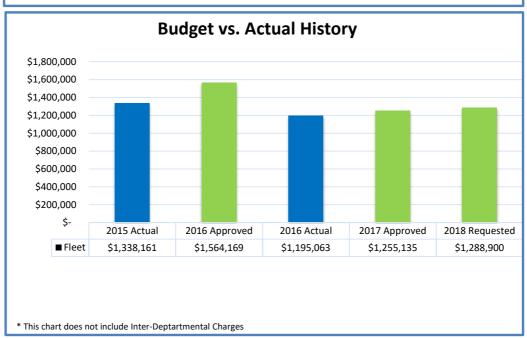
#### Fleet Maintenance Division:

Responsible for maintaining the City's 225 vehicles and pieces of motorized equipment and focused on improving fleet standardization and minimizing life cycle costs, while reducing parts inventory requirements, maintenance burden, and vehicle down time. The Fleet Maintenance Division also assists with vehicle specifications for new purchases.

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION FLEET MAINTENANCE

Object Level	FY2017 Approved	FY2018 Recommended	FY2017 Approved vs. FY2018 Recomm'd	% Incr (Decr) over FY2017 Approved
Personnel Services	\$440,765	\$467,367	\$26,602	6.04%
Materials and Supplies	\$601,150	\$601,550	\$400	0.07%
Contractual Services	\$180,057	\$179,383	(\$674)	-0.37%
Depreciation	\$30,963	\$38,400	\$7,437	24.02%
Other Expenditures	\$2,200	\$2,200	\$0	0.00%
Subtotal (Excluding Inter-Dept.):	\$1,255,135	\$1,288,900	\$33,765	2.69%
Inter-Dept Charges *	(\$1,255,135)	(\$1,288,900)	(\$33,765)	2.69%
Total:	\$0	\$0	\$0	#DIV/0!

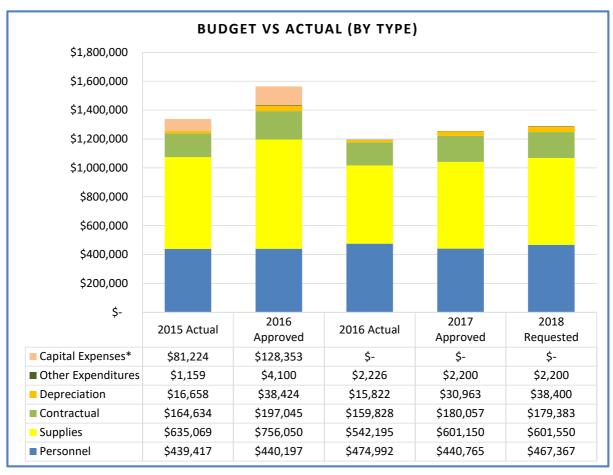




#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION FLEET MAINTENANCE

Object Level	2015 Actual		2016		2016 Actual	2017	2018
Object Level	2013 Actual	Approved			2010 Actual	Approved	Requested
Personnel Services	\$ 439,417	\$	440,197	\$	474,992	\$ 440,765	\$ 467,367
Materials and Supplies	\$ 635,069	\$	756,050	\$	542,195	\$ 601,150	\$ 601,550
Contractual Services	\$ 164,634	\$	197,045	\$	159,828	\$ 180,057	\$ 179,383
Depreciation	\$ 16,658	\$	38,424	\$	15,822	\$ 30,963	\$ 38,400
Other Expenditures	\$ 1,159	\$	4,100	\$	2,226	\$ 2,200	\$ 2,200
Inter-Dept Charges	\$ (1,256,937)	\$	(1,435,816)	\$	(1,195,063)	\$ (1,255,135)	\$ (1,288,900)
Subtotal (Operational Expenses):	\$ -	\$	-	\$	-	\$ -	\$ -
Capital Expenses *	\$ 81,224	\$	128,353	\$	-	\$ -	\$ -
Total:	\$ 81,224	\$	128,353	\$	-	\$ -	\$ -

Object Level	2015 Actual	2016	2016 Actual	2017	2018
Object Level	2015 Actual	Approved	2016 Actual	Approved	Requested
Personnel Services	32.8%	28.1%	39.7%	35.1%	36.3%
Materials and Supplies	47.5%	48.3%	45.4%	47.9%	46.7%
Contractual Services	12.3%	12.6%	13.4%	14.3%	13.9%
Depreciation	1.2%	2.5%	1.3%	2.5%	3.0%
Other Expenditures	0.1%	0.3%	0.2%	0.2%	0.2%
Capital Expenses *	6.1%	8.2%	0.0%	0.0%	0.0%
Total:	100%	100%	100%	100.0%	100.0%



<sup>\*</sup> The allocation of capital expenses between current resources and reserve funding will be determined based on revenue projections.

