









FISCAL YEAR 2020

BUDGET



Vincent J. Mesolella Chairman Laurie Horridge Executive Director





The Government Finance Officers Association of the United States and Canada (GFOA) presented a Distinguished Budget Presentation Award to Narragansett Bay Commission, (NBC), Rhode Island, for its annual budget for the fiscal year beginning July 1, 2018. The GFOA also awarded NBC Special Performance Measures Recognition and Special Capital Recognition. In order to receive the Distinguished Budget award, a governmental unit must publish a budget document that meets program criteria as a policy document, as a financial plan, as an operations guide, and as a communications device. In order to obtain Special Capital Recognition the governmental unit must receive outstanding ratings in Capital Expenditures and Debt by all three reviewers. To obtain Special Performance Measure Recognition the three reviewers must find the Performance Measures to be outstanding. This award is valid for a period of one year only. We believe that the current budget continues to conform to the program requirements, and we will submit it to GFOA to determine its eligibility for another award.



Photo: East Bay Bike Path, East Providence

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BOARD OF COMMISSIONERS

Narragansett Bay Commission (NBC) is governed by a Board of Commissioners (Board). The Board represents the municipalities in the service area, as well as ten gubernatorial appointments. Empowered with responsibilities ranging from ensuring that NBC operates a balanced budget to approving contracts for improving and sustaining the treatment facilities and wastewater collection system, the Board meets monthly to guide the direction of NBC.

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Photo: View of Providence Water Fire

NBC ORGANIZATION

NBC is comprised of a team of dedicated professionals who are committed to the fulfillment of NBC's goals. NBC's organizational structure consists of five Divisions headed by Division Directors who report to the Executive Director. Within each Division there are sections headed by Program Managers who report to the Division Director.

		Executive Director		
Administration	Construction & Engineering	Finance	Operations & Maintenance	Environmental Science & Compliance
Administration	Construction	Finance	Interceptor Maintenance	Technical Analysis & Compliance
Human Resources	Engineering	Accounting	Operations & Maintenance Services	Pretreatment
Legal		Customer Service	Field's Point	Laboratory
Information Technology		Purchasing	Bucklin Point	Environmental Monitoring
		General Services		



Photo: Harbor Seals in Narragansett Bay

NARRAGANSETT **B**AY **C**OMMISSION Table of Contents

		Page No.
I.	BUDGET MESSAGE	
	NBC Outlook	1
	Fiscal Year 2019 in Review	7
II.	ABOUT NARRAGANSETT BAY COMMISSION	
	NBC Organization	14
	Facilities	17
	Demographics	22
III.	BUDGET PROCESS AND POLICIES	
	The Budget Process	29
	FY 2020 Budget Calendar	30
	Budget Monitoring and Amendment Procedures	32
	The Rate Setting Process	34
	Financial Policies	34
IV.	BUDGET SUMMARY	
	Budget Summary	41
	FY 2020 Budget – Key Assumptions	44
	The Strategic Plan and FY 2020 Budget	47
	Trust Indenture and Funds	52
	Net Position	54
	Fund Organization Matrix	56
	Budget Resolution and Attachment 1	57
٧.	OPERATING BUDGET	
	FY 2020 Budget Presentation	67
	Sources and Uses of Revenue	68
	Historical Overview	69
	Revenue Profile	70
	Expense Profile	78
	Operating Budget Detail FY 2020	94
	Division Summaries	97
VI.	CAPITAL BUDGET	
• • • •	Capital Budget Summary	213
	Operating Capital Program	215
	Capital Improvement Program	249
VII	. CIP AND LONG TERM PLAN	242
	CIP Impact on Operating Budget	313
	Capital Funding and Debt Service Impact	316
	Projected Revenue and Expense	327
	Sewer User Fee Rate Projections	329
VIII	. SUPPORTING SCHEDULES	
	Acronyms Glossary	331
	Glossary of Terms	341



Budget Message

"The mission of the Narragansett Bay Commission is to maintain a leadership role in the protection and enhancement of water quality in Narragansett Bay and its tributaries by providing safe and reliable wastewater collection and treatment services to its customers at a reasonable cost."



Photo: Sunrise over Narragansett Bay

Introduction

The Narragansett Bay Commission (NBC) is pleased to present its FY 2020 Budget. This budget reflects NBC's dedication to water quality improvement through continued investment in capital improvements, the effective operation of its wastewater treatment and collections system, and water quality monitoring efforts. This budget also demonstrates NBC's commitment to providing excellent service at a reasonable cost to its ratepayers through the careful allocation of resources.

NBC Outlook

NBC's operating and capital budgets are based on the objectives and priorities outlined in NBC's Strategic Plan. The Strategic Plan provides the framework of NBC's long-term priorities over the next ten years. This narrative serves to link the allocation of resources in the FY 2020 Budget to the relationship between each program's short-term service level objectives and NBC's long-term strategic goals. The budget also reflects the incorporation of the GFOA S.M.A.R.T. Goal framework and an increased number of performance measures based on outcome and efficiency.

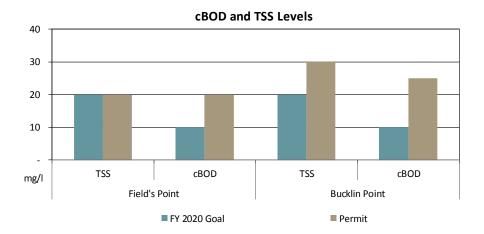
Core Business

NBC's core business goal in FY 2020 and beyond is the successful operation and maintenance of the treatment and collection systems to ensure that federal and state requirements are met or surpassed. NBC operates its facilities under Rhode Island Pollution Discharge Elimination System (RIPDES) permits issued by the Rhode Island Department of Environmental Management (RIDEM). The RIPDES permits set forth effluent limitations and monitoring requirements. NBC entered into a Consent Agreement with RIDEM that sets forth more stringent limits for certain parameters and requires various studies and evaluations to be undertaken by NBC.

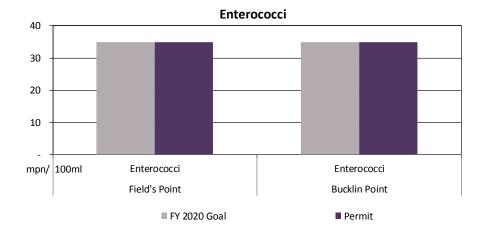
The FY 2020 budget and performance measures are based on the RIPDES permit limits of 20 milligrams per liter (mg/l) for both Carbonaceous Biological Oxygen Demand (cBOD) and Total Suspended Solids (TSS) at Field's Point. At Bucklin Point, the limits are 25 mg/l for cBOD and 30 mg/l for TSS. Both cBOD and TSS are wastewater industry standards for measuring the effectiveness of wastewater treatment and the quality of effluent discharged into the receiving waters. The RIPDES permit sets forth daily and monthly limits for both levels,

BUDGET MESSAGE 1 NBC FY 2020 BUDGET

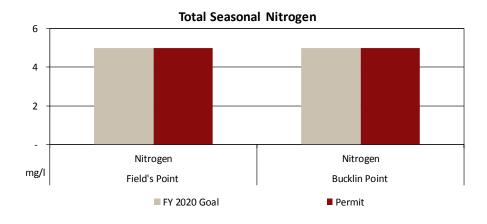
with levels being less restrictive from November through April. The following chart shows NBC's FY 2020 clean water goals to meet or surpass permitted treatment levels at the WWTFs.



The RIPDES permit also sets forth seasonal enterococci permit limits of 35 most probable number (mpn) or viable cells in a liquid sample per 100ml for both WWTFs. Enterococci is an anaerobic bacteria found in the intestinal tract. The following chart shows NBC's FY 2020 clean water goals and permitted treatment levels at each of the WWTFs.



Lastly, the RIPDES permits set forth total seasonal nitrogen permit limits of 5 mg/l from May to October at the Field's Point and Bucklin Point WWTFs. The following chart shows NBC's FY 2020 nitrogen removal goals and the permitted levels.



BUDGET MESSAGE 2 NBC FY 2020 BUDGET

NBC continues to achieve excellent treatment results at both facilities and the FY 2020 Budget supports these efforts with increased funding for operating expenses. In particular, FY 2020 budgeted biosolids disposal expense is \$676 thousand more than the prior year, reflecting increased dry ton production and a higher disposal rate due to the contracted CPI adjustment and a rule of law price increase. The FY 2020 budget also reflects increases in budgeted gallons of sodium hypochlorite and sodium bisulfite of 22.9% and 41.9% respectfully, that are required to meet the new RIPDES permit. Higher budgeted use, in conjunction with price increases, results in a FY 2020 chemical budget that is \$423 thousand more than the prior year. The FY 2020 budget also reflects additional resources for maintenance contracts for equipment such as the blowers and generators to ensure continuous operation. The FY 2020 budget also includes \$345 thousand for electrical testing at the two WWTFs, an increase of 6% over the prior year. Lastly, this year's budget includes additional resources for a new Technical Advisor for Operations position and a Control Systems Associate position to support operations.



This year's budget also demonstrates NBC's continued investment in capital assets that are required to meet current and future federal and state mandates, take advantage of technological advancements to achieve operational efficiencies and ensure the integrity of NBC's infrastructure. NBC has \$53.0 million programmed for capital improvements in FY 2020. The majority of NBC's capital expenditures relate to the third and final phase of the federally mandated Combined Sewer Overflow (CSO) Abatement program.

NBC is pleased to share that based on NBC's Letter of Interest (LOI) submitted in July 2018, the United States Environmental Protection Agency (US EPA) selected the CSO Phase III A project for consideration for funding through the Water Infrastructure Finance and Innovation Act (WIFIA) loan program. The WIFIA program provides flexible, low-interest long-term loans for up to 49% of total project costs. NBC submitted the application in March 2019 and, as part of that process, the CSO Phase III A project costs were inflated from 2018 dollars to a total cost of \$548.4 million. The WIFIA loan amount is \$268.7 million or 49% of the total estimated project cost. Due to the significant advantages of the WIFIA program, NBC plans to submit a second Letter of Interest for a Bucklin Point Resiliency project this July for a loan amount of \$15.8 million. The Bucklin Point Resiliency project is a consolidation of projects carried in the CIP and newly identified needs.

The table below shows the cost and schedule adjustments related to the CSO Phase III A Facilities and Bucklin Point projects that took place subsequent to the Board's adoption of the FY 2021-2025 CIP. The overall increase in the CIP during the five-year window is \$51.8 million.

Programmed Capital Improvements (Thousands)	F	Y 2020	F	Y 2021	F	Y 2022	F	Y 2023	F	Y 2024	F	Y 2025	otal FY 021-2025
CIP													
CSO Phase III A Facilities	\$	34,981	\$	41,879	\$	94,086	\$	143,803	\$	110,546	\$	55,989	\$ 446,303
Bucklin Point		1,367		4,694		15,301		3,126		-		-	23,121
Other CIP		16,058		9,230		9,837		7,558		6,087		4,982	37,694
Total Original CIP	\$	52,406	\$	55,803	\$	119,224	\$	154,487	\$	116,633	\$	60,971	\$ 507,118
CIP Adjustments for CSO Phase III A and Bucklin Point		640		16,466		4,064		11,265		12,197		7,818	51,810
Total Adjusted CIP	\$	53,046	\$	72,269	\$	123,288	\$	165,752	\$	128,830	\$	68,789	\$ 558,928

The WIFIA program will significantly mitigate ratepayer impact and modeling shows that the projected average fee for a single family home will be less than \$600 per year in FY 2025. Additional discussion regarding capital funding and rate impact is in the CIP Impact and Long-Term Plan section of this budget.

The FY 2020 budget also includes investments that are necessary to ensure continuous operation of NBC's facilities, support services and core business functions. The Operating Capital Program (OCP) includes asset purchases, asset replacements, asset renovations and betterments. The OCP has programmed expense of \$3.3 million in FY 2020 and a total of \$12.0 million during the five-year period of FY 2021-2025. The majority or 62% of the FY 2020 expense is for assets supporting the wastewater treatment and collection system in the Operations & Maintenance Division. The OCP budget for the Administration Division is 18% of the total and

includes computer equipment and technology investments. The Construction & Engineering, the Finance and the Environmental Science & Compliance Divisions account for the remaining 19% of asset purchases in FY 2020. The following table summarizes NBC's OCP by Division.

FY 2020 – 2025 Operating Capital Program

Division	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total FY 2021-2025
Administration	\$ 595,000	\$ 175,000	\$ 440,000	\$ 175,000	\$ 440,000	\$ 210,000	\$ 1,440,000
Construction & Engineering	40,000	30,000	75,000	30,000	35,000	-	170,000
Finance	336,000	71,000	31,000	66,000	31,000	31,000	230,000
Operations & Maintenance	2,036,200	1,728,000	1,434,000	1,255,000	1,872,000	1,807,000	8,096,000
Environmental Science & Compliance	254,000	386,000	410,833	441,000	388,000	397,500	2,023,333
	\$3,261,200	\$2,390,000	\$2,390,833	\$1,967,000	\$2,766,000	\$2,445,500	\$11,959,333

Environmental Performance



The FY 2020 budget reflects the results of NBC's efforts to minimize environmental impacts through investments in energy efficiency and sustainability initiatives. NBC's renewable energy investments are estimated to generate an equivalent of 67% of NBC's total electricity needs in FY 2020. These renewable resources generate savings by reducing the amount of electricity NBC must purchase. They also generate revenue from the sale of Renewable Energy Credits (RECs).

Of NBC's three renewable energy sources, the three 1.5 MW Field's Point wind turbines are considered "behind" the meter and the energy is used on-site. These sources reduce the amount of electricity purchased and are reflected in the budget as a reduction in purchased kWh. In FY 2020, NBC budgeted 19.5% of the projected 39.0 million kWh use as derived from these sources. The three 1.5 MW remote WED Turbines purchased in 2016 are "net metered" sources and the electricity is produced off-site, generating Net Metering Credits (NMC) that are applied to NBC's electricity purchases. Lastly, electricity from the WED PPA is net metered and NBC retains 25% of the NMCs. The NMCs from these net-metered renewable sources is a reduction in budgeted expense of \$2.7 million, which is \$904 thousand or 50.4% more than the prior year budget due to a 21.7% projected increase in kWh production. The FY 2020 budget also includes \$419 thousand in REC revenue.

This year's budget reflects the merger of the Water Quality & Compliance section and the Environmental Safety & Technical Assistance section into a new Technical Analysis & Compliance section. In addition, the Environmental Monitoring & Data Analysis section has been renamed the Environmental Monitoring section. The budgeted positions and benefits are further discussed in the Operating Budget section.

The FY 2020 budget also supports NBC's environmental strategic goal to continuously evaluate and minimize NBC's impact on the environment. NBC's monitoring program protects public health by ensuring proper operation of the wastewater treatment plants and the quality of receiving waters. The new RIPDES permits require additional sampling and analysis and this year's budget includes funding for supplies needed to perform enterococci testing twice daily in addition to fecal coliform bacteria and total residual chlorine testing. The budget also includes funding for a new Microbiology Lab Supervisor.



Photo: Staff Conducting Sampling at a Significant Industrial User Facility

NBC has also allocated resources to support the ancillary services needed for sampling and data analysis efforts. The FY 2020 budget includes approximately \$132,187 for maintenance contracts to ensure continuous operation of critical laboratory equipment including the water purification system, nutrient analyzers, autoclaves, spectrometry detectors and other machines. Replacement of laboratory and sampling equipment including the auto-titration system, analytical balances, microbiology incubators, fixed site sondes, probes and meters, and refrigerated auto samplers is also funded in the FY 2020 Budget.

Financial Management

The most significant financial challenge facing NBC is ensuring sufficient resources for operating, maintenance and capital needs while simultaneously mitigating ratepayer impact. This year's budget includes a 2.98% across-the-board rate increase effective January 1, 2019 and a projected 6.17% rate increase in revenue effective July 1, 2019. The FY 2020 Operating Budget is approximately \$3.7 million or 3.6% higher than the prior year and includes adjustments to NBC's rate base, a restructured pretreatment permit application fee and modified connection permit fees. The FY 2020 budget does not include a transfer from the revenue fund balance.



	FY 2019 Budget	FY 2020 Budget	Percent Change
Revenue			
Operating Revenue	\$ 101,418,392	\$ 106,639,911	5.1%
Non-Operating Revenue	387,800	439,500	13.3%
Revenue Fund Balance	1,600,000	-	(100.0%)
Total Revenue	\$ 103,406,192	\$ 107,079,411	3.6%
Expense			
Operations and Maintenance	\$ 43,668,346	\$ 45,314,307	3.8%
Debt Service	47,787,187	47,816,624	0.1%
Transfer to Project Fund - Restricted Account	11,950,659	13,948,480	16.7%
Total Expense	\$ 103,406,192	\$ 107,079,411	3.6%

The FY 2020 budget includes resources to assist with management of financial responsibilities. This year's budget includes \$115 thousand for capital budgeting management and cash management software. In addition, \$35 thousand is budgeted for enterprise reporting software. One additional FTE is also budgeted to assist with rate setting and debt management responsibilities.

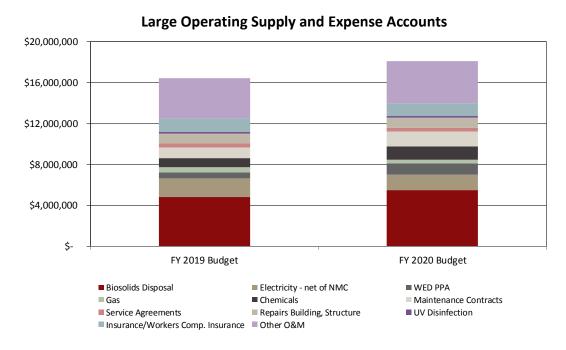
With respect to expense, budgeted Operations and Maintenance (O&M) expense is 3.8% more than the prior year. Personnel expense represents 56.8% of total O&M expense and is 0.9% higher on a year-to-year basis. The budget includes contracted step increases for union employees and merit increases for non-union employees. Budgeted overtime is \$29,500 higher in FY 2020 due to staffing requirements for operations and maintenance. NBC's contribution rate on behalf of union employees to the State of Rhode Island Retirement System and union retirement health have increased by 0.2% and 11.4% respectively, on a year-to-year basis. The budgeted premiums for health insurance are 3.8% higher and the dental and vision insurance premiums remain unchanged from FY 2019.



Photo: Blackstone Valley River

The FY 2020 budget for Operating Supplies and Expense is 10.0% or approximately \$1.6 million higher than the prior year. As previously mentioned, budgeted biosolids expense is \$676,054 higher on a year-to-year basis. This is due to increased dry ton production and an 8.5% increase in the contracted disposal rate to \$502.62/dry ton in FY 2020. Budgeted electricity expense is \$596,009 or 16.4% higher in FY 2020 than the prior year. This is the combined effect of a projected increase in electricity use, the Bucklin Point Biogas Reuse facility not yet being operational, and a 13.1% lower electricity supply rate. The FY 2020 budget for natural gas is 33.0% lower than the prior year, due to a 30.0% decrease in budgeted therms since no supplemental natural gas was required to operate the Biogas Reuse facility and a 4.2% decrease in the rate per therm.

One of the largest increases is for Maintenance Contracts expense which increased by 42.9% over the prior year. This line item includes new application support contracts, new contracts related to equipment that is no longer on warranty such as blowers and generators, and the transition from software purchases and installations to a software subscription format. Service Agreements expense is \$32,870 lower than last year. The FY 2020 budget for chemicals is \$423,642 or 47.9% higher and includes increased chemical usage due to operational modifications required to meet the new RIPDES discharge permit limits. In addition, this year's budget reflects a rate increase for five out of six chemicals. Lastly, Insurance and Workers' Compensation Insurance expense is 9.7% lower. The following chart shows a year-to-year comparison of the large operating supply and expense accounts.



Professional Services comprise 3.2% of the total O&M expense and the FY 2020 budget is \$224,460 or 13.3% lower than the FY 2019 budget. This includes a decrease in funding for the PUC regulatory assessment fee, legal fees and other services.

Budgeted debt service in FY 2020 is \$47.8 million, which is \$29,437 or 0.1% higher than the prior year. The higher debt service assumes a \$50 million borrowing through the Rhode Island Infrastructure Bank (RIIB) in FY 2020. The need for this loan is dependent on WIFIA funding and the optimum funding strategy based on market conditions. The FY 2020 budgeted Transfer to Project Fund — Restricted Account is determined by subtracting O&M and debt service expense from revenue. The FY 2020 budgeted Transfer to Project Fund — Restricted Account is \$1,997,821 more than the prior year. Please refer to the CIP Impact and Long-Term Plan section of the budget for more information regarding debt.

Staffing

Another NBC strategic objective is to recruit, develop and retain highly qualified staff. To this end, NBC offers its employees comprehensive benefits. In FY 2020, NBC will continue to offer a strong benefits package. The FY 2020 budget reflects the second year of a three year Collective Bargaining Agreement (CBA). This year's budget continues to support NBC's Workplace Wellness initiative that includes an incentive component for employees who actively participate in wellness programs. In addition to Workplace Wellness, NBC places a high importance on worker safety and supports safety training. This year's budget includes \$54,895 for employee training and a new learning management system.

Customer Service

The FY 2020 budget reflects NBC's continued commitment to remain customer focused and provide excellent service with resources allocated to the timely and accurate monthly billing of NBC's 84,455 customer accounts. In FY 2020, NBC will implement a new mobile solution that integrates dispatch and fieldwork into the new service order system in the Customer Service application. NBC will also implement additional technology to enhance quality customer service including the recording and automation of certain customer calls. NBC will also work to expand enrollment in paperless billing and automated payment programs. Lastly, the budget reflects a net increase of one Full Time Equivalent (FTE) in Customer Service to support customer service activities.

Communication

In terms of communication, the FY 2020 budget includes resources for NBC's Watershed Explorers education program that reaches out to elementary schools in NBC's service area. The program takes place in the classroom and at various river locations, and culminates with an environmental education conference attended by all of the students.

Fiscal Year 2019 in Review

NBC had a number of achievements in FY 2019. NBC's cost centers reported 182 accomplishments with 69 or 38% focused on NBC's Core Business. In addition, 30% of the FY 2019 accomplishments related to Financial Management and 11% of the accomplishments related to Staffing. The following table outlines the percentage of FY 2019 accomplishments by goal and division.

FY 2019 Major Accomplishments

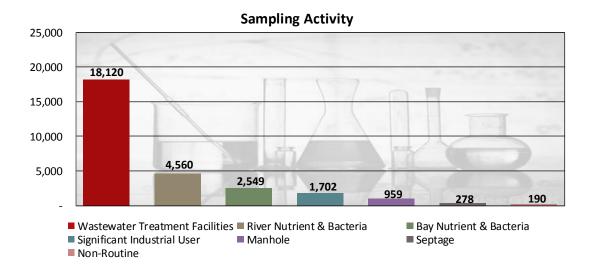
Goals	Administration	Construction Services	Finance	Operations & Maintenance	Environmental Science & Compliance	Total	Percent
Core Business	17	10	6	20	16	69	38%
Environmental	-	-	-	2	7	9	5%
Financial Management	5	1	41	5	2	54	30%
Customer Focus	1	3	8	1	3	16	9%
Staffing	9	2	1	4	5	21	11%
Communication	6	-	1	-	1	8	4%
Organizational	4	-	1	-	-	5	3%
Total	42	16	58	32	34	182	100%

NBC was honored by the National Association of Clean Water Agencies (NACWA) for exceptional wastewater treatment this past year for meeting effluent quality standards and reuse of reclaimed flows. NBC received the NACWA Gold Peak Performance Award for no permit excursions at Field's Point and the NACWA Silver Peak Performance Award for fewer than five permit excursions at Bucklin Point.

NBC also received three prestigious awards from the New England Water Environment Association (NEWEA). The first award was the Regional Wastewater Trainer of the Year Excellence Award. NBC's Biologist was recognized for her work training wastewater employees throughout New England. The second award was the Operator Safety Award given to NBC's Safety Compliance Coordinator for his safety initiatives. The third award, the Alfred E. Peloquin Award, recognized NBC's Maintenance Manager for his service and contributions to excellence in plant operations.

During FY 2019, NBC's Interceptor Maintenance (IM) section inspected approximately ten miles of interceptors. In addition, 112 tons of sediment was removed from the collection system and 23 tons of material captured in the CSO netting facilities was removed and prevented from entering the waterbody.

NBC conducted daily sampling at both the Field's Point and Bucklin Point treatment facilities to ensure compliance with the RIPDES permit requirements and federal mandates. NBC continued to monitor the urban rivers twice per week for bacteria in support of the nine minimum controls program. Staff collected a total of 28,358 samples, with the majority or 64% related to WWTF monitoring. In addition, in order to assess water quality, 16% of the samples related to river nutrient and bacteria, while 9% of the samples collected were for bay nutrient and bacteria. The following chart shows the number of samples collected by type.

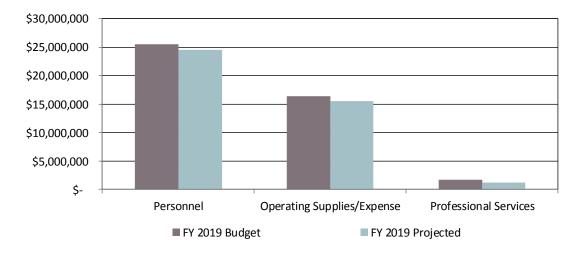


In FY 2019, NBC completed seven capital projects at a cost of \$16.2 million. Two of the largest projects were the Johnston Sewer Improvements/Greenville Avenue (30460) at \$8.2 million and the Johnston Sewer Improvements/Hartford Avenue (30464) at \$3.2 million, which extended the sewer lines in Johnston. Other large projects completed in FY 2019 include the FY 17 WWTF Improvements (20100) at \$1.5 million, the Field's Point Drive Interceptor Improvements (30465) at \$1.2 million and the Improvements to Interceptors FY 2018 (30466) at \$1.6 million. The completed projects are summarized in the following table.

Project Number	Project Name	Cost	(In thousands)
20100	FY 17 WWTF Improvements		1,535
40102	WWTF Electrical Improvements		348
30476	N. Providence, Johnston, Lincoln Interceptor Inspection & Cleaning		166
30460	Johnston Sewer Improvements/Greenville Avenue		8,166
30464	Johnston Sewer Improvements/Hartford Avenue		3,189
30465	Field's Point Drive Interceptor Improvements		1,212
30466	Improvements to Interceptors FY 2018		1,615
	Total	\$	16,231

From a financial perspective, NBC projects FY 2019 user fee revenue will be \$915 thousand lower than the budgeted level. Flat fee revenue is projected to be 0.4% higher than budgeted, while consumption revenue is projected to be 1.9% lower than budgeted. Investment income is projected to be \$81 thousand higher than the budget due to higher interest rates while miscellaneous income is anticipated to be \$27 thousand lower. REC revenue is also expected to be \$235 thousand lower than budgeted due to a decrease in the rate paid per REC.

Overall, NBC will finish the FY 2019 expense under budget. Turnover during the year was higher than the budgeted level and NBC projects personnel expense will be 3.7% or approximately \$951 thousand below budget. The performance of the WED PPA exceeded projections, generating additional electricity of 1.6 million kWh as one additional WED PPA facility came online during the fiscal year that was not included in the FY 2019 budget. The Field's Point wind turbines generated 194 thousand kWh less than was budgeted and the biogas facilities did not come online. Overall, despite the increased electricity usage of 968 thousand kWh, the net expense for electricity was \$53 thousand less than budgeted.



Other significant savings in operations and maintenance expense were due to lower than budgeted natural gas usage, service agreements and insurance expense. NBC also projects professional service expense will be \$510 thousand below budget. On the other hand, NBC is projecting that biosolids and chemical expense will be a total of \$474 thousand higher than budgeted due to higher dry ton production at Field's Point, the rule of law impact on the fee per dry ton and increased chemical use at both treatment facilities as a result of the new RIPDES permit requirements. NBC continued to benefit from historic low short-term interest rates and interest expense on the Variable Rate Demand Bonds (VRDBs) is projected to be approximately \$840 thousand lower than budget.

With respect to rates, NBC submitted a debt service compliance filing for increased debt and debt service coverage to support the \$45.0 million loan from the Rhode Island Infrastructure Bank (RIIB). NBC also submitted a general rate case that included modifications to its rate structure, pretreatment fees, new customer services fees, rate base adjustments, and cost of service increase for operations and maintenance expense.

With respect to debt service, NBC borrowed \$45.0 million from the RIIB in two series, with \$1.0 million in principal forgiveness. NBC submitted a \$251.0 million LOI for WIFIA funding for the CSO Phase III A Facilities. The US EPA selected NBC's project from a field of 62 prospective borrowers to apply for a WIFIA loan. NBC also worked with its financial advisor to enhance its long-term financial modeling capabilities.

NBC received the GFOA Distinguished Budget Presentation Award for the sixteenth consecutive year for NBC's FY 2019 Budget. The FY 2019 Budget was also recognized by GFOA as Outstanding as a Policy Document along

with Capital and Special Performance Measures Recognition. NBC enhanced the budget process with additional fillable forms and reference guides on the internal web page. NBC also received the Certificate of Achievement for Excellence in Financial Reporting for Fiscal Year 2018 for the sixteenth consecutive year. NBC's consistently sound financial performance is evident with 27 consecutive years of operating surpluses.

In FY 2019, NBC was selected for audit by the Rhode Island Office of Management and Budget in accordance with the Quasi-Public Transparency Act §42-155. The audit focused on Purchasing, Permitting, Capital Asset Management, Customer Service Billing as well as State of RI Transparency requirements. NBC completed the Facility and Equipment Condition Analysis Report and recorded NBC's underground assets to show life expectancy and current value. NBC also modified the cash and trust transfer process and recordkeeping during the year. Lastly, NBC implemented new accounting procedures to facilitate the tracking of net metering credits and prepared Schedule B's for the renewable energy facilities.

With respect to the retirement plans, NBC conducted quarterly investment meetings and completed the FY 2018 Non-Union Defined Benefit Plan Financial Report. NBC placed a priority on improving the actuarial funded ratio of the Non-Union Defined Benefit Plan, which increased to 100.95% in FY 2018 from 93.02% in FY 2017.

In FY 2019, the NBC implemented a new third party Customer Service application, which went live in January 2019. Discovery, testing, training and data migration activities occurred throughout the year. NBC developed and introduced "Bill the Duck", its new online billing ambassador to encourage customers to use the expanded online functionality for billing and payment. The section completed timely and accurate billings of NBC's 84,455 accounts. Customer Service also received and responded to an average of 6,700 customer calls each month. Collection activities through the Water Shut-off Program were suspended from May 2018 through January 2019 due to the implementation of the Customer Service application.





From a technology standpoint, IT completed a security audit, implemented enhancements for cyber security, upgraded the server from Exchange 2007 to Exchange 2016, installed new cameras and DVR for enhanced coverage and longer retention and facilitated password changes. Various computer equipment was upgraded to maximize network stability, controls and increase data storage. Implementation of the new sample manager module was completed as a result of a joint effort of IT and Environmental Monitoring staff. Lastly, as part of the effort to protect NBC from malicious activity, more than 3.5

million items were scanned and NBC's firewall blocked more than 845 thousand emails including more than 5,750 with viruses.

From a human resources standpoint, NBC received the 2018 Best Places to Work in Rhode Island Award for the eighth consecutive year. This involved the completion of a workplace assessment process including employee surveys and an inventory of company benefits, policies and offerings. Lastly, NBC's vision and dental insurance policies and flexible spending account plans were evaluated and renewed.

In FY 2019, NBC updated the sewer connection permit process and issued 317 new sewer connection and stormwater permits and administered the NBC Earth Day River Cleanup Grant program to support initiatives involving 17 non-profit organizations throughout the NBC service area.



Photo: Watershed Explorers
Spring macro field trip

In terms of public outreach, NBC conducted 57 educational tours of the FPWWTF. NBC also conducted numerous watershed education programs through the NBC's Watershed Explorers program. Through this program, more than 780 students from 14 schools in NBC's service area received monthly lessons and learned about the health of their school's watershed. The students presented their macro invertebrate data projects and student essays at the annual NBC environmental conference held at Goddard Park.

Summary

In January 2019, I had the honor of becoming NBC's fourth Executive Director. I look forward to using the knowledge and experience that I have gained through my twenty-six years working at NBC to further NBC's reputation as an environmental leader on both the regional and national stage. NBC continues to excel in wastewater treatment, environmental leadership and sound financial management, and many professional organizations and publications have recognized these efforts. These awards and acknowledgements validate NBC's commitment and dedication to the continuous 24-hour effective operation of its facilities, protection of public health, significant investment in new technologies and facilities and ongoing commitment to its ratepayers.

During FY 2020, NBC will continue to work to protect its community, ratepayers and all Rhode Islanders while enhancing the water quality of Narragansett Bay.

Laurie Horridge Executive Director



About Narragansett Bay Commission

Background

In 1979, the Governor of Rhode Island's Sewage Facilities Task Force reported that the discharge of pollutants into Narragansett Bay, and particularly in the Providence metropolitan area of the Bay, posed problems of such scope and cost that they were beyond the City of Providence's capability to control them. Additionally, the prospect of continued federal funding of sewer construction programs under the Clean Water Act was clouded by the scheduled expiration of the Clean Water Act at the close of the 1982 federal fiscal year.

Consequently, the Task Force recommended, and the Rhode Island General Assembly in 1980 approved, the establishment of a regional district commission to correct and minimize pollution discharges into the Upper Bay. The Narragansett Bay Water Quality Management District Commission, renamed the Narragansett Bay Commission in 1999, was authorized to acquire, operate and upgrade the metropolitan Providence wastewater collection and treatment facility.

On January 1, 1992, the former Blackstone Valley District Commission was merged into NBC, expanding the service area.



Photo: Dolphins spotted in Narragansett Bay

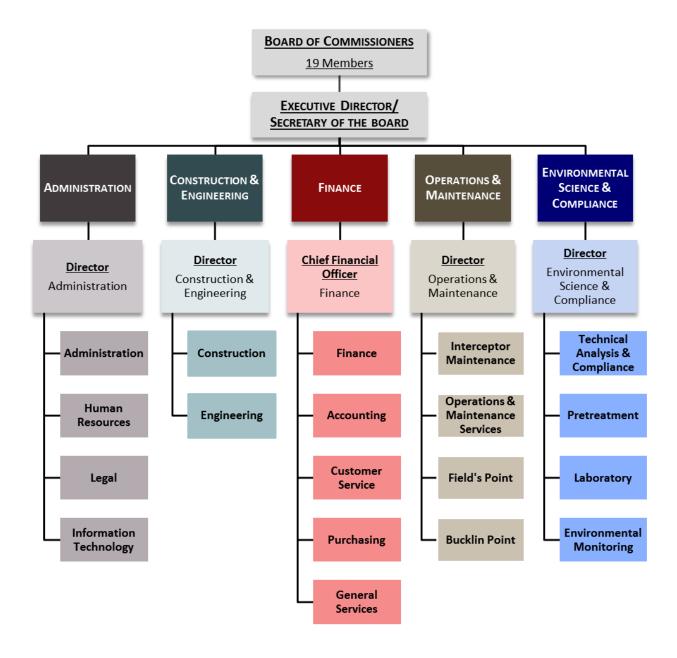
The Commission

NBC is governed by a 19-member Board of Commissioners (Board). The Board consists of nine members representing the municipalities in the service area, as well as ten gubernatorial appointments. Empowered with responsibilities ranging from ensuring that NBC operates with a balanced budget, to approving contracts for improving and maintaining the treatment facilities and wastewater collection system, the Board meets monthly to guide the direction of NBC.

NBC is regulated by the Rhode Island Public Utilities Commission (PUC). Accordingly, both the Board and the PUC must authorize adjustments to sewer user rates. NBC funds its operation and maintenance expense as well as debt service through user charges.

NBC Organization

This year's operating budget reflects the merger of the Water Quality & Compliance section and the Environmental Safety & Technical Assistance section into a new Technical Analysis & Compliance section in the Environmental Science and Compliance Division. In addition, the Environmental Monitoring & Data Analysis section has been renamed the Environmental Monitoring section. This year's budget also reflects the transfer of the facilities management functions from the Finance Division to the Construction & Engineering Division. Additional discussion of the organization structure is located in the Operating Budget section. The next page contains a brief description of the Divisions and the responsibilities of each program or section level.



Program Level Operational Responsibilities Overview

ADMINISTRATION DIVISION

Responsible for creating, planning, implementing and integrating the strategic direction of the organization. Provide support function including human resources and information technology.

<u>ADMINISTRATION</u>: Lead and direct the resources of the organization to provide safe and reliable wastewater collection and treatment services to NBC ratepayers at a reasonable cost. Advises the Board of Commissioners on daily operations and collaborates on policy development and strategic issues.

<u>Human Resources</u>: Administer and process employee records, recruitment & retention, workers' compensation, employee benefits and collective bargaining agreements.

LEGAL: Provide legal advice to NBC staff regarding issues that may arise in the course of NBC's business activities.

INFORMATION TECHNOLOGY: Maintain all aspects of networks, telecommunications, hardware, software and databases for NBC.

CONSTRUCTION AND ENGINEERING DIVISION

Responsible for the planning, design and construction of capital improvement projects.

<u>CONSTRUCTION SERVICES</u>: Manage the construction of NBC's capital improvement projects including bidding, contract award and resident engineering.

ENGINEERING: Plan and design facilities necessary for the collection and treatment of wastewater and the issuance of sewer connection permits. This section also provide facilities and maintenance services for the NBC Campus.

FINANCE DIVISION

Responsible for finance, accounting, rate setting, debt issuance, customer service, purchasing and utilities and ensuring compliance with applicable state and federal laws, rules and regulations.

<u>FINANCE</u>: Ensure overall sound financial management including the operating budget, CIP, OCP, debt management, rate setting, NBC retirement plans, cash management, and compliance. This section is also responsible for Insurance and Risk Management.

Accounting: Maintain NBC financial records, issues monthly financial statements in accordance with GAAP, payroll and payment processing and IRS related reporting.

<u>Customer Service</u>: Provide accurate and timely billing and collection of approximately 84,455 accounts in the NBC service area and all other aspects of providing excellent customer service.

Purchasing: Ensure the legal, timely and cost-effective purchasing of goods and services and supports renewable energy efforts.

<u>GENERAL SERVICES</u>: Responsible for overhead items such as funding of the Health Reimbursement Arrangement, unemployment, gas and electricity utilities, net metering credits and sale of RECs and debt service.

OPERATIONS AND MAINTENANCE DIVISION

Responsible for operating and maintaining NBC's infrastructure.

<u>INTERCEPTOR MAINTENANCE</u>: Maintain NBC's infrastructure and collection system throughout the service area to ensure system capacity and proper sewage flow conditions.

<u>OPERATIONS & MAINTENANCE SERVICES:</u> Ensure process control for NBC's treatment facilities in accordance with State and Federal regulatory requirements. This section is also responsible for maintaining the Asset Management Program.

FIELD'S POINT: Operate and maintain the Field's Point facilities to produce the highest quality effluent in the most efficient manner.

BUCKLIN POINT: Operate and maintain the Bucklin Point facilities to produce the highest quality effluent in the most efficient manner.

ENVIRONMENTAL SCIENCE AND COMPLIANCE DIVISION

Responsible for ensuring agency compliance with state and federal regulations and permits, agency energy and environmental sustainability and water quality science.

Technical Analysis & Compliance: Ensure compliance with EPA and DEM permits and regulations and develop sound environmental science to support NBC's mission. Perform pollution prevention, energy management, environmental compliance and sustainability; health and safety assistance services for NBC. Analyze resultant data to NBC staff, regulatory authorities, stakeholders and the public.

<u>Pretreatment</u>: Maintain the federally mandated pretreatment program to protect NBC's wastewater treatment plants and infrastructure from toxins and pollutants.

<u>LABORATORY</u>: Ensure the production of high quality analytical data through the use of diagnostic measurements in order to comply with federal and state regulations.

ENVIRONMENTAL MONITORING: Monitor water quality throughout NBC's service area through sampling.

Governmental Regulation

NBC's core business goal actions for target measures are designed to ensure compliance with state and federal regulations.

Environmental Compliance

NBC is regulated by the Rhode Island Department of Environmental Management (RIDEM) and the U.S. Environmental Protection Agency (USEPA) to ensure compliance with the Federal Clean Air and Clean Water Acts.

New Rhode Island Pollutant Discharge Elimination System (RIPDES) permits were issued for each of NBC's wastewater treatment plants in 2017. The new permits include more stringent limits for certain parameters and require various studies and evaluations to be undertaken by NBC. NBC appealed a number of permit requirements and the final Consent Agreement was signed in January 2019, resolving all challenged permit issues. These new permits includes more stringent limits for various parameters and require various studies and evaluations to be undertaken by NBC.

NBC is also under a Consent Agreement with RIDEM to implement a federally mandated Combined Sewer Overflow (CSO) Program that will address NBC's 65 CSOs in both the Field's Point and Bucklin Point service areas. The CSO Program will be completed in three phases. Approximately 98% of the annual CSO volume will receive treatment when all three phases of the CSO Program are completed. The first phase of the CSO abatement facilities addresses 40% of the CSO volume that will be treated and has been in service since November, 2008. NBC constructed additional CSO abatement facilities in Phase II and those facilities became operational in December, 2014. NBC's 18-month reevaluation of the third and final phase as set forth in the RIDEM-approved 1998 Conceptual Design Report Amendment concluded in June 2015, and resulted in the selection of an alternative that NBC determined would provide the best combination of affordability and water quality improvement. The reevaluation report was submitted to RIDEM in July 2015, and RIDEM provided comments to NBC in March 2016. NBC incorporated RIDEM's comments into a revised reevaluation report, which was approved by RIDEM in December 2017. NBC's Consent Agreement covering both the CSO and RIPDES appealed issues was renegotiated and signed in January 2019.

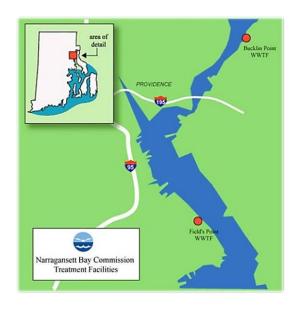
Financial Compliance

NBC is subject to regulation by the Rhode Island Public Utilities Commission (PUC) and NBC's user fees and long-term debt issuance is subject to regulatory approval. In addition, must restrict the use of certain funds for pay-as-you-go capital and operating capital.

The majority of NBC's Capital Improvement Program is financed through the issuance of tax-exempt revenue bonds. In accordance with SEC Rule 15c2-12, NBC has entered into Continuous Disclosure agreements that require the timely filing of audited financial statements, financial information and operating data through the Municipal Securities Rulemaking Board's Electronic Municipal Market Access (EMMA) website. In addition, SEC Rule 15c2-12 requires disclosure on EMMA of certain events within 10 business days. NBC is also subject to Internal Revenue Service (IRS) post-issuance compliance requirements to ensure the tax-exempt status of its bonds. The credit rating of NBC's Variable Rate Demand Bonds, which are in weekly mode, is reviewed annually by Standard & Poor's. NBC also secures a credit review from Standard and Poor's prior to the issuance of new debt.

Facilities

Rhode Island's two largest Wastewater Treatment Facilities (WWTF's) along with an extensive infrastructure of interceptors, pump stations, tidegates, a septage receiving station and combined sewer overflows are owned and operated by NBC. The location of the two wastewater treatment facilities is shown on the adjacent map. The Field's Point WWTF is located in Providence and serves the greater Providence metropolitan area including the City of Providence, the Town of Johnston, the Town of North Providence and portions of the Town of Lincoln and the City of Cranston. The Bucklin Point WWTF is located in East Providence and serves the Cities of Pawtucket and Central Falls, and parts of the Towns of Cumberland, Lincoln, East Providence and Smithfield.



Field's Point Service Area Facilities and Technology



Photo: Aeration Tanks at the Fields Point Wastewater
Treatment Facility

The Field's Point WWTF provides advanced wastewater treatment for dry weather flows of up to 65 million gallons per day ("MGD") and sustained wet weather flows of 77 MGD. The plant provides primary treatment and disinfection for an additional 123 MGD of wet weather flows through its wet weather facility. Total treatment capacity at Field's Point is 200 MGD.

This facility uses an Integrated Fixed Film Activated Sludge (IFAS) process for advanced wastewater

treatment, which includes grit removal, primary sedimentation, secondary aeration, nitrogen removal, final clarification and chlorination and dechlorination after disinfection. Final effluent is discharged to the Providence River.

NBC also owns, operates and maintains three outlying pump stations in the Field's Point service area: the Washington Park and Reservoir Avenue Pump Stations located within the City of Providence, and the Central Avenue Pump Station located in the Town of Johnston. The Ernest Street Pump Station, located at the FPWWTF, handles 98% of the flow. The Tunnel Pump Station, located next to the Ernest Street Pump Station, pumps stored combined sewage flow from the CSO tunnel to the Field's Point for full treatment.

Nineteen permanent flow metering stations, also maintained by NBC, measure flow at various points in the sewer system. In addition, NBC owns and maintains 38 CSOs, 32 tide gates and 80 miles of interceptors in the Field's Point service area. NBC has begun a comprehensive long-term construction program to minimize overflows from its combined sewers.

Bucklin Point Service Area Facilities and Technology

The Blackstone Valley District Commission (BVDC) was established by the Rhode Island General Assembly in 1947 to plan, design, construct, operate and maintain facilities including the Bucklin Point WWTF for the abatement of pollution generated in the Blackstone Valley. BVDC was merged into NBC on January 1, 1992.

The BPWWTF provides secondary treatment and nitrogen removal for flows of up to 46 MGD per day and primary treatment and disinfection for flows of up to 116 MGD.



Photo: Bucklin Point Wastewater Treatment Facility

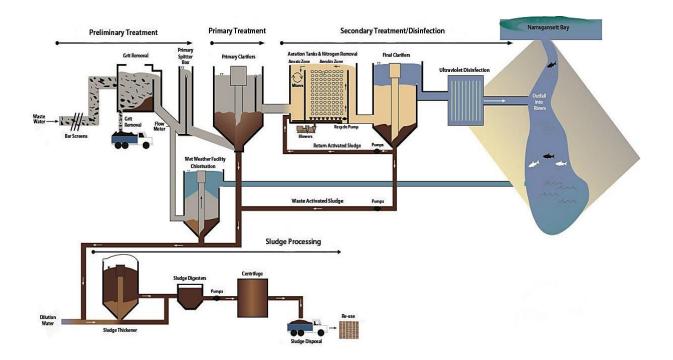
Three pump stations in the Bucklin Point service area are also owned and operated by NBC, including the Omega Pump Station (East Providence), the Saylesville Pump Station (Lincoln) and the Washington Highway Pump Station (Lincoln). NBC also owns and operates a Septage Receiving Station in Lincoln.

NBC is responsible for ensuring that the overflows from the 27 CSOs in the Bucklin Point service area comply with federal and State discharge requirements. NBC also owns and maintains 30 miles of interceptors.

Wastewater Treatment Process

NBC works hard to protect the water quality of Narragansett Bay and its tributaries. NBC's task is to protect public health by taking billions of gallons of dirty water every year and making it clean. This is accomplished by operating 24 hours per day and 365 days per year.

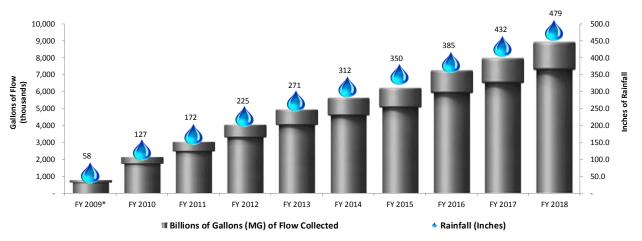
The schematic below shows the state-of-the-art treatment process at the Bucklin Point WWTF.



CSO Phase I Facilities and Tunnel Pump Station

NBC's CSO Phase I Facilities became operational in FY 2009. The centerpiece of the Phase I facilities is a three mile long, 250 foot deep tunnel. During periods of significant precipitation, drop shafts transport combined stormwater and wastewater from various locations into the tunnel for storage until the flows can be pumped to the Field's Point WWTF for safe treatment and discharge. Since its inception, over nine billion gallons of flow that previously would have overflowed directly into rivers and Narragansett Bay have been stored and treated. The graph below shows the millions of gallons of flow collected and rainfall from FY 2009 to date.

CSO Phase I Facilities - Collection of Flow



^{*}Facilities operational in November 2008

CSO Phase II Facilities

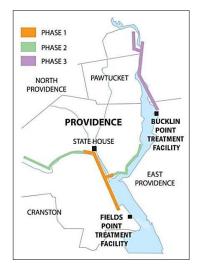
The CSO Phase II Facilities became operational in FY 2015. The most significant components of the Phase II Facilities are two main interceptors in the Field's Point Service area and a wetlands treatment facility. The Seekonk Interceptor is approximately 7,000 feet along the Seekonk River and the Woonasquatucket Interceptor is approximately 17,200 feet along the Woonasquatucket River. The interceptors convey the flows to the CSO Tunnel constructed in Phase I. Additionally, a wetlands treatment facility was constructed to include a storage tank for small storm flows to be stored until the flow can be pumped into the collection system for treatment; and for larger storms, treatment is provided by the wetland.



Photo: WCS01 Gate & Screening Structure

CSO Phase III Facilities

The CSO Phase III Facilities represent the third and final phase of the federally mandated CSO Abatement Program required as part of a Consent Agreement between NBC and RIDEM. The Program includes four phases, A, B, C, and D, to be completed by 2041. Each phase includes expenditures of \$10 million on the construction of Green Stormwater Infrastructure (GSI) to reduce stormwater inflow to the existing CSO system.



Phase III A includes the design and construction of a 13,000 foot long deep rock tunnel in Pawtucket along the Seekonk and Blackstone Rivers and a pump station to convey flow to the Bucklin Point WWTF in East Providence. Additionally, this phase includes design of the Upper BVI relief, the CSO No. 105 relief sewer, and the CSO No. 206 sewer separation, and regulator modifications.

The program incorporates facilities to be constructed in each of the four phases. A description of the facilities to be constructed in each of the four phases, as well as the estimated costs and schedules, are included in the Capital Budget section.

Sustainable Energy and Renewable Resources

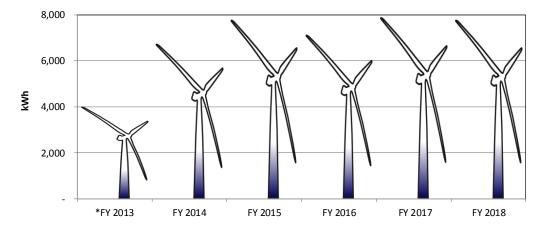
NBC plans to maximize energy efficiencies and renewable resources through its Energy Sustainability program. This program involves the identification and implementation of conservation methods, improved efficiency options and the generation of sustainable renewable energy resources.



Field's Point Wind Turbines

In October 2012, NBC began operation of three 1.5 MW wind turbines located at the Field's Point campus. The turbines convert wind energy into electricity which is used on-site to support facility operations. Any excess electricity is net metered to the state's electric grid to offset billable usage. The wind turbines have generated more than 41.3 million kWh of electricity, in addition to Renewable Energy Credit (REC) revenue, since becoming operational in FY 2013, as shown in the following graph.

Field's Point Wind Turbine Electricity Production (in Thousand kWh)



^{*}Facilities operational in October 2012

Wind Energy Development (WED) Turbines



Photo: NBC's "WED 4" turbine in Coventry, RI

In 2016, NBC purchased three 1.5 MW wind turbines at a remote site located in Coventry, RI. Two of the turbines, WED 3 and 4 were purchased in July 2016 and a third turbine, WED 1 was purchased in October 2016. The WED turbines have generated millions of kWh of clean renewable wind energy which is net metered to the state's electric grid to offset NBC's electricity bills. In addition, the WED turbines generate RECs which are sold by NBC.

Biogas Reuse

In 2019, NBC plans to complete the construction of a biogas reuse project at Bucklin Point and obtain the approvals required for operation. The facilities start date is yet to be determined. A cogeneration system will burn the biogas generated from the anaerobic digestion of biosolids. The process converts the biogas into heat and electricity to support facility operations on-site. The project is also expected to generate RECs which will be sold by NBC.



Photo: Bucklin Point Biogas Cogenerator

Power Purchase Agreement (PPA)

In 2017, NBC executed a Power Purchase Agreement (PPA) for three solar power facilities located at off-site locations. In accordance with the 25-year contract, the electricity generated is net-metered on NBC's electric accounts. NBC will compensate the contractor based on 75% of kWh generated multiplied by the prevailing net metering rate and will retain the remaining 25% of the net metering credits. The projects also generate RECs to be sold by NBC. The third facility was delayed due to permitting issues and was subsequently replaced with a wind turbine facility.



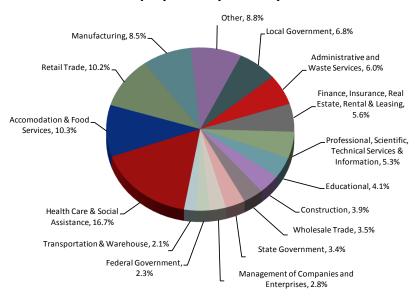
Photo: NBC's Solar Project in Richmond, RI

Demographics

Rhode Island Economy

According to the Rhode Island Department of Economic Development, the economic base of Rhode Island continues to shift from manufacturing and goods to service industries over the last decade. The chart below shows employment by industry for calendar year 2017.

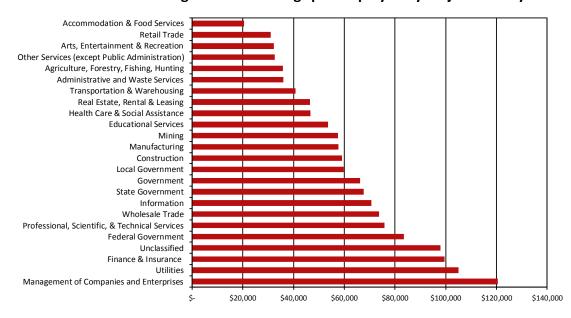
Employment by Industry



^{*}Source: United States Regional Economic Analysis Project Industries by State 2017

Employment in Rhode Island reflects the national trend towards higher employment in the services sector. The chart below illustrates Rhode Island's 2017 average annual earnings per employee in each major industry.

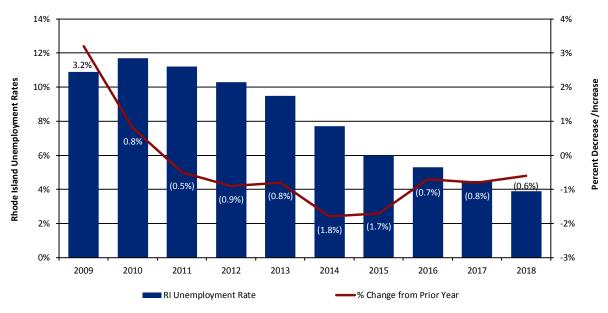
Rhode Island Average Annual Earnings per Employee by Major Industry



^{*}Source: RI Department of Labor and Training Labor Market Information 2017

The graph below, compiled from data from the Bureau of Labor Statistics, shows historical unemployment figures over the past ten years for Rhode Island. The Rhode Island unemployment rate has decreased in each of the last seven years from a peak rate of 11.7% in 2010 to 3.9% in 2018.

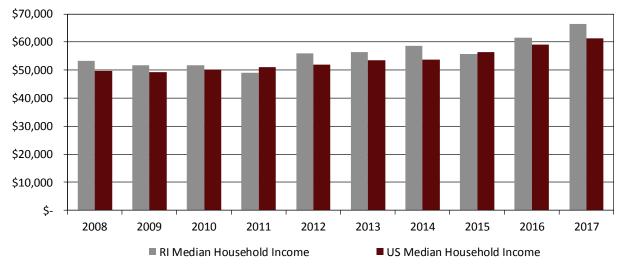
Rhode Island Unemployment Rates



^{*}Source: Bureau of Labor Statistics. RI state-wide Unemployment Rates Seasonally Adjusted.

The graph below shows the median household income in Rhode Island for the years 2008-2017 compared to national statistics. Rhode Island's median household income was above the national level all years except 2011 and 2015 when it dropped below the national level by 4% and 1% respectively. In 2017, the Rhode Island median household income rose by approximately 8% or \$4,862 in 2017 CPI-U-RS (Consumer Price Index Research Series Using Current Methods) adjusted dollars, with median household income of \$66,390.

Median Household Income - Rhode Island vs. United States

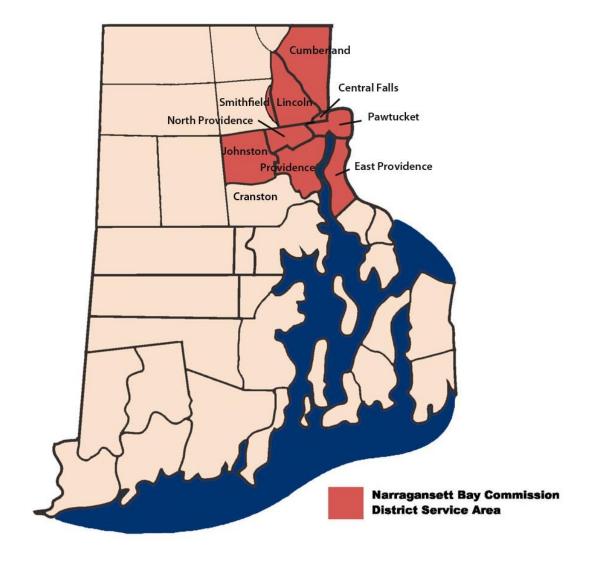


^{*}Source: United States Census Bureau – Median Household Income by Country and State – 1984-2017

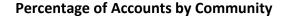
NBC Service Area

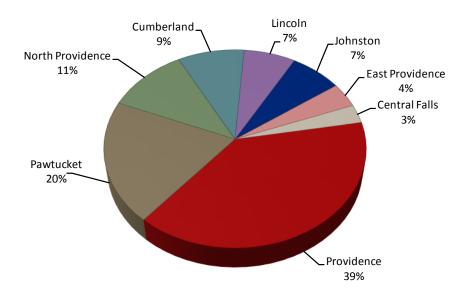
NBC provides reliable, cost-effective wastewater collection and treatment services to over 360,000 residents and approximately 7,730 businesses in the metropolitan Providence and Blackstone Valley areas. These communities include: Providence, North Providence, Johnston, Pawtucket, Central Falls, Cumberland, Lincoln, the northern portion of East Providence and small sections of Cranston and Smithfield. The map below shows NBC's service area.

NBC Service Area



NBC's customer base consists of residential and non-residential customer classes, which include commercial and industrial users. Of the eight major communities serviced by NBC, Providence, Pawtucket and North Providence account for the majority of users with 71% of the accounts. The following chart illustrates the distribution of accounts across the eight communities.





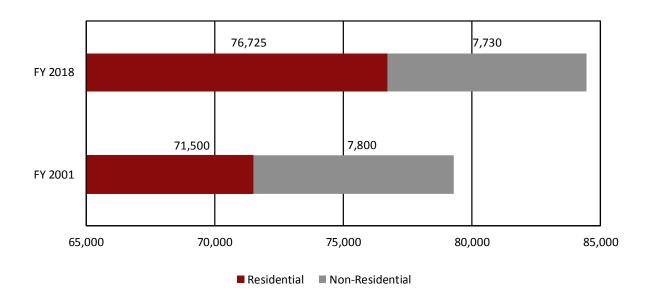
The residential customer class has approximately 76,725 accounts, while the non-residential customer class has approximately 7,730 accounts. The largest NBC customers are primarily service and education providers. The ten largest customers based on FY 2018 billings are also listed in the table below:

Top Ten NBC Customers									
Customer		FY 2018 Billings	Percentage of Total Annual User Charges						
Rhode Island Hospital	\$	1,663,452	1.72%						
Providence Housing Authority		1,628,527	1.69%						
Brown University		1,241,906	1.29%						
City of Pawtucket		663,778	0.69%						
City of Providence		657,568	0.68%						
Johnson & Wales University		551,497	0.57%						
Rhode Island Resource Recovery		484,038	0.50%						
✓ Providence School Department		426,562	0.44%						
Providence College		416,746	0.43%						
state of Rhode Island		369,523	0.38%						

Source: NBC's FY 2018 Audit

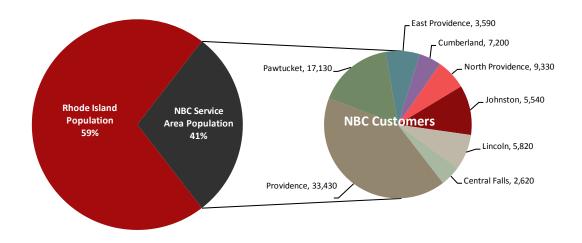
Over the last sixteen years, there has been a 6.5% increase in the number of customer accounts. This is the net effect of a 0.8% decrease in the number of non-residential accounts from 7,800 to 7,730 which has been offset by a 7.3% increase in the number of residential accounts.

Number of Accounts by Customer Class

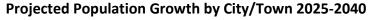


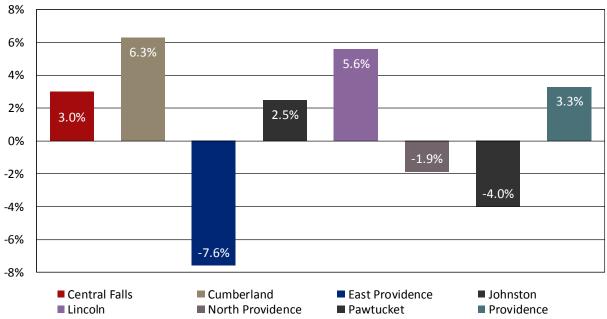
NBC Service Area Population and Statistical Information

According to the 2010 United States Census Bureau, the total population of Rhode Island is 1,052,567. The graphs below show that NBC services approximately 41% of the State of RI population and that the majority of NBC's customers reside in the City of Providence with approximately 33,430 customers followed by the City of Pawtucket with approximately 17,130 customers.



The Rhode Island Office of Statewide Planning projects the state population by city and town. The graph below displays the projected population growth for NBC's service area for the years 2025 to 2040. The most significant percentage increases in population over the fifteen years is projected to be in the towns of Cumberland and Lincoln, in which the populations are projected to grow by 6.3% and 5.6% respectively. The population in East Providence is projected to decline by 7.6% over this same period.

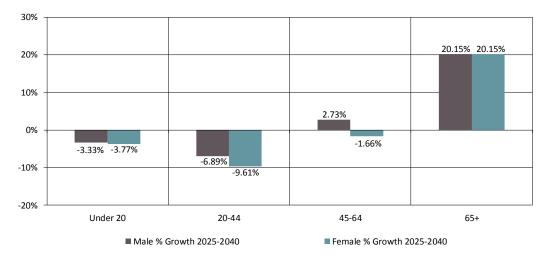




^{*}Source: Rhode Island Statewide Planning- Population Projections

The graph below illustrates the projected population growth from 2025-2040 in Rhode Island by age group and gender. The population is projected to decrease in the 45-64 age groups for females and in both the male and female populations for both the Under 20 and 20-44 age groups. The steepest decline will be among the female population in the 20-44 age groups at 9.61%. The population is projected to increase in the 45-64 age groups for males, and for both males and females in the 65+ age groups. The most significant increase will be for both males and females within the 65+ age group at 20.15%.

Rhode Island Projected Population Percent Growth by Age Group and Gender 2025-2040



^{*}Source: Rhode Island Statewide Planning- Population Projections



Budget Process and Policies

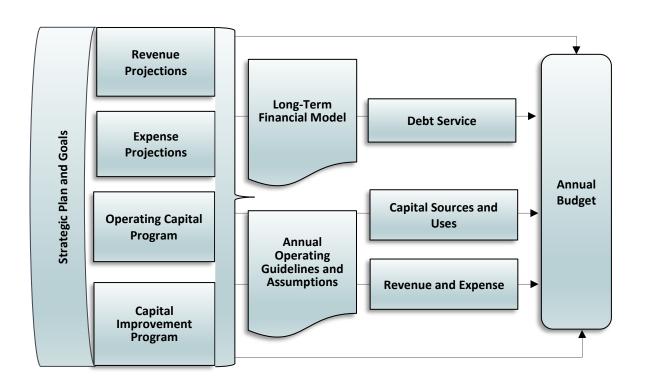
The Budget Process

As a regulated agency, it is important that NBC analyze financial and operational needs continuously throughout the year. The formal review for the budget, however, begins in July and August of each year. As part of this process, regulatory requirements are reviewed, as well as major program changes and capital needs. Large capital projects requiring major changes to facilities and infrastructure, are identified in the Capital Improvement Program (CIP). New assets or asset replacements identified through the Asset Management Program, inspection or technology reviews are included in the Operating Capital Program (OCP). Both the CIP and OCP are developed in conjunction with the annual budget, all of which are developed within the context of the Strategic Plan's long-term goals. The CIP and OCP identify projects on a five-year basis. The five-year programs, as well as known operating expense parameters and revenue projections, are integrated into the long-term financial model to assess the need for new debt issuance. The model identifies available funding sources and uses for the next decade (see CIP Impact and Long-Term Plan for more details). The model projects new debt service which is incorporated into the annual budget.

Revenue forecasts for the upcoming fiscal year are determined by projecting user fee revenue and factors affecting other operating revenue such as pretreatment fees and late fees and non-operating revenue, and the expected rate of return on cash balances. Operating expense projections are prepared with a focus on the allocation of resources needed to meet NBC's Strategic objectives. Operational impacts of the CIP are also included in the budget. If it is determined that user fee revenue will not be sufficient to meet NBC's financial obligations, NBC applies for rate relief with the Rhode Island Public Utilities Commission (PUC). A rate filing application for the recovery of expense line items, other than debt service is subject to a nine month review and approval process before new rates can be implemented.

The flow chart below illustrates the relationship between long-range planning and the budget process.

Relationship between the Budget Process and Long-Range Planning



FY 2020 Budget Calendar

JULY 2018 - AUGUST 2018

- Projections of FY 2020 Revenue, Expense, and Financial Obligations
- Comparison of needs to PUC Approved Cost of Service
- Submitted a Letter of Interest to the EPA for the WIFIA loan program

NOVEMBER 2018

- Budget Kick-off, Short and Long Term Budget Directives
- Overview, Responsibilities, FY 2019 Accomplishments, FY 2020 Priorities submitted on November 28th
- CIP Project Overview, Cash Flow & Schedule Detail forms submitted on November 28th

DECEMBER 2018

- Performance Data submitted on December 5th
- Submittal of FY 2020 and Five Year Operating Capital Program (OCP) requests on December 11th
- Adoption of the 2018 Strategic Plan
- Review OCP submittals for Asset Criteria and GL Account Code on December 18th

JANUARY 2019

- Analysis and preparation of FY 2021 FY 2025 CIP
- CIP Budget Impact review on January 8th
- Major Accomplishments, Top Priorities, FY 2020 Budget submittals on January 10th
- Completion of Salary and Fringe Benefit Calculations
- Incorporation of Capital Project Submittals and Analysis of CIP operating impacts
- Incorporation of Operating Capital Submittals, OCP Narrative and addition of enhancements
- Capital Improvement Program Narrative and addition of enhancements
- CIP Review Committee meeting on January 30th

FEBRUARY 2019

- New and/or CIP Project Change Requests due February 5th
- Addition of enhancements to Budget document
- Analysis of Large Operating Accounts
- FY 2019 Mid-Year Budget reviews and FY 2020 Budget Presentations to Executive Director conducted on February 19th, 20th & 21st
- FY 2020 Budget Change Request submittals due February 21st
- Finance Committee and Board Review and Approval of FY 2020-2025 OCP on February 26th
- Long Range Planning Committee and Board Review and Approval of FY 2021-2025 CIP on February 26th

MARCH 2019

- Comparison to Prior Year Expenditures and PUC Approved Cost of Service
- Analysis of FY 2019 Budget vs. Actual Revenue and Expense
- Projection of FY 2019 Finish
- Preparation of FY 2020 Revenue Projections
- Submitted the WIFIA loan application

APRIL 2019

- Presentation of Proposed Budget adjustments and status to Executive Director
- Balance Budget
- Preparation of Budget documents
- Update of Capital Costs for WIFIA
- Update of Long-Term Financing Model, CIP sources and uses
- Projection of Restricted CIP Carry-Forward, Fund Balances
- Incorporation of final Health Benefit and Workers' Compensation Renewal Rates

MAY 2019

- Finance Committee and Board Review and Approval of FY 2020 Proposed Budget on May 14th
- Final Budget revisions and Budget document preparation

JUNE 2019

• Finance Committee and Board Review and Approval of FY 2020 Budget on June 18th

In July and August, Finance staff begins the process of forecasting the upcoming fiscal year revenue, expense and financial obligations. NBC's rate increases for operating expense and rate base adjustments are subject to a 9-month review process by the PUC. Therefore, if it is determined that user charges must be adjusted, staff seeks Board approval to file with the PUC for rate relief. If feasible, staff will prepare and submit an application with the PUC by September 30th to ensure that new rates are in effect by the following July 1st (see The Rate Setting Process for more information). In July, NBC submitted a letter of interest to the EPA for consideration for funding the CSO Phase III A project through the WIFIA loan program.

In November, the Finance Division presents short and long-term budget directives to all Division Directors and Program Managers. The managers are given online budget files which include the following:

- Budget Calendar
- Program Overview worksheet, which includes the prior fiscal year Major Accomplishments, current year budgeted priorities by key code and Program Objectives
- Performance Measure worksheet with SMART goal standards and outcome and efficiency indicator examples (this year's budget document is based upon the 2016 Objectives or Key Codes due to the timing of the budget process relative to the Board's review and approval of the new Strategic Plan)
- Personnel worksheet with salary and benefit rates and guidelines
- Proposed Budget worksheet with budget account detail forms
- Program and Operational change detail forms
- Maintenance Contracts, Service Agreements and Large Operating Account detail forms
- Awards and Recognitions forms

The development of the Capital Improvement Program (CIP) begins in November. Project Managers identify new and completed projects and also provide updated information regarding ongoing capital projects. Project Managers submit cash flow, cost, schedule, and operating expense impact projections for each project.

With respect to the Operating Budget, Program Managers submit the section objectives and provide performance data in November. Program Managers are asked to provide their program's mission and overview and operational responsibilities, as well as to submit their program's prior year major accomplishments and top priorities for the upcoming year. Both accomplishments and priorities are identified by a Goal Action for Achievement in connection with each of the seven Strategic Goals. The Goal Actions for Achievement are identified by a key code which is located in the Budget Summary section of this document.

In December, Program Managers submit their Operating Capital Program (OCP) requests and supply detailed supporting documentation for budget year requests including the need, type and useful life of each asset along with the strategic goal criteria. The Accounting section reviews the OCP submittals to ensure conformance with NBC's asset policy. The Board reviewed and approved NBC's five-year Strategic Plan at its December 11, 2018 meeting.

In January, Finance staff reviews the CIP operational impacts with Project Managers and the CIP Review Committee meets to review each of the project submittals. Analysis and preparation of the FY 2021-2025 CIP is initiated and staff works closely with the Project Managers. The CIP and OCP documents are drafted and prepared during this time.

Program Managers prepare their budget submittals with support from the Finance section in January. The Finance section conducts mid-year review analysis of the current year budget to identify potential issues and trends that should be considered by Program Managers as part of the development of the upcoming budget. After a preliminary review of the draft budgets with Finance staff, the Division Directors and Program Managers present their budget submittals to the Chief Financial Officer and the Executive Director in February. Program Managers must submit Budget Change Requests for their budget by February 21st.

With respect to the Capital Budget, preparation of the OCP document continues and it is incorporated into the long-term financial model. Capital Project Change Requests are due by February 5th. The Capital Budget CIP narrative is developed and the operating impact of CIP projects are finalized and incorporated into the budget in February. On February 26th, the CIP is brought before the Long-Range Planning Committee and Board for review and approval and the OCP is brought before the Finance Committee and Board for review and approval.

In March, the Finance section assesses year-to-date budget performance and analyzes funding requests. The proposed Budget undergoes a detailed review by Finance staff and feedback obtained through the rate case process, if any, is used to update revenue and expense projections. In March, NBC submitted its WIFIA loan application to the EPA.

In April, additional fine-tuning of the Budget takes place. NBC updated its capital costs for the WIFIA The long-term financial model is updated to incorporate the CIP and the outputs are used to identify the funding sources and uses for the capital budget as well as projected debt service. These outputs, along with the operating expense impacts from the CIP are incorporated into NBC's internal rate model to determine if a rate adjustment is required as well as to develop five-year rate projections. Revenue projections are finalized and final adjustments are made to expense. Finance staff prepares recommended budget adjustments for the Executive Director's review to arrive at a balanced budget.

A detailed presentation of the proposed budget is presented to the Finance Committee on May 14th. Drafting of the final Budget document is completed and printed in early June. The Budget and the Authorizing Resolution are presented to the Finance Committee and Board of Commissioners for review and approval at the June 18th Board meeting.

Budget Monitoring and Amendment Procedures

General

- A line item budget is maintained for each cost center. Budget transfers are required to prevent any significant expense overrun on any line item and ensure overall spending is below budget.
- Finance staff reviews the budget versus actual status by cost center monthly and ensures that budget transfers are prepared and processed.
- At each monthly Board of Commissioner's meeting, the monthly financial statements including budget
 vs. actual status and a summary of applicable operating capital program changes are submitted to the
 Board and are presented to the Finance Committee.
- Revenue and expense accruals are made at the close of every accounting period in order to reflect the most accurate portrait of the current financial status.

Budget Amendments

- NBC exercises strong financial controls to ensure total expense does not exceed the amount approved in the current year's budget.
- The Program Manager and Division Director authorize budget transfers within a section. Finance staff
 then review and authorize the proposed budget transfers. By Resolution, the Chief Financial Officer
 must then approve all budgetary line item adjustments within and between categories.
- No budget transfers shall be made from capital to operating expense under normal circumstances.
- All budget transfers are reviewed by Finance and tracked on NBC's computerized financial system.
- All budget transfers are reported to the Finance Committee monthly.

Operating Capital Program Changes

- Program Managers may request reallocation of OCP funds for unanticipated or emergency items.
- Finance and accounting review all OCP reallocation change requests.
- The Chief Financial Officer is authorized to approve changes to the OCP, make adjustments between line items and between cost centers for the budget year as long as the total expenditures do not exceed the total amount approved in the budget year.
- All capital asset items are purchased in accordance with NBC's Capital Asset Policy and NBC's Purchasing Rules and Regulations.
- All Operating Capital Reallocations are reported to the Finance Committee monthly.

Capital Improvement Program

- The Executive Director is authorized to expend funds on capital projects for preliminary planning, staff time and other services in order to assess project need, scope and feasibility prior to project review and approval by the Board and inclusion in the CIP.
- Once a project has been developed in scope and the basis for capital budget estimated, the Director
 of Construction and Engineering or the Engineering Manager, through the Executive Director will seek
 an Authorizing Resolution from NBC's Board to authorize contract expenditures and ancillary costs.
- The Executive Director may authorize Change Order Requests (CORs) up to a maximum of 5% of the total contract amount. Once the 5% limit is reached, the Executive Director must receive Board approval to raise the limit. In the case of an emergency or safety issue, the Executive Director may exceed the 5% limit without Board approval and will notify the Board members by any means of correspondence and the COR will be discussed at the next Board meeting.

The Rate Setting Process

NBC uses two types of applications for rate relief including 1) a general rate relief application, and 2) a debt service compliance filing for rate relief related to debt service and debt service coverage. With respect to general rate cases, by law the filing is subject to a nine-month review process, resulting in a nine-month period passing prior to new rates being effective. Debt service compliance filings have a shorter review period with PUC decisions rendered typically in less than 90 days.

All filings for rate relief are authorized by NBC's Board of Commissioners. Staff prepares and files the rate application with the PUC and serves copies to the Rhode Island Division of Public Utilities and Carriers (DPUC) and the Rhode Island Attorney General's (AG) Office. The DPUC represents the interests of consumers in rate case proceedings and the AG acts as legal counsel to the DPUC. Once an application is filed and determined by the Clerk to substantially conform in all material aspects to the filing requirements, it is assigned a docket number.

Typically the PUC's legal counsel holds a pre-hearing conference for general rate filings within 60 days of the filing to establish the procedural schedule. NBC provides notice to its customers of the rate application with a billing insert. The rate application and all other documents are posted on the PUC's website and are made available for public review at the PUC's office. NBC is represented by legal counsel throughout this process.

General Rate Relief

In addition to specific filing requirements, a rate application will include pre-filed direct testimony and schedules from NBC witnesses, including outside experts that support the application. NBC must respond to data requests from both the PUC and the DPUC during the review process and the DPUC submits pre-filed testimony and schedules to support their position. The PUC holds public hearings in NBC's service area for ratepayer comment. The NBC may submit pre-filed rebuttal testimony and the DPUC may subsequently file surrebuttal pre-filed testimony. If the NBC and the DPUC agree on most of the issues, the parties may negotiate a settlement agreement which is subject to PUC approval. The PUC conducts hearings to enter the documents into evidence and examine the expert witnesses. The PUC must render a decision within nine months of the filing date which may be a bench decision or through a majority vote at an open meeting. NBC must then make a compliance filing that sets forth the final tariffs. A written Report and Order is issued subsequent to the effective date of the new rates.

Rate Relief for Debt Service and Debt Service Coverage

The PUC first approved the "Debt Service Compliance Filing Mechanism" for rate relief related to debt service and debt service coverage in 2003. This approach includes five-years of projected rate increases required to support NBC's CIP and has been reauthorized by the PUC three times, most recently for FY 2018 through FY 2023. NBC must request rate relief no later than 60 days prior to the proposed effective date and the request is limited to debt service and debt service coverage. Because the scope is limited, the review process is more expeditious and rate relief is generally granted within 90 days. The public notice requirements also apply to these filings and the PUC conducts a hearing prior to issuing their decision.

Financial Policies

NBC's financial policies guide the financial management and planning process of NBC. These policies encourage NBC to take a long-term, agency-wide approach to financial planning and incorporate various regulatory and legislative requirements.

	Rate History	,		
Effective Date	7/1/2015	7/1/2016	1/1/2019	7/1/2019*
Type of Filing	Compliance	Compliance	Compliance	General
Purpose	Debt	Debt	Debt	O&M/Rate Base
Revenue Increase	2.29%	1.48%	2.88%	6.17%
User Rate Increase	2.40%	1.53%	2.98%	5.41%
Average Annual Residential Fee (150 gpd)	\$470	\$477	\$491	\$518

^{*} Projected based upon Docket 4890 Settlement Agreement

Long-Range Planning

- NBC will update and modify the Strategic Plan as needed, to accurately reflect priorities and goals.
- NBC shall update and maintain the long-term financial model, in order to assess the impacts of current and future operating and capital requirements. The model will be used to develop and support financing strategies that will provide stability, continuity and minimize ratepayer impact (for more detail, see the Debt Policy).

Measure of Compliance	FY 2019 Goal	FY 2020 Goal
Review and update of Strategic Plan	Annually	Annually
Update Long-Term Financial Plan	Annually	Annually

Revenue Policies

- NBC will develop and seek PUC approval of rates that will result in net revenue (gross revenue less
 operating expense) at least equal to 125% of the annual debt service to meet the rate covenants as set
 forth in the Trust Indenture.
- NBC will continually review capital and operating needs to determine if a rate adjustment is required.
- Restricted receipts for debt service and debt service coverage shall be administered in accordance with the Report & Orders from the PUC and the Trust Indenture.

Measure of Compliance	FY 2019 Goal	FY 2020 Goal
File with PUC to maintain sufficient operating and capital funding	9/30/2018	No filing
Revise Capital cash flow projected draw	2 Updates	2 Updates
Update Long-Term Financial Plan	Annually	Annually
Prepare monthly financial statements within five business days of month-end	Monthly	Monthly
Prepare the restricted account reporting monthly	100%	100%
Complete trust transfers on the fourth business day before month-end	100%	100%
Perform monthly fund reconciliation	100%	100%
Prepare and transmit capital compliance reports to the PUC	2	2
Transmit restricted account reports to the PUC	4	4

Expense Policies

- All purchases shall be in accordance with NBC's Purchasing Rules and Regulations and applicable State and Federal legislation.
- The Executive Director shall provide a report to the Finance Committee of all purchase requisitions greater than \$10,000 for items included in the budget. The Executive Director will present all purchase requisitions greater than \$50,000 not included in the budget for approval by the Finance Committee.

The Finance Committee will review and approve the creation of new positions and the upgrading of existing
positions not included in this budget. The Executive Director may post for vacancies of existing positions
or newly created positions included in this budget.

Measure of Compliance	FY 2019 Goal	FY 2020 Goal
Process 100% of purchase requisitions	100%	100%
Complete 85% of bid specifications within 30 days	85%	85%
Review all contracts three months prior to expiration	100%	100%
Ensure contracts are awarded within 60 days of RFQP	Within 60 days	Within 60 days
Provide Finance Committee with list of requisitions greater than \$10,000	100%	100%

Auditing, Accounting and Financial Statements

- NBC will prepare financial reports in accordance with Generally Accepted Accounting Principles (GAAP) as outlined by the Governmental Accounting Standards Board (GASB).
- An independent audit of NBC's financial statements is performed annually.

Measure of Compliance	FY 2019 Goal	FY 2020 Goal
Receive the GFOA Certificate of Achievement for Excellence in Financial Reporting	17 Years	18 Years
Complete audit by September 30 th	9/30/2018	9/30/2019
Complete audit with clean opinion and no management letter	Yes	Yes
Complete single audit by March 31st	3/31/2019	3/31/2020
Prepare monthly financial statements within five business days of month-end	Monthly	Monthly
Prepare the restricted account reporting within 25 days of month-end	≤25 days	≤25 days
Perform monthly fund reconciliation within 25 day after month-end	≤25 days	≤25 days
Implement GASB pronouncements that apply to NBC	100%	100%

Budget Policy

- NBC shall prepare a balanced budget in which total expense is equal to total revenue.
- The Finance Committee will review and approve the monthly financial statements, including the status of the budget versus expense, prior to the monthly Board Meeting.
- NBC will monitor the budget to ensure that sufficient resources are available to safely and effectively provide wastewater treatment.

Measure of Compliance	FY 2019 Goal	FY 2020 Goal
Prepare and transmit monthly financial report to NBC's Finance Committee	Monthly	Monthly
Upload and maintain Budget and CIP internet features	Monthly	Monthly
Develop and administer a high quality annual Budget and Capital Budget	Yes	Yes
Receive GFOA Distinguished Budget Presentation Award	17 Years	18 Years
Process 100% of budget transfers 5 days prior to month end	100%	100%
Budget receives a proficient or better rating as a communication device	Yes	Yes
Complete Annual Sewer User Fee Survey	Yes	Yes

Capital Budget Policy

- NBC will adopt and maintain a five-year Capital Budget that includes the Operating Capital Program (OCP) and Capital Improvement Program (CIP) and update it on an annual basis.
- The Capital Budget will be developed within the context of the Strategic Plan's short-term and long-term goals and prioritized based upon strategic importance.

- The Capital Budget will be identified based upon the Asset Management Program as well as system and facility inspections.
- All assets will be purchased in accordance with the Capital Asset Policy.
- All costs associated with the planning, design or construction of capital projects in the CIP shall be included in the asset valuation.
- All OCP allocations will be categorized based upon their asset type.

Measure of Compliance	FY 2019 Goal	FY 2020 Goal
Revise capital cash flow projected draw	2 Updates	2 Updates
Develop and administer a high quality CIP and OCP	Yes	Yes

Financing Policy

- In accordance with the Trust Indenture, a calculation is made to determine the amount that can be transferred from the Stabilization Account in the Debt Service Fund to the Restricted Accounts in the Project Fund to support the Capital Budget. This is also consistent with the Report and Order from the Rhode Island Public Utilities Commission.
- An additional calculation is performed to allocate funds to the Restricted Account Operating Capital and Restricted Account – Capital Improvement Program.
- NBC shall ensure capital assets are systematically and accurately recorded, classified and documented in the financial statements in accordance with Generally Accepted Accounting Principles (GAAP).

Debt Policy

- NBC has a significant CIP and recognizes the importance of proper financial and debt management to ensure the successful implementation of its CIP, obtain the highest possible credit ratings and ensure that ratepayer impact is minimized. NBC may issue debt to finance capital improvements as well as to meet short-term operating and capital cash flow needs.
- NBC will maintain a Long-Term Financing Model that takes into consideration the CIP, cash flows, NBC's
 annual operating revenue and expense, debt service coverage, State Revolving Fund (SRF) capacity and
 other relevant items. The long-term financial plan shall be used as the basis for determining debt issuance
 needs.
- There are a wide variety of financial products available. The Chief Financial Officer, in conjunction with NBC's Financial Advisor, will evaluate the options and implement recommendations that will minimize risk and maximize benefits. NBC has identified WIFIA loans as the lowest cost of capital financing. NBC will use the long-term financial model to determine the optimum funding strategy for NBC's 51% share of the WIFIA funded project costs and other projects that do not qualify for WIFIA funding. NBC plans to issue revenue bonds and SRF funds and may issue short or long-term debt in fixed or variable mode to finance its capital program. Variable rate debt may be issued in various modes and NBC may use financial products that will result in either a synthetic variable or a synthetic fixed rate. NBC may issue short-term debt to meet operating cash flow needs.
- NBC may employ one or more financial products to manage interest rate risk and maximize market benefit upon the recommendation of the Chief Financial Officer and NBC's Financial Advisor.

- In accordance with Rhode Island General Law (RIGL) 39-3-15, the Division of Public Utilities and Carriers must approve NBC's issuance of long-term debt.
- The Chief Financial Officer will determine the issuance method (competitively bid or negotiated) in conjunction with NBC's Financial Advisor. The method may be modified from time to time as NBC's needs change or new or modified financial market methods emerge. The issuance method will be modified if a lower effective market interest rate is expected to result.
- Appropriate Ratio Levels:
 - Debt service coverage ratio minimum of 1.25 (calculated as Gross Revenue less Operating Expense (excluding depreciation) divided by annual principal and interest.)
 - Principal maturities for fixed and variable rate debt are not to exceed thirty years.
 - Outstanding long-term maturity variable rate bonds are not to exceed a sum equal to 25% of total long-term fixed rate debt except for the inaugural issue.
- NBC does not have a statutory limit on debt issuance.

Measure of Compliance	FY 2019 Goal	FY 2020 Goal
Credit Rating with Standard & Poor's	AA-	AA-
Update Long-Term Financial Plan Annually	Annually	Annually
Ensure compliance with federal tax laws and regulations to maintain tax exempt status of NBC's bond issues	100%	100%
Determine Arbitrage Liability by August 31st	8/31/2018	8/31/2019
Provide Arbitrage Calculation Information	100%	100%
File with PUC to maintain sufficient operating and capital funding	09/30/2018	09/30/2019
Compliance with Continuing Disclosure Commitments	3/31/2019	3/31/2020

Continuous Disclosure Procedures (in part)

- NBC will file all required financial-based disclosures on the Electronic Municipal Market Access (EMMA), no later than the filing date set forth in the Continuing Disclosure Agreements (CDA).
- The Chief Financial Officer shall file Significant Events, required under the Securities and Exchange Commission (SEC) Rule 15c2-12 and Notice Events that require disclosure within 10 days of occurrence on EMMA and RIIB.

