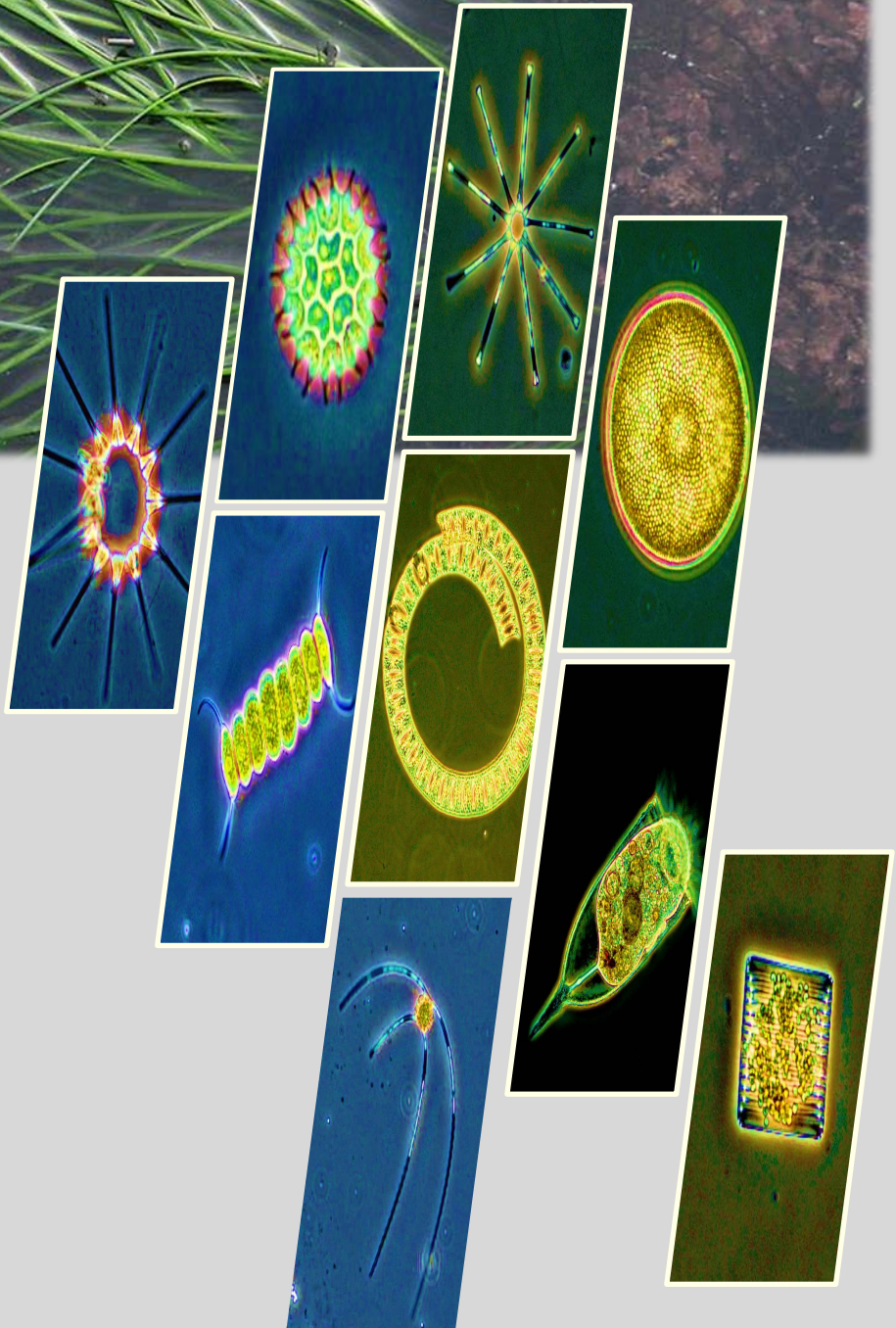


# Operating Budget

Fiscal Year 2018

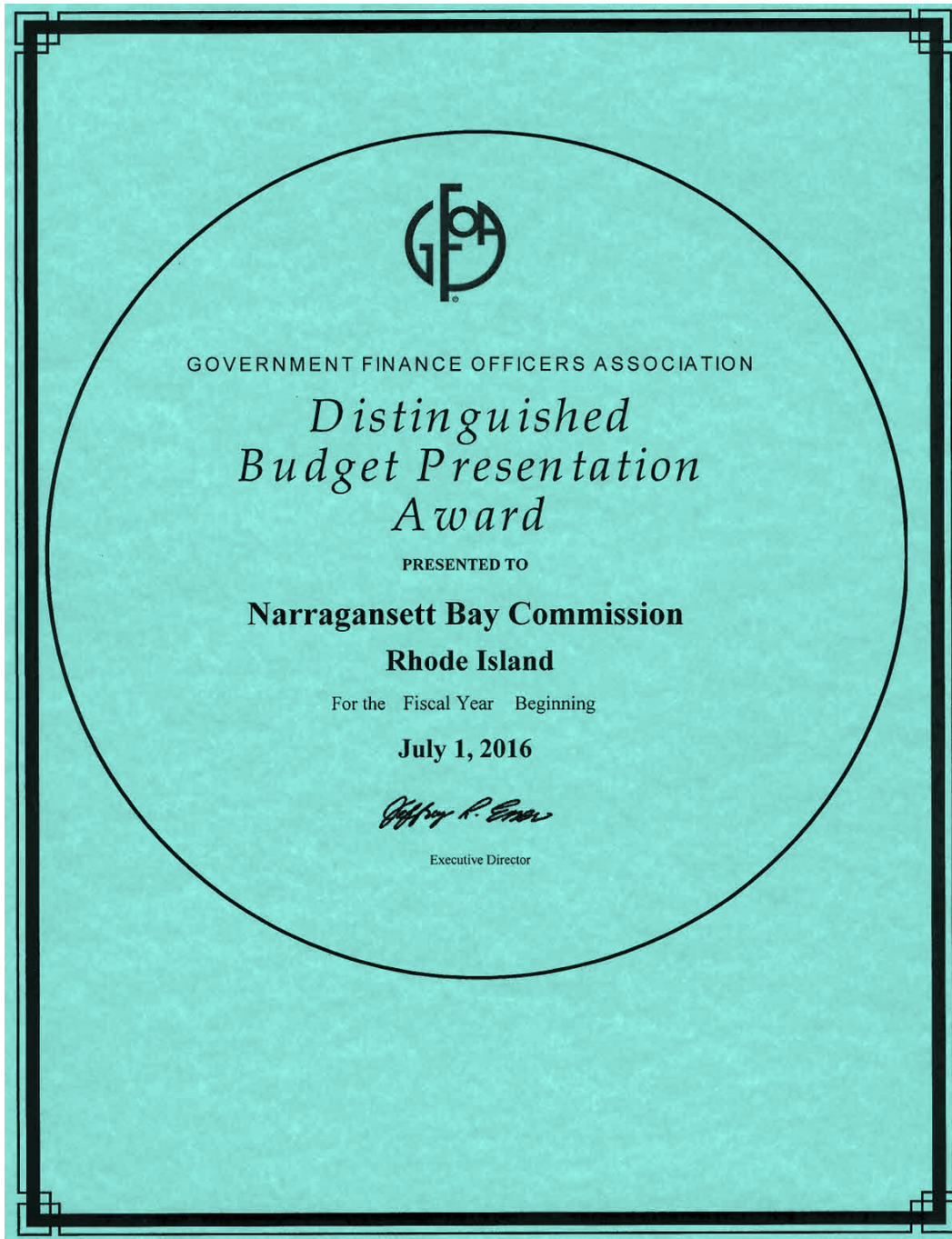


NARRAGANSETT BAY COMMISSION



Vincent J. Mesolella  
Chairman

Raymond J. Marshall, P.E.  
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, 2016. 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: Conimicut Lighthouse and entrance to Providence River*