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET PERSONNEL SERVICES - FLEET MAINTENANCE

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change						
Personnel Services:	\$467,367	\$26,602	6.04%						
Health incurance assumes an increase of 90/ for 2019, which is equal to the increase experienced by the City in 2017, Salary									

Health insurance assumes an increase of 8% for 2018, which is equal to the increase experienced by the City in 2017. Salary assumptions include anticipated step increases when due per contract, and cost of living adjustments of 1.5% for Management, CWA and FOP employees.

#### Personnel Services (Org: 6006002)

Objec	t Line	2017	2018	Ş	\$ Difference	% Difference
6250	Mechanics	\$ 254,819	\$ 267,154	\$	12,335	4.8%
6580	Service Award	\$ 4,744	\$ 5,357	\$	613	12.9%
6590	Sick Pay	\$ 4,444	\$ 4,805	\$	361	8.1%
6620	Overtime	\$ 35,000	\$ 35,000	\$	-	0.0%
6880	Uniform Allowances	\$ 1,200	\$ 2,400	\$	1,200	100.0%
6881	Tool Allowance	\$ 1,400	\$ 1,400	\$	-	0.0%
6920	Unemployment Comp. Ins.	\$ 1,741	\$ 1,260	\$	(481)	-27.6%
6930	Social Security Taxes	\$ 23,073	\$ 24,218	\$	1,145	5.0%
6940	City Pension Plan	\$ 44,545	\$ 58,299	\$	13,754	30.9%
6941	Defined Contribution 401(a) Plan	\$ 4,188	\$ 4,197	\$	9	0.2%
6950	Term Life Insurance	\$ 1,345	\$ 1,282	\$	(63)	-4.7%
6960	Group Hospitalization Ins.	\$ 52,519	\$ 41,305	\$	(11,214)	-21.4%
6961	Long-Term Disability Ins.	\$ 510	\$ 585	\$	75	14.7%
6962	Dental Insurance	\$ 2,792	\$ 2,453	\$	(339)	-12.1%
6964	Health Savings Account	\$ -	\$ 1,500	\$	1,500	#DIV/0!
6965	Post-Employment Benefits	\$ 6,352	\$ 14,039	\$	7,687	121.0%
6966	Retirement Health Savings Acct	\$ 1,359	\$ 1,380	\$	21	1.5%
6967	Emergency Room Reimbursements	\$ 580	\$ 580	\$	-	0.0%
6968	Vision Insurance Premiums	\$ 154	\$ 153	\$	(1)	-0.6%
Perso	nnel Services Total	\$ 440,765	\$ 467,367	\$	26,602	6.0%

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION POSITION DETAIL - FLEET MAINTENANCE

Title	Grade	2017 # of	201	7 2018 # of		2018	Position	\$ Diffe		%
Title	Grade	Positions	Approve	Positions		Requested	Difference	3 Dille	rence	Change
FULL TIME POSITIONS										
Senior Mechanic II	15	1.0	\$ 71,487	1.0	\$	75,590	0.0	\$ 4	,103	5.7%
Senior Mechanic	13	2.0	\$ 121,622	1.0	\$	69,708	(1.0)	\$ (51	,914)	-42.7%
Mechanic II	11	1.0	\$ 61,710	2.0	\$	121,856	1.0	\$ 60	,146	97.5%
<b>Total Full-Time Positions</b>		4.0	\$ 254,819	4.0	\$	267,154	0.0 \$ 12,335		,335	4.8%
OTHER										
Overtime			\$ 35,000		\$	35,000		\$	-	0.0%
Sick Pay			\$ 4,444		\$	4,805		\$	361	8.1%
Service Award			\$ 4,744		\$	5,357		\$	613	12.9%
Total Other			\$ 44,188		\$	45,162		\$	974	2.2%
			. ,		•	•				
Total All		4.0	\$ 299,007	4.0	\$	312,316	0.0	\$ 13	,309	4%

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET MATERIALS AND SUPPLIES - FLEET MAINTENANCE

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Materials/Supplies:	\$601,550	\$400	0.07%
Wear and use items associated	with vehicle maintenance for entire fleet of C	City vehicles.	

#### Materials/Supplies (Org: 6006003)

Objec	t Line	2017	2018	Ş	Difference	% Difference
7060	Tire & Tire Repair Expense	\$ 60,000	\$ 60,000	\$	-	0.0%
7070	Gasoline, Oil, Coolant, Etc.	\$ 340,000	\$ 340,000	\$	-	0.0%
7110	Safety Shoes & Supplies	\$ 800	\$ 1,200	\$	400	50.0%
7130	Tools, Field Sup., & Small Eq.	\$ 8,100	\$ 8,100	\$	-	0.0%
7150	Office Supplies	\$ 250	\$ 250	\$	-	0.0%
7300	Machinery & Equip. Maintenance	\$ 2,000	\$ 2,000	\$	-	0.0%
7310	Vehicle Maintenance	\$ 190,000	\$ 190,000	\$	-	0.0%
Mate	ials/Supplies Total	\$ 601,150	\$ 601,550	\$	400	0.1%