Measure of Compliance	FY 2019 Goal	FY 2020 Goal
Annual Operating Data and CAFR on EMMA	3/31/2019	3/31/2020
Annual Operating Data and CAFR with RIIB	3/31/2019	3/31/2020
Material Events within 10 days of Occurrence	<10 Days	<10 Days

• NBC's Chief Compliance Coordinator (CCO) shall be the Chief Financial Officer. The CCO is responsible for the administration and supervision of NBC's post-issuance compliance management program.

Measure of Compliance	FY 2019 Goal	FY 2020 Goal
Tax Due Diligence Prior to Issuance	100%	100%
RIGL 35-14-6 Fiscal Integrity & Accountability Report	12/31/2018	12/31/2019
RIGL 42-10.1-9 PFMB Debt Affordability Study	9/30/2018	9/30/2019
RIGL 42-90-1 Government Consultants Disclosure Report	10/1/2018	10/1/2019
Governments Survey of Public Pensions	12/31/2018	12/31/2019

Compliance Reporting (in part)

• NBC will ensure ongoing compliance with applicable federal tax laws and related federal regulations and federal and state statutory requirements to preserve the tax-exempt status of NBC's bond issues.

Measure of Compliance	FY 2019 Goal	FY 2020 Goal
Ensure compliance with federal tax laws and regulations to maintain tax exempt status of NBC's bond issues	100%	100%

- NBC will submit a Fiscal Integrity and Accountability report to the Rhode Island Office of Management and Budget, in accordance with Rhode Island General Law (RIGL) 35-14-6, to report on the adequacy of the agency's systems of internal accounting and administrative control of the previous fiscal year by December 31st of each year.
- In accordance with Rhode Island General Law (RIGL) 42-10.1-9, the Rhode Island Public Finance Management Board (PFMB) requests NBC to report all debt authorized, sold and unsold each fiscal year. The Board compiles and publishes the information from all public state, regional, municipal, and public and quasi-public corporations. NBC submits this report to PFMB by September 30th of each year.
- In compliance with Rhode Island General Law (RIGL) 42-90-1, NBC submits a list of any person, privatization contractor, or vendor who performed professional, technical or consulting services on a contractual basis during the previous fiscal year and the amount of compensation each vendor received. This report is submitted to the Rhode Island Office of Management and Budget by October 1st of each year.
- The U.S. Census Bureau conducts the Annual Survey of Public Pensions as authorized by Title 13, U.S. Code, Sections 161 and 182 and provides revenue, expense, financial assets, membership, and liabilities information for defined benefit public pension systems. These systems are an important component of the nation's government sector. NBC submits responses to the U.S. Census Bureau by December 31st of each year.
- In accordance with the Public Utilities Commission's Report and Order No. 19178 "NBC Non-Union Defined Benefit Plan Compliance Reporting", NBC submits an annual compliance report to the PUC to include:
 - Annual contributions made by NBC and its employees to the Non-Union Defined Contribution Plan
 - Annual contribution NBC makes to the Non-Union Defined Benefit Plan
 - Any changes to the Defined Benefit Plan
 - Total wages paid to non-union employees
 - The cost NBC incurred for administration of the Defined Benefit Plan, including actuary costs
 - NBC's annual actuary report on the Defined Benefit Plan
 - Annual audit report on the Defined Benefit Plan

Measure of Compliance	FY 2019 Goal	FY 2020 Goal
Annual Non-Union Retirement Plans Compliance Report to PUC	1	1

In accordance with the Public Utilities Commission's Report and Order No. 16751 "Capital Projects Compliance Reporting", NBC submits the Restricted Account and Capital Projects Compliance Report.

Measure of Compliance	FY 2019 Goal	FY 2020 Goal
Bi-Annual Capital Projects Compliance Report to the PUC	2	2
Quarterly Restricted Accounts Compliance Reporting to PUC	4	4

Investment Policy (in part)

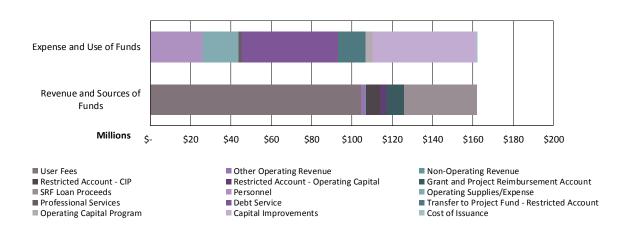
- The "prudent investor" standard shall be applied in the context of managing an overall portfolio.
- Investment of financial assets shall be diversified to minimize the risk of loss that may occur due to concentration in a specific maturity, a specific issuer or a specific class of securities.
- All financial assets shall be invested in a manner that will preserve the value and safety of capital.
- NBC shall invest funds in order to maximize earnings and minimize risk during the period of availability of the funds.
- NBC shall comply with all Federal, State and other legal requirements.

Budget Summary

The FY 2020 Budget is \$162.2 million, which is 1.6% or \$2.5 million higher than the prior year. The detail of the Operating Budget is provided in the Operating Budget Section of this document and the Capital Budget supporting detail is included in the Capital Budget Section.

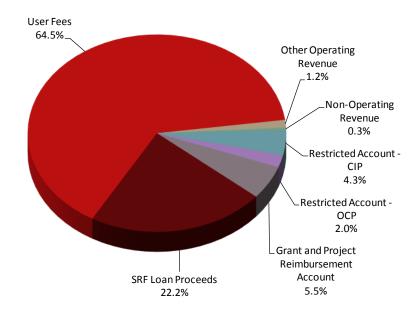
Budget Summary

	FY 2018			FY 2019	FY 2020			Budgeted
		Actual		Budget		Budget	Budget Differ	
Revenue and Sources of Funds								
User Fees	\$	95,822,841	\$	98,225,193	\$	104,620,531	\$	6,395,338
Pretreatment Fees		1,066,370		1,100,000		62,800		(1,037,200)
Septage Fees		333,037		325,000		335,000		10,000
Connection Permit Fees		123,319		130,000		172,580		42,580
Late Fees		796,362		800,000		800,000		-
Customer Service Fees		38,848		445,100		230,000		(215,100)
Renewable Energy Credits		152,338		393,099		419,000		25,901
Investment Income		199,406		200,000		280,000		80,000
Miscellaneous Non-Operating Revenue		114,951		187,800		159,500		(28,300)
Transfer from Revenue Fund Balance		-		1,600,000		-		(1,600,000)
Restricted Account - CIP		19,579,714		20,015,021		6,909,839		(13,105,182)
Restricted Account - OCP		4,102,698		4,752,000		3,261,200		(1,490,800)
Grant and Project Reimbursement Account		-		7,715,796		8,914,056		1,198,260
SRF Loan Proceeds		25,849,612		23,828,148		36,056,481		12,228,333
Total Revenue and Source of Funds	\$	148,179,496	\$	159,717,157	\$	162,220,987	\$	2,503,830
Expense and Use of Funds								
Personnel	\$	23,581,657	\$	25,509,996	\$	25,737,917	\$	227,921
Operating Supplies/Expense		15,125,106		16,468,700		18,111,200		1,642,500
Professional Services		1,196,940		1,689,650		1,465,190		(224,460)
Debt Service		45,431,230		47,787,187		47,816,624		29,437
Transfer to Project Fund - Restricted Account		13,312,539		11,950,659		13,948,480		1,997,821
Operating Capital Program (OCP)		4,102,698		4,752,000		3,261,200		(1,490,800)
Capital Improvement Program (CIP)		39,408,439		50,558,965		51,330,376		771,411
Debt Service Payment Account/Other		6,020,887		1,000,000		550,000		(450,000)
Total Expense and Use of Funds	\$	148,179,496	\$	159,717,157	\$	162,220,987	\$	2,503,830



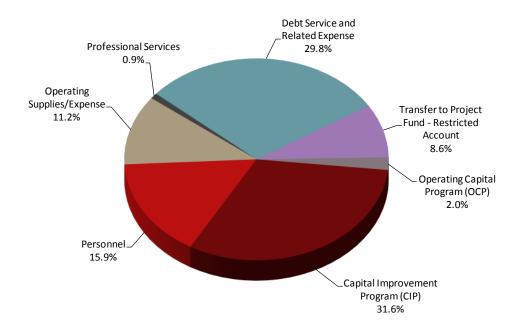
The FY 2020 budgeted revenue and sources of funds is shown in the graph below. FY 2020 budgeted user fees are \$104.6 million and comprise the majority or 64.5% of the revenue and sources of funds. Capital related sources of funds total \$55.1 million or 34.0% of the total.

Revenue and Source of Funds



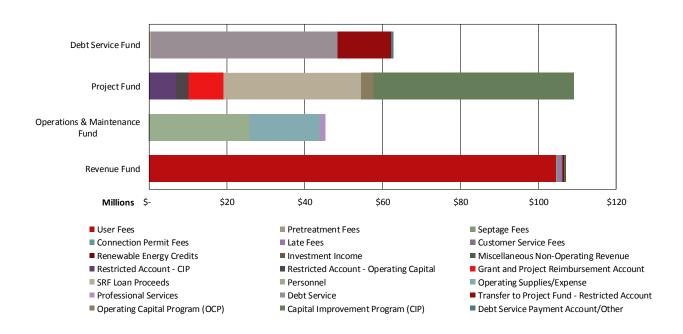
The graph below shows the FY 2020 budgeted expense and use of funds. The largest programmed line item is \$51.3 million or 31.6% for capital improvements which is followed by debt service at \$48.4 million or 29.8%. Operating expense consisting of personnel, operating supplies/expense and professional services is 28.0% of the total budgeted expense and use in FY 2020.

Expense and Use of Funds



The following serves as an overview of the FY 2020 Budget by fund type.

	Ro	Revenue Fund		Operations & Maintenance Fund		Project Fund		ebt Service Fund
Revenue and Sources of Funds								
User Fees	\$	104,620,531	\$	-	\$	-	\$	-
Pretreatment Fees		62,800		-		-		-
Septage Fees		335,000		-		-		-
Connection Permit Fees		172,580		-		-		-
Late Fees		800,000		-		-		-
Customer Service Fees		230,000		-		-		-
Renewable Energy Credits		419,000		-		-		-
Investment Income		280,000		-		-		-
Miscellaneous Non-Operating Revenue		159,500		-		-		-
Restricted Account - CIP		-		-		6,909,839		-
Restricted Account - Operating Capital		-		-		3,261,200		-
Grant and Project Reimbursement Account		-		-		8,914,056		-
SRF Loan Proceeds		-		-		35,506,481		550,000
Total Revenue and Source of Funds	\$	107,079,411	\$	-	\$	54,591,576	\$	550,000
Expense and Use of Funds								
Personnel	\$	-	\$	25,737,917	\$	-	\$	-
Operating Supplies/Expense		-		18,111,200		-		-
Professional Services		-		1,465,190		-		-
Debt Service		-		-		-		47,816,624
Transfer to Project Fund - Restricted Account		-		-		-		13,948,480
Operating Capital Program (OCP)		-		-		3,261,200		-
Capital Improvement Program (CIP)		-		-		51,330,376		-
Debt Service Payment Account/Other		<u>-</u>		-		-		550,000
Total Expense and Use of Funds	\$	-	\$	45,314,307	\$	54,591,576	\$	62,315,104



FY 2020 Budget – Key Assumptions

The development of the FY 2020 budget was governed by the following:

Key long-term guidelines:

- The Strategic Plan guides the development of priorities, as well as program objectives and measures; and also determines the strategic value of the capital projects in the Capital Improvement Program (CIP) and the capital assets in the Operating Capital Program (OCP).
- The operating capital policy defines operating capital assets as those with a cost greater than \$5,000 and a minimum useful life of three years that are new, replacements, betterments, or renovations.
- The operating budget incorporates the revenue, expense and savings impact of capital projects.

Key short-term guidelines:

- User fee revenue reflects a 2.98% increase effective January 1, 2019 and a 6.17% increase effective July 1, 2019.
- Flat fee revenue includes rate base adjustments for growth in the residential dwelling units and a decline in both the number and size of non-residential meters.
- Consumption fee revenue reflects a decline in residential and commercial consumption and an increase in industrial consumption.
- The replacement of the annual pretreatment permit fees with a one-time permit application fee.
- The recovery of the difference between the revenue previously generated from the annual pretreatment permit fees less the new permit application fee will be recovered from non-residential consumption fees.
- Miscellaneous revenue is based on modified sewer connection permit fees, a new capacity charge for new connections and Renewable Energy Credit (REC) rates of \$20.47/REC for RECs generated from NBC's renewable energy projects, effective July 1, 2019.
- The budget includes contracted COLA increase of 2.5% and step increases for union employees and merit increases for non-union employees.
- NBC's FY 2020 budgeted contribution rate to the Rhode Island State Retirement System on behalf of participating union employees increased from 26.34% to 26.39%.
- NBC's contribution rate to the State Retirement Health Benefit for participating union employees increased from 5.97% to 6.65% in FY 2020.
- The health insurance line item reflects a 3.8% increase in the health insurance premium and NBC contributions of \$1,800 (individual) or \$3,600 (family) to the Health Reimbursement Arrangement (HRA).

- Dental and vision insurance premiums are unchanged from FY 2019 and fringe benefits are budgeted based on actual enrollment and a weighted average for unfilled positions.
- The FY 2020 budget includes FTES's as follows:

FY 2020 Budgeted FTEs								
Net FTEs FY 2019 Budget	269							
Added in FY 2019	1							
New in FY 2020	7							
Less: Unfunded	(2)							
Less: FY 2020 Increased Turnover	(3)							
Net FTEs	272							

- The FY 2020 budget reflects the merger of the Water Quality & Compliance section and the Environmental Safety & Technical Assistance section into a new Technical Analysis & Compliance section. In addition, the Environmental Monitoring & Data Analysis section has been renamed the Environmental Monitoring section.
- Biosolids expense reflects a projected Consumer Price Index (CPI) adjustment of 3.0% to the contracted biosolids disposal rate and a Rule of Law Change of \$24.86/ dry ton. Dry ton production are based on a 12-month moving total.
- A 15.5% budgeted decrease in the electricity supply rate from \$0.07690 to \$0.06500 per kWh effective July 1, 2019.
- Electricity expense reflects the net impact of NBC's renewable energy sources including the Field's Point wind turbines, the WED wind turbines and the WED Power Purchase Agreement (PPA).
- Electricity is based on increased FY 2019 usage.
- Net Metering Credits (NMC) kWh production reflects a 21.7% increase from the prior year and a 23.6% increase in the budgeted NMC rate from \$0.1189 to \$0.1470/kWh.
- The start date for the biogas reuse facility at Bucklin Point is unknown at this time and this year's electricity budget does not include renewable energy savings and the natural gas budget does not include the additional therm impact for the facility.
- Natural gas expense reflects a 24-month average usage and a 4.2% decrease in the budgeted rate per therm. A budgeted natural gas supply rate of \$0.5220 through May 31, 2021.
- Two WIFIA loans totaling \$284.5 million are programmed in FY 2020.
- Chemical rate changes are as follows:

	Price per Unit							
	FY 2019		FY 2020	% Change				
Sodium Hypochlorite	\$ 0.52090	\$	0.68900	32.3%				
Sodium Bisulfite	1.12000		1.23000	9.8%				
Sodium Hydroxide	1.69480		1.98780	17.3%				
Carbon Feed	1.79000		1.76000	(1.7%)				
Polymer-Liquid	1.11000		1.29500	16.7%				
Polymer-Powder	1.92000		1.85000	(3.6%)				
Soda Ash	445.000		451.440	1.4%				

Fiscal Year:

NBC's fiscal year runs from July 1st through the following June and is numbered with the calendar year in which it ends. The FY 2020 budget year begins July 1, 2019 and ends June 30, 2020. The prior fiscal year or FY 2019 is the 12 month period that ends June 30, 2019.

Basis of Accounting:

The accounting policies of NBC conform to Generally Accepted Accounting Principles (GAAP) as applicable to governmental proprietary fund types (enterprise funds). For enterprise funds, the intent of the governing body is that the expense of providing goods and services to the general public on a continuing basis will be financed or recovered through user charges. The financial statements of NBC are prepared using the accrual basis of accounting; however, the budget is adopted on a modified accrual basis of accounting consistent with GAAP. The major difference is how debt service and capital expenditures are reflected.

Basis of Budgeting:

The NBC prepares its budget on a modified accrual basis. Accordingly, revenue must be both measurable and available for the current period. With respect to expense, there are a few differences between how certain items are treated in the financial statements and the budget. Although capital expenditures are depreciated in the financial statements, they are expensed in the budget. In addition, in the financial statements principal payments are shown as a reduction of a liability but they are budgeted as expense. Lastly, depreciation and bad debt expense are included in the financial statements but they are not budgeted or expensed. See the table below for a summary of the differences.

	Basis of Accounting Full Accrual	Basis of Budget Modified Accrual
Revenue Recognition	When earned	When measurable and available
Expense Recognition	When liability incurred	When liability incurred
Capital Expenditures Depreciation Principal Payments	Increase Asset Expensed Reduction of liability	Budgeted as expense Not Budgeted as expense Budgeted as expense
Bad Debt	Expensed	Not budgeted as expense

The Strategic Plan and the FY 2020 Budget

Narragansett Bay is Rhode Island's greatest resource, and the actions of NBC have a significant impact on its water quality. Water quality, in turn, has effects on aquatic life, recreational activities, tourism, waterfront development, and the livelihoods of many who make a living on or near Narragansett Bay. To ensure NBC's ability to meet its water quality objectives within the constraints of a regulated environment, NBC continuously strives to achieve the plan's objectives and goals.

This year's budget was developed using the framework of the assumptions and guidelines discussed on the following pages. The service level objectives and performance levels were developed based upon NBC's Strategic Plan prior to the development of budget figures. Once NBC's priorities were identified on a programmatic basis, program managers identified the resources required to meet these service levels. All programs submitted their budgets and identified variances between the proposed funding levels and the prior year budget. With guidance from the Executive Director, Finance staff assessed short and long-term requirements for each program. The budget was allocated based on these needs and the total resources available. This planning process has resulted in a budget document with an integrated Performance Data section for each program and a greater focus on resource allocation for both operating programs and CIP projects based on NBC's strategic goals.

History of the Strategic Plan

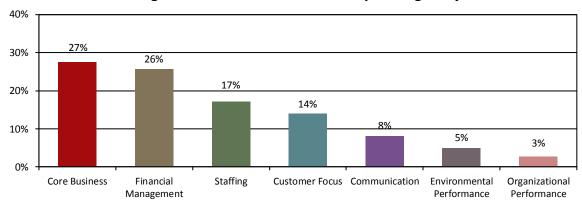
NBC's first Strategic Plan was developed in 2004 with input from the outside stakeholders such as NBC's Commissioners, Citizen Advisory Committee members, regulatory agencies, and other interest groups, as well as NBC staff. The Strategic Plan is a dynamic document and its content was expanded in 2005, 2006, 2011, 2016, and again in 2018. This year's budget document is based upon the 2016 Objectives or Key Codes due to the timing of the budget process relative to the Board's review and approval of the 2018 plan in December 2018. Next year's budget will be based on the new plan. NBC strives to achieve the plan's objectives and goals to demonstrate its environmental commitment and ensure compliance with current and future regulatory requirements. The goals of the Strategic Plan are listed below.

NBC'S Strategic Goals

CORE BUSINESS:	Operate, maintain and protect our collection and treatment systems to ensure that all State and Federal requirements are met or surpassed.
ENVIRONMENTAL PERFORMANCE:	Continuously evaluate NBC environmental performance to identify, quantify and minimize NBC impacts to the environment in a cost effective manner.
FINANCIAL MANAGEMENT:	Manage NBC's finances through strong financial planning and controls such that sewer users charges are minimized.
CUSTOMER FOCUS:	Maintain a customer-focused attitude throughout the organization.
STAFFING:	Attract, develop and retain highly qualified employees.
COMMUNICATION:	Improve and enhance internal and external communication to increase understanding of "who we are" and "what we do".
ORGANIZATIONAL PERFORMANCE:	Ensure that the NBC organization is aligned with and supports our strategic goals.

Finance and program managers worked to identify and incorporate Strategic Plan driven actions for achievement, service level objectives, and key target measures into their budgets. The Actions for Achievement or Service Level Objectives are linked to Target Measures and indicate a clear pathway between the long-term and short-term objectives. Program Managers determined that approximately 53% of the Actions for Achievement were aligned to Core Business and Financial Management goals. In addition, 17% of the Actions for Achievement relate to Staffing and 14% to Customer Focus. All of the objectives and measures were reviewed and approved by the Executive Director. The following graph illustrates the percentage of Actions for Achievement aligned with each Strategic Objective.

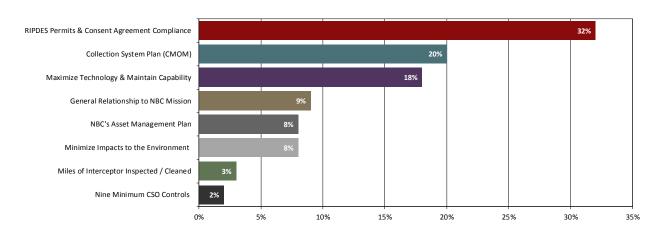
Percentage of Actions for Achievement by Strategic Objective



The Strategic Plan is also integrated into the Capital Improvement Program. Due to the magnitude of the CIP and NBC's funding constraints, NBC evaluated proposed capital investments based on strategic value. As part of the CIP development process, project managers determine the specific strategic goal or goals that the project will address.

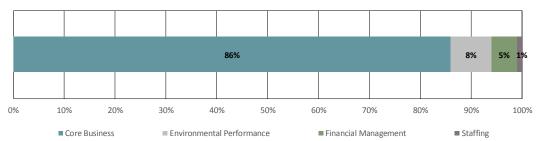
Of the 49 CIP projects, 32% are related to the RIPDES Permits & Consent Agreement Compliance strategic objective. Approximately 20% of the projects in the CIP are aligned with the Collection System Plan strategic objective and include interceptor restoration and construction projects. In addition, 18% of projects are aligned to the Maximize Technology & Maintain Capability strategic objective and 9% of the projects are aligned with the General Relationship to NBC Mission strategic objective. The remaining projects are aligned with NBC's Asset Management Plan, Minimize Impacts to the Environment objectives, Miles of Interceptor Inspected / Cleaned and Nine Minimum CSO Controls objectives. The following graph shows the percentage of CIP Projects aligned by Strategic Objective.

Percentage of CIP Projects Aligned by Strategic Objective



The Strategic Plan is also incorporated into NBC's Operating Capital Program. Program Managers align each of the proposed capital assets to NBC's strategic plan goals. This process ensures funds are available to meet both short-term and long-term objectives in order to maintain continuous facility operations and core business functions. Approximately 86% of assets support NBC's Core Business and include infrastructure, applications and compliance at \$2.8M. In addition, 8% of assets align to NBC's Environmental Performance and support sampling and laboratory analysis. The following graph shows the percentage of FY 2020 programmed capital assets by strategic goal.





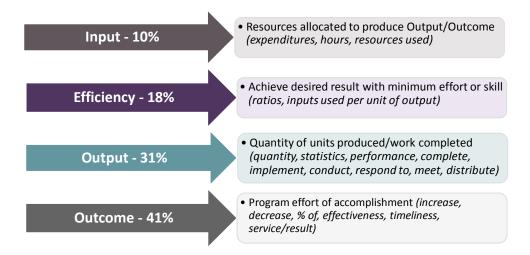
Actions for Achievement or long-term goals are then linked to each Program's target measures or short-term goals by one of four types of performance indicators. The four types of performance indicators are input, output, efficiency, and outcome. A unit of measure is then depicted by the Program Manager in order to track the budgeted goal and actual performance for each of the target measures within their section.



The FY 2020 budget further aligns the performance measures to the S.M.A.R.T goal framework of GFOA. This goal setting framework "ensures the best chance of success for achieving goals" and transitions performance measures to represent indicators of outcome and efficiency. This planning process further ensures the allocation of budgeted resources in line with each Program's short-term service level objections or target measures and the long-term strategic goals for goal actions for achievement. Finance staff worked with each of the Program Managers to ensure that performance data aligned with the indicators in accordance with this framework as shown below.

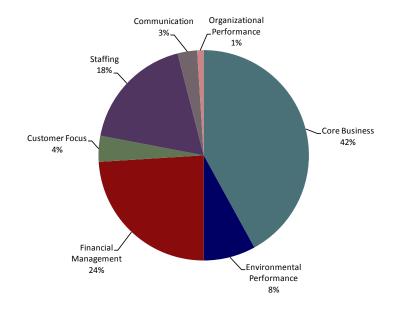
S PECIFIC	A specific goal is more likely to be reached because people know precisely what the objective is
M EASURABLE	Establish standards of evidence for gauging progress toward the goal and whether intended benefits are being realized
A TTAINABLE	Goals should have a certain amount of "stretch" in them – achieving the goal should require going beyond current patterns of performance and ways of thinking
R ESULT-ORIENTED	The goal should be focused on results that make a real difference to financial position
TIME-LIMITED	The goal should have a clear timeframe for achievement

The following represents the percentage of the target measures and short term goals by indicator for the entire NBC Organization. Of the 288 target measures, the majority or 41% are Outcome or result related whereas 31% of the measures are Output or quantifiable measures. The remaining 28% correlate to resources used or productivity and are either Efficiency or Input related. Both the Actions for Achievement and the Target Measures are further outlined in the Division Summaries section of this document. Each of the Division summaries further provides a chart outlining their performance data by performance indicator.



This year each section included their top priorities for FY 2020 and indicated the corresponding key code from the Strategic Plan. Additional information regarding these priorities is included in the Division Summaries section of this document. Of the 76 priorities for FY 2020 for the NBC, 32 or 42% are categorized under Core Business followed by Financial Management at 24% or 18 priorities. The following graph shows the percentage of NBC's section's priorities by goal action for achievement.

Fiscal Year 2020 Priorities



Goal Actions for Target Measures by Key Code

Core Business

CB 1	Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting
	requirements

- Manage the planning, design and construction of NBC's capital improvements in the most cost-effective manner and in compliance with regulatory requirements
- Ensure the highest level of availability of systems' applications and network stability
- Maximize efficiency through service automation, applications security and NBC campus security
- Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment

Environmental Performance

- Minimize environmental impacts and implement conservation and sustainability measures
- EP 2 Evaluate the NBC Program and report the data to the public
- Provide technical assistance to evaluate energy conservation and renewable energy opportunities
- Provide quality and expedient sample collection, data analyses and water quality monitoring to evaluate NBC's impacts and document improvements

Financial Management

- Ensure sufficient funding and receive the lowest cost of borrowing with the least rate payer impact
- Integrate NBC's strategic goals into the allocation of NBC's resources
- Maximize the efficiency, effectiveness, and accuracy of NBC's rate structures and collection processes to reduce accounts receivable
- PM4 Develop and manage NBC's operating and capital budgets to maximize benefits, minimize expense and unplanned expenditures
- FMS Comply with IRS, Federal and State Rules and Regulations, Trust Indenture and Generally Accepted Accounting Principles
- FM 6 Ensure goods and services are procured, reviewed and processed in a timely, efficient and cost effective manner
- Initiate and evaluate incentive programs
- Evaluate savings opportunities and optimize NBC operations and processes

Customer Focus

- CF1 Maintain programs and conduct projects that give back to the community
- Provide prompt, courteous, efficient and educational services
- Enhance communications to ensure consistency, reliability and satisfaction
- Maximize customer focus attitude by providing excellent customer service and developing strong customer relationships
- Ensure compliance with NBC internal controls

Staffing

- Ensure compliance with Federal and State labor laws
- Foster a positive working environment through effective communication
- rovide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes
- Provide a healthy and safe working environment
- Develop mechanisms and establish opportunities for continued growth and professional development

Communication

- Continue to expand and conduct NBC public outreach programs
 - Proactively manage NBC's public and legislative affairs and communicate NBC initiatives and ongoing activities
- Effectively communicate status of capital projects to NBC staff and Board members
- Enhance operating budget, CIP and compliance reports as a communication device
- Strengthen and expand NBC's positive relations with key stakeholders (customers, Board, elected officials/delegates, regulatory officials and the public) to ensure support of NBC's mission

Organizational Performance

- OP 1 Conduct NBC business in an open manner
- OP 2 Promote diversity in hiring practices
- Ensure compliance with State ethics and regulatory agenda filing
- Provide end-user technology and systems to meet NBC's strategic goals

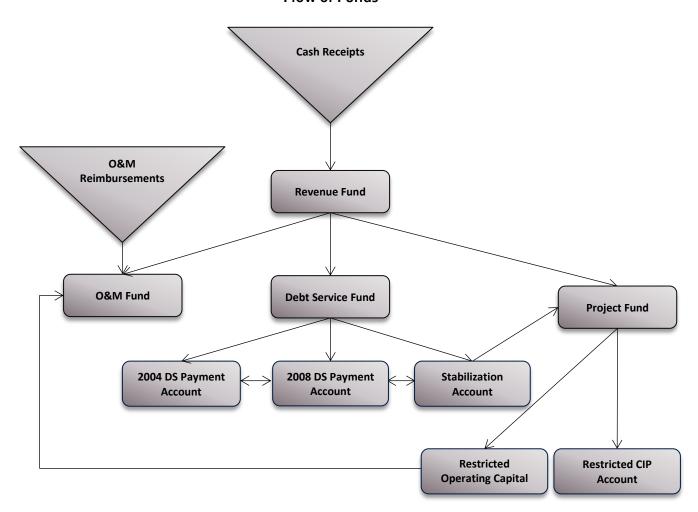
Trust Indenture and Funds

In accordance with GASB criteria, NBC is considered an Enterprise Fund for accounting purposes. In addition, NBC has several funds established pursuant to a Trust Indenture and First Supplemental Indenture executed on April 15, 2004 by and between NBC and the Trustee. NBC has also executed 25 Supplemental Indentures (see table below), and collectively these are referred to as the "Trust Indenture."

Indenture Number	Date	Indenture Number	Date		
2	December 30, 2004	14	March 29, 2011		
3	August 4, 2005	15	June 28, 2012		
4	December 15, 2005	16	November 28, 2012		
5	December 21, 2006	17	March 21, 2013		
6	February 8, 2007	18	June 6, 2013		
7	October 15, 2007	19	December 12, 2013		
8	8 December 12, 2007		March 6, 2014		
9	9 July 1, 2008		October 28, 2014		
10	10 November 1, 2008		May 5, 2015		
11	October 6, 2009	23	July 30, 2015		
12	February 12, 2010	24	June 2, 2016		
13	June 24, 2010	25	April 4, 2019		

The schematic below provides a general overview of the flow of cash as directed by the Trust Indenture. The schematic is not meant to be a complete representation of the Trust Indenture.

Flow of Funds



Due to the complexity of the documents, it is difficult to present a detailed description of all of the funds and their interrelationships. The following serves as a brief summary of the twelve funds established pursuant to the documents.

Revenue Fund: The Revenue Fund is the initial depository for all NBC user fee receipts and other miscellaneous receipts. These funds are transferred to the other funds as required once a month.

Operation and Maintenance Fund: The Operation and Maintenance (O&M) Fund is used to pay for current operations, administrative, maintenance, ordinary current repairs of NBC's facilities and infrastructure expense.

Debt Service Fund: The Debt Service Fund is designated for the payment of debt service and also includes the Stabilization Account where debt service coverage funds are held.

Project Fund: Funds from the Project Fund are designated to pay for improvements and additions to NBC's capital assets. This includes expenditures related to the Capital Budget for the Capital Improvement Program and Operating Capital Program.

Operating Reserve for Revenue Stability Fund: The Operating Reserve for Revenue Stability Fund may be used when there are insufficient funds in the Revenue Fund to make the monthly transfers to other accounts.

Renewal and Replacement Fund: The Renewal and Replacement Fund is used for the replacement or renewal of capital assets of the wastewater treatment system and related infrastructure when the expense is not covered by the Project Fund. This fund is not funded.

Debt Service Reserve Fund: The Debt Service Reserve Fund is used when there are insufficient funds in the Debt Service Fund to cover debt service or a reserve is required as part of a debt issuance. NBC funded a \$3.5M Reserve for the 2013 Series C Wastewater System Revenue Bond issue.

Operation and Maintenance Reserve Fund: The O&M Reserve Fund is designated to pay current operating expense for NBC whenever monies on deposit in the O&M Fund are deemed insufficient. This Fund is not funded.

Redemption Fund: The Redemption Fund is used for redemption fees, and/or principal and interest on the redemption of bonds. This Fund is not funded.

Insurance Reserve Fund: The Insurance Reserve Fund is used should NBC determine that it cannot reasonably obtain required insurance. This Fund is not funded.

Unrestricted Fund: The Unrestricted Fund is the depository for any cash surplus once all funds and accounts established under the Trust Indenture are funded. These funds may be used for any deficiency in amounts required by other funds. This Fund is not funded.

Rebate Fund: The Rebate Fund is used should NBC's series of bonds or subordinated bonds issued, become subject to the rebate requirement of Section 148(f) of the Internal Revenue Code.

The Environmental Enforcement Fund is within the Revenue Fund and consists of monies recovered through administrative or civil enforcement action and cannot be used for normal operating expense in accordance with chapter 46-25 of the Rhode Island General Laws. This Fund is insignificant and is not included in the annual budget.

Monthly Trust Transfers

The Trust Indenture establishes the flow of funds and all revenue, with minor exceptions, which must be deposited into the Revenue Fund. On the third day prior to the last business day of each calendar month, the NBC must apply amounts from the Revenue Fund for certain purposes in a specific order. The first such amount applied is the transfer from the Revenue Fund and deposit into the Operation and Maintenance Account in the Operation and Maintenance Fund. The NBC has calculated the FY 2020 monthly transfers for operating expense in accordance with Section 504(2) (i) of the Trust Indenture. The transfer amounts are based on the actual operating expense in FY 2019 multiplied by the percentage increase in the FY 2020 budget or 4.0%. The FY 2020 monthly Operation and Maintenance Fund transfers are shown in the table below.

O&M Monthly	Certified Tr	ust Transfer
Month	Į.	Amount
Jul-19	\$	4,908,914
Aug-19		3,329,068
Sep-19		2,984,246
Oct-19		4,542,973
Nov-19		3,923,852
Dec-19		2,955,798
Jan-20		4,976,295
Feb-20		3,201,784
Mar-20		3,183,252
Apr-20		3,608,054
May-20		3,850,036
Jun-20		3,850,036
	\$	45,314,308

Net Position

The data in this budget has been used to project net position for June 30, 2020, as shown in the table below.

Fund	ı	Net Position FY 2018	N	let Change	Projected Net osition FY 2019	ı	Net Change	rojected Net sition FY 2020
Revenue Fund	\$	22,232,203	\$	7,975,415	\$ 30,207,618	\$	(4,240,396)	\$ 25,967,222
Operation and Maintenance Fund		(18,534,624)		3,801,209	(14,733,415)		-	(14,733,415)
Debt Service Fund		29,871,387		(823,471)	29,047,916		10,018,467	39,066,384
Project Fund		456,376,017		20,966,384	477,342,401		232,770,000	710,112,401
Operating Reserve for Revenue Stability Fund		4,554,596		(54,596)	4,500,000		-	4,500,000
Renewal and Replacement Fund		-		-	-		-	-
Debt Service Reserve Fund		3,539,427		(42,427)	3,497,000		-	3,497,000
Operation and Maintenance Reserve Fund		-		-	-		-	-
Redemption Fund		-		-	-		-	-
Insurance Reserve Fund		-		-	-		-	-
Unrestricted Fund		-		-	-		-	-
Rebate Fund		-		-	-		-	-
Environmental Enforcement Fund		78,713		(7,800)	70,913		(7,800)	63,113
Net Position	\$	498,117,719	\$	31,814,714	\$ 529,932,433	\$	238,540,272	\$ 768,472,705

Significant changes in the net position are as follows:

Revenue Fund: The Revenue Fund net position is expected to increase by \$8.0 million or 35.9% from FY 2018 to FY 2019 due to the new Customer Service system implementation in January 2019 and higher receivables. The balance is projected to decrease by \$4.2 million or 14.0% from FY 2019 to FY 2020, as receivables return to pre-implementation levels.

Operation & Maintenance (O&M) Fund: The FY 2018 negative net position reflects the net pension liability recorded as a result of the implementation of GASB Statements 68 and 75. From FY 2018 to FY 2019 the O&M Fund net position is projected to increase by \$3.8 million due to the full funding of the non-union pension, the union pension and OPEB related deferred inflows and outflows. No change to the O&M Fund net position is projected between the FY 2019 and FY 2020 since the budget is balanced.

Debt Service Fund: The Debt Service Fund net position is projected to decrease by 2.8% in FY 2019 and increase FY 2020 by 34.5%. These changes are the net result of the annual outgoing transfer of prior year coverage to the Project fund and payment of principal less the transfer for the PUC restricted debt calculation.

Project Fund: In FY 2019, the Project Fund net position is projected to increase by 4.6% or \$21.0 million due to the \$45.0 million borrowing through RIIB. The net position is projected to increase by 45.5% or \$217.0 million in FY 2020, based on the projected \$284.5 million WIFIA borrowings from EPA and the projected project fund expense for FY 2020. The increase in net position is the result of the incoming transfers from the Debt Service Fund for prior year coverage, plus principal payments less the depreciation expense for the fiscal year.

Operating Reserve for Revenue Stability Fund: The PUC maximum cash balance allowed in this fund is \$4.5 million. The net position is returned to this level at fiscal year-end with the transfer of interest earnings to the Revenue Fund.

Renewal & Replacement Fund: This fund has no assets or liabilities and NBC does not plan on using this fund.

Debt Service Reserve Fund: NBC funded a Debt Service Reserve Fund related to the 2013 Series C Wastewater System Revenue Bonds in the amount of \$3.5 million. The net position is returned to this level at fiscal yearend with the transfer of interest earnings to the Revenue Fund.

Redemption Fund: This fund has no assets or liabilities and NBC does not plan on using this fund.

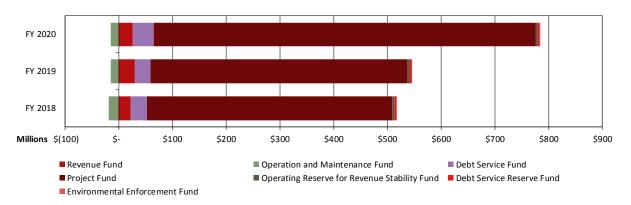
Insurance Reserve Fund: This fund has no assets or liabilities and NBC does not plan on using this fund.

Unrestricted Fund: This fund has no assets or liabilities and NBC does not plan on using this fund.

Rebate Fund: This fund has no assets or liabilities and NBC does not plan on using this fund.

Environmental Enforcement Fund: This fund is not impacted by activity in the budget. A \$7,800 decrease in net position is projected for FY 2019 and FY 2020 as no significant receipts are anticipated and the expense is projected to be at the same level as prior years.

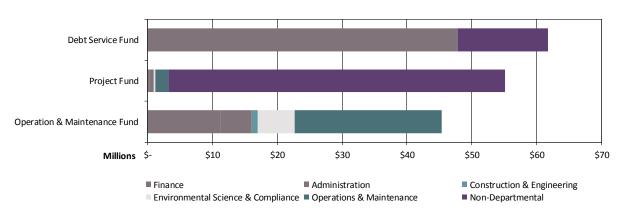
The year-end projected net position for FY 2018, FY 2019 and FY 2020 is shown in the chart below with the largest increase in both the fund and balance in the Project Fund.



The following serves as an overview, showing the relationship between major funds and Divisions / Sections.

Division / Section			peration & tenance Fund	P	roject Fund	D	ebt Service Fund		TOTAL
Administration									
Administration		\$	1,024,196	\$	10,000	\$	-	\$	1,034,19
Human Resources		·	721,030	·	, -	·	_	·	721,03
Legal			795,203		_		_		795,20
IT			2,279,204		585,000		_		2,864,20
	Subtotal		4,819,633		595,000		-		5,414,63
Construction & Engineering									
Construction			122,731		30,000		-		152,7
Engineering			793,474		10,000		-		803,4
	Subtotal		916,205		40,000		-		956,2
inance									
Finance			3,085,912		135,000		-		3,220,9
Accounting			819,164		35,000		-		854,1
Customer Service			2,737,593		41,000		-		2,778,5
Purchasing			200,703		-		-		200,7
General Services			4,410,442		125,000		47,816,624		52,352,0
	Subtotal		11,253,814		336,000		47,816,624		59,406,4
perations & Maintenance									
IM			1,945,161		90,000		-		2,035,1
Operations & Maintenance Services			1,187,700		120,000		-		1,307,7
Fields Point			12,324,725		890,000		-		13,214,7
Bucklin Point			7,135,956		936,200		-		8,072,1
	Subtotal		22,593,542		2,036,200		-		24,629,7
nvironmental Science & Compliance									
Technical Analysis & Compliance			803,499		-		-		803,4
Pretreatment			1,157,954		-		-		1,157,9
Lab			2,201,133		145,000		-		2,346,1
Environmental Monitoring			1,568,527		109,000		-		1,677,5
	Subtotal		5,731,113		254,000		-		5,985,1
Ion-Departmental									
Capital Improvement Program			-		51,330,376		-		51,330,3
Operating Capital Program			-		-		-		
	ccount		-		-		13,948,480		13,948,4
Transfer to Project Fund - Restricted A							FF0 000		FF0.0
Transfer to Project Fund - Restricted A Debt Service Payment Account/Other			-		-		550,000		550,0
Debt Service Payment Account/Other	Subtotal		-		51,330,376		14,498,480		550,00 65,828,8

FY 2020 Budget by Fund



RESOLUTION 2019:18

APPROVAL OF THE NARRAGANSETT BAY COMMISSION FISCAL YEAR 2020 BUDGET

WHEREAS, the Narragansett Bay Commission Board of Commissioners (Board) adopts an annual budget; and

WHEREAS, the Board has adopted and approved the FY 2021 – 2025 Capital Improvement Program (CIP) and the FY 2020 – FY 2025 Operating Capital Program (OCP); and

WHEREAS, the Finance Committee of the Board reviewed the Proposed Fiscal Year 2020 Budget in detail at the May 14, 2019 meeting;

WHEREAS, the Finance Committee and Board have reviewed the final Fiscal Year 2020 Budget;

NOW THEREFORE BE IT RESOLVED, that the Fiscal Year Budget is hereby approved as follows:

Revenue and Sources of Funds

User Fees	\$ 104,620,531
Pretreatment Fees	62,800
Septage Fees	335,000
Connection Permit Fees	172,580
Late Fees	800,000
Customer Service Fees	230,000
Renewable Energy Credits	419,000
Investment Income	280,000
Miscellaneous Non-Operating Revenue	159,500
Transfer from Revenue Fund Balance	-
Restricted Account - CIP	6,909,839
Restricted Account - OCP	3,261,200
Grant and Project Reimbursement Account	8,914,056
SRF Loan Proceeds	 36,056,481
Total Revenue and Source of Funds	\$ 162,220,987

Expense and Use of Funds

Personnel	\$ 25,737,917
Operating Supplies/Expense	18,111,200
Professional Services	1,465,190
Debt Service	47,816,624
Transfer to Project Fund - Restricted Account	13,948,480
Operating Capital Program (OCP)	3,261,200
Capital Improvement Program (CIP)	51,330,376
Debt Service Payment Account/Other	 550,000
Total Expense and Use of Funds	\$ 162,220,987

- 1. The Executive Director shall at all times seek to ensure that total operating and maintenance expense including debt service expense does not exceed \$93,130,931 for the period July 1, 2019 to June 30, 2020.
- 2. The number of full-time equivalent positions funded in the FY 2020 budget is 281. A list of the funded positions is included as part of this Resolution as Attachment 1.
- 3. Personnel Committee review and approval is required for the creation of new positions and the upgrading of existing positions not included in this budget. Finance Committee approval is also required if the action will result in a net increase in operating costs.
- 4. The Executive Director may post and fill vacancies of existing positions, modified positions or newly created positions included in this budget as well as positions added or modified in accordance with item 3 above.
- 5. The budget includes a 5.0% employer contribution to the non-union defined contribution retirement plan, funding of the employer share of the non-union defined benefit plan and an employer contribution to the union retirement plan at the rate established by the State Retirement Board. Budgeted operating and maintenance funds unspent at the end of the fiscal year may be used to increase the employer contribution to the non-union defined benefit plan as long the action does not impair NBC from meeting its coverage requirements.
- 6. The Executive Director shall report all purchase requisitions greater than \$10,000 for items included in the budget to the Finance Committee. The Executive Director shall present purchase requisitions greater than \$50,000 not included in this budget to the Finance Committee for approval.
- The Executive Director shall administer this budget consistent with the restricted accounts as so ordered
 by the Public Utilities Commission until such time as the restricted accounts are modified, adjusted or
 amended.
- 8. The Executive Director shall administer this budget consistent with the Trust Indenture and all Supplemental Trust Indentures.
- 9. The Executive Director is hereby authorized to expend funds on capital projects for preliminary planning, staff time and other services in order to assess project need, scope and feasibility prior to project review and approval by the Board for inclusion in the CIP and/or as separate stand-alone projects.
- 10. The Chief Financial Officer is hereby authorized to finance the FY 2020 Operating Capital Program (OCP) and capital projects included in the NBC's FY 2021 2025 Capital Improvement Program from the Project Fund-Restricted Account. Capital payments by month and source shall be included in the monthly financial report submitted to the Board.
- 11. The Chief Financial Officer may authorize changes to the FY 2020 Operating Capital Program as long as the total expenditures do not exceed the total amount approved for the budget year. Any changes to the FY 2020 Operating Capital Program shall be presented to the Finance Committee as part of the monthly financial report.
- 12. The Chief Financial Officer is hereby authorized to modify budgeted Capital Improvement Program (CIP) funding sources as required to meet CIP cash draw needs, funding restrictions or emergencies.

13.	financial statements, a deta operating budget transfers a	nall prepare and submit a monthly financial report which shall include monthly iled budget versus expense report, capital payments by month and source and changes to the OCP, and other related information. The monthly financial the Board and presented to the Finance Committee for review prior to a secting.
	ADOPTED ON:	
	SIGNED:	

POSITION	TITLE	FTE's	NON-UNION	UNION
Administra	ition			
EX003	Administrative Coordinator	1	NU	
EX010	Director of Administration	1	NU	
EX005	Environmental Education Coordinator	1	NU	
EX001	Executive Director	1	NU	
EX004	Public Affairs Manager	1	NU	
EX006	Public Affairs Specialist	1	NU	
271000	- abile / maile operation	6	_	
Human Res	sources			
HR006	Human Resources and Employee/Labor Relations Manager	1	NU	
HR004	Human Resources Clerk	1		U
HR003	Human Resources Representative/Benefits Coordinator	1	NU	
HR005	Human Resources Training Facilitator	1	NU	
HR007	Labor Relations Representative	1	NU	
HR002	Senior Human Resources Representative	1	NU	
	·	6	_	
Legal				
LE003	Chief Legal Counsel	1	NU	
LE005	Executive Paralegal	1	NU	
LE009	Executive Paralegal	1	NU	
LE007	Executive Paralegal II	1	NU	
LE008	General Counsel	1	NU	
LE001	Legal Counsel	1	NU	
LE004	Legal Counsel	1	NU	
		7		
Construction	on Services			
CG002	Construction Manager	1	NU	
CG006	Construction Office Coordinator	1	NU	
CG001	Director of Construction & Engineering	1	NU	
CG015	Engineering Construction Coordinator	1	NU	
CG010	Mechanical Inspector	1	NU	
CG007	Resident Representative	1	NU	
CG013	Resident Representative	1	NU	
CG017	Senior Resident Representative	1	NU	
CG018	Senior Resident Representative	1	NU	
		9		
Engineerin		1	NU	
EC007	CSO Program Manager	1	NU	
ECOOE	Engineering Manager	1	NU	
EC005	Environmental Engineer	1	NU	
EC004	Environmental Engineer	1	NU	
EC008	Facilities Engineer	1	NU	
EN012	Fiscal Coordinator	1	NU	
PU005	Office Administrator	1	NU	
EC006	Permits Coordinator	1	NU	
EC003	Principal Environmental Engineer	1	NU	
EC001	Principal Facilities Engineer	1	_ NU	
		10		

POSITION	TITLE	FTE's	NON-UNION	UNION
Finance				
FI001	Chief Financial Officer	1	NU	
FI005	Compliance Analyst	1	NU	
FI004	Financial Analyst	1	NU	
FI010	Programs Analyst	1	NU	
F1009	Rate Analyst	1	NU	
FI007	Senior Budget Analyst	1	NU	
FI013	Senior Capital Analyst	1	NU	
FI012	Senior Financial Analyst	1	NU	
A coountine	_	8		
Accounting AC001		1	NU	
	Accounting Manager			
AC015	Assistant Accounting Manager	1	NU	
AC011	Capital Accounting Assistant	1	NU	
AC006	Capital Principal Accountant	1	NU	
AC005	Payroll Administrator	1	NU	
AC004	Payroll Supervisor	1	NU	
AC007	Principal Accountant	1	NU	
AC002	Senior Fiscal Clerk	1	N	U
AC008	Staff Accountant	1	NU	
AC010	Staff Accountant	1 10	_ NU	
Informatio	n Technology			
IT015	Helpdesk 1	1	NU	
IT001	Information Technology Manager	1	NU	
T016	IT Administrative Assistant	1	NU	
IT007	Junior Network & Communications Administrator	1	NU	
T010	PC/Phone Support/Systems Administrator Specialist	1	NU	
IT014	Senior .Net Developer	1	NU	
IT005	Senior Applications System Supervisor	1	NU	
T008	Senior Database & Linux Administrator	1	NU	
IT002	Senior Network & Communications Administrator	1	NU	
T004	Senior Systems Administrator	1	NU	
T013	Senior Systems Development Programmer	1	NU	
IT012	Systems Design Programmer	1	NU	
		12		
Customer S		_		
CS030	Assistant Billing Supervisor	1	NU	
CS031	Assistant Customer Service Research Supervisor	1	NU	
CS032	Billing Analyst	1	NU	
CS033	Billing Analyst - Cash	1	NU	
CS027	Billing Supervisor	1	NU	
CS008	Billing Supervisor	1	NU	
CS028	Collections Analyst	1	NU	
CS029	Collections Analyst	1	NU	
CS025	Collections Supervisor	1	NU	
CS003	Customer Research Supervisor	1	NU	
CS004	Customer Service Analyst	1	NU	
CS005	Customer Service Analyst	1	NU	
CS001	Customer Service Manager	1	NU	

POSITION	TITLE	FTE's	NON-UNION	UNION
CS013	Customer Service Representative	1		U
CS014	Customer Service Representative	1		U
CS016	Customer Service Representative	1		U
CS017	Customer Service Representative	1		U
CS018	Customer Service Representative	1		U
CS020	Customer Service Representative	1		U
CS024	Customer Service Representative	1		U
CS026	Customer Service Representative - Fiscal Clerk	1		U
CS019	Customer Service Representative - Fiscal Clerk	1		U
CS006	Customer Service Support Supervisor	1	NU	
CS009	Field Investigator	1		U
CS011	Field Investigator	1		U
CS022	Fiscal Clerk - Customer Service	1		U
CS021	Senior Fiscal Clerk	1		U
		27	_	
Purchasing PU002	r Purchasing Coordinator	1	NILI	
	3	1	NU	
PU001	Purchasing Manager	2	_ NU	
Interceptor	r Maintenance			
IM002	Assistant Interceptor Maintenance Manager	1	NU	
IM027	Environmental Engineer	1	NU	
IM031	Instrumentation Engineer	1	NU	
IM004	Interceptor Maintenance Inspector	1	NU	
IM001	Interceptor Maintenance Manager	1	NU	
IM032	Interceptor Maintenance Supervisor	1	NU	
IM033	Interceptor Maintenance Supervisor	1	NU	
IM014	Operator II	1		U
IM019	Operator II	1		U
IM020	Operator II	1		U
IM021	Operator II	1		U
IM025	Operator II	1		U
IM015	Operator II	1		U
IM011	Operator III	1		U
IM012	Operator III	1		U
IM030	Operator III	1		U
IM029	Operator IV	1		U
IM005	Senior Technical Assistant	1	NU	
IM034	Technical Assistant	1	NU	
		19		
-	s & Maintenance Services			
EN015	Asset Management Administrator	1	NU	
EN014	Assistant Control Systems Administrator	1	NU	
EN013	Control Systems Administrator	1	NU	
EN016	Control Systems Associate	1	NU	
EN018	Control Systems Associate	1	NU	
EN001	Director of Operations & Maintenance	1	NU	
EN017	Technical Advisor for Operations	1	_ NU	
		7		

POSITION	TITLE	FTE's	NON-UNION	UNION
Field's Poir	nt			
FP002	Assistant Operations Manager	1	NU	
FP003	Clerk	1	-	U
FP063	Electrician	1		U
FP038	Electronics & Instrumentation Technician	1		U
FP070	Electronics & Instrumentation Technician	1		U
FP058	Fleet Mechanic	1		U
FP046	Inventory Control Clerk	1		U
FP047	Inventory Control Clerk	1		U
FP061	Lead Electrician	1		U
FP045	Maintenance Manager	1	NU	-
FP013	Maintenance Supervisor	1	NU	
FP073	Maintenance Supervisor	1	NU	
FP053	Mechanic I	1		U
FP054	Mechanic I	1		U
FP056	Mechanic I	1		U
FP057	Mechanic I	1		U
FP065	Mechanic I	1		U
FP541	Mechanic I	1		U
FP049	Mechanic II	1		U
FP050	Mechanic II	1		U
FP051	Mechanic II	1		U
FP066	Mechanic II	1		U
FP069	Mechanic II	1		U
FP008	Operations & Maintenance Coordinator	1	NU	O
FP005	Operations & Maintenance Technician	1	NU	
FP003	Operations & Manager	1	NU	
FP001	Operations Supervisor	1	NU	
FP010	Operations Supervisor	1	NU	
	·	1		
FP011 FP012	Operations Supervisor	1	NU	
	Operations Supervisor Operations Supervisor		NU	
FP015	·	1	NU	U
FP030	Operator I	1		
FP032	Operator I	1		U
FP034	Operator I	1		U
FP043	Operator I	1		U
FP044	Operator I	1		U
FP128	Operator I	1		U
FP129	Operator I	1		U
FP139	Operator I	1		U
FP025	Operator II	1		U
FP026	Operator II	1		U
FP027	Operator/HEO	1		U
FP016	Process Monitor	1		U
FP017	Process Monitor	1		U
FP018	Process Monitor	1		U
FP019	Process Monitor	1		U
FP020	Process Monitor	1		U
FP021	Process Monitor	1		U
FP023	Process Monitor	1		U

POSITION	TITLE	FTE's	NON-UNION	UNION
FP024	Process Monitor	1		U
FP074	Process Monitor	1		U
FP072	Senior Electrician	1		U
FP059	Senior Electronics & Instrumentation Technician	1		U
FP022	Senior Process Monitor	1		U
		54	_	-
Bucklin Poi	int			
BP055	Asset Management Assistant	1		U
BP040	Assistant Electronics & Instrumentation Technician	1		U
BP039	Assistant Maintenance Planner/Scheduler	1		U
BP041	Assistant Operations Manager	1	NU	
BP047	Clerk	1		U
BP031	Electrical Foreman	1		U
BP022	Electrician	1		U
BP032	Electrician	1		U
BP030	Electronics & Instrumentation Technician	1		U
BP021	Heavy Equipment Operator	1		U
BP033	Inventory Control Clerk	1		U
BP042	Maintenance Manager	1	NU	
BP023	Maintenance Planner/Scheduler	1		U
BP054	Maintenance Supervisor	1	NU	
BP024	Mechanic I	1		U
BP026	Mechanic I	1		U
BP029	Mechanic I	1		U
BP034	Mechanic II	1		U
BP035	Mechanic II	1		U
BP048	Mechanic II	1		U
BP103	Operations Foreman	1		U
BP001	Operations Manager	1	NU	
BP043	Operations Supervisor	1	NU	
BP044	Operations Supervisor	1	NU	
BP045	Operations Supervisor	1	NU	
BP046	Operations Supervisor	1	NU	
BP013	Operator I	1	-	U
BP016	Operator I	1		U
BP017	Operator I	1		U
BP025	Operator I	1		U
BP037	Operator I	1		U
BP519	Operator I	1		U
BP056	Operator I	1		U
BP057	Operator I	1		U
BP011	Operator II	1		U
BP012	Operator II	1		U
BP005	Process Monitor	1		U
BP005	Process Monitor	1		U
BP007	Process Monitor	1		U
BP008	Process Monitor	1		U
BP009	Process Monitor	1		U
BP059	Process Monitor	1		U
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Resolution 2019:18 FY 2020 Budgeted Positions

POSITION	TITLE	FTE's	NON-UNION	UNION
BP051	Process Monitor	1		U
BP052	Process Monitor	1		U
BP053	Process Monitor	1		U
BP049	Senior Electronics & Instrumentation Technician	1		U
BP004	Utility Crew Foreman	1		U
B1 004	Canty Crew Foreinan	47	_	Ü
Technical A	Analysis & Compliance			
PE001	Director of Environmental Science & Compliance	1	NU	
PE004	Environmental Compliance Technical Assistant	1	NU	
PE008	Environmental Compliance Technical Assistant	1	NU	
PE002	Environmental Coordinator	1	NU	
PE006	Environmental Scientist	1	NU	
PE011	Environmental Scientist	1	NU	
PE009	Environmental Sustainability Engineer	1	NU	
PE010	Safety Compliance Coordinator	1	NU	
PE013	Senior Environmental Scientist	1	NU	
PE007	Technical Analysis & Compliance Manager	1	NU	
. 2007	,	10	_	
Pretreatme	ent			
PT002	Assistant Pretreatment Manager	1	NU	
PT014	Pretreatment Clerk	1		U
PT015	Pretreatment Clerk	1		U
PT016	Pretreatment Clerk	1		U
PT004	Pretreatment Engineer	1	NU	
PT008	Pretreatment Engineer	1	NU	
PT001	Pretreatment Manager	1	NU	
PT009	Pretreatment Technician	1	NU	
PT010	Pretreatment Technician	1	NU	
PT011	Pretreatment Technician	1	NU	
PT012	Pretreatment Technician	1	NU	
PT013	Pretreatment Technician	1	NU	
PT003	Principal Pretreatment Engineer	1	NU	
PT018	Senior Pretreatment Technician	1	NU	
11010	Schol Fredeuthene Feeliheidh	14	_	
Laboratory	,			
LA002	Assistant Laboratory Manager	1	NU	
LA005	Biologist	1		U
LA008	Chemist	1		U
LA009	Chemist	1		U
LA015	Clerk	1		U
LA006	Environmental Chemist	1	NU	-
LA011	Environmental Chemist	1	NU	
LA011	Laboratory Manager	1	NU	
LA001 LA021	Microbiology Lab Supervisor	1	NU	
LA021 LA020	Quality Chemist	1	NU	
LA020 LA007	Sample Compliance Coordinator	1	NU	
	Senior Environmental Chemist	1		
LA004			NU	
LA003	Senior Organic Chemist	1	NU	11
LA012	Technician	1		U

Resolution 2019:18 FY 2020 Budgeted Positions

POSITION	TITLE	FTE's	NON-UNION	UNION
LA013	Technician	1		U
LA017	Technician	1		U
LA018	Technician	1		U
LA510	Technician	1	_	U
		18	_	
Environme	ntal Monitoring			
EM002	Assistant Environmental Monitoring Manager	1	NU	
EM017	Clerk	1		U
EM009	Environmental Monitor	1		U
EM011	Environmental Monitor	1		U
EM012	Environmental Monitor	1		U
EM013	Environmental Monitor	1		U
EM014	Environmental Monitor	1		U
EM015	Environmental Monitor	1		U
EM016	Environmental Monitor	1		U
EM021	Environmental Monitor	1		U
EM001	Environmental Monitoring Manager	1	NU	
EM023	LIMs Data Coordinator	1	NU	
EM007	Monitoring Field Supervisor	1	NU	
EM008	Monitoring Field Supervisor	1	NU	
EM506	Monitoring Field Supervisor	1	NU	
		15	_	
		281		

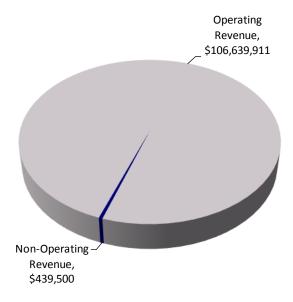
Operating Budget

NBC's FY 2020 Operating Budget is \$107.1 million, which is 3.6% or \$3.7 million higher than the prior year.

	FY 2018 Actual	FY 2019 Budget	FY 2020 Budget	Budgeted Difference
Revenue				
Operating Revenue				
User Fees	\$ 95,822,841	\$ 98,225,193	\$ 104,620,531	\$ 6,395,338
Pretreatment Fees	1,066,370	1,100,000	62,800	(1,037,200)
Septage Income	333,037	325,000	335,000	10,000
Connection Fees/Capacity Charge	123,319	130,000	172,580	42,580
Late Fees	796,362	800,000	800,000	-
Customer Service Fees	38,848	445,100	230,000	(215,100)
Renewable Energy Credits	152,338	393,099	419,000	25,901
Total Operating Revenue	 98,333,115	101,418,392	106,639,911	5,221,519
Non-Operating Revenue:				
Investment Income	199,406	200,000	280,000	80,000
Miscellaneous	114,951	187,800	159,500	(28,300)
Total Non-Operating Revenue	314,357	387,800	439,500	51,700
Transfer from Revenue Fund Balance	-	1,600,000	-	(1,600,000)
Total Revenue	\$ 98,647,472	\$ 103,406,192	\$ 107,079,411	\$3,673,219
Expense				
Operations and Maintenance Expense				
Personnel	\$ 23,581,657	\$ 25,509,996	\$ 25,737,917	\$ 227,921
Operating Supplies/Expense	15,125,106	16,468,700	18,111,200	1,642,500
Professional Services	1,196,940	1,689,650	1,465,190	(224,460)
Total Operations & Maintenance	39,903,703	43,668,346	45,314,307	1,645,961
Debt Service				
Principal	27,529,555	28,801,973	28,848,395	46,422
Interest	17,901,675	18,985,214	18,968,229	(16,985)
Total Debt Service	45,431,230	47,787,187	47,816,624	29,437
Transfer to Project Fund - Restricted Account	13,312,539	11,950,659	13,948,480	1,997,821
Total Expense	\$ 98,647,472	\$ 103,406,192	\$ 107,079,411	\$3,673,219

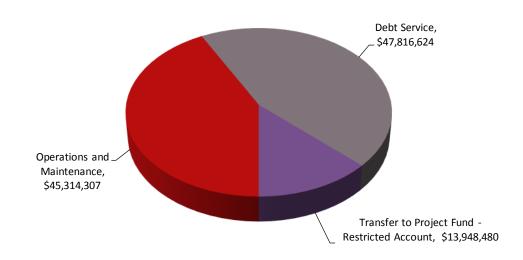
The FY 2020 budgeted operating revenue is \$5.2 million or 5.1% higher than last year's budget. Total projected revenue for FY 2020 is approximately \$107.1 million, with User Fees being the most significant source of revenue at \$104.6 million or 97.7%. User fee revenue reflects the 2.98% across-the-board rate increase effective January 1, 2019 and a projected 6.17% rate increase effective July 1, 2019. The chart below illustrates the sources of FY 2020 budgeted revenue.

Sources of Revenue



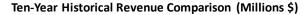
The largest category of expense in FY 2020 is Debt Service, which is approximately \$47.8 million and represents 44.7% of total uses of revenue. Budgeted Operations and Maintenance expense is \$45.3 million or 42.3%. The budget also includes a Transfer to the Project Fund – Restricted Account of \$13.9 million. The chart below illustrates FY 2020 budgeted uses of revenue.

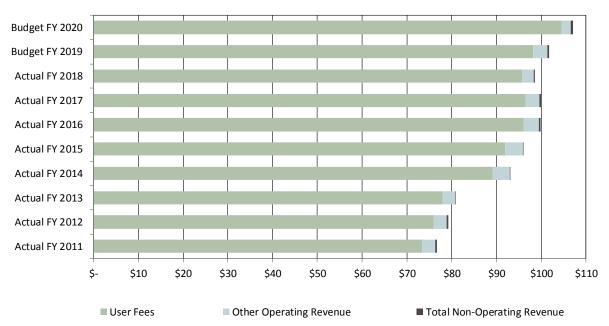
Uses of Revenue



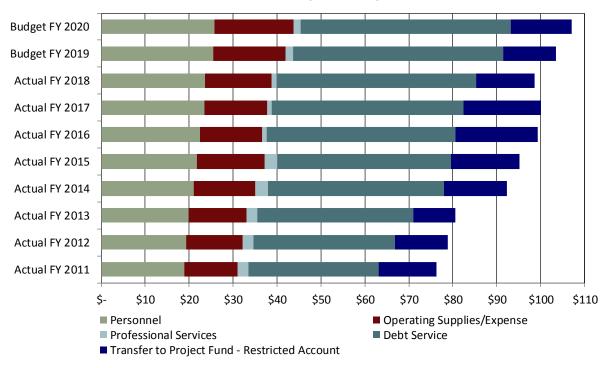
Historical Overview

Revenue has grown significantly over the past ten years, primarily to support the debt service and debt service coverage associated with NBC's capital program. The charts on this page represent a ten year historical overview of NBC's revenue and expense.



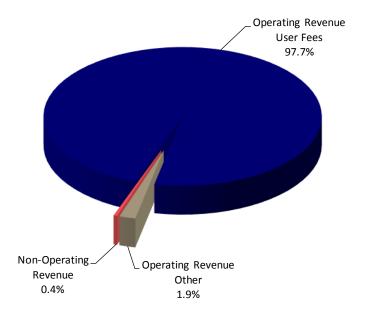


Ten-Year Historical Expense Comparison (Million \$)



Revenue Profile

Revenue by Category



Budgeted revenue in FY 2020 is approximately \$107.1 million or 3.6% more than FY 2019. This is the net effect of a 5.1% increase in operating revenue and a 13.3% increase in non-operating revenue. Historical and budgeted revenue is shown in the table below.

Revenue	FY 2017 Actual	FY 2018 Actual	FY 2019 Budget	FY 2020 Budget	Percent Change	Budgeted Difference
Operating Revenue			0			
User Fees	\$ 96,610,156	\$ 95,822,841	\$ 98,225,193	\$ 104,620,531	6.5%	\$ 6,395,338
Pretreatment Fees	1,090,541	1,066,370	1,100,000	62,800	(94.3%)	(1,037,200)
Septage Income	328,590	333,037	325,000	335,000	3.1%	10,000
Connection Fees/Capacity Charge	145,713	123,319	130,000	172,580	32.8%	42,580
Late Fees	874,396	796,362	800,000	800,000	0.0%	-
Customer Service Fees	7,128	38,848	445,100	230,000	(48.3%)	(215,100)
Renewable Energy Credits	581,007	152,338	393,099	419,000	6.6%	25,901
Total Operating Revenue	99,637,531	98,333,115	101,418,392	106,639,911	5.1%	5,221,519
Non-Operating Revenue						
Investment Income	80,876	199,406	200,000	280,000	40.0%	80,000
Miscellaneous	252,508	114,951	187,800	159,500	(15.1%)	(28,300)
Total Non-Operating Revenue	333,384	314,357	387,800	439,500	13.3%	51,700
Operating and Non-Operating Revenue	99,970,915	98,647,472	101,806,192	107,079,411	5.2%	5,273,219
Transfer from Revenue Fund Balance	-	-	1,600,000	-	(100.0%)	(1,600,000)
Total Revenue	\$99,970,915	\$ 98,647,472	\$ 103,406,192	\$ 107,079,411	3.6%	\$ 3,673,219

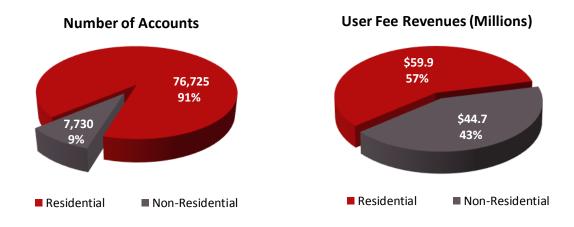
Of the \$107.1 million in total revenue, approximately \$104.6 million is from user fees, \$2.0 million is from other operating revenue and \$440 thousand is from non-operating revenue.

User Fees

In FY 2020, user fees represent 98.1% of the operating revenue and 97.7% of total revenue. On a year-to-year basis, budgeted user fees are approximately 6.5% higher than last year's budget due primarily to user fee rate increases designed to recover a higher cost of service and rate base adjustments.

NBC's user fee rate structure classifies users as residential, commercial or industrial. Residential customers include residential structures up to and including six dwelling units, and all condominiums regardless of the number of dwelling units. Commercial and industrial users, or the non-residential accounts, include residential structures containing more than six dwelling units, commercial, mixed-use and industrial properties. Approximately 91% of NBC's customer accounts are residential and 9% are non-residential.

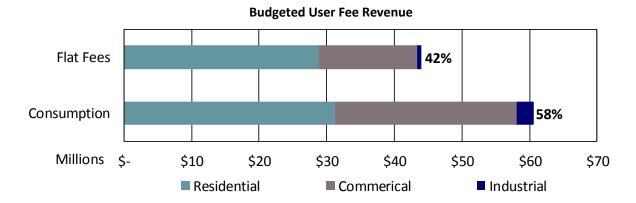
All customers are billed a flat fee and a consumption based fee. Residential customers are charged a flat fee based upon the number of dwelling units. Non-residential customers are charged a flat fee based upon meter size. Residential accounts generate 57% of the FY 2020 budgeted user fees and non-residential accounts generate 43%. The following charts show the residential versus non-residential split between the number of accounts and user fees billed.



The FY 2020 budgeted user fee revenue is \$104.6 million which is 6.5% higher than the prior year. This reflects a 2.98% across-the-board rate increase effective January 1, 2019 and a projected 6.17% revenue increase effective July 1, 2019.

	FY 2020 Budgeted User Fee Revenue							
	Co	nsumption	Flat Fees	Total				
Residential	\$	31,169,909	\$ 28,756,597	\$	59,926,506			
Commerical		26,864,998	14,555,891		41,420,889			
Industrial		2,534,862	738,274		3,273,136			
Total	\$	60,569,769	\$44,050,762	\$	104,620,531			

The chart below shows that consumption based revenue is 58% of the total user fee revenue.

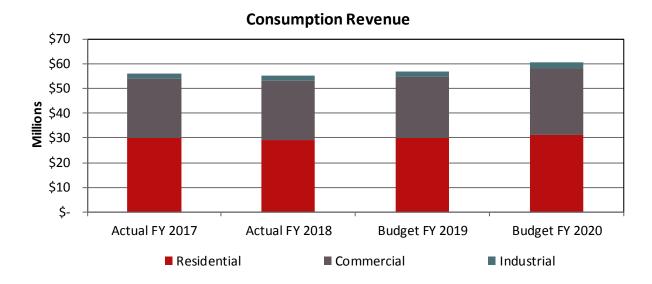


NBC's general rate case, resulting in new rates effective July 1, 2019 reflected updated consumption trends and the associated adjustments to the rate base. In particular, compared to the prior year, the budgeted consumption is 2.3% and 3.0% lower than FY 2019 for the residential and commercial classes respectively. Budgeted consumption is 7.4% higher than the prior year for the industrial class. Overall, total billable consumption for all three customer classes is 2.1% lower than the prior year.

Billable Consumption (HCF)

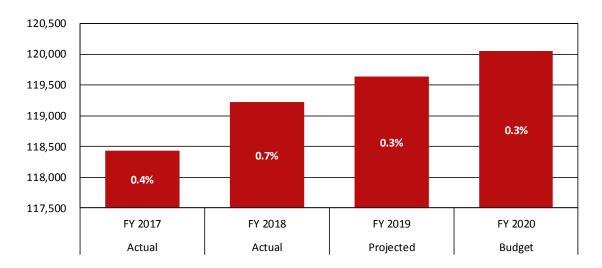
	Residential	Commercial	Industrial	Total
Actual FY 2017	8,457,830	4,755,534	610,116	13,823,480
Actual FY 2018	8,233,501	4,694,089	655,659	13,583,249
Budget FY 2019	8,347,801	4,813,604	627,422	13,788,827
Budget FY 2020	8,152,818	4,667,872	673,807	13,494,497

Despite the lower projected billable hcf, consumption based budgeted revenue is \$3.7 million or 6.5% higher than FY 2019, which reflects the impact of the two rate increases. In addition, NBC replaced the annual pretreatment permit fees with a new pretreatment permit application fee effective July 1, 2019. The annual pretreatment permit fee revenue of approximately \$1.0 million will now be recovered through the non-residential consumption fees.

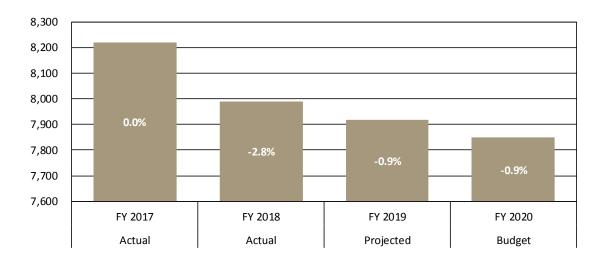


Flat fee revenue is based on the number of dwelling units for residential customers and billable meters by meter size for non-residential customers. FY 2020 budgeted flat fee revenue is 6.6% higher than the prior year due to the rate increases discussed earlier. In addition, the budget reflects rate base adjustments for growth in the number of residential dwelling units and a decline in both the number and size of non-residential meters. The charts below show the trends in the flat fee user base for residential and non-residential customers.

Residential Dwelling Units



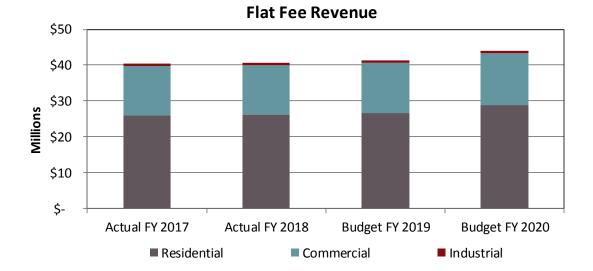
Non-Residential Meters



In FY 2020, budgeted flat fee revenue is \$2.7 million higher than FY 2019.

FY 2020 Budgeted Flat Fee Revenue

	Residential	Commercial	Industrial	Total
Actual FY 2017	\$ 26,057,961	\$ 13,674,958	\$ 705,464	\$ 40,438,382
Actual FY 2018	26,231,403	13,723,826	700,351	40,655,580
Budget FY 2019	26,696,443	13,936,677	707,159	41,340,279
Budget FY 2020	28,756,597	14,555,891	738,274	44,050,762



The table below shows that three of the last four rate increases have been for debt service and debt service coverage. The July 1, 2019 rate increase is for operations and maintenance expense and a rate base adjustment. The average annual residential fee will increase from \$470 in FY 2016 to \$518 in FY 2020.

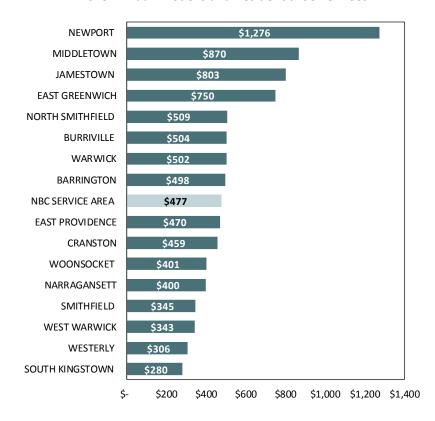
Rate History							
Effective Date	7/1/2015	7/1/2016	1/1/2019	7/1/2019*			
Type of Filing	Compliance	Compliance	Compliance	General			
Purpose	Debt	Debt	Debt	O&M/Rate Base			
Revenue Increase	2.29%	1.48%	2.88%	6.17%			
User Rate Increase	2.40%	1.53%	2.98%	5.41%			
Average Annual Residential Fee (150 gpd)	\$470	\$477	\$491	\$518			

^{*} Projected based upon Docket 4890 Settlement Agreement

The table below shows NBC's FY 2020 user rates for residential and non-residential users. At these rates, NBC's estimated average annual residential sewer user fee based on annual usage of 150 gallons per day is \$518.

NBC User Fees Effective 7/1/2019**						
Residential:		Non-Resid	ential:			
Customer Charge - based on number o	f Dwelling Units	Meter Size	Charge			
Residential Customer Charge:	\$238.23 /dwelling unit	5/8"	\$564			
Consumption Charge	\$3.823 /hcf	3/4"	\$846			
Total Annual Average Residential Rate	\$518	1"	\$1,410			
(Based on 73.2 hcf* or 150 gallons per	1 1/2"	\$2,820				
Non-Residential:		2"	\$4,512			
Customer Charge - Based on Meter Siz	e	3"	\$8,460			
Commercial Consumption Charge	\$5.742 /hcf	4"	\$14,100			
Industrial Consumption Charge	\$3.762 /hcf	6"	\$28,200			
*hcf = hundred cubic feet		8"	\$45,120			
**Projected Rate Filing		10"	\$64,860			

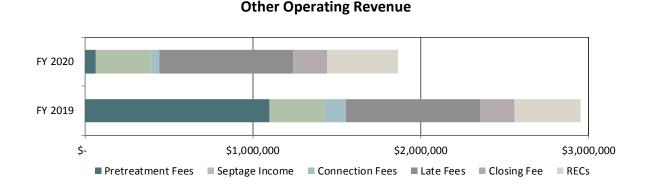
Since FY 2018, NBC has calculated the average annual residential sewer user fee based on consumption of 150 gallons per day, the updated actual average consumption per dwelling unit. The following table shows the results of NBC's 2018 annual sewer rate survey based upon usage of 150 gallons per day. The survey shows that despite NBC's large operation and significant capital improvements, NBC's average residential user rate of \$477 in 2018 was below the state average of \$541. NBC's projected rate of \$518 in 2019 is also below the 2018 state average.



2018 Annual Rhode Island Residential Sewer Fees

Other Operating Revenue

While NBC's primary source of operating revenue is from user fees, NBC has other operating revenue, which represents the remaining 1.9%. The chart below shows that the largest sources of other operating revenue are late fee revenue, REC revenue, septage fees, customer service fees, connection/capacity charge fees and pretreatment fees. This year's budget eliminates the annual pretreatment permit fee and replaces it with a pretreatment permit application fee based on a three tier system. Overall, budgeted other operating revenue is \$1,173,819 or 36.8% lower in FY 2020 than the prior year.



NBC is federally mandated to have a Pretreatment program that controls the discharge of metals and other toxic chemicals into the sewer system. To accomplish this, NBC requires certain users to obtain a discharge permit so that NBC can limit and monitor permitted discharges into the sewer system. As part of NBC's general rate case and beginning in FY 2020, the complex annual pretreatment permit fee will be replaced with a one-time pretreatment permit application fee. As a result, the FY 2020 budgeted Pretreatment fee revenue is \$1.0 million or 94.3% less than the prior year. The new three tier permit application fee structure is streamlined and as follows:

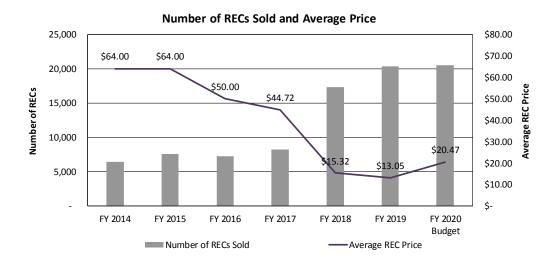
Pretreatment Permit Application Fee	
Tier I - Significant Industrial Users	\$500
Tier II - Non-Significant Industrial Users	\$300
Tier III - Commercial Users	\$140

^{*}Applicable to all users regulated under R.I.G.L. 46-25-25 and NBC's Rules and Regulations

This year's budget also reflects a modification to the sewer connection permit fee structure. The prior fee was based on residential or non-residential classifications. The new fee will be based on whether the new service is a direct or indirect connection. In addition, NBC will be recovering a capacity charge for the new connection that is based on the meter size. This new fee structure is projected to result in a net increase in revenue of \$42,580.

The FY 2020 budget also reflects a \$25,901 or 6.6% increase in Renewable Energy Credit (REC) revenue over the prior year. This is the net effect of a 0.9% increase in RECs generated due to new renewable energy sources and a projected 56.9% increase in the price per REC from \$13.05/kWh to \$20.47/kWh. Total REC revenue budgeted in FY 2020 is \$419,000.

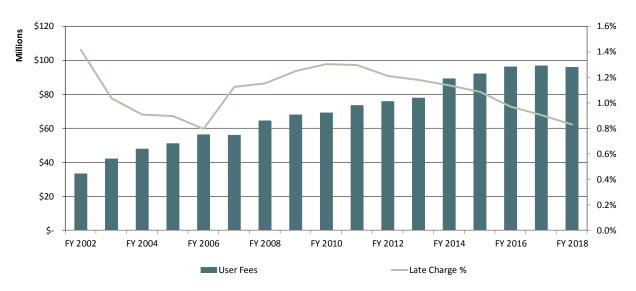
	Budget			
	FY 2019)	FY 2020	
Renewable Energy Credits	\$ 393,0	99 \$	419,000	



Late fees are assessed at a rate of 1.0% per month on any unpaid balance past due 30 days from the billing date. NBC suspended certain collection activities in FY 2019 during the implementation of the new customer service application which resulted in higher late fee revenue. NBC has since resumed collection activity and therefore the FY 2020 late fee revenue is expected to return to historical levels. As a result, FY 2020 budgeted late fee revenue remains unchanged from the prior year. The following chart shows how late fee revenue as

a percentage of operating revenue has declined over the past five fiscal years, an indication of effective collections.

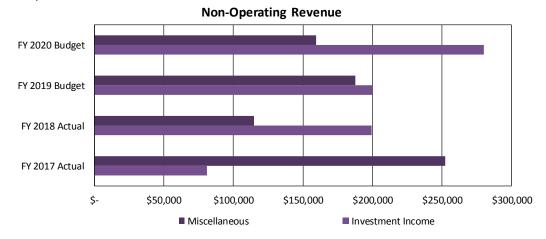
Late Fees as a Percentage of User Fee Revenue



Septage fees are paid by permitted haulers based upon the amount of septage that they discharge at NBC's Septage Receiving Station. In FY 2020 septage revenue is projected to increase by 3.1% from the FY 2019 budgeted level. Budgeted customer service fees are \$215,100 lower than the prior year primarily due to the elimination of a projected new revenue for collection posting notice fees. NBC did not receive approval from the PUC for this new fee.

Non-Operating Revenue

Non-Operating revenue includes investment income and miscellaneous revenue. Total Non-Operating revenue is projected to increase \$51,700 or 13.3% from the FY 2019 budget level. Investment income is budgeted \$80,000 higher than the prior year due to higher interest rates; however, this is offset by a 15.1% decline in miscellaneous revenue related to lower rental income. The following chart shows the non-operating revenue on a year-to-year basis.



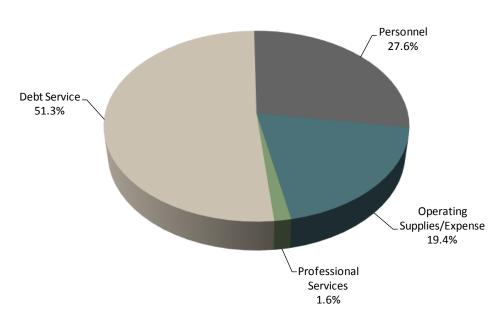
Transfer from Revenue Fund

The FY 2020 budget does not include a transfer from the Revenue Fund Balance.

Expense Profile

Expense by Element

The chart below shows the fiscal year 2020 operating expense by element. Debt Service accounts for more than half of the total Operating Budget, at 51.3%. The next largest expense category is Personnel, at 27.6% of the budget followed by Operating Supplies and Expense at 19.4% and Professional Services at 1.6%.

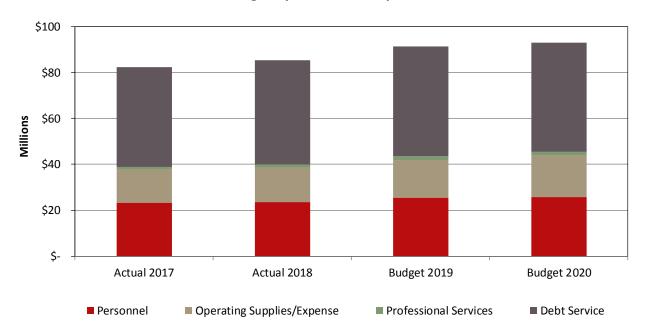


FY 2020 Operating Budget by Element of Expense

NBC's total Operating Budget expense for FY 2020 is \$93,130,931 excluding the Transfer to Project Fund - Restricted Account. This is an increase of approximately \$1.7 million or 1.8% from the approved FY 2019 budget. The following table and chart show historical and budgeted expense over a four-year period.

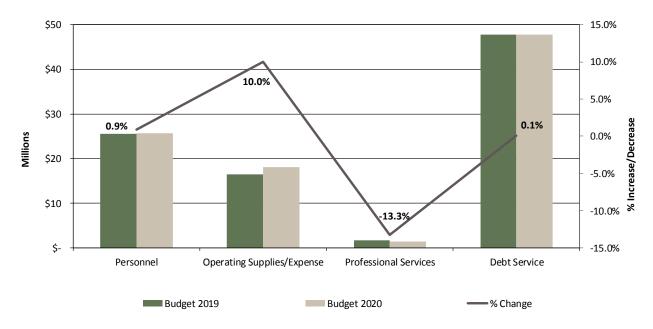
	Actual 2017	Actual 2018	Budget 2019	Budget 2020	FY 19 - FY 20 % Change	FY 2020 % Budget
Personnel	\$ 23,417,267	\$ 23,581,657	\$ 25,509,996	\$ 25,737,917	0.9%	27.6%
Operating Supplies/Expense	14,310,702	15,125,106	16,468,700	18,111,200	10.0%	19.4%
Professional Services	1,078,443	1,196,940	1,689,650	1,465,190	(13.3%)	1.6%
Subtotal	38,806,412	39,903,703	43,668,346	45,314,307	3.8%	48.7%
Debt Service	43,589,827	45,431,230	47,787,187	47,816,624	0.1%	51.4%
Total	\$ 82,396,239	\$ 85,334,933	\$ 91,455,533	\$ 93,130,931	1.8%	100.0%

Budget by Element of Expense



The graph below compares budgeted expense in FY 2019 to FY 2020 and illustrates the increases and decreases for each element of expense. Expense has increased in three of four categories over the prior year's budget. Personnel expense increased by 0.9% or \$227,921; Operating Supplies/Expense increased by 10.0% or \$1,642,500; Professional Services decreased by 13.3% or \$224,460; and Debt Service increased by 0.1% or \$29,437 from last year's budget.

FY 2019/2020 Budget Comparison of Expense by Element



Major highlights by element of expense are discussed in the sections that follow.

Personnel

Personnel expense consists primarily of employee wages and benefits, employer payroll taxes and unemployment expense. Personnel expense is budgeted net of capital reimbursements for staff working on capital projects. The FY 2020 budgeted personnel expense is \$25.7 million, which represents a net increase of approximately 0.9% or \$227,921 over the prior year.