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Division of Administration and Finance  
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# **NARRAGANSETT BAY COMMISSION**

## **Fiscal Year 2018 Budget**

### **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.

*Vincent J. Mesolella, Chairman*  
*Angelo S. Rotella, Vice Chairman*  
*Robert P. Andrade, Treasurer*

*James S. Bennett*  
*Dr. Richard Burroughs*  
*Dr. Bruce Campbell*  
*Mario G. Carlino*  
*Michelle R. DeRoche*  
*Michael DiChiro, Esq.*  
*Jonathan K. Farnum*  
*Seth K. Handy, Esq.*

*Joseph Kimball*  
*Paul E. Lemont, Esq.*  
*Ronald Leone*  
*John MacQueen*  
*Joan P. Milas*  
*Alessandro Montanari*  
*Alan Nathan*  
*Richard D. Worrell*

*Raymond J. Marshall, Executive Director and Secretary of the Board*



***Photo: Double Rainbow over Field's Point***



# **NARRAGANSETT BAY COMMISSION**

## **Fiscal Year 2018 Budget**

### **CITIZENS ADVISORY COMMITTEE**

The Narragansett Bay Commission's Citizens Advisory Committee (CAC) is a diverse group of dedicated individuals, representing municipalities throughout the Commission's service area, industrial and residential users, environmental organizations and the general public. This committee advises the Board of Commissioners on matters pertaining to sewer user rates, wastewater infrastructure construction, industrial pretreatment, public awareness, and education.

*Howard Schachter, Chairman*

*Lou Blais  
Harold Gadon  
Christopher Hamblett  
Chris Hannifan*

*Phillip Holmes  
Jean Lynch  
Chandrasekhar Mohanty  
Nilesh Patel*

*Michael Quinn  
Howard Schachter  
Jane Sherman  
Dick Wendt*



*Photo: Harbor Seal in Narragansett Bay*

# NARRAGANSETT BAY COMMISSION

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# Executive Director's Message

## Fiscal Year 2018 Budget Summary

The Narragansett Bay Commission's FY 2018 Operating Budget demonstrates NBC's continued commitment to provide excellent service at the lowest possible cost. Overall, the FY 2018 Operating Budget is 0.5% lower than the prior year.

The FY 2018 budget reflects an increase in Operating Revenue of 0.2% due to an increase in user fee revenue based upon FY 2017 performance. Non-Operating Revenue is 9.0% less on a year-to-year basis. This is the result of a decrease in Renewable Energy Credit (REC) revenue, late charge revenue and the Transfer from Operating Capital which is partially offset by an increase in investment income.

With respect to expense, budgeted Operation and Maintenance Expense is 0.5% or \$205,366 greater than the prior year. The majority of this increase, 81.6%, is related to operating supplies and expense with the remaining increase due to personnel expense. Budgeted debt service is 3.7% higher than the prior year, reflecting the higher debt service for NBC's Series 2015 B and Series 2016 A bonds. Budgeted Debt Service Coverage is \$11.7 million which is 15.9% lower on a year-to-year basis. Operating Capital is also budgeted 3.1% less than the prior year. The net effect of these changes is a 0.5% decrease in total expense compared to FY 2017.

### Year-to-Year Operating Budget Comparison

	FY 2017 Budget	FY 2018 Budget	Percent Change
<b>Revenue</b>			
Operating Revenue	\$ 98,449,643	\$ 98,613,926	0.2%
Non-Operating Revenue	7,676,228	6,988,963	(9.0%)
<b>Total Revenue</b>	<b>106,125,871</b>	<b>105,602,889</b>	<b>(0.5%)</b>
<b>Expense</b>			
Operation and Maintenance	41,603,228	41,808,594	0.5%
Debt Service	45,137,622	46,786,894	3.7%
Debt Service Coverage	13,905,521	11,696,723	(15.9%)
Operating Capital	5,479,500	5,310,678	(3.1%)
<b>Total Expense</b>	<b>\$ 106,125,871</b>	<b>\$ 105,602,889</b>	<b>(0.5%)</b>

*“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: Mallard ducks flying over the Blackstone River*

## **Introduction**

The Narragansett Bay Commission (NBC) is pleased to present its FY 2018 operating 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 2018 budget to the relationship between each program’s short-term service level objectives and NBC’s long-term strategic goals. This year’s budget also reflects the incorporation of GFOA S.M.A.R.T. Goal framework and a transition from output performance measures to indicators based on outcome and efficiency.