#### **MATERIALS AND SUPPLIES DETAIL**

	Object Code - Description	Amount Requested	Use of Funds (Description)
7060	Tire & Tire Repair Expense	\$ 60,000	Vehicle tires
7070	Gasoline, Oil, Coolant, Etc.	\$ 340,000	Vehicle and equipment fuel
7110	Safety Shoes & Supplies	\$ 1,200	Safety shoes, vests, hard hats, etc.
7130	Tools, Field Sup., & Small Eq.	\$ 8,100	Tire balancing machines, air hoses, etc.
7150	Office Supplies	\$ 250	Paper and pens, notepads
7300	Machinery & Equip. Maintenance	\$ 2,000	General maintenance on existing equipment
7310	Vehicle Maintenance	\$ 190,000	Belts, hoses, filters, brake pads, daily wear items
Total		\$ 601,550	

# PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET CONTRACTUAL SERVICES - FLEET MAINTENANCE

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change							
Contractual Services:	\$179,383	(\$674)	-0.37%							
Contracted services for items or emergencies that may be beyond staffs workload or time constraints.										

#### Contractual Services (Org: 6006004)

Object Line	2017	'	2018	\$ Difference	% Difference
8030 Casualty Insurance	\$ 7,917	\$	7,997	\$ 80	1.0%
8031 Insurance - Property	\$ 46,493	\$	46,958	\$ 465	1.0%
8032 Insurance - Auto	\$ 3,227	\$	3,260	\$ 33	1.0%
8033 Insurance - Broker	\$ 5,363	\$	5,417	\$ 54	1.0%
8050 Phone/Communications	\$ 180	\$	2,100	\$ 1,920	1066.7%
8131 Information Technology Cont'l	\$ 11,377	\$	8,151	\$ (3,226)	-28.4%
8300 Machinery & Equip. Maintenance	\$ 1,000	\$	1,000	\$ -	0.0%
8310 Vehicle Maintenance	\$ 100,000	\$	100,000	\$ -	0.0%
8311 Vehicle Accidents	\$ 4,500	\$	4,500	\$ -	0.0%
Contractual Services Total	\$ 180,057	\$	179,383	\$ (674)	-0.4%

#### **CONTRACTUAL SERVICES DETAIL**

	Object Code - Description	Amount Requested	Use of Funds (Description)
8030	Casualty Insurance	\$ 7,997	Allocation provided by Finance
8031	Insurance - Property	\$ 46,958	Allocation provided by Finance
8032	Insurance - Auto	\$ 3,260	Allocation provided by Finance
8033	Insurance - Broker	\$ 5,417	Allocation provided by Finance
8050	Phone/Communications	\$ 2,100	Mobile phones and air cards for mobile workforce applications and GIS mapping
8131	Information Technology Cont'l	\$ 8,151	Department's share of IT costs, please see Appendix A
8300	Machinery & Equip. Maintenance	\$ 1,000	Maintenance and repair of diagnostic tools
8310	Vehicle Maintenance	\$ 100,000	Contractual vehicle and mechanized equipment repairs that exceed the capacity of our internal mechanics due to either scope of repairs or workload
8311	Vehicle Accidents	\$ 4,500	Repairs due to vehicle accidents not covered by insurance
Total		\$ 179,383	

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET DEPRECIATION - FLEET MAINTENANCE

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Depreciation Expense:	\$38,400	\$7,437	24.02%
Depreciation expense is calculated	l annually by the Department of Finance ar	nd is based upon the equipment utilize	d by each
department. This amount will fluc	uate depending on asset additions and reti	rements, cost of assets and useful life	of the assets.
•			

#### Other Charges (Org: 6006005) - \*Depreciation Expense Only

Object Line	2017	2018	\$ Difference	% Difference
9060 Depreciation Expense	\$ 30,963	\$ 38,400	\$ 7,437	24.0%
Other Charges Total *	\$ 30,963	\$ 38,400	\$ 7,437	24.0%

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET OTHER CHARGES - FLEET MAINTENANCE

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Other Charges:	\$2,200	\$0	0.00%
Training helps keep our staff up	to date on current trends and safety topics a	s well as new vehicle types.	
age.pseep ear etar. ap	a co date on carrent increas and carety topics a	5 Hell 45 Hell 46 Hell 47 Peer	

#### Other Charges (Org: 6006005) - \*Excluding Depreciation Expense

Object Line	2017	2018	Ş	Difference	% Difference
9020 Mileage & Small Bus. Expense	\$ 200	\$ 200	\$	-	0.0%
9070 Training	\$ 2,000	\$ 2,000	\$	-	0.0%
Other Charges Total *	\$ 2,200	\$ 2,200	\$	-	0.0%