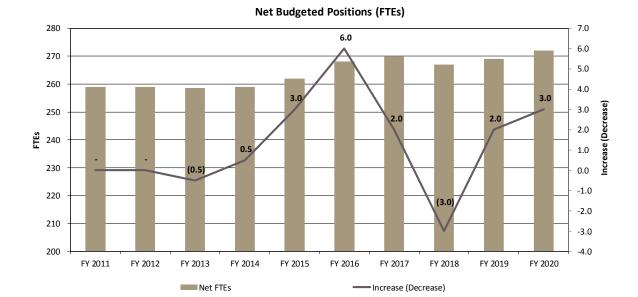
The NBC employes non-union employees and union employees. The NBC's union employees are members of either the Rhode Island Laborers' District Council Public Service Employees' Local 1033 of the Laborers' International Union of North America (LIUNA), American Federation of Labor - Congress of Industrial Organizations (AFL-CIO), or of the Rhode Island Council 94, American Federation of State, County and Municipal Employees (AFSCME), AFL-CIO, Local 1010 and Local 2884.

With respect to salaries and wages, this year's budget includes contracted step increases and the COLA of 2.5% for union employees in accordance with the second year of the three-year CBA contract. Salaries for non-union employees reflect comparable merit increases. FY 2020 budgeted overtime for union and non-union employees, is \$27,000 and \$2,500 higher than FY 2019 respectively.

Budgeted FTEs

The total number of FTEs included in the FY 2020 budget is 281, which is six more than the prior year budget and includes the Executive Paralegal position that was authorized last year subsequent to the adoption of the FY 2019 Budget. Budgeted turnover is 9.0 FTEs which is three more than the prior year budget. The net result is an increase of 3.0 FTEs or 272 funded FTEs.

Program	FY 2011	FY 2012	FY 2013	FY2014	FY2015	FY2016	FY 2017	FY2018	FY2019	FY2020
Administration	8	8	8	8	8	8	8	8	8	6
Human Resources	4	4	4	4	4	4	4	4	4	6
Information Technology	11	11	12	12	12	12	12	12	12	12
Legal	5	5	5	5	5	5	5	5	6	7
Construction	12	12	13	13	13	11	11	10	10	9
Engineering	-	-	-	-	-	-	-	6	7	10
Finance	5	5	5	5	5	5	5	6	7	8
Accounting	10	10	10	10	10	10	10	10	10	10
Customer Service	24	24	24	24	24	25	25	25	25	27
Purchasing	4	4	4	4	4	4	4	3	3	2
Interceptor Maintenance	22	21	20	20	20	20	20	18	20	19
Operations & Maintenance Services	10	9	8	9	9	9	9	7	6	7
Field's Point	56	58	57	57	59	59	59	54	54	54
Bucklin Point	32	33	33	34	35	43	45	45	47	47
Technical Analysis & Compliance	5	5	5	5	5	5	5	4	4	10
Pretreatment	15	14	14	14	14	14	14	14	14	14
Laboratory	16	16	16	16	17	17	17	17	17	18
Environmental Safety & Technical Assistance	4	4	4	4	4	4	4	4	4	-
Environmental Monitoring	17	17	17	17	17	17	17	17	17	15
Total FTEs	261	261	261	261	265	272	274	269	275	281
Less: Turnover	(2.0)	(2.0)	(2.5)	(2.0)	(3.0)	(4.0)	(4.0)	(2.0)	(6.0)	(9.0)
Net Budgeted FTEs	259	259	259	259	262	268	270	267	269	272



A number of position changes and reallocations were authorized during the last year and those changes are reflected in this budget. The FY 2020 budget reflects changes to the organizational chart effective July 1, 2019 as well as funding for a number of proposed non-union grade changes.

Reorganization

This year's operating budget reflects the merger of the Water Quality & Compliance section and the Environmental Safety & Technical Assistance section into a new Technical Analysis & Compliance section. The Environmental Monitoring & Data Analysis section was renamed the Environmental Monitoring section. Two positions were transferred to the Engineering section for the facilities management function including the Facilities Management Administrator position from Purchasing and the Fiscal Coordinator position from Operations & Maintenance. Reorganization of duties also resulted in the unfunding of two positions including the CSO Construction Manager in the Construction Services section and the Operator IV in the Interceptor Maintenance section. The FY 2020 budget reflects changes to the organizational chart effective July 1, 2019 as well as funding for a number of proposed non-union grade changes.

New Positions

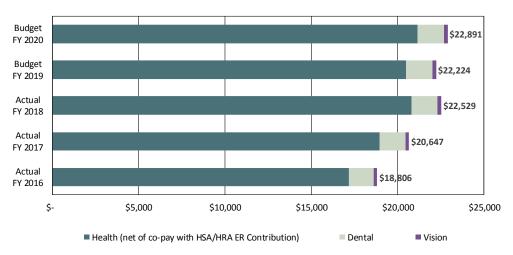
The FY 2020 Budget reflects seven new positions to address staffing needs. Two new positions, a Technical Advisor for Operations and a Control Systems Associate in Operations & Maintenance are needed to provide technical assistance to ensure permit compliance. The budget also includes a new Facilities Engineer position in the Engineering section to assist with the consolidated facilities management responsibilities. The Finance section has a new Senior Financial Analyst to support rate and debt related activities. The Customer Service section budget includes two new positions, a Billing Analyst and a Billing Analyst — Cash to support the high volume of customer service activity. Lastly, a new Microbiology Lab Supervisor position is budgeted to oversee new permit requirements at the Lab.

FY 2019 Change	Cost Center
Executive Paralegal	Legal
Title of Unfunded Position	Cost Center
CSO Construction Manager	Construction Services
Operator IV	Interceptor Maintenance
Title of New Position	Cost Center
Technical Advisor for Operations	Operations & Maintenance
Control Systems Associate	Operations & Maintenance
Facilities Engineer	Engineering
Senior Financial Analyst	Finance
Billing Analyst	Customer Service
Billing Analyst - Cash	Customer Service
Microbiology Lab Supervisor	Laboratory

Health, Dental and Vision Benefits

Health, dental and vision benefits are budgeted based on actual enrollment and a weighted average for unfilled positions. The FY 2020 budget reflects an increase of 0.6% to the health insurance budgeted line item. This is the result of the net increase in budgeted FTEs and a higher budgeted health insurance premium. In FY 2020, NBC will offer a HDHP with employer funding up to \$1,800 (individual) and \$3,600 (family) of a Health Reimbursement Arrangement. As is shown in the chart below, the budgeted health insurance premium for family coverage is higher by 3.8% and the dental and vision premiums remain unchanged from the prior year.





The FY 2020 Budget includes funding for the wellness initiative program offered by NBC that encourages employees to participate in wellness activities. Dental and vision insurance premiums are unchanged from FY 2019. There is a 2.0% increase in the non-union Long-Term Disability insurance premium over the prior year level. The budgeted benefits comparison for a family plan is shown in the following table.

Healthcare Benefits	Actual FY 2016		Actual FY 2017		Actual FY 2018		Budget FY 2019		Budget FY 2020	
Health*	\$ 17,176	\$	18,942	\$	20,802	\$	20,497	\$	21,164	
Dental	1,435		1,510		1,510		1,510		1,510	
Vision	 195		195		217		217		217	
Total	\$ 18,806	\$	20,647	\$	22,529	\$	22,224	\$	22,891	

^{*} Net of employee premium co-payment with HSA/HRA employer contribution

Retirement

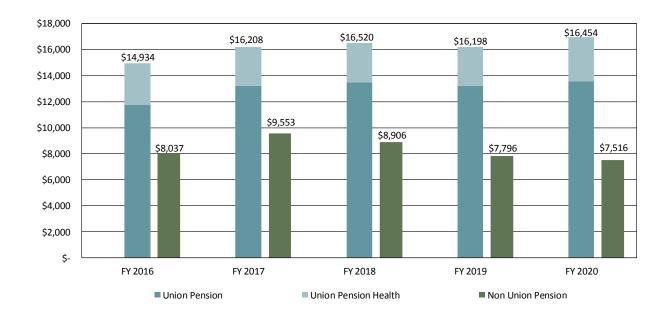
Union employees participate in the Employees' Retirement System of Rhode Island (ERSRI). ERSRI sets the annual employer contribution rate for both the pension and retiree health benefits. The FY 2020 employer contribution to the union pension and retiree health benefits increased to 26.39% and 6.65% respectively from the FY 2019 budget rates.

Other Benefits:	Actual FY 2016	Actual FY 2017	Actual FY 2018	Budget FY 2019	Budget FY 2020
State Retirement (Union)	24.64%	26.34%	26.34%	26.34%	26.39%
Non-Union Retirement	10.00%	10.00%	10.00%	10.00%	10.00%
FICA	6.20%	6.20%	6.20%	6.20%	6.20%
Medicare	1.45%	1.45%	1.45%	1.45%	1.45%
Retirement Health (Union)	6.75%	5.97%	5.97%	5.97%	6.65%

NBC's non-union employees participate in a defined contribution plan and a defined benefit plan which are administered by NBC. The FY 2020 budget for non-union retirement expense is 10.0% of the budgeted non-union salaries and wages. The non-union defined benefit plan as the plan fiduciary net position as a percentage of total pension liability was 100.95% as of June 30, 2018.

The following chart shows that the average employer retirement contribution per FTE for union employees is more than double that of non-union employees in FY 2020.

Average Budgeted Pension and Retiree Health Benefit Expense per FTE



Operating Supplies and Expense

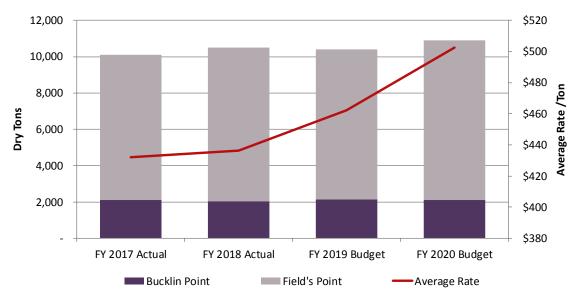
Operating Supplies and Expense (OSE) represent 16.9% of the total FY 2020 Operating Budget. On an ongoing basis, the largest operating expense is related to the wastewater treatment processes and includes biosolids disposal, utilities, chemicals, repairs to buildings and structures, maintenance contracts and service agreements. Other large expense is for insurance and workers' compensation expense. The FY 2020 OSE budget increased 10.0% or \$1,642,500 from the FY 2019 budget.

Large Operating Supply and Expense

Biosolids

Approximately 30.3% of NBC's FY 2020 budgeted OSE is for biosolids disposal at the WWTFs. The FY 2020 budget reflects a projected increase in the contracted biosolids rate of 3.0% and a rule of law price change of \$24.86/dry ton for an increase of approximately \$40.21 per dry ton over the prior year. The number of budgeted dry tons is 513 higher than the prior year based on a 12-month moving total. Overall, the FY 2020 biosolids expense is \$676,054 greater than the FY 2019 budgeted level. The following chart illustrates the historical and budget data for biosolids dry ton production and average disposal rates.

Biosolids Dry Tons and Disposal Rate



Electricity and Renewable Energy

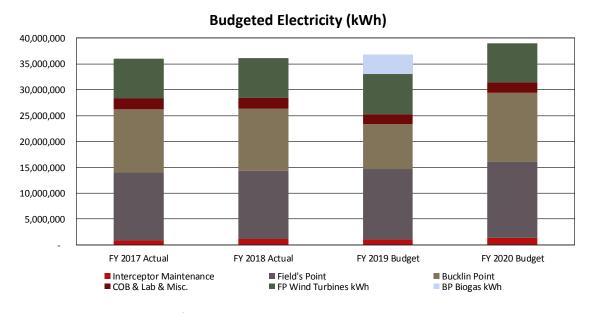
Electricity Expense

The FY 2020 electricity budget is a complex calculation that takes into consideration NBC's renewable energy sources. The first step is projecting the total number of kWh that are to be used in the budget year. The FY 2020 budgeted electricity use is based upon the following assumptions:

- Upward trend in electricity use with FY 2019 projected use 967,855 kWh more than budgeted
- Biogas Reuse production will be zero facility not yet operational
- Field's Point Wind Turbine Production 7,613,237 kWh based on a 4 year average (FY 2016-FY 2018 actual and FY 2019 projected production)

		kWh			
Facility	FY 2017	FY 2018	FY 2019	FY 2020	Budgeted
Facility	Actual	Actual	Budget	Budget	Difference
Interceptor Maintenance	966,408	1,137,663	1,033,209	1,336,374	303,165
Field's Point	13,013,036	13,191,979	13,602,302	14,771,143	1,168,841
Bucklin Point	12,304,000	12,042,000	8,736,600	13,271,914	4,535,314
COB & Lab & Misc.	2,002,229	2,036,057	1,918,884	2,022,646	103,762
Purchased kWh	28,285,673	28,407,699	25,290,995	31,402,077	6,111,082
FP Wind Turbines kWh	7,747,293	7,772,190	7,782,148	7,613,237	(168,911)
BP Biogas kWh		-	3,682,400	-	(3,682,400)
"Behind the Meter" kWh	7,747,293	7,772,190	11,464,548	7,613,237	(3,851,311)
Total kWh	36,032,966	36,179,889	36,755,543	39,015,314	2,259,771

As is shown in the table above and the chart below, the FY 2020 budget is based on usage of 39,015,314 kWh which is 2,259,771 kWh or 6.1% more than the prior year budget.



The next step is the calculation of the electricity expense. The FY 2020 budget incorporates the electricity expense impacts of NBC's renewable energy projects. The location of the renewable energy source impacts how NBC realizes the resulting financial benefit. There are differences between the two types of renewable energy resource facilities. Specifically, "Behind the Meter" projects reduce NBC's purchase of electricity whereas "Net-Metered" projects reduce NBC's electricity expense through the application of Net Metering Credits (NMC). The following table highlights some of the distinctions.

Budgetary Impact of Renewable Energy Resources									
"Behind the Meter" Projects	"Net Metered" Projects								
Field's Point Wind Turbines	WED Turbines								
Bucklin Point Biogas Reuse	WED PPAs								
Energy produced and used on-site	Energy produced off-site and net metered								
Reduces kWh purchased	Generates Net Metering Credits (NMC)								
Reflected in budget as reduction in purchased kWh	NMC applied to National Grid Bill								
NBC saves supply, distribution and related costs	75% of PPA Generated NMC Paid to PPA								

To determine the electricity expense, electricity produced by "Behind the Meter" sources is deducted from the total projected kWh use in the budget year. This year's budget reflects 3.9 million kWh less "Behind the Meter" production since the Biogas Reuse Facility is not operational and the budget reflects purchased electricity of 31.4 million kWh. The budgeted electricity supply rate is \$0.065/kWh which is 13.1% lower than the prior year. As is shown below, the FY 2020 budgeted electricity expense is \$4.2 million, which is 16.4% or \$596,009 more than the prior year.

FY 2020 Electricity Expense											
	C	OB/WQSB		terceptor aintenance	Fie	eld's Point	's Point Bucklin Point			Total	
kWh Purchased		2,022,646		1,336,374		6,736,393		13,271,914		31,402,077	
Fixed Annual Customer Charge	\$	13,210	\$	17,939	\$	13,210	\$	13,210	\$	70,777	
Supply and Delivery Composite Rate		0.1197		0.1759		0.1302		0.1206			
Supply and Delivery		242,090		235,096		876,742		1,599,929		3,990,822	
Subtotal	\$	255,300	\$	253,035	\$	889,951	\$	1,613,139	\$	4,061,599	
Rhode Island Gross Earnings Tax (RIGET)		10,637		10,543		37,081		67,213		169,231	
with RIGET	\$	265,938	\$	263,578	\$	927,032	\$	1,680,352	\$	4,230,831	

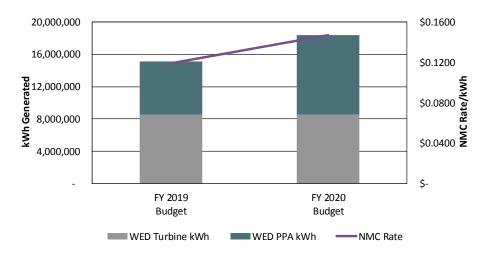
Net Metering Credits (NMC) and Power Purchase Agreements (PPA)

The NBC owns three off-site wind turbines and retains 100% of the NMC credits generated from those facilities. In addition, NBC has PPAs for two solar facilities and one wind facility that also generate NMC and are located off-site. NBC retains 25% of the NMC generated from those facilities and pays the contractor 75% of the NMC.

As is shown in the following table, the FY 2020 budgeted kWh production from the net-metered resources is 18.4 million kWh which is 21.7% or 3.3 million kWh more than FY 2019. The FY 2020 budgeted NMC rate is 23.6% higher than the prior year at \$0.147/kWh. The FY 2020 budgeted NMC are \$2.7 million which is \$0.9 million or 50.4% higher than the prior year. Of this amount, the budgeted NMC retained by NBC is \$400 thousand or 33.5% more than last year and the PPA payable is \$500 thousand or 85.4% higher than last year. Overall, this will result in a net reduction in budgeted operating supplies and expense of \$1.6 million.

Net Metering Credits kWh		FY 2019 Budget	FY 2020 Budget			
WED Turbine kWh		8,520,487	8,	508,726		
WED PPA kWh		6,562,430	9,	842,397		
Total NMC kWh		15,082,917	18,	351,123		
NMC Rate	\$	0.1189	\$	0.1470		
Total NMC Account 54091	\$	1,793,358	\$2,	697,615		
PPA Payable Account 54095 Retained by NBC	\$ \$	585,205 1,208,153		.085,124 .612,491		

Budgeted Net Metering Credit kWh and Rate

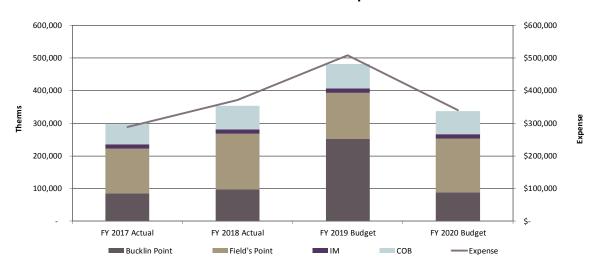


Natural Gas

The FY 2020 budgeted natural gas represents 1.9% of the FY 2020 OSE budget. The budgeted amount of \$340,620 is approximately 33.0% lower than the prior year. The lower budgeted amount is based on a 24-month average usage with no additional budgeted therms for the biogas reuse facility at Bucklin Point, since the facilities start date is yet to be determined. The budget also reflects a 4.2% decrease in the budgeted rate per therm to \$1.010 per therm.

Therms	F	Y 2017	FY 2018	ı	FY 2019	ı	FY 2020	E	Budgeted
menns		Actual	Actual		Budget		Budget	C	ifference
Field's Point		137,150	171,847		141,536		164,405		22,869
Bucklin Point		84,471	96,320		251,510		88,217		(163,293)
IM		13,308	12,790		13,992		13,779		(213)
COB		62,237	71,890		74,668		70,807		(3,861)
Therms		297,166	352,847		481,706		337,208		(144,498)
Expense	\$	288,322	\$ 371,847	\$	508,051	\$	340,620	\$	(167,431)
Rate per Therm	\$	0.970	\$ 1.054	\$	1.055	\$	1.010	\$	(0.045)

Natural Gas Use and Expense



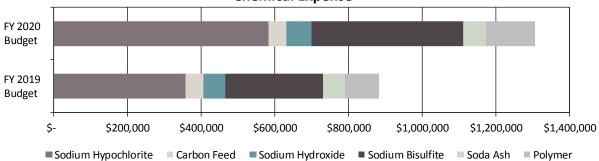
Chemicals

Chemical expense represents approximately 7.2% of the FY 2020 OSE budget. Budgeted chemical expense is \$1,307,378 in FY 2020 and includes increased chemical usage required to meet the new RIPDES discharge permit limits. Budgeted chemical use is higher for four of six chemicals and this year's budget reflects a rate increase for five out of six chemicals. As a result, the budget is \$423,642 or 47.9% higher than the prior year. The table below shows the change in budgeted chemicals compared to the prior year.

Chemical Quantity and Expense

Chemical	FY 2019	FY 2020	Percent
	Budget	Budget	Change
Sodium Hypochlorite (Gallons)	688,124	846,047	22.9%
Sodium Bisulfite (Gallons)	236,613	335,641	41.9%
Sodium Hydroxide (Gallons)	34,754	34,754	0.0%
Carbon Feed (Gallons)	27,081	27,081	0.0%
Polymer-Liquid (Gallons)	52,500	59,641	13.6%
Polymer-Powder (Lbs.)	18,000	30,641	70.2%
Soda Ash (Tons)	135	135	0.0%
Chemical Expense	\$ 883,736	\$ 1,307,378	47.9%





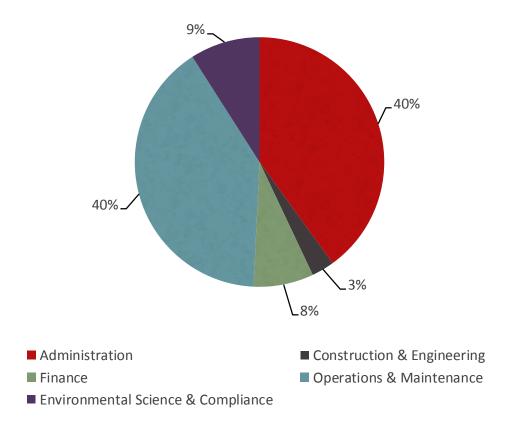
FY 2020 Budget									
	Quantity		Rate	Total					
Field's Point									
Sodium Hypochlorite	785,712	\$	0.6890	\$	541,356				
Sodium Bisulfite	302,325		1.2300		371,860				
Sodium Hydroxide	34,754		1.9878		69,084				
Carbon Feed	25,105	_	1.7600		44,185				
Subtotal Field's Point				\$	1,026,485				
Bucklin Point:									
Sodium Hypochlorite	60,335	\$	0.6890	\$	41,571				
Sodium Bisulfite	33,316		1.2300		40,979				
Carbon Feed	1,976		1.7600		3,478				
Polymer-Liquid	59,641		1.2950		77,235				
Polymer-Powder	30,641		1.8500		56,686				
Soda Ash	135	_	451.44		60,944				
Subtotal Bucklin Point		-		\$	280,893				
Total Chem	\$	1,307,378							

Maintenance Contracts

Maintenance contract expense represents approximately 8.1% of the FY 2020 OSE budget. The FY 2020 budget for maintenance contract expense has increased by approximately 42.9% or \$438,628 on a year-to-year basis. This reflects new maintenance contracts, the transition to software subscriptions and price increases to existing contracts.

	FY 2019 Budget		FY	2020 Budget	Budgeted Difference		
Maintenance Contracts	\$	1,022,811	\$	1,461,439	\$	438,628	

The graph below shows the maintenance contracts expense by Division. The Operations & Maintenance Division represents the largest expense at \$587,452 and includes new maintenance and support for the Bucklin Point WWTF turbo blowers and generator maintenance and support for both WWTFs. The Administration Division is budgeted at \$585,092 and includes new application support for the Laboratory Information System and the transition to software subscriptions. The Construction & Engineering Division includes contracts related to the transfer of the facilities management function to this division in FY 2020 totaling \$42,958. Lastly, the Finance Division and Environmental Science and Compliance Division total \$245,937. These include support for the new Customer Service Application and maintenance, support and calibration for critical lab equipment.



Service Agreements

Service agreement expense represents approximately 2.2% of the FY 2020 OSE budget. Approximately, 87.5% of the FY 2020 budget for service agreement expense includes electrical testing at both WWTFs. As part of NBC's asset management program, electrical testing is conducted on all transformers, motors and underground high power voltage lines to ensure safe and continuous operation of the facilities.

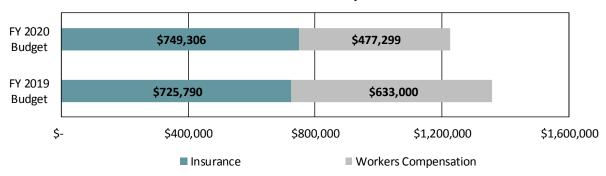
Service Agreement Expense

Contract		Y 201 9	ı	Y 2020	Difference		
		Budget		Budget			
Field's Point Electrical Testing	\$	177,352	\$	196,972	\$	19,620	
Bucklin Point Electrical Testing		147,879		148,003		124	
Other		102,000		49,386		(52,614)	
Total Expense	\$	427,231	\$	394,361	\$	(32,870)	

Insurance and Workers' Compensation

Insurance and Workers Compensation expense represents 6.8% of the FY 2020 OSE budget. The FY 2020 budgeted amount of \$1.2 million is approximately 9.7% or \$131,771 lower than the FY 2019 budget. This year's budget reflects increased policy premiums for insurance and a reduction in the workers' compensation premium. The following graph shows the total budgeted insurance and workers compensation expense on a year-to-year basis.

Insurance & Workers Compensation

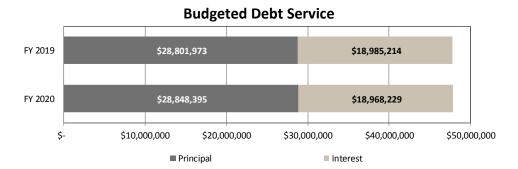


Professional Services comprise 3.2% of the total O&M expense and the FY 2020 budget is \$224,460 or 13.3% lower than the FY 2019 budget. This includes a decrease in funding for the PUC regulatory assessment fee, legal fees and other services.

Professional Services Expense	FY 2019 Budget			FY 2020 Budget	Variance		
Regulatory	\$	642,850	\$	579,000	\$	(63,850)	
Mgmt/Audit		458,000		364,000		(94,000)	
Other		588,800		522,190		(66,610)	
Total Professional Services	\$	1,689,650	\$	1,465,190	\$	(224,460)	

Debt Service

Debt service is the largest element of expense in NBC's FY 2020 budget, representing 44.7% of the total budget. Budgeted debt service in FY 2020 is \$47.8 million which is 0.06% more than the prior year. The higher debt service is the result of new interest payments which is offset by lower interest payments related to the earlier SRF bond issues as they near maturity.



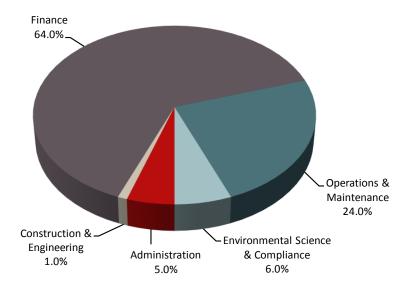
The following table shows budgeted debt service principal and interest payments for FY 2020 to support wastewater treatment and collections.

Debt S	ervic	e Fiscal Yea	r 20	20	
Issue		Interest		Principal	Total
RIIB SRF Loans					
1997 Series - \$8.150M	\$	3,410	\$	561,372	\$ 564,782
1999 Series - \$23.955M		54,334		1,220,000	1,274,334
2001 Series - \$57.0M		188,939		2,750,000	2,938,939
2002 Series - \$57.0M		175,576		3,341,311	3,516,887
2003 Series - \$40.0M		254,455		2,155,000	2,409,455
2004 Series B - \$40.0M		265,697		3,237,000	3,502,697
2005 Series B - \$30.0M		174,980		1,589,000	1,763,980
2006 Series A - \$30.0M		184,088		1,556,000	1,740,088
2007 Series B - \$25.0M		211,455		1,357,000	1,568,455
2009 Series A - \$55.0M		950,705		2,599,799	3,550,504
2010 Series A - \$2.0M		26,108		80,660	106,768
2010 Series B - \$20.0M		408,533		927,000	1,335,533
2011 Series A - \$30.0M		648,511		1,258,513	1,907,024
2012 Series A - \$25.75M		502,862		1,140,663	1,643,525
2013 Series B - \$25.0M		494,386		1,108,402	1,602,788
2014 Series A - \$45.0M		1,055,819		1,931,000	2,986,819
2015 Series B - \$41.7535M		1,155,152		1,058,675	2,213,827
2016 Series A - \$23.0M		483,605		977,000	1,460,605
2019 Series A - \$35.0M		381,113		-	381,113
2019 Series B - \$10.0M		158,902		-	158,902
2020 Series A - \$50.0M		500,000			500,000
Subtotal RIIB SRF Loans		8,278,630		28,848,395	37,127,025
Revenue Bonds					
2008 Series A - \$66.0M		1,979,899		-	1,979,899
2013 Series A - \$71.48M		3,136,650		-	3,136,650
2013 Series C - \$34.97M		1,656,550		-	1,656,550
2014 Series B - \$39.82M		1,944,400		-	1,944,400
2015 Series A - \$40.085M		1,972,100		-	1,972,100
Subtotal Revenue Bonds		10,689,599		-	10,689,599
Total	\$	18,968,229	\$	28,848,395	\$ 47,816,624

For more information related to financing and debt service, please refer to the CIP Impact and Long-Term Plan in this document.

Expense by Division

NBC is organized into five Divisions. The graph below depicts the percentage of the FY 2020 budget that the Divisions represent.



This year's operating budget reflects the organizational changes that were incorporated into the FY 2020 budget and discussed in the Personnel section of the Expense Profile discussed earlier.

	Actual 2017	Actual 2018	Budget 2019*	Budget 2020*	FY 19 - FY 20 % Change	FY 2020 % of Budget
Administration	\$ 1,532,944	\$ 1,635,193	\$ 4,785,937	\$ 4,819,633	0.7%	5.0%
Construction & Engineering Services	71,876	492,595	473,316	916,205	93.6%	1.0%
Finance	53,034,886	55,374,608	58,378,961	59,070,438	1.2%	64.0%
Operations & Maintenance	22,020,315	22,102,499	21,783,830	22,593,542	3.7%	24.0%
Environmental Science & Compliance	5,736,218	5,730,038	6,033,489	5,731,113	(5.0%)	6.0%
Total	\$ 82,396,239	\$ 85,334,933	\$ 91,455,533	\$ 93,130,931	1.8%	100.0%

^{*}Reflects organizational changes

A brief overview of the FY 2020 Budget changes from the prior year for each Division is discussed below.

Administration Division

The FY 2020 Administration Division budget is \$33,696 or 0.7% more than the FY 2019 budget. Personnel decreased by \$87,976 or 2.6% due to retirements and reflects a net increase of one additional FTE. Operating supplies and expense increased by \$203,672 or 19.9% compared to FY 2019 and includes the reallocation of maintenance contract-office equipment expense to the Information Technology section. Professional services expense decreased by \$82,000 or 22.6% from the prior year.

Construction and Engineering Division

The FY 2020 Construction and Engineering Division budget is \$442,889 or 93.6% higher than the FY 2019 budget. Personnel increased by \$170,367 and includes a net increase of two FTEs over the prior year related to facilities management. Operating supplies and expense and professional services increased by \$272,522 compared to FY 2019 and includes the transfer of the facilities management function and related expense to Engineering.

Finance Division

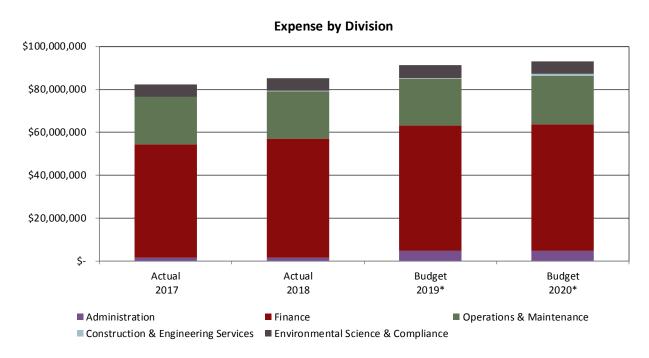
The FY 2020 Finance Division budget is \$691,477 or 1.18% higher than the FY 2019 budget. Personnel expense increased by \$343,704 and includes a net increase of two FTEs over the prior year to support Finance and Customer Service. Operating supplies and expense increased by \$455,346 or 8.96% and includes the reallocation of all renewable energy related and natural gas expense to General Services and the transfer of the Corporate Office Building facilities management function and related expense to the Engineering section. Professional services decreased by \$137,010 and Debt service increased by \$29,437 over the prior year.

Operations and Maintenance Division

The FY 2020 Operations and Maintenance Division budget is \$809,712 or 3.7% higher than the FY 2019 budget. Personnel expense increased by \$26,107 or 0.2% and includes a net unchanged level of FTEs and budgeted turnover of eight FTEs. Operating supplies and expense and Professional services increased by \$783,605 and includes additional wastewater treatment expense related to the new RIPDES permit limits and increased flow.

Environmental Science and Compliance Division

The FY 2020 Environmental Science and Compliance Division budget decreased by \$302,376 or 5.0% from the prior year. Personnel expense decreased by \$224,281 due to increased capital project salary reimbursements and includes a net increase of one FTE. Operating supplies and expense and professional services expense decreased by \$78,095 over the prior year and reflects the transfer of maintenance contract expense to Information Technology and the transfer of the facility management function and expense for the Water Quality Science Building to Engineering.



				ADMINIST	FRATION		CONSTRUCTION 8			FINANCE			
			Administration	Human Resources	Legal	Information Technology	Construction	Engineering	Finance	Accounting	Customer Service	Purchasing	General Services
ACCOUNT	ACCOUNT	FY 2020	CC 21		CC 24		66.33	CC 35	CC 24	cc 22		66.36	
NUMBER	ACCOUNT	PROPOSED	CC 21	CC 23	CC 24	CC 33	CC 22	CC 25	CC 31	CC 32	CC 34	CC 36	CC 80
PERSONN 52100	EL UNION - REGULAR	\$ 6,523,895	\$ -	\$ 49,059	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 60,051	\$ 580,599	\$ -	\$ -
52150	UNION OVERTIME	623,000	-	-	-	-	-	-	-	-	5,000	-	-
52300 52350	NON-UNION REGULAR NON-UNION OVERTIME	11,093,594 180,550	608,479	359,273	503,587	967,603	818,914 20,000	764,726	677,591	564,436 50	802,009 2,000	165,440	-
52400	NON-UNION LIMITED	46,720	12,500	-	-	-	5,000	7,500	_	-	2,000	-	-
52800	UNION PENSION	1,721,656	-	12,947	-	-	-	-	-	15,847	153,220	-	-
52810 52820	FICA UNEMPLOYMENT	1,412,784 30,000	47,505	31,237	38,524	74,022	64,559	59,075	51,836	47,777	106,305	12,656	30,000
52920	NON UNION PENSION	1,157,416	60,848	35,927	50,359	96,760	83,891	76,473	67,759	56,449	80,401	16,544	30,000
52940	UNION RETIREMENT HEALTH	433,839	110 124	3,262	-	166 122	140.222	127.440	74 710	3,993	38,610	1 562	-
52950 52970	HEALTH INSURANCE DENTAL INSURANCE	4,236,483 333,147	110,124 9,060	84,279 7,747	66,355 9,257	166,132 16,072	149,332 12,601	127,440 12,815	74,718 8,465	125,987 11,398	339,886 32,210	1,563 1,366	559,980
52980	VISION INSURANCE	50,856	1,302	1,154	1,371	2,323	1,837	1,926	1,324	1,906	4,983	234	-
52990 53690	DISABILITY INSURANCE WORK. COMP OLD CLAIMS	46,752 5,000	-	-	-	-	-	=	-	-	-	-	46,752 5,000
33090	TOTAL PERSONNEL	27,895,692	849,818	584,885	669,453	1,322,912	1,156,134	1,049,955	881,693	887,894	2,145,223	197,803	671,732
59000	SALARY REIMBURSEMENT	(1,392,113)	(32,530)	-	(41,000)	-	(679,099)	(368,421)	-	(80,000)	-	-	-
59001	FRINGE REIMBURSEMENT NET PERSONNEL SERVICES	(765,662) 25,737,917	(17,892) 799,396	584,885	(22,550) 605,903	1,322,912	(373,504) 103,531	(202,632) 478,902	881,693	(44,000) 763,894	2,145,223	197,803	671,732
		-, -,-	,					.,	,		, , ,	,,,,,,,	
	IG SUPPLIES/EXPENSE MEDICAL SVCS.	12,265	_	8,000			_	_	_			_	
	POSTAGE	405,000	-	-	-	-	-	-	-	-	380,000	-	25,000
53240	DUES & SUBSCRIPTIONS	78,100	42,000	4,200	9,000	-	300	1,600	5,600		600	1,000	-
53250 53310	FREIGHT PRINTING & BINDING	44,850 154,260	2,000 9,500	400 50	200 100	200	100	200 500	300 8,000	100 60	200 130,000	100 500	12,000
53320	ADVERTISING	19,600	2,500	-	1,500	2,500	2,000	-	2,500	-	-	100	-
53330 53340	RENTAL- EQUIPMENT RENTAL- CLOTHING	33,050 29,500	8,800	-	-	1,600	=	650	-	-	-	-	6,000
53340	RENTAL-CLOTHING RENTAL-OUTSIDE PROPERTY	6,700	5,000	-	-	-	-	-	-	-	-	-	-
53360	MISCELLANEOUS EXPENSE	5,600	-	5,000	-	-	600	-	-	-	-	-	-
53370 53410	PUBLIC OUTREACH ED. LOCAL TRAVEL	50,000 5,800	50,000 500	100	350	200	100	600	300	400	-	100	-
53420	LONG DISTANCE TRAVEL	112,500	35,000	4,500	8,000	20,000	1,500	10,000	8,000	-	8,000	-	-
53470	BLDG. & GRND. MAINT.	247,368	-	-	-	-	-	127,000	-	-	-	-	14,500
53480 53490	BIOSOLIDS DISPOSAL SCREENING & GRIT DISPOSAL	5,484,313 262,301	-	-	-	-	-	-	-	-	-	-	-
53510	VEHICLE FUEL & MAINTENANCE	191,650	2,000	-	-	-	6,500	2,000	-	-	7,000	-	-
53610	REPAIRS BLDG, STRUCT, EQUIP.	987,765	250	-	-	315	-	88,000	-	-	-	-	
53620 53630	REPAIR-HIGHWAY & WALKS MAINTENANCE CONTRACTS	65,000 1,461,439	-	2,895	-	582,197	-	42,958	-	-	-	-	5,000 113,750
53635	MAINT. CONTRACTS - OFFICE EQUIP.	179,132	50		50	77,880	-	23,914	-	50	530	-	1,500
53640 53650	SERVICE AGREEMENTS HIGHWAY & LANDSCAPE	394,361 16,500	-	-	-	5,000	-	-		-	-	-	-
53660	INSURANCE	749,720	_	-	-	-	-	-	749,720	-	-	-	-
53680	WORK. COMP. INSURANCE	477,299	-	-	-	-	-	-	477,299	-	-	-	-
53900 54000	CENTRAL PHONE SVCS. TELEPHONE	4,000 205,300	-	-	-	4,000 190,000	-	-		-	3,000	-	
54020	FUEL OIL #2 - DIESEL	29,000	-	-	-	-	-	-	-	-	-	-	-
54060	FUEL-GAS	340,620	-	-	-	-	-	-	-	-	-	-	340,620
54090 54091	ELECTRICITY NET METERING CREDIT	4,230,831 (2,697,615)	-	-	-	-	-		-	-	-	-	4,230,831 (2,697,615)
54092	FP TURBINES	184,000	-	-	-	-	-	-	-	-	-	-	184,000
54093 54095	WED WIND WED PPA	367,000	-	-	-	-	-	=	-	-	-	-	367,000 1,085,124
54110	WATER	1,085,124 95,000	-	-	-	-	-	-	-	-	-	-	5,000
54200	CLOTHING	43,325	2,000	-	-	-	2,000	1,500	-	-	2,100	-	-
54332 54333	CHLORINE/HYPOCHLORITE CARBON FEED	582,927 47,663	-	-	-	-	-	-	-	-	-	-	-
	POLYMER	133,921	-	-	-	-	-	-	-	-	-	-	-
	SODIUM HYDROXIDE	69,084	-	-	-	-	-	-	-	-	-	-	-
54337 54338	SODIUM BISULFITE SODA ASH	412,839 60,944			-		-	-		-			-
54339	UV DISINFECTION	175,000	-	-	-	-	-	-	-	-	-	-	-
	LAB SUPPLIES	363,050	100	-	-	300	- 500	- 6,750	-	-	-	-	4.000
54370 54410	SUPPLIES BUILDING & MAINT. EDUCATIONAL SUPP. & EXP.	537,960 90,650	100 8,000	24,000	2,800	10,000	500 1,500	6,750 1,500	5,000	60 2,500	50 1,500	100	4,000
54420	COMPUTER SUPPLIES	82,750	500	-	150	60,000	1,000	200	-	200	-	-	3,000
54430 54440	OTHER OP. SUPPLIES & EXP. SAFETY EQUIPMENT	11,000 58,600	500 100	-	-	1,500	500	=	-	-	1,000	-	-
54500	OFFICE EXPENSE	124,154	25,000	3,000	650	600	2,600	4,000	11,500	6,000	12,000	1,000	9,000
тот	AL OPERATING SUPPLIES/EXPENSE	18,111,200	193,800	52,145	22,800	956,292	19,200	311,372	1,268,219	10,270	545,980	2,900	3,708,710
PROFESSION	ONAL SERVICES												
52600	REGULATORY EXPENSE	579,000	-	-	-	-	-	200	560,000	-	-	-	-
52630 52650	EDUCATIONAL PROFESSIONAL SERVICES SECURITY SERVICES	30,000 41,390	2 500	30,000	-			1,000	-	-	10,890	-	-
52660	LEGAL SERVICES	215,000	2,500	-	165,000		-	1,000	50,000	-	10,090	-	-
52670	MGMT/AUDIT SERVICES	364,000	25,000	38,000	-	-	-	-	256,000	45,000	-	-	-
52680 52690	CLERICAL SERVICES OTHER SERVICES	17,000 218,800	3,500	2,000 14,000	1,500		•	2,000	70,000	-	10,000 25,500	-	30,000
	OTAL PROFESSIONAL SERVICES	1,465,190	31,000	84,000	166,500	-	-	3,200	936,000	45,000	46,390	-	30,000
	AL OPERATIONS & MAINTENANCE	45,314,307	1,024,196	721,030	795,203	2,279,204	122,731	793,474	3,085,912	819,164	2,737,593	200,703	4,410,442
		+3,314,30/	1,024,196	721,030	135,203	2,279,204	122,/31	793,474	3,065,912	619,164	2,/3/,593	200,703	4,410,442
DEBT SERV		20 040 20=											20.040.205
	PRINCIPAL INTEREST	28,848,395 18,968,229		-	-			-	-	-		-	28,848,395 18,968,229
	TOTAL DEBT SERVICE	47,816,624	-	-	-	-	-	-	-	-	-	-	47,816,624
	TOTAL	\$ 93,130.931	\$ 1,024,196	\$721,030	\$795,203	\$2,279,204	\$ 122,731	\$ 793,474	\$3,085,912	\$819,164	\$ 2,737,593	\$ 200,703	\$52,227.066
		,,-52		\$4,819			\$916,	205			\$59,070,438		
				ADMINIST	TRATION		CONSTRUCTION A	ND ENGINEERING			FINANCE		

	OPERATIONS & MAINTENANCE						ENVIRONMENTAL SCIENCE & COMPLIANCE						
			Interceptor	Operations &	Field's Point	Bucklin Point	Technical Analysis	Pretreatment	Lab	Environmental			
ACCOUNT		FY 2020	Maintenance	Maintenance Services			& Compliance			Monitoring			
NUMBER	ACCOUNT	PROPOSED	CC 43	CC 44	CC 46	CC 47	CC 51	CC 52	CC 53	CC 55			
PERSONN 52100	EL UNION - REGULAR	\$ 6,523,895	\$ 465,986	\$ -	\$ 2,196,444	\$ 2,110,045	\$ -	\$ 139,371	\$ 478,519	\$ 443,821			
52150	UNION OVERTIME	623,000	30,000	-	235,000	275,000	-	1,000	35,000	42,000			
52300 52350	NON-UNION REGULAR	11,093,594	544,858	623,112	785,196	541,466	705,249	628,465 600	645,078	388,112			
52400	NON-UNION OVERTIME NON-UNION LIMITED	180,550 46,720	12,000	5,000	67,500	60,000	1,200 5,000	2,000	4,000 8,000	8,200 6,720			
52800	UNION PENSION	1,721,656	122,974	-	579,642	556,841	-	36,780	126,281	117,124			
52810	FICA	1,412,784	80,543	48,051	251,237	228,468	54,426	59,015	89,551	67,997			
52820 52920	UNEMPLOYMENT NON UNION PENSION	30,000 1,157,416	55,686	62,811	85,270	60,147	70,645	62,907	64,908	39,631			
52940	UNION RETIREMENT HEALTH	433,839	30,988	-	146,064	140,318	-	9,268	31,822	29,514			
52950	HEALTH INSURANCE	4,236,483	229,050	113,917	783,754	572,569	135,127	168,828	227,683	199,759			
52970	DENTAL INSURANCE VISION INSURANCE	333,147	22,275	10,246	68,376	50,963	10,820	13,395	17,711	18,370			
52980 52990	DISABILITY INSURANCE	50,856 46,752	3,378	1,487	10,198	7,929	1,674	2,125	2,946	2,759			
53690	WORK. COMP OLD CLAIMS	5,000	-	-	-	-	-	-	-	-			
	TOTAL PERSONNEL	27,895,692	1,597,738	864,624	5,208,681	4,603,746	984,141	1,123,754	1,731,499	1,364,007			
59000 59001	SALARY REIMBURSEMENT FRINGE REIMBURSEMENT	(1,392,113) (765,662)	(25,000) (13,750)	(13,800) (7,590)	-	-	(152,263) (83,744)	-	-	-			
33001	NET PERSONNEL SERVICES	25,737,917	1,558,988	843,234	5,208,681	4,603,746	748,134	1,123,754	1,731,499	1,364,007			
ODERATIO	IG SUPPLIES/EXPENSE												
52610	MEDICAL SVCS.	12,265	_		_	_	4,265	_	_	_			
53210	POSTAGE	405,000	-	-	-	-	-	-	-	-			
53240	DUES & SUBSCRIPTIONS	78,100	1,200	600	4,900	600	4,000	400	700	500			
53250 53310	FREIGHT PRINTING & BINDING	44,850 154,260	2,000	250 150	11,000 100	8,000 200	300 500	100 3,000	5,000	2,500 1,500			
53320	ADVERTISING	19,600	500	-	2,000	1,000	-	3,000	2,000	1,300			
53330	RENTAL- EQUIPMENT	33,050	1,000	-	5,000	10,000	-	-	-	-			
53340	RENTAL-CLOTHING	29,500	1,500	-	15,000	13,000		-	-	-			
53350 53360	RENTAL-OUTSIDE PROPERTY MISCELLANEOUS EXPENSE	6,700 5,600	-		-	-	1,700		-	-			
53370	PUBLIC OUTREACH ED.	50,000	-		-				-				
53410	LOCAL TRAVEL	5,800	600	200	200	100	1,000	50	400	600			
53420	LONG DISTANCE TRAVEL	112,500	2,000	2,000	2,000	40.504	5,000	2,000	3,000	1,500			
53470 53480	BLDG. & GRND. MAINT. BIOSOLIDS DISPOSAL	247,368 5,484,313	8,300		50,777 4,421,600	40,591 1,062,713	-	200	6,000	-			
53490	SCREENING & GRIT DISPOSAL	262,301	30,622	-	167,576	64,103	-	-	-	-			
53510	VEHICLE FUEL & MAINTENANCE	191,650	60,000	2,550	50,000	33,000	1,600	8,000	-	19,000			
53610	REPAIRS BLDG, STRUCT, EQUIP.	987,765	40,000	25,000	540,000	260,000	-	200	7,000	27,000			
53620 53630	REPAIR-HIGHWAY & WALKS MAINTENANCE CONTRACTS	65,000 1,461,439	60,000 6,822	286,880	199,151	94,599	-	-	129,067	3,120			
53635	MAINT. CONTRACTS - OFFICE EQUIP.	179,132	6,229	-	42,783	24,608	-	700	338	500			
53640	SERVICE AGREEMENTS	394,361	29,000	15,386	196,972	148,003	-	-	-	-			
53650 53660	HIGHWAY & LANDSCAPE INSURANCE	16,500 749,720	9,000	-	3,500	4,000	-	-	-	-			
53680	WORK. COMP. INSURANCE	477,299	_	-	-	_	-		-	_			
53900	CENTRAL PHONE SVCS.	4,000	-	-	-	-	-	-	-	-			
54000	TELEPHONE	205,300	6,000	-	-	-	-	3,000	-	3,300			
54020 54060	FUEL OIL #2 - DIESEL FUEL-GAS	29,000 340,620	-	-	9,000	20,000	-	-	-	-			
54090	ELECTRICITY	4,230,831	_	-	-	_	-	-	-	-			
54091	NET METERING CREDIT	(2,697,615)	-	-	-	-	-	-	-	-			
54092	FP TURBINES	184,000	-	-	-	-	-	-	-	-			
54093 54095	WED WIND WED PPA	367,000 1,085,124	-		-	-	-	-	-	-			
54110	WATER	95,000	3,000	-	35,000	45,000	-	-	7,000	-			
54200	CLOTHING	43,325	6,500	-	8,000	10,000	725	1,500	3,000	6,000			
54332	CHLORINE/HYPOCHLORITE	582,927	-	-	541,356	41,571	-	-	-	-			
54333 54335	CARBON FEED POLYMER	47,663 133,921	-		44,185	3,478 133,921			-				
54336	SODIUM HYDROXIDE	69,084	-	-	69,084	-							
54337	SODIUM BISULFITE	412,839	-	-	371,860	40,979	-	-	-	-			
54338	SODA ASH	60,944 175,000	-			60,944 175,000	-	-	-	-			
54339 54340	UV DISINFECTION LAB SUPPLIES	175,000 363,050	-		24,000	175,000 8,000	1,000	1,550	260,000	68,500			
54370	SUPPLIES BUILDING & MAINT.	537,960	77,000	200	250,000	185,000	7,000	500	-	6,500			
54410	EDUCATIONAL SUPP. & EXP.	90,650	2,000	250	7,500	1,000	10,000	4,000	5,000	4,000			
54420 54430	COMPUTER SUPPLIES OTHER OP. SUPPLIES & EXP.	82,750 11,000	300 2,500	10,000	2,000 1,500	3,000 800	700 4,200	500	700	500			
54440	SAFETY EQUIPMENT	58,600	5,500		17,000	17,000	6,600	2,000	1,000	7,900			
54500	OFFICE EXPENSE	124,154	6,000	1,000	10,000	9,000	6,775	3,500	7,929	4,600			
тот	AL OPERATING SUPPLIES/EXPENSE	18,111,200	367,573	344,466	7,103,044	2,519,210	55,365	34,200	438,134	157,520			
PROFESSI	ONAL SERVICES												
52600	REGULATORY EXPENSE	579,000	300	-	8,000	10,000		-	500	-			
52630	EDUCATIONAL PROFESSIONAL SERVICES	30,000	40.000	-		2.000	-	-	4.000	-			
52650 52660	SECURITY SERVICES LEGAL SERVICES	41,390 215,000	18,000		5,000	3,000			1,000				
52670	MGMT/AUDIT SERVICES	364,000						-	_	_			
52680	CLERICAL SERVICES	17,000	-	-	-	-	-	-	-	-			
52690	OTHER SERVICES	218,800	300 18 600	-	12,000	12,000	-	-	30,000	47,000			
	FOTAL PROFESSIONAL SERVICES	1,465,190	18,600		13,000	13,000			31,500	47,000			
то	TAL OPERATIONS & MAINTENANCE	45,314,307	1,945,161	1,187,700	12,324,725	7,135,956	803,499	1,157,954	2,201,133	1,568,527			
DEBT SER	VICE												
DED! SER	PRINCIPAL	28,848,395	-		_	_		-	_	-			
	INTEREST	18,968,229	-	-	-	-	-	-	-	-			
	TOTAL DEBT SERVICE	47,816,624	-	-		-	-	-	-	-			
	TOTAL	\$ 93,130,931	\$ 1,945,161	\$ 1,187,700	\$ 12,324,725	\$ 7,135,956	\$ 803,499	\$ 1,157,954	\$ 2,201,133	\$ 1,568,527			
				\$22,593,	542			\$5,731	,113				
				OPERATIONS & M.	AINTENANCE		ENVI	RONMENTAL SCIE	NCE & COMPLIA	INCE			



ADMINISTRATION DIVISION

Division Summary

ADMINISTRATION

HUMAN RESOURCES

LEGAL

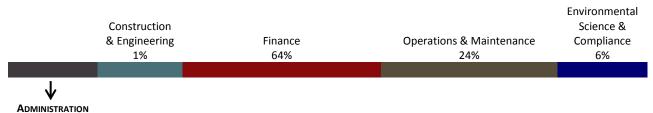
INFORMATION TECHNOLOGY

The Program

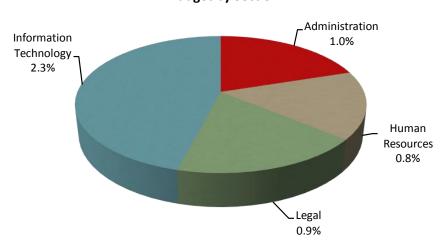
5%

The Administration Division is responsible for Administration, Human Resources, Legal Services and Information Technology.

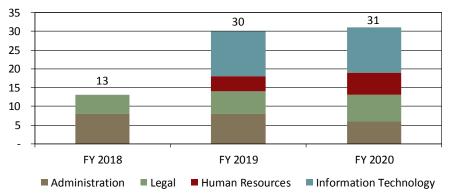
FY 2020 Budget by Division



ADMINISTRATION DIVISION Budget by Section



Budgeted Positions (FTEs)*



^{*}Does not include turnover

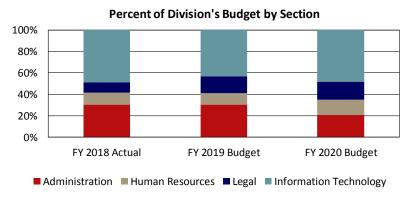
ADMINISTRATION DIVISION Division Summary

The Budget

Operations & Maintenance Expense	FY 2	018 Actual	FY 2019 Budge		FY 20	020 Budget	
Personnel	\$	1,443,912	\$	3,401,072	\$	3,313,096	
Operating Supplies/Expense		152,518		1,021,365		1,225,037	
Professional Services		38,763		363,500		281,500	
Total O&M	\$	1,635,193	\$	4,785,937	\$	4,819,633	
Funds by Source - Revenue	\$	1,635,193	\$	4,785,937	\$	4,819,633	

Significant Budget Modifications

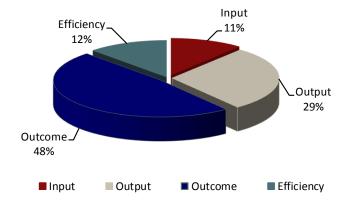
The FY 2020 Administration Division budget is \$33,696 or 0.7% more than the FY 2019 budget. Personnel decreased by \$87,976 or 2.6% due to retirements and reflects a net increase of one FTE. Certain duties and responsibilities were reorganized in FY 2019 and as a result, the number of budgeted FTEs changed between the various cost centers in the Division. Operating supplies and expense increased by \$203,672 or 19.9% compared to FY 2019 and includes the reallocation of maintenance contract-office equipment expense to the Information Technology section. Professional services expense decreased by \$82,000 or 22.6% from the prior year.



Administration Division Performance Data Summary

The chart below illustrates the Administration Division's Performance Data by type of measure. The measures can be found in the individual sections following this division summary. In this Division, Outcome and Efficiency make up 60% of the performance measures.

Percentage of Performance Measurement Types ADMINISTRATION DIVISION



ADMINISTRATION Section Summary

The Program

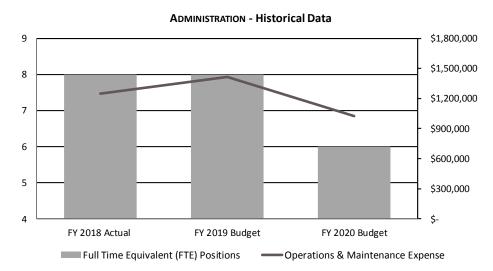
The Administration section includes the Executive Director, Director of Administration, Public Affairs and Government Affairs. The Administration section is responsible for overall agency management responsibilities, including policy development, collective bargaining negotiations, contract compliance, liaison activities with local, state and federal entities and officials, legal oversight and maintenance of a strong public information program.

The Budget

Operations & Maintenance Expense	FY 2018 Actual		FY 2	2019 Budget	FY 2020 Budget		
Personnel	\$	1,069,350	\$	1,098,305	\$	799,396	
Operating Supplies/Expense		136,729		184,300		193,800	
Professional Services		39,886		135,000		31,000	
Total O&M	\$	1,245,965	\$	1,417,605	\$	1,024,196	
Funds by Source - Revenue	\$	1,245,965	\$	1,417,605	\$	1,024,196	

Significant Budget Modifications

The FY 2020 Administration budget is \$393,409 or 27.8% less than the FY 2019 budget. Personnel expense decreased by \$298,909 and reflects two less FTEs due to a reorganization of duties and responsibilities. Operating supplies and expense increased by \$9,500 for additional dues and subscriptions, and educational outreach. Professional services decreased by \$104,000 from the prior year, due to fewer consulting projects in FY 2020.



Goal Actions for Target Measures by Key Code

Core Business

CB 1	Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting
	requirements

- Manage the planning, design and construction of NBC's capital improvements in the most cost-effective manner and in compliance with regulatory requirements
- Ensure the highest level of availability of systems' applications and network stability
- Maximize efficiency through service automation, applications security and NBC campus security
- Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment

Environmental Performance

- Minimize environmental impacts and implement conservation and sustainability measures
- Evaluate the NBC Program and report the data to the public
- Provide technical assistance to evaluate energy conservation and renewable energy opportunities
- Provide quality and expedient sample collection, data analyses and water quality monitoring to evaluate NBC's impacts and document improvements

Financial Management

- FM 1 Ensure sufficient funding and receive the lowest cost of borrowing with the least rate payer impact
- Integrate NBC's strategic goals into the allocation of NBC's resources
- Maximize the efficiency, effectiveness, and accuracy of NBC's rate structures and collection processes to reduce accounts receivable
- PM4 Develop and manage NBC's operating and capital budgets to maximize benefits, minimize expense and unplanned expenditures
- Comply with IRS, Federal and State Rules and Regulations, Trust Indenture and Generally Accepted Accounting Principles
- Ensure goods and services are procured, reviewed and processed in a timely, efficient and cost effective manner
- Initiate and evaluate incentive programs
- Evaluate savings opportunities and optimize NBC operations and processes

Customer Focus

- Maintain programs and conduct projects that give back to the community
- Provide prompt, courteous, efficient and educational services
- Enhance communications to ensure consistency, reliability and satisfaction
- CF4 Maximize customer focus attitude by providing excellent customer service and developing strong customer relationships
- Ensure compliance with NBC internal controls

Staffing

- Ensure compliance with Federal and State labor laws
- Foster a positive working environment through effective communication
- Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes
- Provide a healthy and safe working environment
- Develop mechanisms and establish opportunities for continued growth and professional development

Communication

- Continue to expand and conduct NBC public outreach programs
- Proactively manage NBC's public and legislative affairs and communicate NBC initiatives and ongoing activities
- Effectively communicate status of capital projects to NBC staff and Board members
- Enhance operating budget, CIP and compliance reports as a communication device
- Strengthen and expand NBC's positive relations with key stakeholders (customers, Board, elected officials/delegates, regulatory officials and the public) to ensure support of NBC's mission

Organizational Performance

- OP 1 Conduct NBC business in an open manner
- OP 2 Promote diversity in hiring practices
- OP 3 Ensure compliance with State ethics and regulatory agenda filing
- Provide end-user technology and systems to meet NBC's strategic goals

ADMINISTRATION

Performance Data

Major Accoi	nplishments	FY 20	019 by	/ Key	y Code:
-------------	-------------	-------	--------	-------	---------

CB 1	Finalized RIPDES permit approvals for FPWWTF and BPWWTF
CB 1	Finalized approval of CSO Phase III Facilities Consent Agreements with RIDEM
CB 2	Completed sewer system service area expansion in Johnston
CB 4	Transformed the old lab building to a records storage facility
S 1	Achieved 90% of electricity supply from renewable energy sources
C 1	Conducted 57 educational tours of the FPWWTF
C 1	Involved 14 schools in the NBC Watershed Explorers program and provided education to 780 students from cities and towns within NBC's service area
C 1	Received NACWA National Environmental Achievement Award in Environmental Education for NBC's Mr. Can vs. The Grease Beasts Program
C 5	Developed "Bill the Duck", NBC's online billing ambassador
OP 3	Received RI Office of Energy Resources Lead by Example award for sustainable and renewable energy projects
OP 3	Received NACWA Excellence in Treatment Gold Award for FPWWTF

Top Priorities for FY 2020 and How They Relate to the Strategic Plan/Goals and by Key Code:

Received NACWA Excellence in Treatment Silver Award for BPWWTF

- **CB 2** Initiate land acquisition for CSO Phase III Facilities
- **S 4** Consolidate the NBC Campus

OP 3

- \$ 5 Continue NBC succession planning
- **S 5** Dispose of surplus CSO Phase II easement properties
- **C 5** Develop ratepayer assistance program

Target Measures

CORE BUSINESS:

Operate, maintain and protect our collection and treatment systems to ensure that all State and Federal requirements are met or surpassed.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Manage the planning, design and construction of NBC's capital improvements in the most cost-effective manner and in compliance with regulatory requirements • CB 2

TARGET MEASURE:

Conduct a minimum of 9 capital project meetings

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Quantity	10	9	9	9

CUSTOMER FOCUS:

Maintain a customer-focused attitude throughout the organization.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Maintain programs and conduct projects that give back to the community • CF 1

TARGET MEASURE:

Grant 40 or more awards/scholarships

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Quantity	58	40	40	40

TARGET MEASURE:

Conduct a minimum of 100 lessons at schools in the NBC service area

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Lessons Conducted	340	100	100	100
Participating Students	810	480	480	480

TARGET MEASURE:

Arrange a minimum of 20 water quality testing field trips for local schools

Unit of M	easure	FY 2018 Actual	FY 2018 Goal	FY 2019 G	oal	FY 2020 Goa	<u> </u>
Quant	ity	30	20	20		20	

TARGET MEASURE:

Ensure 100% of participating schools attend the Watershed Explorer Environmental Education Conference

Unit of Measure FY 2018 Actual		FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	14 Schools	100%	100%	100%

TARGET MEASURE:

Respond to 100% of requests for WWTF presentations/tours

 Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Quantity	56 Presentations/Tours	100%	100%	100%

STAFFING:

Attract, develop and retain highly qualified employees.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Foster a positive working environment through effective communication • S 2

TARGET MEASURE:

Meet 2 or more times with union and non-union staff

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Frequency	2	2	2	2

TARGET MEASURE:

Receive the Best Places to Work in RI Award

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Consecutive Years	8	8	9	10

TARGET MEASURE:

Create NBC monthly newsletter and include a minimum of 50 NBC Staff articles

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Frequency	12	Monthly	Monthly	Monthly
Quantity - Articles	50	50	50	50

ii

Improve and enhance internal and external communication to increase understanding of "who we are" and "what we do".

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Continue to expand and conduct NBC public outreach programs • C 1

TARGET MEASURE:

COMMUNICATION:

Update website a minimum of once per week to provide current information on NBC activity

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Frequency	52 Updates	Weekly	Weekly	Weekly

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Strengthen and expand NBC's positive relations with key stakeholders (customers, Board, elected officials/delegates, regulatory officials and the public) to ensure support of NBC's mission • C 5

TARGET MEASURE:

Meet with RIDEM Officials quarterly

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Quantity	4	4	4	4

TARGET MEASURE:

Meet and/or correspond 4 or more times with Rhode Island's Congressional Delegation

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Frequency	4	4	4	4

ORGANIZATIONAL PERFORMANCE:

Ensure that the NBC organization is aligned with and supports our strategic goals.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Conduct NBC business in an open manner • OP 1

TARGET MEASURE:

Post NBC Board and/or Committee meeting notices 48 hours prior to meeting date on RI Secretary of State website, at State Library, RI State House, and NBC facilities. Post all draft/approved meeting minutes within 35 days on RI Secretary of State website

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Meeting Notices More than 48 Hours Prior to Meeting	>48 hours	>48 hours	>48 hours	>48 hours
Draft Minutes Less than 35 Days of Meeting	<35 days	<35 days	<35 days	<35 days
Approved Minutes Less than 35 Days of Approval	<35 days	<35 days	<35 days	<35 days

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Promote diversity in hiring practices • OP 2

TARGET MEASURE:

Submit affirmative action plan to the Equal Employment Opportunity Commission by due date

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Due Date	8/1/2017	8/1/2017	8/1/2018	8/1/2019



HUMAN RESOURCES Section Summary

The Program

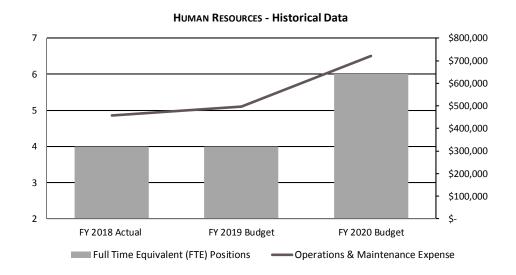
The Human Resources section is responsible for the administration and processing of employee records, employee recruitment and retention, workers' compensation, non-union retirement plans and equal employment opportunity for union and non-union personnel. This section is also responsible for regulatory compliance, the evaluation and administration of employee benefits and for administering provisions of the two collective bargaining agreements.

The Budget

Operations & Maintenance Expense	FY 2018 Actual		FY 2019 Budget		FY 2020 Budget		
Personnel	\$	420,297	\$	415,705	\$	584,885	
Operating Supplies/Expense		17,730		22,900		52,145	
Professional Services		18,174		57,000		84,000	
Total O&M	\$	456,201	\$	495,605	\$	721,030	
Funds by Source - Revenue	\$	456,201	\$	495,605	\$	721,030	

Significant Budget Modifications

The FY 2020 Human Resources budget is \$225,425 or 45.5% more than the FY 2019 budget. Personnel increased by \$169,180 over the FY 2019 budget and includes two additional FTEs, a Human Resources Training Facilitator and a Labor Relations Representative. Operating supplies and expense increased by \$29,245 over the prior year and includes a new management learning system. Professional services have increased by \$27,000 to support a non-union compensation study.



PROGRAM STAFF	ING (BUDGETE	נטו	
	FY 2018	FY 2019	FY 2020
Union FTEs	1	1	1
Non-Union FTEs	3	3	5
Less Turnover	-	=	-
Net Total	4	4	6

Goal Actions for Target Measures by Key Code

Core Business

- Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting requirements
- Manage the planning, design and construction of NBC's capital improvements in the most cost-effective manner and in compliance with regulatory requirements
- Ensure the highest level of availability of systems' applications and network stability
- Maximize efficiency through service automation, applications security and NBC campus security
- Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment

Environmental Performance

- Minimize environmental impacts and implement conservation and sustainability measures
- Evaluate the NBC Program and report the data to the public
- Provide technical assistance to evaluate energy conservation and renewable energy opportunities
- Provide quality and expedient sample collection, data analyses and water quality monitoring to evaluate NBC's impacts and document improvements

Financial Management

- FM 1 Ensure sufficient funding and receive the lowest cost of borrowing with the least rate payer impact
- Integrate NBC's strategic goals into the allocation of NBC's resources
- Maximize the efficiency, effectiveness, and accuracy of NBC's rate structures and collection processes to reduce accounts receivable
- Pevelop and manage NBC's operating and capital budgets to maximize benefits, minimize expense and unplanned expenditures
- FMIS Comply with IRS, Federal and State Rules and Regulations, Trust Indenture and Generally Accepted Accounting Principles
- Ensure goods and services are procured, reviewed and processed in a timely, efficient and cost effective manner
- Initiate and evaluate incentive programs
- Evaluate savings opportunities and optimize NBC operations and processes

Customer Focus

- Maintain programs and conduct projects that give back to the community
- Provide prompt, courteous, efficient and educational services
- Enhance communications to ensure consistency, reliability and satisfaction
- cf4 Maximize customer focus attitude by providing excellent customer service and developing strong customer relationships
- Ensure compliance with NBC internal controls

Staffing

- Ensure compliance with Federal and State labor laws
- Foster a positive working environment through effective communication
- Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes
- Provide a healthy and safe working environment
- Develop mechanisms and establish opportunities for continued growth and professional development

Communication

- Continue to expand and conduct NBC public outreach programs
- Proactively manage NBC's public and legislative affairs and communicate NBC initiatives and ongoing activities
- Effectively communicate status of capital projects to NBC staff and Board members
- Enhance operating budget, CIP and compliance reports as a communication device
- Strengthen and expand NBC's positive relations with key stakeholders (customers, Board, elected officials/delegates, regulatory officials and the public) to ensure support of NBC's mission

Organizational Performance

- OP 1 Conduct NBC business in an open manner
- OP 2 Promote diversity in hiring practices
- OP 3 Ensure compliance with State ethics and regulatory agenda filing
- Provide end-user technology and systems to meet NBC's strategic goals

HUMAN RESOURCES

Performance Data

Major Accomplishments FY 2019 by Key Code:

- FM 4 Evaluated and renewed NBC's Vision and Dental Insurance and Flexible Spending Account Plans
- FM 4 Evaluated and renewed NBC's Life Insurance Plan with no rate increase
- **FM 4** Provided daily administration of the non-union retirement plans
- **FM 4** Implemented a new health insurance plan
- **S 1** Completed timely reporting of all state and federal required disclosures to staff and government agencies
- **S 1** Submitted the EEO report by the due date
- **S 1** Reviewed and revised federal/state regulatory procedures and forms
- **S 2** Received Best Places to Work in RI Award
- **S 4** Provided workplace wellness and training programs to staff
- **S 4** Administered the Employee Sick Leave Bank
- **S 4** Achieved workers' compensation experience modification of 1.51
- S 4 Calculated the annual sick leave bonus for eligible employees

Top Priorities for FY 2020 and How They Relate to the Strategic Plan/Goals and by Key Code:

- **FM 4** Effectively manage NBC's employee benefits programs
- **S 1** Ensure timely administration of NBC hiring procedures in accordance with Federal & State labor laws
- **S 5** Revise the non-union performance appraisal process
- **S 5** Design and develop learning programs and in-house training to support career progression

Target Measures

FINANCIAL MANAGEMENT:

Manage NBC's finances through strong financial planning and controls such that sewer user charges are minimized.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Develop and manage NBC's operating and capital budgets to maximize benefits, minimize expense and unplanned expenditures • FM 4

TARGET MEASURE:

Evaluate comparable benefit solutions six months prior to renewal

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	100%	100%	100%	100%

TARGET MEASURE:

Complete Retirement Plan Census by due date

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Due Date - Defined Benefit	2/28/2018	2/28/2018	2/28/2019	2/28/2020
Due Date - Defined Contribution	7/30/2017	7/30/2017	7/30/2018	7/30/2019

CUSTOMER FOCUS:

Maintain a customer-focused attitude throughout the organization.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Enhance internal communications to ensure consistency, reliability and satisfaction • CF 3

TARGET MEASURE:

Provide up to date information on NBC's Benefits Webpage quarterly

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Frequency	5 Updates	Quarterly	Quarterly	Quarterly

STAFFING:

Attract, develop and retain highly qualified employees.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Ensure compliance with the Federal and State labor laws • S 1

TARGET MEASURE:

Submit annual EEO report by due date

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Due date	10/31/2017	11/1/2017	11/1/2018	11/1/2019

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Foster a positive working environment through effective communication • S 2

TARGET MEASURE:

Conduct exit interviews

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	8 Exit Interviews	100%	100%	100%

TARGET MEASURE:

Prepare and distribute employment postings within 1 week of approval

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	35 Employment Postings	100%	100%	100%

TARGET MEASURE:

Implement a minimum of 2 "Good Health" programs

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Quantity	5	2	2	2	

TARGET MEASURE:

Implement a minimum of 1 employee training program

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Quantity	1	1	1	1
EASURE:				

TARGET MEASURE:

Receive the Best Places to Work in RI Award

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Consecutive Years	8	8	9	10

TARGET MEASURE:

Maintain the number of grievances filed

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Quantity	4	≤10	≤10	≤10

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes • S 3

TARGET MEASURE:

Attend a minimum of 2 outside HR related seminars

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Quantity	6	2	2	2

TARGET MEASURE:

Provide a minimum of 10 participant meetings with NBC's investment advisor

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Participant Meetings	31	10	10	10

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide a healthy and safe working environment • S 4

TARGET MEASURE:

Investigate workers' compensation injuries and make recommendations to prevent reoccurrence

- 0	Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
	Percentage	10 Investigations	100%	100%	100%	

TARGET MEASURE:

Implement a minimum of 2 Wellness Incentive Programs

•	•			
Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Programs Offered	9	2	2	2
Participating Employees	71%	50%	50%	50%
Employees Reaching Wellness Maximum	34%	30%	30%	30%

TARGET MEASURE:

Maintain a workers' compensation experience modification rating of 1.00 or lower

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Rating	1.51	≤1.00	≤1.00	≤1.00

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Develop mechanisms and establish opportunities for continued growth and professional development • S 5

Target Measure:

Education and learning programs that supports vertical career progression

Unit of Measure	FY 2018 Actual	FY 2018 Actual FY 2018 Goal		FY 2020 Goal	
Programs	N/A	N/A	N/A	5	



LEGAL

Section Summary

The Program

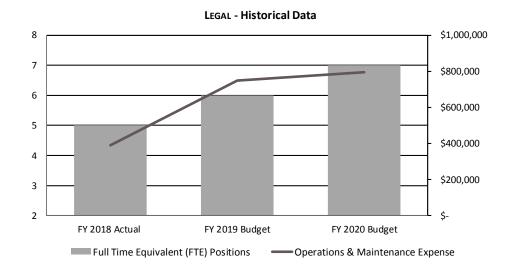
The Legal section provides legal advice and services related to issues that arise in the course of NBC's business activities. NBC's legal staff has expertise in environmental, contractual, corporate, legislative, real estate, collections and bankruptcy law. Outside legal services are used to supplement in-house expertise as needed.

The Budget

Operations & Maintenance Expense		FY 2018 Actual		FY 2019 Budget		FY 2020 Budget	
Personnel	\$	374,562	\$	550,239	\$	605,903	
Operating Supplies/Expense		15,789		25,800		22,800	
Professional Services		(1,123)		171,500		166,500	
Total O&M	\$	389,228	\$	747,539	\$	795,203	
Funds by Source - Revenue	\$	389,228	\$	747,539	\$	795,203	

Significant Budget Modifications

The FY 2020 Legal budget is \$47,664 or 6.4% higher than the FY 2019 budget. Personnel expense represents a net increase of \$55,664 and includes a new Executive Paralegal position that was added in FY 2019. The FY 2020 budget reflects increased salary reimbursements related to capital projects. Operating supplies and expense and professional services are \$3,000 and \$5,000 lower, respectively than the prior year.



PROGRAM STAFFING (BUDGETED)

	FY 2018	FY 2019	FY 2020
Union FTEs	-	-	-
Non-Union FTEs	5	6	7
Less Turnover	-	-	-
Net Total	5	6	7

Goal Actions for Target Measures by Key Code

Core Business

CB 1	Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting
	requirements

- Manage the planning, design and construction of NBC's capital improvements in the most cost-effective manner and in compliance with regulatory requirements
- Ensure the highest level of availability of systems' applications and network stability
- Maximize efficiency through service automation, applications security and NBC campus security
- Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment

Environmental Performance

- Minimize environmental impacts and implement conservation and sustainability measures
- Evaluate the NBC Program and report the data to the public
- Provide technical assistance to evaluate energy conservation and renewable energy opportunities
- Provide quality and expedient sample collection, data analyses and water quality monitoring to evaluate NBC's impacts and document improvements

Financial Management

- Ensure sufficient funding and receive the lowest cost of borrowing with the least rate payer impact
- Integrate NBC's strategic goals into the allocation of NBC's resources
- Maximize the efficiency, effectiveness, and accuracy of NBC's rate structures and collection processes to reduce accounts receivable
- PM4 Develop and manage NBC's operating and capital budgets to maximize benefits, minimize expense and unplanned expenditures
- FMS Comply with IRS, Federal and State Rules and Regulations, Trust Indenture and Generally Accepted Accounting Principles
- Ensure goods and services are procured, reviewed and processed in a timely, efficient and cost effective manner
- Initiate and evaluate incentive programs
- Evaluate savings opportunities and optimize NBC operations and processes

Customer Focus

- Maintain programs and conduct projects that give back to the community
- Provide prompt, courteous, efficient and educational services
- Enhance communications to ensure consistency, reliability and satisfaction
- CF4 Maximize customer focus attitude by providing excellent customer service and developing strong customer relationships
- Ensure compliance with NBC internal controls

Staffing

- Ensure compliance with Federal and State labor laws
- Foster a positive working environment through effective communication
- rovide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes
- Provide a healthy and safe working environment
- Develop mechanisms and establish opportunities for continued growth and professional development

Communication

- Continue to expand and conduct NBC public outreach programs
- Proactively manage NBC's public and legislative affairs and communicate NBC initiatives and ongoing activities
- Effectively communicate status of capital projects to NBC staff and Board members
- Enhance operating budget, CIP and compliance reports as a communication device
- Strengthen and expand NBC's positive relations with key stakeholders (customers, Board, elected officials/delegates, regulatory officials and the public) to ensure support of NBC's mission

Organizational Performance

- OP 1 Conduct NBC business in an open manner
- OP 2 Promote diversity in hiring practices
- OP 3 Ensure compliance with State ethics and regulatory agenda filing
- OP 4 Provide end-user technology and systems to meet NBC's strategic goals

LEGAL

Performance Measures

Major Accomplishments FY 2019 by Key Code:

- **CB 1** Negotiated RIPDES Consent Agreements for FPWWTF and BPWWTF
- CB 1 Completed codification process for all Rules and Regulations with the Rhode Island Office of Regulatory Reform
- **CB 1** Assisted Pretreatment with legal aspects of the Pretreatment Program
- CB 2 Assisted Construction and Engineering with legal and regulatory aspects of the CSO Phase III Facilities project
- FM 3 Assisted with the implementation of the new customer service application with respect to lien sale and bankruptcy
- **CF 2** Responded to all public record requests within the statutory timeframe to the appropriate Rhode Island agencies/parties
- **C 2** Reviewed, analyzed and opined on pending legislation
- **C 2** Successfully lobbied on various legislation that would impact NBC, such as contractor retainage, open meetings, etc.
- **OP 3** Filed all ethics and public records training compliance within the required timeframe

Top Priorities for FY 2020 and How They Relate to the Strategic Plan/Goals and by Key Code:

- CB 1 Assist Construction and Engineering with legal aspects of the CSO Phase III Facilities
- **FM 3** Complete the implementation of the lien sale module for the new customer service application and conduct one lien sale
- FM 3 Monitor customer accounts subject to the US Bankruptcy Code/RI Receivership Petitions, including filing proof of claims within the required timeframes

Target Measures

CORE BUSINESS:

Operate, maintain and protect our collection and treatment systems to ensure that all State and Federal requirements are met or surpassed.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting requirements • CB 1

TARGET MEASURE:

Issue Enforcement Actions within two weeks of request

Unit of Measure	FY 2018 Actual		FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	1 Enforcement Action		100%	100%	100%

FINANCIAL MANAGEMENT:

Manage NBC's finances through strong financial planning and controls such that sewer user charges are minimized.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Maximize the efficiency, effectiveness, and accuracy of NBC's rate structures and collection processes to reduce accounts receivable • FM 3

TARGET MEASURE:

Conduct a minimum of 2 lien sales annually

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Frequency	1 Lien Sale	2	2	1

TARGET MEASURE:

Ensure at least 65% of accounts are paid prior to lien sale

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	98%	65%	65%	65%

TARGET MEASURE:

Monitor 100% of bankruptcies and file proof of claims where appropriate

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Flagged Bankruptcies/Proof of Claims	105 Flagged	100%	100%	100%
Discharged Accounts	77 Accounts	100%	100%	100%

CUSTOMER FOCUS:

Maintain a customer-focused attitude throughout the organization.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide prompt, courteous, efficient and educational services • CF 2

TARGET MEASURE:

Maintain APRA Certification and respond to all public records requests within 30 days

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Certifications	4	4	4	4
Request Response Time	5 Days	≤30 days	≤30 days	≤30 days
Number of Responses	9 Responses	100%	100%	100%

STAFFING:

Attract, develop and retain highly qualified employees.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes • S 3

TARGET MEASURE:

Provide a minimum of 30 training hours

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Hours	50	30	30	30

COMMUNICATION: Improve and enhance internal and external communication to increase understanding of "who we are" and "what we do".

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Proactively manage and communicate NBC's public and legislative affairs, initiatives and ongoing activities • C 2

TARGET MEASURE:

Review 100% of bills introduced

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	2,079 Bills Reviewed	100%	100%	100%

TARGET MEASURE:

Propose 100% of NBC related legislation amendments where appropriate

Unit of Measure	f Measure FY 2018 Actual		FY 2019 Goal	FY 2020 Goal
Percentage	5 Proposed Amendments	100%	100%	100%

TARGET MEASURE:

Provide legislative reports to the Board on 100% of legislation of interest to NBC and present the Final Report in September

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Legislative Reports	26 Pieces of Legislation	100%	100%	100%	
Final Legislative Report	September 26, 2017	9/2017	9/2018	9/2019	

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Strengthen and expand NBC's positive relations with key stakeholders (customers, Board, elected officials/delegates, regulatory officials and the public) to ensure support of NBC's mission • C 5

TARGET MEASURE:

Conduct/coordinate a minimum of 2 presentations

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Quantity	4	2	2	2

ORGANIZATIONAL PERFORMANCE: Ensure that the NBC organization is aligned with and supports our strategic goals.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Ensure compliance with State ethics and regulatory agenda filing • OP 3

TARGET MEASURE:

Execute 100% of conflict of interest forms for NBC staff/Board of Commissioners

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	0 Forms Executed	100%	100%	100%



Information Technology Section Summary

The Program

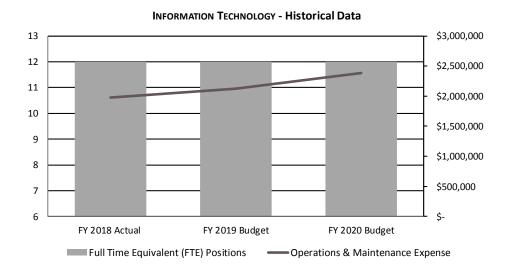
The IT section is responsible for NBC's networks, telecommunications, hardware, software and databases. IT ensures the agency has the technology needed to perform expected services efficiently with a level of 99% uptime.

The Budget

Operations & Maintenance Expense	FY 2	2018 Actual	FY 2	2019 Budget	FY 2	020 Budget
Personnel	\$	1,325,663	\$	1,336,823	\$	1,322,912
Operating Supplies/Expense		643,546		788,365		956,292
Professional Services		11,777		-		-
Total Expense	\$	1,980,986	\$	2,125,188	\$	2,279,204
Funds by Source - Revenue	\$	1,980,986	\$	2,125,188	\$	2,279,204

Significant Budget Modifications

The FY 2020 Information Technology budget is \$154,016 or 7.3% higher than the FY 2019 budget. Personnel expense is \$13,911 lower than the prior year. Operating supplies and expense have increased by \$167,927 compared to FY 2019 and includes new maintenance contracts to support the new Laboratory Information System and the transition to software subscriptions. Maintenance contract-office equipment expense which includes copy machines and alarm maintenance expense was relocated from General Services to the Information Technology section.



Program Staffing (Budgeted) FY 2018 FY 2019 FY 2020 Union FTEs Non-Union FTEs 12 12 12 12 Less Turnover Net Total 12 12 12 12

Goal Actions for Target Measures by Key Code

Core Business

- Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting requirements
- Manage the planning, design and construction of NBC's capital improvements in the most cost-effective manner and in compliance with regulatory requirements
- Ensure the highest level of availability of systems' applications and network stability
- Maximize efficiency through service automation, applications security and NBC campus security
- Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment

Environmental Performance

- Minimize environmental impacts and implement conservation and sustainability measures
- Evaluate the NBC Program and report the data to the public
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- Provide quality and expedient sample collection, data analyses and water quality monitoring to evaluate NBC's impacts and document improvements

Financial Management

- FM 1 Ensure sufficient funding and receive the lowest cost of borrowing with the least rate payer impact
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- Maximize the efficiency, effectiveness, and accuracy of NBC's rate structures and collection processes to reduce accounts receivable
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- Ensure goods and services are procured, reviewed and processed in a timely, efficient and cost effective manner
- Initiate and evaluate incentive programs
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- Maintain programs and conduct projects that give back to the community
- Provide prompt, courteous, efficient and educational services
- Enhance communications to ensure consistency, reliability and satisfaction
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- Ensure compliance with NBC internal controls

Staffing

- Ensure compliance with Federal and State labor laws
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Communication

- Continue to expand and conduct NBC public outreach programs
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- Effectively communicate status of capital projects to NBC staff and Board members
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Organizational Performance

- OP 1 Conduct NBC business in an open manner
- OP 2 Promote diversity in hiring practices
- OP 3 Ensure compliance with State ethics and regulatory agenda filing
- OP 4 Provide end-user technology and systems to meet NBC's strategic goals

INFORMATION TECHNOLOGY Performance Data

Major Accomplishments FY 2019 by Key Code:

- **CB 3** Replaced end of life network cores with newest model to ensure sufficient speed and capabilities with the networking environment
- **CB 4** Implemented the ThermoFisher Sample Manager module
- CB 4 Installed new cameras and DVR for enhanced coverage, longer retention and central management
- **CB 4** Upgraded door access to Aurora system
- **CB 4** Continued Implementation of the Customer Service Application
- **CB 4** Completed the Information Technology Security Audit
- **CB 4** Implemented technologies and solutions to enhance cyber security
- **CB 4** Upgraded from Exchange 2007 to Exchange 2016 server
- **CB 4** Implemented Oracle Single Sign on to facilitate password changes

Top Priorities for FY 2020 and How They Relate to the Strategic Plan/Goals and by Key Code:

- **CB 3** Implement Hansen barcoding solution for enhanced asset management
- **CB 4** Install Cisco Prime to enhance management of networking equipment
- **OP 4** Implement new Helpdesk system
- **C 5** Rewrite of NBC's narrabay.com website

Target Measures

CORE BUSINESS:	Operate, maintain and protect our collection and treatment systems to
	ensure that all State and Federal requirements are met or surpassed.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Ensure the highest level of availability of systems' applications and network stability • CB 3

TARGET MEASURE:

Ensure no more than 10 downtime hours to maintain system availability

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Hours	0	≤10	≤10	≤10

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Maximize efficiency through service automation, applications security and NBC campus security • CB 4

TARGET MEASURE:

Ensure 100% of servers are running current supported Applications and Operating systems

_	Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	_
	Percentage	98%	100%	100%	100%	ĺ

Prevent 100% of security breaches into NBC servers and applications

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	3,567,745 Scanned	100%	100%	100%
	71.971 Violations	100%		

TARGET MEASURE:

Prevent 100% of security breaches into NBC email server

Unit of Measure	FY 2018 Actual	_	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	845,370 Blocked 5,750 Quarantined		100%	100%	100%

TARGET MEASURE:

Complete Bi-Annual Security audit and implement suggestions within 12 months

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Audit Complete	Yes	No Audit	No Audit	Yes	Ī

FINANCIAL MANAGEMENT:

Manage NBC's finances through strong financial planning and controls such that sewer user charges are minimized.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Develop and manage NBC's operating and capital budgets to maximize benefits, minimize expense and unplanned expenditures • FM 4

TARGET MEASURE:

Complete 100% of planned capital items

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Budgeted	14	100%	100%	100%
Completed	14	100%	100%	100%

CUSTOMER FOCUS:

Maintain a customer-focused attitude throughout the organization.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Enhance internal communications to ensure consistency, reliability and satisfaction • CF 3

TARGET MEASURE:

Respond to 100% service desk requests within two hours

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Percentage	100%	100%	100%	100%	Ī

STAFFING:

Attract, develop and retain highly qualified employees.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes • S 3

TARGET MEASURE:

Provide a minimum of 140 user training sessions

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Incentive	4	50	50	50
Non-Incentive	158	90	100	100

TARGET MEASURE:

Provide a minimum of 250 employee training hours

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Hours	250	210	250	250

ORGANIZATIONAL PERFORMANCE: Ensure that the NBC organization is aligned with and supports our strategic goals.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide end-user technology and systems to meet NBC's strategic goals • OP 4

TARGET MEASURE:

Ensure computer hardware does not exceed 5-year Desktop lifecycle

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
PCs	94%	100%	100%	100%
Thin Clients	100%	100%	100%	100%

TARGET MEASURE:

Ensure NBC software updates are at least one version behind the latest released version

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Oracle	100%	100%	100%	100%
Hansen	100%	100%	100%	100%
GIS	100%	100%	100%	100%

TARGET MEASURE:

Ensure maximum number of current supported versions of application and operating systems are maintained

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
PCs	100%	100%	100%	100%
Thin Clients	100%	100%	100%	100%



CONSTRUCTION AND ENGINEERING DIVISION

Division Summary

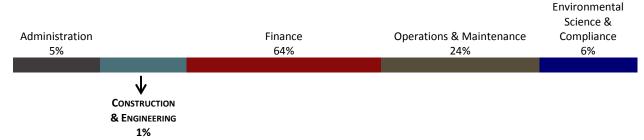
CONSTRUCTION SERVICES

ENGINEERING

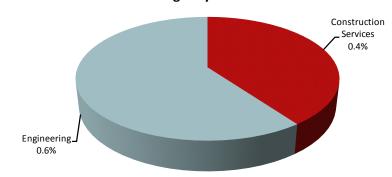
The Program

The Construction and Engineering Division is responsible for the planning, design and construction of capital improvements necessary to comply with regulatory requirements, take advantage of technological advancements, ensure the integrity of NBC's infrastructure and achieve operational efficiencies. These improvements represent construction of new facilities, rehabilitation and replacement of existing infrastructure as well as incorporating the needs identified through NBC's Asset Management Program. This Division also provides facilities engineering and maintenance services for the entire NBC campus.