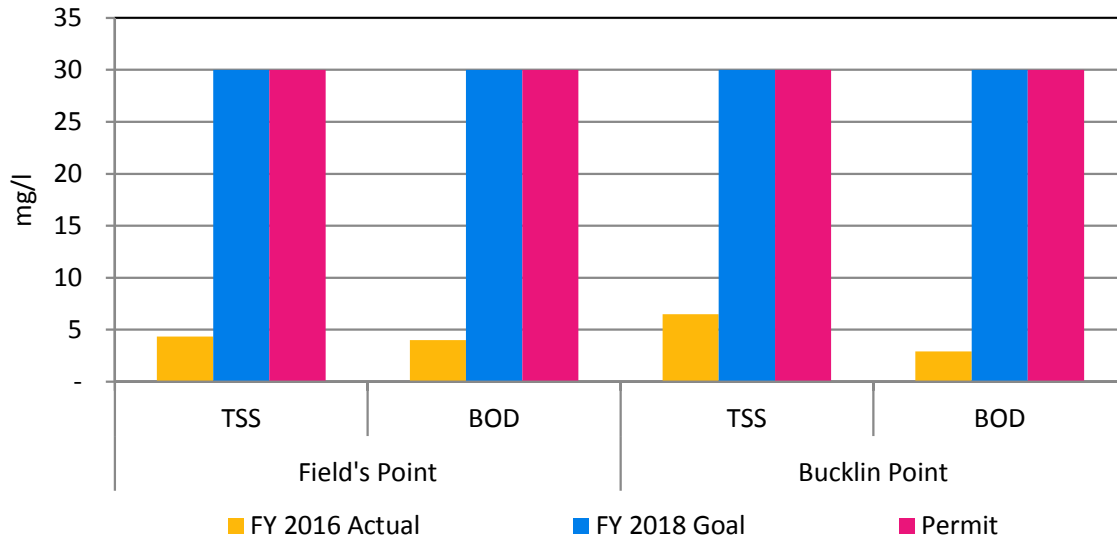
## **Core Business**



*Photo: Blackstone River*

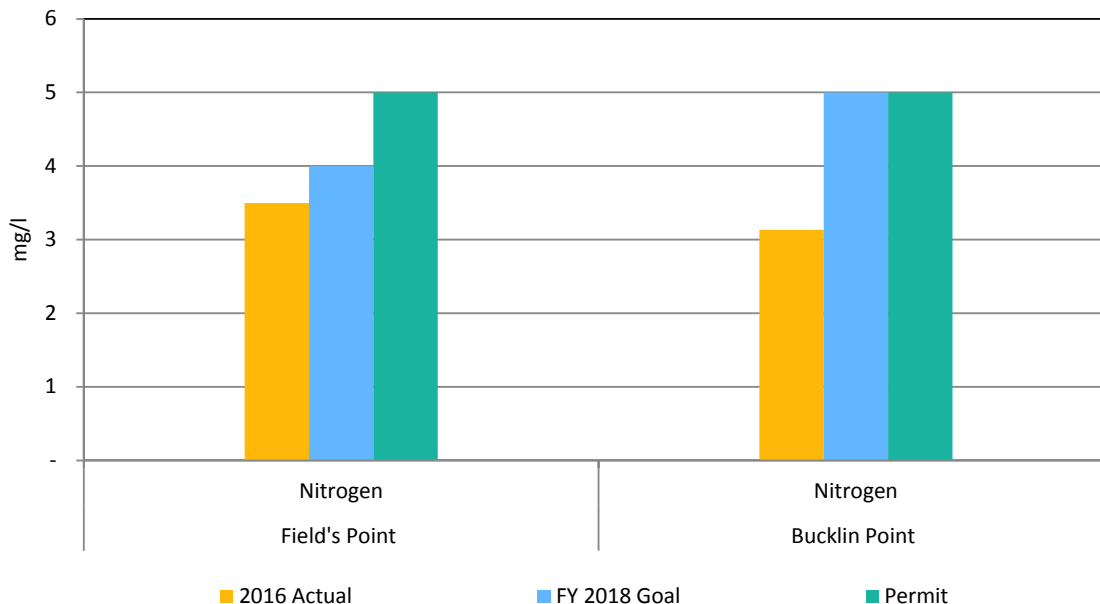
NBC’s core business goal in FY 2018 and beyond is the successful operation and maintenance of the treatment and collection systems to ensure that federal and state requirements are met or surpassed. NBC’s Rhode Island Pollution Discharge Elimination System (RIPDES) permits contain limits of 30 milligrams per liter (mg/l) for both Biological Oxygen Demand (BOD) and Total Suspended Solids (TSS). BOD and TSS levels are wastewater industry standards for measuring the effectiveness of wastewater treatment and the quality of effluent discharged into the receiving waters. The chart on the following page documents NBC’s FY 2018 clean water goals of achieving the permitted treatment levels at both the Field’s Point Wastewater Treatment Facility (WWTF) and Bucklin Point WWTF.

### BOD and TSS Levels



In addition, the Rhode Island Department of Environmental Management (RIDEM) permit limits require NBC to meet seasonal total nitrogen permit limits of 5 mg/l from May to October at both the Field’s Point and Bucklin Point WWTFs. Biological Nutrient Removal (BNR) facilities became operational in May 2013 at Field’s Point and in August 2014 at Bucklin Point. NBC continues to achieve excellent treatment results at both facilities and the FY 2018 budget supports these efforts with funding for electrical testing at \$299 thousand and a \$25 thousand increase for Ultraviolet (UV) disinfection. Operations staff has optimized treatment which has resulted in lower budgeted volumes for biosolids disposal, natural gas, sodium bisulfite and carbon feed. The FY 2018 budget also includes \$1.6 million for asset replacement at the two WWTFs. In addition, NBC is investing \$11.8 million in various capital improvements at the WWTFs in FY 2018 and on a go forward basis will program \$500 thousand annually to ensure that funding is available to support facility investments as they are identified through asset management and inspection.

### Seasonal Nitrogen Levels





This year’s budget reflects NBC’s continued investment in capital projects required to meet current and future federal and state mandates as well as meet NBC’s energy efficiency and sustainability goals. The Capital Improvement Program (CIP) includes programmed expense of \$156.1 million during FY 2019-2023, with additional expense of \$48.0 million in FY 2018 for a total of \$204.1 million. For additional information on the CIP and detailed project descriptions, please refer to the CIP section of this budget document. The following table summarizes NBC’s CIP by fiscal year.

**FY 2019-2023 Capital Improvement Program**

(In Thousands)

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total
CSO Phase III Facilities	\$ 12,965	\$ 11,119	\$ 8,164	\$ 6,076	\$ 62,670	\$ 100,994
WWTF Improvements	4,708	10,745	7,677	2,866	2,894	28,890
Interceptor Restoration & Construction	13,392	3,756	1,500	1,500	1,500	21,648
Other	1,832	1,025	730	500	500	4,587
<b>Total</b>	<b>\$ 32,897</b>	<b>\$ 26,645</b>	<b>\$ 18,071</b>	<b>\$ 10,942</b>	<b>\$ 67,564</b>	<b>\$ 156,119</b>

As has been the case for more than the last decade, the majority of NBC’s capital expenditures relate to the Combined Sewer Overflow (CSO) Abatement Facilities. NBC is now in the third and final phase of the federally mandated program. At the conclusion of a reevaluation process in 2015, NBC’s Board selected an alternative determined to provide the best combination of affordability and water quality improvement. The Phase III program was subdivided into four phases.

Currently, NBC is conducting an Environmental Assessment required by RIDEM as well as a stress test of the Bucklin Point final clarifiers to determine if the additional flows captured as part of Phase III can be adequately accommodated with the current facilities. Optimization efforts are also underway to determine whether modifications could be made to the Board approved alternative that would meet RIDEM’s water quality standards and result in an overall lower estimated program cost to be completed over 25 years. NBC has submitted a revised conceptual design report to RIDEM for approval and NBC’s Consent Agreement must be renegotiated based upon the approved plan.