#### **OTHER CHARGES DETAIL**

Object Code - Description	Amount Requested	Use of Funds (Description)
9020 Mileage & Small Bus. Expense	\$ 200	
9070 Training	\$ 2,000	
Total	\$ 2,200	

#### PUBLIC WORKS & WATER RESOURCES FY2018 RECOMMENDED BUDGET INTER-DEPT. CHARGES - FLEET MAINTENANCE

Object Level	FY2018 Recommended	\$ Change over FY2017	% Change
Inter-Dept. Charges:	(\$1,288,900)	(\$33,765)	2.69%

Billings and Accounting: Various costs of the Finance Department are allocated based on pertinent ratios; for example, the payroll function is allocated based on the percentage of equivalent personnel head count (including temporary part-time), accounts payable function is allocated by the percentage of total budget dollars, and the accounting function is allocated by an average of the two previous ratios.

Buildings and Grounds: Costs of the Facilities Maintenance Division are allocated to other operating divisions by the square footage of the department offices and other buildings compared to the total city facility buildings square footage.

Electricity: Electricity consumption allocated to the department based on square footage of the department offices compared to the total City Hall building. Meter readings are obtained by the Electric Department at the end of each year. Cost is based on budget DEMEC rate.

Information Technology: Costs are allocated based on percentage of equivalent personnel head count (including temporary part-time) with the exception of items identified specifically for utility fund items such as support for Harris billing system and smart meter network.

Other Indirect Charges: Includes charges for work done by other divisions to benefit the receiving division offset by credits for work done by this division for other division. Example: For Parks, the Electric, Street, and Refuse crews performing work for Community Day.

Vehicles and Equipment: Includes direct charges of vehicle maintenance and repair performed by the Fleet Maintenance crew and an allocation of indirect Fleet Maintenance costs allocated to each division by the percentage of direct costs for the individual division to the direct costs for all divisions.

#### Inter-Dept. Charges

Object Line	2017	2018	\$ Difference	% Difference
Billings & Accounting	\$ 17,909	\$ 21,646	\$ 3,737	20.9%
Buildings and Grounds	\$ 8,403	\$ 10,416	\$ 2,013	24.0%
Electricity	\$ 7,498	\$ 11,144	\$ 3,646	48.6%
Information Technology	\$ 23,994	\$ 34,582	\$ 10,588	44.1%
Other Indirect Charges	\$ (9,800)	\$ (11,859)	\$ (2,059)	21.0%
Vehicles and Equipment	\$ (1,303,139)	\$ (1,354,829)	\$ (51,690)	4.0%
Inter-Dept. Charges Total	\$ (1,255,135)	\$ (1,288,900)	\$ (33,765)	2.7%

# FLEET MAINTENANCE CAPITAL IMPROVEMENT PROJECTS

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION CIP - FLEET MAINTENANCE

Droiget #	Dept	Description	2017	2017 Balance as of CAPITAL IMPROVEMENTS PROGRAM REQUESTE						NDING
Project #	Priority		Budget	6/30/2017	2018	2019	2020	2021	2022	<b>Total CIP Request</b>
M1101	1	Maint. Yard Master Plan and New Salt Shed	\$250,000	\$25,150						\$0
M1401	1	Truck Lift System Improvements	\$102,549	\$102,549	\$45,000					\$45,000
MEQSF	1	Equipment Replacement Program		\$0		\$40,000				\$40,000
Total			\$352,549	\$127,699	\$45,000	\$40,000	\$0	\$0	\$0	\$85,000

#### **CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL** DEPARTMENT: **Public Works and Water Resources** DIVISION: Maintenance PROJECT NO: PROJECT TITLE: PROJECT LOCATION: M1101 Maint. Yard Master Plan and New Salt Shed Maintenance Yard PROJECT STATUS (SELECT FROM DROP DOWN): PRIORITY: 1 - Highest Priority Level Project underway and must be completed COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT: Sustainable Community Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

\*This project is now identified as "FOC Master Plan" and has been renumbered as N1806 (Facilities Maintenance)

§ 806.1(3) SUMMARY OF PROJECT	DATA		RY					
First Year in Program	2015	CLASSIFICATION	ACCOUNT NUMBERS	AMOUNT				
Est. Completion Date	2017	Labor	6006006.9620					
Est. Useful Life (in years)	25+	Materials						
Est. Total Cost	-	Other Contracts	6006006.9620					
Est. Spend @ 12/31 (if underway) <sup>1</sup>		Total Project Cost		\$ -				
Balance to be funded <sup>1</sup>	-	<sup>1</sup> For ongoing projects, we must estimate total spent since inception						
% Complete (if underway)		through current year to derive the balance to be funded thereafter.						