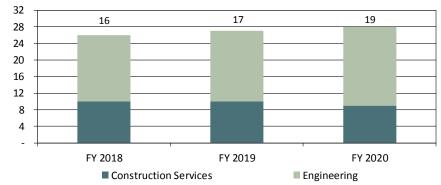
FY 2020 Budget By Division



CONSTRUCTION & ENGINEERING DIVISION Budget by Section



Budgeted Positions (FTEs)*



^{*}Does not include turnover

CONSTRUCTION AND ENGINEERING DIVISION Division Summary

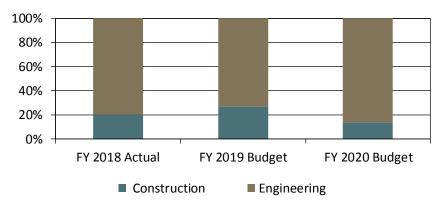
The Budget

Operations & Maintenance Expense		FY 2018 Actual		FY 2019 Budget		FY 2020 Budget	
Personnel	\$	459,727	\$	412,066	\$	582,433	
Operating Supplies/Expense		31,752		56,250		330,572	
Professional Services		1,116		5,000		3,200	
Total O&M	\$	492,595	\$	473,316	\$	916,205	
Funds by Source - Revenue	\$	492,595	\$	473,316	\$	916,205	

Significant Budget Modifications

The FY 2020 Construction and Engineering Division budget is \$442,889 or 93.6% higher than the FY 2019 budget. Personnel increased by \$170,367 and includes a net increase of two FTEs over the prior year related to facilities management. Operating supplies and expense and professional services increased by \$274,522 compared to FY 2019 and includes the transfer of the facilities management function and related expense to Engineering.

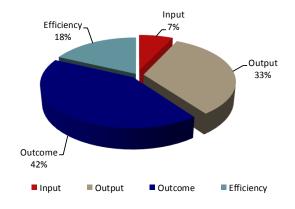
Percent of Division's Budget by Section



Construction and Engineering Division Performance Data Summary

The chart below illustrates the Construction and Engineering Division's Performance Data by type of measure. The measures can be found in the individual sections following this division summary. In this Division, Outcome and Efficiency make up 60% of the performance measures.

Percentage of Performance Measurement Types CONSTRUCTION & ENGINEERING DIVISION



CONSTRUCTION SERVICES Section Summary

The Program

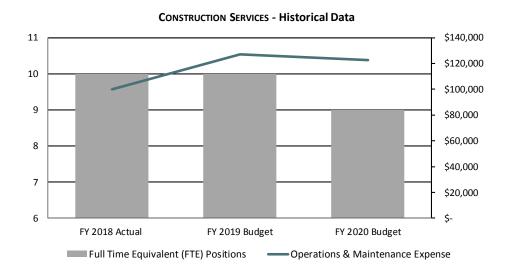
The Construction Services section is responsible for overseeing construction of capital improvement projects related to NBC's collection system and wastewater treatment facilities. Improvements to NBC's infrastructure are necessary to ensure proper collection and treatment of wastewater and stormwater in the service area.

The Budget

Operations & Maintenance Expense		FY 2018 Actual		FY 2019 Budget		FY 2020 Budget	
Personnel	\$	88,850	\$	108,278	\$	103,531	
Operating Supplies/Expense		9,996		18,825		19,200	
Professional Services		1,168		-			
Total Expense	\$	100,014	\$	127,103	\$	122,731	
Funds by Source - Revenue	\$	100,014	\$	127,103	\$	122,731	

Significant Budget Modifications

The FY 2020 Construction Services budget is \$4,747 or 4.4% lower than the FY 2019 budget. Personnel expense decreased by \$4,747 and includes one less FTE and increased salary reimbursements than the prior year. Operating supplies and expense increased by \$375.



PROGRAM STAFFING (BUDGETED) FY 2018 FY 2019 FY 2020 Union FTEs Non-Union FTEs 10 10 9 Less Turnover Net Total 10 10 9

Goal Actions for Target Measures by Key Code

Core Business

- Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting requirements
- Manage the planning, design and construction of NBC's capital improvements in the most cost-effective manner and in compliance with regulatory requirements
- Ensure the highest level of availability of systems' applications and network stability
- Maximize efficiency through service automation, applications security and NBC campus security
- Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment

Environmental Performance

- Minimize environmental impacts and implement conservation and sustainability measures
- Evaluate the NBC Program and report the data to the public
- Provide technical assistance to evaluate energy conservation and renewable energy opportunities
- Provide quality and expedient sample collection, data analyses and water quality monitoring to evaluate NBC's impacts and document improvements

Financial Management

- Ensure sufficient funding and receive the lowest cost of borrowing with the least rate payer impact
- Integrate NBC's strategic goals into the allocation of NBC's resources
- Maximize the efficiency, effectiveness, and accuracy of NBC's rate structures and collection processes to reduce accounts receivable
- FM 4 Develop and manage NBC's operating and capital budgets to maximize benefits, minimize expense and unplanned expenditures
- FM 5 Comply with IRS, Federal and State Rules and Regulations, Trust Indenture and Generally Accepted Accounting Principles
- FM 6 Ensure goods and services are procured, reviewed and processed in a timely, efficient and cost effective manner
- Initiate and evaluate incentive programs
- FM 8 Evaluate savings opportunities and optimize NBC operations and processes

Customer Focus

- Maintain programs and conduct projects that give back to the community
- Provide prompt, courteous, efficient and educational services
- Enhance communications to ensure consistency, reliability and satisfaction
- Maximize customer focus attitude by providing excellent customer service and developing strong customer relationships
- Ensure compliance with NBC internal controls

Staffing

- Ensure compliance with Federal and State labor laws
- Foster a positive working environment through effective communication
- rovide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes
- Provide a healthy and safe working environment
- s 5 Develop mechanisms and establish opportunities for continued growth and professional development

Communication

- Continue to expand and conduct NBC public outreach programs
- Proactively manage NBC's public and legislative affairs and communicate NBC initiatives and ongoing activities
- Effectively communicate status of capital projects to NBC staff and Board members
- Enhance operating budget, CIP and compliance reports as a communication device
- Strengthen and expand NBC's positive relations with key stakeholders (customers, Board, elected officials/delegates, regulatory officials and the public) to ensure support of NBC's mission

Organizational Performance

- OP 1 Conduct NBC business in an open manner
- OP 2 Promote diversity in hiring practices
- OP 3 Ensure compliance with State ethics and regulatory agenda filing
- OP 4 Provide end-user technology and systems to meet NBC's strategic goals

CONSTRUCTION SERVICES Performance Data

Major Accomplishments FY 2019 by Key Code:

- CB 2 Completed construction of the Johnston Sewer Improvements/Greenville Avenue (Project 30460) and the Johnston Sewer Improvements/Hartford Avenue (Project 30464)
- **CB 2** Assisted with the design of the CSO Phase III Facilities
- **CB 2** Replaced the retired Construction Manager position

Top Priorities for FY 2020 and How They Relate to the Strategic Plan/Goals and by Key Code:

- **CB 2** Complete Bucklin Point Biogas Project
- **CB 2** Assist with design of the CSO Phase III Facilities
- **CB 1** Ensure CSO Phase III bid documents meet WIFIA requirements

Target Measures

CORE BUSINESS:	Operate, maintain and protect our collection and treatment systems to
	ensure that all State and Federal requirements are met or surpassed.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Manage the planning, design and construction of NBC's capital improvements in the most cost-effective manner and in compliance with regulatory requirements • CB 2

TARGET MEASURE:

Resident engineering cost is 15% or less of construction cost (non-CSO contracts)

_	Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
	Percentage	13%	≤15%	≤15%	≤15%

TARGET MEASURE:

Contract cost is less than 8% higher than original bid amount on an annual basis

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	2%	≤8%	≤8%	≤8%

TARGET MEASURE:

Ensure 85% of CIP contracts completed within six months of master schedule

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	100%	85%	85%	85%

TARGET MEASURE:

Receive 100% WBE, MBE and EEO plans for approval prior to award of contract

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	95 Plans	100%	100%	100%

TARGET MEASURE:

Collect, review and maintain certified payrolls

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Frequency	Monthly	Monthly	Monthly	Monthly	

TARGET MEASURE:

Process 100% of Change Orders

Unit of Measure	FY 2018 Actual	 FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	16 Change Orders	100%	100%	100%

TARGET MEASURE:

Ensure all Awards of Contracts are presented to the Board for Approval

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	6 Contracts	100%	100%	100%

TARGET MEASURE:

Conduct weekly meetings with all contractors for active ongoing projects.

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Quantity	52	52	52	52

TARGET MEASURE:

Apply for and receive a Certificate of Approval from RIDEM prior to Funding

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	100%	100%	100%	100%

TARGET MEASURE:

Comply with MBE/WBE quarterly reporting requirements

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Frequency	4	4	4	4

TARGET MEASURE:

Develop 100% of contract plans and specifications by NBC staff as requested

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	3 Plans/Specifications	100%	100%	100%

TARGET MEASURE:

Review constructability and bid ability of all design specifications

Unit of Measure	FY 2018 Actual	FY 201	l8 Goal	FY 2019	Goal	FY 20	20 Goal
Percentage	3 Design Specifications	10	0%	100	1%	1	00%

FINANCIAL MANAGEMENT:

Manage NBC's finances through strong financial planning and controls such that sewer user charges are minimized.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Ensure goods and services are procured, reviewed and processed in a timely, efficient and cost effective manner • FM 6

TARGET MEASURE:

Review and process 100% of contractual capital invoices

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Percentage	84 Capital Invoices	100%	100%	100%	

CUSTOMER FOCUS:

Maintain a customer-focused attitude throughout the organization.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Ensure compliance with NBC's internal controls • CF 5

TARGET MEASURE:

Ensure Change Orders that exceed 5% of bid are presented to the Board for approval

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	0 Changes Orders	100%	100%	100%

STAFFING: Attract, develop and retain highly qualified employees.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes • S 3

TARGET MEASURE:

Provide a minimum of 100 training hours

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Quantity	90	100	100	100

COMMUNICATION: Improve and enhance internal and external communication to increase understanding of "who we are" and "what we do".

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Effectively communicate status of capital projects to NBC staff and Board members • C 3

TARGET MEASURE:

Ensure ongoing construction updates are communicated to NBC staff, Board of Commissioners and the public

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	2 Meetings	100%	100%	100%



ENGINEERING

Section Summary

The Program

The primary responsibility of the Engineering section is to plan and design facilities, necessary for the collection and treatment of wastewater within NBC's service area and the issuance of sewer connection permits. Projects designed by the Engineering section are identified in NBC's five-year Capital Improvement Plan include CSO facilities, improvements to the wastewater treatment facilities, sewer system improvement projects and CSO interceptor repair and construction projects. The Engineering section also provides facilities engineering and maintenance services for the NBC campus.

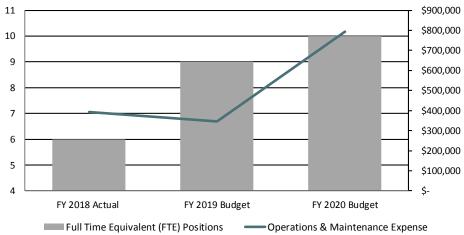
The Budget

Operations & Maintenance Expense	FY 2018 Actual		FY 2019 Budget		FY 2020 Budget	
Personnel	\$	370,877	\$	303,788	\$	478,902
Operating Supplies/Expense		21,756		37,425		311,372
Professional Services		(52)		5,000		3,200
Total Expense	\$	392,581	\$	346,213	\$	793,474
Funds by Source - Revenue	\$	392,581	\$	346,213	\$	793,474

Significant Budget Modifications

The FY 2020 Engineering budget is \$447,261 or 129.2% higher than the FY 2019 budget. Personnel increased by \$175,114 and includes a new Facilities Engineer and the transfer of two positions, the Facilities Management Administrator from the Purchasing section and the Operations & Maintenance Fiscal Coordinator from the Operations & Maintenance section. Operating supplies and expense and professional services increased by \$272,147 and includes the transfer of the facilities management function and related expense from the General Services and the Laboratory sections to Engineering.





PROGRAM STAFFING (BUDGETED)

	FY 2018	FY 2019	FY 2020
Union FTEs	=	-	-
Non-Union FTEs	6	7	10
Less Turnover	-	-	-
Net Total	6	7	10

Goal Actions for Target Measures by Key Code

Core Business

CB 1	Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting
	requirements

- Manage the planning, design and construction of NBC's capital improvements in the most cost-effective manner and in compliance with regulatory requirements
- Ensure the highest level of availability of systems' applications and network stability
- Maximize efficiency through service automation, applications security and NBC campus security
- Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment

Environmental Performance

- Minimize environmental impacts and implement conservation and sustainability measures
- Evaluate the NBC Program and report the data to the public
- Provide technical assistance to evaluate energy conservation and renewable energy opportunities
- Provide quality and expedient sample collection, data analyses and water quality monitoring to evaluate NBC's impacts and document improvements

Financial Management

- FM 1 Ensure sufficient funding and receive the lowest cost of borrowing with the least rate payer impact
- Integrate NBC's strategic goals into the allocation of NBC's resources
- Maximize the efficiency, effectiveness, and accuracy of NBC's rate structures and collection processes to reduce accounts receivable
- Pevelop and manage NBC's operating and capital budgets to maximize benefits, minimize expense and unplanned expenditures
- FMS Comply with IRS, Federal and State Rules and Regulations, Trust Indenture and Generally Accepted Accounting Principles
- Ensure goods and services are procured, reviewed and processed in a timely, efficient and cost effective manner
- Initiate and evaluate incentive programs
- Evaluate savings opportunities and optimize NBC operations and processes

Customer Focus

- Maintain programs and conduct projects that give back to the community
- Provide prompt, courteous, efficient and educational services
- Enhance communications to ensure consistency, reliability and satisfaction
- cf4 Maximize customer focus attitude by providing excellent customer service and developing strong customer relationships
- Ensure compliance with NBC internal controls

Staffing

- Ensure compliance with Federal and State labor laws
- Foster a positive working environment through effective communication
- rovide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes
- Provide a healthy and safe working environment
- Develop mechanisms and establish opportunities for continued growth and professional development

Communication

- Continue to expand and conduct NBC public outreach programs
- Proactively manage NBC's public and legislative affairs and communicate NBC initiatives and ongoing activities
- Effectively communicate status of capital projects to NBC staff and Board members
- Enhance operating budget, CIP and compliance reports as a communication device
- Strengthen and expand NBC's positive relations with key stakeholders (customers, Board, elected officials/delegates, regulatory officials and the public) to ensure support of NBC's mission

Organizational Performance

- OP 1 Conduct NBC business in an open manner
- OP 2 Promote diversity in hiring practices
- OP 3 Ensure compliance with State ethics and regulatory agenda filing
- Provide end-user technology and systems to meet NBC's strategic goals

ENGINEERING

S 3

Performance Data

Major Accomplishments FY 2019 by Key Code:

CB 1	Obtained RIDEM approval of CSO Phase III Reevaluation Report and negotiated Consent Agreement language for the construction schedule
CB 2	Substantially completed the RIPDES Compliance Improvements (Project 1140600)
CB 2	Completed the installation of the air-handling units at Field's Point (Project 20100)
CB 2	Replaced the retired Engineering Manager position
CB 5	Completed GIS records for NBC's main pipes and the CSO Phase II Facilities
CB 5	Solicited design consultants for near surface facilities for CSO Phase III (Project 30800)
CB 5	Substantially completed the FPWWTF Operations and Lab Reuse (Project 12900)
CB 5	Initiated the Omega Pump Station Upgrade (Project 70900)
FM 1	Assisted with the WIFIA Letter of Interest and Application submittals
CF 5	Initiated the update of NBC's easement and acquisition files
CF 5	Issued 317 sewer connection and stormwater permits
CF 5	Initiated the development of an internal Stormwater Policy
S 3	Included average and peak flows into the GIS program

Top Priorities for FY 2020 and How They Relate to the Strategic Plan/Goals and by Key Code:

- CB 2 Complete 30% design of the near surface facilities for CSO Phase III and issue Request for Qualifications for CSO Tunnel Design-Build Contractor
- **CB 2** Complete the design of the Bucklin Point Resiliency Project

Updated the sewer connection permit process

- **CB 2** Complete the design of the FY 2019 WWTF Improvements
- **CB 5** Provide cost-effective property management of the Corporate Office Building
- **CF 2** Ensure timely completion of service requests

Target Measures

CORE BUSINESS:

Operate, maintain and protect our collection and treatment systems to ensure that all State and Federal requirements are met or surpassed.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Manage the planning, design and construction of NBC's capital improvements in the most cost-effective manner and in compliance with regulatory requirements • CB 2

TARGET MEASURE:

Complete design phase of projects to ensure integrity of NBC's infrastructure and achieve operating efficiencies

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Nutrient Removal	0	1	1	0
Sewer Collection System	1	2	1	2
Phase III Combined Sewer Overflow	1	1	2	4
WWTF Improvements	2	3	4	4

TARGET MEASURE:

Planning and design contract expense is ≤10% of approved contract

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	100%	100%	100%	100%

TARGET MEASURE:

Record 100% of file easements for projects

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	1 Easement	100%	100%	100%

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Maximize efficiency through service automation, applications security and NBC campus security • CB 4

**Target Measure:*

Update NBC's GIS database and application software

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Database Updates	300 Updates	100%	100%	100%
Software Updates	2 Updates	100%	100%	100%

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment • CB 5

TARGET MEASURE:

Perform required facility inspections

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Elevators	12	Quarterly	Quarterly	Quarterly
Fire Alarms	4	Quarterly	Quarterly	Quarterly
Mechanical Equipment	20 Inspections	100%	100%	100%

TARGET MEASURE:

Complete 85% of building maintenance requests within two weeks

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	99% - 97 Requests	85%	85%	85%

FINANCIAL MANAGEMENT:

Manage NBC's finances through strong financial planning and controls such that sewer user charges are minimized.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Maximize the efficiency, effectiveness, and accuracy of NBC's rate structures and collection processes to reduce accounts receivable • FM 3

TARGET MEASURE:

Collect 100% of Permit Fees

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	\$117,707	100%	100%	100%

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Develop and manage NBC's operating and capital budgets to maximize benefits, minimize expense and unplanned expenditures • FM 4

TARGET MEASURE:

Complete 100% of planned capital items

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Budgeted	2	100%	100%	100%
Completed	1	100%	100%	100%

TARGET MEASURE:

Spend \$8/sq. ft. or less on NBC corporate office building maintenance

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Dollars per square foot	\$7.10	\$8.00	\$8.00	\$8.00

CUSTOMER FOCUS:

Maintain a customer-focused attitude throughout the organization.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Maximize customer focus attitude by providing excellent customer service and developing strong customer relationships • CF 4

TARGET MEASURE:

Issue Sewer and Stormwater Connection Permits within 10 business days

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Timeframe	6 Business Days	≤10 Business Days	≤10 Business Days	≤10 Business Days

TARGET MEASURE:

Issue Sewer Alteration Permits within 10 business days

Unit of Measur	e FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Timeframe	6 Business Days	≤10 Business Days	≤10 Business Days	≤10 Business Days

TARGET MEASURE:

Provide Customer Service with 100% of new sewer connection permit data

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	309 New Accounts	100%	100%	100%

STAFFING:

Attract, develop and retain highly qualified employees.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes • S 3

TARGET MEASURE:

Attend a minimum of 1 professional training session per year

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Sessions	3	1	1	1

COMMUNICATION: Improve and enhance internal and external communication to increase understanding of "who we are" and "what we do".

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Effectively communicate status of capital projects to NBC staff and Board members • C 4

TARGET MEASURE:

Conduct monthly capital project meetings

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Quantity	9	10	8	8

FINANCE DIVISION Division Summary





CUSTOMER SERVICE

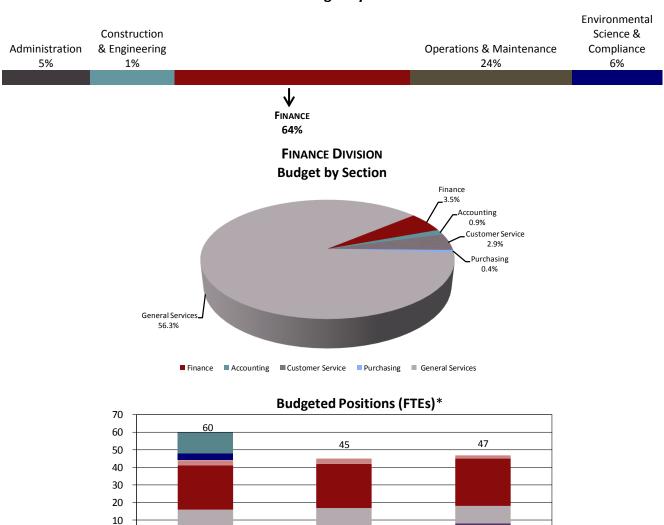
Purchasing

GENERAL SERVICES

The Program

The Finance Division is responsible for the Finance, Cash Management, Payroll, Administration of Retirement Plans, Accounting, Customer Service, and Purchasing functions at NBC. This Division is responsible for providing sound financial leadership and support to all areas of NBC, and for the production of monthly financial statements in accordance with "Generally Accepted Accounting Principles". The Division is also responsible for utilities, the issuance of long-term debt, rate filings, and ensuring compliance with applicable state and federal laws, rules and regulations.

FY 2020 Budget by Division



FY 2018

FY 2019

■ Finance ■ Accounting ■ Customer Service ■ Purchasing ■ Human Resources ■ IT

FY 2020

^{*}Does not include turnover

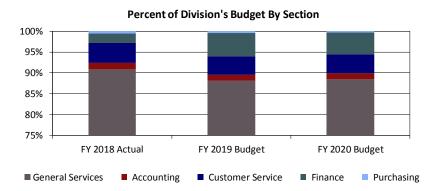
FINANCE DIVISION Division Summary

The Budget

Operations & Maintenance Expense		' 2018 Actual	FY	2019 Budget	FY	2020 Budget
Personnel	\$	5,660,192	\$	4,316,641	\$	4,660,345
Operating Supplies/Expense		3,261,757		5,080,733		5,536,079
Professional Services		1,019,733		1,194,400		1,057,390
Total O&M		9,941,682		10,591,774		11,253,814
Debt Service						
Debt Service		45,431,230		47,787,187		47,816,624
Total Debt Service		45,431,230		47,787,187		47,816,624
Total Expense		55,372,912	\$	58,378,961	\$	59,070,438
Funds by Source - Revenue	\$	55,372,912	\$	58,378,961	\$	59,070,438

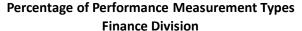
Significant Budget Modifications

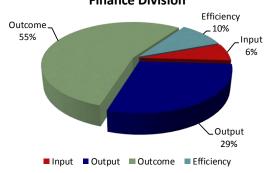
The FY 2020 Finance Division budget is \$691,477 or 1.18% higher than the FY 2019 budget. Personnel expense increased by \$343,704 and includes a net increase of two FTEs over the prior year to support Finance and Customer Service. Operating supplies and expense increased by \$455,346 or 8.96% and includes the reallocation of all renewable energy related and natural gas expense to General Services and the transfer of the Corporate Office Building facilities management function and related expense to the Engineering section. Professional services decreased by \$137,010 and Debt service increased by \$29,437 over the prior year.



Finance Division Performance Data Summary

The chart below illustrates the Finance Division's Performance Data by type of measure. The measures can be found in the individual sections following this division summary. In this Division, Outcome and Efficiency make up 65% of the performance measures.





FINANCE

Section Summary

The Program

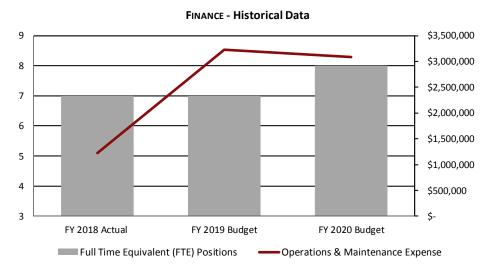
The Finance section ensures that NBC has sufficient resources and employs sound fiscal policies and practices to provide the highest quality service at a reasonable cost. The Finance section is responsible for development and management of the annual Operating Budget, the Capital Improvement Program, Operating Capital Program, the establishment of user charges and management of long-term debt. The Finance section ensures compliance with requirements of the RIPUC, the Trust Indenture and Supplemental Indentures, Continuing Disclosure, Post-Issuance Compliance and other regulatory requirements. This section is also responsible for cash management, NBC's retirement plans and NBC's Insurance and Risk Management.

The Budget

Operations & Maintenance Expense	FY 2	2018 Actual	FY 2	2019 Budget	FY 2	2020 Budget
Personnel	\$	674,160	\$	754,088	\$	881,693
Operating Supplies/Expense		15,282		1,395,740		1,268,219
Professional Services		536,420		1,080,000		936,000
Total O&M	\$	1,225,862	\$	3,229,828	\$	3,085,912
Funds by Source - Revenue	\$	1,225,862	\$	3,229,828	\$	3,085,912

Significant Budget Modifications

The FY 2020 Finance budget is \$143,916 or 4.5% lower than the FY 2019 budget. Personnel expense increased by \$127,605 over the prior year and includes one additional FTE, a Senior Financial Analyst. Operating supplies and expense decreased by \$127,521 and reflects a reduction in the workers' compensation premiums. Professional services decreased by \$144,000 from FY 2019, and does not include the expense for the State of RI Office of Management and Budget audit in FY 2020, since it was completed in the prior year.



PROGRAM STAFFING (BUDGETED) FY 2018 FY 2019 FY 2020 Union FTES Non-Union FTES 6 7 8 Less Turnover Net Total 6 7 8

Goal Actions for Target Measures by Key Code

Core Business

- Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting requirements
- Manage the planning, design and construction of NBC's capital improvements in the most cost-effective manner and in compliance with regulatory requirements
- Ensure the highest level of availability of systems' applications and network stability
- Maximize efficiency through service automation, applications security and NBC campus security
- Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment

Environmental Performance

- Minimize environmental impacts and implement conservation and sustainability measures
- Evaluate the NBC Program and report the data to the public
- Provide technical assistance to evaluate energy conservation and renewable energy opportunities
- Provide quality and expedient sample collection, data analyses and water quality monitoring to evaluate NBC's impacts and document improvements

Financial Management

- FM1 Ensure sufficient funding and receive the lowest cost of borrowing with the least rate payer impact
- Integrate NBC's strategic goals into the allocation of NBC's resources
- Maximize the efficiency, effectiveness, and accuracy of NBC's rate structures and collection processes to reduce accounts receivable
- PM4 Develop and manage NBC's operating and capital budgets to maximize benefits, minimize expense and unplanned expenditures
- FMIS Comply with IRS, Federal and State Rules and Regulations, Trust Indenture and Generally Accepted Accounting Principles
- Ensure goods and services are procured, reviewed and processed in a timely, efficient and cost effective manner
- Initiate and evaluate incentive programs
- Evaluate savings opportunities and optimize NBC operations and processes

Customer Focus

- Maintain programs and conduct projects that give back to the community
- Provide prompt, courteous, efficient and educational services
- Enhance communications to ensure consistency, reliability and satisfaction
- cr4 Maximize customer focus attitude by providing excellent customer service and developing strong customer relationships
- Ensure compliance with NBC internal controls

Staffing

- Ensure compliance with Federal and State labor laws
- Foster a positive working environment through effective communication
- rovide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes
- Provide a healthy and safe working environment
- Develop mechanisms and establish opportunities for continued growth and professional development

Communication

- Continue to expand and conduct NBC public outreach programs
- Proactively manage NBC's public and legislative affairs and communicate NBC initiatives and ongoing activities
- Effectively communicate status of capital projects to NBC staff and Board members
- Enhance operating budget, CIP and compliance reports as a communication device
- Strengthen and expand NBC's positive relations with key stakeholders (customers, Board, elected officials/delegates, regulatory officials and the public) to ensure support of NBC's mission

Organizational Performance

- OP 1 Conduct NBC business in an open manner
- OP 2 Promote diversity in hiring practices
- OP 3 Ensure compliance with State ethics and regulatory agenda filing
- OP 4 Provide end-user technology and systems to meet NBC's strategic goals

FINANCE

Performance Data

Major Accomplishments FY 2019 by Key Code:

- FM 1 Received affirmation of the AA-/Stable Long Term unenhanced credit rating from S&P Global and AAA/A-1+ Long Term rating
- FM 1 Executed a \$45 million loan through the Rhode Island Infrastructure Bank
- **FM 1** Filed and received approval of a Debt Service Compliance Filing resulting in a 2.98% increase effective January 1, 2019
- **FM 1** Filed for approval for a General Rate Filing and negotiated a settlement agreement resulting in a \$6.3 million increase in revenue requirement
- FM 1 Prepared and submitted a Letter of Interest for WIFIA funding
- FM 1 Submitted WIFIA application materials for a \$268M loan and developed new proforma modeling
- FM 1 Implemented Debt Management Software
- FM 3 Assisted with the implementation of the new Customer Service application
- FM 3 Expanded ACH payment and enhanced customer online payment functionality at lower cost to NBC
- FM 4 Updated the internal Budget webpage with additional fillable forms and reference guides
- **FM 4** Modified the Budget presentation and developed and administered the Operating Budget, finishing under budget for the 27th year
- **FM 4** Developed the Capital Budget to include the five-year Operating Capital Program, Capital Improvement Program and managed capital funding
- **FM 5** Completed the FY 2019 Non-Union Defined Benefit Plan Financial Reports in conformance with GASB 67, GASB 68 and GASB 82
- **FM 5** Achieved a funding level of 100.95% and reduced the net pension liability for the Non-Union Defined Benefit Plan
- **FM 5** Filed tariff advice for proposed changes to Schedules A and B Billing Frequency Change and Credit Card Fee Change
- FM 5 Managed the Rhode Island Office of Management & Budget Audit, which focused on Purchasing, Pretreatment Permitting, Capital Asset Management, Customer Service Billing and Transparency requirements
- FM 6 Modified the cash and trust transfer process and recordkeeping
- FM 6 Initiated new accounting methods to track Net Metering Credits and prepared Schedule B's for all renewables

- FM 6 Assisted with the trading and sale of REC's
- **C 4** Received the Government Finance Officers' Association (GFOA) Distinguished Budget Presentation Award and received Capital and Special Performance Measures Recognition
- **OP 3** Prepared and submitted information to comply with Continuing Disclosure, Post-Issuance Compliance, Trust Indenture, Letter of Credit, RIPUC Orders, IRS and other commitments
- CF 5 Updated Insurance Standard Operating Procedures

Top Priorities for FY 2020 and How They Relate to the Strategic Plan/Goals and by Key Code:

- FM 1 Receive WIFIA funding and seek Division approval prior to entering into a loan agreement with EPA
- FM 1 Maintain AA- and AAA/A-1+ credit ratings from Standard and Poor's and secure second credit rating
- **FM 5** Ensure compliance with the Trust Indenture and Supplemental Indentures, IRS, SEC, RIPUC and all applicable laws, rules and regulations

Target Measures

FINANCIAL MANAGEMENT:	Manage NBC's finances through strong financial planning and
	controls such that sewer user charges are minimized.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Ensure sufficient funding and receive the lowest cost of borrowing with the least rate payer impact • FM 1

TARGET MEASURE:

Timely filing with PUC to maintain sufficient operating and capital funding by due date and spend .5% or less of Requested Revenue on Outside Rate Case Assistance

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
General Rate Filing	Filing not needed	No filing	9/30/2018	No filing
Debt Service Filing	Filing not needed	No filing	9/30/2018	No filing
Rate Case Assistance (Percentage)	0%	0.5%	0.5%	0.5%

TARGET MEASURE:

Transmit compliance reports to the Public Utilities Commission

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Capital Projects	2	2	2	2
Restricted Accounts	4	4	4	4
Non-Union Retirement Plans	11/6/2018	1	1	1

TARGET MEASURE:

Maintain at Least "A+" Unenhanced Credit Rating with Standard and Poor's

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
COD Coodit Dating	AA-	AA-	AA-	AA-
S&P Credit Rating	AAA/A-1+	AAA/A-1+	AAA/A-1+	AAA/A-1+

TARGET MEASURE:

Update Long-Term Financial Plan annually

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Frequency	2	2	1	1

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Maximize the efficiency, effectiveness, and accuracy of NBC's rate structures and collection processes to reduce accounts receivable • FM 3

TARGET MEASURE:

Evaluate and ensure sufficient insurance policies are in effect prior to expiration

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	25 Policies	100%	100%	100%

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Comply with IRS, State of Rhode Island Rules and Regulations, Trust Indenture and Generally Accepted Accounting Principles • FM 5

TARGET MEASURE:

Compliance with Continuing Disclosure Commitments

	Unit of Measure	FY 2018 Actual	_	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
_	Annual Operating Data and CAFR on EMMA	12/15/2017	Ī	3/31/2018	3/31/2019	3/31/2020
	Annual Operating Data and CAFR with RIIB	1/2/2018		3/31/2018	3/31/2019	3/31/2020
	Material Events within 10 days of Occurrence	No Events		<10 Days	<10 Days	<10 Days

TARGET MEASURE:

Ensure compliance with federal and state statutory requirements

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Tax Due Diligence Prior to Issuance	No Issuances	100%	100%	100%
RIGL 35-14 Fiscal Integrity & Accountability	12/5/2017	12/31/2017	12/31/2018	12/31/2019
RIGL 42-10-1-1 PFMB Debt Reporting	9/28/2017	9/30/2017	9/30/2018	9/30/2019
RIGL 42-90-1 Government Consultants	9/7/2017	10/1/2017	10/1/2018	10/1/2019
Governments Survey of Public Pensions	11/8/2017	12/31/2017	12/31/2018	12/31/2019

TARGET MEASURE:

Perform Post-Issuance Compliance monthly reporting

Unit of Measure	FY 2018 Actual	_	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Tax Exempt Spend Down Requirements	Monthly		Monthly	Monthly	Monthly
Due Date - Determine Arbitrage Liability	6/9/2017		8/31/2017	8/31/2018	8/31/2019
Provide Arbitrage Calculation Information	2 Requests		100%	100%	100%

TARGET MEASURE:

Revise Capital Cash Flow Projected Draw a minimum of 2 times per year

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Frequency	2	2 Updates	2 Updates	2 Updates	Ī

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Develop and manage NBC's operating and capital budgets to maximize benefits, minimize expense and unplanned expenditures • FM 4

TARGET MEASURE:

Receive GFOA Distinguished Budget Presentation Award

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Consecutive Years	16	16	17	18

TARGET MEASURE:

Process 100% of budget transfers 5 days prior to month end

Unit of Measure	FY 2018 Actual		FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	100% (147 budget transfers)		100%	100%	100%

TARGET MEASURE:

Prepare and transmit monthly finance report to Finance Committee

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Frequency	12	Monthly	Monthly	Monthly

TARGET MEASURE:

Upload Budget, Operating Capital Program, and Capital Improvement Program updates to budget webpage

Unit o	f Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Fre	quency	12	Monthly	Monthly	Monthly

TARGET MEASURE:

Prudently administer the non-union defined benefit plan

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Due Date - Actuarial Study	5/30/2018	3/31/2018	3/31/2019	3/31/2020
Percentage - Funded Minimum ARC	100.95%	100%	100%	100%
Due Date - GASB Financial Report	10/16/2017	8/31/2017	8/31/2018	8/31/2019

TARGET MEASURE:

Review retirement plan investments quarterly

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Quantity	4	4/Year	4/Year	4/Year	

CUSTOMER FOCUS:

Maintain a customer-focused attitude throughout the organization.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Ensure compliance with NBC's internal controls • CF 5

TARGET MEASURE

Process 100% of operating capital transfer requests and provide monthly transfer summary to Finance Committee

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Total Transfer Requests	100% (35 requests)	100%	100%	100%
Frequency	6	9	8	8

STAFFING:

Attract, develop and retain highly qualified employees.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes • S 3

TARGET MEASURE:

Provide a minimum of 100 Training/Seminars hours

Unit of Measure	FY 2018 Actual	018 Actual FY 2018 Goal		FY 2020 Goal	
Hours	214	30	30	100	

COMMUNICATION:

Improve and enhance internal and external communication to increase understanding of "who we are" and "what we do".

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Enhance Budget, CIP and compliance reports and as communication device • C 4

TARGET MEASURE:

Budget Receives a Proficient or Better Rating as a Communication Device by GFOA

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Received	Proficient/Outstanding	Yes	Yes	Yes

TARGET MEASURE:

Complete Annual Sewer User Fee Survey

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
MWRA	12/04/2018	Yes	Yes	Yes
NACWA	12/21/2018	Yes	Yes	Yes
NBC Statewide	1/30/2018	Yes	Yes	Yes

Accounting Section Summary

The Program

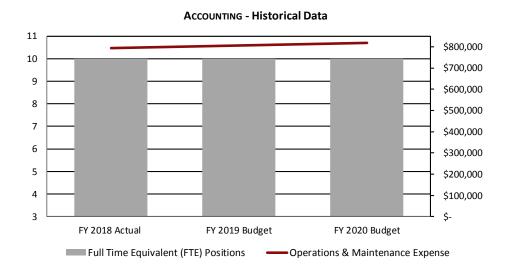
The Accounting section is responsible for preparing and issuing monthly financial statements in accordance with "Generally Accepted Accounting Principles". Accounting provides cash management support and ensures compliance with the flow of funds set forth in the Trust Indenture and PUC Orders. The Accounting section is also responsible for processing payroll, vendor payments, capital project expenditures, maintaining the general ledger and assisting with rate filings.

The Budget

Operations & Maintenance Expense	FY 20	18 Actual	FY 20:	19 Budget	FY 20	20 Budget
Personnel	\$	751,693	\$	758,201	\$	763,894
Operating Supplies/Expense		8,518		10,170		10,270
Professional Services		33,500		38,000		45,000
Total O&M	\$	793,711	\$	806,371	\$	819,164
_						
Funds by Source - Revenue	\$	793,711	\$	806,371	\$	819,164

Significant Budget Modifications

The FY 2020 Accounting budget is \$12,793 or 1.6% higher than the FY 2019 budget. Personnel expense increased by \$5,693 over the prior year. Operating supplies and expense and Professional services increased by \$7,100 and include additional funding for the financial audit which must go out to bid next year.



PROGRAM STAFFING (BUDGETED)

	FY 2018	FY 2019	FY 2020
Union FTEs	2	2	1
Non-Union FTEs	8	8	9
Less Turnover	-	-	-
Net Total	10	10	10

Goal Actions for Target Measures by Key Code

Core Business

- Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting requirements
- Manage the planning, design and construction of NBC's capital improvements in the most cost-effective manner and in compliance with regulatory requirements
- Ensure the highest level of availability of systems' applications and network stability
- Maximize efficiency through service automation, applications security and NBC campus security
- Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment

Environmental Performance

- Minimize environmental impacts and implement conservation and sustainability measures
- EP2 Evaluate the NBC Program and report the data to the public
- FP3 Provide technical assistance to evaluate energy conservation and renewable energy opportunities
- Provide quality and expedient sample collection, data analyses and water quality monitoring to evaluate NBC's impacts and document improvements

Financial Management

- FM 1 Ensure sufficient funding and receive the lowest cost of borrowing with the least rate payer impact
- Integrate NBC's strategic goals into the allocation of NBC's resources
- Maximize the efficiency, effectiveness, and accuracy of NBC's rate structures and collection processes to reduce accounts receivable
- PM4 Develop and manage NBC's operating and capital budgets to maximize benefits, minimize expense and unplanned expenditures
- FMIS Comply with IRS, Federal and State Rules and Regulations, Trust Indenture and Generally Accepted Accounting Principles
- Ensure goods and services are procured, reviewed and processed in a timely, efficient and cost effective manner
- Initiate and evaluate incentive programs
- Evaluate savings opportunities and optimize NBC operations and processes

Customer Focus

- Maintain programs and conduct projects that give back to the community
- Provide prompt, courteous, efficient and educational services
- Enhance communications to ensure consistency, reliability and satisfaction
- CF4 Maximize customer focus attitude by providing excellent customer service and developing strong customer relationships
- Ensure compliance with NBC internal controls

Staffing

- Ensure compliance with Federal and State labor laws
- Foster a positive working environment through effective communication
- rovide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes
- Provide a healthy and safe working environment
- Develop mechanisms and establish opportunities for continued growth and professional development

Communication

- Continue to expand and conduct NBC public outreach programs
- Proactively manage NBC's public and legislative affairs and communicate NBC initiatives and ongoing activities
- Effectively communicate status of capital projects to NBC staff and Board members
- Enhance operating budget, CIP and compliance reports as a communication device
- Strengthen and expand NBC's positive relations with key stakeholders (customers, Board, elected officials/delegates, regulatory officials and the public) to ensure support of NBC's mission

Organizational Performance

- OP 1 Conduct NBC business in an open manner
- OP 2 Promote diversity in hiring practices
- OP 3 Ensure compliance with State ethics and regulatory agenda filing
- OP 4 Provide end-user technology and systems to meet NBC's strategic goals

ACCOUNTING

Performance Data

Major Accomplishments FY 2019 by Key Code:

FM 1	Implemented Debt Management Software
FM 5	Completed the FY 2018 audit of the financial statements by the September 30 th statutory deadline
FM 5	Completed the FY 2018 Single Audit by the November 30 th deadline
FM 5	Received a clean audit opinion and no management letter for the 21st consecutive year
FM 5	Received the GFOA Certificate of Achievement for Excellence in Financial Reporting for the 16 th consecutive year
FM 5	Calculated the monthly trust transfers and updated flow of funds procedures
FM 5	Prepared and distributed IRS W-2 and 1099 forms and ACA reporting for CY 2018 by the required due dates
FM 5	Completed the restricted account reporting
FM 5	Changed the recording of electricity invoices to one cost center and created contra accounts fo analytical and tracking purposes
FM 5	Assisted with the accounting portion of the implementation of the new customer service application
FM 6	Processed and submitted approximately \$41.6 million in capital invoices for payment
FM 6	Processed operating invoices and bi-weekly payrolls in a timely manner and received \$4,033 in discounts for prompt payment
FM 6	Assisted with the Office of Management and Budget audit
FM 6	Assisted with the General Rate Case
CB 4	Implemented ACH payments for employee reimbursements

Top Priorities for FY 2020 and How They Relate to the Strategic Plan/Goals and by Key Code:

- **CB5** Complete and establish formal inventory of assets not placed in service
- FM 5 Complete the FY 2019 audit in a timely manner and receive a clean audit opinion and no management letter
- **FM 5** Ensure proper calculation of the monthly trust transfers
- **FM 5** Prepare timely and accurate monthly financial statements

FM 6 Reduce or eliminate paper checks as a form of payment

Target Measures

FINANCIAL MANAGEMENT: Manage NBC's finances through strong financial planning and controls such that sewer user charges are minimized.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Comply with IRS, State of Rhode Island Rules and Regulations, Trust Indenture and Generally Accepted Accounting Principles • FM 5

TARGET MEASURE:

Receive the GFOA Certificate of Achievement for Excellence in Financial Reporting

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Consecutive Years	16	16	17	18	

TARGET MEASURE:

Timely completion of financial audit

Unit of Measure	FY 2018 Actual	_	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Completion of CAFR	10/16/2017		9/30/2017	9/30/2018	9/30/2019
Consecutive Years - No Management Letter	20 Years		19 Years	20 Years	21 Years
Address Findings within 5 days	0 Findings		0 Findings	0 Findings	0 Findings
Receive a clean opinion	Yes		Yes	Yes	Yes

TARGET MEASURE:

Timely completion of single audit if required

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Completion of Single Audit	1/2/2018	3/31/2018	3/31/2019	3/21/2020
Address findings within 5 days	0 Findings	0 Findings	0 Findings	0 Findings

TARGET MEASURE:

Prepare monthly financial statements within five business days of month-end

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Timeframe	≤5 Days	≤5 Days	≤5 Days	≤5 Days	

TARGET MEASURE:

Implement Government Accounting Standard Boards (GASB) pronouncements that apply to NBC

Unit of Measure FY 2018 Actual		_	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	1 Pronouncement Implemented		100%	100%	100%

TARGET MEASURE:

Prepare the restricted account reporting within 25 days of month-end

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Timeframe	≤25 Days	≤25 Days	≤25 Days	≤25 Days

TARGET MEASURE:

Prepare trust transfers 3 days before the last business day of month-end

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Timeframe	4 th Business Day				

TARGET MEASURE:

Perform monthly fund reconciliation within 25 days after month-end

Unit of Measure	easure FY 2018 Actual		FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Timeframe	≤25 Days		≤25 Days	≤25 Days	≤25 Days

TARGET MEASURE:

Prepare W-2s and 1099s at the end of the calendar year and the guarterly 941 payroll tax returns

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
W-2s	291 - W-2s	100%	100%	100%
1099s	92 - 1099s	100%	100%	100%
941s	4 - 941s	100%	100%	100%

TARGET MEASURE:

Prepare and submit the consultant report for the RI Secretary of State by October 1st of each year

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Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Due Date	9/7/2017	10/1/2017	10/1/2018	10/1/2019	

TARGET MEASURE:

Post quarterly financial statements on NBC's website and submit the quarterly surcharge reports to RIDEM

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Financials Posted	4	4	4	4
Surcharge Reports Submitted	4	4	4	4

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Ensure goods and services are procured, reviewed and processed in a timely, efficient and cost effective manner • FM 6

TARGET MEASURE:

Process 100% of invoices

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Operating Invoices	7,388 Operating Invoices	100%	100%	100%
Capital Invoices	1,219 Capital Invoices	100%	100%	100%

STAFFING:	Attract, develop and retain highly qualified employees.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes • S 3

TARGET MEASURE:

Ensure accountants and payroll administrators complete a minimum of 50 training hours

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	_
Hours	103	50	50	50	Ī



CUSTOMER SERVICE Section Summary

The Program

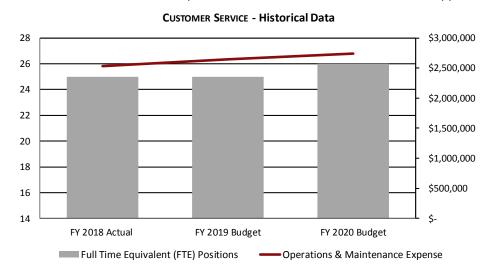
The Customer Service Section is responsible for accurate and timely monthly billing of approximately 84,455 accounts in the NBC service area. Water consumption based billings comprise more than half of the annually billed user charges, and NBC receives water consumption data from seven different water supply boards. The billing section also responds to customer inquiries such as real estate closing requests. Additionally, Customer Service has field investigators who research accounts and facilitate the abatement program. Customer Service processes cash and electronic payments, handles all collection activity including phone calls, water shut-offs and support for the lien sale.

The Budget

Operations & Maintenance Expense	FY 2018 Actual		FY 2019 Budget		FY 2020 Budget	
Personnel	\$	1,952,289	\$	2,065,313	\$	2,145,223
Operating Supplies/Expense		514,769		545,730		545,980
Professional Services		65,725		36,400		46,390
Total O&M	\$	2,532,783	\$	2,647,443	\$	2,737,593
_						
Funds by Source - Revenue	\$	2,532,783	\$	2,647,443	\$	2,737,593

Significant Budget Modifications

The FY 2020 Customer Service budget is \$90,150 or 3.4% higher than the FY 2019 budget. Personnel expense increased by \$79,910 over the prior year and includes a net increase of one additional FTE. In FY 2020, two new FTEs are budgeted, a Billing Analyst and a Billing Analyst – Cash which is offset by the budgeted turnover of one FTE. Operating supplies and expense and Professional services increased by \$10,240 and includes additional funds to ensure the continued implementation of the new Customer Service application.



PROGRAM STAFFING (BUDGETED)

	FY 2018	FY 2019	FY 2020
Union FTEs	14	14	13
Non-Union FTEs	11	11	14
Less Turnover	-	-	(1)
Net Total	25	25	26

Goal Actions for Target Measures by Key Code

Core Business

- Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting requirements
- Manage the planning, design and construction of NBC's capital improvements in the most cost-effective manner and in compliance with regulatory requirements
- Ensure the highest level of availability of systems' applications and network stability
- Maximize efficiency through service automation, applications security and NBC campus security
- Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment

Environmental Performance

- Minimize environmental impacts and implement conservation and sustainability measures
- Evaluate the NBC Program and report the data to the public
- FP3 Provide technical assistance to evaluate energy conservation and renewable energy opportunities
- Provide quality and expedient sample collection, data analyses and water quality monitoring to evaluate NBC's impacts and document improvements

Financial Management

- Ensure sufficient funding and receive the lowest cost of borrowing with the least rate payer impact
- Integrate NBC's strategic goals into the allocation of NBC's resources
- Maximize the efficiency, effectiveness, and accuracy of NBC's rate structures and collection processes to reduce accounts receivable
- PM4 Develop and manage NBC's operating and capital budgets to maximize benefits, minimize expense and unplanned expenditures
- FMS Comply with IRS, Federal and State Rules and Regulations, Trust Indenture and Generally Accepted Accounting Principles
- Ensure goods and services are procured, reviewed and processed in a timely, efficient and cost effective manner
- Initiate and evaluate incentive programs
- Evaluate savings opportunities and optimize NBC operations and processes

Customer Focus

- Maintain programs and conduct projects that give back to the community
- Provide prompt, courteous, efficient and educational services
- Enhance communications to ensure consistency, reliability and satisfaction
- cr4 Maximize customer focus attitude by providing excellent customer service and developing strong customer relationships
- Ensure compliance with NBC internal controls

Staffing

- Ensure compliance with Federal and State labor laws
- Foster a positive working environment through effective communication
- rovide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes
- Provide a healthy and safe working environment
- Develop mechanisms and establish opportunities for continued growth and professional development

Communication

- Continue to expand and conduct NBC public outreach programs
- Proactively manage NBC's public and legislative affairs and communicate NBC initiatives and ongoing activities
- Effectively communicate status of capital projects to NBC staff and Board members
- Enhance operating budget, CIP and compliance reports as a communication device
- Strengthen and expand NBC's positive relations with key stakeholders (customers, Board, elected officials/delegates, regulatory officials and the public) to ensure support of NBC's mission

Organizational Performance

- OP 1 Conduct NBC business in an open manner
- OP 2 Promote diversity in hiring practices
- OP 3 Ensure compliance with State ethics and regulatory agenda filing
- Provide end-user technology and systems to meet NBC's strategic goals

CUSTOMER SERVICE

Performance Data

Major Accomplishments FY 2019 by Key Code:

- CB 4 Completed the implementation of the new CIS Infinity, Invoice Cloud, Infinity Link and Infinity Mobile Software Solutions
- FM 3 Completed the timely and accurate monthly billings of NBC's 84,455 accounts
- FM 3 Billed more than \$97 million in user fee revenue
- FM 6 Assisted with the OMB audit of cash and billing functions
- **CF 5** Obtained site meter readings for more than 300 customers per month on average
- **CF 5** Received and responded to an average of 6,700 customer calls per month

Top Priorities for FY 2020 and How They Relate to the Strategic Plan/Goals and by Key Code:

- **CB 4** Ensure continued implementation and staff training of the new Customer Service System Application
- CB 4 Continue marketing efforts to encourage online account registration and transition to paperless billing
- FM 3 Ensure complete and accurate billings and streamline collection strategies to maximize results
- **S 3** Ensure that all Customer Service staff is trained on the new Customer Service application

Target Measures

FINANCIAL MANAGEMENT:	Manage NBC's finances through strong financial planning and
	controls such that sewer user charges are minimized.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Maximize the efficiency, effectiveness, and accuracy of NBC's rate structures and collection processes to reduce accounts receivable • FM 3

TARGET MEASURE:

Ensure a minimum of 98% of accounts have an actual meter reading within 12 months

_	Unit of Measure			FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
	Percentage	98% - 996,780 Meter Readings		98%	98%	98%	Ī

TARGET MEASURE:

Call a minimum of 90% of accounts with over 30-day balances

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	50% - 10,224 Accounts	90%	90%	90%

TARGET MEASURE:

Create a minimum of 8% of Budget Agreements for accounts with over 30-day balances

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	11% - 1.709 Accounts	8%	8%	8%

TARGET MEASURE:

Send foreclosure letters to 100% properties going into foreclosure

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	559 Accounts	100%	100%	100%

TARGET MEASURE:

Select a minimum of 5,000 accounts for Water Shut-off

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Selected	5,105	5,000	5,000	5,000
Posted	62% - 3,180 Accounts	50%	50%	50%
Terminated	13% - 668 Accounts	18%	18%	18%

TARGET MEASURE:

Late fees are 1.5% or less of the percentage of user fee billing

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	.83%	<1.5%	<1.5%	<1.5%

CUSTOMER FOCUS:

Maintain a customer-focused attitude throughout the organization.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide prompt, courteous, efficient and educational services • CF 2

TARGET MEASURE:

Add new meters into customer service application

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	_
Percentage	1,836 Meters	100%	100%	100%	Ī

TARGET MEASURE:

Investigate new sewer connection permits

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Percentage	198 Permits	100%	100%	100%	ĺ

TARGET MEASURE:

Process 100% of Abatement Applications

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	109 Applications	100%	100%	100%

TARGET MEASURE:

Process 100% of requests for new and updating of existing Pretreatment accounts

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
New	256 Accounts	100%	100%	100%
Updated	653 Accounts	100%	100%	100%

TARGET MEASURE:

Resolve account disputes within 30 days

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Percentage	96% - 1,282 Resolutions	96%	96%	96%	

TARGET MEASURE:

Process closing requests within 48 hours

Unit of Measure	FY 2018 Actual	_	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Total Closing Requests	6,590		050/	0.50/	050/
Processed within 48 hours	95% - 2,377 Requests	95%		95%	95%

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Maximize customer focus attitude by providing excellent customer service and developing strong customer relationships • CF 4

TARGET MEASURE:

Review 15 or more large user accounts and conduct a minimum of 500 manual site meter readings

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Quantity - Reviewed	15	15	15	15
Quantity - Read	500	500	500	500

STAFFING: Attract, develop and retain highly qualified employees.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes • S 3

TARGET MEASURE:

Provide a minimum of 1,500 employee training hours

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Hours	1,500	1,500	1.500	1,500



Purchasing Section Summary

The Program

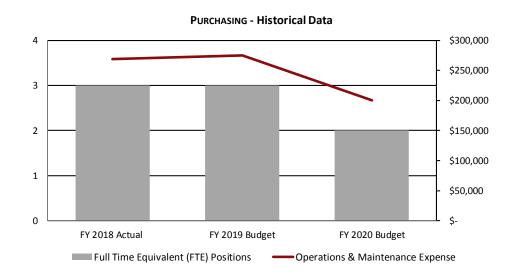
The Purchasing section is responsible for ensuring the legal, timely and cost-effective purchasing of goods and services. This section also assists with renewable energy projects and is responsible for the contracting of REC sales.

The Budget

Operations & Maintenance Expense		FY 2018 Actual		FY 2019 Budget		FY 2020 Budget	
Personnel	\$	267,249	\$	271,135	\$	197,803	
Operating Supplies/Expense		1,728		4,000		2,900	
Professional Services		-		-		-	
Total O&M	\$	268,977	\$	275,135	\$	200,703	
_							
Funds by Source - Revenue	\$	268,977	\$	275,135	\$	200,703	

Significant Budget Modifications

The FY 2020 Purchasing budget is \$74,432 or 27.1% lower than the FY 2019 budget. Personnel expense decreased by \$73,332 and reflects the transfer of one FTE to the Engineering section for facilities management. Operating supplies and expense and Professional services decreased by \$1,100 to reflect the reduction in printing and office expense.



Program Staffing (Budgeted)

	FY 2018	FY 2019	FY 2020
Union FTEs	-	-	-
Non-Union FTEs	3	3	2
Less Turnover	-	-	-
Net Total	3	3	2

Goal Actions for Target Measures by Key Code

Core Business

- Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting requirements
- Manage the planning, design and construction of NBC's capital improvements in the most cost-effective manner and in compliance with regulatory requirements
- Ensure the highest level of availability of systems' applications and network stability
- Maximize efficiency through service automation, applications security and NBC campus security
- Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment

Environmental Performance

- Minimize environmental impacts and implement conservation and sustainability measures
- Evaluate the NBC Program and report the data to the public
- FP3 Provide technical assistance to evaluate energy conservation and renewable energy opportunities
- Provide quality and expedient sample collection, data analyses and water quality monitoring to evaluate NBC's impacts and document improvements

Financial Management

- FM 1 Ensure sufficient funding and receive the lowest cost of borrowing with the least rate payer impact
- Integrate NBC's strategic goals into the allocation of NBC's resources
- Maximize the efficiency, effectiveness, and accuracy of NBC's rate structures and collection processes to reduce accounts receivable
- PM4 Develop and manage NBC's operating and capital budgets to maximize benefits, minimize expense and unplanned expenditures
- FMIS Comply with IRS, Federal and State Rules and Regulations, Trust Indenture and Generally Accepted Accounting Principles
- Ensure goods and services are procured, reviewed and processed in a timely, efficient and cost effective manner
- Initiate and evaluate incentive programs
- Evaluate savings opportunities and optimize NBC operations and processes

Customer Focus

- Maintain programs and conduct projects that give back to the community
- Provide prompt, courteous, efficient and educational services
- Enhance communications to ensure consistency, reliability and satisfaction
- cr4 Maximize customer focus attitude by providing excellent customer service and developing strong customer relationships
- Ensure compliance with NBC internal controls

Staffing

- Ensure compliance with Federal and State labor laws
- Foster a positive working environment through effective communication
- Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes
- Provide a healthy and safe working environment
- Develop mechanisms and establish opportunities for continued growth and professional development

Communication

- Continue to expand and conduct NBC public outreach programs
- Proactively manage NBC's public and legislative affairs and communicate NBC initiatives and ongoing activities
- Effectively communicate status of capital projects to NBC staff and Board members
- Enhance operating budget, CIP and compliance reports as a communication device
- Strengthen and expand NBC's positive relations with key stakeholders (customers, Board, elected officials/delegates, regulatory officials and the public) to ensure support of NBC's mission

Organizational Performance

- OP 1 Conduct NBC business in an open manner
- OP 2 Promote diversity in hiring practices
- OP 3 Ensure compliance with State ethics and regulatory agenda filing
- OP 4 Provide end-user technology and systems to meet NBC's strategic goals

Purchasing

Performance Data

Major Accomplishments FY 2019 by Key Code:

- FM 5 Ensured that all purchases were in conformance with State of RI and NBC Purchasing Regulations
- FM 6 Prepared 32 bid proposals and specifications within 30 days
- **FM 6** Assisted with emergency purchases
- FM 6 Assisted with the OMB audit of purchasing function
- FM 8 Negotiated new contracts for the sale of RECs generated from NBC's renewable energy sources
- **CF 2** Assisted with the review of proposals related to the solar and gas renewable energy projects
- CF 5 Posted bid requests and awards online
- **CF 5** Reviewed new legislation with NBC's Legal department
- **S 3** Provided new employee training on the Oracle purchasing system

Top Priorities for FY 2020 and How They Relate to the Strategic Plan/Goals and by Key Code:

- **CB 1** Ensure compliance with Federal and State purchasing laws
- FM 6 Review and maintain proper preparation of purchasing specifications to ensure competitive bids
- **FM 6** Ensure the timely, efficient and cost effective purchase of goods and services needed to operate, maintain and improve NBC's Facilities
- FM 6 Incorporate electronic payment acceptance into all solicitations for vendors

Target Measures

FINANCIAL MANAGEMENT: Manage NBC's finances through strong financial planning and controls such that sewer user charges are minimized.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Ensure goods and services are procured, reviewed and processed in a timely, efficient and cost effective manner • FM 6

TARGET MEASURE:

Process 100% of purchase requisitions

_	Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
•	Percentage	2,761 Requisitions	100%	100%	100%

TARGET MEASURE:

Complete 85% of bid specifications within 30 days

omplete soft of all opcompanions manners days										
Unit of Measure	FY 2018 Actual		FY 2018 Goal	FY 2019 Goal	FY 2020 Goal					
Percentage	97% - 32 Bid Specifications		85%	85%	85%	Ī				

TARGET MEASURE:

Ensure contracts are awarded within 60 days of RFQP

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Timeframe	30 Days - 28 Contracts	≤60 days	≤60 days	≤60 days

TARGET MEASURE:

Review all contracts three months prior to expiration

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	7 Contracts	100%	100%	100%

CUSTOMER FOCUS:

Maintain a customer-focused attitude throughout the organization.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Ensure compliance with NBC's internal controls • CF 5

TARGET MEASURE:

Provide Finance Committee with list of purchase requisitions greater than \$10,000

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	165 Requisitions	100%	100%	100%

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Enhance internal communications to ensure consistency, reliability and satisfaction • CF 3

TARGET MEASURE:

Ensure NBC does not have more than 50 vehicles that weigh less than 8,500 tons

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Quantity	49	≤50	≤50	≤50

STAFFING: Attract, develop and retain highly qualified employees.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE

Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes • S 3

TARGET MEASURE:

Provide a minimum of 24 employee training hours

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Hours	24	24	24	24

GENERAL SERVICES Section Summary

The Program

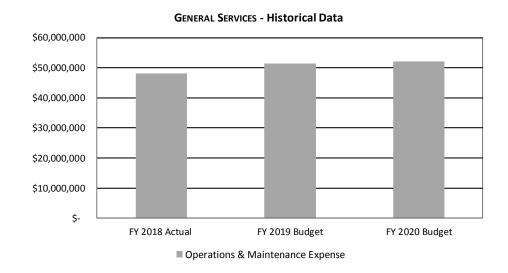
The General Services section includes overhead items such as funding of the HDHP, Health Reimbursement Arrangement, unemployment, gas and electricity utilities, net metering credits and sale of RECs, and debt service.

The Budget

Operations & Maintenance Expense	FY	2018 Actual	FY 2	2019 Budget	FY	2020 Budget
Personnel	\$	268,841	\$	467,904	\$	671,732
Operating Supplies/Expense		2,060,184		3,125,093		3,708,710
Professional Services		354,137		40,000		30,000
Total O&M		2,683,162		3,632,997		4,410,442
Debt Service						
Debt Service		45,431,230		47,787,187		47,816,624
Total Debt Service		45,431,230		47,787,187		47,816,624
Total Expense	\$	48,114,392	\$	51,420,184	\$	52,227,066
Funds by Source - Revenue	\$	48,114,392	\$	51,420,184	\$	52,227,066

Significant Budget Modifications

The FY 2020 General Services budget is \$806,882 or 1.57% higher than the FY 2019 budget. Personnel expense increased by \$203,828 and includes increased funding of the HRA employer health insurance contributions. Operating supplies and expense and Professional services increased by \$573,617. This reflects the reallocation of all electricity, gas and renewable energy related expense to General Services. This expense is offset, in part, by the transfer of the facilities management function and related expense to the Engineering section and the maintenance contract - office equipment expense to the Information Technology section. Debt service increased by \$29,437 from the prior year.



PROGRAM STAFFING (BUDGETED)

Responsibilities are executed by Finance Division Staff

Goal Actions for Target Measures by Key Code

Core Business

CB 1	Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting
	requirements

- Manage the planning, design and construction of NBC's capital improvements in the most cost-effective manner and in compliance with regulatory requirements
- Ensure the highest level of availability of systems' applications and network stability
- Maximize efficiency through service automation, applications security and NBC campus security
- Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment

Environmental Performance

- Minimize environmental impacts and implement conservation and sustainability measures
- Evaluate the NBC Program and report the data to the public
- FP3 Provide technical assistance to evaluate energy conservation and renewable energy opportunities
- Provide quality and expedient sample collection, data analyses and water quality monitoring to evaluate NBC's impacts and document improvements

Financial Management

- FM1 Ensure sufficient funding and receive the lowest cost of borrowing with the least rate payer impact
- Integrate NBC's strategic goals into the allocation of NBC's resources
- Maximize the efficiency, effectiveness, and accuracy of NBC's rate structures and collection processes to reduce accounts receivable
- PM4 Develop and manage NBC's operating and capital budgets to maximize benefits, minimize expense and unplanned expenditures
- FM 5 Comply with IRS, Federal and State Rules and Regulations, Trust Indenture and Generally Accepted Accounting Principles
- Ensure goods and services are procured, reviewed and processed in a timely, efficient and cost effective manner
- Initiate and evaluate incentive programs
- Evaluate savings opportunities and optimize NBC operations and processes

Customer Focus

- Maintain programs and conduct projects that give back to the community
- Provide prompt, courteous, efficient and educational services
- Enhance communications to ensure consistency, reliability and satisfaction
- cf4 Maximize customer focus attitude by providing excellent customer service and developing strong customer relationships
- Ensure compliance with NBC internal controls

Staffing

- Ensure compliance with Federal and State labor laws
- Foster a positive working environment through effective communication
- Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes
- Provide a healthy and safe working environment
- Develop mechanisms and establish opportunities for continued growth and professional development

Communication

- Continue to expand and conduct NBC public outreach programs
- Proactively manage NBC's public and legislative affairs and communicate NBC initiatives and ongoing activities
- Effectively communicate status of capital projects to NBC staff and Board members
- Enhance operating budget, CIP and compliance reports as a communication device
- Strengthen and expand NBC's positive relations with key stakeholders (customers, Board, elected officials/delegates, regulatory officials and the public) to ensure support of NBC's mission

Organizational Performance

- OP 1 Conduct NBC business in an open manner
- OP 2 Promote diversity in hiring practices
- OP 3 Ensure compliance with State ethics and regulatory agenda filing
- OP 4 Provide end-user technology and systems to meet NBC's strategic goals

GENERAL SERVICES Performance Data

Major Accomplishments FY 2019 by Key Code:

- CB 1 Reviewed documentation with the State of Rhode Island Archivist for record destruction
- **FM** Created trust transfer procedures and processing forms
- **FM 8** Negotiated the electricity supply rate through fiscal year 2019 and rolled the capacity charge into the rate to maximize net metering credits
- FM 8 Negotiated the natural gas supply rate through May 2021
- FM 8 Secured new REC contracts through 2022
- CF 4 Facilitated record relocation to new storage facility

Top Priorities for FY 2020 and How They Relate to the Strategic Plan/Goals and by Key Code:

- FM 8 Ensure NBC receives lowest competitive supply rate for Electricity
- FM 8 Ensure NBC receives lowest competitive supply rate for Natural Gas
- FM 8 Ensure 100% of RECs are bundled and transferred prior to expiration
- FM 8 Monitor net metering credits to ensure no net meter credits are lost

Target Measures

FINANCIAL MANAGEMENT: Manage NBC's finances through strong financial planning and controls such that sewer user charges are minimized.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Comply with IRS, State of Rhode Island Rules and Regulations, Trust Indenture and Generally Accepted Accounting Principles • FM 5

TARGET MEASURE:

Ensure timely funding for monthly trust transfers

_	Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
_	Frequency	12 Transfers	Monthly	Monthly	Monthly

TARGET MEASURE:

TARGE

Prepare and submit monthly trust transfer certifications to Trustee on the third day prior to the last Business Day of each month

	Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
	Frequency	12 Certifications	Monthly	Monthly	Monthly
τN	leasure:				

Ensure weekly funding of the Health Reimbursement Account

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Frequency	N/A	N/A	Weekly	Weekly

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Evaluate savings opportunities and optimize NBC operations and processes • FM 8

TARGET MEASURE:

Ensure renewable energy credits are bundled and transferred at least semi-annually

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Frequency	10,750 RECs	≥2	≥2	≥2

TARGET MEASURE:

Submit the energy generation report to NBC's energy advisor each month

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Frequency	12 Reports	Monthly	Monthly	Monthly

TARGET MEASURE:

Ensure quarterly submission of energy generation report to the renewable energy consultants which include kilowatt hours

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Frequency	4 Reports	Quarterly	Quarterly	Quarterly

TARGET MEASURE:

Review supply and delivery rates for Electricity and Natural Gas annually

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Electricity Supply Rate	.6336/kWh	Annual	Annual	Annual
Natural Gas Supply Rate	.5433/Therm	Annual	Annual	Annual

TARGET MEASURE:

Ensure 100% of RECs are minted by the end of each fiscal year

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Field's Point Wind	7,693 RECs	100%	100%	100%
WED Wind	8,640 RECs	100%	100%	100%
Solar	2,045 RECs	100%	100%	100%

CUSTOMER FOCUS:

Maintain a customer-focused attitude throughout the organization.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Ensure compliance with NBC internal controls • CF 5

TARGET MEASURE:

Ensure 100% of NBC records are recorded and archived as required

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	96 Records	100%	100%	100%

COMMUNICATION:

Improve and enhance internal and external communication to increase understanding of "who we are" and "what we do".

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Strengthen and expand NBC's positive relations with key stakeholders (customers, Board, elected officials/delegates, regulatory officials and the public • C 5

TARGET MEASURE:

Process 100% of outgoing mail daily

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	29,550 Pieces of Mail	100%	100%	100%

OPERATIONS AND MAINTENANCE DIVISION

Division Summary

INTERCEPTOR **M**AINTENANCE **OPERATIONS & M**AINTENANCE **S**ERVICES

FIELD'S POINT **WWTF**

Bucklin Point WWTF

The Program

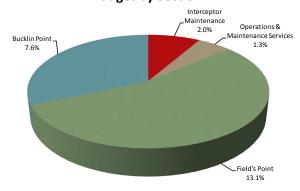
The Operations and Maintenance Division is responsible for managing, operating and maintaining NBC's wastewater treatment facilities, infrastructure and collection system. This Division also ensures process control for continuous collection and treatment of wastewater throughout NBC's service area in accordance with all State and Federal regulatory requirements. This Division also maintains the Asset Management Program to ensure proper maintenance, repair and replacement of NBC's assets.

FY 2020 Budget by Division

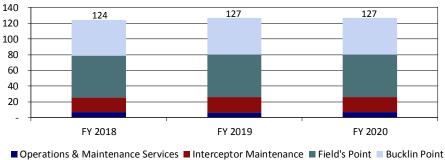


OPERATIONS & MAINTENANCE 24%

OPERATIONS & MAINTENANCE DIVISION Budget by Section



Budgeted Positions (FTEs)*



^{*}Does not include turnover

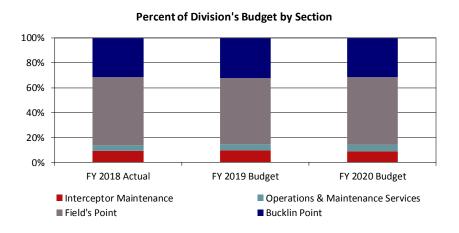
OPERATIONS AND MAINTENANCE DIVISION Divison Summary

The Budget

Operations & Maintenance Expense	FY	2018 Actual	FY	2019 Budget	FY	2020 Budget
Personnel	\$	11,074,568	\$	12,188,542	\$	12,214,649
Operating Supplies/Expense		10,983,284		9,545,488		10,334,293
Professional Services		44,647		49,800		44,600
Total O&M	\$	22,102,499	\$	21,783,830	\$	22,593,542
Funds by Source - Revenue	\$	22,102,499	\$	21,783,830	\$	22,593,542

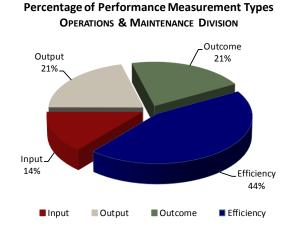
Significant Budget Modifications

The FY 2020 Operations and Maintenance Division budget is \$809,712 or 3.7% higher than the FY 2019 budget. Personnel expense increased by \$26,107 or 0.2% and includes a net unchanged level of FTEs and budgeted turnover of eight FTEs. Operating supplies and expense and Professional services increased by \$783,605 and includes additional wastewater treatment expense related to the new RIPDES permit limits and increased flow.



Operations Division Performance Data Summary

The chart below illustrates the Operations and Maintenance Division's Performance Data by type of measure. The measures can be found in the individual sections following the division summary. In this Division, Outcome and Efficiency make up 65% of the performance measures.



Interceptor Maintenance Section Summary

The Program

The Interceptor Maintenance (IM) section is responsible for operating and maintaining NBC's collection system to ensure flows are properly transported to the WWTF's in compliance with State and Federal requirements. The section performs various maintenance and inspection tasks as mandated by the RIPDES permit, which include the validation of infrastructure and proper flow conditions, video monitoring inspections, correction of infrastructure impediments, performing minor construction repairs and monitoring any new development projects that may impact flow. This section also provides general oversight of the district's wastewater flow condition and assistance to communities as needed to ensure flow conditions are uninterrupted.

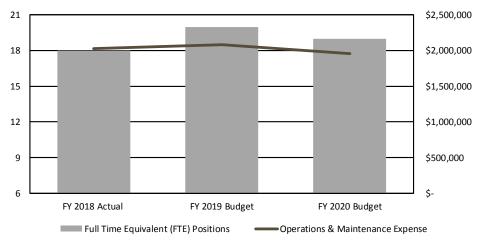
The Budget

Operations & Maintenance Expense	FY 2	2018 Actual	FY 2	019 Budget	FY 20	020 Budget
Personnel	\$	1,490,250	\$	1,745,532	\$	1,558,988
Operating Supplies/Expense		522,735		312,679		367,573
Professional Services		16,264		20,800		18,600
Total O&M	\$	2,029,249	\$	2,079,011	\$	1,945,161
_						
Funds by Source - Revenue	\$	2,029,249	\$	2,079,011	\$	1,945,161

Significant Budget Modifications

The FY 2020 IM budget is \$133,850 or 6.4% lower than the FY 2019 budget. Personnel expense decreased by \$186,544 and includes one less FTE than the prior year and budgeted turnover of one FTE. Operating supplies and expense and professional services increased by \$52,694 to purchase additional CSO debris nets in FY 2020. These increases are offset, in part, by the transfer of the natural gas expense to the General Services section.

INTERCEPTOR MAINTENANCE - Historical Data



PROGRAM STAFFING (BUDGETED)

	FY 2018	FY 2019	FY 2020
Union FTEs	11	12	10
Non Union FTEs	7	8	9
Less Turnover	-	(1)	(1)
Net Total	18	19	18

Goal Actions for Target Measures by Key Code

Core Business

- Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting requirements
- Manage the planning, design and construction of NBC's capital improvements in the most cost-effective manner and in compliance with regulatory requirements
- Ensure the highest level of availability of systems' applications and network stability
- Maximize efficiency through service automation, applications security and NBC campus security
- Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment

Environmental Performance

- Minimize environmental impacts and implement conservation and sustainability measures
- EP2 Evaluate the NBC Program and report the data to the public
- FP3 Provide technical assistance to evaluate energy conservation and renewable energy opportunities
- Provide quality and expedient sample collection, data analyses and water quality monitoring to evaluate NBC's impacts and document improvements

Financial Management

- Ensure sufficient funding and receive the lowest cost of borrowing with the least rate payer impact
- Integrate NBC's strategic goals into the allocation of NBC's resources
- Maximize the efficiency, effectiveness, and accuracy of NBC's rate structures and collection processes to reduce accounts receivable
- PM4 Develop and manage NBC's operating and capital budgets to maximize benefits, minimize expense and unplanned expenditures
- FMS Comply with IRS, Federal and State Rules and Regulations, Trust Indenture and Generally Accepted Accounting Principles
- Ensure goods and services are procured, reviewed and processed in a timely, efficient and cost effective manner
- Initiate and evaluate incentive programs
- Evaluate savings opportunities and optimize NBC operations and processes

Customer Focus

- Maintain programs and conduct projects that give back to the community
- Provide prompt, courteous, efficient and educational services
- Enhance communications to ensure consistency, reliability and satisfaction
- Maximize customer focus attitude by providing excellent customer service and developing strong customer relationships
- Ensure compliance with NBC internal controls

Staffing

- Ensure compliance with Federal and State labor laws
- Foster a positive working environment through effective communication
- rovide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes
- Provide a healthy and safe working environment
- Develop mechanisms and establish opportunities for continued growth and professional development

Communication

- Continue to expand and conduct NBC public outreach programs
- Proactively manage NBC's public and legislative affairs and communicate NBC initiatives and ongoing activities
- Effectively communicate status of capital projects to NBC staff and Board members
- Enhance operating budget, CIP and compliance reports as a communication device
- Strengthen and expand NBC's positive relations with key stakeholders (customers, Board, elected officials/delegates, regulatory officials and the public) to ensure support of NBC's mission

Organizational Performance

- OP 1 Conduct NBC business in an open manner
- OP 2 Promote diversity in hiring practices
- OP 3 Ensure compliance with State ethics and regulatory agenda filing
- OP 4 Provide end-user technology and systems to meet NBC's strategic goals

INTERCEPTOR MAINTENANCE Performance Data

Major Accomplishments FY 2019 by Key Code:

- CB 5 Inspected approximately 10.2 miles of interceptors throughout the collection system
- CB 5 Removed approximately 112 tons of sediment from the collection system to optimize capacity
- **CB 5** Identified and coded all 705 catch basins into Hansen and GIS systems
- **EP 1** Removed approximately 23 tons of floatable material captured at CSO's prior to reaching the waterbody
- **EP 1** Incurred no dry weather overflow events
- FM 8 Implemented an automated work tracking system (FieldGo) to improve tracking of completed work and automatically create monthly reports
- FM 8 Eliminated 3,800 paper work orders with the FieldGo system
- CF 4 Performed 29.5 hours of assistance to communities within the service area
- \$3 Completed 168 hours of staff training

Top Priorities for FY 2020 and How They Relate to the Strategic Plan/Goals and by Key Code:

- **CB 1** Comply with 100% of RIPDES permit requirements for the collection system
- CB 5 Clean and maintain 705 properly functioning NBC owned Catch Basins to reduce the amount of sediment entering into the collection system
- **S 3** Encourage staff to attend and complete various training sessions with the goal of completing 100 training hours per year

Target Measures

CORE BUSINESS:

Operate, maintain and protect our collection and treatment systems to ensure that all State and Federal requirements are met or surpassed.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting requirements • CB 1

TARGET MEASURE:

Comply with RIPDES permit required inspections and reporting

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage - Event Reporting	100% - 3 Events	100%	100%	100%
Pump Station Inspections	Weekly	Weekly	Weekly	Weekly
Regulators Inspections	Bimonthly	Bimonthly	Bimonthly	Bimonthly
Tide Gates Inspections	Monthly	Monthly	Monthly	Monthly
Sump Pumps Inspections	Quarterly	Quarterly	Quarterly	Quarterly
Catch Basins Inspections	Semiannually	Semiannually	Semiannually	Semiannually

TARGET MEASURE:

Submit BMP report semi-annually and CMOM report by due date

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Frequency - BMP Report	2	2	2	2	
Due Date - CMOM Report	1/31/2019	1/31/2018	1/31/2019	1/31/2020	

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment \bullet CB 5

TARGET MEASURE:

Address emergency situations within 24 hours of notification

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	0 Emergencies	100%	100%	100%

TARGET MEASURE:

Perform at least 90% of work orders

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Preventative Work Orders Completed	3,170	90%	90%	90%
Corrective Work Orders Completed	523	90%	90%	90%
Quantity - Staff Hours	7,626	5,000	5,000	5,000

ENVIRONMENTAL PERFORMANCE:

Continuously evaluate NBC environmental performance to identify, quantify and minimize NBC impacts to the environment in a cost effective manner.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Minimize environmental impacts and implement conservation and sustainability measures • EP 1
TARGET MEASURE:

Respond to dry weather bypass within 6 hours of initial notification

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Hours	<5	≤6	≤6	≤6	Ī

TARGET MEASURE:

Remove pollutants from CSO trash nets within 72 hours of event

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	45.09 Tons	100%	100%	100%

FINANCIAL MANAGEMENT:

Manage NBC's finances through strong financial planning and controls such that sewer user charges are minimized.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Develop and manage NBC's operating and capital budgets to maximize benefits, minimize expense and unplanned expenditures • FM 4

TARGET MEASURE:

Complete 100% of planned capital items

Unit of Measure	FY 2018 Actual		FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Budgeted	8		100%	100%	100%
Completed	8				

CUSTOMER FOCUS:

 ${\it Maintain~a~customer-focused~attitude~throughout~the~organization.}$

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Maintain programs and conduct projects that give back to the community • CF 1

TARGET MEASURE:

Provide assistance to NBC communities with collection system maintenance

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Hours	170	75	40	40

STAFFING:

Attract, develop and retain highly qualified employees.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes • S 3

TARGET MEASURE:

Provide staff a minimum of 100 technical/standard operating procedures training hours

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Hours	135	100	100	100

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide a healthy and safe working environment • S 4

TARGET MEASURE:

Schedule quarterly safety committee meetings with staff and post minutes

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Quantity	4	4	4	4



OPERATIONS AND MAINTENANCE SERVICES Section Summary

The Program

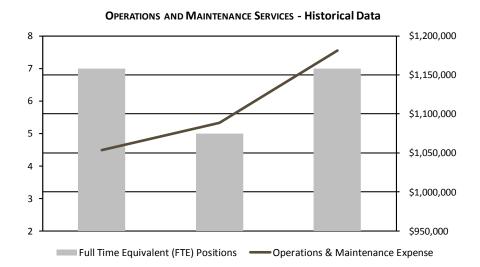
The Operations and Maintenance Services section provides support for the management of NBC's two wastewater treatment facilities and interceptor maintenance. This section ensures compliance with all State and Federal regulations, reporting requirements, consent agreements and permits. The Operations and Maintenance Services section maintains the Asset Management Program and the computerized control systems to allow for continuous operations and process control.

The Budget

Operations & Maintenance Expense	FY 2018 Actual		FY 2019 Budget		FY 2020 Budge	
Personnel	\$	734,386	\$	727,010	\$	843,234
Operating Supplies/Expense		319,408		361,399		344,466
Professional Services		-		-		-
Total O&M	\$	1,053,794	\$	1,088,409	\$	1,187,700
_						
Funds by Source - Revenue	\$	1,053,794	\$	1,088,409	\$	1,187,700

Significant Budget Modifications

The FY 2020 O&M Services budget is \$99,291 or 9.1% higher than the FY 2019 budget. Personnel expense increased by \$116,224 over the prior year and includes a net of one additional FTE. In FY 2020, two new FTEs are budgeted, a Control Systems Associate and a Technical Advisor for Operations. The additional positions are offset by the transfer of the Operations & Maintenance Fiscal Coordinator to the Engineering section. Operating supplies and expense decreased by \$16,933 from the prior year.