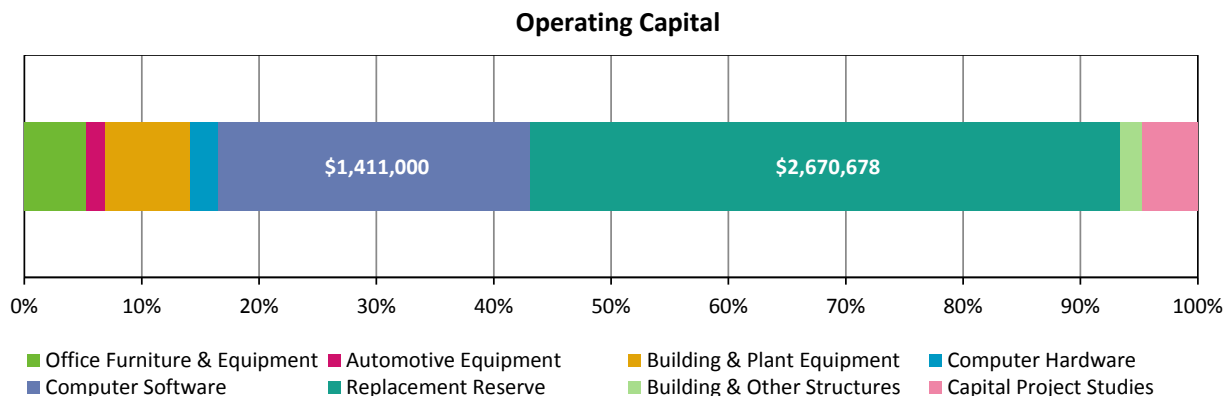
The total pre-design estimate for the four phases is \$795.2 million in 2018 dollars, with expenditures of approximately \$101.0 on Phase III A in the five year period of FY 2019-2023. Phase III A includes the design and construction of a deep rock tunnel in Pawtucket approximately 13,000 feet in length 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. NBC has initiated design and has programmed \$14.7 million for the CSO Phase III A Facilities design in FY 2018. The capital expenditures related to construction are projected to begin in FY 2022.

NBC’s CIP also includes funding for a number of projects related to the wastewater treatment and collections system and overall there is a 66% increase in non-CSO CIP funding in FY 2018. The most significant projects related to the Field’s Point WWTF include replacement of the aeration blowers at \$5.2 million and improvements to the final clarifiers at \$2.9 million in this year’s budget. At Bucklin Point, NBC plans to spend \$1.3 million to replace the digester piping and make other improvements in FY 2018. The most significant collection system projects are the construction of new interceptors in the Town of Johnston along Greenville Avenue and Hartford Avenue at a total cost \$10.4 million. These sewer expansion projects will allow new users to connect to NBC’s system and \$23,333 in new user fees have been included in the FY 2018 budget.



*Photo: WWTF Aeration Tank*

The FY 2018 budget includes \$5.3 million in programmed funding for operating capital to support NBC's core business. As is shown in the chart below, \$2.7 million is for various replacement assets including pumps and vehicles. In addition, \$1.4 million is for computer software related to a new Customer Service application as well as the completion of the Laboratory Information System application implementation. Also included in the replacement reserve category is the storage area network and backup solution replacement at a total cost of \$430 thousand.

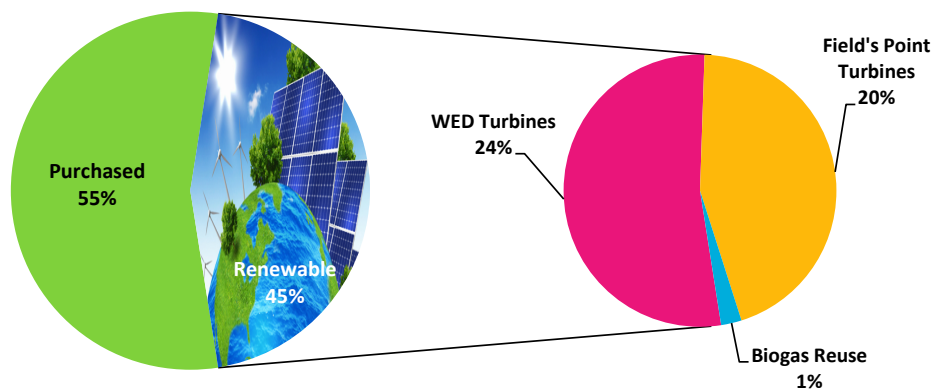


**Environmental Performance**

The FY 2018 budget reflects the success that NBC has had towards the goal of minimizing environmental impacts through investments in energy efficiency and sustainability initiatives. NBC's renewable energy investments are estimated to generate 45% of NBC's total electricity needs in FY 2018. In addition to the environmental benefits, these renewable resources will generate both savings in electricity expense and revenue from the sale of RECs.

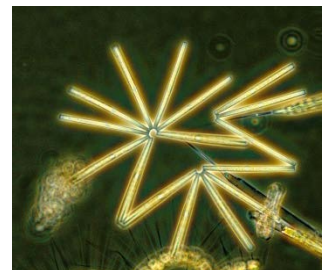
This year's budget also includes the financial impact of one month of operation of the BPWWTF Biogas Reuse Project. This project involves the installation of a cogeneration system that will burn the biogas generated from the anaerobic biosolids digestion process. The \$8.3 million project is eligible for \$512 thousand in principal forgiveness through the Rhode Island Infrastructure Bank (RIIB) and NBC anticipates grants and incentives of \$740 thousand. The cogeneration system is projected to generate 4.8 million kWh annually and is assumed to be operational in June 2018. The FY 2018 budget reflects electricity savings of \$47,483 and REC revenue of \$7,985.

The chart below shows that in FY 2018, 45% of NBC's electricity is from renewable sources with 24% from the Wind Energy Development (WED) turbines, 20% from the Field's Point turbines and 1% from the Biogas Reuse Project.



Of NBC’s three renewable energy sources, the three 1.5 MW Field’s Point wind turbines and the Bucklin Point Biogas 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 operating budget as a reduction in purchased kWh. In FY 2018, NBC budgeted 21.2% of the projected 36.4 million kWh use as derived from these sources. The three 1.5 MW remote WED Turbines purchased in FY 2016 are “net metered” sources. The electricity is produced off-site and is net metered, generating credits that are applied to NBC’s invoice for purchased electricity. The projected net metering of the generated electricity is reflected in the budget as a reduction in NBC’s electricity expense of more than \$1.0 million or 29.5%.

The FY 2018 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. NBC received draft Rhode Island Pollutant Discharge Elimination System (RIPDES) permits for both WWTFs in November 2016 and anticipates that the final permits will require additional sampling and analysis. This year’s budget includes funding for both the labor and supplies needed to perform daily enterococci testing in addition to current fecal coliform bacteria testing.



*Photo: Diatomic Phytoplankton, Thalassionema*

NBC has also allocated resources to support the ancillary services needed for sampling and data analysis efforts. The FY 2018 budget includes approximately \$131,000 for maintenance contracts to ensure continuous operation of critical laboratory equipment including the water purification system, organic carbon analyzer, robotic media dispenser, and other machines. The budget also includes funding for capital assets needed to perform mandated laboratory analysis and sampling. Budgeted laboratory equipment includes replacement of a cyanide analyzer, oil and grease analyzer and a trace element spectrometer at total cost of \$299,800. Budgeted sampling equipment includes auto samplers, multi-parameter sondes and monitoring meters at a cost of \$165,500. The budget also includes \$190,000 to complete the implementation of the new Laboratory Information Management System.

## 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 does not include a rate increase for the first time in sixteen years due to two factors. First, NBC’s debt service is anticipated to remain unchanged until new debt is issued in FY 2020 to support programmed capital improvements. NBC also anticipates that the Variable Rate Demand Bonds will continue to remarket at historic low interest rates. Second, NBC’s investment in renewable energy and other operating impacts of capital projects have had a positive impact on the operating budget, resulting in higher revenue, lower expense and savings.