	PROJECT FINANCING BY PLAN YEAR											
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL					
CURRENT RESOURCES							-					
CAPITAL RESERVES							-					
EQUIPMENT REPLACEMENT							-					
BOND ISSUES							-					
GRANTS (Specify)							-					
OTHER (Specify)							-					
OTHER (Specify)							-					
TOTAL			-	-		-	•					

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET										
OPERATING IMPACT         2018         2019         2020         2021         2022         TOTAL										
INCREMENTAL COSTS (NET SAVINGS)	-	-	-	-	-	-				

#### **CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL** DEPARTMENT: **Public Works and Water Resources** DIVISION: Maintenance PROJECT NO: PROJECT TITLE: PROJECT LOCATION: M1401 Truck Lift System Improvements Maintenance Garage PROJECT STATUS (SELECT FROM DROP DOWN): PRIORITY: 1 - Highest Priority Level Project underway and must be completed COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT: Sustainable Community

#### Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

The current lift system is old and parts are no longer available to repair the system in a timely manner. Our ability to repair and recertify the system often involves locating used parts. The new system will provide the latest technology utilizing wireless communication between the lifts to coordinate their movement versus the wired system that we currently use.

§ 806.1(3) SUMMARY OF PROJECT	DATA	PROJECT COST BY CATEGORY					
First Year in Program	2014	CLASSIFICATION	ACCOUNT NUMBERS	AMOUN			
Est. Completion Date	2017	Labor					
Est. Useful Life (in years)	10	Materials					
Est. Total Cost	147,549	Other Contracts	6006006.9622				
Est. Spend @ 12/31 (if underway) <sup>1</sup>		Total Project Cost		\$ 147,549			
Balance to be funded <sup>1</sup>	147,549	<sup>1</sup> For ongoing projects, we must estimate total spent since inception					
% Complete (if underway)		through current year to derive the balance to be funded thereafter.					

PROJECT FINANCING BY PLAN YEAR									
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL		
CURRENT RESOURCES		45,000					45,000		
CAPITAL RESERVES	102,549						102,549		
EQUIPMENT REPLACEMENT							-		
BOND ISSUES							-		
GRANTS (Specify)							-		
OTHER (Specify)							-		
OTHER (Specify)							-		
TOTAL	102,549	45,000	-	-	-	-	147,549		

§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET								
OPERATING IMPACT         2018         2019         2020         2021         2022         TOTAL								
INCREMENTAL COSTS (NET SAVINGS)						-		

#### **CITY OF NEWARK, DELAWARE CAPITAL BUDGET - PROJECT DETAIL** DEPARTMENT: **Public Works and Water Resources** DIVISION: Fleet Maintenance PROJECT NO: PROJECT TITLE: PROJECT LOCATION: **MEQSF Equipment Replacement Program** PROJECT STATUS (SELECT FROM DROP DOWN): PRIORITY: 1 - Highest Priority Level Project underway and must be completed COMPREHENSIVE DEVELOPMENT PLANNING VISION ELEMENT: Sustainable Community Charter § 806.1(2) DESCRIPTION & JUSTIFICATION:

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

§ 806.1(3) SUMMARY OF PROJECT	DATA	PROJECT COST BY CATEGORY					
First Year in Program	ONGOING	CLASSIFICATION	ACCOUNT NUMBERS	AMOUNT			
Est. Completion Date	ONGOING	Labor					
Est. Useful Life (in years)	VARIOUS	Materials					
Est. Total Cost	40,000	Other Contracts	3063026.9623				
Est. Spend @ 12/31 (if underway) <sup>1</sup>		Total Project Cost		\$ 40,000			
Balance to be funded <sup>1</sup>	40,000	<sup>1</sup> For ongoing projects, we must estimate total spent since inception					
% Complete (if underway)		through current year to derive the balance to be funded thereafter.					

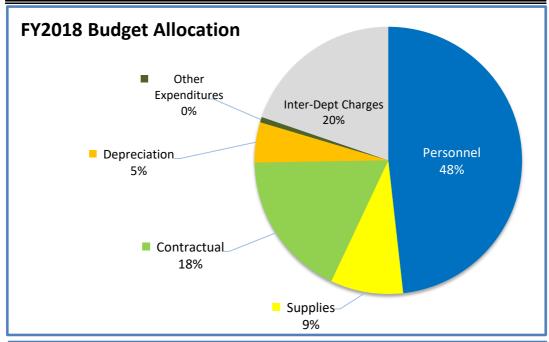
PROJECT FINANCING BY PLAN YEAR									
§ 806.1(3) SOURCE OF FUNDS	PRIOR <sup>2</sup>	2018	2019	2020	2021	2022	TOTAL		
CURRENT RESOURCES							-		
CAPITAL RESERVES							-		
EQUIPMENT REPLACEMENT			40,000				40,000		
BOND ISSUES							-		
GRANTS (Specify)							-		
OTHER (Specify)							-		
OTHER (Specify)							-		
TOTAL	-	-	40,000	-	-	-	40,000		