Program Staffing (Budgeted) FY 2018 FY 2019 FY 2020 Union FTEs Non Union FTEs 7 6 7 Less Turnover Net Total 7 6 7

Core Business

CB 1	Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting
	requirements

- Manage the planning, design and construction of NBC's capital improvements in the most cost-effective manner and in compliance with regulatory requirements
- Ensure the highest level of availability of systems' applications and network stability
- Maximize efficiency through service automation, applications security and NBC campus security
- Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment

Environmental Performance

- Minimize environmental impacts and implement conservation and sustainability measures
- Evaluate the NBC Program and report the data to the public
- FP3 Provide technical assistance to evaluate energy conservation and renewable energy opportunities
- Provide quality and expedient sample collection, data analyses and water quality monitoring to evaluate NBC's impacts and document improvements

Financial Management

- FM 1 Ensure sufficient funding and receive the lowest cost of borrowing with the least rate payer impact
- Integrate NBC's strategic goals into the allocation of NBC's resources
- Maximize the efficiency, effectiveness, and accuracy of NBC's rate structures and collection processes to reduce accounts receivable
- PM4 Develop and manage NBC's operating and capital budgets to maximize benefits, minimize expense and unplanned expenditures
- FMS Comply with IRS, Federal and State Rules and Regulations, Trust Indenture and Generally Accepted Accounting Principles
- Ensure goods and services are procured, reviewed and processed in a timely, efficient and cost effective manner
- Initiate and evaluate incentive programs
- Evaluate savings opportunities and optimize NBC operations and processes

Customer Focus

- Maintain programs and conduct projects that give back to the community
- Provide prompt, courteous, efficient and educational services
- Enhance communications to ensure consistency, reliability and satisfaction
- CF4 Maximize customer focus attitude by providing excellent customer service and developing strong customer relationships
- Ensure compliance with NBC internal controls

Staffing

- Ensure compliance with Federal and State labor laws
- Foster a positive working environment through effective communication
- Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes
- Provide a healthy and safe working environment
- Develop mechanisms and establish opportunities for continued growth and professional development

Communication

- Continue to expand and conduct NBC public outreach programs
- Proactively manage NBC's public and legislative affairs and communicate NBC initiatives and ongoing activities
- Effectively communicate status of capital projects to NBC staff and Board members
- Enhance operating budget, CIP and compliance reports as a communication device
- Strengthen and expand NBC's positive relations with key stakeholders (customers, Board, elected officials/delegates, regulatory officials and the public) to ensure support of NBC's mission

- OP 1 Conduct NBC business in an open manner
- OP 2 Promote diversity in hiring practices
- OP 3 Ensure compliance with State ethics and regulatory agenda filing
- OP 4 Provide end-user technology and systems to meet NBC's strategic goals

OPERATIONS AND MAINTENANCE SERVICES Performance Data

Major Accomplishments FY 2019 by Key Code:

- **CB 3** Integrated the aeration blowers into the automated control system
- CB 3 Upgraded the interface and programmable logic controller (PLC) switchgear for UV system at Bucklin Point
- CB 3 Converted the Omega, Saylesville and Reservoir Avenue Pumping Stations to the PLC Pump Control
- CB 5 Listed and recorded NBC's underground assets to show life expectancy and current value
- CB 5 Completed the NBC Facility and Equipment Condition Analysis Report
- FM 5 Assisted with the update of NBC insurance records to reflect current value of assets

Top Priorities for FY 2020 and How They Relate to the Strategic Plan/Goals and by Key Code:

- **CB 3** Upgrade the Field's Point firmware and redundancy modules
- **CB 3** Research upgrading the Blower Master Control Panel (MCP)
- **CB 5** Perform a physical inventory audit of Field's Point and Bucklin Point
- 5 3 Implement training for NBC Capital Asset Purchases and Hansen Service Requests/Work Orders

Target Measures

CORE BUSINESS:

Operate, maintain and protect our collection and treatment systems to ensure that all State and Federal requirements are met or surpassed.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting requirements • CB 1

TARGET MEASURE:

Ensure the dry tons report is submitted to RIDEM annually

Unit of Measure	FY 2018 Actual		FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Timeframe	2/2/2018		Annual	Annual	Annual

TARGET MEASURE:

Complete and submit the Coastal Resources Management Council (CRMC) annual report

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Due Date	1/3/2018	12/31/2017	12/31/2018	12/31/2019

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Maximize efficiency through service automation, applications security and NBC campus security \bullet CB 4

TARGET MEASURE

Ensure 100% up-to-date supported levels of applications and operating systems and licensing requirements

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Quantity-FP	5	100%	100%	100%
Quantity-BP	2	100%	100%	100%

STAFFING:

Attract, develop and retain highly qualified employees.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Foster a positive working environment through effective communication • S 2

TARGET MEASURE:

Monthly planning/scheduling meeting with each WWTF managers

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Quantity	48	24	24	24

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes • S 3

TARGET MEASURE:

Director attend a minimum of 1 professional training session per year

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	_
Quantity	1	1	1	1	ĺ

FIELD'S POINT Section Summary

The Program

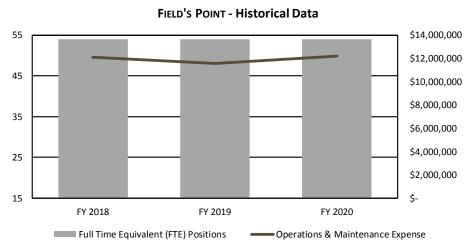
The Field's Point WWTF is the largest wastewater treatment facility in Rhode Island with capacity of receiving flows up to 77 MGD and ensuring they receive full tertiary treatment. Flows greater than 77 MGD are initially sent to the CSO Tunnel system for storage until the flows can be pumped from the Tunnel Pump Station to the treatment plant to receive primary treatment and disinfection. The staff efficiently and effectively operates these facilities to produce the highest quality effluent to meet or exceed RIPDES permit requirements. This section must ensure that all process functions are constantly optimized in order to meet each of the permit requirements.

The Budget

Operations & Maintenance Expense	FY 2018 Actual	FY 2019 Budget	FY 2020 Budget
Personnel	\$ 4,787,818	\$ 5,202,583	\$ 5,208,681
Operating Supplies/Expense	7,317,587	6,329,144	7,103,044
Professional Services	11,410	17,000	13,000
Total O&M	\$ 12,116,815	\$ 11,548,727	\$ 12,324,725
Funds by Source - Revenue	\$ 12,116,815	\$ 11,548,727	\$ 12,324,725

Significant Budget Modifications

The FY 2020 Field's Point budget is \$775,998 or 6.7% higher than the FY 2019 budget. Personnel expense increased by \$6,098 and includes budgeted turnover of four FTEs. Operating supplies and expense increased by \$773,900 over the prior year and includes an increase in the contracted biosolids rate and higher dry ton production as well as increased chemical rates and usage to treat additional plant flows and meet operational modifications for the new RIPDES discharge permit limits. Additionally, the FY 2020 budget includes new generator maintenance contracts and reflects the transfer of the natural gas expense and the FP Turbine maintenance contract expense to the General Services section. Professional services decreased by \$4,000 from the prior year.



PROGRAM STAFFING (BUDGETED) FY 2018 FY 2019 FY 2020 **Union FTEs** 42 42 42 Non Union FTEs 12 12 12 Less Turnover (1) (1) (4)**Net Total** 53

Core Business

CB 1	Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting
	requirements

- Manage the planning, design and construction of NBC's capital improvements in the most cost-effective manner and in compliance with regulatory requirements
- Ensure the highest level of availability of systems' applications and network stability
- Maximize efficiency through service automation, applications security and NBC campus security
- Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment

Environmental Performance

- Minimize environmental impacts and implement conservation and sustainability measures
- EP2 Evaluate the NBC Program and report the data to the public
- Provide technical assistance to evaluate energy conservation and renewable energy opportunities
- Provide quality and expedient sample collection, data analyses and water quality monitoring to evaluate NBC's impacts and document improvements

Financial Management

- FM 1 Ensure sufficient funding and receive the lowest cost of borrowing with the least rate payer impact
- Integrate NBC's strategic goals into the allocation of NBC's resources
- Maximize the efficiency, effectiveness, and accuracy of NBC's rate structures and collection processes to reduce accounts receivable
- PM4 Develop and manage NBC's operating and capital budgets to maximize benefits, minimize expense and unplanned expenditures
- FMIS Comply with IRS, Federal and State Rules and Regulations, Trust Indenture and Generally Accepted Accounting Principles
- Ensure goods and services are procured, reviewed and processed in a timely, efficient and cost effective manner
- Initiate and evaluate incentive programs
- Evaluate savings opportunities and optimize NBC operations and processes

Customer Focus

- Maintain programs and conduct projects that give back to the community
- Provide prompt, courteous, efficient and educational services
- Enhance communications to ensure consistency, reliability and satisfaction
- CF4 Maximize customer focus attitude by providing excellent customer service and developing strong customer relationships
- Ensure compliance with NBC internal controls

Staffing

- Ensure compliance with Federal and State labor laws
- Foster a positive working environment through effective communication
- Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes
- Provide a healthy and safe working environment
- Develop mechanisms and establish opportunities for continued growth and professional development

Communication

- Continue to expand and conduct NBC public outreach programs
- Proactively manage NBC's public and legislative affairs and communicate NBC initiatives and ongoing activities
- Effectively communicate status of capital projects to NBC staff and Board members
- Enhance operating budget, CIP and compliance reports as a communication device
- Strengthen and expand NBC's positive relations with key stakeholders (customers, Board, elected officials/delegates, regulatory officials and the public) to ensure support of NBC's mission

- OP 1 Conduct NBC business in an open manner
- OP 2 Promote diversity in hiring practices
- OP 3 Ensure compliance with State ethics and regulatory agenda filing
- OP 4 Provide end-user technology and systems to meet NBC's strategic goals

FIELD'S POINT Performance Data

Major Accomplishments FY 2019 by Key Code:

- CB 1 Achieved the seasonal RIPDES limit for total nitrogen (5mg/l)
- **CB 1** Ensured compliance with all TSS, cBOD, total seasonal nitrogen, total residual chlorine and enterococci permit parameters
- CB 5 Integrated the operation of the new single stage blowers with the existing turbo blowers and multistage blowers to achieve peak operating efficiency
- CB 5 Continued to update and modify the Hansen Maintenance Management System
- CB 5 Continued maintenance efforts to protect infrastructure at the CSO facilities, gate and screenings structures, remote pumping stations and flow monitoring stations
- **CB 5** Rehabilitated the coolant system of the Ernest Street Pump Station generator "in-house"
- **S 4** Minimized the number of OSHA reportable injuries through continued safety awareness training
- **OP 3** Received NACWA Excellence in Treatment Gold Award

Top Priorities for FY 2020 and How They Relate to the Strategic Plan/Goals and by Key Code:

- **CB1** Achieve the seasonal RIPDES limit for total nitrogen (5mg/l)
- **S 3** Implement a basic training assessment checklist for all areas of the WWTF
- 5.4 Install hydrogen sulfide detection (H2S) meters in the gravity thickener tanks
- **S 4** Re-purpose the electrician and instrumentation technician offices into electrical and instrumentation testing rooms

Target Measures

CORE BUSINESS:	Operate, maintain and protect our collection and treatment systems to
	ensure that all State and Federal requirements are met or surpassed.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting requirements • CB 1

TARGET MEASURE:

Meet or exceed discharge parameter permit levels

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
TSS (mg/l)	2.73	≤30	≤20	≤20
Enterococci (MPN/100ml)	N/A	N/A	≤35	≤35
CBOD (mg/l)	N/A	N/A	≤20	≤20
Nitrogen (mg/l)	3.03	≤5	≤5	≤5

TARGET MEASURE:

Ensure residual chlorine complies with permit limit of 65 parts per billion

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Average Parts per Billion (ppb)	.32	≤65	≤65	≤65

TARGET MEASURE:

Achieve total seasonal nitrogen permit limit of 5 mg/l

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
mg/l	3.03	<5	<5	<5

TARGET MEASURE:

Ensure treatment of wastewater and stormwater collected through the Tunnel Pump Station

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Gallons	98.9% 1,287 MG	100%	100%	100%

TARGET MEASURE:

Process 100% of regulatory permits for treatment by due date

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	3 Regulatory Permits	100%	100%	100%

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment ◆ CB 5

TARGET MEASURE

Perform no less than 90% of work orders

Unit of Measure	FY 2018 Actual		FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Preventative Maintenance Work Orders	92% (9,130)	Ī	90%	90%	90%
Corrective Maintenance Work Orders	8% (821)		10%	10%	10%
Total Staff Hours	75% (2,708)		80%	80%	80%

TARGET MEASURE:

Integrate Asset Management into Operating Capital Program for treatment plants

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Budgeted Items	19			
New Needs	0	24	14	18
Completed Items	17			

ENVIRONMENTAL PERFORMANCE:

Continuously evaluate NBC environmental performance to identify, quantify and minimize NBC impacts to the environment in a cost effective manner.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Minimize environmental impacts and implement conservation and sustainability measures • EP 1

TARGET MEASURE:

FINANCIAL MANAGEMENT:

Implement 100% of energy conservation initiatives

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	2 Initiatives	100%	100%	100%

Manage NBC's finances through strong financial planning and controls such that sewer user charges are minimized.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Evaluate savings opportunities and optimize NBC operations and processes • FM 8

TARGET MEASURE:

Limit gallons of chemicals added to treatment process

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Hypochlorite	661,490	<600,000	<600,000	<600,000
Sodium Bisulfite	243,427	<219,000	<219,000	<219,000
Carbon Feed	0	<27,300	<27,300	<27,300
Sodium Hydroxide	0	<45,500	<45,500	<45,500

TARGET MEASURE:

Produce less than 25 dry tons of sludge per day

Unit of Measure	FY 2018 Actual	FY 2018 Actual	FY 2019 Goal	FY 2020 Goal
Quantity	Daily Average – 23.17 DT	<25 Dry Tons	<25 Dry Tons	<22 Dry Tons

STAFFING: Attract, develop and retain highly qualified employees.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes • S 3

TARGET MEASURE:

Offer a minimum of 300 training/safety hours

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Hours	747	300	300	300



BUCKLIN POINT Section Summary

The Program

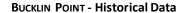
The BPWWTF is the second largest treatment facility in Rhode Island with the capacity of treating up to 116 MGD of flow through its treatment processes. The secondary treatment process can fully treat up to 46 MGD. Influent flows greater than 46 MGD and up to 116 MGD are diverted to the Wet Weather Treatment Facility, where they receive primary treatment, disinfection with sodium hypochlorite and de-chlorination with sodium bisulfite before being released into the Seekonk River.

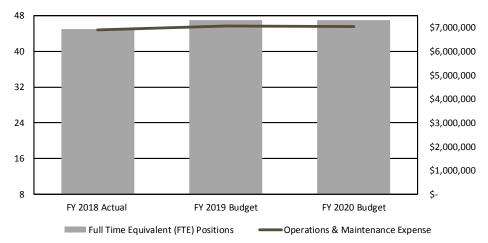
The Budget

Operations & Maintenance Expense	FY 2018 Actual		FY 2019 Budget		FY 2020 Budget	
Personnel	\$	4,062,114	\$	4,513,417	\$	4,603,746
Operating Supplies/Expense		2,823,554		2,542,266		2,519,210
Professional Services		16,973		12,000		13,000
Total O&M	\$	6,902,641	\$	7,067,683	\$	7,135,956
Funds by Source - Revenue	\$	6,902,641	\$	7,067,683	\$	7,135,956

Significant Budget Modifications

The FY 2020 Bucklin Point budget is \$68,273 or 1.0% higher than the FY 2019 budget. Personnel expense increased by \$90,329 and includes budgeted turnover of three FTEs. Operating supplies and expense and professional services decreased by \$22,056 over the prior year and includes an increase in the contracted biosolids rate and lower dry ton production as well as increased chemical rates and usage to meet the new RIPDES discharge permit limits. Additionally, the FY 2020 budget includes new turbo blower maintenance contracts and the transfer of the natural gas expense to the General Services section.





PROGRAM STAFFING (BUDGETED)

	FY 2018	FY 2019	FY 2020
Union FTEs	37	39	39
Non Union FTEs	8	8	8
Less Turnover	(1)	(2)	(3)
Net Total	44	45	44

Core Business

CB 1	Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting
	requirements

- Manage the planning, design and construction of NBC's capital improvements in the most cost-effective manner and in compliance with regulatory requirements
- Ensure the highest level of availability of systems' applications and network stability
- Maximize efficiency through service automation, applications security and NBC campus security
- Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment

Environmental Performance

- Minimize environmental impacts and implement conservation and sustainability measures
- Evaluate the NBC Program and report the data to the public
- Provide technical assistance to evaluate energy conservation and renewable energy opportunities
- Provide quality and expedient sample collection, data analyses and water quality monitoring to evaluate NBC's impacts and document improvements

Financial Management

- Ensure sufficient funding and receive the lowest cost of borrowing with the least rate payer impact
- Integrate NBC's strategic goals into the allocation of NBC's resources
- Maximize the efficiency, effectiveness, and accuracy of NBC's rate structures and collection processes to reduce accounts receivable
- PM4 Develop and manage NBC's operating and capital budgets to maximize benefits, minimize expense and unplanned expenditures
- FM 5 Comply with IRS, Federal and State Rules and Regulations, Trust Indenture and Generally Accepted Accounting Principles
- Ensure goods and services are procured, reviewed and processed in a timely, efficient and cost effective manner
- Initiate and evaluate incentive programs
- Evaluate savings opportunities and optimize NBC operations and processes

Customer Focus

- Maintain programs and conduct projects that give back to the community
- Provide prompt, courteous, efficient and educational services
- Enhance communications to ensure consistency, reliability and satisfaction
- Maximize customer focus attitude by providing excellent customer service and developing strong customer relationships
- Ensure compliance with NBC internal controls

Staffing

- Ensure compliance with Federal and State labor laws
- Foster a positive working environment through effective communication
- Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes
- Provide a healthy and safe working environment
- Develop mechanisms and establish opportunities for continued growth and professional development

Communication

- Continue to expand and conduct NBC public outreach programs
- Proactively manage NBC's public and legislative affairs and communicate NBC initiatives and ongoing activities
- Effectively communicate status of capital projects to NBC staff and Board members
- Enhance operating budget, CIP and compliance reports as a communication device
- Strengthen and expand NBC's positive relations with key stakeholders (customers, Board, elected officials/delegates, regulatory officials and the public) to ensure support of NBC's mission

- OP 1 Conduct NBC business in an open manner
- OP 2 Promote diversity in hiring practices
- OP 3 Ensure compliance with State ethics and regulatory agenda filing
- OP 4 Provide end-user technology and systems to meet NBC's strategic goals

BUCKLIN POINT Performance Data

Major Accomplishments FY 2019 by Key Code:

CB 1	Achieved the seasonal RIPDES limit for total nitrogen (5 mg/l)
CB 1	Ensured compliance with all TSS, cBOD, total seasonal nitrogen, total residual chlorine and enterococci permit parameters
CB 5	Continued to optimize inventory management procedures to ensure appropriate inventory levels and reduce work order processing time
CB 5	Replaced a dry weather effluent pump and a variable frequency drive (VFD) pump
CB 5	Continued with the electrical testing of BPWWTF assets
CB 5	Upgraded the programmable logic controller at the emergency generator switchgear
CB 5	Replaced the standard dewatering pump with a chopper pump to streamline the dewatering process
FM 8	Optimized the treatment processes to produce high quality effluent
FM 8	Replaced the ultraviolet lamps in bank "B" of the UV disinfection system
S 3	Completed Supervisor management training which included operations training and emergency response training
S 4	Upgraded the safety equipment for fall protection in the confined space entry
OP 3	Received NACWA Excellence in Treatment Silver Award

Top Priorities for FY 2020 and How They Relate to the Strategic Plan/Goals and by Key Code:

- **CB 1** Optimize total nitrogen removal and monitoring by upgrading instrumentation
- **CB 5** Complete the asset management inventory reorganization
- **CB 5** Rebuild returned activated sludge pumps for pump curve accuracy and optimize return sludge
- **EP 4** Optimize the process on newly purchased meters and analyzers for nitrogen removal and biogas

Target Measures

CORE BUSINESS:

Operate, maintain and protect our collection and treatment systems to ensure that all State and Federal requirements are met or surpassed.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting requirements • CB 1

TARGET MEASURE:

Meet or exceed discharge parameter permit levels

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
TSS (mg/l)	4.85	≤30	≤30	≤30
Enterococci (MPN/100ml)	N/A	N/A	≤35	≤35
CBOD (mg/l)	N/A	N/A	≤25	≤25
Nitrogen (mg/l)	3.25	≤5	≤5	≤5

TARGET MEASURE:

Achieve total seasonal nitrogen permit limit of 5 mg/l

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
mg/l	4.45	5.0	5.0	5.0

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment • CB 5

TARGET MEASURE:

Conduct a minimum of 20 inspections of the UV Disinfection system per month

Unit of Measure	ure FY 2018 Actual		FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Quantity	20		20	20	20

TARGET MEASURE:

Perform no less than 90% of maintenance work orders

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Preventative Maintenance Work Orders	91.69% (11,546)	90%	90%	90%
Corrective Maintenance Work Orders	8.31% (1,047)	10%	10%	10%
Total Staff Hours	82.84% (2,031)	80%	80%	80%

TARGET MEASURE:

Integrate Asset Management into Operating Capital Budget for treatment plants

_	Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
	Budgeted Items	33			
	New Needs	8	35	15	27
	Completed Items	32			

ENVIRONMENTAL PERFORMANCE:

Continuously evaluate NBC environmental performance to identify, quantify and minimize NBC impacts to the environment in a cost effective manner.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Minimize environmental impacts and implement conservation and sustainability measures • EP 1

TARGET MEASURE:

Implement 100% of energy conservation initiatives

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	0 Initiatives	100%	100%	100%

FINANCIAL MANAGEMENT:

Manage NBC's finances through strong financial planning and controls such that sewer user charges are minimized.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Evaluate savings opportunities and optimize NBC operations and processes • FM 8

TARGET MEASURE:

Limit gallons/pounds of chemicals added to treatment process

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Carbon Feed Gallons	1,614	0	<2,500	<2,500	
Powder Polymer Pounds	26,400	<9,000	<9,000	<9,000	
Liquid Polymer Gallons	45,500	<40,000	<40,000	<40,000	
Soda Ash Tons	98.64	<30	<30	<30	

TARGET MEASURE:

Produce less than 10 dry tons of sludge per day

Unit of Measure	FY 2018 Actual	_	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Quantity	Daily Average – 5.68 DT	Ī	<10 Dry Tons	<10 Dry Tons	<10 Dry Tons

STAFFING:

Attract, develop and retain highly qualified employees.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes • S 3

TARGET MEASURE:

Offer a minimum of 200 training/safety hours

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Hours	374	200	200	200



ENVIRONMENTAL SCIENCE AND COMPLIANCE

Division Summary

TECHNICAL ANALYSIS AND COMPLIANCE

PRETREATMENT

LABORATORY

ENVIRONMENTAL MONITORING

The Program

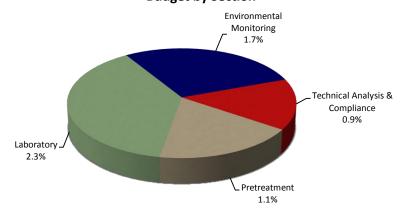
The Environmental Science and Compliance Division is responsible for ensuring NBC compliance with all state and federal environmental permits and regulations, evaluating agency energy and environmental sustainability and water quality science. The Division includes Technical Analysis and Compliance, Pretreatment, Laboratory, and Environmental Monitoring sections. The Division provides technical support to the Operations and Maintenance Division and performs a variety of special studies.

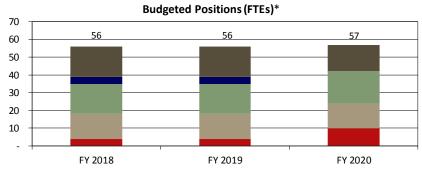
FY 2020 Budget by Division



VENVIRONMENTAL
SCIENCE &
COMPLIANCE
6%

ENVIRONMENTAL SCIENCE & COMPLIANCE Budget by Section





■ Technical Analysis & Compliance ■ Pretreatment ■ Laboratory ■ ESTA ■ Environmental Monitoring

^{*}Does not include turnover

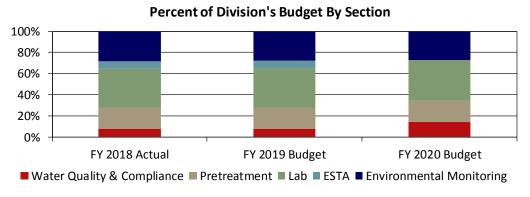
Environmental Science and Compliance Division Division Summary

The Budget

Operations & Maintenance Expense	FY	2018 Actual	FY 2019 Budget		FY 2	2020 Budget
Personnel	\$	4,942,875	\$	5,191,675	\$	4,967,394
Operating Supplies/Expense		696,795		764,864		685,219
Professional Services		92,682		76,950		78,500
Total O&M	\$	5,732,352	\$	6,033,489	\$	5,731,113
Funds by Source - Revenue	\$	5,732,352	\$	6,033,489	\$	5,731,113

Significant Budget Modifications

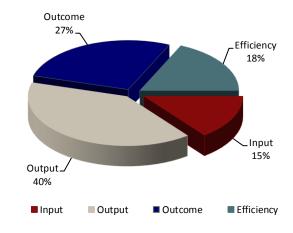
The FY 2020 Environmental Science and Compliance Division budget decreased by \$302,376 or 5.0% from the prior year. Personnel expense decreased by \$224,281 and includes a net increase of one FTE and increased salary reimbursements. Operating supplies and expense and professional services expense decreased by \$78,095 over the prior year and includes the transfer of maintenance contract expense to Information Technology and the transfer of the facility management function and expense to Engineering.



Environmental Science and Compliance Division Performance Data Summary

The chart below illustrates the Environmental Science and Compliance Division's Performance Data by type of measure. The measures can be found in the individual sections following this division summary. In this Division, Outcome and Efficiency make up 45% of the performance measures.

Percentage of Performance Measurement Types ENVIRONMENTAL SCIENCE & COMPLIANCE DIVISION



TECHNICAL ANALYSIS & COMPLIANCE Section Summary

The Program

The Technical Analysis and Compliance (TAC) section is responsible for ensuring NBC's compliance with all Federal and State environmental permits and regulations. This includes permit negotiations, compliance and reporting required by RIDEM, US EPA, and OSHA. This section also submits Discharge Monitoring, Stormwater, Biosolids, LECP and OSHA reports. This section performs technical data and seeks grant and award opportunities, the issuance and revision of NBC policies and the review and update of NBC's Strategic Plan. The section provides environmental, health, safety and technical assistance to NBC staff, customers, environmental organizations and the general public. The section works to identify and develop new and innovative ways to improve the environmental performance of NBC operations and ensure that operations are performed in a safe, efficient and sustainable manner.

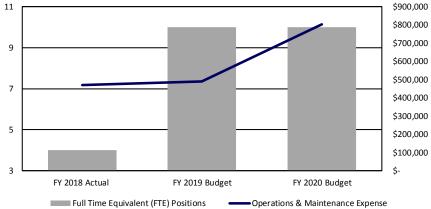
The Budget

Operations & Maintenance Expense	FY 20	18 Actual	FY 20:	19 Budget	FY 20	20 Budget
Personnel	\$	458,676	\$	472,541	\$	748,134
Operating Supplies/Expense		11,722		12,925		55,365
Professional Services		-		5,000		-
Total O&M	\$	470,398	\$	490,466	\$	803,499
Funds by Source - Revenue	\$	470,398	\$	490,466	\$	803,499

Significant Budget Modifications

The FY 2020 TAC budget is \$313,033 or 63.8% higher than the FY 2019 budget, reflective of the merger of the Water Quality & Compliance section and the Environmental Safety & Technical Assistance section into the new Technical Analysis & Compliance section. Personnel expense increased by \$275,593 over the prior year and includes the transfer of six FTEs from the former Environmental Safety & Technical Assistance section and two FTEs from the Environmental Monitoring section. Operating supplies and expense and professional services increased by \$37,440, representative of the budget merger.





PROGRAM STAFFING (BUDGETED)

	FY 2018	FY 2019	FY 2020
Union FTEs	-	-	-
Non Union FTEs	4	4	10
Less Turnover	-	-	-
Net Total	4	4	10

Core Business

CB 1	Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting
	requirements

- Manage the planning, design and construction of NBC's capital improvements in the most cost-effective manner and in compliance with regulatory requirements
- Ensure the highest level of availability of systems' applications and network stability
- Maximize efficiency through service automation, applications security and NBC campus security
- Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment

Environmental Performance

- Minimize environmental impacts and implement conservation and sustainability measures
- Evaluate the NBC Program and report the data to the public
- FP3 Provide technical assistance to evaluate energy conservation and renewable energy opportunities
- Provide quality and expedient sample collection, data analyses and water quality monitoring to evaluate NBC's impacts and document improvements

Financial Management

- FM 1 Ensure sufficient funding and receive the lowest cost of borrowing with the least rate payer impact
- Integrate NBC's strategic goals into the allocation of NBC's resources
- Maximize the efficiency, effectiveness, and accuracy of NBC's rate structures and collection processes to reduce accounts receivable
- PM4 Develop and manage NBC's operating and capital budgets to maximize benefits, minimize expense and unplanned expenditures
- FMS Comply with IRS, Federal and State Rules and Regulations, Trust Indenture and Generally Accepted Accounting Principles
- Ensure goods and services are procured, reviewed and processed in a timely, efficient and cost effective manner
- Initiate and evaluate incentive programs
- Evaluate savings opportunities and optimize NBC operations and processes

Customer Focus

- Maintain programs and conduct projects that give back to the community
- Provide prompt, courteous, efficient and educational services
- Enhance communications to ensure consistency, reliability and satisfaction
- CF4 Maximize customer focus attitude by providing excellent customer service and developing strong customer relationships
- Ensure compliance with NBC internal controls

Staffing

- Ensure compliance with Federal and State labor laws
- Foster a positive working environment through effective communication
- rovide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes
- Provide a healthy and safe working environment
- Develop mechanisms and establish opportunities for continued growth and professional development

Communication

- Continue to expand and conduct NBC public outreach programs
- Proactively manage NBC's public and legislative affairs and communicate NBC initiatives and ongoing activities
- Effectively communicate status of capital projects to NBC staff and Board members
- Enhance operating budget, CIP and compliance reports as a communication device
- Strengthen and expand NBC's positive relations with key stakeholders (customers, Board, elected officials/delegates, regulatory officials and the public) to ensure support of NBC's mission

- OP 1 Conduct NBC business in an open manner
- OP 2 Promote diversity in hiring practices
- OP 3 Ensure compliance with State ethics and regulatory agenda filing
- OP 4 Provide end-user technology and systems to meet NBC's strategic goals

TECHNICAL ANALYSIS & COMPLIANCE Performance Data

Major Accomplishments FY 2019 by Key Code:

- CB 1 Submitted monthly Discharge Monitoring Reports to EPA and RIDEM on time
- **CB 1** Submitted the annual Stormwater Reports to RIDEM on time
- **CB 1** Reviewed and analyzed the draft and final RIPDES permits issued by RIDEM
- **CB 1** Analyzed, reported and presented five years of NBC's recordable injuries and non-recordable incidents by section, body part and cause
- **EP 1** Attended various presentations and workshops and collaborated with stakeholder groups regarding climate change, sea level rise and water quality improvements
- **EP 1** Coordinated and implemented installation of reuse automatic irrigation system at Field's Point
- **EP 1** Initiated lean practices for the recycling program
- **EP 3** Assisted with implementation of NBC's energy efficiency, renewable energy and overall sustainability efforts by tracking and reporting energy usage
- **EP 3** Assisted the Rhode Island Convention Center, Providence Water, and the City of Woonsocket with assessing various renewable energy opportunities
- FM 7 Prepared submittals for the Biogas Energy Project including Eligibility Applications for RI and MA, RIREF grant application for \$80,000
- **CF 1** Administered the NBC Earth Day Grant Program to 17 non-profit organizations in support of river cleanups throughout the NBC service area
- **S 4** Enhanced emergency preparedness procedures
- S 4 Coordinated with the Providence Fire Department to conduct annual Confined Space Rescue Drills at the Washington Park Pump Station
- S 4 Organized and facilitated on-site air quality testing at the FPWWTF
- **S 4** Worked with the RI State OSHA Consultation Program to identify enhanced safety opportunities throughout NBC

Top Priorities for FY 2020 and How They Relate to the Strategic Plan/Goals and by Key Code:

- **CB 1** Timely submittal of reports to the EPA, RIDEM and OSHA
- **EP 1** Investigation of opportunities for additional on-site and off-site wastewater reuse
- EP 3 Conduct investigations into additional renewable energy opportunities to help achieve and maintain NBC's goal of 100% renewable electricity energy

- **CF 1** Continue the Earth Day Grant Program for local non-profit organizations as part of NBC's River Restoration Initiative
- **S 3** Conduct periodic workplace safety audits and attend safety meetings
- S 3 Provide OSHA safety training to 100% of new employees
- C 5 Continually communicate NBC water quality findings to the public through the Snapshot of Upper Narragansett Bay on NBC's website

Target Measures

CORE BUSINESS: Operate, maintain and protect our collection and treatment systems to ensure that all State and Federal requirements are met or surpassed.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting requirements • CB 1

TARGET MEASURE:

Compile and process annual OSHA 300 logs and Tier II reports two weeks prior to respective due dates

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Completion Date - OSHA 300 logs	1/31/2018	2/1/2018	2/1/2019	2/1/2020
Completion Date - Tier II Reports	2/26/2018	3/1/2018	3/1/2019	3/1/2020

TARGET MEASURE:

Perform a minimum of 8 internal environmental health & safety audits

Unit of Measure	FY 2018 Actual	_	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Quantity	8		8	8	8

TARGET MEASURE:

Prepare annual stormwater inspection report for both WWTF's

Unit of Measure	FY 2018 Actual	F	Y 2018 Goal	FY 2019 Goal	FY 2020 Goal
FPWWTF Due Date	9/26/2017		12/30/2017	12/30/2018	12/30/2019
BPWWTF Due Date	9/27/2017		12/30/2017	12/30/2018	12/30/2019

TARGET MEASURE:

Submit RIPDES DMR Report by the 15th of each month

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Quantity	12	12	12	12

TARGET MEASURE:

Submit the biosolids report to the EPA by February 19th of each year

Unit of Measure	FY 2018 Actual	 FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
EPA Due Date	2/19/2018	2/19/2018	2/19/2019	2/19/2020

ENVIRONMENTAL PERFORMANCE:

Continuously evaluate NBC environmental performance to identify, quantify and minimize NBC impacts to the environment in a cost effective manner.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide technical assistance to evaluate energy conservation and renewable energy opportunities • EP 3

TARGET MEASURE:

Complete a minimum of 3 internal energy assessments to ensure NBC facilities are energy efficient

Unit of Measure	FY 2018 Actual		FY 2019 Goal	0,	
 Assessments	7	3	3	3	Ī

FINANCIAL MANAGEMENT:

Manage NBC's finances through strong financial planning and controls such that sewer user charges are minimized.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Initiate and evaluate incentive programs • FM 7

TARGET MEASURE:

Submit National Grid incentive program applications to seek incentive funds for energy projects

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Applications submitted	1	1	1	1

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Evaluate savings opportunities and optimize NBC operations and processes • FM 8

TARGET MEASURE:

Monitoring of NBC's energy use and renewable energy production

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Energy Produced on-site	52	Weekly	Weekly	Weekly
Energy Produced off-site	52	Weekly	Weekly	Weekly
Energy Purchased	12	Monthly	Monthly	Monthly

CUSTOMER FOCUS:

Maintain a customer-focused attitude throughout the organization.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide prompt, courteous, efficient and educational services • CF 2

TARGET MEASURE:

Conduct 100% of requested technical site visits

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	100% (12 Visits)	100%	100%	100%

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Maintain programs and conduct projects that give back to the community • CF 1

TARGET MEASURE:

Earth Day River Cleanup Event/Grant Program in NBC Service Area

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Event Date	4/22/2018	4/30/2018	4/30/2019	4/30/2020
Quantity - Grants	17	10	10	10
Total Grants	\$11,000	\$10,000	\$10,000	\$10,000

STAFFING:

Attract, develop and retain highly qualified employees.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes • S 3

TARGET MEASURE:

Conduct a minimum of 2 CPR/Defibrillator training classes

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Classes	2	2	2	2
Attendees Certified	100%	100%	100%	100%

TARGET MEASURE:

Provide a minimum of 50 Health & Safety training classes each year

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Classes	60	50	50	50

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Foster a positive working environment through effective communication • S 1

TARGET MEASURE:

Conduct monthly staff meetings

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Frequency	12	12	12	12

TARGET MEASURE:

Conduct monthly data meetings to disseminate data and optimize operations

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Frequency	12	12	12	12	

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Develop mechanisms and establish opportunities for continued growth and professional development • S 5

**Target Measure:*

Conduct semiannual review meetings with staff to discuss professional development opportunities

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Frequency	2	2	2	2

COMMUNICATION: Improve and enhance internal and external communication to increase understanding of "who we are" and "what we do".

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Strengthen and expand NBC's positive relations with key stakeholders (customers, Board, elected officials/delegates, regulatory officials and the public) to ensure support of NBC's mission • C 5

TARGET MEASURE:

Review 100% of NBC's annual environmental merit awards program applications

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Merit Awards	100%	100%	100%	100%

TARGET MEASURE:

Submit 4 technical papers/posters/abstracts for presentation/publication

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Papers	4	4	4	4

TARGET MEASURE:

Submit 8 articles for publication in the 'NBC Pipeline' annually

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Articles	12	8	8	8

TARGET MEASURE:

Educate the public and NBC stakeholders by giving presentations about the NBC and water quality improvements

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Quantity	5	4	4	4

TARGET MEASURE:

Annual review Strategic Plan and update when necessary

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Frequency	1	1	1	1

TARGET MEASURE:

Monthly updates of NBC Snapshot of the Upper Bay

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Frequency	12	12	12	12	

PRETREATMENT Section Summary

The Program

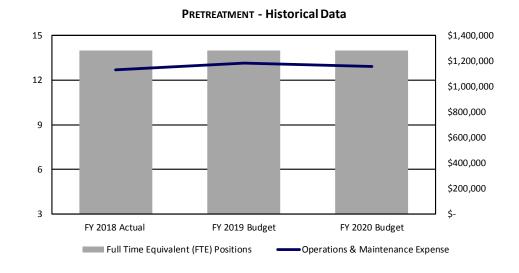
The Pretreatment section is responsible for administering the federally mandated pretreatment program. The primary purpose of the pretreatment program is to protect NBC's wastewater treatment plants and the infrastructure from toxins and pollutants that could disrupt and interfere with plant operations, as well as to protect the receiving waters, rivers and Narragansett Bay. The Pretreatment section uses various tools to accomplish this task, including the issuance of Wastewater Discharge Permits to industrial and commercial users. This section also performs site inspections of these users, responds to spills within NBC's service area and tracks toxic discharges through the sewer system to determine the source.

The Budget

Operations & Maintenance Expense	FY 2018 Actual		FY 2019 Budget		FY 2020 Budget		
Personnel	\$	1,099,505	\$	1,148,864	\$	1,123,754	
Operating Supplies/Expense		30,137		34,770		34,200	
Professional Services		-		-		-	
Total O&M	\$	1,129,642	\$	1,183,634	\$	1,157,954	
_							
Funds by Source - Revenue	\$	1,129,642	\$	1,183,634	\$	1,157,954	

Significant Budget Modifications

The FY 2020 Pretreatment budget is \$25,680 or 2.2% lower than the FY 2019 budget. Personnel expense decreased by \$25,110 from the prior year due to health insurance enrollment changes. Operating supplies and expense decreased by \$570.



PROGRAM STAFFING (BUDGETED) FY 2019 FY 2020 FY 2018 Union FTEs 3 3 3 Non Union FTEs 11 11 11 Less Turnover **Net Total** 14 14 14

Core Business

- Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting requirements
- Manage the planning, design and construction of NBC's capital improvements in the most cost-effective manner and in compliance with regulatory requirements
- Ensure the highest level of availability of systems' applications and network stability
- Maximize efficiency through service automation, applications security and NBC campus security
- Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment

Environmental Performance

- Minimize environmental impacts and implement conservation and sustainability measures
- Evaluate the NBC Program and report the data to the public
- FP3 Provide technical assistance to evaluate energy conservation and renewable energy opportunities
- Provide quality and expedient sample collection, data analyses and water quality monitoring to evaluate NBC's impacts and document improvements

Financial Management

- Ensure sufficient funding and receive the lowest cost of borrowing with the least rate payer impact
- Integrate NBC's strategic goals into the allocation of NBC's resources
- Maximize the efficiency, effectiveness, and accuracy of NBC's rate structures and collection processes to reduce accounts receivable
- PM4 Develop and manage NBC's operating and capital budgets to maximize benefits, minimize expense and unplanned expenditures
- FM 5 Comply with IRS, Federal and State Rules and Regulations, Trust Indenture and Generally Accepted Accounting Principles
- Ensure goods and services are procured, reviewed and processed in a timely, efficient and cost effective manner
- Initiate and evaluate incentive programs
- Evaluate savings opportunities and optimize NBC operations and processes

Customer Focus

- Maintain programs and conduct projects that give back to the community
- Provide prompt, courteous, efficient and educational services
- Enhance communications to ensure consistency, reliability and satisfaction
- cr4 Maximize customer focus attitude by providing excellent customer service and developing strong customer relationships
- Ensure compliance with NBC internal controls

Staffing

- Ensure compliance with Federal and State labor laws
- Foster a positive working environment through effective communication
- Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes
- Provide a healthy and safe working environment
- Develop mechanisms and establish opportunities for continued growth and professional development

Communication

- Continue to expand and conduct NBC public outreach programs
- Proactively manage NBC's public and legislative affairs and communicate NBC initiatives and ongoing activities
- Effectively communicate status of capital projects to NBC staff and Board members
- Enhance operating budget, CIP and compliance reports as a communication device
- Strengthen and expand NBC's positive relations with key stakeholders (customers, Board, elected officials/delegates, regulatory officials and the public) to ensure support of NBC's mission

- OP 1 Conduct NBC business in an open manner
- OP 2 Promote diversity in hiring practices
- OP 3 Ensure compliance with State ethics and regulatory agenda filing
- OP 4 Provide end-user technology and systems to meet NBC's strategic goals

PRETREATMENT

Performance Data

Major Accomplishments FY 2019 by Key Code:

- **CB 1** Issued 11 educational form letters to users
- CB 1 Inspected all Significant Industrial Users (SIU) multiple times
- **CB 1** Issued 1,700 Notices of Violation for each incident of non-compliance
- CB 1 Submitted the Annual Pretreatment Report to RIDEM by 3/15/18 as required by the RIPDES permit
- CB 1 Continuously permitted all SIUs in accordance with federal and state regulations
- **FM 6** Assisted with the State of RI OMB performance audit
- **C1** Participated in seven public presentations and workshops

Top Priorities for FY 2020 and How They Relate to the Strategic Plan/Goals and by Key Code:

- **CB 1** Submit the Annual Pretreatment Report by March 15th in accordance with the RIPDES permit
- CB 1 Protect the treatment plants and collection systems from toxic and nuisance pollutant discharges that would adversely impact and interfere with NBC facilities and prevent pass through of these pollutants into Narragansett Bay
- **CB 1** Ensure all SIUs are continuously permitted and inspected in accordance with State and Federal requirements as well as goals established by NBC

Target Measures

CORE BUSINESS:	Operate, maintain and protect our collection and treatment systems to
	ensure that all State and Federal requirements are met or surpassed.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting requirements • CB 1

TARGET MEASURE:

Conduct EPA and RIDEM required annual site inspection for NBC facilities.

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
FPWWTF	EPA 9/26/2017 RIDEM 6/14/2018	Annually	Annually	Annually
BPWWTF	EPA 9/27/2017 RIDEM 6/19/2018	Annually	Annually	Annually

TARGET MEASURE:

Conduct annual RIDEM mandated training for NBC staff

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	2 Trainings	100%	100%	100%

TARGET MEASURE:

Conduct non-sampling inspections of 100% Significant Industrial Users (SIUs) within the required 12 month period

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	68 Inspections	100%	100%	100%

TARGET MEASURE:

Complete and submit Annual Pretreatment Report to DEM

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Completion date	3/15/2018	3/15/2018	3/15/2019	3/15/2020

TARGET MEASURE:

Issue Notices of Violations (NOVs) for 100% of incidents of non-compliance

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	1,700 NOVs	100%	100%	100%

ENVIRONMENTAL PERFORMANCE:

Continuously evaluate NBC environmental performance to identify, quantify and minimize NBC impacts to the environment in a cost effective manner.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Evaluate the NBC Program and report the data to the public • EP 2

TARGET MEASURE:

Compile and publish in the newspaper a list of companies in significant non-compliance

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Date	2/23/2018	2/28/2018	2/28/2019	2/28/2020

CUSTOMER FOCUS:

Maintain a customer-focused attitude throughout the organization.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide prompt, courteous, efficient and educational services • CF 2

TARGET MEASURE:

Review 100% of process operations and pretreatment system plan submittals

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	132 Submittals	100%	100%	100%

TARGET MEASURE:

Respond to 100% of reports of unusual influent, illegal dumping, spills and blockages

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Percentage	18 Reports	100%	100%	100%

TARGET MEASURE:

Process 100% Wastewater Discharge Permit Applications

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Percentage	409 Applications	100%	100%	100%	Ī

TARGET MEASURE:

Issue Wastewater Discharge Permits to previously unpermitted users within 30 days from the submittal of the permit application package.

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Timeframe	105 Davs	<30 Davs	<30 Davs	<30 Days	Ī

TARGET MEASURE:

Issue a minimum of 8 educational form letters

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Quantity	11	≥8	≥8	≥8

TARGET MEASURE:

Participate in a minimum of 3 public presentations/workshops

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Quantity	7	≥3	≥3	≥3	

COMMUNICATION:	Improve and enhance internal and external communication to
	increase understandina of "who we are" and "what we do".

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Strengthen and expand NBC's positive relations with key stakeholders (customers, Board, elected officials/delegates, regulatory officials and the public) to ensure support of NBC's mission • C 5

TARGET MEASURE:

Complete pretreatment annual report and post on NBC's website

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Date	3/31/2018	4/15/2018	4/15/2019	4/15/2020



LABORATORY

Section Summary

The Program

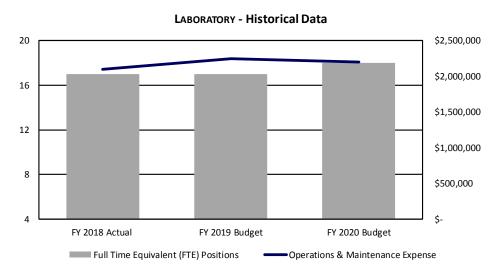
The Laboratory section is responsible for producing timely, high quality analytical data through the use of analytical measurements that are accurate, reliable and achieve the most precise measurements possible in order to comply with Federal and State regulations. The Laboratory is certified by the State of RI and must comply with certification requirements by the Department of Health (DOH) and US EPA. The Laboratory section performs all RIPDES required analyses for the FPWWTF and BPWWTF, Pretreatment programs, monitoring activities, and impacts of nutrients and fecal coliform of the urban rivers and receiving water evaluations of the upper Narragansett Bay.

The Budget

Operations & Maintenance Expense	FY 2	2018 Actual	FY 20	019 Budget	FY 2	020 Budget
Personnel	\$	1,582,742	\$	1,698,976	\$	1,731,499
Operating Supplies/Expense		467,957		519,584		438,134
Professional Services		48,937		31,950		31,500
Total O&M	\$	2,099,636	\$	2,250,510	\$	2,201,133
_						
Funds by Source - Revenue	\$	2,099,636	\$	2,250,510	\$	2,201,133

Significant Budget Modifications

The FY 2020 Laboratory budget is \$49,377 or 2.2% lower than the FY 2019 budget. Personnel expense increased by \$32,523 and includes one additional FTE, a Microbiology Lab Supervisor. Operating supplies and expense and professional services decreased by \$81,900 and reflects the transfer of the facilities management function and related expense to the Engineering section and the transfer of the natural gas expense to the General Services section.



PROGRAM STAFFING (BUDGETED) FY 2018 FY 2019 FY 2020 Union FTEs 9 9 9 Non Union FTEs 8 8 9 Less Turnover **Total** 17 17 18

Core Business

CB 1	Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting
	requirements

- Manage the planning, design and construction of NBC's capital improvements in the most cost-effective manner and in compliance with regulatory requirements
- Ensure the highest level of availability of systems' applications and network stability
- Maximize efficiency through service automation, applications security and NBC campus security
- Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment

Environmental Performance

- Minimize environmental impacts and implement conservation and sustainability measures
- Evaluate the NBC Program and report the data to the public
- FP3 Provide technical assistance to evaluate energy conservation and renewable energy opportunities
- Provide quality and expedient sample collection, data analyses and water quality monitoring to evaluate NBC's impacts and document improvements

Financial Management

- Ensure sufficient funding and receive the lowest cost of borrowing with the least rate payer impact
- Integrate NBC's strategic goals into the allocation of NBC's resources
- Maximize the efficiency, effectiveness, and accuracy of NBC's rate structures and collection processes to reduce accounts receivable
- PM4 Develop and manage NBC's operating and capital budgets to maximize benefits, minimize expense and unplanned expenditures
- FM 5 Comply with IRS, Federal and State Rules and Regulations, Trust Indenture and Generally Accepted Accounting Principles
- Ensure goods and services are procured, reviewed and processed in a timely, efficient and cost effective manner
- Initiate and evaluate incentive programs
- Evaluate savings opportunities and optimize NBC operations and processes

Customer Focus

- Maintain programs and conduct projects that give back to the community
- Provide prompt, courteous, efficient and educational services
- Enhance communications to ensure consistency, reliability and satisfaction
- CF4 Maximize customer focus attitude by providing excellent customer service and developing strong customer relationships
- Ensure compliance with NBC internal controls

Staffing

- Ensure compliance with Federal and State labor laws
- Foster a positive working environment through effective communication
- rovide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes
- Provide a healthy and safe working environment
- Develop mechanisms and establish opportunities for continued growth and professional development

Communication

- Continue to expand and conduct NBC public outreach programs
- Proactively manage NBC's public and legislative affairs and communicate NBC initiatives and ongoing activities
- Effectively communicate status of capital projects to NBC staff and Board members
- Enhance operating budget, CIP and compliance reports as a communication device
- Strengthen and expand NBC's positive relations with key stakeholders (customers, Board, elected officials/delegates, regulatory officials and the public) to ensure support of NBC's mission

- OP 1 Conduct NBC business in an open manner
- OP 2 Promote diversity in hiring practices
- OP 3 Ensure compliance with State ethics and regulatory agenda filing
- Provide end-user technology and systems to meet NBC's strategic goals

LABORATORY

Performance Data

Major Accomplishments FY 2019 by Key Code:

- **CB 1** Obtained 100% accuracy for the laboratory's analytical proficiency for the RI State Licensing and EPAs DMR reporting
- **CB 5** Implemented a new barcode scanning system for samples
- **EP 4** Analyzed all RIPDES permit samples for FPWWTF and BPWWTF as well as other routine and non-routine chemical and biological tests
- **EP 4** Provided quality analytical tests for all NBC studies and samples collected to evaluate the impact of nutrients, enterococci, and fecal coliform on Narragansett Bay
- S 3 Completed 40 hours of chemistry and HAZWOP training on average per staff member

Top Priorities for FY 2020 and How They Relate to the Strategic Plan/Goals and by Key Code:

- CB 1 Meet State and Federal requirements for Rhode Island State Licensing and EPA permit reporting
- EP 4 Perform high quality analyses to optimize operation of NBC's wastewater treatment facilities
- EP 4 Provide quality and expedient analytical service for all studies and samples collected

Target Measures

CORE BUSINESS:	Operate, maintain and protect our collection and treatment systems to
	ensure that all State and Federal requirements are met or surpassed.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting requirements • CB 1

TARGET MEASURE:

Annual calibration of all laboratory instrumentation

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Percentage	37 Calibrations	100%	100%	100%	

TARGET MEASURE:

Complete EPA or RIDEM mandated analyses

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
SIUs	3,591 Tests	100%	100%	100%
FPWWTF	48,115 Tests	100%	100%	100%
BPWWTF	45,545 Tests	100%	100%	100%
Manholes	3,854 Tests	100%	100%	100%
Septage	2.148 Tests	100%	100%	100%

TARGET MEASURE:

Monthly audits of at least two laboratory procedures per month

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Quantity	24	24	24	24

TARGET MEASURE:

Prepare and submit the Department of Health certification renewal application

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Date submitted	11/29/2017	12/1/2017	12/1/2018	12/1/2019	

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment ● CB 5

TARGET MEASURE:

Ensure laboratory equipment required maintenance is completed within 7 days

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Timeframe	3 Days	≤7 Days	≤7 Days	≤7 Days

ENVIRONMENTAL PERFORMANCE:

Continuously evaluate NBC environmental performance to identify, quantify and minimize NBC impacts to the environment in a cost effective manner.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide quality and expedient sample collection, data analyses and water quality monitoring to evaluate NBC's impacts and document improvements • EP 4

TARGET MEASURE:

Analyze 100% of collected samples for water quality monitoring

Unit of Measure	FY 2018 Actual	_	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Nutrients	4,983 Tests		100%	100%	100%
Fecal Coliform	3,158 Tests		100%	100%	100%

Attract, develop and retain highly qualified employees.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes • S 3

TARGET MEASURE:

STAFFING:

Provide a minimum of 300 training hours

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
Hours	320	300	300	300	

ENVIRONMENTAL MONITORING Section Summary

The Program

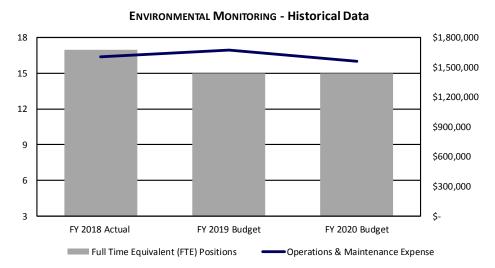
The Environmental Monitoring section is responsible for water quality monitoring throughout NBC's service area, including the two wastewater treatment facilities, the collection system and permitted pretreatment customers. Environmental Monitoring serves to ensure the health of area residents through the proper operation of the wastewater treatment plants and the quality of receiving waters. This section conducts significant industrial user and manhole sampling to ensure compliance with discharge permits and conducts daily wastewater treatment facility sampling. This section designs and implements monitoring programs to assess the impact of constructed improvements and to respond to State and Federal mandates, including all RIPDES permit required monitoring.

The Budget

Operations & Maintenance Expense		2018 Actual	FY 2	019 Budget	FY 20	020 Budget
Personnel	\$	1,417,790	\$	1,482,285	\$	1,364,007
Operating Supplies/Expense		146,911		150,470		157,520
Professional Services		43,745		40,000		47,000
Total O&M	\$	1,608,446	\$	1,672,755	\$	1,568,527
Funds by Source - Revenue	\$	1,608,446	\$	1,672,755	\$	1,568,527

Significant Budget Modifications

The FY 2020 Environmental Monitoring budget is \$104,228 or 6.2% lower than the FY 2019 budget. Personnel expense decreased by \$118,278 and reflects the transfer of two FTEs to the Technical Analysis & Compliance section. Operating supplies and expense and Professional services increased by \$14,050 and includes additional funds for bioassays with pollutant scans in FY 2020 for new RIPDES permit limits.



Program Staffing (Budgeted)			
	FY 2018	FY 2019	FY 2020
Union FTEs	9	9	9
Non Union FTEs	8	8	6
Less Turnover	-	-	-
Total	17	17	15

Core Business

CB 1	Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting
	requirements

- Manage the planning, design and construction of NBC's capital improvements in the most cost-effective manner and in compliance with regulatory requirements
- Ensure the highest level of availability of systems' applications and network stability
- Maximize efficiency through service automation, applications security and NBC campus security
- Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment

Environmental Performance

- Minimize environmental impacts and implement conservation and sustainability measures
- Evaluate the NBC Program and report the data to the public
- FP3 Provide technical assistance to evaluate energy conservation and renewable energy opportunities
- Provide quality and expedient sample collection, data analyses and water quality monitoring to evaluate NBC's impacts and document improvements

Financial Management

- Ensure sufficient funding and receive the lowest cost of borrowing with the least rate payer impact
- Integrate NBC's strategic goals into the allocation of NBC's resources
- Maximize the efficiency, effectiveness, and accuracy of NBC's rate structures and collection processes to reduce accounts receivable
- PM4 Develop and manage NBC's operating and capital budgets to maximize benefits, minimize expense and unplanned expenditures
- FMS Comply with IRS, Federal and State Rules and Regulations, Trust Indenture and Generally Accepted Accounting Principles
- Ensure goods and services are procured, reviewed and processed in a timely, efficient and cost effective manner
- Initiate and evaluate incentive programs
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- Continue to expand and conduct NBC public outreach programs
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- Enhance operating budget, CIP and compliance reports as a communication device
- Strengthen and expand NBC's positive relations with key stakeholders (customers, Board, elected officials/delegates, regulatory officials and the public) to ensure support of NBC's mission

- OP 1 Conduct NBC business in an open manner
- OP 2 Promote diversity in hiring practices
- OP 3 Ensure compliance with State ethics and regulatory agenda filing
- OP 4 Provide end-user technology and systems to meet NBC's strategic goals

ENVIRONMENTAL MONITORING Performance Data

Major Accomplishments FY 2019 by Key Code:

- **CB 1** Collected approximately 27,554 samples and ensured compliance with all Federal and State mandates
- CB 1 Collected samples from all Significant Industrial Users that discharged process wastewater
- **CB 1** Sampled the BPWWTF and FPWWTF daily to ensure compliance with RIPDES permit requirements
- **CB 1** Assisted in the review of the final RIPDES permits, Consent Agreement process, and the preparation of response letters and required tracking spreadsheets
- CB 5 Contributed to the development and implementation of the new LIMS software
- **CF 3** Conducted monthly meetings with the Operations, Interceptor Maintenance, Laboratory, Pretreatment, Environmental Safety & Technical Assistance, Administration and Engineering staff to discuss environmental monitoring data, as well as plant data and operational issues
- **CF 3** Staff was interviewed by Rhode Island Public Broadcasting Service reporters for a show entitled, "Community Conversations: Is Narragansett Bay Too Clean?"

Top Priorities for FY 2020 and How They Relate to the Strategic Plan/Goals and by Key Code:

- CB 1 Sample the treatment facilities 365 days/year to comply with RIPDES permit requirements, process and provide data and assistance to Operations to evaluate plant performance, optimize treatment plant processes and resolve operational issues
- **CB 1** Sample all discharging Significant Industrial Users semi-annual to meet established Pretreatment goals
- CB 1 Conduct Local Limits Evaluation and develop local limits that protect the treatment plants, health of the receiving waters, and safety of the public
- **EP 4** Provide quality and expedient sample collection services related to the CSO Phase II Facilities and BNR facilities that will enable the evaluation of their environmental impacts

Target Measures

CORE BUSINESS:

Operate, maintain and protect our collection and treatment systems to ensure that all State and Federal requirements are met or surpassed.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Ensure compliance with all State and Federal regulations, permits, consent agreements, certifications, NBC regulations and reporting requirements • CB 1

TARGET MEASURE:

Collect EPA mandated samples

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
SIUs	1,702 Samples	100%	100%	100%
WWTFs	18,120 Samples	100%	100%	100%
Manholes	959 Samples	100%	100%	100%
Septage	278 Samples	100%	100%	100%

TARGET MEASURE:

Prepare and submit RIPDES DMR Report by the 15th of each month

Unit of Measure	FY 2018 Actual	_	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal			
Quantity	12		12	12	12			

TARGET MEASURE:

Conduct annual Environmental Land Use Restriction (ELUR) inspections.

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Quantity	4	3	3	3

ENVIRONMENTAL PERFORMANCE:

Continuously evaluate NBC environmental performance to identify, quantify and minimize NBC impacts to the environment in a cost effective manner.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide quality and expedient sample collection, data analyses and water quality monitoring to evaluate NBC's impacts and document improvements • EP 4

TARGET MEASURE:

Collect samples to support water quality monitoring efforts

_	Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal	
-	River	4,560 Samples	100%	100%	100%	
	Bay	2,549 Samples	100%	100%	100%	

TARGET MEASURE:

Publish monitoring activities and analyses for prior year on NBC's website by due date

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal		
Date	4/20/2018	4/30/2018	4/30/2019	4/30/2020		

TARGET MEASURE:

Annually deploy fixed site monitoring equipment at a minimum of 2 sites

Unit of Measure	FY 2018 Actual		FY 2018 Goal	FY 2019 Goal	FY 2020 Goal				
Quantity	3		2	2	2				

TARGET MEASURE:

Determine impact of nutrient reductions on ecology through video monitoring a minimum of 4/year

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal		
Frequency	110	4	4	4		

STAFFING: Attract, develop and retain highly qualified employees.

GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes \bullet S 3

TARGET MEASURE:

Provide a minimum of 250 training hours

Unit of Measure	FY 2018 Actual	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Hours	259	250	250	250



Capital Budget

NBC's Capital Budget includes the Operating Capital Program (OCP) and the Capital Improvement Program (CIP). The FY 2020 Capital Budget is \$55.1 million which is \$1.2 million or 2.1% less than the prior year.

	FY 2018 FY 2019		FY 2020		Budgeted	
		Actual	Budget	Budget		Difference
Source of Funds						
Restricted Account - CIP	\$	19,579,714	\$ 20,015,021	\$ 6,909,839	\$	(13,105,182)
Restricted Account - OCP		4,102,698	4,752,000	3,261,200		(1,490,800)
Grant and Project Reimbursement Account		-	7,715,796	8,914,056		1,198,260
SRF Loan Proceeds		25,849,612	23,828,148	36,056,481		12,228,333
Total Source of Funds	\$	49,532,024	\$ 56,310,965	\$ 55,141,576	\$	(1,169,389)
Use of Funds						
Operating Capital Program		4,102,698	4,752,000	3,261,200		(1,490,800)
Capital Improvements		39,408,439	50,558,965	51,330,376		771,411
Debt Service Payment Account/Other		6,020,887	1,000,000	550,000		(450,000)
Total Use of Funds	\$	49,532,024	\$ 56,310,965	\$ 55,141,576	\$	(1,169,389)

The CIP and OCP identify capital expenditures over a five-year planning period and are developed within the context of the Strategic Plan's short-term and long-term goals. NBC staff identify capital needs based upon the Asset Management Program as well as system and facility inspections. In addition, NBC engineers and scientists identify improvements that may be required to meet new permit requirements such as more stringent discharge limits as well as consent agreements. Additional capital needs such as improvements to Information Technology hardware and software are also identified as new technologies become available.

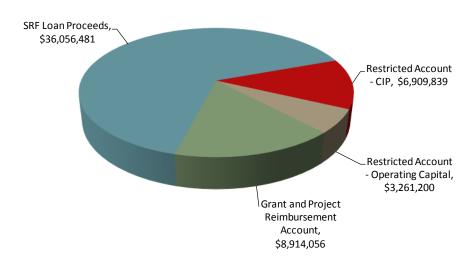


Items identified for inclusion in the Capital Budget must meet NBC's criteria to be considered an asset. NBC's asset criteria is further discussed in the OCP portion of this document. In general, assets that are to be purchased and installed by NBC staff within the fiscal year are included in the OCP. The highest priority items are included in the budget year and the remaining assets are programmed in subsequent years. The CIP includes larger, more complex and expensive assets that will be completed over a number of years. CIP items typically require the services of outside professional services to assist with planning, design and construction. The CIP projects are assigned priority codes and funding is allocated accordingly.

The Operating Budget includes debt service associated with the financing of the CIP. In addition, the Operating Budget line item "Transfer to Project Fund – Restricted Account" is used in the subsequent fiscal year to fund the OCP and pay-as-you-go CIP projects. Additional funding for the CIP is available from the Grant and Project Reimbursement Account in the Project Fund. Lastly, NBC funds the CIP with proceeds from the issuance of tax-exempt revenue bonds issued through the Rhode Island Infrastructure Bank, which is also referred to in this document as State Revolving Fund or "SRF" debt. If there is insufficient SRF capacity, the NBC also funds the CIP through the issuance of tax-exempt revenue bonds.

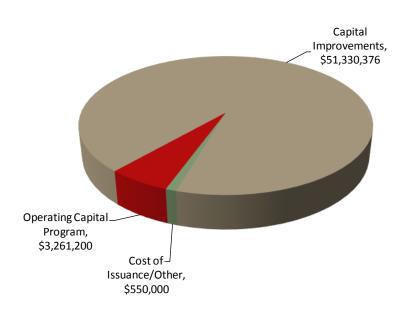
In fiscal year 2020, the total sources of capital funds are approximately \$55.1 million and the largest source is SRF Loan Proceeds at \$36.1 million or 65.4%. The second largest source is the Grant and Project Reimbursement Account at \$8.9 million or 16.2%. The Restricted Account - CIP has \$6.9 million programmed for expenditure in FY 2020 or 12.5% of the total. Lastly, NBC has \$3.3 million budgeted in the Restricted Account – Operating Capital. The following chart illustrates the capital funding sources by type.

Sources of Funds



The largest category of capital budget expense in FY 2020 is Capital Improvements, which represents \$51.3 million or 93.1% of the total capital budget funds. The following chart illustrates the capital funding uses by type.

Uses of Funds



Operating Capital Program

The Operating Capital Program

The Narragansett Bay Commission's (NBC) Operating Capital Program (OCP) identifies programmed asset purchases for the current budget year and subsequent five years. The OCP is based primarily on information from NBC's Asset Management Program (AMP) and includes new assets, asset replacements, asset renovations and betterments. Examples of these assets include pumps, blowers, actuators, and bar racks.

Other operating capital items are identified through facility inspections and established programmatic priorities. Examples of these assets include fleet vehicles and laboratory equipment as well as computer hardware and software licensing. In accordance with NBC's Capital Asset Policy, all assets must have an acquisition cost greater than \$5,000 and a useful life of three years or more.



Operating Capital Program Overview

This year's OCP identifies 82 assets programmed for acquisition in FY 2020 at a total cost of approximately \$3.3 million. NBC has also programmed asset purchases in FY 2021 through FY 2025 of approximately \$12.0 million for a total of \$15.3 million over the six-year period reflected in the Program. As is shown in the following table, the majority of the asset purchases, \$10.1 million or 67%, are for items required to support the wastewater treatment and collection functions in the Operations and Maintenance Division and the Environmental Science and Compliance Division.

FY 2020 – 2025 Operating Capital Program

								Total
Division	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	F١	Y 2021-2025
Administration	\$ 595,000	\$ 175,000	\$ 440,000	\$ 175,000	\$ 440,000	\$ 210,000	\$	1,440,000
Construction & Engineering	40,000	30,000	75,000	30,000	35,000	-		170,000
Finance	336,000	71,000	31,000	66,000	31,000	31,000		230,000
Operations & Maintenance	2,036,200	1,728,000	1,434,000	1,255,000	1,872,000	1,807,000		8,096,000
Environmental Science & Compliance	254,000	386,000	410,833	441,000	388,000	397,500		2,023,333
	\$ 3,261,200	\$ 2,390,000	\$ 2,390,833	\$ 1,967,000	\$ 2,766,000	\$ 2,445,500	\$	11,959,333

Operating Capital Program Development

NBC is committed to making the investments needed to ensure continuous operation of its facilities, support services and core business functions. In order to achieve this goal, NBC adopted and implemented an Asset Management Program (AMP), which is the primary source used to identify operating capital needs. The AMP is a comprehensive and detailed document maintained by the Asset Management Administrator that identifies all of NBC's assets. This includes assets acquired as part of a capital improvement project as well as assets purchased through the annual budget process.

Detailed asset information is captured in the asset management system including an asset's location, cost and useful life. In addition, each asset is assigned a criticality factor that takes into consideration redundancy. NBC's computerized work order system is integrated into the AMP so that preventive and corrective maintenance activity is also captured for each asset. The asset maintenance history and useful life information assists with the determination of whether an asset should be repaired or replaced. The information in the AMP enables NBC to produce a facilities and equipment condition analysis report that is used to identify and prioritize capital asset needs.

In addition to the AMP, other new assets or asset replacements are identified through the operation and inspection of facilities. Investment in Information Technology (IT) assets are typically programmed in advance to address specific needs such as refreshing employee workstations and laptops, enhancing the security of NBC's technical infrastructure, or implementing additional functionality to current business systems. Laboratory and sampling equipment needs are often identified through the planning process to ensure compliance with new RIPDES permit or water quality sampling requirements.

Program managers use the information from the AMP and other sources as the basis for requesting funding for operating capital assets. The OCP includes requests for the upcoming budget year as well as the subsequent five years to align with the Capital Improvement Program window.

With respect to the upcoming budget year, as part of the annual budget process, each section submits detailed operating capital requests with supporting documentation for each asset. Each request is unique and includes the asset title, description, estimated cost, location, useful life,

Asset
Management
Program

Other Needs
Identified

Program
Manager OCP Request

OCP Program

purchase justification and indicates if the asset is new, a replacement or a betterment. The requests are first reviewed by the Accounting staff to determine if the request meets the capital asset criteria. Once approved by Accounting, the requests are reviewed by Finance to ensure that the information is complete and that there is documentation to support the estimated cost. The information is compiled and included for funding in the OCP for the budget year. Each asset included in the budget is assigned a unique asset allocation number which is referenced when the asset is purchased to ensure that it was authorized.

The OCP also reflects planned asset purchases for the subsequent five years. Although detailed information is required for all requested operating capital assets in the budget year, less specific information is needed to program future purchases. Each section submits a six-year operating capital needs form as part of the annual budget process. The first year ties into the budget year and must be accompanied by the operating capital request form discussed previously. Assets in subsequent years must include the asset title, location, a brief explanation of how the asset will be used, and justification. These requests are reviewed by Finance and are incorporated into the OCP.

Fiscal Sustainability Plan

In order to borrow funds through the Rhode Island Infrastructure Bank (RIIB), the NBC is required to have an established Fiscal Sustainability Plan (FSP) that complies with the Amendments to Titles I, II, V, and VI in the Water Resources Reform and Development Act under the Federal Water Pollution Control Act (Regulations). Under the guidance of the NBC's Board of Commissioner's Fiscal Sustainability Plan Policy, the Asset Management Program (AMP), Capital Improvement Program (CIP), Annual Operating Budget and Operating Capital Program (OCP) were developed and implemented. These planning tools protect the NBC's significant

capital investments and conservation efforts and have been formally incorporated into the FSP. The AMP provides direction in developing the OCP based on the identified needs that meet the criteria set forth in the NBC's Capital Asset Policy.



Operating Capital Program Guidelines

The development of the FY 2020 Operating Capital Program is governed by the following:

- The operating capital policy defines operating capital items as those with costs greater than \$5,000 and a minimum useful life of three years.
- The Asset Management Policy requires the identification of short-term capital needs and the development of a long-term (five-year) asset replacement Program.
- The Accounting Manager must ensure that asset criteria is met and approve the capitalization of assets.

Operating Capital Program Calendar

Development of the Operating Capital Program is as follows:

DECEMBER 2018

- Budget Forms Available
- FY 2020 2025 Operating Capital Submittals due to Finance on December 11, 2018
- Review submittals with respect to Asset Criteria and GL account code December 18, 2018

January 2019

- Complete Operating Capital Schedules
- Draft Operating Capital Program Narrative

FEBRUARY 2019

- Finalize Operating Capital Program Document
- Finance Committee and Board Review and Approval of OCP on February 26, 2019

Operating Capital Program Amendment Procedures

During the fiscal year there may be a need to make changes to the operating capital budget to accommodate those instances in which the actual bids received for particular items are higher than budgeted amounts, or where the installation of a new asset requires additional resources beyond what was anticipated. In addition, changes may be required to accommodate emergencies. In these cases, a Division Director may request a modification to the operating capital budget. If a modification to the operating capital budget is needed, it is preferred that an entire asset is reallocated to the new item. In some cases, this is not possible and partial reallocations are accommodated. The Chief Financial Officer may authorize changes in the operating capital budget as long as the total expenditures do not exceed the total amount approved for the fiscal year. Procedures for modifications to the operating capital budget during the year are as follows:

Non-Emergencies:

- Prior to Purchase, the Operating Capital Reallocation Request Form is completed, signed by the Division Director and accompanied by vendor quote for the estimated cost.
- The Form is reviewed by the Accounting and Finance Departments to determine if the item meets the criteria to be considered an asset in accordance with NBC's Capital Asset Policy.
- The Form is reviewed with the Chief Financial Officer.
- If approved, a new Asset Allocation number is assigned and operating capital funding is transferred.

Emergencies:

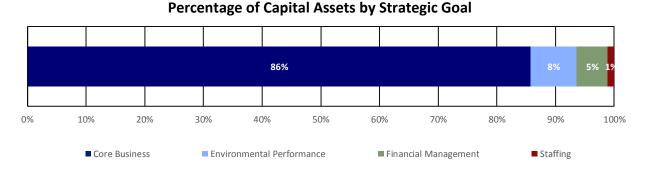
- The item is purchased in accordance with NBC's Purchasing Rules and Regulations for emergency purchases.
- The Operating Capital Reallocation Request Form is completed and signed by the Division Director and accompanied by a quote for the estimated cost.
- The Form is reviewed by the Accounting and Finance Departments to determine if the item
 meets the criteria to be considered an asset in accordance with NBC's Capital Asset Policy and
 is then reviewed with the Chief Financial Officer.
 - <u>Capital Asset Criteria Met</u> funding is transferred in the operating capital budget and Asset Allocation number assigned.
 - o Capital Asset Criteria Not Met purchase will be expensed in the operating budget.

Operating Capital Program by Strategic Objective

The Strategic Plan guides NBC operations and ensures facilities and infrastructure are maintained. As part of the OCP development, the budgeted capital assets have been categorized by the goal the asset will address. NBC's Strategic Plan Goals are listed below.



Of the eighty-two FY 2020 budgeted capital assets, \$2.8 million or 86% are related to NBC's Core Business goal for infrastructure, applications and compliance. In addition, 8% relate to NBC's Environmental Performance goal and represents sampling and laboratory analysis assets. The remaining assets are aligned with the Financial Management and Staffing goals. The following chart illustrates the percentage of budgeted assets by strategic goal.

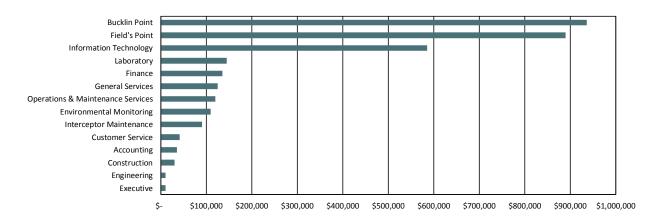


Operating Capital Program by Cost Center

The largest percentage of the FY 2020 operating capital program are the two wastewater treatment facilities which represent a combined 56% of the programmed operating capital with \$890 thousand at Field's Point and \$936 thousand at Bucklin Point. NBC has prioritized the replacement of numerous pumps, vehicles, grinders, bar racks, and other equipment required to operate the facilities and maintain infrastructure. The IT section at \$585 thousand or 18% includes the annual PC Refresh program, security enhancements and several hardware and software updates. The Laboratory represents 4% or \$145 thousand and includes funding for instruments and systems to perform required testing.

The FY 2020 operating capital by cost center is reflected in the following chart.

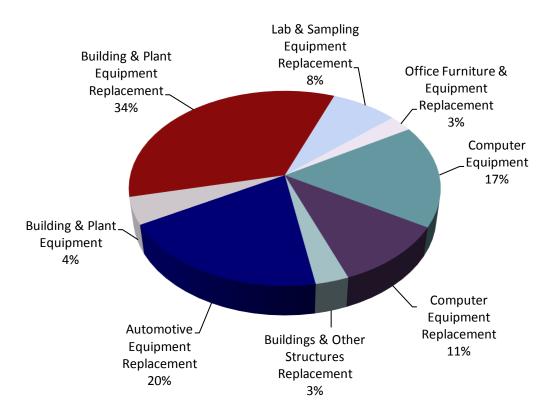
FY 2020 Operating Capital by Cost Center



Fiscal Year 2020 Operating Capital Program by Type

The FY 2020 OCP identifies asset purchases totaling approximately \$3.3 million. The largest asset category is for Building & Plant Equipment Replacement at \$1.1 million or 34%. This is followed by Automotive Equipment Replacement representing \$642 thousand or 20% of costs. Computer Equipment and Computer Equipment Replacement represent 17% and 11% at a combined total cost of \$902 thousand. Lab & Sampling Equipment Replacement and Building & Plant Equipment comprise 8% and 4% respectively. Office Furniture & Equipment Replacement and Building & Other Structures Replacement comprise the remaining 6% of the FY 2020 asset acquisitions.

FY 2020 Operating Capital by Type



NBC's strategic goal of maximizing technology and maintaining capability is exemplified through computer equipment purchases that are programmed in FY 2020. The majority, or 68%, is related to enhancements or upgrades to existing business systems. In addition, NBC has programmed the acquisition of capital budgeting, cash management and project tracking software.

Computer Equipment	Total	% of Total
Security Enhancements	\$ 75,000	
Customer Service Upgrades	60,000	
LIMS Enhancements	50,000	
Oracle ERP/Database Enhancements	40,000	
Software Licensing Updates	40,000	
Hansen Upgrades	40,000	
Conference Room Upgrades	40,000	
Computer Room Enhancements	25,000	
Antivirus Upgrades	10,000	
Enhancements/Upgrades	380,000	68%
Capital Budgeting Application	75,000	
Cash Management Application	40,000	
Enterprise Reporting Application	35,000	
Project Tracking Software	25,000	
New Applications	175,000	32%
Total	\$ 555,000	100%

The following table illustrates NBC's FY 2020 programmed Replacement investments which ensures the protection of assets and continuous operation. The majority of the Replacement Reserve items are comprised of vehicles, computer hardware and software, and pumps at 25%, 14% and 13% respectively. Other significant investments include items needed to operate the treatment plants, laboratory & environmental tools, and other assets.

Replacement Assets	Total	% of Total
Vehicles	\$ 642,000	25%
Computer Hardware & Software	347,000	14%
Pumps	323,000	13%
Grit Tank Components	160,000	6%
Bar Rack Rebuilds	147,000	6%
Laboratory & Envronmental Tools	140,000	5%
Auto-Titration System	114,000	4%
Gate Components	107,000	4%
Mixers	99,000	4%
Conference Room Upgrades	50,000	2%
Dissolved Oxygen Valves	45,000	2%
Crane Controller	30,000	1%
Grinder	30,000	1%
Louvers	30,000	2%
Other	 289,000	11%
Total	\$ 2,553,000	100%

Lastly, NBC plans on purchasing new assets in the Building & Plant Equipment category that will support operations and ensure core business goals are met. Dewatering pumps required at both wastewater treatment plants total \$75,000 and represent 51% of the total for this category. The purchase of a compressor and core valve actuator represent 20% and 14% respectively of programmed investments to support treatment operations at both WWTFs.

Building & Plant Equipment	Total	% of Total
Dewatering Pumps	\$ 75,000	51%
Compressor	30,200	20%
Cone Valve Actuator	20,000	14%
Other	 22,000	15%
Total	\$ 147,200	100%

Operating Capital Program Funding

Operating Capital is funded from the Restricted Account – Operating Capital in the Project Fund. In accordance with the Trust Indenture, subsequent to fiscal year end, a calculation is made to determine the amount that can be transferred from the Stabilization Account in the Debt Service Fund to the Restricted Accounts in the Project Fund to support the Capital Budgets. This is also consistent with the Order from the Rhode Island Public Utilities Commission. An additional calculation is performed to further allocate the funds to the Operating Capital and Capital Improvement Program Restricted Accounts. Fund transfers occur throughout the fiscal year.

The following table shows that in FY 2020, NBC plans to fund the OCP with \$3.3 million from the Restricted Account – Operating Capital in the Project Fund. NBC has also programmed funding of \$5.0 million per year for FY 2021 through FY 2025 for the OCP from this same source.

Sources of Funds (Thousands)	F	Y 2020	Y 2021	ا	FY 2022	ı	FY 2023	F	Y 2024	F	Y 2025	FY	Total 2021-2025
Restricted Account-Operating Capital	\$	3,261	\$ 5,000	\$	5,000	\$	5,000	\$	5,000	\$	5,000	\$	25,000
Total	\$	3,261	\$ 5,000	\$	5,000	\$	5,000	\$	5,000	\$	5,000	\$	25,000

The FY 2020 programmed asset purchases total approximately \$3.3 million. In FY 2021 through FY 2025, NBC has programmed the acquisition of the assets identified in the OCP as well as an additional placeholder amount. This ensures that total programmed uses are \$5.0 million per year in the five-year window.