With respect to revenue, this year’s budget includes increases of \$23,333 in new user fee revenue and \$7,985 in miscellaneous revenue resulting from capital projects to be completed in FY 2018. As is shown in the table below, NBC also anticipates electricity savings of \$47,483 from the BPWWTF Biogas Reuse Project.

FY 2018 Capital Projects with Impact	Savings	Increased Revenue
BPWWTF Biogas Reuse	\$ 47,483	\$ 7,985
Johnston Sewer Improvements/Greenville Avenue	-	23,333
<b>Total</b>	<b>\$ 47,483</b>	<b>\$ 31,318</b>



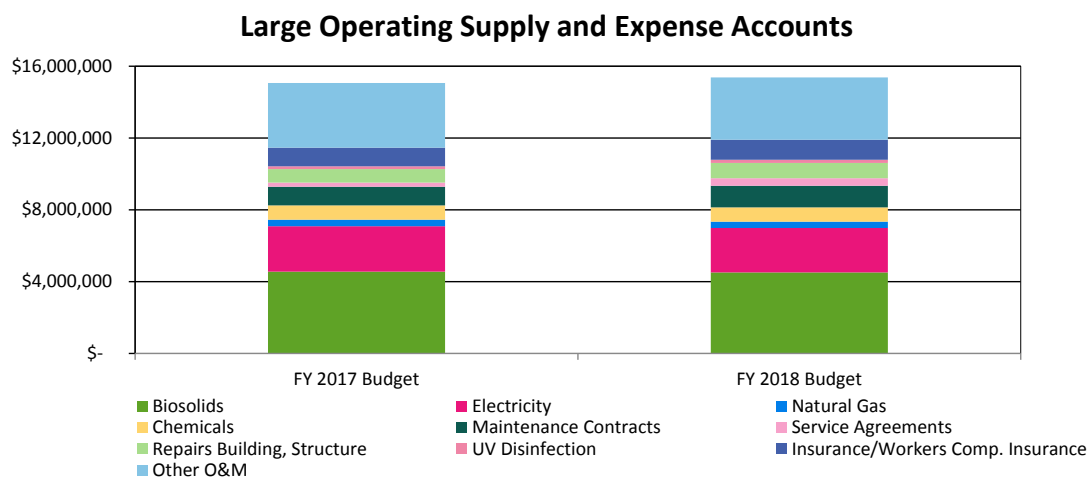
With respect to expense, budgeted Operation and Maintenance (O&M) Expense is 0.5% more than the prior year. Personnel expense represents 60.4% of total O&M expense and is 0.2% higher on a year-to-year basis. The budget includes contracted step increases for union employees and merit increases for non-union employees. Budgeted overtime is \$75,500 higher in FY 2018 due to staffing requirements for the laboratory and operations. The impact of these increases is mitigated by a net reduction of 3.0 FTEs. NBC's contribution rate on behalf of union employees to the State of Rhode Island Retirement System and union retirement health is unchanged on a year-to-year basis. The budgeted premiums for health are 12.9% higher although the net impact on expense is an increase of 3.6% due to fewer FTEs and enrollment changes from year-to-year. Vision insurance and long-term disability premiums reflect increases of 11.3% and 5.0%, respectively. The dental premium remains unchanged from the prior year.

The FY 2018 budget for Operating Supplies and Expense is 1.1% or \$167,621 higher than the prior year. Budgeted biosolids expense is \$40,791 lower on a year-to-year basis. This reflects lower dry ton production at both WWTFs and a 3.0% increase in the contracted rate per dry ton. The electricity budget is \$49,972 lower in FY 2018 and reflects the net effect of renewable energy generation savings and a 5.4% increase in the supply rate. The FY 2018 budget for natural gas is 5.3% lower than the prior year and reflects the 1.6% decrease in budgeted therms along with a 3.8% decline in the rate per therm. Maintenance Contract expense is 15.9% higher in FY 2018 to support service contracts for the Field's Point wind turbines, new laboratory equipment, and third party electric meter reading. Service Agreement expense is 74.5% higher than last year due to budgeted electrical testing at the WWTFs at \$299 thousand. The FY 2018 budget for UV Disinfection expense is \$175,000 which is 16.7% higher than last year and includes lamp replacements. Lastly, Insurance is 8.3% higher in FY 2018 primarily as the result of higher Workers Compensation Insurance expense.



**Photo: Interceptor Inspection**

Professional Services comprise 3.0% of the total O&M expense and the FY 2018 budget is \$1,100 or 0.1% less than the FY 2017 budget. This includes funding for regulatory expense, a study of non-union job specifications and compensation, legal services, audit fees, and other services. The following chart shows a year-to-year comparison of the large operating supply and expense accounts.



Although no new debt issuance is planned, budgeted debt service in FY 2018 is 3.7% or \$1,649,272 higher than the prior year due to the debt service associated with the 2015 Series B and 2016 Series A bonds. FY 2018 budgeted debt service coverage is calculated at 25% of debt service and is \$2.2 million less than the prior year. The combined effect on debt service and debt service coverage budget is a reduction of \$559 thousand or 0.9% on a year-to-year basis. Please refer to the CIP Impact and Long-Term Plan section of the budget for more information regarding debt.

## Staffing

This year's budget reflects the reorganization of the engineering and operations support functions to position NBC for the future. A new cost center has been created and the personnel and support costs associated with the engineering functions, including permitting, have been transferred to this new section. In addition, the cost center will now report to the Director of the newly titled Construction and Engineering Division. A number of changes to Division and Section names were also implemented to reflect the primary responsibilities as they have been assigned. Another significant organizational change is the reallocation of four positions responsible for the process control and asset management functions to the newly named Operations & Maintenance Services section.

There are five fewer positions budgeted in this year's budget, however, turnover has been reduced from 4.0 FTEs to 2.0 FTEs. As a result, the net number of positions funded in FY 2018 is 267.0 FTEs or 3.0 FTEs less than FY 2017. This year's budget also reflects changes to the organizational chart that occurred in FY 2017 and funding for a number of non-union grade and title changes. The following chart shows the change in FTEs on a year-to-year basis.

Number of FTEs	FY 2017 Budget	FY 2018 Budget	Change FY 2017/2018
Union	135.0	129.0	(6.0)
Non-Union	139.0	140.0	1.0
<i>Total</i>	274.0	269.0	(5.0)
Less: Turnover	(4.0)	(2.0)	2.0
<i>Net Positions</i>	270.0	267.0	(3.0)

Another NBC strategic objective is to recruit, develop and retain highly qualified staff. To this end, NBC offers its employees comprehensive benefits. In FY 2018, NBC will continue to offer a strong benefits package including a High Deductible Health Plan (HDHP) in tandem with partial funding of a Health Savings Account (HSA) or Health Retirement Account (HRA). 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. Employees may also participate in physical activity challenges throughout the year to improve wellness. In addition to Workplace Wellness, NBC places a high importance on worker safety.