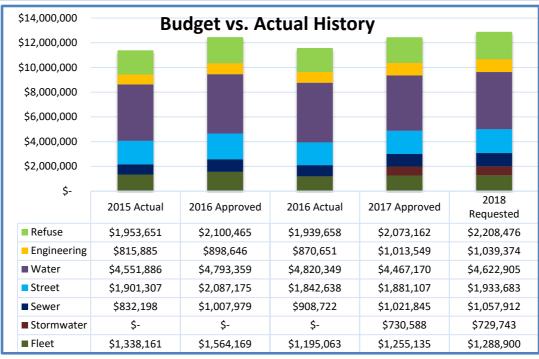
§ 806.1(4) ESTIMATED ANNUAL COST OF OPERATING / MAINTAINING PROJECT OR ASSET							
OPERATING IMPACT 2018 2019 2020 2021 2022 TOT						TOTAL	
INCREMENTAL COSTS (NET SAVINGS)	-	-	-	-	-	-	

# DEPARTMENT LEVEL SUMMARY

### PUBLIC WORKS AND WATER RESOURCES FY2018 BUDGET RECOMMENDATION

			FY2017	% Incr
Object Level	FY2017	FY2018	Approved vs.	(Decr) over
Object Level	Approved	Recommended	FY2018	FY2017
			Recomm'd	Approved
Personnel Services	\$6,077,665	\$6,210,940	\$133,275	2.19%
Materials and Supplies	\$1,143,050	\$1,133,050	(\$10,000)	-0.87%
Contractual Services	\$2,249,221	\$2,282,082	\$32,861	1.46%
Depreciation	\$492,856	\$628,800	\$135,944	27.58%
Other Expenditures	\$80,714	\$83,794	\$3,080	3.82%
Inter-Dept Charges	\$2,399,050	\$2,542,327	\$143,277	5.97%
Total:	\$12,442,556	\$12,880,993	\$438,437	3.52%

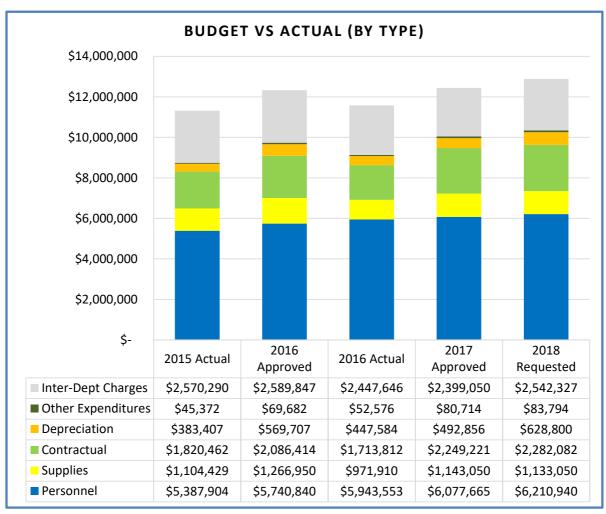




### PUBLIC WORKS AND WATER RESOURCES FY2018 BUDGET RECOMMENDATION

Object Level	2015 Actual	20:	16 Approved	2016 Actual	20:	17 Approved	2018 Requested
Personnel Services	\$ 5,387,904	\$	5,740,840	\$ 5,943,553	\$	6,077,665	\$ 6,210,940
Materials and Supplies	\$ 1,104,429	\$	1,266,950	\$ 971,910	\$	1,143,050	\$ 1,133,050
Contractual Services	\$ 1,820,462	\$	2,086,414	\$ 1,713,812	\$	2,249,221	\$ 2,282,082
Depreciation	\$ 383,407	\$	569,707	\$ 447,584	\$	492,856	\$ 628,800
Other Expenditures	\$ 45,372	\$	69,682	\$ 52,576	\$	80,714	\$ 83,794
Inter-Dept Charges	\$ 2,570,290	\$	2,589,847	\$ 2,447,646	\$	2,399,050	\$ 2,542,327
Total:	\$ 11,311,864	\$	12,323,440	\$ 11,577,081	\$	12,442,556	\$ 12,880,993

Object Level	2015 Actual	2016 Approved	2016 Actual	2017 Approved	2018 Requested
Personnel Services	47.6%	46.6%	51.3%	48.8%	48.2%
Materials and Supplies	9.8%	10.3%	8.4%	9.2%	8.8%
Contractual Services	16.1%	16.9%	14.8%	18.1%	17.7%
Depreciation	3.4%	4.6%	3.9%	4.0%	4.9%
Other Expenditures	0.4%	0.6%	0.5%	0.6%	0.7%
Inter-Dept Charges	22.7%	21.0%	21.1%	19.3%	19.7%
Total:	100.0%	100.0%	100.0%	100.0%	100.0%



#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION APPENDIX A - BUDGET CODE 8131

#### **REFUSE DIVISION**

8131 - Information Technology Contractual	arge ack	Description
Verizon - Cellular/Data - Allocated	\$ 600	Computer Mobile Internet Connectivity
Total	\$ 600	