Uses of Funds (Thousands)	F۱	2020	F۱	y 2021	F	Y 2022	F	Y 2023	F۱	2024	F	Y 2025	FY 2	Total 2021-2025
Operating Capital Program	\$	3,261	\$	2,390	\$	2,391	\$	1,967	\$	2,766	\$	2,446	\$	11,959
Operating Capital Placeholder		-		2,610		2,609		3,033		2,234		2,555		13,040
Total	\$	3,261	\$	5,000	\$	5,000	\$	5,000	\$	5,000	\$	5,000	\$	25,000

Office Furniture Subtotal Executive nology Annual PC Refresh Program Security Enhancements Customer Service Upgrades LIMS Enhancements Edge Switch Upgrades Software Licensing Updates Conference Room Upgrades Oracle ERP Enhancements Hansen Upgrades Large Form Scanner/Printer Computer Room Enhancements Project Tracking Software Signage System Replacement Antivirus Upgrades Subtotal Information Technology	\$ 10,000 10,000 75,000 75,000 60,000 50,000 40,000 40,000 40,000 40,000 35,000 25,000 20,000	\$ - 75,000 - - 40,000 25,000 - - 25,000	75,000 75,000 50,000 40,000 25,000 40,000 25,000 - 25,000	75,000 - - - 40,000 25,000	\$ - 75,000 75,000 50,000 40,000 25,000 40,000 25,000	75,000 - - - - 40,000 25,000	\$ 10,00 10,00 450,00 225,00 60,00 150,00 240,00 165,00 120,00
Subtotal Executive nology Annual PC Refresh Program Security Enhancements Customer Service Upgrades LIMS Enhancements Edge Switch Upgrades Software Licensing Updates Conference Room Upgrades Oracle ERP Enhancements Hansen Upgrades Large Form Scanner/Printer Computer Room Enhancements Project Tracking Software Signage System Replacement Antivirus Upgrades	75,000 75,000 60,000 50,000 40,000 40,000 40,000 40,000 35,000 25,000	75,000 - - - 40,000 25,000 - -	75,000 75,000 50,000 40,000 25,000 40,000 25,000 - 25,000	75,000 - - - 40,000 25,000	75,000 75,000 50,000 50,000 40,000 25,000 40,000	75,000 - - - - - 40,000	450,000 225,000 60,000 150,000 240,000 165,000
Subtotal Executive nology Annual PC Refresh Program Security Enhancements Customer Service Upgrades LIMS Enhancements Edge Switch Upgrades Software Licensing Updates Conference Room Upgrades Oracle ERP Enhancements Hansen Upgrades Large Form Scanner/Printer Computer Room Enhancements Project Tracking Software Signage System Replacement Antivirus Upgrades	75,000 75,000 60,000 50,000 40,000 40,000 40,000 40,000 35,000 25,000	75,000 - - - 40,000 25,000 - -	75,000 75,000 50,000 40,000 25,000 40,000 25,000 - 25,000	75,000 - - - 40,000 25,000	75,000 75,000 50,000 50,000 40,000 25,000 40,000	75,000 - - - - - 40,000	450,00 225,00 60,00 150,00 240,00 165,00
Annual PC Refresh Program Security Enhancements Customer Service Upgrades LIMS Enhancements Edge Switch Upgrades Software Licensing Updates Conference Room Upgrades Oracle ERP Enhancements Hansen Upgrades Large Form Scanner/Printer Computer Room Enhancements Project Tracking Software Signage System Replacement Antivirus Upgrades	75,000 75,000 60,000 50,000 40,000 40,000 40,000 40,000 35,000 25,000	40,000	75,000 50,000 50,000 40,000 25,000 40,000 25,000	40,000 25,000	75,000 - 50,000 50,000 40,000 25,000 40,000	40,000	450,00 225,00 60,00 150,00 150,00 240,00
Annual PC Refresh Program Security Enhancements Customer Service Upgrades LIMS Enhancements Edge Switch Upgrades Software Licensing Updates Conference Room Upgrades Oracle ERP Enhancements Hansen Upgrades Large Form Scanner/Printer Computer Room Enhancements Project Tracking Software Signage System Replacement Antivirus Upgrades	75,000 60,000 50,000 40,000 40,000 40,000 40,000 35,000 25,000	40,000	75,000 50,000 50,000 40,000 25,000 40,000 25,000	40,000 25,000	75,000 - 50,000 50,000 40,000 25,000 40,000	40,000	225,00 60,00 150,00 150,00 240,00 165,00
Security Enhancements Customer Service Upgrades LIMS Enhancements Edge Switch Upgrades Software Licensing Updates Conference Room Upgrades Oracle ERP Enhancements Hansen Upgrades Large Form Scanner/Printer Computer Room Enhancements Project Tracking Software Signage System Replacement Antivirus Upgrades	75,000 60,000 50,000 40,000 40,000 40,000 40,000 35,000 25,000	40,000	75,000 50,000 50,000 40,000 25,000 40,000 25,000	40,000 25,000	75,000 - 50,000 50,000 40,000 25,000 40,000	40,000	225,00 60,00 150,00 150,00 240,00 165,00
Customer Service Upgrades LIMS Enhancements Edge Switch Upgrades Software Licensing Updates Conference Room Upgrades Oracle ERP Enhancements Hansen Upgrades Large Form Scanner/Printer Computer Room Enhancements Project Tracking Software Signage System Replacement Antivirus Upgrades	60,000 50,000 50,000 40,000 40,000 40,000 35,000 25,000	40,000 25,000 - -	50,000 50,000 40,000 25,000 40,000 25,000	40,000 25,000 - - -	50,000 50,000 40,000 25,000 40,000	- - 40,000	60,00 150,00 150,00 240,00 165,00
LIMS Enhancements Edge Switch Upgrades Software Licensing Updates Conference Room Upgrades Oracle ERP Enhancements Hansen Upgrades Large Form Scanner/Printer Computer Room Enhancements Project Tracking Software Signage System Replacement Antivirus Upgrades	50,000 50,000 40,000 40,000 40,000 40,000 35,000 25,000	40,000 25,000 - -	50,000 40,000 25,000 40,000 25,000	40,000 25,000 - - -	50,000 40,000 25,000 40,000	40,000	150,00 150,00 240,00 165,00
Software Licensing Updates Conference Room Upgrades Oracle ERP Enhancements Hansen Upgrades Large Form Scanner/Printer Computer Room Enhancements Project Tracking Software Signage System Replacement Antivirus Upgrades	40,000 40,000 40,000 40,000 35,000 25,000	40,000 25,000 - - -	40,000 25,000 40,000 25,000 - 25,000	40,000 25,000 - - -	40,000 25,000 40,000	40,000	240,00 165,00
Conference Room Upgrades Oracle ERP Enhancements Hansen Upgrades Large Form Scanner/Printer Computer Room Enhancements Project Tracking Software Signage System Replacement Antivirus Upgrades	40,000 40,000 40,000 35,000 25,000	25,000 - - -	25,000 40,000 25,000 - 25,000	25,000 - - -	25,000 40,000	•	165,0
Oracle ERP Enhancements Hansen Upgrades Large Form Scanner/Printer Computer Room Enhancements Project Tracking Software Signage System Replacement Antivirus Upgrades	40,000 40,000 35,000 25,000	- - -	40,000 25,000 - 25,000	-	40,000	25,000 -	-
Hansen Upgrades Large Form Scanner/Printer Computer Room Enhancements Project Tracking Software Signage System Replacement Antivirus Upgrades	40,000 35,000 25,000 25,000	-	25,000 - 25,000	-	-	-	120,0
Large Form Scanner/Printer Computer Room Enhancements Project Tracking Software Signage System Replacement Antivirus Upgrades	35,000 25,000 25,000	-	- 25,000	-	25,000 .		
Computer Room Enhancements Project Tracking Software Signage System Replacement Antivirus Upgrades	25,000 25,000	25,000	•	-			90,00
Project Tracking Software Signage System Replacement Antivirus Upgrades	25,000	25,000	•			35,000	70,00
Signage System Replacement Antivirus Upgrades			25 000	25,000	25,000	25,000	150,0
Antivirus Upgrades	20,000		25,000		25,000		75,0
• •	10 000	10.000	10,000	10.000	10,000	10,000	20,00 60,00
Subtotal Injoinfation reciliology	10,000 585,000	10,000 175,000	440,000	10,000 175,000	10,000 440,000	210,000	2,025,0
	383,000	173,000	440,000	173,000	440,000	210,000	2,023,0
ENGINEERING							
ices							
Vehicle 400	30,000	-	-	-	-	-	30,0
Vehicle 388	-	30,000	-	-	-	-	30,0
Vehicle 357	-	-	30,000	-	-	-	30,0
Vehicle 343	-	-	-	30,000	-	-	30,0
Subtotal Construction Services	30,000	30,000	30,000	30,000	-	-	120,0
Copy Machine	10,000	-	-	-	-	-	10,0
	-	-	25,000	-	-	-	25,0
	-	-	-	-	35,000	-	35,0
	-	-	20,000	-	-	-	20,0
Subtotal Engineering	10,000	-	45,000	-	35,000	-	90,00
	75.000						75.00
		-	-	-	-	-	75,00
		-	-	-	-	-	40,00
-							20,00 135,00
Subtotui i munee	133,000						133,00
		-	-	-	-		35,00
Subtotal Accounting	35,000	-	-	-	-	-	35,00
Vehicle 385	35,000	-	-	-	-	-	35,00
Office Furniture & Equipment	6,000	6,000	6,000	6,000	6,000	6,000	36,0
Vehicle 372	-	25,000	-	-	-	-	25,0
Vehicle 339	-	-	25,000	-	-	-	25,0
Vehicle 335	-	-	-	25,000	-	-	25,0
Vehicle 316	-	-	-	-	25,000	-	25,0
•	-	-	-	-	-	25,000	25,0
Subtotal Customer Service	41,000	31,000	31,000	31,000	31,000	31,000	196,0
Records Storage Building Roof	100,000	-	-	-	-	-	100,0
	25,000	-	-	-	-	-	25,0
Color Copier	-	40,000	-	-	-	-	40,0
Gas water heater	-	-	-	20,000	-	-	20,0
Copier	-	-	-	15,000	-	-	15,0
Subtotal General Administration	125,000	40,000	-	35,000	-	-	200,0
AINTENANCE							
	47.000	_	_	-	_	-	47,00
		-	-	-	-	-	43,00
	-	125,000	_	_	_	-	125,00
	Vehicle 400 Vehicle 388 Vehicle 357 Vehicle 343 Subtotal Construction Services Copy Machine GPS Rover Trimble Surveying Equipment Total Station Survey Equipment Subtotal Engineering Capital Budgeting Application Cash Management Application Office Reconfiguration Subtotal Finance Enterprise Reporting Application Subtotal Accounting Vehicle 385 Office Furniture & Equipment Vehicle 372 Vehicle 339 Vehicle 335 Vehicle 335 Vehicle 316 Vehicle 377 Subtotal Customer Service Records Storage Building Roof HVAC Components Color Copier Gas water heater Copier	Vehicle 400 30,000 Vehicle 388 - Vehicle 357 - Vehicle 343 - Subtotal Construction Services 30,000 Copy Machine 10,000 GPS Rover - Trimble Surveying Equipment - Total Station Survey Equipment - Subtotal Engineering 10,000 Capital Budgeting Application 75,000 Cash Management Application 40,000 Office Reconfiguration 35,000 Subtotal Finance 35,000 Enterprise Reporting Application 35,000 Subtotal Accounting 35,000 Vehicle 385 35,000 Office Furniture & Equipment 6,000 Vehicle 372 - Vehicle 336 - Vehicle 377 - Vehicle 377 - Subtotal Customer Service 41,000 Records Storage Building Roof 100,000 HVAC Components 25,000 Color Copier - Gas water h	Vehicle 400 30,000 - Vehicle 388 - 30,000 Vehicle 343 - - Vehicle 343 - - Subtotal Construction Services 30,000 30,000 Copy Machine 10,000 - GPS Rover - - Trimble Surveying Equipment - - Total Station Survey Equipment - - Subtotal Engineering 10,000 - Capital Budgeting Application 75,000 - Capital Reconfiguration 20,000 - Cash Management Application 40,000 - Subtotal Finance 135,000 - Enterprise Reporting Application 35,000 - Subtotal Accounting 35,000 - Vehicle 385 35,000 - Vehicle 372 - 25,000 Vehicle 335 - - Vehicle 336 - - Vehicle 377 - - Subt	Vehicle 400 30,000 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	Vehicle 400 30,000 - - - - - - - - - - - - - - - - - 30,000 - - - 30,000 - - - 30,000 - - - 30,000 - - - 30,000 30,000 - - - 30,000 30,000 30,000 30,000 30,000 30,000 30,000 30,000 30,000 30,000 30,000 30,000 30,000 30,000 30,000 30,000 30,000 30,000 30,000 30,000 30,000 30,000 30,000 30,000 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	Vehicle 400 30,000 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	Vehicle 400 30,000 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Asset Type	Asset Title	FY 2020	FY 2021		EV 2022	FY 2024	FY 2025	Total Cost
Replacement	Asset Title HVAC system	FY 2020	35,000	FY 2022	FY 2023	FY 2024 -	FY 2025 -	35,000
Replacement	Vehicle 367	-	30,000	-	-	_	-	30,000
Replacement	Vehicle 376	-	-	140,000	-	-	-	140,000
Replacement	Vehicle 355	-	-	35,000	-	-	-	35,000
Replacement	Vehicle 347	-	-	-	47,000	-	-	47,000
Replacement	Vehicle 348	-	-	-	38,000	-	-	38,000
Replacement	Vehicle 459	-	-	-	16,000	-	-	16,000
Replacement	Vehicle 398	-	-	-	5,000	-	-	5,000
Replacement	Vehicle 363	-	-	-	-	225,000	-	225,000
Replacement	Copier Push Camera Unit	-	-	-	-	12,000 10,000	-	12,000 10,000
Replacement Replacement	Vehicle 346	-	-	-	-	7,000	-	7,000
Replacement	Vehicle 334	-	_	_	_	7,000	32,000	32,000
Replacement	Vehicle 341	_	_	_	_	_	32,000	32,000
Replacement	Vehicle 373	-	-	-	-	-	30,000	30,000
Replacement	IM Bldg. Roof	-	-	-	-	-	30,000	30,000
Replacement	Fence Gate Controller	-	-	-	-	-	12,000	12,000
Replacement	Valve Exerciser	-	-	-	-	-	10,000	10,000
Replacement	Pressure Washer	-	-	-	-	-	8,000	8,000
	Subtotal Interceptor Maintenance	90,000	190,000	175,000	106,000	254,000	154,000	969,000
Operations & N	Naintenance Services							
Replacement	Programmable Controller	70,000	-	-	-	-	-	70,000
Replacement	Automation System Controller	50,000	-	-	-	-	-	50,000
	Subtotal Interceptor Maintenance	120,000	-			-	-	120,000
Field's Point								
Replacement	Bar Rack	147,000	150,000	150,000	150,000	152,000	152,000	901,000
Replacement	Vehicle 485	140,000	-	-	-	-	-	140,000
Replacement	Grit Tank Unit	100,000	100,000	105,000	105,000	110,000	110,000	630,000
Replacement	Equipment 0059	85,000	-	-	-	-	-	85,000
Replacement	Gravity Thickener Pump	50,000	-	-	-	-	-	50,000
Replacement	Vehicle 405	45,000	40.000	-	-	-	-	45,000
Replacement Replacement	Sludge Pump Sluice Gate Components	40,000 40,000	40,000	-	-	-	-	80,000 40,000
New	Dewatering Pump	40,000	_	_	_	_	_	40,000
Replacement	Final Clarifier Gate Components	35,000	_	_	_	_	_	35,000
Replacement	Wasting Pump	30,000	30,000	-	-	-		60,000
Replacement	Crane Controller	30,000	-	-	-	-	35,000	65,000
Replacement	Louvers	30,000	-	-	-	-	-	30,000
Betterment	Vehicle 438	25,000	-	-	-	-	-	25,000
New	Cone Valve Actuator	20,000	-	-	-	-	-	20,000
Replacement	Transfer Switch	15,000	-	-	-	-	-	15,000
New	Variable Frequency Drive	12,000	-	-	-	-	-	12,000
Replacement	Variable Frequency Drive	6,000	6,000	8,000	-	-	-	20,000 150,000
Replacement	Tunnel Pump Motors	-	50,000 45,000	-	50,000	-	50,000	45,000
Replacement Replacement	Vehicle 446 Vehicle 406		40,000			_		40,000
Betterment	Sodium Bisulfite Tanks	_	35,000	35,000	_	_	_	70,000
Replacement	Vehicle 375	-	35,000	-	-	-	-	35,000
Replacement	Vehicle 379	-	35,000	-	-	-	-	35,000
Replacement	Vehicle 465	-	35,000	-	-	-	-	35,000
Replacement	Uninterruptable Power Supply	-	30,000	-	-	-	-	30,000
Replacement	Flexim Flow Meter	-	25,000	-	-	-	-	25,000
Replacement	Equipment 0024	-	25,000	-	-	-	-	25,000
Replacement	VFD Grit Pumps 1-3	-	24,000	-	-	-	-	24,000
Replacement	Chemical Metering Pump	-	20,000	-	-	-	-	20,000
Replacement	Sludge Pumps w/ motor	-	19,000	22,000	24,000	-	-	65,000
Replacement	Rake, Drum Motor & Clam Shell	-	18,000	-	-	-	-	18,000
Replacement Replacement	Equipment 0004 Small Screw Pump Motor	-	14,000 12,000	-	-	-	18,000	14,000 30,000
Betterment	Reline Hypo Tank 5	-	12,000	-	-	-		12,000
Replacement	Equipment 0025	-	10,000	-	-	-	_	10,000
Replacement	Blowers	-	8,000	-	-	-	-	8,000
Replacement	VFD Caustic Pump	-	7,000	-	-	-	-	7,000
Replacement	Hydroflo Screen	-	-	200,000	-	-	-	200,000
ricpiacec.ii			_	35,000	_	_	_	35,000
Replacement	Vehicle 366	-		33,000				•
Replacement Replacement	Grit Pump & Motor	-	-	30,000	-	35,000	-	65,000
Replacement		- -	-		-	35,000 -	-	•

	Operating C			y Dy i i.				
Asset Type	Asset Title	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total Cost
Replacement	Flow Meter	-	-	25,000	-	-	-	25,000
Replacement	Equipment 0040	-	-	22,000	-	-	-	22,000
Replacement	Equipment 0069	-	-	22,000	-	-	-	22,000
Replacement	Equipment 0070	-	-	22,000	-	-	-	22,000
Replacement	Grit Nitrate Meter	-	-	20,000	-	-	-	20,000
Replacement	Ammonia probe	-	-	20,000	-	-	-	20,000
Replacement	Dewatering Pump & Motor	-	-	19,000	-	-	-	19,000
Replacement	Drive Units on S-1 Crane	-	-	18,000	-	-	-	18,000
Replacement	Nitrate probe	-	-	16,000	-	-	-	16,000
Replacement	Dewatering Pump	-	-	12,000	-	-	-	12,000
Replacement	Vehicle 384	-	-	7,000	-	-	-	7,000
Replacement	Sewage Pump & Motor	-	-	-	210,000	420,000	255,000	885,000
Replacement	Vehicle 353	-	-	-	150,000	-	-	150,000
Replacement	Turntable Assemblies	-	-	-	80,000	85,000	85,000	250,000
Replacement	Recoating of S-1 Crane	-	-	-	50,000	-	-	50,000
Replacement	Vehicle 464	-	-	-	40,000	-	-	40,000
Replacement	Vehicle 360	-	-	-	35,000	-	-	35,000
Replacement	Sludge Pump w/ motor	-	-	-	20,000	20,000		40,000
Replacement	Maintenance Copier	-	-	-	8,500	-	-	8,500
Replacement	O&M Support Copier	-	-	-	8,500	-	-	8,500
Replacement	Level Indicator	-	-	-	7,000	-	-	7,000
Replacement	Tunnel Pump and Motor	-	-	-	-	250,000	-	250,000
Replacement	Screw pump Lower Bearing & Shaft	-	-	-	-	75,000	75,000	150,000
Replacement	Vehicle 389	-	-	-	-	35,000	-	35,000
Replacement	Gate Hydraulic Power System	-	-	-	-	30,000	-	30,000
Replacement	Odor Control Unit	-	-	-	-	30,000	-	30,000
Replacement	Exhaust Fan Pump Room & Wet Well	-	-	-	-	25,000	-	25,000
Replacement	Vehicle 434	-	-	-	-	22,000	-	22,000
Replacement	Large Screw Pump Motor	-	-	-	-	20,000	20,000	40,000
Replacement	MCC Uninterruptable Power Supply	-	-	-	-	20,000	-	20,000
Replacement	Primary Grinder 1 & 2	-	-	-	-	15,000	15,000	30,000
Replacement	Equipment 109A	-	-	-	-	15,000	-	15,000
Replacement	VFD for Pumps	-	-	-	-	10,000	-	10,000
Replacement	Siemens Mag Meter	-	-	-	-	6,000	-	6,000
Replacement	Fire Alarm Panel	-	-	-	-	5,000	-	5,000
Replacement	Dehumidifier 1 & 2	-	-	-	-	-	200,000	200,000
Replacement	Hypo Tank 1	-	-	-	-	-	75,000	75,000
Replacement	2- Sewage Pumps & Motors	-	-	-	-	-	40,000	40,000
Replacement	Vehicle 352	-	-	-	-	-	40,000	40,000
Replacement	Equipment 0050	-	-	-	-	-	35,000	35,000
Replacement	Actuators for Sluice Gates	-	-	-	-	-	30,000	30,000
Replacement	Vehicle 345	-	-	-	-	-	28,000	28,000
Replacement	Water Champ	-	-	-	-	-	25,000	25,000
Replacement	Butterfly Valve Actuator	-	-	-	-	-	20,000	20,000
Replacement	Sump Pump	-	-	-	-	-	20,000	20,000
Replacement	Froth Spray Pump & Motor	-	-	-	-	-	20,000	20,000
Replacement	Sludge Grinder	-	-	-	-	-	18,000	18,000
Betterment	Hydraulic Piston Gearbox	-	-	-	-	-	14,000	14,000
Replacement	Administration Copier	-	-	-	-	-	12,000	12,000
Replacement	Dilution Flow Meter	-	-	-	-	-	10,000	10,000
Replacement	VFD for Pumps	-	-	-	-	-	10,000	10,000
Replacement	Equipment 911A	-	-	-	-	-	9,000	9,000
Replacement	Flow Meter	-	-	-	-	-	8,000	8,000
Replacement	LEL Gas Meter	-	-	-	-	-	6,000	6,000
·	Subtotal Field's Point	890,000	825,000	845,000	938,000	1,380,000	1,435,000	6,313,000
Decalities Defect								· · · · · · · · · · · · · · · · · · ·
Bucklin Point	Cludes Durans	105 000						105.000
Betterment	Sludge Pumps	105,000	-	-	-	-	-	105,000
Replacement	Vehicle 382	85,000	-	-	-	-	-	85,000
Betterment	Tank Components	60,000	60,000	-	-	-	-	120,000
Betterment	Digester Sludge Mixers	54,000	-	-	-	-	-	54,000
Betterment	Conference Room Upgrades	50,000	-	-	-	-	-	50,000
Replacement	Dissolved Oxygen Valves	45,000	-	-	-	-	-	45,000
Replacement	Digester Mixer	45,000	-	-	-	-	-	45,000
Replacement	Vehicle 381	40,000	-	-	-	-	-	40,000
Replacement	Vehicle 444	40,000	-	-	-	-	-	40,000
Replacement	Sludge Pump with Grinder	35,000	-	-	-	-	-	35,000
New	Dewatering Pump	35,000	-	-	-	-	-	35,000
Replacement	Gate Actuators	32,000	-	-	-	-	-	32,000
New	Compressor	30,200	-	-	-	-	-	30,200

Asset Type	Asset Title	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total Cost
Replacement	Grinder	30,000	-	-		F1 2024		30,000
Replacement	Water Pump	26,000	_	26,000	_	_	_	52,000
Replacement	Equipment 0039	22,000	-		-	-	-	22,000
Replacement	Equipment 0057	22,000	-	-	-	-	-	22,000
Replacement	Equipment 0061	22,000	-	-	-	-	-	22,000
Replacement	Hypo Pump	20,000	-	25,000	-	-	-	45,000
Replacement	Harmonic Filters	20,000	-	-	-	-	24,000	44,000
Replacement	Leveling Screws	20,000	-	-	-	-	-	20,000
Replacement	Sump Pumps	17,000	17,000	-	-	-	-	34,000
Replacement	LEL Gas System	15,000	15,000	-	-	-	-	30,000
Replacement	Blower Cartridge	15,000	-	-	-	-	-	15,000
Replacement	Flow Meter	15,000	-	-	-	-	-	15,000
Replacement	Soda Ash Tank Level System	10,000	-	-	-	-	-	10,000
New	Flow Meter	10,000 8,000	-	-	-	-	-	10,000 8,000
Replacement Replacement	Equipment Vehicle 356 Aeration Train Actuator	8,000						8,000
Replacement	Hypo Tanks		120,000	_	_	_	_	120,000
Betterment	Bar Racks	_	85,000	85,000	_	_	_	170,000
Replacement	Effluent Pumps	-	60,000	60,000	60,000	-	-	180,000
Replacement	UTV Carts	-	50,000	50,000	-	-	-	100,000
Replacement	Vehicle 390	-	40,000	-	-	-	-	40,000
Replacement	Vehicle 479	-	40,000	-	-	-	-	40,000
Replacement	Muffin Monster Grinder	-	35,000	-	40,000	40,000	-	115,000
Replacement	Vortex Collector Tanks	-	32,000	35,000	35,000	35,000	-	137,000
Replacement	3 Husqvarna Zero Turn Mowers	-	27,000	-	-	-	-	27,000
Replacement	Recirculation Pump	-	25,000	-	-	-	-	25,000
Replacement	Grit and Screening Equipment	-	25,000	-	-	-	-	25,000
Replacement	Scum Pump	-	20,000	-	-	-	-	20,000
Betterment	Grit Pumps	-	18,000	18,000	18,000	20,000	20,000	94,000
New	Diesel Mower	-	14,000	-	-	-	-	14,000
Replacement	Equipment 406A	-	12,000 10,000	-	-	-	-	12,000
Betterment Replacement	Centrate Pump Snow Plows	-	8,000	-	8,000	-	-	10,000 16,000
Replacement	Vehicle 356	_	5,000	40,000	3,000	_	_	40,000
Replacement	Tractor, Loader, Mower & Backhoe	_	_	36,000	_	_	_	36,000
Replacement	Dewatering Pump	-	-	30,000	-	-	-	30,000
Replacement	Service Building Copier	-	-	9,000	-	-	-	9,000
Replacement	HACH UVT Probe	-	-	-	20,000	-	-	20,000
Betterment	Sodium Bisulfite Tanks	-	-	-	14,000	-	-	14,000
Replacement	Disinfection Control System	-	-	-	10,000	-	-	10,000
Replacement	Sludge Transfer Pump VFD	-	-	-	6,000	-	-	6,000
Betterment	Screw Pump	-	-	-	-	70,000	-	70,000
Replacement	Vehicle 351	-	-	-	-	28,000	-	28,000
Replacement	UVT Probe	-	-	-	-	20,000	-	20,000
Replacement	Equipment 802A	-	-	-	-	7,000	-	7,000
Replacement	Meter	-	-	-	-	6,000	-	6,000
Replacement	Meter	-	-	-	-	6,000	-	6,000
Replacement	Smart UPS	-	-	-	-	6,000	45.000	6,000
Replacement	Vehicle 330	-	-	-	-	-	45,000 45,000	45,000
Replacement	Vehicle 331 Flow Meters	-	-	-	-	-	26,000	45,000 26,000
Replacement Replacement	EIM Actuators & Gear Operator						15,000	15,000
Replacement	Voltage Regulator	_	_	_	_	_	12,000	12,000
Replacement	Equipment 910A	_	_	_	_	_	10,000	10,000
Replacement	Siemens RIOP2A Control Panel	_	_	_	_	_	7,000	7,000
Replacement	Power Monitoring System Panel	_	_	_	_	_	7,000	7,000
Replacement	Equipment 0102A	-	-	-	-	-	7,000	7,000
·	Subtotal Bucklin Point	936,200	713,000	414,000	211,000	238,000	218,000	2,730,200
	•							
ENVIRONMENT	AL SCIENCE & COMPLIANCE							
Pretreatment								
Replacement	Vehicle 386	-	30,000	-	-	-	-	30,000
Replacement	Vehicle 371	-	-	-	30,000	-	-	30,000
Replacement	Vehicle 359	-	-	-	-	-	30,000	30,000
	Subtotal Pretreatment	-	30,000	-	30,000	-	30,000	90,000
Laboratory								
Replacement	Auto-Titration System	114,000	-	-	-	-	-	114,000
Replacement	Analytical Balances	23,000	-	-	-	-	-	23,000
Replacement	Microbiology Incubators	8,000	-	-	-	-	-	8,000

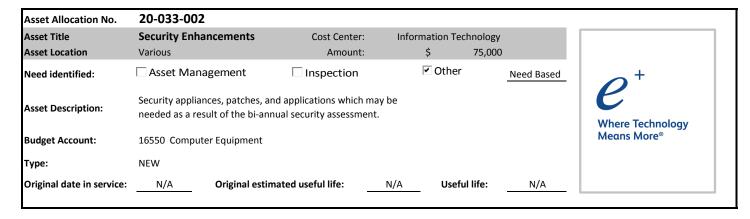
Replacement Replacement Replacement Replacement Replacement Replacement Replacement Replacement Replacement	Asset Title Microbiological Autoclaves ICP Spectrometer - Trace Metals Microbiology Microscope System ICP-Mass Spectrometer Salt Water Nutrient Analyzer Mercury Analyzer	FY 2020 - - - - - -	FY 2021 100,000 85,000 50,000	FY 2022	FY 2023 - -	FY 2024 - -	FY 2025 - -	Total Cost 100,000 85,000
Replacement I Replacement I Replacement I Replacement S Replacement M	ICP Spectrometer - Trace Metals Microbiology Microscope System ICP-Mass Spectrometer Salt Water Nutrient Analyzer		85,000	-	-	-		,
Replacement I Replacement S Replacement S Replacement M	Microbiology Microscope System ICP-Mass Spectrometer Salt Water Nutrient Analyzer	-		-	_			65,000
Replacement S Replacement S Replacement M	ICP-Mass Spectrometer Salt Water Nutrient Analyzer	-	-	_			_	50,000
Replacement S Replacement M	Salt Water Nutrient Analyzer	-	_	160,000		_		160,000
Replacement N	•	-	_	84,833	-	-	_	84,833
	iviercury Analyzer		-	45,000	-	-	_	45,000
	ICP-Industrial Metals Spectrometer	-	-	43,000	90,000	-	_	90,000
	•	-	-	-	85,000	-	-	85,000
•	Cyanide Analyzer	-	-	-	60,000	-	-	60,000
•	Water Purification Systems	-	-	-	•	-	-	,
	Oil and Grease Analyzer	-	-	-	55,000	-	-	55,000
•	Gas Chromatography Mass Spectrometer	-	-	-	-	85,000	-	85,000
•	Fresh Water Nutrient Analyzer	-	-	-	-	85,000	-	85,000
•	Water Purification Systems	-	-	-	-	60,000	-	60,000
•	TOC Analyzer	-	-	-	-	37,000	-	37,000
	Auto-Titration System	-	-	-	-	-	114,000	114,000
•	BOD Skalar Analyzer	-	-	-	-	-	93,000	93,000
Replacement A	Analytical Balances	-	-	-	-	-	23,000	23,000
	Subtotal Laboratory	145,000	235,000	289,833	290,000	267,000	230,000	1,456,833
Environmental Mo	onitoring							
Replacement F	Fixed Site Sondes	50,000	55,000	55,000	55,000	55,000	55,000	325,000
Replacement F	Fixed Site Probes & Meter	32,000	32,000	32,000	32,000	32,000	34,000	194,000
Replacement F	Refrigerated Autosamplers	27,000	-	-	-	-	-	27,000
Replacement S	Sampling Vehicle 432	-	34,000	-	-	-	-	34,000
Replacement S	Sampling Vehicle 365	-	-	34,000	-	-	-	34,000
Replacement S	Sampling Vehicle 358	-	-	-	34,000	-	-	34,000
Replacement S	Sampling Vehicle 349	-	-	-	-	34,000	-	34,000
•	Sampling Vehicle 340	-	-	-	-	-	35,000	35,000
Replacement F	Refrigerated Autosamplers	-	-	-	-	-	13,500	13,500
•	Subtotal EMDA	109,000	121,000	121,000	121,000	121,000	137,500	730,500

Total

\$ 3,261,200 \$ 2,390,000 \$ 2,390,833 \$ 1,967,000 \$ 2,766,000 \$ 2,445,500 \$ 15,220,533

20-021-001 Asset Allocation No. Asset Title Office Furniture Cost Center: Executive 10,000 **Asset Location** СОВ Amount: ☐ Asset Management ✓ Inspection Other Need identified: Office furniture for the 4th floor Asset Description: **Budget Account:** 16585 Office Furniture & Equipment Replacement Type: REPLACEMENT Original date in service: 2012 Original estimated useful life: 7 Years **Useful life:** 7 Years

20-033-001 Asset Allocation No. **Asset Title Annual PC Refresh Program** Cost Center: Information Technology Asset Location Amount: 75,000 Asset Management ☐ Inspection Other Need identified: Replace obsolete computer equipment. Asset Description: **Budget Account:** 16555 Computer Equipment Replacement REPLACEMENT Type: 2014 Original estimated useful life: Original date in service: 5 Years Useful life: 5 Years

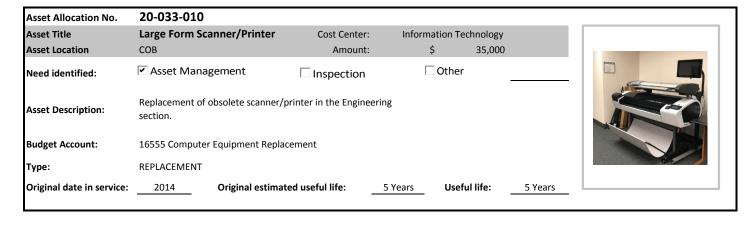


Asset Allocation No. 20-033-003 **Customer Service Upgrades** Information Technology Asset Title Cost Center: **Asset Location** Amount: \$ 60,000 Need identified: ☐ Asset Management ☐ Inspection Other **Need Based** Asset Description: Additional functionality for Customer Service Application. **Budget Account:** 16550 Computer Equipment Type: NEW Original date in service: Original estimated useful life: N/A **Useful life:** N/A 10 Years

Asset Allocation No.	20-033-004				
Asset Title	LIMS Enhancements	Cost Center:	Information Technology		
Asset Location	Various	Amount:	\$ 50,000		
Need identified:	Asset Management	☐ Inspection	▽ Other	Need Based	
Asset Description:	Additional functionality for the notifications and enhanced rep	-	ail		Thermo Fisher SCIENTIFIC
Budget Account:	16550 Computer Equipment				
Туре:	NEW				
Original date in service:	N/A Original esti	mated useful life:	N/A Useful life:	5 Years	
Asset Allocation No.	20-033-005				
Asset Title	Edge Switch Upgrades	Cost Center:	Information Technology		
Asset Location	Various	Amount:	\$ 50,000		
Need identified:	Asset Management	☐ Inspection	Other	Need Based	
Asset Description:	Purchase of network edge swit to the internet.	ches that connect local n	etworks		CISCO
Budget Account:	16555 Computer Equipment R	eplacement			TM
Туре:	REPLACEMENT				
Original date in service:	N/A Original esti	mated useful life:	N/A Useful life:	5 Years	
Asset Allocation No.	20-033-006				
Asset Title Asset Location	Software Licensing Update	Cost Center: Amount:	Information Technology \$ 40,000		
Need identified:	Asset Management	☐ Inspection	✓ Other	Need Based	
Asset Description:	Purchase software for various additional user licenses and nedepartment during the year.	• • •			≥ redgate
Budget Account:	16550 Computer Equipment				
Туре:	NEW				
Original date in service:	N/A Original esti	mated useful life:	N/A Useful life:	5 Years	
Asset Allocation No.	20-033-007				
Asset Title	Conference Room Upgrade		Information Technology		
Asset Location	COB	Amount:	\$ 40,000		
Need identified:	Asset Management	☐ Inspection	Other	Need Based	
Asset Description:	Upgrade of audio & visual capa new technology that integrate up to current standards.				ADTECH
Budget Account:	16550 Computer Equipment				
Туре:	NEW				
Original date in service:	N/A Original esti	mated useful life:	N/A Useful life:	5 Vears	

20-033-008 Asset Allocation No. Asset Title **Oracle ERP Enhancements** Cost Center: Information Technology **Asset Location** Amount: \$ 40,000 Need identified: ☐ Asset Management Inspection Other **Need Based** Additional functionality for Oracle ERP such as cloud based disaster Asset Description: ORACLE recovery, document imaging, and new modules. **Budget Account:** 16550 Computer Equipment Type: NEW **Useful life:** Original date in service: N/A Original estimated useful life: N/A 5 Years

20-033-009 Asset Allocation No. Asset Title **Hansen Upgrades** Cost Center: Information Technology **Asset Location** 40,000 Various Amount: ☐ Asset Management Other ☐ Inspection Need identified: Need Based Additional functionality to the Hansen System to allow bar code Asset Description: tracking of assets. **Budget Account:** 16550 Computer Equipment Type: NEW Original date in service: Original estimated useful life: N/A **Useful life:** N/A 5 Years

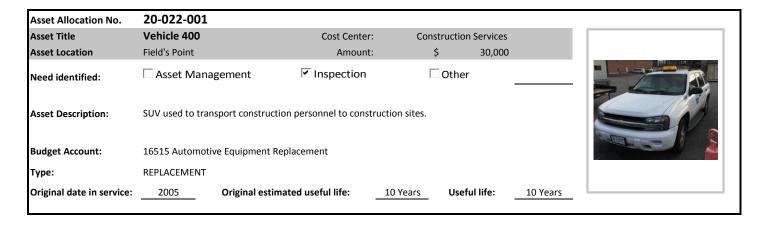


Asset Allocation No.	20-033-011				
Asset Title	Computer Room Enhancements	Cost Center:	Information Tec	hnology	
Asset Location	COB	Amount:	\$	25,000	
Need identified:	Asset Management	Inspection	Other	Need Based	
Asset Description:	New hardware required for computer management organizers, server racks switch (KVM) and accessories, etc.		se		Lecoto ESL
Budget Account:	16550 Computer Equipment				
Туре:	NEW				
Original date in service:	N/A Original estimated	l useful life:	N/A Usefu	l life: 5 Years	
			<u>_</u>		_

Asset Allocation No. 20-033-012 Asset Title **Project Tracking Software** Cost Center: Information Technology Asset Location Amount: 25,000 \$ ☐ Asset Management ☐ Inspection Other Need identified: **Need Based** Asset Description: Software to track capital project spending. **Budget Account:** 16550 Computer Equipment Type: NEW N/A Original estimated useful life: **Useful life:** Original date in service: N/A 5 Years

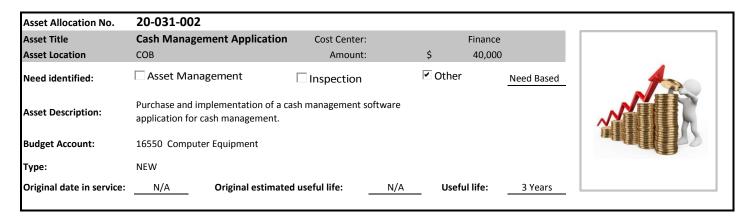
20-033-013 Asset Allocation No. Asset Title Signage System Replacement Cost Center: Information Technology Asset Location 20,000 Amount: ✓ Other ☐ Asset Management Inspection Need identified: Usage Upgrade software used to display company information on signage Asset Description: X20 media across all campuses. A BARCO COMPANY **Budget Account:** 16555 Computer Equipment Replacement REPLACEMENT Type: Original date in service: Original estimated useful life: 2014 5 Years **Useful life:** 5 Years

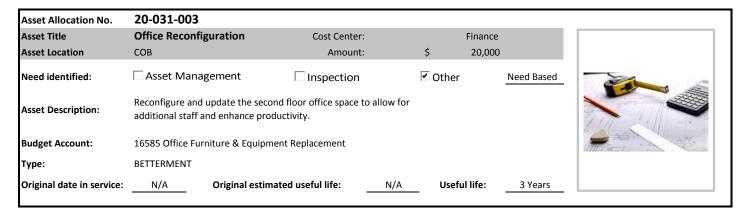
Asset Allocation No. 20-033-014 Asset Title **Antivirus Upgrades** Cost Center: Information Technology **Asset Location** СОВ \$ 10,000 Amount: ☐ Inspection Other ☐ Asset Management Need identified: **Need Based** Antivirus software upgrades to correlate with implementation of Asset Description: new technologies. 16550 Computer Equipment **Budget Account:** Type: NEW Original date in service: N/A Original estimated useful life: N/A **Useful life:** 5 Years



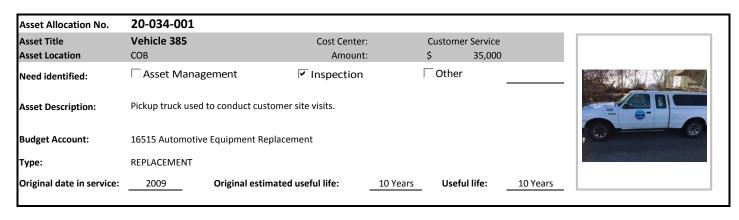
Asset Allocation No. 20-025-001 Asset Title **Copy Machine** Cost Center: Engineering Asset Location Amount: 10,000 Other ☐ Asset Management ✓ Inspection Need identified: Asset Description: Copy machine used by Engineering and Construction. **Budget Account:** 16585 Office Furniture & Equipment Replacement Type: REPLACEMENT Original estimated useful life: **Useful life:** 6 Years Original date in service: 2013 6 Years

20-031-001 Asset Allocation No. Asset Title **Capital Budgeting Application** Cost Center: Finance Asset Location 75.000 Amount: ☐ Asset Management Other ☐ Inspection Need identified: **Need Based** Purchase and implementation of a capital budgeting software Asset Description: application to facilitate capital budget management. **Budget Account:** 16550 Computer Equipment Type: NEW Original date in service: Original estimated useful life: **Useful life:** N/A N/A 3 Years





20-032-001 Asset Allocation No. Asset Title **Enterprise Reporting Application** Accounting Cost Center: Asset Location Amount: 35,000 ☐ Inspection Other ☐ Asset Management Need identified: **Need Based** Purchase and implementation of enterprise reporting software to Asset Description: enhance reporting capabilities. Budget Account: 16550 Computer Equipment Type: NEW N/A N/A **Useful life:** Original date in service: Original estimated useful life: 3 Years



Asset Allocation No.	20-034-002				
Asset Title	Office Furniture & Equipment	Cost Center:		Customer S	ervice
Asset Location	COB	Amount:	:	\$	6,000
Need identified:	Asset Management	\square Inspection	V	Other	Need Based
Asset Description:	Office furniture for Customer Service implementation of a new customer s		red with the		
Budget Account:	16580 Office Furniture & Equipment				
Туре:	NEW				
Original date in service:	N/A Original estimate	ed useful life:	N/A	Useful li	ife: 6 Years

Asset Allocation No.	20-080-001				
Asset Title	Records Storage Building Roof	Cost Center:	General A	dministration	
Asset Location	Records Storage Building	Amount:	\$	100,000	
Need identified:	Asset Management	Inspection	□Oth	ner _	
Asset Description:	Replace Records Storage Building roo	f.			
Budget Account:	16615 Building & Other Structures Re	placement			
Туре:	REPLACEMENT				
Original date in service:	2010 Original estimate	ed useful life: 2	20 Years U :	seful life:	20 Years

Asset Allocation No. 20-080-002 Asset Title **HVAC Components** Cost Center: General Administration **Asset Location** Amount: 25,000 ☐ Asset Management ✓ Inspection Other Need identified: Asset Description: $\label{thm:condition} \mbox{Heating, ventilation, and air conditioning roof components.}$ 16525 Building and Plant Equipment Replacement Budget Account: REPLACEMENT Type: Original date in service: 2013 Original estimated useful life: **Useful life:** 5 Years 5 Years

Asset Allocation No.	20-043-001			
Asset Title	CCTV Software	Cost Center:	Interceptor Maint	tenance
Asset Location	IM Building	Amount:	\$	47,000
Need identified:	Asset Management	☐ Inspection	Other	
Asset Description:	Upgrade CCTV Software used to inspections and enhance viewin		om sewer	
Budget Account:	16555 Computer Equipment Rep	placement		
Туре:	REPLACEMENT			
Original date in service:	2006 Original est	imated useful life:	10 Years Useful	l life: 5 Years

Asset Allocation No.	20-043-002				
Asset Title	Vehicle 387	Cost Center:	Intercept	or Maintena	nce
Asset Location	IM Building	Amount:	\$	43,	000
Need identified:	Asset Management	Inspection		Other	
Asset Description:	Pickup truck used to transpor sites.	t employees and equipment t	o work		
Budget Account:	16515 Automotive Equipmen	t Replacement			
Туре:	REPLACEMENT				
Original date in service:	Original e	estimated useful life:	10 Years	Useful life:	10 Years

Asset Allocation No.	20-044-001						
Asset Title	Programmable Controller	Cost Center:	O & M S	ervices			
Asset Location	Field's Point	Amount:	\$ 7	70,000			
Need identified:	Asset Management	Inspection	Other				
Asset Description:	deplacement of obsolete equipment used for performance reporting of the FPWWTF's various pumps, meters, and flows.						
Budget Account:	16555 Computer Equipment Replacement						
Туре:	REPLACEMENT						
Original date in service:	2014 Original estim	ated useful life: 5 Yea	rs Useful li	ife: 5 Years			

20-044-002 Asset Allocation No. **Automation System Controller** Asset Title Cost Center: O & M Services Asset Location **Bucklin Point** Amount: 50,000

☐ Other

Replacement of obsolete automation system that controls process Asset Description:

equipment and machinery used at BPWWTF.

Budget Account: 16555 Computer Equipment Replacement

Asset Management

REPLACEMENT Type:

Need identified:

Original date in service: 2014 Original estimated useful life: 5 Years **Useful life:** 5 Years

✓ Inspection



20-046-001 Asset Allocation No. **Bar Rack** Asset Title Field's Point Cost Center: **Asset Location Ernest Street Pump Station** 147,000 Amount: Other ✓ Inspection Asset Management Need identified: Asset Description: Replacement of bar rack that removes large items from influent. Budget Account: 16525 Building and Plant Equipment Replacement Type: REPLACEMENT

Useful life: Original date in service: 2016 Original estimated useful life: 4 Years 4 Years



20-046-002 Asset Allocation No. Vehicle 485 Asset Title Cost Center: Field's Point Asset Location Field's Point Amount: 140,000 Asset Management Need identified: ✓ Inspection Other Asset Description: Tank truck that pumps scum out of scum wells. **Budget Account:** 16515 Automotive Equipment Replacement REPLACEMENT Type: Original date in service: 2003 Original estimated useful life: 10 Years **Useful life:** 10 Years

Asset Allocation No.	20-046-003			
Asset Title	Grit Tank Unit	Cost Center:	Field's Point	
Asset Location	Field's Point	Amount:	\$ 100,000	
Need identified:	Asset Management	Inspection	☐ Other	
Asset Description:	Grit tank unit used to remove gr	it.		
Budget Account:	16525 Building and Plant Equipn			
Туре:	REPLACEMENT			
Original date in service:	2016 Original esti	mated useful life:	4 Years Useful life:	4 Years

Asset Allocation No. 20-046-004 **Equipment 0059** Asset Title Cost Center: Field's Point **Asset Location** Field's Point Amount: 85,000 Asset Management ✓ Inspection Other Need identified: Asset Description: Skid Steer Loader used to haul sand, salt and grit to landfill. Budget Account: 16515 Automotive Equipment Replacement REPLACEMENT Type: Original date in service: 2012 Original estimated useful life: 10 Years **Useful life:** 10 Years

Asset Allocation No.	20-046-005					
Asset Title	Gravity Thickener Pump	Cost Center:		Field's Point		
Asset Location	Field's Point	Amount:	\$	50,000		
Need identified:	Asset Management	Inspection	□ 0	ther		
Asset Description:	Pump used to pump sewage tank	5.				A WILL
Budget Account:	16525 Building and Plant Equipme	>				
Туре:	REPLACEMENT					
Original date in service:	1986 Original estin	nated useful life: 1	L5 Years U	seful life:	15 Years	

Asset Allocation No.	20-046-006							
Asset Title	Vehicle 405	Cost Center:		Field's F	Point			
Asset Location	Field's Point	Amount:	\$	45	5,000			
Need identified:	Asset Management	Inspection		Other				
Asset Description:	Maintenance van used to trequipment.	ransport Field's Point WWTF sta	aff and					
Budget Account:	16515 Automotive Equipme	16515 Automotive Equipment Replacement						
Туре:	REPLACEMENT							
Original date in service:	2008 Origina	l estimated useful life:	10 Years	Useful life	e: 10 Years			

Asset Title Sludge Asset Location Field's Po Need identified: Asset	oint .	Cost Center: Amount: Inspection	\$	Field's Point 40,000 Other				
_			_	_)			
Need identified:	Management	✓ Inspection		Other				
Asset Description: Pump us	Pump used to return activated sludge to process.							
Budget Account: 16525 Br	uilding and Plant Equipment Ro							
Type: REPLACE	MENT							
Original date in service: 2003	Original estimated	d useful life:	15 Years	Useful life:	15 Years			

Asset Allocation No.	20-046-008							
Asset Title	Sluice Gate Components	Cost Center:	Field's Po	oint				
Asset Location	Field's Point	Amount:	\$ 40,	.000				
Need identified:	Asset Management	Inspection	Other					
Asset Description:	Sluice gate manifolds and cylinders used to move gates up and down.							
Budget Account:	16525 Building and Plant Equipment Replacement							
Туре:	REPLACEMENT							
Original date in service:	1989 Original estimate	ed useful life: 20 Years	Useful life:	: 20 Years				

Asset Allocation No.	20-046-009			
Asset Title	Dewatering Pump	Cost Center:	Field's Poin	t
Asset Location	Field's Point	Amount:	\$ 40,00	0
Need identified:	Asset Management	☐ Inspection	Other	
Asset Description:	New IFAS dewatering pump use	d to dewater tanks.		
Budget Account:	16520 Building and Plant Equip	ment		
Туре:	NEW			
Original date in service:	N/A Original est	imated useful life:	N/A Useful life:	15 Years

Asset Allocation No.	20-046-010				
Asset Title	Final Clarifier Gate Components	Cost Center:		Field's Poin	it
Asset Location	Field's Point	Amount:	\$	35,00	00
Need identified:	Asset Management	✓ Inspection		Other	
Asset Description:	Components used to operate sluice g	gate in final clarifier 6.			
Budget Account:	16525 Building and Plant Equipment	Replacement			
Туре:	REPLACEMENT				
Original date in service:	1997 Original estimate	ed useful life:	20 Years	Useful life:	20 Years

Asset Allocation No.	20-046-011						
Asset Title	Wasting Pump	Cost Center:	Field's Poin	nt			
Asset Location	Field's Point	Amount:	\$ 30,00	00			
Need identified:	Asset Management	Inspection	Other				
Asset Description:	Return activated sludge pump 2 used to return sludge to process.						
Budget Account:	16525 Building and Plant Equipment Replacement						
Туре:	REPLACEMENT						
Original date in service:	1987 Original est	imated useful life: 15 Ye	ears Useful life:	15 Years			

Asset Allocation No. 20-046-012 Asset Title **Crane Controller** Cost Center: Field's Point **Asset Location** Field's Point Amount: 30,000 Asset Management ✓ Inspection Other Need identified: Components used to measure distance in shaft and control bucket Asset Description: and crane. 16525 Building and Plant Equipment Replacement Budget Account: REPLACEMENT Type: 10 Years Original date in service: 2008 Original estimated useful life: **Useful life:** 10 Years

ouvers eld's Point Asset Management	Cost Center: Amount:	Field's Poi \$ 30,0		
		\$ 30,0	00	
Asset Management	_			
Asset Wanagement	✓ Inspection	Other		
uvers used to control air ventilation v				
525 Building and Plant Equipment Re				
PLACEMENT				
1989 Original estimated	useful life: 30 Years	Useful life:	30 Years	
5	525 Building and Plant Equipment Re		525 Building and Plant Equipment Replacement PLACEMENT	525 Building and Plant Equipment Replacement PLACEMENT

Asset Allocation No.	20-046-014			
Asset Title	Vehicle 438	Cost Center:	Field's Point	
Asset Location	Field's Point	Amount:	\$ 25,000	
Need identified:	Asset Management	Inspection	Other	
Asset Description:	Rebuild forklift used at Field's F			
Budget Account:	16515 Automotive Equipment F	9-0		
Туре:	BETTERMENT			
Original date in service:	2000 Original es	timated useful life: 1	.5 Years Useful life:	5 Years

Asset Allocation No.	20-046-015						
Asset Title	Cone Valve Actuator	Cost Center:	Field's Poin	t			
Asset Location	Field's Point	Amount:	\$ 20,00	0			
Need identified:	Asset Management	Inspection	Other				
Asset Description:	Actuator used to control tunne	Actuator used to control tunnel pump cone valve.					
Budget Account: Type:	16520 Building and Plant Equipment NEW						
Original date in service:	N/A Original es	timated useful life: N	/A Useful life:	15 Years			

Asset Allocation No.	20-046-016						
Asset Title	Transfer Switch	Cost Center:	Field's Po	oint			
Asset Location	Field's Point	Amount:	\$ 15,	,000			
Need identified:	Asset Management	Inspection	☐ Other				
Asset Description:	Grit transfer switch that transfers power from generator to utility.						
Budget Account:	16525 Building and Plant Equipment Replacement						
Туре:	REPLACEMENT						
Original date in service:	Original estima	ated useful life: 20 Y	'ears Useful life	: 20 Years			

Asset Allocation No.	20-046-017				
Asset Title	Variable Frequency Drive	Cost Center:	Fie	ld's Point	
Asset Location	Field's Point	Amount:	\$	12,000	
Need identified:	Asset Management	☐ Inspection	☐ Othe	er	
Asset Description:	Components used to control spec	ed of chlorine tank gate.			TO THE RESERVE OF THE PERSON O
Budget Account:	16520 Building and Plant Equipm				
Туре:	NEW				
Original date in service:	N/A Original estin	mated useful life: N	I/A Usef	ul life: 10 Ye	ears

Asset Allocation No.	20-046-018						
Asset Title	Variable Frequency Drive	Cost Center:		Field's	Point		
Asset Location	Field's Point	Amount:	,	5	6,000		
Need identified:	Asset Management	Inspection	Ī	Other			
Asset Description:	Components used to control spe	ed of plant water pump.					
Budget Account:	16525 Building and Plant Equipn	16525 Building and Plant Equipment Replacement					
Туре:	REPLACEMENT						
Original date in service:	Original esti	mated useful life:	10 Years	Useful lif	e: 10 Years		

Asset Allocation No.	20-047-001							
Asset Title	Sludge Pumps	Cost Center:	Bucklin Point					
Asset Location	Bucklin Point	Amount:	\$ 105,000					
Need identified:	Asset Management	Inspection	Other					
Asset Description:	Rebuild 7 sludge pumps that re	Rebuild 7 sludge pumps that return activated sludge to process.						
Budget Account:	16525 Building and Plant Equipment Replacement							
Туре:	BETTERMENT							
Original date in service:	2013 Original es	stimated useful life: 15	Years Useful life:	5 Years				

Asset Allocation No. 20-047-002 Asset Title Vehicle 382 Cost Center: **Bucklin Point Asset Location Bucklin Point** Amount: 85,000 Asset Management ✓ Inspection Other Need identified: Asset Description: Dump truck, plow and sander used at the Bucklin Point WWTF. Budget Account: 16515 Automotive Equipment Replacement REPLACEMENT Type: Original date in service: 2009 Original estimated useful life: 10 Years **Useful life:** 10 Years

Asset Allocation No.	20-047-003			
Asset Title	Tank Components	Cost Center:	Bucklin Point	
Asset Location	Bucklin Point	Amount:	\$ 60,000	
Need identified:	Asset Management	Inspection	Other	
Asset Description:	Rehabilitation of grit classifier ta	nk screw.		
Budget Account:	16525 Building and Plant Equipn	nent Replacement		
Туре:	BETTERMENT			
Original date in service:	2005 Original esti	mated useful life: 15 Y	ears Useful life:	8 Years

Asset Allocation No.	20-047-004						
Asset Title	Digester Sludge Mixers	Cost Center:		Bucklin Poin	it		
Asset Location	Bucklin Point	Amount:	\$	54,00	00		
Need identified:	Asset Management	Inspection		Other		-	
Asset Description:	Rebuild 2 primary digester sluc	Rebuild 2 primary digester sludge mixers.					
Budget Account:	16525 Building and Plant Equip						
Туре:	BETTERMENT						
Original date in service:	2005 Original es	timated useful life:	15 Years	Useful life:	5 Years		
		-					

Asset Allocation No.	20-047-005						
Asset Title	Conference Room Upgrades	Cost Center:	Bucl	klin Point			
Asset Location	Bucklin Point	Amount:	\$	50,000			
Need identified:	Asset Management	Inspection	Other	·			
Asset Description:	Upgrade technology in the Bucklin conference room.	Upgrade technology in the Bucklin Point Administration building conference room.					
Budget Account:	16585 Office Furniture & Equipment Replacement						
Туре:	BETTERMENT						
Original date in service:	2005 Original estin	nated useful life: 10	Years Usef	ul life: 1			

Asset Allocation No. 20-047-006 Asset Title **Dissolved Oxygen Valves** Cost Center: **Bucklin Point Asset Location** Bucklin Point Amount: 45,000 Asset Management ✓ Inspection Other Need identified: Asset Description: Dissolved oxygen valves on aeration tanks. 16525 Building and Plant Equipment Replacement Budget Account: REPLACEMENT Type: Original date in service: 2006 Original estimated useful life: 15 Years **Useful life:** 15 Years

Asset Allocation No.	20-047-007			
Asset Title	Digester Mixer	Cost Center:	Bucklin Point	
Asset Location	Bucklin Point	Amount:	\$ 45,000	
Need identified:	✓ Asset Management	Inspection	Other	
Asset Description:	Primary digester sludge mixer.			
Budget Account:	16525 Building and Plant Equipr	ment Replacement		
Туре:	REPLACEMENT			
Original date in service:	2004 Original est	imated useful life: 15	Years Useful life:	15 Years

Asset Allocation No.	20-047-008						
Asset Title	Vehicle 381	Cost Center:		Bucklin Poir	nt		
Asset Location	Bucklin Point	Amount:	\$	40,00	00		
Need identified:	Asset Management	Inspection		Other			
Asset Description:	SUV used for transporting sta WWTF.	SUV used for transporting staff and equipment at Bucklin Point WWTF.					
Budget Account:	16515 Automotive Equipmen	16515 Automotive Equipment Replacement					
Туре:	REPLACEMENT						
Original date in service:	2010 Original e	estimated useful life:	10 Years	Useful life:	10 Years		

Asset Allocation No.	20-047-009							
Asset Title	Vehicle 444	Cost Center:	Bucklin Point					
Asset Location	Bucklin Point	Amount:	\$ 40,000					
Need identified:	Asset Management	Inspection	Other					
Asset Description:	Pickup truck used for transport Point WWTF.	Pickup truck used for transporting staff and equipment at Bucklin Point WWTF.						
Budget Account:	16515 Automotive Equipment Replacement							
Туре:	REPLACEMENT							
Original date in service:	2005 Original es	timated useful life: 10 Y	ears Useful life:	10 Years				

Asset Allocation No. 20-047-010 Asset Title **Sludge Pump with Grinder** Cost Center: **Bucklin Point Asset Location Bucklin Point** Amount: 35,000 Asset Management ✓ Inspection Need identified: Other Primary sludge pump 3 that moves sludge to digesters at the Dry Asset Description: Weather Primary Sludge Pump Station. 16525 Building and Plant Equipment Replacement Budget Account: REPLACEMENT Type: Original date in service: 2005 Original estimated useful life: 15 Years **Useful life:** 15 Years

Asset Allocation No.	20-047-011			
Asset Title	Dewatering Pump	Cost Center:	Bucklin Point	t
Asset Location	Bucklin Point	Amount:	\$ 35,000)
Need identified:	Asset Management	☐ Inspection	Other	
Asset Description:	Dewatering pump for contact ar	nd aeration tanks.		
Budget Account:	16520 Building and Plant Equipr	nent		
Туре:	NEW			
Original date in service:	N/A Original est	imated useful life: N/	'A Useful life:	15 Years

Asset Allocation No.	20-047-012				
Asset Title	Gate Actuators	Cost Center:		Bucklin	Point
Asset Location	Bucklin Point	Amount:	Ş	3	32,000
Need identified:	Asset Management	Inspection	Γ	Other	
Asset Description:	Actuators used to open and clo	ose final clarifier gates 1-4.			
Budget Account:	16525 Building and Plant Equi	oment Replacement			
Туре:	REPLACEMENT				
Original date in service:	2005 Original es	stimated useful life:	15 Years	Useful lif	fe: 15 Years

Asset Allocation No.	20-047-013						
Asset Title	Compressor	Cost Center:	Bucklin Point				
Asset Location	Bucklin Point	Amount:	\$ 30,200				
Need identified:	Asset Management	Inspection	Other	The Control of the Co			
Asset Description:	Compressor to assist in feeding polymer to waste.						
Budget Account:	16520 Building and Plant Equipment						
Туре:	NEW						
Original date in service:	N/A Original est	imated useful life:	N/A Useful life:	20 Years			

Asset Allocation No. 20-047-014 Asset Title Grinder Cost Center: **Bucklin Point Asset Location Bucklin Point** Amount: 30,000 Asset Management ✓ Inspection Other Need identified: Asset Description: Scum pump grinder that removes grease from influent. 16525 Building and Plant Equipment Replacement Budget Account: REPLACEMENT Type: Original date in service: 2005 Original estimated useful life: 15 Years **Useful life:** 15 Years

Asset Allocation No.	20-047-015						
Asset Title	Water Pump	Cost Center:	Bucklin Point	:			
Asset Location	Bucklin Point	Amount:	\$ 26,000)			
Need identified:	Asset Management	Inspection	Other				
Asset Description:	Flushing water pump 4 that distributes cleaned effluent water throughout the plant.						
Budget Account:	16525 Building and Plant Equipment Replacement						
Туре:	REPLACEMENT						
Original date in service:	2003 Original esti	mated useful life: 15 Y	ears Useful life:	15 Years			

Asset Allocation No.	20-047-016				
Asset Title	Equipment 0039	Cost Center:		Bucklin F	Point
Asset Location	Bucklin Point	Amount:	\$	22	2,000
Need identified:	Asset Management	Inspection		Other	
Asset Description:	Utility Task Vehicle (UTV) use equipment.	ed to transport staff and small			
Budget Account:	16515 Automotive Equipme	nt Replacement			
Туре:	REPLACEMENT				
Original date in service:	2013 Original	estimated useful life:	5 Years	Useful life	e: 10 Years

Asset Allocation No.	20-047-017					
Asset Title	Equipment 0057	Cost Center:		Bucklin Point	t	
Asset Location	Bucklin Point	Amount:	\$	22,000	0	
Need identified:	Asset Management	Inspection		Other		
Asset Description:	Utility Task Vehicle (UTV) used equipment.					
Budget Account:	16515 Automotive Equipment	Replacement				
Туре:	REPLACEMENT					
Original date in service:	2012 Original es	timated useful life:	5 Years	Useful life:	10 Years	

Asset Allocation No. 20-047-018 Equipment 0061 Asset Title Cost Center: **Bucklin Point Asset Location Bucklin Point** Amount: 22,000 Asset Management ✓ Inspection Other Need identified: Utility Task Vehicle (UTV) used to transport staff and small Asset Description: equipment. Budget Account: 16515 Automotive Equipment Replacement REPLACEMENT Type: Original date in service: 2012 Original estimated useful life: 5 Years **Useful life:** 10 Years

Asset Allocation No.	20-047-019				
Asset Title	Hypo Pump	Cost Center:		Bucklin Point	
Asset Location	Bucklin Point	Amount:	\$	20,000	
Need identified:	Asset Management	Inspection		Other	
Asset Description:	Hypo pump 3 that adds sodium	hypochlorite to effluent.			
Budget Account:	16525 Building and Plant Equip	ment Replacement			
Туре:	REPLACEMENT				
Original date in service:	2000 Original est	timated useful life:	15 Years L	Jseful life:	15 Years

Asset Allocation No.	20-047-020						
Asset Title	Harmonic Filters	Cost Center:	Bucklin Point				
Asset Location	Bucklin Point	Amount:	\$ 20,000				
Need identified:	Asset Management	Inspection	Other				
Asset Description:	Harmonic filters for turbo blowe						
Budget Account:	16525 Building and Plant Equipment Replacement						
Туре:	REPLACEMENT						
Original date in service:	2014 Original est	imated useful life: 5 Y	'ears Useful life:	5 Years			

Asset Allocation No.	20-047-021					
Asset Title	Leveling Screws	Cost Center:	Bucklin Point	t		
Asset Location	Bucklin Point	Amount:	\$ 20,000	0		
Need identified:	Asset Management	Inspection	Other			
Asset Description:	Components of the bar rack leveling conveyor.					
Budget Account:	16525 Building and Plant Equipment Replacement					
Туре:	REPLACEMENT					
Original date in service:	2004 Original esti	mated useful life: 1	0 Years Useful life:	10 Years		

Asset Allocation No.	20-047-022				
Asset Title	Sump Pumps	Cost Center:		Bucklin Po	int
Asset Location	Bucklin Point	Amount:	\$	17,0	000
Need identified:	Asset Management	Inspection		Other	
Asset Description:	Grit sump pumps that remove	e water from basement.			
Budget Account:	16525 Building and Plant Equi	pment Replacement			
Туре:	REPLACEMENT				
Original date in service:	Original e	estimated useful life:	15 Years	Useful life:	15 Years

Asset Allocation No.	20-047-023			
Asset Title	LEL Gas System	Cost Center:	Bucklin Point	t
Asset Location	Bucklin Point	Amount:	\$ 15,000	0
Need identified:	Asset Management	Inspection	Other	
Asset Description:	Hypo pump 3 that adds sodium	hypochlorite to effluent.		
Budget Account:	16525 Building and Plant Equipm	nent Replacement		
Туре:	REPLACEMENT			
Original date in service:	Original est	imated useful life: 15 Y	ears Useful life:	15 Years

Asset Allocation No.	20-047-024								
Asset Title	Blower Cartridge	Cost Center:	Bucklin Point						
Asset Location	Bucklin Point	Amount:	\$ 15,000						
Need identified:	Asset Management	Inspection	Other						
Asset Description:	Centrifugal blower cartridge ned	Centrifugal blower cartridge needed to add air into aeration tank.							
Budget Account:	16525 Building and Plant Equip	16525 Building and Plant Equipment Replacement							
Туре:	REPLACEMENT								
Original date in service:	2004 Original est	imated useful life: 5 Ye	ars Useful life:	5 Years					

Asset Allocation No.	20-047-025				
Asset Title	Flow Meter	Cost Center:		Bucklin Poin	t
Asset Location	Bucklin Point	Amount:	\$	15,00	0
Need identified:	Asset Management	Inspection		Other	
Asset Description:	Sludge flow meter that measu	res the total sludge flow.			
Budget Account:	16525 Building and Plant Equi	oment Replacement			
Туре:	REPLACEMENT				
Original date in service:	2013 Original e	stimated useful life:	5 Years	Useful life:	10 Year

Asset Allocation No. 20-047-026 Asset Title **Soda Ash Tank Level System** Cost Center: **Bucklin Point Asset Location Bucklin Point** Amount: 10,000 Asset Management ✓ Inspection Need identified: Other Asset Description: Level system that measures the total amount of soda ash in tank. 16525 Building and Plant Equipment Replacement Budget Account: REPLACEMENT Type: 10 Years Original date in service: 2005 Original estimated useful life: **Useful life:** 10 Years

Asset Allocation No.	20-047-027			
Asset Title	Flow Meter	Cost Center:	Bucklin Poin	t
Asset Location	Bucklin Point	Amount:	\$ 10,00	0
Need identified:	Asset Management	☐ Inspection	Other	
Asset Description:	Polysonic flow meter to measure	e flow in scum well and chambe	r.	
Budget Account:	16520 Building and Plant Equipn	nent		
Туре:	NEW			
Original date in service:	N/A Original esti	mated useful life: N	/A Useful life:	10 Years

Asset Allocation No.	20-047-028				
Asset Title	Equipment Vehicle 356	Cost Center:		Bucklin Poi	nt
Asset Location	Bucklin Point	Amount:		\$ 8,0	00
Need identified:	Asset Management	Inspection	Γ	Other	
Asset Description:	Snow plow.				
Budget Account:	16515 Automotive Equipm	nent Replacement			
Туре:	REPLACEMENT				
Original date in service:	Origin	al estimated useful life:	8 Years	Useful life:	8 Years

Asset Allocation No.	20-047-029					
Asset Title	Aeration Train Actuator	Cost Center:		Bucklin Po	int	
Asset Location	Bucklin Point	Amount:	\$	8,0	000	
Need identified:	Asset Management	Inspection		Other		
Asset Description:	Actuator used to open/close gates in tanks.					
Budget Account:	16525 Building and Plant Equip					
Туре:	REPLACEMENT					
Original date in service:	2005 Original est	timated useful life:	15 Years	Useful life:	15 Years	

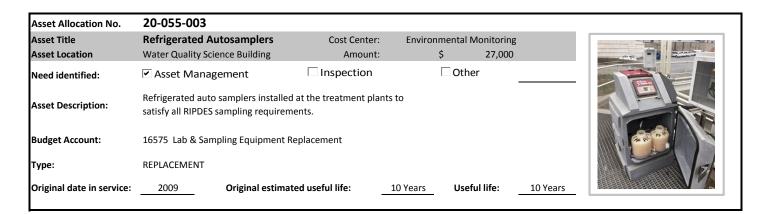
Asset Allocation No. 20-053-001 Laboratory Asset Title **Auto-Titration System** Cost Center: **Asset Location** Water Quality Science Building Amount: 114,000 ☐ Asset Management ✓ Inspection Other Need identified: Asset Description: Alkalinity, hypochlorite and bisulfite permit testing system. 16575 Lab & Sampling Equipment Replacement Budget Account: REPLACEMENT Type: Original date in service: 2014 Original estimated useful life: **Useful life:** 5 Years 5 Years

Asset Allocation No.	20-053-002			
Asset Title	Analytical Balances	Cost Center:	Laborato	γ
Asset Location	Water Quality Science Building	Amount:	\$ 23,0	00
Need identified:	☐ Asset Management	Inspection	Other	
Asset Description:	Lab instruments used to accurately required sample testing.	y measure mass for RIPDES		
Budget Account:	16575 Lab & Sampling Equipment	Replacement		
Туре:	REPLACEMENT			
Original date in service:	2014 Original estim	ated useful life: 5 Y	ears Useful life:	_
				_

Asset Allocation No.	20-053-003				
Asset Title	Microbiology Incubators	Cost Center:		Laboratory	
Asset Location	Water Quality Science Building	Amount:	\$	8,000)
Need identified:	Asset Management	Inspection	□ Ot	ther	
Asset Description:	BOD (biochemical oxygen deman required sample testing.	d) refrigerated incubator fo	or RIPDES		
Budget Account:	16575 Lab & Sampling Equipmer	nt Replacement			
Туре:	REPLACEMENT				
Original date in service:	2014 Original estin	mated useful life:	5 Years U	seful life:	5 Years

Asset Allocation No.	20-055-001									
Asset Title	Fixed Site Sondes	Cost Center:	Environmenta	l Monitoring						
Asset Location	Water Quality Science Building	Amount:	\$	50,000	CALL CALL					
Need identified:	Asset Management	\square Inspection	□ Ot	her						
Asset Description:	Fixed site sondes and associated e buoy stations in upper bay.	xed site sondes and associated equipment used for fixed site and uoy stations in upper bay.								
Budget Account:	16575 Lab & Sampling Equipment	Replacement								
Туре:	REPLACEMENT									
Original date in service:	2009 Original estim	ated useful life:	10 Years Us	eful life: 10	Years					

20-055-002 Asset Allocation No. Asset Title **Fixed Site Probes & Meter** Cost Center: **Environmental Monitoring** Asset Location Water Quality Science Building Amount: 32,000 Need identified: Asset Management ☐ Inspection Other Fixed site probes, meters and associated equipment used for deployment in the upper bay and to provide river data during Asset Description: nutrients sampling collections. Budget Account: 16575 Lab & Sampling Equipment Replacement REPLACEMENT Type: **Useful life:** Original date in service: 2009 Original estimated useful life: 10 Years 10 Years



Capital Improvement Program

The Capital Improvement Program

The Narragansett Bay Commission's (NBC) Capital Improvement Program (CIP) is a planning document which identifies programmed capital investments necessary to comply with current and future regulatory requirements, take advantage of technological advancements, ensure the integrity of NBC's infrastructure and achieve operational efficiencies. The projects, schedules and costs that are included in the CIP have been developed through a planning process that involves NBC's Engineering and Construction staff and incorporates needs identified through NBC's asset management program. These capital improvements include construction of new facilities and rehabilitation and replacement of existing infrastructure, as well as energy efficiency and sustainability projects. The CIP shows programmed expenditures for the current Fiscal Year (FY) 2020 as well as the following five-year period of FY 2021-2025, which is referred to in this document as the "window". Structuring the CIP this way also enables the NBC's program to be easily incorporated into the State of Rhode Island's capital budget.

Capital Improvement Program Overview

This year's CIP identifies a total of 49 projects that are either in progress, to be initiated, or to be completed during FY 2020-2025. The estimated costs for this year's CIP window are \$507.1 million, with additional expenditures of \$52.4 million in FY 2020 for a total of \$559.5 million. The majority or 88% of the expenditures are related to the third and final phase of the Combined Sewer Overflow (CSO) Abatement Facilities. Other projects account for the remaining 12% of the CIP and reflect the continued investment in NBC's wastewater treatment and collection system infrastructure.

FY 2020-2025 CIP Costs

(In thousands)

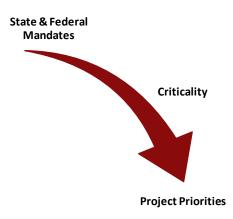
Category	F	Y 2020	F	Y 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY	2021-2025
Administrative	\$	2,259	\$	3,183	\$ 3,762	\$ 3,337	\$ 2,861	\$ 1,756	\$	14,899
Land		9,536		-	-	-	-	-		-
A/E Professional		21,925		15,756	12,736	13,760	10,378	5,890		58,520
Construction		15,744		32,531	95,672	130,781	96,646	48,688		404,318
Contingency		2,407		3,787	6,766	6,429	6,573	4,452		28,007
Other		535		546	288	180	175	185		1,374
Total	\$	52,406	\$	55,803	\$ 119,224	\$ 154,487	\$ 116,633	\$ 60,971	\$	507,118

The CIP document reflects all phases of a construction project, including planning and design, as a single project. In addition, for planning purposes, projects that are substantially complete with only retainage and/or "punch-list" items remaining are considered complete and are not carried in the CIP summary or detailed project listing. These projects are discussed in the completed projects section. The CIP projects are also identified by classifications which rank them in terms of priority. The CIP includes additional information regarding changes in the CIP from the prior year, new projects and the projected operating budget impact of each project.

Capital Improvement Program Development

NBC's comprehensive capital improvement planning process takes into consideration the project's relationship to the strategic plan, program priorities, the permitting process, project readiness, scheduling and other factors. The CIP drives NBC's long-term financing requirements, and therefore the particulars of each project are an essential component of NBC's financial plan.

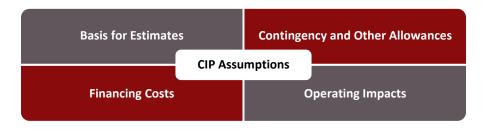
NBC's Project Managers begin the annual CIP process with the development of detailed justifications for each capital project including project scope, basis for the cost estimate and key factors impacting costs and schedules. The Project Managers also explain modifications from the prior year's CIP and provide the overall project schedule. A timeline with all of the detailed project schedules can be found in the Appendix. The CIP Review Committee reviews the proposed capital projects including the assignment of priorities and schedules. Projects approved for inclusion in the CIP are subsequently analyzed to assess major program changes, overall capital funding needs, the strength of the project's connection to the objectives in NBC's Strategic Plan, as well as financing and operating cost impacts.



Capital Improvement Program Assumptions

The costs and schedules included in this year's CIP reflect NBC's best estimates and are based on a number of assumptions as follows:

- Costs and cash flows are based on planning or design estimates and/or bids once available.
- The majority of construction projects include a 10% contingency based on the original construction cost estimate, which reflects recent industry experience. CSO Phase III A cost estimates include a 15% contingency based on the recommendation of the design engineer and the complexity of the project. Project contingencies may be subsequently modified based upon the bids. Cost estimates for new design and construction projects include a 7% allowance for NBC staff salary and fringe associated with project management, based on historical experience.
- Financing costs and debt service associated with the CIP are not included in the CIP expenditures or the project cash flows. Financing costs are capitalized and amortized over the length of the debt payment schedule and debt service is included as an expense in the annual operating budget.
- The CIP does not include the acquisition or replacement of certain assets included in the five-year Operating Capital Program as part of the Capital Budget.
- Impacts of CIP projects on the Operating Budget are estimated based on prior experience and engineering estimates.



Capital Improvement Program Calendar

The development of the CIP begins in the fall and is completed in late winter or early spring. The FY 2021-2025 CIP calendar is as follows:

NOVEMBER 2018

- Project Overview, Cash Flow and Schedule Detail forms available on November 13th
- Project Form Submittals due on November 28th

DECEMBER 2018

• Review of Projects, Cash Flow and Schedule Detail Submittals

JANUARY 2019

- Incorporation of Capital Project Submittals
- Development of CIP Budget Impact Analysis
- Conduct CIP Review Committee Meeting on January 30th

FEBRUARY 2019

- Capital Improvement Program Narrative
- New and/or Project change forms due on February 5th
- Development of additional CIP supporting information
- Presentation of the FY 2021-2025 CIP to the Long-Range Planning Committee and Board for Review and Approval on February 26th

Capital Project Authorization and Amendment Procedures

Initial Capital Project Authorization

The Executive Director is authorized to expend funds for preliminary planning, staff time and other services in order to assess project need, scope and feasibility. Once it is determined that a project should move forward, an authorizing resolution that includes the contract and ancillary costs is presented to the Board for review and approval.

Engineering Contract Amendments

The Executive Director is authorized to approve engineering contract amendments up to a maximum of 5% of the original contact amount or \$20,000 whichever is greater, without further Board approval. All other contract amendments require Board approval.

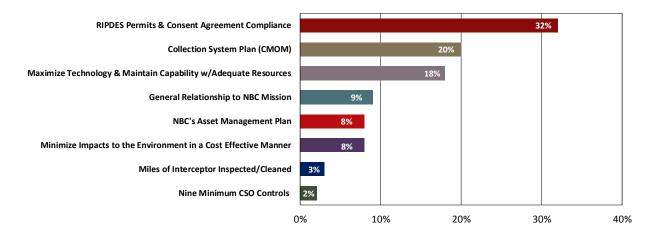
Construction Contract Change Order Requests

As a construction project proceeds, additional funds may be required to accommodate a Change Order Request (COR). There are a number of reasons for COR as is shown in the following chart.

Reasons for Change Order Requests									
Differing Site Conditions	Extra Work or Conditions	Contract Errors or Omissions	Changes Required by Regulatory Agencies	Contractor Claims for Work in Dispute	Over/Under Supplemental or Unit Price Items				

The Executive Director may authorize CORs up to a maximum of 5% of the contract amount. Any changes above the 5%, for reasons other than emergency or safety work, require approval by the Board prior to execution. If there is an emergency or safety issue, the Executive Director may exceed the 5% limit without Board approval and inform the Board thereafter.

Capital Projects by Strategic Objective



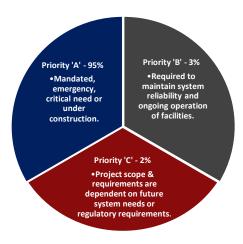
NBC's Strategic Plan ensures NBC's ability to meet water quality objectives set forth by regulatory requirements through achieving short-term and long-term objectives at a reasonable cost. As part of the CIP development process, Project Managers identify the one or more strategic goals that a project will address. The following chart illustrates the percentage of capital projects in this year's CIP aligned with each Strategic Objective.

Of the 49 CIP projects, the highest percentage, or 32%, are aligned with the RIPDES Permit/RIDEM Consent Agreement strategic objective. NBC's Collection System Plan strategic objective, which includes interceptor restoration and construction projects, comprises 20% of the projects in the CIP while 18% of the projects are aligned with the Maximize Technology & Maintain Capability with Adequate Resources strategic objective. The remaining projects are aligned with NBC's Asset Management Plan, General Relationship to NBC Mission and Minimize Impacts to the Environment in Cost Effective Manner objectives.

Capital Project by Priority

As part of the CIP program development, a priority ranking is assigned based on an assessment of the project's criticality. Projects with a priority ranking of "A" represent a critical need and are either mandated, an emergency or currently under construction. Approximately 95% of the project costs identified in the window are prioritized with an "A" ranking with a total estimated cost of \$483.8 million.

Projects with a priority ranking of "B" are required to maintain system reliability and ongoing operations of NBC's facilities. In this year's CIP, 3% of project costs have been ranked as a "B" priority with a total estimated cost of \$14.8 million. Lastly, projects with a "C" ranking are identified for planning purposes and may be undertaken if it is determined that they are needed to meet future system needs or regulatory requirements. Of the total CIP, 2% of the project costs or \$8.5 million are identified with a priority ranking of "C".



*Percentage calculated on project cost

Capital Expenditure by Phase

NBC's construction projects are generally comprised of three phases including planning, design, and construction. Planning consists of tasks such as feasibility studies and determination of the technology to be implemented. The design phase includes the development of plans and specifications and the acquisition of

easements and permits. During the construction phase, facility improvements and infrastructure are constructed. The CIP also includes some programmed capital projects which are not broken down into phases, such as the inspection, cleaning, and repair of NBC's interceptors, or other one-time special studies. As is evident in the chart below, the majority, or 95% of the programmed expenditures during the five-year CIP window, relate to the construction phase at \$483.6 million.

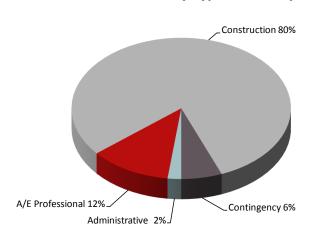
Fiscal Year 2025 Fiscal Year 2024 Fiscal Year 2023 Fiscal Year 2022 Fiscal Year 2021 \$20 \$-\$40 \$60 \$80 \$100 \$120 \$140 \$160 Millions ■ Inspection and Cleaning Planning ■ Design Construction

Capital Expenditure by Phase

Capital Expenditure by Cost Category

For planning purposes, the project costs are shown by categories including the Administrative category, which includes NBC's project management costs as well as police, legal and advertising expense. The Architectural/Engineering (A/E) Professional cost category includes costs for professional planning or design services. The Construction cost category reflects contractor and outside construction management costs. Lastly, the Contingency cost category includes an allowance for construction cost increases based upon industry experience related to construction cost factors.

As shown in the chart below, Construction costs represent \$404.3 million, or approximately 80% of the total costs within the FY 2021-2025 window. A/E Professional services represent approximately \$58.5 million or 12% of the costs during this same period.



CIP Costs by Type of Activity

Capital Expenditures by Functional Area

For planning purposes, NBC also groups capital projects into functional areas, according to the scope and tasks involved with the capital project. The functional areas are described below.

Functional Area	Project Examples
Wastewater Treatment Facility (WWTF)	Blower Improvements, Biogas Reuse, UV Disinfection and WWTF Improvements
Infrastructure Management (IM)	RIPDES Compliance Improvements
CSO Phase III Facilities	CSO Phase III A ,B, C, and D
Sewer System Improvements	Easement Restoration, Sewer System and Pump Station Improvements
Interceptor Inspection and Cleaning (IIC)	Remote Television Inspection and Grit/Debris Removal and Disposal
Interceptor Restoration and Construction (IRC)	Interceptor Expansion, Improvements, Lining and Manhole Rehabilitation

The following table shows how the CIP costs have shifted by functional area on a year-to-year basis. The most significant change from the prior year is the \$131.3 million or 42% increase in the cost of the CSO Phase III A Facilities. This is primarily the result of the shift in the CIP window to include an additional year of construction in FY 2025. Costs programmed in the Wastewater Treatment Facility functional area increased 90% from the prior year as additional projects at both Field's Point and Bucklin Point facilities have been identified. Sewer System Improvements increased 29% or approximately \$1.1 million as design and construction estimates for the Omega Pump Station Upgrade project have increased. Overall, programmed expenditures are \$150.2 million or 42% more in the current CIP window compared to last year.

Functional Area (In thousands)	or Year CIP 2020-2024)	rent Year CIP (2021-2025)	% Change
Wastewater Treatment Facility	\$ 20,582	\$ 39,138	90%
Infrastructure Management	2,191	1,999	(9%)
CSO Phase III A Facilities	314,972	446,303	42%
Sewer System Improvements	3,863	4,974	29%
Interceptor Inspection and Cleaning	2,500	2,500	0%
Interceptor Restoration and Construction	12,791	12,204	(5%)
Total	\$ 356,899	\$ 507,118	42%

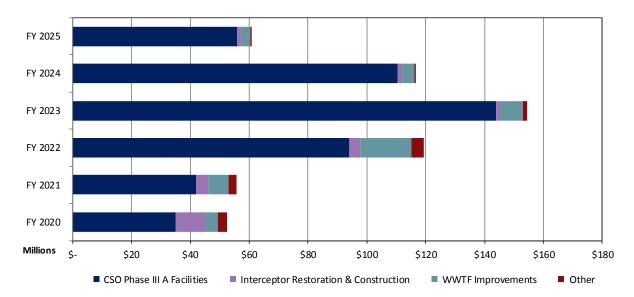
Significant Capital Improvement Projects

The most significant project included in this year's CIP is the CSO Phase III A Facilities, which comprise \$446.3 million, or 88% of the CIP's programmed costs. Expenditures on this project are expected to significantly increase when construction begins in FY 2022. Other projects account for the remaining 12% of the CIP programmed costs. The following table and graph show the programmed expenditures for the CSO Phase III A Facilities and other major projects included in the CIP window.

Expenditures by Major Project

Project (in Thousands)	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total Costs FY 2021 - 2025	% of Five Year Window
CSO Phase III A Facilities	\$ 34,981	\$ 41,879	\$ 94,086	\$143,803	\$110,546	\$ 55,989	\$ 446,304	88%
WWTF Improvements	4,069	6,920	17,534	7,674	4,030	2,981	39,138	8%
Interceptor Restoration & Construction	10,192	4,160	3,544	1,500	1,500	1,500	12,204	2%
Other	3,164	2,844	4,060	1,511	557	500	9,472	2%
Total	\$ 52,406	\$ 55,803	\$ 119,224	\$ 154,488	\$116,633	\$ 60,970	\$ 507,118	100%

Expenditures by Major Project



Improvements to the WWTF's account for 8% of the total costs in the five-year window of the CIP. These projects include Phase II of the Blower Improvements at \$8.8 million and Maintenance Facilities at \$6.7 million at Field's Point as well as a new Operations Building at \$13.2 million, WWTF Improvements at \$5.4 million and Ultraviolet (UV) Disinfection Improvements at \$6.3 million at Bucklin Point. In addition, NBC has allocated \$500 thousand annually for improvements to the wastewater treatment facilities to ensure funding is available to support required investments as they are identified through asset management and inspection.

In addition, 2% of the CIP costs are for various Interceptor Restoration and Construction Projects. Two larger projects include the Moshassuck Valley Interceptor at a cost of \$10.0 million and the Providence River Siphon at a cost of \$8.0 million. These projects will ensure the integrity of these large interceptors that transport flow for treatment. NBC has also programmed Improvements to Interceptors at \$5.8 million which includes the lining of various diameter interceptors ranging from 6" to 66" and the rehabilitation of various manholes throughout the NBC service area, the Louisquisset Pike Interceptor Improvements at \$4.6 million and the CSO Phase II – WCSOI at \$3.9 million.

Lastly, other projects account for the remaining 2% of the costs in the CIP. This includes the Lincoln Septage Station replacement at a cost of \$2.8 million and the Omega Pump Station Upgrade at \$2.1 million. Additionally, this year's CIP includes two easement restoration projects totaling \$1.5 million.

Overall, the total programmed expenditures for non-CSO projects has increased by \$31.3 million compared to the prior year's CIP, as shown in the table below.

Year-over-Year Difference in the	Non-CSO Ca	pital Imp	rovement	Program	by Major I	Project
	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Total
WWTF Improvements	\$ 1,490	\$ 1,935	\$ 10,866	\$ 1,824	\$ 3,530	\$ 19,645
Interceptor Restoration & Construction	3,401	2,660	2,044	-	-	8,105
Other	(464)	33	3,203	781	29	3,582
Total Change Non-CSO Projects	\$ 4,427	\$ 4,628	\$ 16,113	\$ 2,605	\$ 3,559	\$ 31,332
Percent Change in Non-CSO Projects	34%	50%	179%	32%	141%	75%

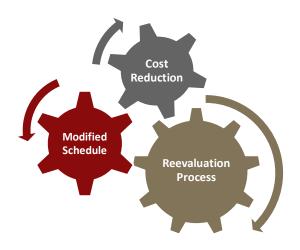
CSO Phase III Facilities (Project 308)

The NBC is under a Consent Agreement with RIDEM to implement a federally mandated CSO Program that will address the Commission's 65 CSOs in both the Field's Point and Bucklin Point service areas. The CSO Program will be completed in three phases. Approximately 98% of the annual CSO volume will receive treatment when all three phases are completed. The CSO Phase I Facilities addresses 40% of the CSO volume that will be treated and has been in service since November 2008. The NBC constructed additional CSO facilities in Phase II, which went into operation in December 2014.

NBC's 18-month reevaluation of the third and final phase as set forth in the RIDEM-approved 1998 Conceptual Design Report Amendment concluded in June 2015, and resulted in the selection of an alternative that the NBC determined would provide the best combination of affordability and water quality improvement. The reevaluation report was submitted to RIDEM in July 2015, and RIDEM provided comments to NBC in March 2016. NBC incorporated RIDEM's comments into a revised reevaluation report, which was approved by RIDEM in December 2017. NBC's Consent Agreement was renegotiated and signed in January 2019.

As a result of the reevaluation process, the CSO Phase III Program was subdivided into four phases to be completed by 2041. The program also incorporates Green Stormwater Infrastructure (GSI) facilities to be constructed in each of the four phases to reduce stormwater inflow to the existing CSO system by implementing stormwater infiltration projects, with expenditures of \$10 million on GSI in each phase.

The total pre-design estimate, which includes "other" costs (NBC labor, police, etc.), for the four phases of the CSO Phase III Facilities is \$803.7 million in 2018 dollars, with expenditures of approximately \$35.0 million in FY 2020 and \$446.3 in the five-year period of FY 2021-2025.



NBC has commenced preliminary design of the CSO Phase III A and B Facilities. Project 30811, the CSO Phase III High Street Demolition is underway and involves the site preparation for the first GSI installation. Estimated costs and schedules for the four phases are summarized below.

	CSO Ph	CSO Phase III Facilities - in Millions							
	Phase	Amount*		Start Date	End Date				
Phase III A	Design	\$	72.3	April-2013	December-2021				
r iidse iii A	Construction	4	54.8	August-2018	December-2026				
Phase III B	Construction		28.5	December-2027	December-2030				
Phase III C	Design		23.1	May-2032	June-2034				
Phase III C	Construction	1	41.5	April-2034	June-2037				
Phase III D	Design		13.2	April-2037	September-2039				
- Hase III B	Construction		70.3	August-2039	December-2041				
	Total	\$ 8	03.7						

^{*} Pre-design estimates in 2018 \$'s with cost and schedule subject to change

A description of the facilities to be constructed in each of the four phases are as follows.

Phase III A

This Phase includes design and construction of a deep rock tunnel in Pawtucket approximately 13,000 feet in length along the Seekonk and Blackstone Rivers, a pump station to convey flow to the Bucklin Point WWTF in East Providence, drop shafts and consolidation conduits. Additionally, this project includes the design of the Upper BVI relief, CSO 105 relief sewer, CSO 206 sewer separation, GSI and regulator modifications which will be constructed in Phase III B.

In last year's CIP, design and construction of Phase III A was shown as a single project number. As this first phase has proceeded through design, it was broken down into thirteen separate construction contracts. The estimated construction costs and schedules will be updated as additional information becomes available. The following table shows the estimated cost of each of the CSO Phase III A construction contracts as well as the project delivery method.

CSO Phase III A Construction Contracts

(in thousands)

Project Number	Project Name	l Estimated Dject Cost	Delivery Method
30801	CSO Phase III Facilities Pawtucket Tunnel & Pumps Station	\$ 307,274	Design-Build
30802	CSO Phase III Facilities - Tunnel Pump Station Fit-out	71,340	Design-Bid-Build
30803	CSO Phase III Facilities-OF 205	5,535	Design-Bid-Build
30804	CSO Phase III Facilities - OF 210, 213, 214	10,618	Design-Bid-Build
30805	CSO Phase III Facilities - OF 217	17,305	Design-Bid-Build
30806	CSO Phase III Facilities - OF 218	7,266	Design-Bid-Build
30807	CSO Phase III Facilities-Regulator Modifications	1,874	Design-Bid-Build
30808	CSO Phase III Facilities - GSI Demonstration	2,745	Design-Bid-Build
30809	CSO Phase III - GSI Projects	6,543	Design-Bid-Build
30810	CSO Phase III Facilities - BPWWTF Clarifiers and Flow Splitters	18,097	Design-Bid-Build
30811	CSO Phase III High Street Demo	304	Design-Bid-Build
30812	CSO Phase III Facilities - Dexter Street Stormwater Infrastructure	1,396	Design-Bid-Build
30813	CSO Phase III Facilities - Site Demolition	4,505	Design-Bid-Build
	Total	\$ 454,802	

Phase III B

This Phase involves the construction of the Upper BVI Relief, CSO 206 sewer separation, CSO 105 relief sewer, regulator modifications and green stormwater infrastructure.

Phase III C

This Phase consists of the design and construction of a stub tunnel that will convey flow from CSO OF 220 to the Pawtucket tunnel constructed in Phase III A.

Phase III D

This Phase includes the design and construction of an interceptor that will store flow from OF 039 and OF 056, which accumulates during a storm, and later release the flow into the system as capacity allows.

Regulatory Compliance

In anticipation of increasingly stringent permit discharge limitations and other permit requirements that may necessitate improvements to existing facilities or the construction of new facilities, this year's CIP includes a RIPDES Compliance Improvements Project. This project incorporates previous initiatives that were reflected individually in the CIP including the Site Specific Study that was established to address metals and the Upper Bay Dissolved Oxygen Evaluation related to potential nitrogen permit reductions. The project also incorporates the development of a climate resiliency plan that may be required to protect critical functions as part of the RIPDES permit issued by RIDEM.



Photo: Greenhouse Gas Collection

As part of NBC's environmental performance goals of minimizing environmental impact, NBC has programmed a Green House Gas Study which involves quantifying NBC's overall carbon footprint by measuring the gas emissions from the wastewater collection and treatment process. The results will enable NBC to respond quickly to new emissions regulatory requirements. NBC also plans to maximize energy efficiencies and renewable resources through the Energy Sustainability Program which involves the identification and implementation of conservation methods, improved efficiency and sustainable renewable energy resources.

Wastewater Treatment Facility Improvements

This year's CIP includes \$56.9 million in programmed funding for projects related to NBC's wastewater treatment facilities. One of the major projects at Field's Point is Phase II of the Blower Improvements (10908) which includes a new blower building and aeration blowers to ensure a reliable air source for the aeration treatment process. The CIP also includes construction of maintenance and equipment storage facilities as part of the FPWWTF Maintenance Facilities Project (13200). In addition, the FY 2019 WWTF Improvements Project (20200) focuses on the rehabilitation of isolation gates and actuators, BNR switchgear and froth spray line as well as modifications and enhancements to the aeration tanks, screw lift pumping station, blower building and the CSO Tunnel Odor Control facilities at Field's Point.