## Customer Service and Communication



**Photo: NBC Customer Service Call Center**

The FY 2018 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 84,200 customer accounts. NBC has programmed \$900,000 in FY 2018 and \$300,000 in FY 2019 for a Customer Service (CS) application that will replace NBC's legacy system. The CS application will employ new technology that will streamline processes, enhance functionality and better serve customers through expanded on-line services and e-billing capabilities. Also included in this year's budget is \$250,000 for a user fee rate study that will focus on cost recovery and allocation in anticipation of financing construction of the CSO Phase III A Facilities. In terms of communication, the FY 2018 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 2017 in Review

First and foremost, NBC is excited to report that the water quality benefits resulting from Phase I and II of the CSO Abatement Facilities Project were in large part responsible for the RIDEMs reclassification of shellfishing

waters. Most notably, on May 27, 2017 Conditional Area B, which includes 3,712 acres in upper Narragansett Bay, was changed from conditional to approved status. This means that this area will always be open to shellfishing, ending a 70 year restriction.

RIDEM also announced that the Conimicut Triangle Conditional Area will be merged with Conditional Area A. The new Conditional Area A will be closed after 1.2 inches of rainfall. Previously, Conimicut Triangle waters closed at 0.5 inches, and Conditional Area A waters closed at 0.8 inches. According to RIDEM, “a review of historic rainfall data indicates this change will likely increase shellfishing opportunities in the former Triangle area by 85 days annually, and the remaining waters by 35 days.”



Mike McGiveney, President of the RI Shellfisherman’s Association highlighted the significance of this accomplishment by stating that “the improvement in water quality will have a tremendously positive effect on our industry and allow greater access to some of the most important shellfish grounds in the Bay. It is an economic and environmental win for all Rhode Islanders.” NBC is proud to be a leading contributor towards the achievement of this milestone through the construction and operation of the CSO Facilities that have captured more than eight billion gallons of flow.

In addition to RIDEMs recognition of improved water quality, NBC had a number of other achievements in FY 2017. NBC’s cost centers reported 150 accomplishments with 64 or 43% focused on NBC’s Core Business. In addition, 24% of the FY 2017 accomplishments related to Financial Management and 12% of the accomplishments related to staffing. The following table outlines the percentage of FY 2017 accomplishments by goal and also the totals by division.

#### FY 2017 Major Accomplishments

Goals	Executive Affairs	Construction Services	Administration and Finance	Operations and Engineering	Policy, Planning and Regulation	Total	Percent
Core Business	8	5	13	24	14	64	43%
Environmental	0	0	0	2	5	7	5%
Financial Management	5	0	28	2	1	36	24%
Customer Focus	1	0	7	2	5	15	10%
Staffing	1	0	9	6	2	18	12%
Communication	5	0	1	0	2	8	5%
Organizational	1	0	1	0	0	2	1%
<b>Total</b>	<b>21</b>	<b>5</b>	<b>59</b>	<b>36</b>	<b>29</b>	<b>150</b>	<b>100%</b>



NBC’s wastewater treatment was exceptional this past year, an accomplishment recognized by National Association of Clean Water Agencies (NACWA). NBC received the Gold Award for no permit excursions at Field’s Point and the Silver Award for fewer than 5 permit excursions at Bucklin Point. In addition, the NBC received the Utility of the Future Award from the Water Environment Federation (WEF) and NACWA. One of only 61 utilities in the entire country given the award, NBC demonstrated exceptional progress and performance in the treatment of wastewater and the implementation of water reuse, watershed stewardship, community partnering and engagement and nutrient recovery. This award clearly identifies NBC as one of the leading wastewater entities in the industry.

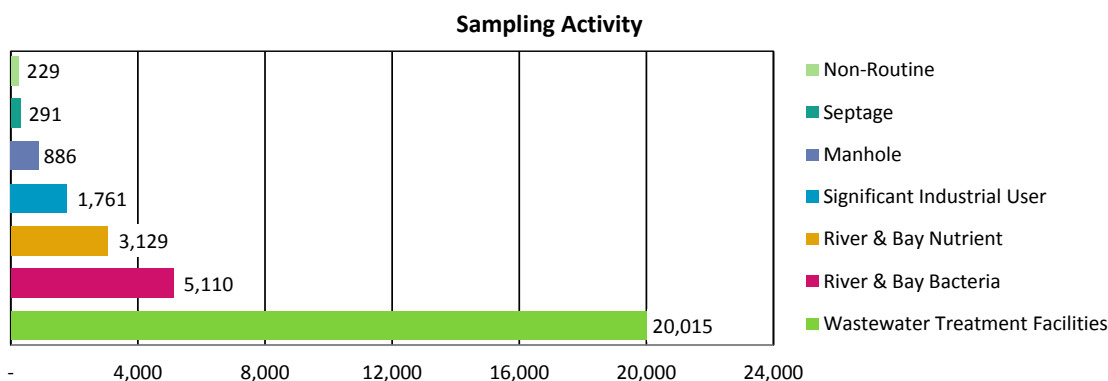
During FY 2017, NBC’s Interceptor Maintenance (IM) section inspected one mile of interceptors, 1,200 regulators, numerous catch basins and connector pipes throughout the service area. NBC’s IM section also replaced approximately 120 feet of 20” diameter force main and restored 370 feet of interceptors. In

addition, 163 tons of sediment was removed from the collection system and 19 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 31,421 samples, with the majority or 63% related to WWTF monitoring. In addition, in order to assess water quality, 16% of the samples related to river and bay bacteria, while 10% of the samples collected were for river and bay nutrients. The following chart shows the number of samples collected by type.



**Photo: Removing Catch Basin Sediment**



Two NBC Environmental Scientists were also recognized for their research by the New England Estuarine Research Society (NEERS) with invitations to present their work at the fall 2016 conference. Topics presented included "Evaluations of Bay Bacteria After Phase I and II of the Narragansett Bay Commission's CSO Abatement Project" and "Receiving Waters Monitoring Following WWTF Upgrades to reduce Nitrogen Loading."

In FY 2017, NBC completed eight capital projects at a cost of \$44.2 million. One of the largest projects, the 36,790 square foot Water Quality Science Building (11900), was completed at a cost of \$21.9 million. Staff moved into the new state-of-the-art laboratory and environmental analysis facility in July 2016. Another large project, the Wind Energy Development Turbines (50500) was also completed in FY 2017 at a cost of \$19.0 million. The completed projects are summarized in the following table.

Project Number	Project Name	Cost (In thousands)
11900	Water Quality Science Building	\$ 21,906
13100	NBC Energy Efficiency Upgrades	865
81300	BPWWTF Flood Protection	423
1140400	Facility Evaluation for Climate Resiliency	5
50500	Wind Energy Development Turbines	19,000
30473	Lockbridge and Valley Street Inspection & Cleaning	534
30474	BVI Inspection & Cleaning	80
30462	NBC East Providence Interceptor Improvements	1,381
<b>Total</b>		<b>\$ 44,194</b>

From a financial perspective, FY 2017 was a strong year for NBC. NBC projects that for the second consecutive year, user fee revenue will not be lower than the PUC approved revenue. In fact, NBC is projecting that user fee revenue will be higher than budgeted due to higher billable consumption. NBC's

investment income is projected to be \$86 thousand or 1730% higher than budgeted due to higher interest rates and a change in investment strategy.