#### **ENGINEERING ENFORCEMENT**

8131 - Information Technology Contractual	Charge Back		Description
AutoTurn	\$	2,600	Engineering software to truck turn around design and planning
Esri Small Government ELA - Allocated	\$	2,500	GIS Server, Client, Cloud Licensing
Tyler Technologies Munis Annual	\$	3,807	Tyler Technologies Munis - Finance and Accounting, Taxes,
Maintenance - Allocated			Permitting, Licenses, Work Order Management
Verizon - Cellular/Data - Allocated	\$	2,400	Computer Mobile Internet Connectivity
VOIP Networks - Cloud9 VOIP	\$	6,177	VOIP Phone System
Subscription - Allocated			
HP T2530PS - Plotter (48 month) -	\$	1,298	Wide Format Plotter and Scanner
Allocated			
Total	\$	18,782	

#### **FLEET MAINTENANCE DIVISION**

8131 - Information Technology	Charge Back		Description
Contractual			Description
Cummins Insite Lite Registration	\$	500	Large Truck Diagnostic Software
Cummins Quick Serve	\$	450	Large Truck Diagnostic Software
International Servicemaxx Fleet Pro	\$	650	Large Truck Diagnostic Software
Software			
ShopKey Software Renewal	\$	3,200	ShopKey Vehicle Maintenance Software Renewal
Snap On Modis Ultra Handheld Scanner	\$	1,145	Snap-On Vehicle Diagnostic Handheld Scanner Software
Software			
VOIP Networks - Cloud9 VOIP	\$	2,206	VOIP Phone System
Subscription - Allocated			
Total	\$	8,151	

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION APPENDIX A - BUDGET CODE 8131

#### **WATER DIVISION**

8131 - Information Technology Contractual	Charge Back	Description
Allied Control Systems - Schneider	\$ 2,000	ClearScada, Win911, Kepware
Electric ClearScada Annual Maintenance		
AutoDesk (Civil 3D) - 3 licenses - Allocated	\$ 3,333	AutoDesk Civil 3D (autocad) Software Subscription Licenses (Clients and Server)
Comcast / Verizon South Well Field (SWF)	\$ 1,358	Internet Connection
Crystal Reports Server Annual Maintenance - Allocated	\$ 1,250	Report Generation Software (SCADA)
Elster License Fee (SLA) Tropos Software Maintenance - Allocated	\$ 17,500	Smart-Meter System (Wireless Infrastructure)
Elster Software Maintenance - EAMS Allocated	\$ 6,500	Smart-Meter System (Radio Infrastructure)
Esri Small Government ELA - Allocated	\$ 2,500	GIS Server, Client, Cloud Licensing
Harris - Smartworks - Oracle Database Tuning - Allocated	\$ 3,750	Smart Meter System - Proactive Oracle Database Maintenance
Harris - Smartworks Software Maintenance - Allocated	\$ 6,250	Smart-Meter System (Middleware)
Harris - NorthStar Annual Maintenance - Allocated	\$ 11,667	Utility Billing Software (including Smart-Meter System)
Oracle Software Subscription Renewal (Not Harris) - Allocated	\$ 1,250	Smart Meter - Oracle Database Software License
Schneider Electric - Clearscada	\$ 600	Schneider Electric - Clearscada Development Software
Development Software Maintenance		Maintenance
Tyler Technologies Munis Annual	\$ 2,589	Tyler Technologies Munis - Finance and Accounting, Taxes,
Maintenance - Allocated		Permitting, Licenses, Work Order Management
Verizon - Cellular/Data - Allocated	\$ 6,600	Computer Mobile Internet Connectivity
Total	\$ 67,147	

#### **STREET DIVISION**

8131 - Information Technology Contractual	harge Back	Description			
Tyler Technologies Munis Annual	\$ 3,807	Tyler Technologies Munis - Finance and Accounting, Taxes,			
Maintenance - Allocated		Permitting, Licenses, Work Order Management			
VOIP Networks - Cloud9 VOIP	\$ 1,324	VOIP Phone System			
Subscription - Allocated					
Total	\$ 5,131				

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION APPENDIX A - BUDGET CODE 8131

#### **SEWER DIVISION**

8131 - Information Technology Contractual	Charge Back		Description				
AutoDesk (Civil 3D) - 3 licenses -	\$	3,333	AutoDesk Civil 3D (autocad) Software Subscription Licenses				
Allocated			(Clients and Server)				
Elster License Fee (SLA) Tropos Software	\$	17,500	Smart-Meter System (Wireless Infrastructure)				
Maintenance - Allocated							
Elster Software Maintenance - EAMS	\$	6,500	Smart-Meter System (Radio Infrastructure)				
Allocated							
Esri Small Government ELA - Allocated	\$	2,500	GIS Server, Client, Cloud Licensing				
Harris - Smartworks - Oracle Database	\$	3,750	Smart Meter System - Proactive Oracle Database				
Tuning - Allocated			Maintenance				
Harris - Smartworks Software	\$	6,250	Smart-Meter System (Middleware)				
Maintenance - Allocated							
Harris - NorthStar Annual Maintenance -	\$	11,667	Utility Billing Software (including Smart-Meter System)				
Allocated							
Oracle Software Subscription Renewal	\$	1,250	Smart Meter - Oracle Database Software License				
(Not Harris) - Allocated							
Tyler Technologies Munis Annual	\$	2,513	Tyler Technologies Munis - Finance and Accounting, Taxes,				
Maintenance - Allocated			Permitting, Licenses, Work Order Management				
Total	\$	55,263					