Photo: Ultraviolet Disinfection System at Bucklin Point

With respect to Bucklin Point, the CIP includes funding for a new Operations Building Project (81700) that will contain additional office space, training and locker rooms, and the Supervisory Control and Data Acquisition (SCADA) Room. Also included is the UV Disinfection Improvements Project (81000) that will replace the UV disinfection equipment that is nearing the end of its useful life with a more energy efficient system. BPWWTF Improvements (81600) involves improvements and upgrades to the Bucklin Point facilities including the repair or replacement of boilers, hydronic piping systems, and isolation gates. Other improvements include modifications to HVAC systems and installation of redundant power and electrical sump pump systems.



Photo: Field's Point Electrical Facility

This year's CIP includes two projects developed to ensure the integrity of electrical equipment and facilities. The NBC Facility Electrical Improvements Project (40100) involves the evaluation of existing electrical equipment and facilities along with the identification and implementation of improvements needed to ensure reliable, continuous operation. The FPWWTF Facility Electrical Improvements Project (40101) consists of the assessment and installation of standby power capabilities for critical facilities and the upgrade or replacement of the electrical and control systems at Field's Point. In addition, the COB Facilities

Improvements Project (90900) encompasses the renovation and reconfiguration of portions of the Corporate Office Building, as well as the Laboratory to address aging facilities and organizational needs.

On a system-wide basis, NBC continues to program \$500 thousand annually for wastewater treatment facility improvements to ensure resources are available in years that do not have specific projects identified in order to maintain the integrity of the treatment facilities. Lastly, the CIP has funding programmed for the construction of new IM Facilities (12400) that would be needed should NBC be required by legislation to assume ownership of lateral sewers currently owned by local municipalities within its district.

The following table shows the wastewater treatment facility projects programmed in FY 2020-2025.

Project Number	Project Name	Costs	(in thousands)
10908	FPWWTF Blower Improvements Phase II	\$	8,761
12400	IM Facilities		6,735
13200	FPWWTF Maintenance Facilities		6,743
20000	WWTF Improvements		2,500
20200	FY 2019 WWTF Improvements		3,590
40100	NBC Facility Electrical Improvements		130
40101	FPWWTF Facility Electrical Improvements		2,539
81000	BPWWTF UV Disinfection Improvements		6,252
81600	BPWWTF Improvements		5,381
81700	BPWWTF Operations Building		13,166
90900	COB Facilities Improvements		1,080
	Total	\$	56,877

Collection System Infrastructure

This CIP includes several collection system infrastructure projects totaling \$42.3 million. The major projects include the replacement of the Moshassuck Valley Interceptor (30444), replacement of the Providence River Siphon (30457) interceptor and increasing the capacity of the Louisquisset Pike Interceptor (30421).

In addition, the Improvements to Interceptors FY 2019 Project (30467) consists of lining various diameter interceptors ranging from 6" to 66" and the rehabilitation of various manholes



Photo: Infrastructure Repairs

throughout the NBC service area. Lastly, NBC is committed to maintaining its infrastructure and collection system by programming an allocation of \$500 thousand for interceptor inspection and cleaning and \$1.5 million for interceptor restoration and construction annually in years that do not have specific projects identified.

Completed and New Capital Projects

Completed Projects

NBC considers a project complete when the project has been deemed substantially complete and has only retainage and/or "punch list" items remaining. In FY 2019, NBC completed seven capital projects at a cost of \$16.2 million.

Two projects that rehabilitated or replaced critical components of the treatment process were completed, including FY 17 WWTF Improvements (20100) and the WWTF Electrical Improvements (40102) at a cost of \$1.5

million and \$348 thousand respectively. The North Providence, Johnston, and Lincoln Interceptor Inspection and Cleaning (30476) was completed at a cost of \$166 thousand. Four interceptor improvement projects were also completed in FY 2019. Two of the projects, Johnston Sewer Improvements/Greenville Avenue (30460) at a cost of \$8.2 million and Johnston Sewer Improvements/Hartford Avenue (30464) at a cost of \$3.2 million, extended the sewer lines in Johnston. The Field's Point Drive Interceptor Improvements (30465) were completed at a cost of \$1.2 million and Improvements to Interceptors FY 2018 (30466) which involved lining 6,000 feet of interceptors and the rehabilitation of 61 manholes was completed at a cost of \$1.6 million.

Project Number	Project Name	Cost (In thousands	s)
20100	FY 17 WWTF Improvements	\$ 1,5	535
40102	WWTF Electrical Improvements	:	348
30476	N. Providence, Johnston, Lincoln Interceptor Inspection & Clean	:	166
30460	Johnston Sewer Improvements/Greenville Avenue	8,:	166
30464	Johnston Sewer Improvements/Hartford Avenue	3,:	189
30465	Field's Point Drive Interceptor Improvements	1,:	212
30466	Improvements to Interceptors FY 2018	1,0	615
	Total	\$ 16,	231

New Projects

This year's CIP includes seven new capital projects totaling \$33.2 million. The new projects and their estimated costs are summarized in the following table and are discussed below.

Project Number	Project Name		mated Cost thousands)	
20200	FY 2019 WWTF Improvements	\$	3,590	
81600	BPWWTF Improvements		5,381	
81700	BPWWTF Operations Building		13,166	
90900	COB Facilities Improvements		1,080	
30477	Cleaning & Inspection of Selected Siphons, Various Locations			
30315	CSO Phase II - WCSOI OF 046		3,915	
30467	Improvements to Interceptors FY 2019		5,813	
	Estimated Tota	I \$	33,220	

The most significant new project is construction of a new Operations Building at Bucklin Point (81700). The new building is needed for additional office space, training and locker rooms and will provide a better environment for computer equipment as well as a new SCADA Control Room. This project is estimated to cost \$13.2 million. Project 20200, FY 2019 WWTF Improvements, includes improvements and upgrades to the Field's Point facilities including the rehabilitation of various isolation gates and actuators, BNR switchgear and froth spray line. Project 81600, BPWWTF Improvements, involves modifications and upgrades to the Bucklin Point facilities including the repair or replacement of boilers, hydronic piping systems, and isolation gates. Project 90900, COB Facilities Improvements involves rehabilitation of portions of the Corporate Office Building and will address aging systems such as HVAC and other items.

Lastly, this year's CIP includes funding for three new collection system infrastructure projects. Cleaning and inspection of selected siphons throughout the NBC service area are programmed as part of Project 30477. Construction of facilities to eliminate surcharging from the Woonasquatucket CSO Interceptor during extreme wet weather events is carried as Project 30315, CSO Phase II – WCSOI OF 046. Lastly, Project 30467, Improvements to Interceptors FY 2019, includes the rehabilitation of various manholes throughout the NBC service area.

Capital Project Summary by Fiscal Year (In Thousands)

		(1	n Thousa	nasj					
Project Number	Project Name		Project Priority	Pre	-Fiscal Year 2020	Fiscal Year 2020	Fiscal Years 2021-2025	Post-Fiscal Year 2025	Total Estimated Project Cost
Wastewa	ater Treatment Facility Improvements								-
10908	FPWWTF Blower Improvements Phase II		Α	\$	8,718	\$ 43	\$ -	\$ -	\$ 8,761
12400	IM Facilities		С		-	-	3,109	3,626	6,735
13200	FPWWTF Maintenance Facilities		Α		-	-	6,743	-	6,743
20000	WWTF Improvements		В		424	1 200	2,000	500	2,500
20200 40100	FY 2019 WWTF Improvements		A B		421 19	1,368 111	1,801	-	3,590
40100	NBC Facility Electrical Improvements FPWWTF Facility Electrical Improvements		A		63	111	2,364	-	130 2,539
81000	BPWWTF UV Disinfection Improvements		A		259	440	5,553	-	6,252
81600	BPWWTF Improvements		Α		42	297	5,042	-	5,381
81700	BPWWTF Operations Building		Α		10	630	12,526	-	13,166
90900	COB Facilities Improvements		В		12	1,068	-	-	1,080
		Subtotal			9,544	4,069	39,138	4,126	56,877
Infrastru	cture Management								
1140100	River Model Development		С		351	80	127	-	558
1140300	Greenhouse Gas Study		С		28	65	60	-	153
	NBC Energy Sustainability		С		139	32	77	-	248
	RIPDES Compliance Improvements		Α		470	322	759	-	1,551
30700	NBC System-wide Facilities Planning		С		-	173	226	-	399
40200	NBC System-wide Inflow Reduction		В		-	-	455	-	455
40300 40400	Municipal Lateral Sewer Acquisition Impact FPWWTF Facilities Plan Update		C A		342	1 73	295	-	296 415
40500	RIPDES Flow Monitoring System		A		109	739	-	-	848
40300	KIFDES Flow Monitoring System	Subtotal	A		1,439	1,485	1,999	<u>-</u>	4,923
CSO Dha	se III Facilities								
30800	CSO Phase III A Facilities		Α		26,159	29,133	17,039	_	72,331
30801	CSO Phase III Facilities Pawtucket Tunnel & Pump Station		A		-	-	306,044	1,230	307,274
30802	CSO Phase III Facilities - Tunnel Pump Station Fit-out		Α		-	-	53,781	17,559	71,340
30803	CSO Phase III Facilities-OF 205		Α		-	-	5,535	-	5,535
30804	CSO Phase III Facilities - OF 210, 213, 214		Α		-	-	10,618	-	10,618
30805	CSO Phase III Facilities - OF 217		Α		-	-	17,305	-	17,305
30806	CSO Phase III Facilities - OF 218		Α		-	-	6,648	618	7,266
30807	CSO Phase III Facilities-Regulator Modifications		Α		-	82	1,792	-	1,874
30808	CSO Phase III Facilities - GSI Demonstration		A		-	1,502	1,243	-	2,745
30809	CSO Phase III - GSI Projects		A		-	1,719	4,824	-	6,543
30810 30811	CSO Phase III Facilities - BPWWTF Clarifiers and Flow Splitters CSO Phase III High Street Demo		A A		282	22	18,097	-	18,097 304
30812	CSO Phase III Facilities - Dexter Street Stormwater Infrastruct	ure	A		202	1,396	_	_	1,396
30813	CSO Phase III Facilities - Site Demolition	ui c	A		-	1,127	3,378	-	4,505
30830	CSO Phase III B Facilities		Α		-	´ -	-	28,484	28,484
30850	CSO Phase III C Facilities		Α		-	-	-	164,660	164,660
30870	CSO Phase III D Facilities		Α		-	-	-	83,500	83,500
		Subtotal			26,441	34,981	446,303	296,052	803,778
Sewer Sy	ystem Improvements								
30500	NBC Interceptor Easements Restoration, Various Locations		В		22	309	547	-	878
30503	NBC Interceptor Easements Restoration, BVI Wetlands		Α		106	501	-	-	607
	Omega Pump Station Upgrade		В		16	165	1,877	-	2,058
71000	Lincoln Septage Station Replacement	Subtotal	В		8 152	204 1,179	2,550 4,974	-	2,762 6,305
		Subtotui			132	1,173	7,377		0,303
	tor Cleaning/Restoration		•			26.	2.502	F.C.	2.534
	Interceptor Inspection and Cleaning Cleaning & Inspection of Selected Siphons, Various Locations		B B		- 70	304	2,500	500	3,304
30477	Cleaning & Inspection of Selected Siphons, Various Locations	Subtotal	В		79 79	196 500	2,500	500	275 3,579
Intorce	tor Destaration & Construction								
	tor Restoration & Construction Interceptor Restoration and Construction		В				4,950	1,500	6,450
30315	CSO Phase II - WCSOI OF 046		A		336	919	2,660	1,300	3,915
30421	Louisquisset Pike Interceptor Improvements		Ĉ		-	-	4,594		4,594
30444	Moshassuck Valley Interceptor		A		7,958	2,040		-	9,998
30457	Providence River Siphon		Α		6,502	1,460	-	-	7,962
30467	Improvements to Interceptors FY 2019		Α		40	5,773		-	5,813
		Subtotal			14,836	10,192	12,204	1,500	38,732
		otal		\$	52,491	\$ 52,406	\$ 507,118	\$ 302,178	\$ 914,194
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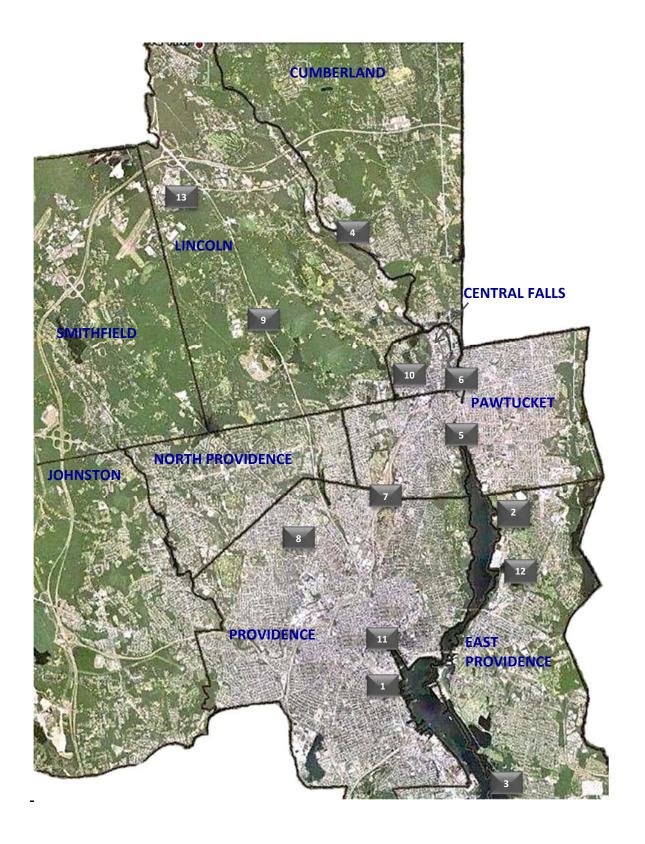
Priority	Description
Α	Mandated, emergency, critical need or under construction.
В	Required to maintain system reliability and ongoing operation of facilities.
С	Project scope and requirements are dependent on futures system needs or regulatory requirements.
D	Project not critical but achieves efficiencies and/or reduces carbon footprint

Capital Improvement Program Project Locations

The capital projects identified in this year's CIP are shown on the map on the following page. The map highlights 13 project locations as identified below. Some projects are System-Wide and noted as SW.

Legend	Project	Project Name
Key	Number	r roject rtaine
Waste	water Treati	ment Facility Improvements
1	10908	FPWWTF Blower Improvements Phase II
1	12400	IM Facilities
1	13200	FPWWTF Maintenance Facilities
1	20200	FY 2019 WWTF Improvements
1, 2	40100	NBC Facility Electrical Improvements
1	40101	FPWWTF Facility Electrical Improvements
2	81000	BPWWTF UV Disinfection Improvements
2	81600	·
		BPWWTF Improvements
2	81700	BPWWTF Operations Building
1	90900	COB Facilities Improvements
	ructure Man	
3	1140100	River Model Development
1,2	1140300	Greenhouse Gas Study
SW	1140500	NBC Energy Sustainability
SW	1140600	RIPDES Compliance Improvements
SW	30700	NBC System-wide Facilities Planning
SW SW	40200 40300	NBC System-wide Inflow Reduction
3 VV 1	40400	Municipal Lateral Sewer Acquisition Impact FPWWTF Facilities Plan Update
SW	40500	RIPDES Flow Monitoring System
	hase III Facilit	5 <i>i</i>
5	30800	CSO Phase III A Facilities
5	30801	CSO Phase III Facilities Pawtucket Tunnel & Pump Station
5	30802	CSO Phase III Facilities - Tunnel Pump Station Fit-out
5	30803	CSO Phase III Facilities-OF 205
5	30804	CSO Phase III Facilities - OF 210, 213, 214
5	30805	CSO Phase III Facilities - OF 217
5	30806	CSO Phase III Facilities - OF 218
5	30807	CSO Phase III Facilities-Regulator Modifications
5	30808	CSO Phase III Facilities - GSI Demonstration
5	30809	CSO Phase III - GSI Projects
5	30810	CSO Phase III Facilities - BPWWTF Clarifiers and Flow Splitters
5	30811	CSO Phase III High Street Demo
5	30812	CSO Phase III Facilities - Dexter Street Stormwater Infrastructure
5	30813	CSO Phase III Facilities - Site Demolition
6	30830	CSO Phase III B Facilities
7	30850	CSO Phase III C Facilities
8	30870	CSO Phase III D Facilities
SW	System Imp	NBC Interceptor Easements Restoration, Various Locations
4	30500 30503	NBC Interceptor Easements Restoration, BVI Wetlands
12	70900	Omega Pump Station Upgrade
13	71000	Lincoln Septage Station Replacement
		ng / Restoration and Construction
SW	30477	Cleaning & Inspection of Selected Siphons, Various Locations
9	30421	Louisquisset Pike Interceptor Improvements
10	30444	Moshassuck Valley Interceptor
11	30457	Providence River Siphon
SW	30467	Improvements to Interceptors FY 2019

Capital Improvement Program Project Locations



FPWWTF Blower Improvements Phase II

Project Manager: Rich Bernier, P.E. Location: Field's Point (Providence, RI)

Contractor(s): Hart Engineering, Corp. Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	February-15	April-16	14 Months	\$682
Construction	October-16	February-20	40 Months	8,761
Total Project	February-15	February-20	60 Months	\$9,443



Photo: Blower Building under construction

This project involves the construction of a new blower building equipped with four new 500 HP single stage centrifugal blowers to provide a reliable air source for the aeration treatment process.

CIP Window Pre FY 20 FY 20 FY 21 FY 22 FY 23 FY 24 FY 25 Post FY 25 Total Summary \$ 8,718 \$ 43 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ 8,761

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F	Y 22	FY 23	FY 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-	-	-		-		-	-
Other		-		-		-		-	-	-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	FY 20	F	Y 21	F	Y 22	F	Y 23	F	Y 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	81	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 81
Land		-	-		-		-		-		-		-		-	-
A/E Professional		582	-		-		-		-		-		-		-	582
Other		19	-		-		-		-		-		-		-	19
Total	\$	682	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 682

Projected Expenditures - Construction

Cost Category	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	208	\$ 5	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 213
A/E Professional		366	-	-	-	-	-	-		-	366
Construction		7,606	38	-	-	-	-	-		-	7,644
Contingency		500	-	-	-	-	-	-		-	500
Other		38	-	-	-	-	-	-		-	38
Total	\$	8,718	\$ 43	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 8,761

IM Facilities

Project Manager: David Bowen, P.E.

Location: Field's Point (Providence, RI) Contractor(s): N/A Project Priority: C

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	July-22	May-24	22 Months	\$608
Construction	April-24	May-26	25 Months	6,127
Total Project	July-22	May-26	46 Months	\$6.735



Photo: IM Building

This project involves the design and construction of a new building that would be needed if NBC is required by legislation to assume ownership of lateral sewers currently owned by local communities within its district. The building will include an administrative area as well as a garage and storage yard.

CIP Window	Pre FY 2	20	ı	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Po	st FY 25	Total
Summary	\$	-	\$	-	\$ -	\$ -	\$ 215	\$ 413	\$ 2,481	\$	3,626	\$ 6,735

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F'	Y 22	FY 23	FY 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-	-	-		-		-	-
Other		-		-		-		-	-	-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F	Y 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ 40	\$ 48	\$ -	\$	-	\$ 88
Land		-		-		-		-	-	-	-		-	-
A/E Professional		-		-		-		-	175	325	-		-	500
Other		-		-		-		-	-	20	-		-	20
Total	\$	-	\$	-	\$	-	\$	-	\$ 215	\$ 393	\$ -	\$	-	\$ 608

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F	Y 22	FY 23	F	Y 24	FY 25	Post	FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ -	\$	17	\$ 180	\$	165	\$ 362
A/E Professional		-		-		-		-	-		3	36		26	65
Construction		-		-		-		-	-		-	2,200		2,800	5,000
Contingency		-		-		-		-	-		-	-		600	600
Other		-		-		-		-	-		-	65		35	100
Total	\$	-	\$	-	\$	-	\$	-	\$ -	\$	20	\$ 2,481	\$	3,626	\$ 6,127

FPWWTF Maintenance Facilities

Project Manager: David Bowen, P.E.

Contractor(s): N/A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	August-20	June-22	22 Months	\$746
Construction	June-22	May-24	22 Months	5,997
Total Project	August-20	May-24	44 Months	\$6,743



This project involves the design and construction of a new maintenance building and support facilities at the FPWWTF. While not critical to plant operations, it will improve efficiency in maintenance support since the existing maintenance building was originally built in 1900 and is insufficient to meet the needs of operations.

Location: 2 Ernest Street, Providence, RI

Project Priority: A

Photo: Field's Point Maintenance Building

CIP Window	Pre FY 20)	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Post	t FY 25	Total	
Summary	\$ -		\$ -	\$ 208	\$ 555	\$ 2,863	\$ 3,117	\$ -	\$	-	\$ 6,743	

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F	Y 22	FY 23	FY 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-	-	-		-		-	-
Other		-		-		-		-	-	-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	52	\$ 50	\$ -	\$ -	\$ -	\$	-	\$ 102
Land		-		-		-	-	-	-	-		-	-
A/E Professional		-		-		156	468	-	-	-		-	624
Other		-		-		-	20	-	-	-		-	20
Total	\$	-	\$	-	\$	208	\$ 538	\$ -	\$ -	\$ -	\$	-	\$ 746

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	- 1	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$ 17	\$ 180	\$ 160	\$ -	\$	-	\$ 357
A/E Professional		-		-		-	-	48	22	-		-	70
Construction		-		-		-	-	2,600	2,400	-		-	5,000
Contingency		-		-		-	-	-	500	-		-	500
Other		-		-		-	-	35	35	-		-	70
Total	\$	-	\$		\$	-	\$ 17	\$ 2,863	\$ 3,117	\$ -	\$	-	\$ 5,997

WWTF Improvements

Project Manager: David Bowen, P.E. Contractor(s): N/A

Location: Field's Point & Bucklin Point WWTF's

Project Priority: B

Total Project Duration/Cost

Total Project	March-18	Ongoing	Ongoing	\$2.500
Construction	March-18	Ongoing	Ongoing	2,500
Design	N/A	N/A	N/A	N/A
Planning	N/A	N/A	N/A	N/A
Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)



requirements and ensure uninterrupted wastewater treatment processing, 24 hours per day and 365 days per year. NBC programs \$500 thousand annually for improvements to ensure resources are available in years that do not have specific projects identified. As new projects are identified, they will be given a unique project number.

This project is a placeholder for facility improvements at NBC's WWTF's to comply with current and future regulatory

Photo: Aeration Tank Pumps

CIP Window	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Post	t FY 25	Total
Summary	\$	-	\$ -	\$ -	\$ 500	\$ 500	\$ 500	\$ 500	\$	500	\$ 2,500

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F۱	Y 21	F۱	Y 22	F	Y 23	F	Y 24	F	Y 25	Post	FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre l	FY 20	F۱	/ 20	F۱	/ 21	FY	22	F	Y 23	F	Y 24	F	Y 25	Post	FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$
Land		-		-		-		-		-		-		-		-	-
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	1	FY 22	FY 23	FY 24	FY 25	Post I	Y 25	Total
Administrative	\$	-	\$	-	\$	-	\$	58	\$ 58	\$ 58	\$ 58	\$	58	\$ 290
A/E Professional		-		-		-		-	-	-	-		-	-
Construction		-		-		-		422	422	422	422		422	2,110
Contingency		-		-		-		-	-	-	-		-	-
Other		-		-		-		20	20	20	20		20	100
Total	\$	-	\$	-	\$	-	\$	500	\$ 500	\$ 500	\$ 500	\$	500	\$ 2,500

FY 2019 WWTF Improvements

Project Manager: David Bowen, P.E. Location: Field's Point (Providence, RI)

Contractor(s): Wright Pierce Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	July-18	April-20	21 Months	\$557
Construction	May-19	May-21	24 Months	\$3,033
Total Project	July-18	May-21	34 Months	\$3,590



Photo: CSO Tunnel Odor Control Facility

This project involves improvements and upgrades to the Field's Point WWTF and the tunnel pump station including the rehabilitation of various isolation gates and actuators, biological nutrient removal switchgear and froth spray line. Other improvements include modifications to the aeration tank, screw lift pumping station, blower building. This project also addresses enhancements to the CSO tunnel odor control facility at he tunnel pump station adjacent to the WWTF.

CIP Window	Pre FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Post FY 25	Total
Summary	\$ 421	\$ 1,368	\$ 1,801	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,590

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F۱	Y 20	F'	Y 21	F۱	/ 22	F	Y 23	F	Y 24	F	Y 25	Post	FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 20		FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	FY 25	Total
Administrative	\$ 69	\$	56	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 125
Land	-		-	-	-	-	-	-		-	-
A/E Professional	337	,	75	-	-	-	-	-		-	412
Other	10)	10	-	-	-	-	-		-	20
Total	\$ 416	\$	141	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 557

Projected Expenditures - Construction

Cost Category	Pre F	Y 20	F	FY 20	- 1	Y 21	FY 22	FY 23	FY 24	F	FY 25	Pos	t FY 25	Total
Administrative	\$	5	\$	54	\$	56	\$ -	\$ -	\$ -	\$	-	\$	-	\$ 115
A/E Professional		-		63		75	-	-	-		-		-	138
Construction		-		1,090		1,410	-	-	-		-		-	2,500
Contingency		-		-		250	-	-	-		-		-	250
Other		-		20		10	-	-	-		-		-	30
Total	\$	5	\$	1,227	\$	1,801	\$ -	\$ -	\$ -	\$	-	\$	-	\$ 3,033

NBC Facility Electrical Improvements

Project Manager: David Bowen, P.E. Location: NBC Service Area Contractor(s): N/A Project Priority: B

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	May-19	May-20	12 Months	\$130
Design	N/A	N/A	N/A	N/A
Construction	N/A	N/A	N/A	N/A
Total Project	May-19	May-20	12 Months	\$130

Photo: Field's Point Electrical Facility

This project involves the evaluation of NBC's existing electrical equipment and facilities. Upon completion of the evaluation, improvements will be performed as necessary to ensure reliable and continuous operation of facilities throughout the NBC's service area.

CIP Window	Pre	FY 20	FY 20	FY 21	1	Y 22	FY 23	F	Y 24	FY 25	Pos	t FY 25	Total
Summary	\$	19	\$ 111	\$ -	\$	-	\$ -	\$	-	\$ -	\$	-	\$ 130

Projected Expenditures - Planning

Cost Category	Pre FY	20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	3	\$ 17	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 20
A/E Professional		16	84	-	-	-	-	-		-	100
Other		-	10	-	-	-	-	-		-	10
Total	\$	19	\$ 111	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 130

Projected Expenditures - Design

Cost Category	Pre	FY 20	F'	Y 20	F	Y 21	FY	22	F	Y 23	F	Y 24	F	Y 25	Post	FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
Land		-		-		-		-		-		-		-		-	-
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	/ 22	F	Y 23	F	Y 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Construction		-		-		-		-		-		-		-		-	-
Contingency		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

FPWWTF Facility Electrical Improvements

 Project Manager:
 David Bowen, P.E.
 Location: Providence, RI

 Contractor(s):
 SED Associates Corp.
 Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	January-16	May-20	52 Months	\$170
Design	May-20	June-21	14 Months	\$217
Construction	June-21	November-22	17 Months	2,152
Total Project	January-16	November-22	83 Months	\$2,539



This project involves the evaluation and installation of standby power capabilities for critical facilities at the FPWWTF in order to maintain uninterrupted operation of treatment processes.

Photo: Field's Point Electrical Facility

CIP Window	Pre F	Y 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total	
Summary	\$	63	\$ 112	\$ 217	\$ 1,177	\$ 970	\$ -	\$ -	\$	-	\$ 2,539	

Projected Expenditures - Planning

Cost Category	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	27	\$ 23	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 50
A/E Professional		35	84	-	-	-	-	-		-	119
Other		1	-	-	-	-	-	-		-	1
Total	\$	63	\$ 107	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 170

Projected Expenditures - Design

Cost Category	Pre F	Y 20	F۱	Y 20	FY 21	FY 22	FY 23	FY 24	F	Y 25	Post	FY 25	Total
Administrative	\$	-	\$	5	\$ 27	\$ -	\$ -	\$ -	\$	-	\$	-	\$ 32
Land		-		-	-	-	-	-		-		-	-
A/E Professional		-		-	175	-	-	-		-		-	175
Other		-		-	10	-	-	-		-		-	10
Total	\$	-	\$	5	\$ 212	\$ -	\$ -	\$ -	\$	-	\$	-	\$ 217

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$ 5	\$ 53	\$ 23	\$ -	\$ -	\$	-	\$ 81
A/E Professional		-		-	-	63	33	-	-		-	96
Construction		-		-	-	1,021	729	-	-		-	1,750
Contingency		-		-	-	-	175	-	-		-	175
Other		-		-	-	40	10	-	-		-	50
Total	\$	-	\$	-	\$ 5	\$ 1,177	\$ 970	\$	\$ -	\$	-	\$ 2,152

BPWWTF UV Disinfection Improvements

Project Manager: David Bowen, P.E. Location: Bucklin Point WWTF (East Providence, RI)

Contractor(s): N/A Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	January-18	January-20	24 Months	\$610
Construction	February-20	July-22	29 Months	5,642
Total Project	January-18	July-22	54 Months	\$6,252



Photo: UV Disinfection System

This project involves the evaluation of the current Ultraviolet (UV) Disinfection system at the Bucklin Point WWTF and implementation of a system replacement/upgrade. The current UV equipment is nearing the end of its useful life and the medium pressure, high intensity lamps are expensive and less efficient than newer technologies.

CIP Window	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Post	t FY 25	Total	
Summary	\$	259	\$ 440	\$ 2,310	\$ 3,140	\$ 103	\$ -	\$ -	\$	-	\$ 6,252	

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F	Y 22	FY 23	FY 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-	-	-		-		-	-
Other		-		-		-		-	-	-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	61	\$ 35	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 96
Land		-	-	-	-	-	-	-		-	-
A/E Professional		153	296	-	-	-	-	-		-	449
Other		45	20	-	-	-	-	-		-	65
Total	\$	259	\$ 351	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 610

Projected Expenditures - Construction

Cost Category	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	-	\$ 19	\$ 60	\$ 60	\$ 3	\$ -	\$ -	\$	-	\$ 142
A/E Professional		-	60	180	120	-	-	-		-	360
Construction		-	-	2,050	2,350	100	-	-		-	4,500
Contingency		-	-	-	600	-	-	-		-	600
Other		-	10	20	10	-	-	-		-	40
Total	\$	-	\$ 89	\$ 2,310	\$ 3,140	\$ 103	\$ -	\$ -	\$	-	\$ 5,642

BPWWTF Improvements

Project Manager: David Bowen, P.E. Location: BPWWTF Contractor(s): TBD Project Priority: A

Total Project Duration/Cost

Total Project

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	March-19	December-20	21 Months	\$476
Construction	December-20	October-22	22 Months	4,905

October-22

March-19

This project involves improvements and upgrades to the Bucklin Point WWTF including the repair or replacement of boilers, hydronic piping systems, and isolation gates. Other improvements include modifications to HVAC systems and installation of redundant power and electrical sump pump systems.

\$5,381

43 Months



Photo: Screening and Grit Boilers

CIP Window Pre FY 20 FY 20 Post FY 25 Total Summary 42 \$ 297 \$ 951 \$ 3,399 \$ 693 \$ 5,381

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	Y 22	ſ	Y 23	- 1	FY 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	ı	Y 25	Post	FY 25	Total
Administrative	\$	27	\$ 72	\$ 29	\$ -	\$ -	\$ -	\$	-	\$	-	\$ 128
Land		-	-	-	-	-	-		-		-	-
A/E Professional		15	215	103	-	-	-		-		-	333
Other		-	10	5	-	-	-		-		-	15
Total	\$	42	\$ 297	\$ 137	\$ -	\$ -	\$ -	\$	-	\$	-	\$ 476

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	ı	Y 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	44	\$ 63	\$ 20	\$ -	\$ -	\$	-	\$ 127
A/E Professional		-		-		60	264	73	-	-		-	397
Construction		-		-		700	2,665	600	-	-		-	3,965
Contingency		-		-		-	397	-	-	-		-	397
Other		-		-		10	10	-	-	-		-	20
Total	\$	-	\$	-	\$	814	\$ 3,399	\$ 693	\$ -	\$ -	\$	-	\$ 4,905

BPWWTF Operations Building

Project Manager: David Bowen, P.E. Location: Bucklin Point WWTF

Contractor(s): TBD Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	May-19	October-20	18 Months	\$954
Construction	November-20	October-22	23 Months	12,212

Total Project May-19 October-22 41 Months \$13,166



Photo: Current Operations Building

Due to aging infrastructure, climate resiliency concerns and the need for more efficient facilities there is an urgent need to design and construct a new Operations Building at the Bucklin Point campus. This building will contain additional office space, training and locker rooms, and the WWTF's SCADA Control Room which are necessary to maintain system reliability and efficient operations. This project was previously included as part of the CSO Phase III Facilities.

CIP Window	Pre F	Y 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total	
Summary	\$	10	\$ 630	\$ 1,433	\$ 8,763	\$ 2,330	\$ -	\$ -	\$	-	\$ 13,166	1

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	Y 22	ſ	Y 23	- 1	FY 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	8	\$ 33	\$ 11	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 52
Land		-	-	-	-	-	-	-		-	-
A/E Professional		-	567	283	-	-	-	-		-	850
Other		2	30	20	-	-	-	-		-	52
Total	\$	10	\$ 630	\$ 314	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 954

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	st FY 25	Total
Administrative	\$	-	\$	-	\$ 36	\$ 100	\$ 16	\$ -	\$ -	\$	-	\$ 152
A/E Professional		-		-	273	545	182	-	-		-	1,000
Construction		-		-	800	7,578	1,622	-	-		-	10,000
Contingency		-		-	-	500	500	-	-		-	1,000
Other		-		-	10	40	10	-	-		-	60
Total	\$	-	\$	-	\$ 1,119	\$ 8,763	\$ 2,330	\$	\$ -	\$	-	\$ 12,212

COB Facilities Improvements

 Project Manager:
 Rich Bernier, P.E.
 Location: COB and Lab

 Contractor(s):
 TBD
 Project Priority: B

Total Project Duration/Cost

Total Project	January-19	June-20	17 Months	\$1,150
Construction	March-19	June-20	15 Months	1,080
Design	January-19	April-19	3 Months	\$70
Planning	N/A	N/A	N/A	N/A
Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)



Photo: COB Office Space

Replacement of carpeting, office furniture, painting and office reconfigurations for the 1st, 2nd and 3rd floors of the corporate office building which has not been updated since 2002. Reconfiguration of the office space at the Water Quality Science building to accommodate reorganization of NBC's staff. The need to replace HVAC units and sections of roof will also be assessed and completed as part of this project.

CIP Window	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	F	Y 24	FY 25	Pos	t FY 25	Total
Summary	\$	12	\$ 1,068	\$ -	\$ -	\$ -	\$	-	\$ -	\$	-	\$ 1,080

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	Y 22	ſ	Y 23	- 1	FY 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	FY 20	F	Y 21	F	Y 22	F	Y 23	F	Y 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	20	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 20
Land		-	-		-		-		-		-		-		-	-
A/E Professional		50	-		-		-		-		-		-		-	50
Other		-	-		-		-		-		-		-		-	-
Total	\$	70	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 70

Projected Expenditures - Construction

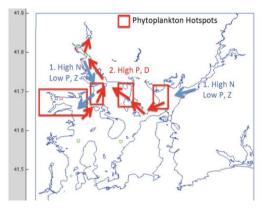
Cost Category	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	- 1	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	12	\$ 40	\$ -	\$ -	\$ -	\$	-	\$ -	\$	-	\$ 52
A/E Professional		-	10	-	-	-		-	-		-	10
Construction		-	900	-	-	-		-	-		-	900
Contingency		-	108	-	-	-		-	-		-	108
Other		-	10	-	-	-		-	-		-	10
Total	\$	12	\$ 1,068	\$ -	\$ -	\$ -	\$	-	\$ -	\$	-	\$ 1,080

River Model Development

Project Manager: Thomas Uva Location: NBC Receiving Waters
Contractor(s): Kincaid Consulting Project Priority: C

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	March-05	February-24	228 Months	\$558
Construction	N/A	N/A	N/A	N/A
Total Project	March-05	February-24	228 Months	\$558



The Regional Ocean Modeling System (ROMS) for the Providence and Seekonk Rivers and Narragansett Bay tracks the circulation and transport of nutrients and determines how changing nitrogen loads affect the biology and water quality of the receiving waters. This project is for continued work on the model to improve predictions and validate accuracy.

Photo: Map of phytoplankton flow dynamics seen in the ROMS biological model.

CIP Window	Pre	FY 20	- 1	FY 20	F	Y 21		FY 22		FY 23	F	Y 24		FY 25	Pos	t FY 25		Total
Summary	Ś	351	Ś	80	Ś	10	Ś	60	Ś	-	Ś	57	Ś	-	Ś	-	Ś	558

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F	Y 22	- 1	FY 23	FY 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-	-		-		-	-
Other		-		-		-		-		-	-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 2)	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Po	ost FY 25	Total
Administrative	\$.	56	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 56
Land	-		-	-	-	-	-	-		-	-
A/E Professional	2	29	80	10	60	-	57	-		-	436
Other	(66	-	-	-	-	-	-		-	66
Total	\$ 3!	51	\$ 80	\$ 10	\$ 60	\$ -	\$ 57	\$ -	\$	-	\$ 558

Projected Expenditures - Construction

Cost Category	Pre I	FY 20	F	Y 20	F	Y 21	F	Y 22	F	FY 23	F	Y 24	F	Y 25	Post	FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Construction		-		-		-		-		-		-		-		-	-
Contingency		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Green House Gas Study

Project Manager: James Kelly Location: Field's Point (Providence, RI)

Contractor(s): University of Rhode Island Project Priority: C

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	October-14	February-21	77 Months	\$153
Construction	N/A	N/A	N/A	N/A
Total Project	October-14	February-21	77 Months	\$153



Photo: Greenhouse Gas Collection

The Greenhouse Gas Study is designed to quantify NBC's overall carbon footprint by measuring greenhouse gas emissions from wastewater collection and treatment operations. The study will ensure NBC can quickly address future regulatory requirements related to greenhouse gas emissions.

CIP Window	Pre F	Y 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total	
Summary	\$	28	\$ 65	\$ 60	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 153	

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F'	Y 22	FY 23	FY 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-	-	-		-		-	-
Other		-		-		-		-	-	-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	9	\$ 6	\$ 2	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 17
Land		-	-	-	-	-	-	-		-	-
A/E Professional		19	59	58	-	-	-	-		-	136
Other		-	-	-	-	-	-	-		-	-
Total	\$	28	\$ 65	\$ 60	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 153

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	/ 22	F	Y 23	F	Y 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Construction		-		-		-		-		-		-		-		-	-
Contingency		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

NBC Energy Sustainability

Project Manager: James Kelly Location: Various Locations
Contractor(s): Various Project Priority: C

Total Project Duration/Cost

Total Project

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	January-16	February-21	61 Months	\$248
Construction	N/A	N/A	N/A	N/A

February-21

January-16

Photo: Solar Panels

The Energy Sustainability Program is designed to identify, measure, and implement ways of obtaining and using energy so that energy needs are met while minimizing environmental impacts and assuring sufficient energy sources are available to meet future needs. The Energy Sustainability Program maximizes conservation, efficiencies and employment of sustainable renewable energy resources in an economically viable and reliable manner.

\$248

61 Months

CIP Window	Pre	FY 20	F	Y 20	FY 21	FY 22	FY 23	F	Y 24	FY 25	Pos	t FY 25	Total
Summary	\$	139	\$	32	\$ 77	\$ -	\$ -	\$	-	\$ -	\$	-	\$ 248

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F	Y 22	FY 23	FY 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-	-	-		-		-	-
Other		-		-		-		-	-	-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	115	\$ 22	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 137
Land		-	-	-	-	-	-	-		-	-
A/E Professional		7	10	-	-	-	-	-		-	17
Other		17	-	77	-	-	-	-		-	94
Total	\$	139	\$ 32	\$ 77	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 248

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F'	Y 22	F	Y 23	F	Y 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Construction		-		-		-		-		-		-		-		-	-
Contingency		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

RIPDES Compliance Improvements

Project Manager: David Bowen, P.E. Location: NBC District
Contractor(s): TBD Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	March-18	February-23	59 Months	\$1,551
Construction	N/A	N/A	N/A	N/A
Total Project	March-18	February-23	59 Months	\$1,551



This project includes improvements to the wastewater treatment and collections system that may be required to comply with new permit limits and mandates. Specific improvements shall be identified through a metals translator study, a site specific study, an upper bay dissolved oxygen evaluation, and the development of a climate resiliency plan.

Photo: Aerial view of the NBC's Providence Campus

CIP Window	Pre FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Post FY 25	Total	
Summary	\$ 470	\$ 322	\$ 198	\$ 238	\$ 323	\$ -	Ś -	Ś -	\$ 1.551	

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	/ 22	F	Y 23	F	Y 24	F'	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	306	\$ 170	\$ 131	\$ 170	\$ 292	\$ -	\$ -	\$	-	\$ 1,069
Land		-	-	-	-	-	-	-		-	-
A/E Professional		154	140	49	48	14	-	-		-	405
Other		10	12	18	20	17	-	-		-	77
Total	\$	470	\$ 322	\$ 198	\$ 238	\$ 323	\$ -	\$ -	\$	-	\$ 1,551

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	FY	′ 22	F	Y 23	F	Y 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Construction		-		-		-		-		-		-		-		-	-
Contingency		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

NBC System-wide Facilities Planning

Project Manager: David Bowen, P.E. Location: NBC Service Area
Contractor(s): N/A Project Priority: C

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	July-19	May-21	23 Months	\$399
Construction	N/A	N/A	N/A	N/A
Total Project	July-19	May-21	23 Months	\$399

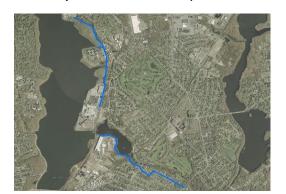


Photo: Proposed area for the East Providence capacity analysis

Project 30700 consists of planning activities that will determine if there is adequate system capacity for the next twenty years and will also determine if there is any excess infiltration/inflow in NBC's interceptors. As the evaluations begin for specific cities and towns, each will be given a unique project number.

CIP Window	Pre FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Post FY 25	Total
Summary	\$ -	\$ 173	\$ 226	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 399

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F'	Y 22	FY 23	FY 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-	-	-		-		-	-
Other		-		-		-		-	-	-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	-	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	-	\$	57	\$ 38	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 95
Land		-		-	-	-	-	-	-		-	-
A/E Professional		-		116	158	-	-	-	-		-	274
Other		-		-	30	-	-	-	-		-	30
Total	\$	-	\$	173	\$ 226	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 399

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	Y 22	F	Y 23	F'	Y 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Construction		-		-		-		-		-		-		-		-	-
Contingency		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

NBC System-wide Inflow Reduction

Project Manager: David Bowen, P.E. Location: NBC Service Area Contractor(s): N/A Project Priority: B

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	September-20	January-22	16 Months	\$137
Construction	March-22	June-23	16 Months	318
Total Project	September-20	June-23	34 Months	\$455



This project involves the development and implementation of an inflow reduction program to remove stormwater from sanitary sewers in the NBC's service area. This project is imperative to prevent surcharging of sewers that could cause illegal sanitary sewer overflows during wet weather events.

CIP Window	Pre F	Y 20	FY 20	F	Y 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Summary	\$	-	\$ -	\$	88	\$ 97	\$ 270	\$ -	\$ -	\$	-	\$ 455

Projected Expenditures - Planning

Cost Category	Pre l	Y 20	FY	Y 20	F\	Y 21	FY	/ 22	F	Y 23	F	Y 24	F	Y 25	Post	FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	18	\$ 14	\$ -	\$ -	\$ -	\$	-	\$ 32
Land		-		-		-	-	-	-	-		-	-
A/E Professional		-		-		65	35	-	-	-		-	100
Other		-		-		5	-	-	-	-		-	5
Total	\$	-	\$	-	\$	88	\$ 49	\$ -	\$ -	\$ -	\$	-	\$ 137

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	- 1	FY 21	1	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	14	\$ 42	\$ -	\$ -	\$	-	\$ 56
A/E Professional		-		-		-		12	30	-	-		-	42
Construction		-		-		-		17	183	-	-		-	200
Contingency		-		-		-		-	10	-	-		-	10
Other		-		-		-		5	5	-	-		-	10
Total	\$	-	\$	-	\$	-	\$	48	\$ 270	\$ -	\$ -	\$	-	\$ 318

Municipal Lateral Sewer Acquisition Impact

Project Manager: David Bowen, P.E. Location: NBC Service Area

Contractor(s): N/A Project Priority: C

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	June-20	June-22	24 Months	\$296
Design	N/A	N/A	N/A	N/A
Construction	N/A	N/A	N/A	N/A
Total Project	June-20	June-22	24 Months	\$296



This project involves the evaluation of the impact of NBC assuming ownership of lateral sewers that are currently owned by municipalities within the NBC service area. This project will be required should legislation be passed by the General Assembly requiring NBC to take over ownership and maintenance of local sewers within the NBC district.

Photo: Municipal Sewer Manhole Cover

CIP Window	Pre FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Post FY 25	Total
Summary	\$ -	\$ 1	\$ 151	\$ 144	\$ -	\$ -	\$ -	\$ -	\$ 296

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	-	\$	1	\$ 11	\$ 24	\$ -	\$ -	\$ -	\$	-	\$ 36
A/E Professional		-		-	130	120	-	-	-		-	250
Other		-		-	10	-	-	-	-		-	10
Total	\$	-	\$	1	\$ 151	\$ 144	\$ -	\$ -	\$ -	\$	-	\$ 296

Projected Expenditures - Design

Cost Category	Pre	FY 20	F'	Y 20	F	Y 21	FY	22	F	Y 23	F	Y 24	F	Y 25	Post	FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
Land		-		-		-		-		-		-		-		-	-
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	Y 22	F	Y 23	F'	Y 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Construction		-		-		-		-		-		-		-		-	-
Contingency		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

FPWWTF Facilities Plan Update

Project Manager: David Bowen, P.E. Location: Providence, RI
Contractor(s): CH2M Hill Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	January-17	December-19	35 Months	\$415
Design	N/A	N/A	N/A	N/A
Construction	N/A	N/A	N/A	N/A

Total Project January-17 December-19 35 Months \$415



This project involves the update of the FPWWTF Facilities Plan and determining the maximum nitrogen and biochemical oxygen demand loads that can be accepted at the facility while meeting RIPDES permit limits as well as resources required to review and ensure compliance with the RIPDES permit recently issued by RIDEM.

Photo: Aeration Tanks at Field's Point WWTF

CIP Window	Pre FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Post FY 25	Total
Summary	\$ 342	\$ 73	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 415

Projected Expenditures - Planning

Cost Category	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	302	\$ 73	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 375
A/E Professional		20	-	-	-	-	-	-		-	20
Other		20	-	-	-	-	-	-		-	20
Total	\$	342	\$ 73	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 415

Projected Expenditures - Design

Cost Category	Pre l	Y 20	F'	Y 20	F)	Y 21	FY	22	F'	Y 23	F	Y 24	F	Y 25	Post	FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
Land		-		-		-		-		-		-		-		-	-
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	F'	Y 21	F۱	Y 22	F	Y 23	F	Y 24	F	Y 25	Post	FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Construction		-		-		-		-		-		-		-		-	-
Contingency		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

RIPDES Flow Monitoring System

Project Manager: Margaret Goulet, P.E. Location: NBC Service Area Contractor(s): ADS Environmental Services Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	December-17	December-19	25 Months	\$848
Construction	N/A	N/A	N/A	N/A

Total Project December-17 December-19 25 Months \$848



This project involves the replacement of existing flow monitoring equipment located throughout NBC's collection system. An evaluation will be conducted to determine whether the equipment should be upgraded or replaced with an alternate advanced technology in order to provide consistent and accurate monitoring of flow conditions and measurements in accordance with the RIPDES permit. In addition, field services and data analysis will be conducted throughout the collection system.

Photo: Floatables Control Facility

CIP WINDOW	Pre	FY 20	FY 20	FY 21	- 1	Y 22	- 1	FY 23	 Y 24	FY 25	Post	t FY 25	Total
Summary	\$	109	\$ 739	\$ -	\$	-	\$	-	\$ -	\$ -	\$	-	\$ 848

Projected Expenditures - Planning

CID Marin al accor

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F'	Y 22	FY 23	FY 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-	-	-		-		-	-
Other		-		-		-		-	-	-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	29	\$ 24	\$	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 53
Land		-	-	-	-	-	-	-		-	-
A/E Professional		80	715	-	-	-	-	-		-	795
Other		-	-	-	-	-	-	-		-	-
Total	\$	109	\$ 739	\$	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 848

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	Y 22	F	Y 23	F'	Y 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Construction		-		-		-		-		-		-		-		-	-
Contingency		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

CSO Phase III A Facilities

 Project Manager:
 Kathryn Kelly, P.E.
 Location: Pawtucket, RI

 Contractor(s):
 Stantec Consulting Services
 Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	April-13	December-22	117 Months	\$72
Construction	N/A	N/A	N/A	N/A

Total Project April-13 December-22 117 Months \$72,331



Photo: Proposed alignment for the Pawtucket CSO Tunnel

Phase III A is to design and construct a deep rock tunnel in Pawtucket approximately 13,000 feet in length along the Seekonk and Blackstone Rivers, a pump station to convey flow to the Bucklin Point WWTF in East Providence, drop shafts and consolidation conduits. In addition, GSI facilities will be constructed to reduce storm water inflow by infiltration of storm water into the ground.

CIP Window	Pre FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Post FY 25	Total	
Summary	\$ 26,159	\$ 29,133	\$ 12,389	\$ 3,797	\$ 852	\$ -	\$ -	\$ -	\$ 72,331	1

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	Y 22	ſ	Y 23	- 1	FY 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Post FY 25	Total
Administrative	\$ 1,999	\$ 918	\$ 1	\$ 1	\$ 0	\$ -	\$ -	\$ -	\$ 4,425
Land	14	9,486	-	-	-	-	-	-	9,500
A/E Professional	23,936	18,504	12	3	1	-	-	-	57,833
Other	210	225	0	-	-	-	-	-	574
Total	26,159	29,133	\$ 12	\$ 4	\$ 1	\$ -	\$ -	-	72,331

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	F'	Y 21	F	Y 22	F	Y 23	F۱	/ 24	F	Y 25	Post	t FY 25	1	Γotal
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
A/E Professional		-		-		-		-		-		-		-		-		-
Construction		-		-		-		-		-		-		-		-		-
Contingency		-		-		-		-		-		-		-		-		-
Other		-		-		-		-		-		-		-		-		-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

CSO Phase III Facilities Pawtucket Tunnel & Pump Station

Project Manager: Kathryn Kelly, P.E. Location: Pawtucket
Contractor(s): TBD Project Priority: A

Total Project Duration/Cost

Total Project	January-21	December-25	59 Months	\$307,274
Construction	January-21	December-25	59 Months	\$307,274
Design	N/A	N/A	N/A	N/A
Planning	N/A	N/A	N/A	N/A
Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)



Photo: Phase I Tunnel in Providence

This project includes the construction of a deep rock storage tunnel, launch and drop shafts, drop shafts, and adits. After construction of the tunnel, tunnel pump station, and associated near surface facilities, CSO flow which currently discharges to the Seekonk and Blackstone Rivers shall be diverted to the tunnel during storms smaller than or equal to a three-month design storm. The diverted CSO flow will be stored in the tunnel and will be pumped to the plant for full treatment when capacity becomes available.

CIP Window	Pre FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Post FY 25	Total
Summary	\$ -	\$ -	\$ 13,147	\$ 72,172	\$ 124,869	\$ 79,331	\$ 16,525	\$ 1,230	\$ 307,274

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F'	Y 20	F	Y 21	F	Y 22	ſ	Y 23	F	Y 24	F'	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	Y 22	F	Y 23	F	Y 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
Land		-		-		-		-		-		-		-		-	-
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	st FY 25	Total
Administrative	\$	-	\$	-	\$ 1,260	\$ 1,857	\$ 1,593	\$ 1,593	\$ 697	\$	-	\$ 7,000
A/E Professional		-		-	1,100	6,050	10,500	6,960	2,640		1,230	28,480
Construction		-		-	8,700	60,090	108,601	66,603	11,100		-	255,094
Contingency		-		-	2,087	4,175	4,175	4,175	2,088		-	16,700
Other		-		-	-	-	-	-	-		-	-
Total	\$	-	\$	-	\$ 13,147	\$ 72,172	\$ 124,869	\$ 79,331	\$ 16,525	\$	1,230	\$ 307,274

CSO Phase III Facilities - Tunnel Pump Station Fit-out

Project Manager: Kathryn Kelly, P.E. Location: Pawtucket
Contractor(s): TBD Project Priority: A

Total Project Duration/Cost

Total Project	January-23	December-26	47 Months	\$71,340
Construction	January-23	December-26	47 Months	\$71,340
Design	N/A	N/A	N/A	N/A
Planning	N/A	N/A	N/A	N/A
Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)



Photo: Inside Ernest St. Tunnel Pump Station

This project includes construction of the CSO Tunnel Pump Station (TPS). The TPS will be constructed on a site in Pawtucket near the Bucklin Point Wastewater Treatment Facility and includes 3 variable frequency drive pumps, a standby generator, masonry building, electrical gear and conduit, valves, piping, elevator shaft, staircase, odor control facilities and screenings facility.

CIP Window	Pre FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Post FY 25	Total	
Summary	\$ -	\$ -	\$ -	\$ -	\$ 1,605	\$ 19,292	\$ 32,884	\$ 17,559	\$ 71,340	1

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	Y 22	ſ	Y 23	- 1	FY 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	/ 22	F	Y 23	F	Y 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
Land		-		-		-		-		-		-		-		-	-
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	FY 22	FY 23	FY 24	FY 25	Po	st FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$ -	\$ 270	\$ 540	\$ 540	\$	590	\$ 1,940
A/E Professional		-		-		-	-	235	1,667	2,682		1,670	6,254
Construction		-		-		-	-	1,053	16,012	27,802		14,341	59,208
Contingency		-		-		-	-	47	1,073	1,860		958	3,938
Other		-		-		-	-	-	-	-		-	-
Total	\$	-	\$	-	\$	-	\$ -	\$ 1,605	\$ 19,292	\$ 32,884	\$	17,559	\$ 71,340

CSO Phase III Facilities-OF 205

Project Manager: Kathryn Kelly, P.E. Location: Pawtucket
Contractor(s): TBD Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	N/A	N/A	N/A	N/A
Construction	April-22	June-24	26 Months	\$5,535
Total Project	April-22	June-24	26 Months	\$5,535



This project entails constructing near-surface facilities to direct flow from the existing CSO 205 outfall pipe to a drop shaft during storms smaller than or equal to the three-month design storm. In addition, this project includes the construction of a consolidation conduit and gate and screening structure. The drop shaft and adit connecting the facilities to the tunnel will be constructed as part of another project.

Photo: Outfall 205 Location

CIP Window	Pre FY 20)	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Summary	\$ -		\$ -	\$ -	\$ 1	\$ 2,630	\$ 2,904	\$ -	\$	-	\$ 5,535

Projected Expenditures - Planning

Cost Category	Pre	FY 20	FY	7 20	F۱	Y 21	FY	/ 22	F	Y 23	F	Y 24	F	Y 25	Post	FY 25	 Fotal
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre l	Y 20	F۱	/ 20	F'	Y 21	FY	22	F'	Y 23	F	Y 24	F	Y 25	Post	FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
Land		-		-		-		-		-		-		-		-	-
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$ 1	\$ 60	\$ 72	\$ -	\$	-	\$ 133
A/E Professional		-		-		-	-	524	564	-		-	1,088
Construction		-		-		-	-	1,916	2,128	-		-	4,044
Contingency		-		-		-	-	130	140	-		-	270
Other		-		-		-	-	-	-	-		-	-
Total	\$	-	\$	-	\$	-	\$ 1	\$ 2,630	\$ 2,904	\$ -	\$	-	\$ 5,535

CSO Phase III Facilities - OF 210, 213, 214

Project Manager: Kathryn Kelly, P.E. Location: Pawtucket
Contractor(s): TBD Project Priority: A

Total Project Duration/Cost

Planning Design	N/A N/A	N/A N/A	N/A N/A	N/A N/A \$10.618
Construction	September-22	December-24	27 Months	\$10,618
Total Project	September-22	December-24	27 Months	\$10,618



This project includes the construction of consolidation conduits to direct flow to the tunnel via Drop Shaft 213 from CSO outfalls 210, 211, 213, and 214.

Photo: Outfall Locations

CIP Window	Pre FY 20)	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	st FY 25	Total
Summary	\$ -	\$	-	\$ -	\$ -	\$ 2,154	\$ 5,524	\$ 2,940	\$	-	\$ 10,618

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F'	Y 20	F	Y 21	F	Y 22	ſ	Y 23	F	Y 24	F'	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	FY	/ 22	F	Y 23	F	Y 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
Land		-		-		-		-		-		-		-		-	-
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F	Y 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ 59	\$ 138	\$ 69	\$	-	\$ 266
A/E Professional		-		-		-		-	164	433	236		-	833
Construction		-		-		-		-	1,804	4,649	2,483		-	8,936
Contingency		-		-		-		-	127	304	152		-	583
Other		-		-		-		-	-	-	-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$ 2,154	\$ 5,524	\$ 2,940	\$	-	\$ 10,618

CSO Phase III Facilities - OF 217

Project Manager: Kathryn Kelly, P.E. Location: Pawtucket Contractor(s): TBD Project Priority: A

Total Project Duration/Cost

Total Project	September-20	November-22	27 Months	\$17,305
Construction	September-20	November-22	27 Months	\$17,305
Design	N/A	N/A	N/A	N/A
Planning	N/A	N/A	N/A	N/A
Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)



conduit to direct flow to the tunnel via Drop Shaft 213 from CSO outfall 217.

This project consists of the construction of a consolidation

Photo: Outfall 217

CIP Window	Pre FY 20		FY 20		FY 21		FY 22		FY 23		FY 24		FY 25	Post	FY 25		Total	1
Summary	Ş -	Ş	-	Ş	4,798	Ş	8,994	Ş	3,513	Ş	-	Ş	-	Ş	-	Ş	17,305	Ì

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	Y 22	ſ	Y 23	- 1	FY 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	F'	Y 20	F'	Y 21	FY	22	F'	Y 23	F'	Y 24	F	Y 25	Post	FY 25	1	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Land		-		-		-		-		-		-		-		-		-
A/E Professional		-		-		-		-		-		-		-		-		-
Other		-		-		-		-		-		-		-		-		-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$ 115	\$ 228	\$ 95	\$ -	\$ -	\$	-	\$ 438
A/E Professional		-		-	384	696	260	-	-		-	1,340
Construction		-		-	4,062	7,596	2,939	-	-		-	14,597
Contingency		-		-	237	474	219	-	-		-	930
Other		-		-	-	-	-	-	-		-	-
Total	\$	-	\$	-	\$ 4,798	\$ 8,994	\$ 3,513	\$ -	\$ -	\$	-	\$ 17,305

CSO Phase III Facilities - OF 218

Project Manager: Kathryn Kelly, P.E. Location: Pawtucket
Contractor(s): TBD Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	N/A	N/A	N/A	N/A
Construction	March-23	October-25	31 Months	\$7,266
Total Project	March-23	October-25	31 Months	\$7,266

218

This project involves the construction of a consolidation conduit to direct flow to the tunnel via Drop Shaft 218 from CSO outfall 218.

Photo: Outfall 218 Location

CIP Window	Pre FY 2	20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	st FY 25	Total
Summary	\$ -		\$ -	\$ -	\$ -	\$ 1	\$ 3,007	\$ 3,640	\$	618	\$ 7,266

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	Y 22	ſ	Y 23	- 1	FY 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	F'	Y 20	F'	Y 21	FY	22	F'	Y 23	F'	Y 24	F	Y 25	Post	FY 25	1	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Land		-		-		-		-		-		-		-		-		-
A/E Professional		-		-		-		-		-		-		-		-		-
Other		-		-		-		-		-		-		-		-		-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F	FY 22	FY 23	FY 24	FY 25	Pos	st FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ 1	\$ 75	\$ 82	\$	27	\$ 184
A/E Professional		-		-		-		-	-	260	296		55	611
Construction		-		-		-		-	-	2,507	3,061		503	6,071
Contingency		-		-		-		-	-	165	202		34	400
Other		-		-		-		-	-	-	-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$ 1	\$ 3,007	\$ 3,640	\$	618	\$ 7,266

CSO Phase III Facilities-Regulator Modifications

Project Manager: Kathryn Kelly, P.E. Location: Pawtucket
Contractor(s): TBD Project Priority: A

Total Project Duration/Cost

Total Project	December-19	November-21	24 Months	\$1,874	
Construction	December-19	November-21	24 Months	\$1,874	
Design	N/A	N/A	N/A	N/A	
Planning	N/A	N/A	N/A	N/A	
Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)	

actions from Ave 206 207 BLACKSTONE AVE

Photo: Outfall Locations

This project includes modifications to the regulators for CSO outfalls 203, 204, 207, 208, 209, 212, 215, and 216. Modifications are required in order to direct flow to the tunnel through consolidation conduits constructed in other Phase III A & B projects.

CIP Window Pre FY 20 FY 20 FY 21 FY 22 FY 23 FY 24 FY 25 Post FY 25 Tot	tal	

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	Y 22	ſ	Y 23	- 1	FY 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	F'	Y 20	F'	Y 21	FY	22	F'	Y 23	F'	Y 24	F	Y 25	Post	FY 25	1	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Land		-		-		-		-		-		-		-		-		-
A/E Professional		-		-		-		-		-		-		-		-		-
Other		-		-		-		-		-		-		-		-		-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

Projected Expenditures - Construction

Cost Category	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	st FY 25	Total
Administrative	\$	-	\$ 4	\$ 30	\$ 13	\$ -	\$ -	\$ -	\$	-	\$ 47
A/E Professional		-	-	74	62	-	-	-		-	136
Construction		-	72	1,014	484	-	-	-		-	1,570
Contingency		-	6	77	38	-	-	-		-	121
Other		-	-	-	-	-	-	-		-	-
Total	\$	-	\$ 82	\$ 1,195	\$ 597	\$ -	\$ -	\$ -	\$	-	\$ 1,874

CSO Phase III Facilities - GSI Demonstration

 Project Manager:
 Kathryn Kelly, P.E.
 Location: Central Falls

 Contractor(s):
 TBD
 Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	N/A	N/A	N/A	N/A
Construction	July-19	March-21	21 Months	\$2,745
Total Project	July-19	March-21	21 Months	\$2,745



Project 30808 will demonstrate the effectiveness of Green Stormwater Infrastructure (GSI) technology and involves the construction of catch basins and storm pipes on High Street in Central Falls.

Photo: Dry wells used to promote infiltration of stormwater runoff

CIP Window	Pre FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Post FY 25	Total
Summary	\$ -	\$ 1,502	\$ 1,243	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,745

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	Y 22	ſ	Y 23	- 1	FY 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	F'	Y 20	F'	Y 21	FY	22	F'	Y 23	F'	Y 24	F	Y 25	Post	FY 25	1	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Land		-		-		-		-		-		-		-		-		-
A/E Professional		-		-		-		-		-		-		-		-		-
Other		-		-		-		-		-		-		-		-		-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

Projected Expenditures - Construction

Cost Category	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	-	\$ 33	\$ 41	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 74
A/E Professional		-	-	16	-	-	-	-		-	16
Construction		-	1,400	1,100	-	-	-	-		-	2,500
Contingency		-	69	86	-	-	-	-		-	155
Other		-	-	-	-	-	-	-		-	-
Total	\$	-	\$ 1,502	\$ 1,243	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 2,745

CSO Phase III - GSI Projects

Project Manager: Kathryn Kelly, P.E.

Location: Central Falls Contractor(s): TBD Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	N/A	N/A	N/A	N/A
Construction	December-19	May-21	18 Months	\$6,543
Total Project	December-19	May-21	18 Months	\$6,543



Photo: Example of Green Stormwater Infrastructure

This project entails the construction of Green Stormwater Infrastructure (GSI) in the City of Central Falls. GSI will be constructed in the CSO 101 and 103 sewersheds and will include tree box filters, bio-retention basins, infiltration chambers, and other facilities to promote infiltration of stormwater runoff to the groundwater table.

CIP Window Post FY 25 Pre FY 20 Total Summary 1,719 \$ 4,824 \$ 6,543

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	Y 22	ſ	Y 23	- 1	FY 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	/ 22	F	Y 23	F	Y 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
Land		-		-		-		-		-		-		-		-	-
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$

Projected Expenditures - Construction

Cost Category	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	-	\$ 48	\$ 129	\$	\$ -	\$	\$ -	\$	-	\$ 177
A/E Professional		-	-	100	-	-	-	-		-	100
Construction		-	1,573	4,325	-	-	-	-		-	5,898
Contingency		-	98	270	-	-	-	-		-	368
Other		-	-	-	-	-	-	-		-	-
Total	\$	-	\$ 1,719	\$ 4,824	\$	\$ -	\$	\$ -	\$	-	\$ 6,543

CSO Phase III Facilities - BPWWTF Clarifiers and Flow Splitters

 Project Manager:
 Kathryn Kelly, P.E.
 Location: East Providence

 Contractor(s):
 TBD
 Project Priority: A

Total Project Duration/Cost

Total Project	November-20	August-23	34 Months	\$18,097
Construction	November-20	August-23	34 Months	\$18,097
Design	N/A	N/A	N/A	N/A
Planning	N/A	N/A	N/A	N/A
Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)

Same to the same t

modifications to the flow splitting operation, construction of a new Return Activated Sludge (RAS) pump station for the new final clarifiers, and improvements to the RAS piping system and influent pump station.

This project entails the construction of two new final clarifiers,

Photo: Existing Clarifiers at Bucklin Point

CIP Window	Pre F	Y 20	FY 20	F	Y 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Summary	\$	-	\$ -	\$	905	\$ 8,525	\$ 8,179	\$ 488	\$ -	\$	-	\$ 18,097

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F	Y 22	FY 23	FY 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-	-	-		-		-	-
Other		-		-		-		-	-	-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	Y 22	F	Y 23	F	Y 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
Land		-		-		-		-		-		-		-		-	-
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$ 46	\$ 180	\$ 180	\$ 30	\$ -	\$	-	\$ 436
A/E Professional		-		-	82	868	962	87	-		-	1,999
Construction		-		-	678	7,079	6,639	305	-		-	14,701
Contingency		-		-	99	398	398	66	-		-	961
Other		-		-	-	-	-	-	-		-	-
Total	\$	-	\$	-	\$ 905	\$ 8,525	\$ 8,179	\$ 488	\$ -	\$	-	\$ 18,097

CSO Phase III High Street Demo

Project Manager: Rich Bernier, P.E. Location: Central Falls, RI
Contractor(s): JR Vinagro Corporation Project Priority: A

Total Project Duration/Cost

Total Project	May-18	January-20	21 Months	\$304
Construction	May-18	January-20	21 Months	\$304
Design	N/A	N/A	N/A	N/A
Planning	N/A	N/A	N/A	N/A
Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)



This project involves the demolition of a building to ready the site for a GSI project as part of the CSO Phase III program. This work consists of building demolition, backfilling excavation to grade, and removing utilities and drainage structures.

Photo: Existing Structure

CIP Window	Pre	FY 20	F	Y 20	FY 21	F	Y 22	FY 23	F	Y 24	FY 25	Pos	t FY 25	Total
Summary	\$	282	\$	22	\$ -	\$	-	\$ -	\$	-	\$ -	\$	-	\$ 304

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F	Y 22	FY 23	FY 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-	-	-		-		-	-
Other		-		-		-		-	-	-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	Y 22	F	Y 23	F	Y 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
Land		-		-		-		-		-		-		-		-	-
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Construction

Cost Category	Pre F	Y 20	FY 20	FY 21	FY 22	FY 23	F	FY 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	37	\$ 1	\$ -	\$ -	\$ -	\$	-	\$	-	\$	-	\$ 38
A/E Professional		-	-	-	-	-		-		-		-	-
Construction		221	21	-	-	-		-		-		-	242
Contingency		22	-	-	-	-		-		-		-	22
Other		2	-	-	-	-		-		-		-	2
Total	\$	282	\$ 22	\$	\$ -	\$ -	\$	-	\$	-	\$	-	\$ 304

CSO Phase III Facilities - Dexter Street Stormwater Infrastructure

Project Manager: Kathryn Kelly, P.E. Location: Pawtucket, RI
Contractor(s): TBD Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	N/A	N/A	N/A	N/A
Construction	July-19	June-20	12 Months	\$1,396
Total Project	July-19	June-20	12 Months	\$1,396



Photo: Permeable Pavement in parking lot

This project entails the construction of Green Stormwater Infrastructure on Dexter Street in Pawtucket. Impervious pavement in the existing parking lot will be removed and replaced with porous pavement and catch basins and storm pipes will be installed to convey stormwater to bioretention basins

CIP Window	Pre FY 2)	FY 20	FY 21	1	FY 22	FY 23	1	FY 24	FY 25	Pos	t FY 25	Total
Summary	\$ -	Ş	1,396	\$ -	\$	-	\$ -	\$	-	\$ -	\$	-	\$ 1,396

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	/ 22	F	Y 23	F	Y 24	F'	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	/ 22	F	Y 23	F	Y 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
Land		-		-		-		-		-		-		-		-	-
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$

Projected Expenditures - Construction

Cost Category	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	-	\$ 38	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 38
A/E Professional		-	-	-	-	-	-	-		-	-
Construction		-	1,280	-	-	-	-	-		-	1,280
Contingency		-	78	-	-	-	-	-		-	78
Other		-	-	-	-	-	-	-		-	-
Total	\$	-	\$ 1,396	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 1,396

CSO Phase III Facilities - Site Demolition

Project Manager: Kathryn Kelly, P.E. Location: Pawtucket Contractor(s): TBD Project Priority: A

Total Project Duration/Cost

Total Project	February-20	March-21	14 Months	\$4,505
Construction	February-20	March-21	14 Months	\$4,505
Design	N/A	N/A	N/A	N/A
Planning	N/A	N/A	N/A	N/A
Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)



This project entails the demolition of existing buildings to prepare sites for construction of the tunnel launch shaft, pump station shaft and drop shafts.

Photo: Demolition Sites

CIP Window	Pre FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Post FY 25	Total
Summary	\$ -	\$ 1,127	\$ 3,378	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,505

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	Y 22	ſ	Y 23	- 1	FY 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	/ 22	F	Y 23	F	Y 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
Land		-		-		-		-		-		-		-		-	-
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$

Projected Expenditures - Construction

Cost Category	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	-	\$ 22	\$ 63	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 85
A/E Professional		-	30	90	-	-	-	-		-	120
Construction		-	1,000	3,000	-	-	-	-		-	4,000
Contingency		-	75	225	-	-	-	-		-	300
Other		-	-	-	-	-	-	-		-	-
Total	\$	-	\$ 1,127	\$ 3,378	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 4,505

CSO Phase III B Facilities

Project Manager: Kathryn Kelly, P.E. Location: Central Falls, RI
Contractor(s): N/A Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	N/A	N/A	N/A	N/A
Construction	December-27	December-30	37 Months	28,484
Total Project	December-27	December-30	156 Months	\$28,484



Photo: Proposed Phase III CSO Facilities

Phase III B is to design and construct two interceptors at High and Cross Street which will be approximately 4,200 feet in length and one at Middle Street approximately 2,000 feet in length. These interceptors will convey flow to the tunnel to be built in Phase III A. In addition, GSI facilities will be constructed to reduce storm inflow to the combined sewer system, and one sewer separation project will be included as part of Phase III B.

Summary	\$ -	\$	-	\$	-	\$	-	\$ -	\$	-	\$ -	\$	28,484	\$ 28,484	1
CIP Window	Pre FY 20	FY	20	FY	′ 21	F	Y 22	FY 23	F'	Y 24	FY 25	Po	ost FY 25	Total	

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F'	Y 22	FY 23	FY 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-	-	-		-		-	-
Other		-		-		-		-	-	-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F	Y 22	- 1	FY 23	F	Y 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
Land		-		-		-		-		-		-		-		-	-
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Construction

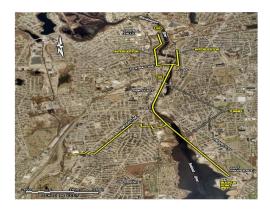
Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F'	Y 22	ı	Y 23	F	Y 24	FY 25	Po	st FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	\$	615	\$ 615
A/E Professional		-		-		-		-		-		-	-		-	-
Construction		-		-		-		-		-		-	-		26,433	26,433
Contingency		-		-		-		-		-		-	-		1,356	1,356
Other		-		-		-		-		-		-	-		80	80
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	\$	28,484	\$ 28,484

CSO Phase III C Facilities

Project Manager: Kathryn Kelly, P.E. Location: Pawtucket, RI
Contractor(s): N/A Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	May-32	June-34	26 Months	\$23,120
Construction	April-34	June-37	39 Months	141,540
Total Project	May-32	June-37	62 Months	\$164.660



Phase III C is to design and construct a stub tunnel that will convey flow from CSO 220 to the tunnel to be constructed in Phase III A. In addition, GSI facilities will be constructed to reduce storm water inflow to the combined sewers.

Photo: Proposed Phase III CSO Facilities

CIP Window	Pre	FY 20	FY 20	FY 21	Y 22	FY 23	FY 24	FY 25	Post	FY 25	Total
Summary	\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10	64,660	\$ 164,660

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F'	Y 22	FY 23	FY 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-	-	-		-		-	-
Other		-		-		-		-	-	-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F	Y 22	- 1	FY 23	F	Y 24	FY 25	Po	st FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	\$	968	\$ 968
Land		-		-		-		-		-		-	-		2,500	2,500
A/E Professional		-		-		-		-		-		-	-		14,440	14,440
Other		-		-		-		-		-		-	-		5,212	5,212
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	\$	23,120	\$ 23,120

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F	Y 22	F	Y 23	- 1	FY 24	FY 25	Po	ost FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	\$	2,160	\$ 2,160
A/E Professional		-		-		-		-		-		-	-		-	-
Construction		-		-		-		-		-		-	-		135,040	135,040
Contingency		-		-		-		-		-		-	-		3,360	3,360
Other		-		-		-		-		-		-	-		980	980
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	\$	141,540	\$ 141,540

CSO Phase III D Facilities

Project Manager: Kathryn Kelly, P.E. Location: Providence, RI
Contractor(s): N/A Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)	
Planning	N/A	N/A	N/A	N/A	
Design	April-37	September-39	29 Months	\$13,180	
Construction	August-39	December-41	28 Months	70,320	
Total Project	April-37	December-41	57 Months	\$83,500	



Photo: Proposed Phase III CSO Facilities

Phase III D is to design and construct an interceptor that will store flow during a storm and later release the flow into the system as capacity allows. In addition, GSI facilities will be constructed to reduce storm water inflow to the combined sewer system. Storm sewers will be constructed to separate stormwater flow from the combined sewer.

CIP Window	Pre FY 2	0	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Po	st FY 25	Total
Summary	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	83,500	\$ 83,500

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F'	Y 22	FY 23	FY 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-	-	-		-		-	-
Other		-		-		-		-	-	-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F	Y 22	- 1	FY 23	F	Y 24	FY 25	Po	st FY 25		Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	\$	1,110	\$	1,110
Land		-		-		-		-		-		-	-		1,000	ì	1,000
A/E Professional		-		-		-		-		-		-	-		8,000	ì	8,000
Other		-		-		-		-		-		-	-		3,070	ì	3,070
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	\$	13,180	\$	13,180

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F	Y 22	F	Y 23	F	Y 24	FY 25	Po	st FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	\$	1,010	\$ 1,010
A/E Professional		-		-		-		-		-		-	-		-	-
Construction		-		-		-		-		-		-	-		67,760	67,760
Contingency		-		-		-		-		-		-	-		1,320	1,320
Other		-		-		-		-		-		-	-		230	230
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -	\$	70,320	\$ 70,320

NBC Interceptor Easements Restoration, Various Locations

June-19

Project Manager: David Bowen, P.E. Location: NBC Service Area Contractor(s): N/A Project Priority: B

Total Project Duration/Cost

Total Project

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	June-19	January-21	19 Months	\$439
Construction	January-21	November-21	10 Months	439

November-21



Photo: Easement clearing

This project involves verification of easement locations and clearing the easements in overland areas to ensure sufficient access and enable NBC to maintain the integrity of the collection system.

\$878

29 Months

CIP Window	Pre F	Y 20	FY 20	FY 21	FY 22	FY 23	- 1	FY 24	FY 25	Pos	t FY 25	Total	
Summary	\$	22	\$ 309	\$ 384	\$ 163	\$ -	\$	-	\$ -	\$	-	\$ 878	

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F'	Y 22	FY 23	FY 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-	-	-		-		-	-
Other		-		-		-		-	-	-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Post	t FY 25	Total
Administrative	\$	2	\$ 54	\$ 18	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 74
Land		-	50	-	-	-	-	-		-	50
A/E Professional		20	190	90	-	-	-	-		-	300
Other		-	15	-	-	-	-	-		-	15
Total	\$	22	\$ 309	\$ 108	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 439

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	FY 22	FY 23	- 1	FY 24	ı	FY 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	18	\$ 20	\$ -	\$	-	\$	-	\$	-	\$ 38
A/E Professional		-		-		-	-	-		-		-		-	-
Construction		-		-		250	100	-		-		-		-	350
Contingency		-		-		-	35	-		-		-		-	35
Other		-		-		8	8	-		-		-		-	16
Total	\$	-	\$	-	\$	276	\$ 163	\$ -	\$	-	\$	-	\$	-	\$ 439

NBC Interceptor Easements Restoration, BVI Wetlands

Project Manager: Rich Bernier, P.E. Location: Cumberland, RI
Contractor(s): N/A Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	N/A	N/A	N/A	N/A
Construction	December-18	June-20	18 Months	607
Total Project	December-18	June-20	18 Months	\$607



Photo: Easement clearing in Cumberland

This project involves clearing easements along the Blackstone Valley Interceptor (BVI) in Cumberland that couldn't be completed as originally planned in Project 30501 due to wetlands issues. Wetlands permits will be obtained under Project 30501 and wetlands easements will be cleared under this project.

CIP Window	Pre	FY 20	FY 20	FY 21	1	FY 22	FY 23	1	FY 24	FY 25	Pos	t FY 25	Total
Summary	\$	106	\$ 501	\$ -	\$	-	\$ -	\$	-	\$ -	\$	-	\$ 607

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F'	Y 22	FY 23	FY 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-	-	-		-		-	-
Other		-		-		-		-	-	-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F	Y 22	- 1	FY 23	F	Y 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
Land		-		-		-		-		-		-		-		-	-
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Construction

Cost Category	Pre FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Post FY 25	Total
Administrative	\$ 24	\$ 33	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 57
A/E Professional	30	15	-	-	-	-	-	-	45
Construction	50	400	-	-	-	-	-	-	450
Contingency	-	45	-	-	-	-	-	-	45
Other	2	8	-	-	-	-	-	-	10
Total	\$ 106	\$ 501	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 607

Omega Pump Station Upgrade

Project Manager: David Bowen, P.E. Location: Omega Pump Station, East Providence, RI

Contractor(s): TBD Project Priority: B

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	March-19	October-20	19 Months	\$232
Construction	October-20	June-22	20 Months	1,826
Total Project	March-19	June-22	39 Months	\$2,058



Photo: Omega Pump Station

This project involves the evaluation, design and replacement of pumps, piping and valves at the Omega Pump Station, which were originally built in the 1950's and are nearing the end of their useful life. New screening and grit technology will shred and reduce the size of coarse solid materials of the wastewater and facilitate transport to the wastewater treatment facility. Additionally, the new technology will provide for the upgrade of the pump station to improve reliability of the motor control center and streamline operations.

CIP Window	Pre F	Y 20	FY 20	FY 21	FY 22	FY 23	F	Y 24	FY 25	Pos	t FY 25	Total	
Summary	\$	16	\$ 165	\$ 546	\$ 1,331	\$ -	\$	-	\$ -	\$	-	\$ 2,058	

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F'	Y 22	FY 23	FY 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-	-	-		-		-	-
Other		-		-		-		-	-	-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre F	Y 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	11	\$ 33	\$ 8	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 52
Land		-	-	-	-	-	-	-		-	-
A/E Professional		-	112	38	-	-	-	-		-	150
Other		5	20	5	-	-	-	-		-	30
Total	\$	16	\$ 165	\$ 51	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 232

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	44	\$ 22	\$ -	\$ -	\$ -	\$	-	\$ 66
A/E Professional		-		-		41	39	-	-	-		-	80
Construction		-		-		400	1,100	-	-	-		-	1,500
Contingency		-		-		-	150	-	-	-		-	150
Other		-		-		10	20	-	-	-		-	30
Total	\$	-	\$	-	\$	495	\$ 1,331	\$ -	\$ -	\$ -	\$	-	\$ 1,826

Lincoln Septage Station Replacement

Project Manager: David Bowen, P.E. Location: Lincoln, RI
Contractor(s): TBD Project Priority: B

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	May-19	October-20	17 Months	\$304
Construction	September-20	August-22	23 Months	2,458
Total Project	May-19	August-22	39 Months	\$2,762



Photo: Septage Receiving Station

The existing Lincoln Septage Receiving Station has reached the end of its useful life and needs to be replaced. This project includes design and construction of a new septage receiving station equipped with a screening mechanism and sample collection capabilities in accordance with NBC's Standard Operating Procedures for monitoring septage.

CIP Window	Pre FY 2	20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Summary	\$	8	\$ 204	\$ 604	\$ 1,528	\$ 418	\$ -	\$ -	\$	-	\$ 2,762

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F'	Y 22	FY 23	FY 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-	-	-		-		-	-
Other		-		-		-		-	-	-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	8	\$ 44	\$ 12	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 64
Land		-	-	-	-	-	-	-		-	-
A/E Professional		-	140	60	-	-	-	-		-	200
Other		-	20	20	-	-	-	-		-	40
Total	\$	8	\$ 204	\$ 92	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 304

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	42	\$ 60	\$ 10	\$ -	\$ -	\$	-	\$ 112
A/E Professional		-		-		50	48	8	-	-		-	106
Construction		-		-		400	1,400	200	-	-		-	2,000
Contingency		-		-		-	-	200	-	-		-	200
Other		-		-		20	20	-	-	-		-	40
Total	\$	-	\$	-	\$	512	\$ 1,528	\$ 418	\$ -	\$ -	\$	-	\$ 2,458

Interceptor Inspection and Cleaning

Project Manager: Meg Goulet, P.E.

Location: NBC Service Area
Contractor(s): Various

Project Priority: B

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	N/A	N/A	N/A	N/A
Inspection and Cleaning	July-09	Ongoing	Ongoing	3,579
Total Project	July-09	Ongoing	Ongoing	\$3,579



The 304 M project includes the inspection and cleaning of interceptors in order to maintain NBC's infrastructure and collection system. The inspections determine pipe condition and identify infrastructure issues. NBC allocates \$500 thousand annually for inspections and cleaning in years that do not have specific projects identified to ensure resources are available. As new inspection and cleaning projects are identified, they will be given a unique project number.

Photo: Interceptor grit removal

CIP Window Summary	Р	re FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pc	ost FY 25	Total
CIP Window Summary	\$	79	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$	500	\$ 3,579

Projected Expenditures - Planning

Cost Category	Pre F	Y 20	FΥ	′ 20	FY	' 21	F۱	/ 22	FY 23	F	Y 24	F'	Y 25	Post	FY 25	 Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-	-		-		-		-	-
Other		-		-		-		-	-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	FΥ	′ 20	F۱	′ 21	F	Y 22	FY 23	FY 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -
Land		-		-		-		-	-	-		-		-	-
A/E Professional		-		-		-		-	-	-		-		-	-
Other		-		-		-		-	-	-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -

Projected Expenditures - Construction

Cost Category	Pr	e FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Post F	Y 25	Total
Administrative	\$	13	\$ 55	\$ 55	\$ 55	\$ 55	\$ 55	\$ 55	\$	55	\$ 398
A/E Professional		-	-	-	-	-	-	-		-	-
Construction		60	370	370	370	370	370	370		370	2,650
Contingency		-	-	-	-	-	-	-		-	-
Other		6	75	75	75	75	75	75		75	531
Total	\$	79	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$	500	\$ 3,579

Interceptor Restoration and Construction

Project Manager: Rich Bernier, P.E.

Location: NBC Service Area
Contractor(s): Various

Project Priority: B

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)	
Planning	N/A	N/A	N/A	N/A	
Design	N/A	N/A	N/A	N/A	
Construction	July-01	Ongoing	Ongoing	6,450	
Total Project	July-01	Ongoing	Ongoing	\$6.450	-

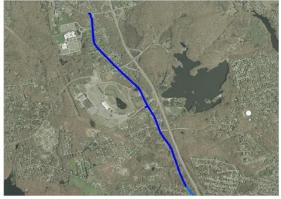


Photo: Proposed portion of Lincoln Interceptor Replacement

Project 30400C consists of funding programmed for potential restoration and construction to correct issues such as structural damage, aging or inaccessible infrastructure, odor control and emergency situations. NBC allocates \$1.5 million annually for interceptor restoration and construction, in years that do not have specific projects identified to ensure resources are available. As new projects are identified, they will be given a unique project number.

CIP Window	Pre FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Post FY 25	Total
Summary	\$ -	\$ -	\$ 1,466	\$ -	\$ 484	\$ 1,500	\$ 1,500	\$ 1,500	\$ 6,450

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F۱	/ 20	F'	Y 21	FY	22	F'	Y 23	F	Y 24	F'	Y 25	Post	FY 25	•	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
A/E Professional		-		-		-		-		-		-		-		-		-
Other		-		-		-		-		-		-		-		-		-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

Projected Expenditures - Design

Cost Category	Pre	FY 20	F'	Y 20	F	Y 21	FY	22	F	Y 23	F	Y 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
Land		-		-		-		-		-		-		-		-	-
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	FY 21	FY 22	FY 23	FY 24	FY 25	Po	st FY 25	Total
Administrative	\$	-	\$	-	\$ 73	\$ -	\$ 24	\$ 75	\$ 75	\$	75	\$ 323
A/E Professional		-		-	-	-	-	-	-		-	-
Construction		-		-	1,222	-	403	1,250	1,250		1,250	5,375
Contingency		-		-	147	-	48	150	150		150	645
Other		-		-	24	-	8	25	25		25	108
Total	\$	-	\$	-	\$ 1,466	\$ -	\$ 484	\$ 1,500	\$ 1,500	\$	1,500	\$ 6,450

CSO Phase II - WCSOI OF 046

Project Manager: Kathryn Kelly, P.E. Location: Providence
Contractor(s): TBD Location: Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	N/A	N/A	N/A	N/A
Construction	April-18	April-21	36 Months	\$3,915
Total Project	Anril-18	Δnril-21	36 Months	\$3 915



This project includes construction of facilities to eliminate surcharging from the Woonasquatucket CSO Interceptor during extreme wet weather events.