*Photo: One of Three Field's Point Wind Turbines*

NBC also benefitted financially in FY 2017 from its renewable energy projects. The performance of the WED turbines exceeded projections, generating additional electricity net metering credits of \$234 thousand. The Field's Point wind turbines also generated 349 thousand kWh more than was budgeted, further reducing electricity expense. Although the wind turbines produced higher than budgeted kWh, REC revenue is expected to be \$348 thousand lower than budgeted due to a decrease of approximately 60% in the weighted average rate per REC. NBC was the recipient of the US Department of Energy's 2017 Better Project Award in recognition of the role that the Field's Point wind turbines played in saving energy on a regional basis.

Overall, NBC anticipates finishing FY 2017 well under budget. In addition to the electricity savings mentioned above, there were more vacancies during the fiscal year which caused personnel expense to be 6.3% or \$1.6 million below budget. Other significant savings in operation and maintenance expense were realized from lower than budgeted biosolids dry ton production, lower natural gas usage and lower insurance expense as a result of reduced flood insurance premiums.

NBC continued to benefit from historic low short-term interest rates and is projected to realize interest savings of more than \$1.3 million on the Variable Rate Demand Bonds (VRDBs). NBC also replaced its Letter of Credit (LOC) at a favorable rate for a five-year term. This will save NBC ratepayers over the term of the contract and will ensure continuity. NBC did not issue any new debt in FY 2017 but did participate in a RIIB refunding that should result in savings to NBC's ratepayers.

NBC received the GFOA Distinguished Budget Presentation Award for the fifteenth consecutive year for NBC's FY 2017 Budget. The FY 2017 Budget was also recognized by GFOA as Outstanding as a Financial Plan, Outstanding as an Operations Guide, Outstanding as a Communications Device along with Special Capital Recognition and Special Performance Measures Recognition. NBC enhanced the budget process with the implementation of an internal web page that provides users with a calendar, fillable forms, instructions, user guides and other tools. NBC also received the Certificate of Achievement for Excellence in Financial Reporting for Fiscal year 2016 for the fifteenth consecutive year. NBC's consistent sound financial performance is evident with 25 consecutive years of operating surpluses.

In FY 2017, the NBC's Customer Service department completed timely and accurate billings of NBC's 84,200 accounts, billing more than \$96 million in user fees. The section also received and responded to an average of 4,500 customer calls each month and collected approximately \$400,000 per month through the Water Shut-off Program. NBC's collection activity has also been effective, with accounts receivable less than the prior year.

NBC continued to protect its investments in technology with the replacement of critical server infrastructure at the main office, along with installation of redundant fiber networks and an expanded wireless mesh network at Bucklin Point. The upgrade to the legacy pretreatment system was completed, progress continued with the implementation of the new Laboratory Information System and the current version of Hansen was installed. In addition, the databases were migrated to the latest version of Oracle. Lastly, as part of the effort to protect NBC from malicious activity, more than 3.2 million items were scanned. NBC's firewall blocked more than 1.2 million emails including more than 14,000 with viruses.

From a human resources standpoint, NBC received the 2016 Best Places to Work in Rhode Island Award, which involved the completion of a workplace assessment process including employee surveys and an inventory of company benefits, policies and offerings. NBC conducted quarterly investment meetings regarding its retirement plans and received a favorable determination letter from the IRS with respect to the



non-union defined contribution retirement plan. NBC has also placed a priority on improving the actuarial funded ratio of the non-union defined benefit plan which increased to 77.03% in FY 2016 from 69.79% in FY 2015. Lastly, the vision, long-term disability, health and dental insurance policies were evaluated and renewed.

In FY 2017, NBC issued 232 new sewer connection permits and administered the NBC Earth Day River Cleanup Grant program to support initiatives involving 20 non-profit organizations throughout the NBC service area. NBC's technical staff also encouraged developers to use Low Impact Design (LID) techniques for storm water disposal as part of the storm water mitigation program and reviewed ten Projects that employed LID techniques.

In terms of public outreach, NBC conducted 53 educational tours of the FPWWTF and three on-site tours of the wind turbines. NBC also conducted numerous watershed education programs through the NBC's Watershed Explorers program. Through this program, more than 690 students from 13 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 May 19, 2017 annual NBC environmental conference held at Goddard Park.



*Photo: Watershed Explorer Students performing sampling and analysis*

NBC also initiated a public relations campaign to educate the public on how to properly dispose of household grease to prevent collection system clogs. "Grease Beasts" are formed from a combination of grease, oils, and fats produced by cooking and disposable cleaning, sanitizing and baby wipes put into the sewer by customers. "Mr. Can" is a comic book superhero created to educate customers on how to properly dispose of cooking oil and protect the receiving waters and his adventures can be found on NBC's website at [www.narrabay.com](http://www.narrabay.com).



## Summary

NBC continues to excel in wastewater treatment, environmental leadership and sound financial management, and its efforts have been recognized nationally by many professional organizations and publications. The awards 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.

NBC's reputation in the environmental community continues to grow both regionally and nationally. In addition, I have been proud to serve as the 2017 President of the NACWA, the national leading advocate of the clean water industry. I also serve as the Rhode Island wastewater industry representative for the Narragansett Bay Estuary Program (NBEP) Management Committee. This committee forms partnerships with those that conserve and restore natural resources and enhance water quality through community involvement.

In conclusion, during FY 2018, NBC will continue to work to protect its community, ratepayers and all Rhode Islanders through the enhancement of water quality in Narragansett Bay.

Raymond J. Marshall, P.E.  
Executive Director

# About the 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.

## 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.

The 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.