#### **STORMWATER DIVISION**

8131 - Information Technology Contractual	Charge Back		Description			
AutoDesk (Civil 3D) - 3 licenses -	\$	3,333	AutoDesk Civil 3D (autocad) Software Subscription Licenses			
Allocated			(Clients and Server)			
Harris - NorthStar Annual Maintenance -	\$	11,667	Utility Billing Software (including Smart-Meter System)			
Allocated						
Tyler Technologies Munis Annual	\$	2,513	Tyler Technologies Munis - Finance and Accounting, Taxes,			
Maintenance - Allocated			Permitting, Licenses, Work Order Management			
Total	\$	17,513				

#### PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION APPENDIX B - PART TIME HISTORY (2017-2018)

Position Descriptions	2017 Positions	20	17 Budget	2018 Positions	20	18 Budget	# Difference	\$ Difference
Interns	5	\$	32,500	5	\$	32,500	0	\$ -
Clerk Typist	1	\$	26,400	1	\$	29,673	0	\$ 3,273
Seasonals	4	\$	62,400	5	\$	62,400	1	\$ -
Maintenance (Stormwater	1	\$	31,202	1	\$	30,867	0	\$ (335)
<b>Total (Part Time Only)</b>	11	\$	152,502	12	\$	155,440	1	\$ 2,938

## PUBLIC WORKS & WATER RESOURCES FY2018 BUDGET RECOMMENDATION APPENDIX C - INFRASTRUCTURE REPLACEMENT SHEET

	Inventory ***	Service Life	Cost per Unit	Comment
Water Mains	140 Miles	100 years	\$1,200,000	Replace - restores full life
Sanitary Sewer Mains *****	95 Miles	100 years	\$700,000	Reline - restores 50-years
Streets (City) *****	65 Miles	17.5 years *	n/a	Per Pavement Management Plan
Storm Sewer (Concrete)	80 Miles	85 years	\$1,200,000	Replace - restores full life
Storm Sewer (Metal)	5.01875 Miles	15 years **	\$1,000,000	Replace with concrete or reline
Handicap Accessible Ramps	1689 Units	25 years	\$3,500	Replace non-compliant ramps

	Need per year ****	Cost per	2017 Budget	2017 Funding	2018 Budget	2018 Funding
	Neeu per year	year	Funding	Gap	Funding	Gap
Water Mains	1.4 Miles	\$1,680,000	\$1,000,000	\$680,000	\$500,000	\$1,180,000
Sanitary Sewer Mains *****	0.95 Miles	\$665,000	\$500,000	\$165,000	\$700,000	(\$35,000)
Streets (City) *****	n/a Miles	\$1,750,000	\$1,515,000	\$235,000	\$1,865,000	(\$115,000)
Storm Sewer (Concrete)	0.94 Miles	\$1,128,000	\$0	\$1,128,000	\$0	\$1,128,000
Storm Sewer (Metal)	0.33 Miles	\$330,000	\$0	\$330,000	\$420,000	(\$90,000)
Handicap Accessible Ramps	67.56 Units	\$236,460	\$120,000	\$116,460	\$130,000	\$106,460
	Total:	\$5,553,000	\$3,135,000	\$2,418,000	\$3,615,000	\$1,938,000

<sup>\* \$1,750,000</sup> needed per year for the next 5 years to maintain the current average pavement condition per the 2016 Agile Assets Pavement Management Plan

<sup>\*\*</sup> Metal storm pipe has not been used in the City for many years. Traditionally I would apply a 25 year life for CMP but most is already severely deteriorated and in need of replacement

<sup>\*\*\*</sup> Inventory lengths reflect our best available current records. Road miles are the only survey grade values at this point and all others will change as we complete surveys

<sup>\*\*\*\*</sup> Replacement costs include structures like manholes, valves, catch basins, curbing, etc. in an effort to give a simple replacement value for an average street, main, etc.

<sup>\*\*\*\*\* 2017</sup> Funding held at \$1,515,000 with the expectation that State CTF money will make up the difference to get to \$1,750,000 target

<sup>\*\*\*\*\*\*</sup> Sewer replacement cost includes \$200,000 per year of inspection and prioritization cost assuming inspection of entire sanitary sewer system on a 15-year cycle