CIP Window	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	1	FY 24	FY 25	Pos	t FY 25	Total
Summary	\$	336	\$ 919	\$ 2,660	\$ -	\$ -	\$	-	\$ -	\$	-	\$ 3,915

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	Y 22	ſ	Y 23	- 1	FY 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	F'	Y 20	F'	Y 21	FY	22	F'	Y 23	F'	Y 24	F	Y 25	Post	FY 25	1	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
Land		-		-		-		-		-		-		-		-		-
A/E Professional		-		-		-		-		-		-		-		-		-
Other		-		-		-		-		-		-		-		-		-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

Projected Expenditures - Construction

Cost Category	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	35	\$ 47	\$ 80	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 162
A/E Professional		262	360	200	-	-	-	-		-	822
Construction		15	410	2,050	-	-	-	-		-	2,475
Contingency		-	62	310	-	-	-	-		-	372
Other		24	40	20	-	-	-	-		-	84
Total	\$	336	\$ 919	\$ 2,660	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 3,915

Louisquisset Pike Interceptor Improvements

Project Manager: David Bowen, P.E. Location: Lincoln, RI
Contractor(s): N/A Project Priority: C

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	May-07	May-09	24 Months	\$178
Construction	February-21	June-22	16 Months	4,594
Total Project	May-07	June-22	181 Months	\$4,772



Photo: Louisquisset Pike in Lincoln

This project involves the construction of a larger diameter interceptor in the northern section of the Town of Lincoln. The larger capacity pipe will accommodate the additional flow resulting from expected development.

CIP Window	Pre FY 20)	FY 20	ı	Y 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Summary	\$ -	\$; -	\$	34	\$ 3,544	\$ 1,016	\$ -	\$ -	\$	-	\$ 4,594

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F'	Y 22	FY 23	FY 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-	-	-		-		-	-
Other		-		-		-		-	-	-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	FY 20	F	Y 21	F	Y 22	F	Y 23	F	Y 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	23	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 23
Land		-	-		-		-		-		-		-		-	-
A/E Professional		155	-		-		-		-		-		-		-	155
Other		-	-		-		-		-		-		-		-	-
Total	\$	178	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 178

Projected Expenditures - Construction

Cost Category	Pre	FY 20	F	Y 20	ı	Y 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	22	\$ 103	\$ 16	\$ -	\$ -	\$	-	\$ 141
A/E Professional		-		-		12	41	-	-	-		-	53
Construction		-		-		-	3,400	600	-	-		-	4,000
Contingency		-		-		-	-	400	-	-		-	400
Other		-		-		-	-	-	-	-		-	-
Total	\$	-	\$		\$	34	\$ 3,544	\$ 1,016	\$ -	\$ -	\$	-	\$ 4,594

Moshassuck Valley Interceptor

Project Manager: Rich Bernier, P.E. Location: Central Falls, RI
Contractor(s): N/A Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	January-12	January-18	73 Months	\$471
Construction	February-18	June-20	28 Months	9,998
Total Project	January-12	June-20	101 Months	\$10,469



An inspection of the Moshassuck Valley Interceptor from Higginson Street in Central Falls to Lockbridge Street in Pawtucket revealed that this line has sunk from its original grade at numerous points, by as much as 2.5 feet. This project involves the design and construction of a new sewer to replace the existing sewer.

Photo: Construction on the Moshassuck Valley Interceptor

CIP Window	Pre FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Post FY 25	Total
Summary	\$ 7,958	\$ 2,040	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,998

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F	Y 22	FY 23	FY 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-	-	-		-		-	-
Other		-		-		-		-	-	-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	FY 20	F	Y 21	F'	Y 22	F	Y 23	F	Y 24	F	Y 25	Post	FY 25	Total
Administrative	\$	81	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 81
Land		75	-		-		-		-		-		-		-	75
A/E Professional		308	-		-		-		-		-		-		-	308
Other		7	-		-		-		-		-		-		-	7
Total	\$	471	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 471

Projected Expenditures - Construction

Cost Category	Pre	e FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	92	\$ 24	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 116
A/E Professional		-	-	-	-	-	-	-		-	-
Construction		7,856	1,436	-	-	-	-	-		-	9,292
Contingency		-	580	-	-	-	-	-		-	580
Other		10	-	-	-	-	-	-		-	10
Total	\$	7,958	\$ 2,040	\$ -	\$ -	\$ -	\$	\$ -	\$	-	\$ 9,998

Providence River Siphon

 Project Manager:
 Rich Bernier, P.E.
 Location: Providence, RI

 Contractor(s):
 Cardi Corporation
 Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	March-13	May-15	26 Months	N/A
Design	July-15	June-18	35 Months	\$517
Construction	February-18	June-20	28 Months	7,962
Total Project	March-13	June-20	87 Months	\$8,479



that the existing Providence River siphon was in good condition but that a section of the 78" interceptor needed to be replaced and that the inlet and outlet siphon chambers needed repair. This project corrects those identified deficiencies.

During the planning phase of this project, it was determined

Photo: Siphon Outlet Chamber

CIP Window	Pr	e FY 20	FY 20	FY 21	FY 22	FY 23	F	Y 24	FY 25	Pos	t FY 25	Total
Summary	\$	6,502	\$ 1,460	\$ -	\$ -	\$ -	\$	-	\$ -	\$	-	\$ 7,962

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F'	Y 22	FY 23	FY 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-	-	-		-		-	-
Other		-		-		-		-	-	-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$ -	\$ -	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	FY 20	F	Y 21	F	Y 22	ı	Y 23	F	Y 24	F	Y 25	Post	FY 25	Total
Administrative	\$	236	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 236
Land		-	-		-		-		-		-		-		-	-
A/E Professional		275	-		-		-		-		-		-		-	275
Other		6	-		-		-		-		-		-		-	6
Total	\$	517	\$ -	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ 517

Projected Expenditures - Construction

Cost Category	Pre	FY 20	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	91	\$ 20	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 111
A/E Professional		-	-	-	-	-	-	-		-	-
Construction		6,266	754	-	-	-	-	-		-	7,020
Contingency		-	686	-	-	-	-	-		-	686
Other		145	-	-	-	-	-	-		-	145
Total	\$	6,502	\$ 1,460	\$	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 7,962

Improvements to Interceptors FY 2019

Project Manager: Rich Bernier, P.E.

Location: Providence, East Providence and Johnston Contractor(s): TBD Project Priority: A

Total Project Duration/Cost

Total Project	January-19	June-20	17 Months	\$5,813
Construction	January-19	June-20	17 Months	\$5,813
Design	N/A	N/A	N/A	N/A
Planning	N/A	N/A	N/A	N/A
Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)



Photo: Rehabilitation of interceptors

This project consists of lining various diameter interceptors ranging from 6" to 66" and the rehabilitation of various manholes throughout the NBC service area.

CIP Window Pre FY 20 Post FY 25 Total Summary 5,773 5,813

Projected Expenditures - Planning

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	Y 22	ſ	Y 23	- 1	FY 24	F	Y 25	Post	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Design

Cost Category	Pre	FY 20	F	Y 20	F	Y 21	F۱	Y 22	F	Y 23	F	Y 24	F	Y 25	Pos	t FY 25	Total
Administrative	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -
Land		-		-		-		-		-		-		-		-	-
A/E Professional		-		-		-		-		-		-		-		-	-
Other		-		-		-		-		-		-		-		-	-
Total	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$ -

Projected Expenditures - Construction

Cost Category	Pre FY	20	FY 2	0	FY 21	FY 22	FY 23	FY 24	FY 25	Pos	t FY 25	Total
Administrative	\$	40	\$	173	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 213
A/E Professional		-		-	-	-	-	-	-		-	-
Construction		-	5	,000	-	-	-	-	-		-	5,000
Contingency		-		600	-	-	-	-	-		-	600
Other		-		-	-	-	-	-	-		-	-
Total	\$	40	\$ 5	,773	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-	\$ 5,813



CIP Impact and Long-Term Plan

This year's CIP identifies a total of 49 projects that are either in progress, to be initiated, or to be completed during FY 2020-2025. Subsequent to the CIP adoption, there were two changes related to projects that are programmed for funding through the Water Infrastructure Innovation Act (WIFIA) program. As a result, the adjusted costs for the five-year CIP window are \$558.9 million, with additional expenditures of \$53.0 million in FY 2020 for a total of \$612.0 million. The majority or 88% of the expenditures are related to the third and final phase of the Combined Sewer Overflow (CSO) Abatement Facilities.

CIP Impact on Operating Budget

Certain capital improvements will directly impact the operating budget either through increased revenue, increased expense, or savings. NBC has identified these impacts on a project by project basis. The following table describes the impact categories and should be used to interpret the figures in the detailed operating impact tables in this section of the Budget.

Impact	Description	Refection in Tables
Savings	A reduction in operating costs resulting from no longer operating facilities, reduced energy consumption, and/or the purchase of electricity	Shown as a reduction in Operating Costs
Increased Expense	An increase in operating costs resulting from new facilities becoming operational	Shown as an increase in Operating Costs
Increased Revenue	An increase in revenue through new user charges, incentives, and/or the sale of Renewable Energy Credits	Shown as an increase in Operating Revenue or Non- Operating Revenue

FY 2020 Revenue and Expense CIP Impacts

Of the projects scheduled to be completed in FY 2020, only one will have a financial impact on operations within the CIP window. The FPWWTF Blower Improvements Phase II is projected to have an operating impact resulting in a \$28,153 increase in expense in FY 2020. The following section describes the project and impact.

FPWWTF - Blower Improvements Phase II

The FPWWTF Blower Improvements Phase II Project (10908) includes construction of a new blower building that will house four new centrifugal blowers to provide a reliable air source for the aeration treatment process. The estimated annual ongoing maintenance expense is \$28,153. All start-up costs are carried in the project.

FI	PWWTF	- Blower Im	orov	ements Phase II	
	F	Y 2020		FY 2021	Annual
Increased Expense					
Maintenance	\$	28,153	\$	28,153	\$ 28,153
Expense Impact	\$	28,153	\$	28,153	\$ 28,153

FY 2021-2025 Revenue and Expense Impacts

The following table summarizes the projected impact of new capital projects scheduled to become operational in FY 2021-2025. Projects that involve inspection, studies, cleaning and rehabilitation generally do not have operating cost impacts and are excluded from this list. In FY 2025, the estimated impact as a result of these

projects is an increased annual revenue of \$268,610, savings of \$201,000 and increased expense of \$320,019. Projects with revenue, savings or expense impacts are discussed in the following section.

	Incremen	tal CIP Imp	acts			
	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Increased Revenue						
Louisquisset Pike Interceptor Replacement	\$ -	\$ -	\$ 22,384	\$ 268,610	\$ 268,610	\$ 268,610
Revenue Impact	\$ -	\$ -	\$22,384	\$ 268,610	\$ 268,610	\$ 268,610
Savings						
BPWWTF UV Disinfection Improvements	\$ -	\$ -	\$ -	\$ (201,000)	\$(201,000)	\$ (201,000)
Subtotal	-	-	-	(201,000)	(201,000)	(201,000)
Increased Expense						
FPWWTF - Blower Improvements Phase II	28,153	28,153	28,153	28,153	28,153	28,153
New IM Facilities	-	-	-	-	28,785	172,709
FPWWTF Maintenance Facilities	-	-	-	-	16,156	38,774
BPWWTF Operations Building	-	-	-	60,287	80,383	80,383
Subtotal	28,153	28,153	28,153	88,440	153,477	320,019
Net O&M Impact	\$28,153	\$28,153	\$28,153	\$(112,560)	\$ (47,523)	\$ 119,019

Louisquisset Pike Interceptor Replacement

The Louisquisset Pike Interceptor Replacement Project (30421) is scheduled to be completed in FY 2022. The project involves construction of a larger replacement interceptor in the northern section of the Town of Lincoln to accommodate additional flow. Preliminary estimates indicate that the flow will generate additional sewer user fee revenue of \$268,610 annually. The estimated operating expense is \$10,000 every 5 years for ongoing maintenance of the collection system estimated to begin in FY 2027. There are no start-up costs associated with the construction of this interceptor.

Louisquisset Pike Interceptor Replacement							
Savings Increased Expense Increased Revenue							
User Fees	\$	-	\$	-	\$	268,610	
Maintenance		-		10,000		-	
Total	\$	-	\$	10,000	\$	268,610	

BPWWTF UV Disinfection Improvements

The BPWWTF UV Disinfection Improvements Project (81000) involves replacement of the aging UV disinfection system with new and more efficient technology. It is estimated that the new technology will use 1.7 million kWh less per year and will also require less maintenance, resulting in estimated savings of \$201,000 annually. Completion of this project is scheduled for FY 2023.

BPWWTF UV Disinfection Improvements							
		Savings	Increased	Expense	Increased	Revenue	
Electricity	\$	(195,600)	\$	-	\$	-	
Maintenance		(5,400)		-		-	
Total	\$	(201,000)	\$	-	\$	-	

IM Facilities

The IM Facilities Project (12400) is scheduled for completion in FY 2024. This project includes the construction of a new building that will be necessary if NBC is required by legislation to assume ownership of lateral sewers currently owned by local municipalities within the service area. The new building will include an administrative area, garage area and storage yard to house the existing IM staff and equipment. The increased expense associated with the new building is approximately \$172,709 annually for utilities and maintenance costs. All project startup costs, such as staff and equipment relocation are included in the project cost.

New IM Facilities							
		Savings	Incre	ased Expense	Increase	d Revenue	
Electricity	\$	-	\$	21,317	\$	-	
Natural Gas		-		28,766		-	
Water		-		10,500		-	
Maintenance		-		112,126		-	
Total	\$	-	\$	172,709	\$	-	

FPWWTF Maintenance Facilities

The FPWWTF Maintenance Facilities Project (13200) involves the design and construction of a new maintenance building and facilities at Field's Point. While not critical to plant operations, it will improve efficiency in maintenance support, since the existing maintenance building was originally built in 1900 and is insufficient to meet the needs of operations. The new facilities are scheduled for completion in FY 2024 and estimated to have increased expense of \$38,774 for utilities.

FPWWTF Maintenance Facilities						
	Sa	vings	Increa	sed Expense	Increased	l Revenue
Electricity	\$	-	\$	15,226	\$	-
Natural Gas		-		20,548		-
Water		-		3,000		-
Total	\$	-	\$	38,774	\$	-

BPWWTF Operations Building

The BPWWTF Operations Building Project (81700) involves the design and construction of a new Operations Building at the Bucklin Point campus. This building will contain additional office space, training and locker rooms, and the SCADA Control Room. The increased expense associated with the new building is approximately \$80,383 annually for utilities and maintenance costs. All project startup costs, such as staff and equipment relocation are included in the project cost.

BPWWTF Operations Building							
Savings Increased Expense Increased Revenue							
Electricity	\$	-	\$	21,317	\$	-	
Natural Gas		-		28,766		-	
Water		-		3,000		-	
Maintenance		-		27,300		-	
Total	\$	-	\$	80,383	\$	-	

Projects in Progress or Initiated but Not Completed in FY 2021-2025

CSO Phase III Facilities

The CSO Phase III Facilities are to be completed in four phases including A, B, C and D. CSO Phase III A operating impacts are estimated to commence in FY 2027 when the new facilities are projected to be operational. Increased expense of \$1.0 million includes electricity to pump flow and provide dehumidification in the tunnel pump station, natural gas for heating, screening and grit disposal, biosolids disposal, water, chemicals, maintenance and labor costs. The start-up costs are included in this project phase.

The operating impacts of the remaining three phases will be determined once the design plans are available.

CSO Phase III Facilities								
Capital Project	Facilities Online	Savings	Increased Expense	Increased Revenue				
CSO Phase III A Facilities								
Electricity	FY 2027	\$ -	\$ 646,950	\$ -				
Natural Gas	FY 2027	-	64,240	-				
Screening & Grit	FY 2027	-	49,660	-				
Biosolids	FY 2027	-	194,866	-				
Water	FY 2027	-	968	-				
Hypochlorite	FY 2027	-	12,110	-				
Sodium Bisulfite	FY 2027	-	4,942	-				
Maintenance	FY 2027	-	29,033	-				
Personnel	FY 2027	-	9,811	<u>-</u>				
	Total	\$ -	\$ 1,012,580	\$ -				
CSO Phase III B Facilities	FY 2031	None	TBD	None				
CSO Phase III C Facilities	FY 2037	None	TBD	None				
CSO Phase III D Facilities	FY 2042	None	TBD	None				

Capital Funding and Debt Service Impact

In addition to operating cost impacts, the debt service related to financing the NBC's capital improvement program also impacts the operating budget. NBC's operating budget includes the principal and interest payments as well as a Transfer to the Project Fund - Restricted Account. While NBC has other CIP financing sources, NBC primarily finances the capital improvement program through the issuance of long-term debt. This year's CIP reflects a new and significant funding source called the Water Infrastructure Finance Innovation Act (WIFIA) and additional discussion of this exciting program is offered in the following pages.

NBC uses a long-term financial model to identify capital funding needs and sources and to project debt issuance. The debt service and user fee projections associated with financing the CIP are identified later in this section of the Operating Budget. The CIP funding sources, uses and debt service impacts are discussed in the following section.

Funding Sources

NBC has identified eight sources of capital funding as well as unfunded items as follows:

Funding Source	Description
Restricted Account - Operating Capital	Transfers from the Stabilization Account in the Debt Service Fund
Restricted Account - CIP	Transfers from the Stabilization Account in the Debt Service Fund
Grant and Project Reimbursement Account	Reimbursements of capital costs from grants, impact fees, etc.
2019 Series A and B (SRF)	Unspent proceeds from the 2019 Series A and B RIIB Loans
WIFIA - CSO Phase III A Facilities	Planned new \$268.0 million debt issuance through EPA in early 2020
WIFIA - Bucklin Point Resiliency	Planned new \$16.0 million debt issuance through EPA in early 2021
New SRF Revenue Bonds	New borrowings through RIIB
New Revenue Bonds	New NBC tax-exempt Revenue Bonds
Unfunded	Projects not considered a high priority or other unfunded CIP

Restricted Account - Operating Capital

In accordance with the Trust Indenture and the directives of the Rhode Island Public Utilities Commission (PUC), NBC makes monthly deposits into the Stabilization Account in the Debt Service Fund. Subsequent to fiscal year end, a calculation is performed to determine the funds that may be transferred from the Stabilization Account to the Restricted Account – Operating Capital to fund the budgeted operating capital.

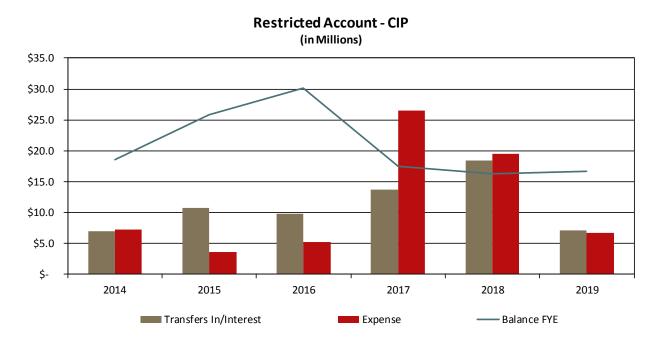
Restricted Account - CIP

In accordance with the Trust Indenture and the directives of the PUC, NBC makes monthly deposits into the Stabilization Account in the Debt Service Fund. Subsequent to fiscal year end, a calculation is performed to determine the funds that may be transferred from the Stabilization Account to the Restricted Account – CIP in the Project Fund to finance "pay as you go" capital. NBC typically uses these funds for interceptor cleaning and inspection, studies, land and other projects that may not be eligible or reachable for funding from the RIIB. NBC also plans to use these funds to meet NBC's share of the funding requirement for the WIFIA loan for the CSO Phase III A Facilities.

Through April 2019, NBC funded approximately \$6.3 million in capital improvements from the Restricted Account - CIP. This included costs of \$1.7 million for WWTF Improvements, \$2.2 million for the Johnston Sewer Improvements, \$0.5 million for CSO Phase III A Facilities, and \$1.4 million for collection system infrastructure. NBC also spent \$0.5 million on other capital projects. A listing of the projects and amounts that were funded with Restricted Account – CIP funds in FY 2019 is as follows:

Restricted Account - CIP Expenditures*									
Major Project		Amount							
WWTF Improvements	\$	1,666,638							
Johnston Sewer Improvements		2,212,636							
CSO Phase III Facilities		456,967							
Collection System Infrastructure		1,395,432							
Other		534,629							
Total	\$	6,266,302							
* Based on 10 months, through April 201	19								

The projected Restricted Account – CIP balance available on July 1, 2019 is \$16.7 million. NBC estimates additional transfers from the Stabilization Account will be \$4.7 million, bringing the Restricted Account – CIP balance available for capital projects in FY 2020 to \$21.4 million. The following chart shows the investment earnings and transfers into the Restricted Account - CIP, Capital Projects expense and the Fiscal Year End (FYE) Restricted Account – CIP balance by fiscal year.



Grant and Project Reimbursement Account

The Grant and Project Reimbursement Account is in the Project Fund. In accordance with the Trust Indenture, Federal or State grants or reimbursements, funds withdrawn from the Renewal and Replacement Reserve Fund (not presently funded by NBC), and certain other amounts are deposited into the Grant and Project Reimbursement Account and are used to fund capital improvements. The projected balance in this account on July 1, 2019 is \$8.9 million. NBC estimates receipt of approximately \$1.2 million in grants and reimbursements in FY 2020 bringing the balance available during the year to \$10.1 million. NBC plans to use these funds for design and land acquisition as part of NBC's share of the WIFIA funded CSO Phase III A Facilities.

Capital Investment Incentives										
Contract	Project	Source		Amount						
12000C	BPWWTF - Biogas Reuse	National Grid	\$	540,000						
12000C	BPWWTF - Biogas Reuse	Regional Greenhouse Gas Initiative		200,000						
12000C	BPWWTF - Biogas Reuse	RI Renewable Energy Fund		80,000						
30809C	CSO Phase III - 1304 High Street	Bay Watershed Restoration Fund		400,000						
			\$	1,220,000						

State Revolving Fund Loans - RIIB

NBC's least cost of debt financing historically has been through the RIIB. The RIIB provides subsidized loans to eligible borrowers with interest rates that are 1/3 off of the market rate. In some instances, these loans include an additional subsidy through a principal forgiveness component. Typically, NBC submits a loan application in April for a loan that will be executed in June of the following year. In order for a project to be eligible for SRF funding, the project must be listed in the application and on the RIDEM's Project Priority List. In order for a project cost to be eligible for payment, NBC must receive a Certificate of Approval (COA) from RIDEM. NBC does not directly receive the loan proceeds, rather the invoices are submitted to RIIB for payment.

The table below shows the SRF Expenditures through May 2019. In FY 2019, NBC expended the remaining 2015 Series B proceeds of \$4.2 million and 2016 Series A proceeds of \$11.6 million. NBC executed a \$45.0 million loan from RIIB in April, 2019 consisting of two series referred to as SRF 20 and SRF 21. The first series is the \$35.0 million 2019 Series A which includes \$1.0 million in principal forgiveness for "Green" infrastructure. The second series is the \$10.0 million 2019 Series B which reflects a higher interest rate subsidy of 50% as opposed to the traditional 33% provided by RIIB. These funds are designated for the CSO Phase III A Facilities project. NBC projects that there will be at least \$36.0 million in unexpended SRF proceeds available in FY 2020.

SRF Expenditures*													
Major Project	20	15 Series B	2	016 Series A	201	9 Series A	20	019 Series B					
CSO Phase III Facilities	\$	2,265,112	\$	2,953,286	\$	-	\$	1,633,547					
Moshassuck Valley Interceptor		1,146,652		3,407,108		968,881		-					
Providence River Siphon Replacement		149,110		3,408,636		489,162		-					
Collection System Infrastructure		115,791		1,166,091		54,352		-					
WWTF Improvements		554,248		665,017		-		-					
Other		6,739		1,598		-		-					
Total	\$	4,237,652	\$	11,601,736	\$	1,512,395	\$	1,633,547					

^{*} Based on 11 months, through May 2019

NBC has outstanding debt of \$347.0 million from the RIIB. Below is a chart that shows the outstanding loans by series and also indicates the interest rate and final maturity.

Bond Issue	Interest Rate*	Outstanding June 30, 2019	Final Maturity
1997 Series - \$8.150M	3.14473%	\$ 561,372	September 1, 2020
1999 Series - \$23.955M	3.03200%	2,555,000	September 1, 2021
2001 Series - \$57.0M	2.67100%	8,250,000	September 1, 2022
2002 Series - \$57.0M	1.07850%	13,907,416	September 1, 2023
2003 Series - \$40.0M	1.34900%	13,638,000	September 1, 2025
2004 Series B - \$40.0M	1.40400%	16,088,000	September 1, 2025
2005 Series B - \$30.0M	1.39700%	11,817,000	September 1, 2026
2006 Series A - \$30.0M	1.27000%	13,274,000	September 1, 2027
2007 Series B - \$25.0M	1.47500%	14,880,000	September 1, 2029
2009 Series A - \$55.0M	0.87700%	36,590,765	September 1, 2031
2010 Series A - \$2.0M	0.52200%	1,050,278	September 1, 2030
2010 Series B - \$20.0M	2.14300%	13,242,000	September 1, 2031
2011 Series A - \$30.0M	2.25900%	20,024,529	September 1, 2032
2012 Series A - \$25.75M	2.08800%	18,860,373	September 1, 2033
2013 Series B - \$25.0M	2.09200%	19,557,454	September 1, 2034
2014 Series A - \$45.0M	2.46700%	37,482,000	September 1, 2035
2015 Series B - \$41.7535M	2.54900%	39,162,248	September 1, 2045
2016 Series A - \$23.0M	1.96700%	22,034,000	September 1, 2037
2019 Series A - \$35.0M	1.80000%	34,000,000	September 1, 2039
2019 Series B - \$10.0M	1.41000%	10,000,000	September 2, 2039
* RIIR loans have a 0.5% see	rvica fao	\$ 346,974,435	

^{*} RIIB loans have a 0.5% service fee

Water Infrastructure Finance and Innovation Act (WIFIA)

The WIFIA program is administered through the Environmental Protection Agency and provides flexible, low-interest long-term loans for up to 49% of total project costs. NBC submitted a Letter of Interest (LOI) to the EPA for the CSO Phase III A project and was invited to apply for a loan. NBC submitted application materials supporting a total loan amount of approximately \$268.7 million. The WIFIA program does not require the initiation of loan repayment until five years after substantial project completion, flexible loan structuring and an attractive low interest rate. This program will substantially mitigate the ratepayer impact of the CIP. The proposed draws and amortization of the WIFIA loan are shown in the following table:

Preliminary WIFIA Draw and Amortization*												
Fiscal Year	Beginning Balance	Draws	Interest	Payment	Ending Balance							
2021	\$ -	\$ 41,834,785	\$ 460,183	\$ -	\$ 42,294,968							
2022	42,294,968	95,229,105	2,171,477	-	139,695,549							
2023	139,695,549	131,657,778	5,160,539	-	276,513,866							
2024	276,513,866	-	7,348,146	-	283,862,012							
2025	283,862,012	-	7,543,417	-	291,405,429							
2026	291,405,429	-	7,743,878	-	299,149,307							
2027	299,149,307	-	7,949,665	-	307,098,972							
2028	307,098,972	-	8,160,922	-	315,259,894							
2029	315,259,894	-	8,377,792	-	323,637,686							
2030	323,637,686	-	8,600,426	-	332,238,112							
2031	332,238,112	-	8,828,975	-	341,067,087							
2032	341,067,087	-	9,004,171	9,004,171	341,067,087							
2033	341,067,087	-	9,004,171	9,004,171	341,067,087							
2034	341,067,087	-	9,004,171	9,004,171	341,067,087							
2035	341,067,087	-	9,004,171	9,004,171	341,067,087							
2036	341,067,087	-	9,004,171	9,004,171	341,067,087							
2037	341,067,087	-	9,004,171	9,004,171	341,067,087							
2038	341,067,087	-	9,004,171	9,004,171	341,067,087							
2039	341,067,087	-	8,988,184	10,199,311	339,855,961							
2040	339,855,961	-	8,447,028	48,232,578	300,070,411							
2041	300,070,411	-	7,334,677	51,818,125	255,586,963							
2042	255,586,963	-	6,144,634	51,815,968	209,915,630							
2043	209,915,630	-	4,922,743	51,818,902	163,019,471							
2044	163,019,471	-	3,668,103	51,820,485	114,867,088							
2045	114,867,088	-	2,245,751	61,847,269	55,265,570							
2046	55,265,570	-	862,903	46,022,594	10,105,879							
2047	10,105,879	-	133,398	10,239,277	-							

^{*} Preliminary and subject to change

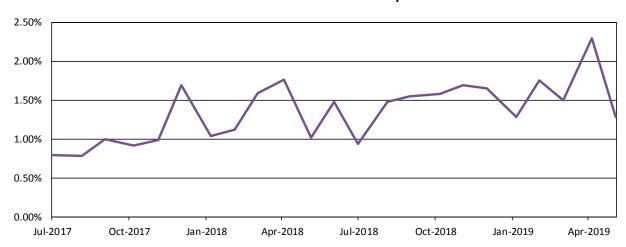
NBC also plans to submit a LOI for the bundled Bucklin Point Resiliency project estimated at approximately \$32.0 million.

Revenue Bonds

Since the statewide demand for SRF loans has periodically exceeded the RIIB lending capacity, NBC has issued revenue bonds to the extent that SRF funds are not available. NBC did not have any unspent proceeds in FY 2018. The table below shows NBC's outstanding revenue bonds by issue and final maturity date.

Bond Issue	Interest Rate	Outsta	nding June 30, 2019	Final Maturity
2008 Series A - \$66.0M	Variable	\$	56,465,000	September 1, 2034
2013 Series A - \$71.48M	4.33291%		71,480,000	September 1, 2043
2013 Series C - \$34.97M	4.68715%		34,970,000	September 1, 2033
2014 Series B - \$39.82M Refunding	4.86125%		39,820,000	September 1, 2035
2015 Series A - \$40.085M Refunding	4.94207%		40,085,000	February 1, 2037
		\$	242,820,000	

The 2008 Series A bonds are a variable rate issue that is in weekly mode. The graph below shows that these bonds have been pricing well under 2.0% with the exception of a temporary increase in April 2019.



2008 Series A - Variable Rate Weekly Mode

Funding Uses

NBC must also take into consideration the appropriate uses of capital funds as part of the planning process. In addition to payments for capital projects, the table identifies the capital project contingency costs and the incremental increase to the debt service payment account. Lastly, the cost of issuance expense is shown and is financed from bond proceeds. The following table lists each use and description of funds.

Funding Use	Description
Operating Capital	Asset purchases identified in the Operating Capital Program
CSO Phase III A Facilities	Design and construction of the CSO Phase III A Facilities
Bucklin Point Resiliency	Design and construction of the Bucklin Point Resiliency Project
Other Funded Capital Improvements	Projects identified in the Capital Improvement Program
Unfunded Capital Improvements/Contingency	Unfunded projects or contingency identified in the CIP
Cost of Issuance	Costs associated with debt issuance

Capital Funding Sources and Uses

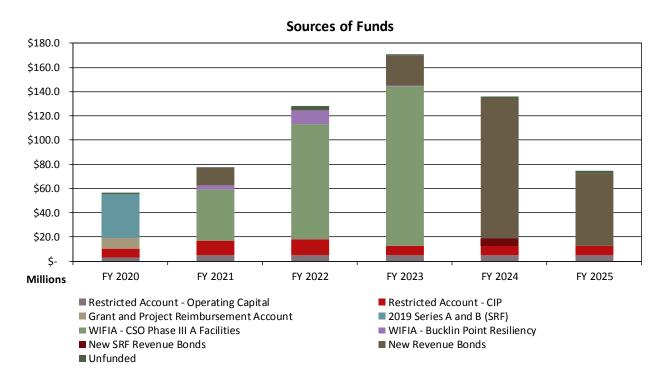
Sources

The following table and chart show that in FY 2020 NBC plans to fund its CIP with approximately \$6.9 million in Restricted Account – CIP funds, \$8.9 million in Grant and Project Reimbursement Account funds and \$36.1 million in unspent 2019 Series A and B SRF proceeds. Lastly, \$1.7 million of contingency and/or lower priority project costs in FY 2020 are not funded.

The largest funding source during the period of FY 2021-2025 period is \$284.5 million in WIFIA loans. This consists of \$268.7 million for the CSO Phase III A Facilities and \$15.8 million for the Bucklin Point Resiliency project. The next largest funding source over the five-year period is new revenue bond proceeds of \$213.9 million. Revenue bonds were identified in the financial modeling process as having a lower rate impact due to more creative amortization strategies than those traditionally offered through the RIIB. NBC also plans to use \$48.4 million of Restricted Account – CIP funds and \$6.0 million in new SRF funds. There is also \$9.7 million in unfunded CIP projects. Other identified sources of capital funds include the operating capital of \$25.0 million during the FY 2021-2025 period. The table below shows the projected sources of funds in FY 2020-2025.

Sources of Funds (Thousands)	F	Y 2020	F	Y 2021	F	Y 2022	F	Y 2023	F	Y 2024	F	Y 2025	otal FY 021-2025
Restricted Account - Operating Capital	\$	3,262	\$	5,000	\$	5,000	\$	5,000	\$	5,000	\$	5,000	\$ 25,000
Restricted Account - CIP		6,910		11,937		13,115		7,780		7,780		7,780	48,392
Grant and Project Reimbursement Account		8,915		-		-		-		-		-	-
2019 Series A and B (SRF)		36,057		-		-		-		-		-	-
WIFIA - CSO Phase III A Facilities		-		41,835		95,230	:	131,658		-		-	268,723
WIFIA - Bucklin Point Resiliency		-		3,981		11,011		796		-		-	15,788
New SRF Revenue Bonds		-		-		-		-		6,035		-	6,035
New Revenue Bonds		-		14,027		-		24,304		116,062		59,490	213,883
Unfunded		1,714		747		3,932		1,617		970		2,481	9,747
Total	\$	56,858	\$	77,527	\$	128,288	\$:	171,155	\$	135,847	\$	74,751	\$ 587,568

The graph below illustrates the projected sources of funds in FY 2020-2025.



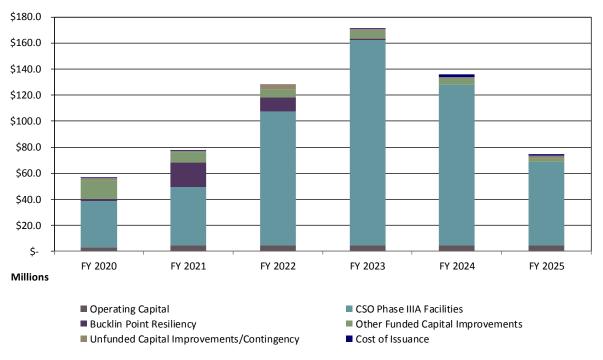
Uses

The following table and chart show that the largest expenditures of capital funding are for capital improvements. The uses below also reflect adjustments to project costs and schedules subsequent to the Board's adoption of the FY 2021-2025 CIP. The CSO Phase III A costs were adjusted for inflation. Smaller projects, and some new identified needs at Bucklin Point, were also consolidated into a single Bucklin Point Resiliency project. The combined impact of these changes is an increase to the projected costs in FY 2020 - 2025 of \$57.4 million. NBC plans to spend \$53.0 million on capital projects in FY 2020 with \$35.3 million for the CSO Phase III A Facilities. During fiscal years 2021-2025, NBC plans to spend \$490.7 million on the CSO Phase III A Facilities, \$30.6 million on Bucklin Point Resiliency and \$28.0 million on other capital projects.

Other identified uses of capital funds include the operating capital of \$25.0 million during the FY 2021-2025 period. The model also shows debt issuance costs of \$550 thousand for the WIFIA loan in FY 2020 and approximately \$3.6 million over the FY 2021-2025 five-year period to support NBC's anticipated borrowings. The following table and graph show the uses of capital funds in FY 2020-2025.

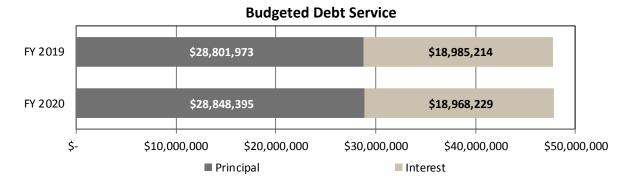
Uses of Funds (Thousands)	F	Y 2020	F	Y 2021	F	Y 2022	F	Y 2023	F	Y 2024	F	Y 2025	Total FY 021-2025
CIP													
CSO Phase III A Facilities	\$	34,981	\$	41,879	\$	94,086	\$	143,803	\$	110,546	\$	55,989	\$ 446,303
Bucklin Point		1,367		4,694		15,301		3,126		-		-	23,121
Other CIP		14,344		8,483		5,904		5,942		5,117		2,500	27,946
Unfunded Capital Improvements/Contingency		1,714		747		3,933		1,616		970		2,482	9,748
Total Original CIP	\$	52,406	\$	55,803	\$	119,224	\$	154,487	\$	116,633	\$	60,971	\$ 507,118
CIP Adjustments													
CSO Phase IIIA Facilities Inflation Adjustment	\$	355	\$	2,396	\$	8,353	\$	13,593	\$	12,197	\$	7,818	\$ 44,357
Bucklin Point Resiliency Change in Scope/Schedule		285		14,070		(4,289)		(2,328)		-		-	7,453
Total Adjusted CIP	\$	53,046	\$	72,269	\$	123,288	\$	165,752	\$	128,830	\$	68,789	\$ 558,928
Operating Capital	\$	3,262	\$	5,000	\$	5,000	\$	5,000	\$	5,000	\$	5,000	\$ 25,000
Cost of Issuance		550		258		-		403		2,017		962	3,640
Total	\$	56,858	\$	77,527	\$	128,288	\$	171,155	\$	135,847	\$	74,751	\$ 587,568

Uses of Funds



Long-Term Debt

Since the CIP is financed primarily through the issuance of long-term debt, the capital program's primary impact on the operating budget is through the payment of principal and interest. The following chart shows budgeted debt service in FY 2020 is \$47.8 million, which is 0.06% higher than the prior year.



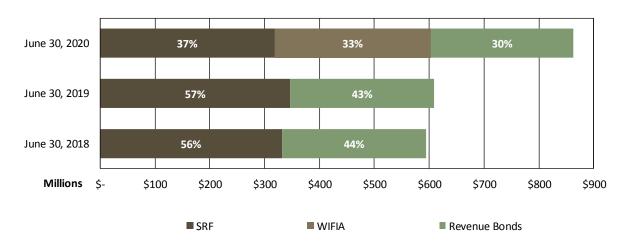
The table below shows the changes in outstanding debt at fiscal year-end for 2018, 2019 and 2020. The Additions/Principal Payments column reflects the net effect of principal payments and new SRF bond issuance. Outstanding debt is projected to increase 2.4% or \$14.2 million from \$594.4 million at June 30, 2018 to \$608.5 million at June 30, 2019 reflecting the new \$45.0 million SRF loan. NBC plans to borrow \$284.5 million through the WIFIA program in FY 2020, and as a result the net increase in outstanding debt as of June 30, 2020 is \$254.6 million for a total of \$863.1 million.

Outstanding Debt

Issuance	standing Debt as f June 30, 2018	Ad	ditions/ Principal Payments	Outstanding Debt as of June 30, 2019		dditions/ Principal Payments	tanding Debt as June 30, 2020
SRF Loans							
SRF Loans	\$ 331,776,407	\$	15,198,028	\$ 346,974,435	\$	(28,848,395)	\$ 318,126,040
Subtotal SRF	331,776,407		15,198,028	346,974,435		(28,848,395)	318,126,040
Revenue Bonds							
2008 Series A Refunding Bonds	56,465,000		-	56,465,000		-	56,465,000
2013 Series A	71,480,000		-	71,480,000		-	71,480,000
2013 Series C	34,970,000		-	34,970,000		-	34,970,000
2014 Series B Refunding Bonds	39,820,000		-	39,820,000		-	39,820,000
2015 Series A Refunding Bonds	40,085,000		-	40,085,000		-	40,085,000
Subtotal Revenue Bonds	242,820,000		-	242,820,000		-	242,820,000
WIFIA							
CSO Phase III A Facilities	-		-	-		268,721,668	268,721,668
Bucklin Point Resliency	 -		-	-		15,786,887	15,786,887
Subtotal WIFIA	-		-	-		284,508,555	284,508,555
Subtotal Bonds	\$ 574,596,407	\$	15,198,028	\$ 589,794,435	\$	255,660,160	\$ 845,454,595
Premiums							
2013 Series A	4,131,888		(158,919)	3,972,969		(158,919)	3,814,050
2013 Series C	2,274,637		(142,165)	2,132,472		(142,165)	1,990,307
2014 Series B Refunding Bonds	7,381,545		(434,209)	6,947,336		(434,209)	6,513,127
2015 Series A Refunding Bonds	5,996,114		(315,585)	5,680,529		(315,585)	5,364,944
Subtotal Premiums	\$ 19,784,184	\$	(1,050,878)	\$ 18,733,306	\$	(1,050,878)	\$ 17,682,428
Total Outstanding Debt	\$ 594,380,591	\$	14,147,150	\$ 608,527,741	\$	254,609,282	\$ 863,137,023

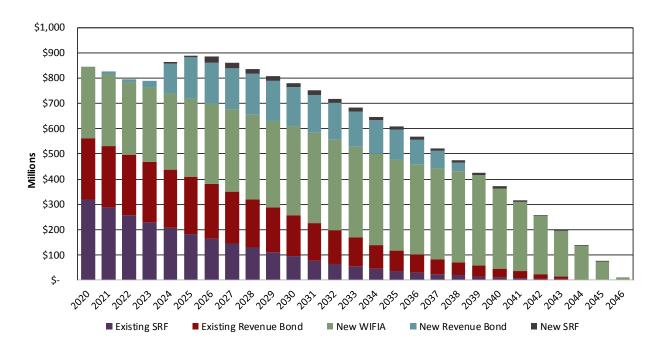
The chart below shows the projected change in outstanding debt over the next fiscal year. The WIFIA loans are projected to comprise 33% of the outstanding debt in FY 2020, followed by SRF loans at 37% and revenue bonds at 30%. The outstanding SRF loans and Revenue Bonds decrease from the prior year by 20% and 13% respectively with the planned \$284.5 million WIFIA loan in FY 2020.

Outstanding Debt by Issuance Type



The following graph shows NBC's projected outstanding debt through maturity in FY 2046, incorporating existing debt service and the additional debt issuance required to support the CIP and specifically the CSO Phase III A Facilities. Outstanding debt is projected to peak at \$889.0 million in FY 2025.

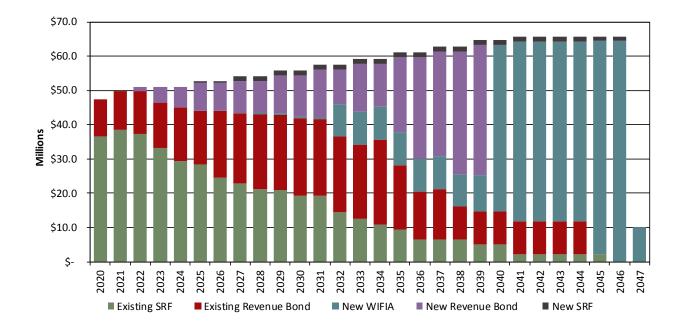
Existing and Projected Outstanding Debt



The following table and chart shows existing and projected debt service payments through maturity.

Actual and Projected Debt Service Payments through Maturity

Ficeal	Actual al	Evicting		-	ough matur	Total Debt			
Fiscal	Existing SRF	Existing	New WIFIA	New Revenue	New SRF				
Year	· ·	Revenue Bond		Bond		Service			
2020	\$ 36,648,779	\$ 10,689,599	\$ -	\$ -	\$ -	\$ 47,338,378			
2021	38,508,041	11,228,351	-	-	-	49,736,392			
2022	37,205,733	12,486,100	-	1,424,358	-	51,116,191			
2023	33,125,452	13,405,172	-	4,585,566	-	51,116,190			
2024	29,465,934	15,586,805	-	6,063,451	-	51,116,190			
2025	28,343,259	15,722,717	-	8,206,436	377,264	52,649,676			
2026	24,629,515	19,432,813	-	8,210,083	377,264	52,649,675			
2027	22,840,645	20,568,902	-	9,401,623	1,417,997	54,229,167			
2028	21,077,980	22,051,111	482,993	9,199,085	1,417,997	54,229,166			
2029	20,957,998	21,900,461	482,993	11,096,593	1,417,997	55,856,042			
2030	19,385,956	22,544,791	482,993	12,024,304	1,417,997	55,856,041			
2031	19,265,611	22,348,447	482,993	14,016,674	1,417,997	57,531,722			
2032	14,384,285	22,172,318	9,487,164	10,069,958	1,417,997	57,531,722			
2033	12,601,142	21,620,662	9,487,164	14,130,709	1,417,997	59,257,674			
2034	10,957,412	24,768,510	9,487,164	12,626,592	1,417,997	59,257,675			
2035	9,363,932	18,903,208	9,487,164	21,863,103	1,417,997	61,035,404			
2036	6,431,045	14,141,275	9,487,164	29,557,924	1,417,997	61,035,405			
2037	6,425,794	14,837,775	9,487,164	30,697,737	1,417,997	62,866,467			
2038	6,422,253	9,648,150	9,487,164	35,890,903	1,417,997	62,866,467			
2039	4,971,105	9,652,150	10,682,304	38,028,905	1,417,997	64,752,461			
2040	4,970,693	9,648,200	48,715,571	-	1,417,997	64,752,461			
2041	2,231,686	9,649,200	52,301,118	-	1,417,997	65,600,001			
2042	2,231,343	9,651,700	52,298,961	-	1,417,997	65,600,001			
2043	2,229,908	9,650,200	52,301,895	-	1,417,997	65,600,000			
2044	2,229,325	9,649,200	52,303,478	-	1,417,997	65,600,000			
2045	2,229,005	-	62,330,262	-	1,040,733	65,600,000			
2046	-	-	64,559,268	-	1,040,733	65,600,001			
2047	-	-	10,239,277	-	-	10,239,277			



Projected Revenue and Expense

NBC has projected operating budget revenue and expense for FY 2020-2025 taking into consideration the Capital Improvement Program and a number of other assumptions. The FY 2020 base figures reflect the operating budget levels and the CIP impacts are incorporated into the base revenue and expense figures. NBC will continue to update and validate assumptions as part of the ongoing planning process each year.

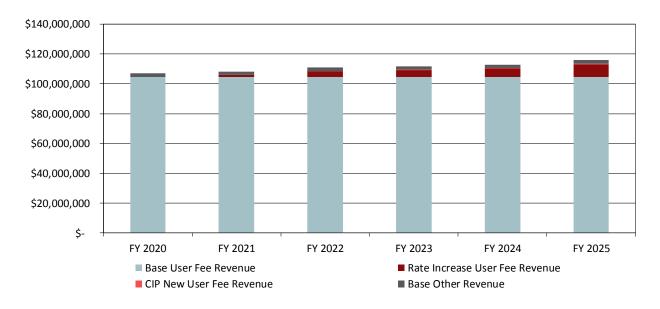
Projected Revenue

User fees are the largest source of NBC's revenue. Over the six-year period, user fee revenue is projected to increase 8.5% due to projected increases in O&M and debt service. The table below shows projected incremental changes in revenue assuming that all budgeted FY 2020 impacts are included in the base figures. With respect to the CIP, collection system expansion projects are estimated to increase user fee revenue in FY 2022 and again in FY 2023. NBC projects user fee rate increases each year beginning in FY 2021 to ensure that rates will generate sufficient revenue to meet inflation adjusted O&M, debt service and debt service coverage requirements during the three years subsequent to new debt issuance.

REVENUE	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Base User Fee Revenue	\$ 104,620,354	\$ 104,620,354	\$ 104,620,354	\$ 104,620,354	\$ 104,620,354	\$ 104,620,354
Rate Increase User Fee Revenue	-	1,358,523	3,983,650	4,566,082	5,591,162	8,653,805
CIP New User Fee Revenue	 -	-	22,384	268,610	268,610	268,610
Total User Fee Revenue	104,620,354	105,978,877	108,626,389	109,455,046	110,480,126	113,542,769
Base Other Revenue	2,329,776	2,329,776	2,329,776	2,329,776	2,329,776	2,329,776
New Other Revenue	-	-	-	-	-	-
Total Other Revenue	2,329,776	2,329,776	2,329,776	2,329,776	2,329,776	2,329,776
Total Revenue	\$ 106,950,130	\$ 108,308,653	\$ 110,956,165	\$ 111,784,822	\$ 112,809,902	\$ 115,872,545

Other Revenue is not anticipated to increase during the FY 2020 to FY 2025. The following chart shows the increase in user fee revenue over the six-year period.

Projected Revenue



Projected Expense

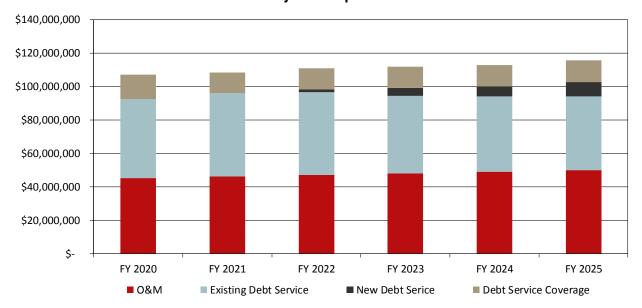
With respect to projected Operation and Maintenance (O&M) expense, a number of assumptions have been incorporated into the projections. NBC has inflated annual O&M at 2.0% per year. The incremental net impact of the CIP is anticipated to reduce O&M expense by \$112,560 in FY 2023, with additional changes in FY 2024, and a net increase in O&M expense in FY 2025 of \$119,019. The net result is a projected 10.7% increase in O&M over the six-year period.

NBC's largest expense is debt service. NBC's model incorporates two projected WIFIA loans that show the need to access the capital market in FY 2021 to finance its CIP. Projected debt service is considerably lower than was projected last year due to the WIFIA funding of the CSO Phase III A Facilities. Overall new debt issuance is projected to increase overall debt service by 11.2% over the six-year period. Assuming the rate increases shown on the prior page are implemented, NBC will meet coverage requirements during the six-year period.

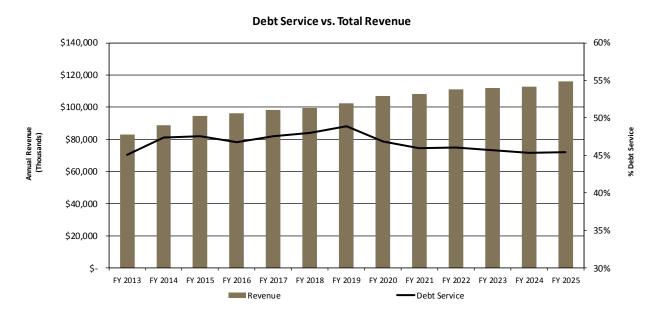
EXPENSE	FY 2020		FY 2021		FY 2022		FY 2023		FY 2024		FY 2025
Base O&M Expense with CPI @ 2%	\$ 45,233,493	\$	46,138,163	\$	47,060,926	\$	48,002,145	\$	48,962,188	\$	49,941,431
CIP Net Expense Impact	-		-		-		(112,560)		(47,523)		119,019
Total O&M	45,233,493		46,138,163		47,060,926		47,889,585		48,914,665		50,060,450
Existing Debt Service	47,338,378		49,736,392		49,691,833		46,530,624		45,052,739		44,065,976
New Debt Service	-		-		1,424,358		4,585,566		6,063,451		8,583,700
Total Debt Service	47,338,378		49,736,392		51,116,191		51,116,190		51,116,190		52,649,676
Debt Service Coverage @ 25%	14,378,259		12,434,098		12,779,048		12,779,048		12,779,048		13,162,419
Total Function	¢ 100 050 130	<u> </u>	100 200 CE2	ć	110 OFC 1CE	¢	111 704 022	¢	112 000 002	ć	115 073 545
Total Expense	\$ 106,950,130	Ş	108,308,653	ş	110,956,165	Þ	111,784,822	ş	112,809,902	ş	115,872,545
Coverage			1.25		1.25		1.25		1.25		1.25

The chart below shows that existing debt service will drop off over the next six years and debt service for new debt begins in FY 2022. Relatively modest increases in O&M are programmed over the six-year period.

Projected Expense

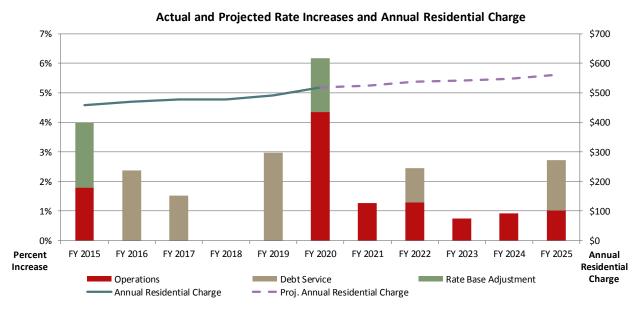


The chart below shows how debt service as a percent of projected PUC approved total revenue is projected to decrease from a peak of approximately 49.0% of total revenue in FY 2019 to 45.3% in FY 2024. Although NBC will be financing the CSO Phase III A Facilities during this period, the flexibility offered through the WIFIA program significantly reduces the debt service impact during construction.



Sewer User Fee Rate Projections

The following chart shows the actual and projected rate increases along with the annual residential charge for FY 2015 through FY 2025. The 6.2% rate increase in FY 2020 is for O&M costs and rate base adjustments. For modeling purposes, NBC has assumed a 2.0% inflation factor for O&M costs and has used the WIFIA proforma for debt service projections. Based on the model, annual increases for O&M will be required. Rate relief will be needed to support higher debt service in both FY 2022 and FY 2025 at 1.16% and 1.7% respectively.



NBC's average annual residential user charge is projected to increase from \$518 in FY 2020 to \$561 in FY 2025. The largest projected rate increase over the five-year period is in FY 2025 at 2.77%. This is lower than what

was projected last year due to the anticipated WIFIA loans for the CSO Phase III A Facilities and Bucklin Point Resiliency project. The projected rate increases are subject to change due to a number of factors including but not limited to changes in the schedule or scope of the CSO Phase III A Facilities or other capital projects, changes to operation and maintenance costs, differing CIP impacts, variances in renewable energy production, or changes in NMC or REC rates may occur. The impacts may also change if there are changes to the rate base or other factors out of NBC's control including short and long-term interest rates, health insurance renewals, new regulatory requirements, etc.

Even with past rate increases required to support the CIP, operation and maintenance expense and rate base adjustments, NBC's sewer rates remain competitive. As can be seen in the following table, when NBC's 2018 rate is calculated based on consumption of 120 HCF, it is approximately 16.4% below the national average of \$768 for major U.S. Cities. Survey results for the State of Rhode Island are shown in the Operating Budget section of this document.

2018 Annual Resid	ential	Sewer	Charges for Major U.S. (Cities	
Seattle, WA	\$	1,615	Indianapolis, IN	\$	656
San Francisco, CA		1,567	Houston, TX		648
Honolulu, HI		1,264	Providence, RI		642
Portland, ME		1,194	Los Angeles, CA		601
Washington, DC		998	San Diego, CA		594
MWRA Service Area		979	Columbus, OH		558
Flint, MI		931	Fort Worth, TX		551
Austin, TX		896	Dallas, TX		540
Boston, MA		886	Saint Paul, MN		521
Saint Louis, MO		814	San Jose, CA		467
New Orleans, LA		794	Newark, NJ		457
New York, NY		744	Philadelphia, PA		454
Detroit, MI		733	San Antonio, TX		447
Jacksonville, FL		687	Milwaukee, WI		260
			National Average	\$	768

Narragansett Bay Commission Acronyms Glossary

ACA - Affordable Care Act

Commonly referred to as **Obamacare**, is landmark health insurance legislation passed by the 111th United States Congress in March 2010.

AFL-CIO - American Federation of Labor-Congress of Industrial Organizations

AFSCME - American Federation of State, County & Municipal Employees

AMP - Asset Management Program

A technical plan for managing infrastructure and other assets to provide continuous, effective service.

AMS - Asset Management System

The computer system that incorporates all the processes, tools, data and policies needed to effectively manage assets.

APRA - Access to Public Records Act

The Rhode Island state law that gives individuals the right to see and obtain records. The law provides guidelines for obtaining access to these records and also defines which records are subject to public inspection and which are exempt.

BLS - Bureau of Labor Statistics

The Bureau of Labor Statistics is the principal fact-finding agency for the Federal Government in the broad field of labor economics and statistics.

BMP - Best Management Practices

The EPA defines a BMP as a "technique, measure or structural control that is used for a given set of conditions to manage the quantity and improve the quality of stormwater runoff in the most cost effective manner".

BNR - Biological Nutrient Removal

A biological process to remove nitrogen from wastewater, to prohibit excessive algal growth and low oxygen levels in receiving waters.

BOD - Biochemical Oxygen Demand

An indicator of the amount of oxygen being depleted from the receiving waters by sewage; the greater the BOD, the greater the degree of pollution.

BVDC - Blackstone Valley District Commission

BVI - Blackstone Valley Interceptor

CAC - Citizens' Advisory Committee

An advisory group to NBC, CAC represents users, the general public and environmental groups.

CAFR - Comprehensive Annual Financial Report

A report completed by NBC which conveys the annual financial position and results of operations of the NBC and complies with the accounting requirements promulgated by the GASB.

CBA - Collective Bargaining Agreement

Agreement reached between management and union representatives as to the terms of future union contracts.

CBOD - Carbonaceous Biochemical Oxygen Demand

A method defined test measured by the depletion of dissolved oxygen by biological organisms in a body of water in which the contribution from nitrogenous bacteria has been suppressed.

CDL - Commercial Driver's License

A license that meets certain "standards" uniform to all states, as required by federal law, and is mandatory for the operation of particular commercial vehicles.

CIP - Capital Improvement Program

A plan for major capital expenditures to be incurred each year over a fixed period of five years to meet capital needs arising from the long-term work program. It sets forth each project and specifies the full resources estimated to be available to finance the projected expenditures.

CMOM - Capacity Management Operation and Maintenance Program

A dynamic and adaptable system management approach that utilizes feedback regarding system performance, variable conditions and operating & maintenance practices to direct and adjust responses, routine activities procedures, and capital investments.

CRMC - The Coastal Resources Management Council

A management agency with regulatory functions responsible for the preservation, protection, development, and where possible, the restoration of the coastal areas of the state via the implementation of its integrated and comprehensive coastal management plans and the issuance of permits for work with the coastal zone of the state.

COB - The NBC's Corporate Office Building.

COLA - Cost of Living Adjustment

An annual adjustment made to the salary of a union employee of NBC to maintain the level of wages against inflation.

CPI - Consumer Price Index

Measures changes in the price level of a market basket of consumer goods and services purchased by households.

CS - Customer Service

The section in NBC that is responsible for the billing, collection and payment processing of approximately 84,455 customers in NBC's service area.

CSO - Combined Sewer Overflows

Areas along Rhode Island rivers where combined sewers overflow during significant rain events.

DMR - Discharge Monitoring Report

Reports required to be submitted to the RIDEM every month; these reports summarize the findings of daily samplings conducted at each wastewater treatment facility.

DOH - Rhode Island Department of Health

DT/day - Dry Tons per Day

EAP - Employee Assistance Program

An arrangement between a corporation, academic institution or government agency and its employees that provides a variety of support programs for the employees.

EEF - Environmental Enforcement Fund

Includes funds recovered through administrative or civil enforcement action that are not available for normal operating expense per Chapter 46-25 of RI General Laws.

EEO - Equal Employment Opportunity

In compliance with Federal and State legislation, NBC promotes fair and equitable treatment to all employees regardless of race, color, sex, age, national origin, handicap/disability status, veteran status, sexual orientation or gender identity or expression.

ELUR - Environmental Land Use Restriction

A declaration consistent with the regulations adopted by the Rhode Island Department of Environmental Management pursuant to R.I.G.L. § 23-19.14-1 which manages environmental risks associated with property containing soil and/or groundwater which is contaminated with certain hazardous materials and/or petroleum in excess of applicable criteria pursuant to the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases.

EMMA - Electronic Municipal Market Access

EMMA is a service of the Municipal Securities Rulemaking Board, which protects investors, state and local governments, and the public interest. Portions of EMMA data provided by Standard & Poor's Securities Evaluations, Inc., CUSIP Global Services & American Bankers Association.

EMPACT - Environmental Monitoring for Public Access and Community Tracking

Evaluates the quality of the receiving water at certain buoy and fixed station sites and provides the means to measure the water quality improvements resulting from NBC's nutrient removal and CSO facilities.

EPA - Environmental Protection Agency

An agency of the federal government designated to oversee environmental protection in the United States.

EPCRA - Emergency Planning and Community Right-to-Know Act

An Act passed by Congress in 1984 in response to concerns regarding the environmental and safety hazards posed by the storage and handling of toxic chemicals. As a result, Congress imposed reporting on hazardous and toxic chemicals and emergency planning requirements for federal, state and local governments, tribes and industries.

ERP - Environmental Results Program

An innovative environmental management approach that uses compliance assistance, self-audits/certifications, and statistically based inspections and performance measurements to help educate owners and operators of regulated facilities to more effectively meet or exceed regulatory compliance obligations, while enabling regulators to obtain long-term verifiable results at less cost and effort.

FSA - Flexible Spending Account

Also known as a flexible spending arrangement is one of a number of tax-advantaged financial accounts that can be set up through a cafeteria plan of an employer in the United States.

FSP - Fiscal Sustainability Plan

A fiscal sustainability plan is a living document that is regularly reviewed, revised, expanded, and implemented as an integral part of the operation and management of the system. A plan for maintaining, repairing, and, as necessary, replacing the treatment works and a plan for funding such activities.

FTEs - Full-time Equivalents

The amount of hours worked being equal to a full-time employee.

FY - Fiscal Year

The twelve-month financial period used by the NBC, that runs from July 1st through June 30th of the following calendar year. The year is represented by the end date.

GAAP - Generally Accepted Accounting Principles

The concepts, principles, and procedures developed to serve as the norm for the fair presentation of financial statements.

GASB - Governmental Accounting Standards Board

A private not-for-profit organization that seeks to establish and improve standards of accounting and financial reporting for U.S. state and local governments.

GFOA - Government Finance Officers Association

GFOA is the professional association of state/provincial and local finance officers in the United States and Canada, and has served the public finance profession since 1906. Over 15,500 GFOA members are dedicated to the sound management of government financial resources.

GIS - Geographic Information Systems

A mapping technology that allows the user to create and interact with a variety of maps and data sources.

GPS - Global Positioning Satellite System

This system uses information obtained by satellites to indicate the coordinates of a specific location.

HCF - Hundred Cubic Feet

Unit of liquid measure, used to bill NBC's consumption fees.

HDHP - High Deductible Health Plan

A health insurance plan with lower premiums and higher deductibles than a traditional health plan.

HR - Human Resources

A section within the NBC that is responsible for the administration and processing of employee records, employee recruitment and retention, workers' compensation and equal employment opportunity for union and non-union personnel.

HRA - Health Reimbursement Arrangement

Employer-funded plans that reimburse employees for any incurred medical expense that is not covered by the company's standard insurance plan.

HSA - Health Savings Account

A tax-advantaged medical savings account available to taxpayers in the United States who are enrolled in a high-deductible health plan (HDHP).

HVAC - Heating, Ventilating and Air Conditioning

The mechanical systems that provide temperature and air quality control in an office space and are generally interconnected.

IFAS - Integrated Fixed Film Activated Sludge

A process of adding media, usually plastic, to aeration tanks to increase surface area for bacterial growth.

IT - Information Technology

The section in NBC that is responsible for NBC's networks, communications, hardware, software and databases.

kWh - Kilowatt hour

A unit of energy used to measure electricity usage and 1 kWh is equal to 1,000 watt hours and powers a 100 watt light bulb for 10 hours.

LED - Light-emitting Diode

A two-lead semiconductor light source, which emits light when activated. When a fitting voltage is applied to the leads, electrons are able to recombine with electron holes within the device, releasing energy in the form of photons.

LEED - Leadership in Energy and Environmental Design

A high performance green building's certification program created by the U.S. Green Building Council which focuses primarily on new, commercial building projects and based upon a points system. The more points you earn, the higher your rating.

LID - Low Impact Design

An approach to land development (or re-development) that works with nature to manage stormwater as close to its source as possible.

LIMs - Laboratory Information Management System

A software-based laboratory and information management system that supports a modern laboratory's operations. The system allows a way of tracking samples to be tested from the point of acquisition through the process of entering the results into the database.

LIUNA - Laborers' International Union of North America

LOC - Letter of Credit

A guarantee of payment issued by a bank on behalf of a client that is used as "payment of last resort" should the client fail to fulfill a contractual commitment with a third party.

LOI - Letter of Interest

A prospective borrower's demonstration of eligibility for a WIFIA loan administered through the EPA.

LRP - Long Range Planning

Mgd/MGD - Million Gallons per Day

Mg/L - Milligrams per Liter. 1 mg/L can also be expressed as 1 part per million

ml - Milliliter

A metric unit of volume that is equal to one thousandth of a liter.

MPN - Most Probable Number

Expressed as the number of organisms which are most likely to have produced the laboratory results noted in a particular test.

MVI - Moshassuck Valley Interceptor

MW - Megawatt

A megawatt is a unit of measure of electricity and one MW is equal to one million (10^6) watts.

MSRB - Municipal Securities Rulemaking Board

The Municipal Securities Rulemaking Board (MSRB) protects investors, state and local governments and other municipal entities, and the public interest by promoting a fair and efficient municipal securities market.

MWRA - Massachusetts Water Resource Authority

N/A - The information is *Not Available* or *Not Applicable*.

NACWA - National Association of Clean Water Agencies

An organization which represents the interests of over 300 public agencies and organizations involved with wastewater treatment.

NBEP - Narragansett Bay Estuary Program

As part of the National Estuary Program, created in 1987 under the Clean Water Act, NBEP serves to protect and preserve Narragansett Bay and its watershed through partnerships that conserve and restore natural resources, enhance water quality and promote community involvement.

NEWEA - New England Water Environment Association

An organization of over 2,100 Water and Wastewater Professionals, who volunteer their time, energy and expertise in order to preserve, protect and manage New England's water environment.

NMC - Net Metering Credit

NWPCA - Narragansett Water Pollution Control Association

Established in 1952, the NWPCA is a non-profit organization created to promote the advancement of knowledge concerning the nature, collection, treatment, and disposal of domestic and industrial wastewaters.

O & M - Operations and Maintenance

Expense related to performing the functions required to safely and effectively operate and maintain NBC's wastewater treatment and collection services.

OCP - Operating Capital Program

A plan for programmed asset purchases for the current budget year and subsequent four years. The OCP is based primarily on information from NBC's Asset Management Program and includes new assets, asset replacements, asset renovations and betterments.

OSE - Operating Supplies and Expense

OSHA - Occupational Safety and Health Act of 1970

OSHA's role is to set and enforce standards that assist employers with their responsibility to promote workplace safety and the health of their employees.

PFMB - Rhode Island Public Finance Management Board

The Rhode Island Public Finance Management Board (PFMB) is a nine-member volunteer body with a goal of promoting transparency in government and improving the financial health of municipal entities and quasi-public corporations in Rhode Island, the PFMB provides debt-related information which can be used to determine the feasibility of issuing bonds.

PLC - Programmable Logic Controller

An industrial computer control system that continuously monitors the state of input devices and makes decisions based upon a custom program to control the state of output devices

PUC - Public Utilities Commission

In accordance with RIGL, this state agency regulates certain public utilities in the State of Rhode Island, including the NBC.

PPA - Power Purchase Agreement

An agreement between two parties, one who generates electricity for the purpose (the seller) and one who is looking to purchase electricity (the buyer).

RAS - Return Activated Sludge

The settled activated sludge (which contains bacteria that feeds on the organic content in sewage) collected in the secondary clarifiers then returned to the aeration basins to re-seed the process for the incoming wastewater.

REC - Renewable Energy Credits

Tradable, non-tangible energy commodities in the United States that represent proof that 1 megawatt-hour (MWh) of electricity was generated from an eligible renewable energy resource (renewable electricity).

RGGI - Regional Greenhouse Gas Initiative

The first mandatory market-based program in the United States to reduce greenhouse gas emissions. RGGI is a cooperative effort among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont to cap and reduce CO2 emissions from the power sector.

RIIB - Rhode Island Infrastructure Bank

Formerly known as the Rhode Island Clean Water Finance Agency, this state agency administers the State Revolving Fund which finances wastewater related projects and other programs.

RIDEM - Rhode Island Department of Environmental Management

The environmental regulatory department of the State and serves as a delegated authority of the USEPA with respect to the federal Clean Water Act and other programs.

RIGL - Rhode Island General Laws

RIPDES Permit - Rhode Island Pollution Discharge Elimination System

A permit issued by the RIDEM which sets discharge limitation requirements for wastewater utilities.

RIPEC - Rhode Island Public Expenditure Council

An independent, nonprofit and nonpartisan public policy research and education organization.

RIRRC - Rhode Island Resource Recovery Corporation

RIWARN - Rhode Island Water/Wastewater Agency Response Network

A mutual aid agreement between cities, towns or agencies to provide assistance in the event of an emergency.

ROMS - Regional Ocean Model System

A numerical hydrodynamic computer model in the public domain that is being applied to the Narragansett Bay by the URI-Graduate School of Oceanography. This model will predict circulation, thermal and pollutant transport for Narragansett Bay, including the Providence and Seekonk river systems.

S&P - Standard & Poor's Stock Market Index

SEC - Security and Exchange Commission

An independent agency of the United States Government that holds primary responsibility for enforcing the federal securities laws, proposing securities rules, and regulating the securities industry.

SIUs - Significant Industrial Users

NBC's largest industrial customers.

SMART - SMART Goals

S.M.A.R.T. is a framework for goal setting. Follow the framework to ensure the best chance of success for achieving goals. (Specific. Measurable. Attainable. Results-oriented. Time-limited.)

SOP - Standard Operating Procedure

An SOP is a written procedure that promotes uniformity in operations and provides individuals with the information necessary to perform a task properly and facilitates consistency in the quality and integrity of the end result.

SRF - State Revolving Fund

The Rhode Island Infrastructure Bank program which offers low cost financing to eligible qualified borrowers.

TAC - Technical Analysis & Compliance

TMDL - Total Maximum Daily Load

A calculation of the maximum amount of a pollutant that a body of water can receive and still meet water quality standards as established by the Clean Water Act, Section 303.

TSS - Total Suspended Solids

The ratio of solid matter in the effluent in parts per million.

URI - University of Rhode Island

USEPA - United States Environmental Protection Agency

The agency of the federal government designated to oversee environmental protection in the United States.

UV - Ultraviolet

Of or relating to a light bulb that emits ultraviolet radiation

VFD - Variable Frequency Drive

A device that adjusts the speed of a pump in response to the amount of flow entering the pump station.

VRDB - Variable Rate Demand Bonds

NBC's long-term revenue bond that is multi-modal and currently is in weekly mode and backed with a direct pay letter of credit.

VRDO - Variable Rate Demand Obligation

A variable rate demand obligation (VRDO) is a municipal security for which the interest rate resets on a periodic basis and holders are able to liquidate their security through a "put" or "tender" feature, at par.

WIFIA - Water Infrastructure Finance and Innovation Act

The WIFIA program accelerates investment in our nation's water infrastructure by providing long-term, low-cost supplemental loans for regionally and nationally significant projects.

WED - Wind Energy Development

Wind turbines that convert wind energy into electricity.

WEFTEC - Water Environment Federation Technical Exhibition and Conference

An annual conference providing extensive education opportunities and unparalleled access to the field's most cutting-edge technologies and services.

WQS Building --Water Quality Science Building

WWTF - Wastewater Treatment Facility

A facility used to treat wastewater, so that the release of effluent poses no adverse impact on public health or the ecology.



Narragansett Bay Commission Glossary of Terms

Abatement - A user charge credit for customers who can demonstrate that more than 15% of their measured water usage does not enter NBC's sewer system.

Abatement Fee - The fee charged as part of the Sewer User Fee Abatement Application.

Abbreviated Rate Filing - A simplified filing process with the Public Utilities Commission for a revenue increase available to non-investor owned utilities under certain circumstances.

Accounting System - A system of financial recordkeeping that records, classifies, and reports information on the financial status and operation of an organization.

Accrual Basis of Accounting - A method of accounting that recognizes the financial effect of transactions when they occur, regardless of the timing of related cash flows.

Adopted Budget - The operating budget approved by the NBC's Board of Commissioners.

Allocation - The distribution of available funds, personnel, buildings and equipment among various Commission divisions and/or cost centers.

Amortization - The allocation of the cost of an asset over its useful life.

Anaerobic Biosolids Digestion - A process by which microorganisms break down organic matter, producing various gases and a reduced volume of semi-solid residue. The gases produced, called "biogas" or "digester gas," include a high percentage of methane, which can be burned to produce heat and/or electricity.

Annual Budget - An estimate of expense to be used for specific purposes during the fiscal year (July 1 - June 30) along with the proposed means (estimated revenues) for financing those activities.

Approved Budget - The budget that has been approved by the NBC's Board of Commissioners.

Arbitrage - The investment of tax-exempt bond proceeds in higher yielding taxable securities, resulting in a profit.

Asset Management Program - A technical plan for managing infrastructure and other assets to provide continuous, effective service.

Audit - An independent systematic examination of the financial records to obtain reasonable assurance about whether the financial statements are free of material misstatement.

Balanced Budget - A budget in which revenue equal expense.

Baynet - NBC's internal webpage.

Biosolids (also referred to as Sludge) - The solids (heavy organic waste matter) resulting from the wastewater treatment process. This material is separated from the effluent, treated and appropriately discarded.

Bioassay - A method for the quantification of the effects on a biological system by its exposure to a substance.

Biogas - A renewal energy source comprised from a mixture of different gases produced by the breakdown of organic matter in the absence of oxygen, produced from sewage.

Bisulfite - Chemical used to adjust the alkalinity of wastewater.

Board of Commissioners (Board) - NBC's 19 member governing board comprised of nine representatives of the municipalities in the service area and ten gubernatorial appointments.

Bond - A certificate of debt containing a promise to pay a specified sum of money (face value or principal) on specified date/dates in the future (maturity date) together with periodic interest at a specified rate.

Budget - A financial operating plan of all expected revenue and expense for a fiscal year.

Budget Message - A general discussion of the submitted budget presented in writing by the Executive Director as part of the budget document.

Capital Budget - A plan for the investment in long-term assets and the means of financing those acquisitions during the current fiscal period.

Capital Expenditures - Expense related to the Capital Improvement Program (CIP) projects and Operating Capital Program (OCP) assets.

Capital Improvement Program (CIP) - A plan that identifies programmed investments necessary to comply with current and future regulatory requirements, take advantage of technological advancements, and ensure the integrity of NBC's infrastructure. Capital needs are identified by project and fiscal year over a five-year period.

Capital Reimbursements - Labor and other expense related to capital improvement projects paid from NBC's Operating Fund and later reimbursed from the Project Fund.

Carbon Feed - A substance added to the treatment process to reduce total nitrogen.

Cash Basis - Basis of accounting that recognizes transactions or events when related cash amounts are received or disbursed.

Catch Basin - A structure designed to collect and retain solid runoff matter from streets to allow unobstructed flow of surface water into a storm sewer.

Clarifiers - The components of the wastewater treatment plant that separates sludge and scum from wastewater flows, also called sedimentation tanks.

Clean Room - A controlled laboratory testing environment that has a low level of pollutants such as dust, airborne microbes, aerosol particles, and chemical vapors.

Collection System - System of NBC owned wastewater collection and conveyance facilities that ties into NBC's wastewater treatment system including interceptors, pipes, tide gates, pumping stations, manholes, regulators, and catch basins.

Combined Sewage - A mixture of stormwater and wastewater.

Combined Sewers - Sewer systems in which stormwater and sanitary waste from industrial, commercial or residential sources are combined.

Consent Agreement - An agreement between the Rhode Island Department of Environmental Management and NBC, which identifies specific compliance issues and stipulates corrective measures to resolve such issues.

Consumption Revenue - Revenue derived from sewer user fees based upon water usage.

Debt Service - Principal and interest payments on outstanding bonds.

Debt Service Coverage - Requirement of NBC's Trust Indenture that provides that net annual revenue available to pay debt service must exceed annual debt service by 25%.

Debt Service Coverage Ratio - A ratio that expresses the relationship or net revenue to debt service.

Deionized Water Purification System - Removes any impurities in the water, forming pure water (H₂O).

Depreciation - Allocation of the expense of an asset over its useful life in a systematic or rational manner.

Digester - A component of the wastewater treatment facility where organic matter is broken down as part of the treatment process.

Discharge Permit - A permit issued by NBC's Pretreatment Program to regulate the users discharging into NBC's collection system. The permits ensure compliance with all EPA and State mandates and the protection of the treatment facilities and receiving waters.

Dissolved Oxygen - The level of oxygen dissolved in the water which is an important indicator of the health of the ecosystem.

Diversion Chamber - A chamber or box, which contains a device for diverting or drawing off all or part of a flow or for discharging portions of the total flow to various outlets.

Effluent - The "cleaned" wastewater, or final liquid by-product of the wastewater treatment process, that flows out of a treatment facility.

Enterprise Fund - A fund established to account for operations that are financed and operated in a manner similar to private business enterprises. The intent is that the full expense of providing the goods or services be financed primarily through user charges and fees.

Expense - Costs incurred for goods and services received.

Facilities Plan - An improvement plan that integrates new facilities, major rehabilitation, ongoing repairs, or the renewal of existing facilities.

Financing Plan - The estimate of revenues and their sources that will pay for the service programs outlined in the annual budget.

Fiscal Sustainability Plan (FSP) - A fiscal sustainability plan is a living document that is regularly reviewed, revised, expanded, and implemented as an integral part of the operation and management of the system. A plan for maintaining, repairing, and, as necessary, replacing the treatment works and a plan for funding such activities.

Flat Fee Revenue - Revenue derived from sewer user charges based on the number of dwelling units for residential customers and the meter size for non-residential customers.

Flow Meter - A meter used to measure the flow of water.

Force Main - A sewer line fed by a lift station which carries pumped wastewater to a point where additional pumps or gravity can continue to convey the flow.

Fringe Benefit - A component of personnel costs other than salaries that include health insurance, retirement, payroll taxes and other employee benefits.

Fund Accounting - Governmental accounting systems are organized and operated on a fund basis. A fund is defined as a fiscal and accounting entity with a self-balancing set of accounts recording cash and other financial resources, together with all related liabilities and residual equities or balances, and changes therein, which are segregated for the purpose of carrying on specific activities or attaining certain objectives in accordance with special regulations, restrictions, or limitations.

Fund Balance (net position) - Total assets and deferred outflows less liabilities and deferred inflows.

GASB 67 - Government Auditing Standards Board Statement 67 – Financial Reporting for Pension Plans which replaces the requirements of Statement 25 as they relate to pension plans that are administered through trusts or similar arrangements meeting certain criteria.

GASB 68 - Government Auditing Standards Board Statement 68 – Accounting and Financial Reporting for Pensions which replaces Statement 27 and requires governments providing defined benefit pensions to recognize their long-term obligation for pension benefits as a liability for the first time, and to more comprehensively and comparably measure the annual expense of pension benefits. The Statement also enhances accountability and transparency through revised and new note disclosures and required supplementary information.

GASB 82 - Government Auditing Standards Board Statement 82 - an amendment of GASB Statements No. 67, No. 68, and No. 73 (GASB 82), providing guidance on three practice issues raised during the implementation period of the new pension standards issued in 2012. The presentation of payroll-related measures in required supplementary information (RSI), the selection of assumptions and treatment of deviations from the guidance in Actuarial Standards of Practice (ASP) issued by the Actuarial Standards Board (ASB), and the classification of payments made by employers to satisfy employee contribution requirements.

Grant - Financial contributions received from the state and federal government.

Grit Chambers - Grit chambers are part of the wastewater treatment process where flows are slowed long enough for the grit, gravel and sand to fall to the bottom. This is one of the primary treatment steps to physically remove large particles before biological treatment begins.

Hypochlorite - A disinfectant, commonly known as bleach, used to treat effluent and control bacteria and odors.

Hypoxia - A condition in which there is inadequate dissolved oxygen in the water. This condition has a negative impact on the health of the ecosystem.

Infiltration - The seepage of groundwater into a sewer system which may occur through defective or cracked pipes, pipe joints and connections, interceptor access risers and covers, or manhole walls.

Inflow - Water discharged into a sewer system and service connections from sources other than regular connections. This includes flow from yard drains, foundation drains and around manhole covers. Inflow differs from infiltration in that it is a direct discharge into the sewer rather than a leak in the sewer itself.

Influent - Water that flows into the treatment plant.

Interceptor - A large sewer that receives flow from several smaller sewers and conveys flow to a sewage treatment plant.

Late Charge - Compounded interest of 1% per month assessed on unpaid sewer user fee balances 30 days after the billing date.

Letter of Interest - A prospective borrower's demonstration of eligibility for a WIFIA loan administered through the EPA.

Line-Item Budget - A format of budgeting which organizes expense by type, such as supplies, equipment, maintenance or salaries.

Mission Statement - Summation of NBC's purpose and goals.

Modified Accrual Basis - Basis of accounting that focuses on current financial resources. Revenues are recognized when they become measurable and available to finance expenditures of the fiscal period. Debt service expenditures and other accrued liabilities that are not normally liquidated with expendable available financial resources are not recognized until due. In addition, inventories and prepayments may be recognized when incurred rather than when used or during the period benefited by the prepayment.

Net Metering - A policy by which certain renewable energy electricity generators may deduct energy outflows from metered energy inflows.

Net Metering Credit - A reduction in electricity expense due to renewable electricity energy produced off-site resulting in credits applied to National Grid invoices.

Net Position (Fund Balance) - Total assets and deferred outflows less liabilities and deferred inflows.

Net Revenue - Total revenue less total operation and maintenance expense.

Nitrogen Removal - The removal of nitrogen from effluent of a wastewater treatment facility prior to discharge into receiving waters.

Nutrient - An organic or inorganic compound essential for the growth of organisms.

Operating Capital Expenditure - An expense in excess of \$5,000 for the acquisition or replacement of long-term assets that does not include repairs (unless extending the life of the asset by at least 3 years), land or CIP projects.

Operating Capital Program (OCP) - A plan for programmed asset purchases for the current budget year and subsequent four years. The OCP is based primarily on information from NBC's Asset Management Program and includes new assets, asset replacements, asset renovations and betterments.

Operating Reserve for Revenue Stability Fund - Reserve Fund established at a level of \$4,500,000 to support Operations & Maintenance expense in the event that actual revenue is less than the PUC authorized levels.

Outfall - A discrete location where quantities of water and/or wastewater are discharged into receiving waters generally through a pipe.

Overflow - Sewage flow that discharges directly from a sewer into receiving water because the total sewage flow exceeds the capacity of the sewer.

Performance Budget - A budget that bases expense primarily upon measurable performance of activities and work programs. A performance budget may also incorporate other bases of expense classifications, such as character and object class, but these are secondary to activity performance.

Permit Fees - Charges for NBC permits to connect to NBC's sewer system.

Pipeline - NBC's monthly publication designed to keep Narragansett Bay Commission staff up to date on internal current affairs.

Planning - The management function of preparing a set of objectives for future action.

Policy - A definite course of action adopted after a review of information, and directed at the realization of goals.

Power Purchase Agreement - A contract between two parties, one who generates electricity for the purchase (the seller) and one who is looking to purchase electricity (the buyer).

Pretreatment - Reduction or elimination of pollutants from regulated wastewater dischargers prior to discharge into the sewer system.

Priority - A value that ranks goals and objectives in order of importance relative to one another.

Procedure - A method used in carrying out a policy or plan of action.

Program - Group activities, operations or organizational units directed to attaining specific purposes or objectives.

Program Measures - Variables measuring the degree of goal fulfillment achieved by programs.

Projected Expense - Estimate of what will be expensed, based on year-to-date performance.

Pump Station - An installation of pumps used to lift wastewater to a higher elevation in places where flat land would require excessively deep sewer trenches or to raise wastewater from areas too low to drain into available collection lines. These stations may be equipped with air operated ejectors or centrifugal pumps.

Purchase Order - A document issued to authorize a vendor or vendors to deliver specified merchandise or render a specified service for a stated or estimated price.

Rate Filing - An application filed with the Public Utilities Commission to request approval of adjustments to NBC's rates.

Ratepayer - NBC customer who pays a user fee for wastewater treatment and collection services.

Rating Agencies - This term refers to the major agencies which issue credit ratings on municipal bonds.

Receiving Water - A body of water such as a stream, river, or ocean which receives stormwater and/or wastewater.

Regulator Structures - An underground structure which regulates the amount of flow entering interceptors.

Renewable Energy Credit - Credits obtained due to energy being produced from renewable sources such as wind and solar energy resulting in lower electricity expenses.

Restricted Accounts - Accounts that are restricted by the Public Utilities Commission for a specific purpose and are not available to directly fund operations and maintenance.

Revenue - An increase in financial resources and included as income to NBC.

Sampling - The act of taking water samples in order to determine water quality.

Section - NBC's lowest hierarchical level of allocating monies.

Septage - Waste that is disposed into a septage tank, and ultimately transported to a wastewater treatment facility center for treatment.

Settling Tanks - A holding area in the wastewater treatment process where heavier particles sink to the bottom for removal and disposal.

Sewer User Fee - Fees assessed to NBC customers for wastewater treatment collection and treatment services.

Sludge - See Biosolids.

Soda Ash (Sodium Carbonate) - A chemical used in the wastewater treatment process to adjust the alkalinity levels, as part of the nitrogen removal process.

Sodium Hydroxide - A chemical used in the wastewater treatment process to adjust the alkalinity levels, as part of the nitrogen removal process.

Sodium Hypochlorite - A chemical compound used for water purification.

Sondes - A collection of instruments that are used to profile and monitor water conditions in wastewater effluents and receiving waters.

Special Master - A PUC restricted cash account originally designated to be used to fund the hiring of a "Special Master" or overseer of the CSO Phase I Facilities by the PUC. NBC was not required to hire the overseer and the project has long been completed.

Stormwater Runoff - The portion of rainfall, melted snow or other precipitation that flows across the ground surface to a drain, sewer, lake, or river.

Strategic Plan - A plan created to outline the long-term goals and objectives of NBC.

Supplemental Indenture - A supplemental indenture is executed in connection with the issuance of one or more series of additional bonds under the master or bond contract. In some cases, a supplemental indenture amends terms of the master or bond contract without providing for the issuance of additional bonds.

Therm - A unit of measurement for natural gas used to monitor usage and determine usage related charges.

Tide-gate - A gate which opens and closes with tidal height to prohibit river water from entering the sewer system.

Tertiary treatment - The final cleaning process that improves wastewater quality before it is reused, recycled or discharged to the environment. The treatment removes remaining inorganic compounds, and substances, such as the nitrogen and phosphorus.

Trust Indenture - A contract between an issuer and a bond trustee for the benefit of bondholders.

Ultraviolet Disinfection - A wastewater disinfection method in which final effluent is exposed to ultraviolet light to kill pathogens and microorganisms.

Wastewater - The liquid-borne waste products of domestic, commercial and industrial activities.

Wet Weather Flow - The untreated discharges from wastewater treatment plants that occur during storm events.

Wetland - Any area in which the water table stands near, at, or above the land surface for at least part of the year. Such areas are characterized by plants that are adapted to wet soil conditions.