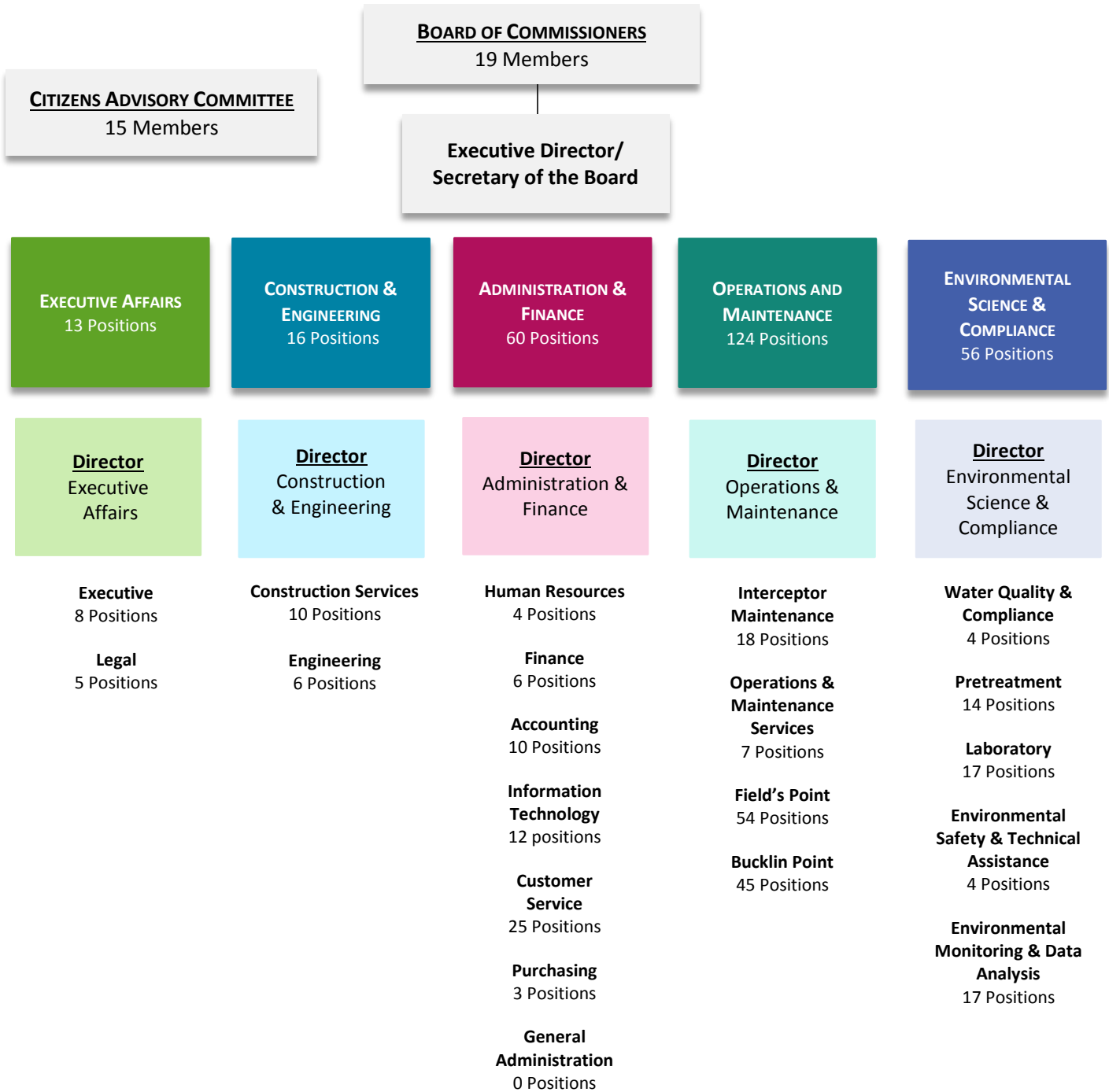
## NBC Organization

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.

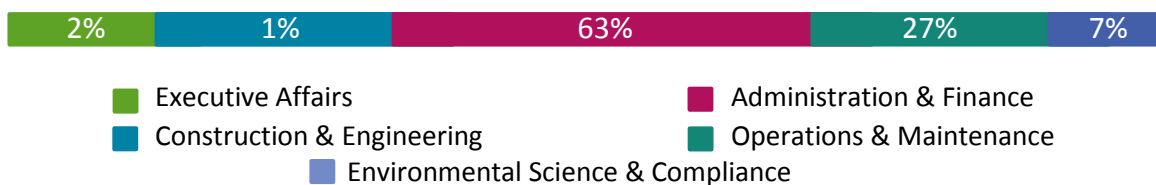
An organizational chart of NBC, located on the following page, depicts the relative budgetary size of each Division. This year's budget supports a reorganization that was developed to address succession planning and the anticipated demands associated with managing the complex CSO Phase III program. In addition, the new organizational structure aligns the resources required to manage NBC's maturing wastewater treatment and collection system through the consolidation of the asset management, process control and flow monitoring functions. Additional discussion of the reorganization is on 62 through 64 of the Budget Summary section.

The next page contains a brief description of the Divisions and the responsibilities of each program or section level.

# NBC Organization



## FY 2018 Operating Budget by Division



## Program Level Operational Responsibilities Overview

### EXECUTIVE AFFAIRS DIVISION

Oversee all aspects of policy development, strategic planning and agency management responsibilities.

**Executive:** Oversee all aspects of policy development, strategic planning, labor relations and agency management responsibilities.

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

### CONSTRUCTION AND ENGINEERING DIVISION

The Construction and Engineering Division is responsible for the planning, design and construction of capital improvement projects related to NBC's infrastructure.

**Construction Services:** 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 issuance of sewer connection permits.

### ADMINISTRATION AND FINANCE DIVISION

Provide administrative and support functions, including the finance, customer service, purchasing, information technology, human resources, accounting, and general administration functions.

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

**Finance:** Ensure overall sound financial management including the operating budget, CIP, debt management, rate setting, NBC retirement plans, cash management, and compliance.

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

**Information Technology:** Maintain all aspects of networks, telecommunications, hardware, software and databases for the entire enterprise.

**Customer Service:** Provide accurate and timely billing and collection of approximately 83,650 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.

**General Administration:** Overhead section that includes expense for debt service, maintenance of the corporate office building and other overhead items.

### OPERATIONS AND MAINTENANCE DIVISION

Responsible for operating and maintaining NBC's infrastructure.

**Interceptor Maintenance:** Maintain interceptors and facilities which collect and transport wastewater in the NBC District to the wastewater treatment facilities.

**Operations & Maintenance Services:** Manage NBC's wastewater treatment facilities' processes, ensure compliance with all State and Federal regulation requirements, and maintain 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.

**Water Quality & Compliance:** Ensure agency compliance with all EPA and DEM environmental permits and regulations and develop sound environmental science to support NBC's mission.

**Pretreatment:** Maintain the federally mandated pretreatment program and protect NBC's wastewater treatment plants and infrastructure from toxins and pollutants.

**Laboratory:** Ensure the production of high quality analytical data through the use of diagnostic measurements in order to comply with federal and state regulations.

**Environmental Safety & Technical Assistance:** Provide pollution prevention, energy efficiency, conservation, environmental compliance, sustainability and health and safety assistance.

**Environmental Monitoring & Data Analysis:** Monitor water quality throughout NBC's service area, NBC's treatment facilities, collection system, commercial and industrial facilities, and upper Narragansett Bay. Analyze and report resultant data internally, as well as externally to regulatory authorities, stakeholders and the interested public.

## Governmental Regulation

In addition to Public Utilities Commission (PUC) oversight, NBC is regulated by the Rhode Island Department of Environmental Management (RIDEM) and the U.S. Environmental Protection Agency (USEPA) to ensure compliance with State and Federal Clean Air and Clean Water Acts. NBC has been issued Rhode Island Pollutant Discharge Elimination System (RIPDES) permits for each of its wastewater treatment plants.

## State and Federal Compliance Issues

NBC executed a Consent Agreement with RIDEM to implement a federally mandated Combined Sewer Overflow (CSO) Abatement Program. The first and second phases were completed in 2008 and 2012, respectively. 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 Board determined to 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. Subsequent to the reevaluation report and development of the revised plan, NBC worked to optimize the plan to reduce the cost impact of the Phase III program. Discussions between NBC and RIDEM are ongoing regarding the proposed optimized plan and extended schedule. NBC's Consent Agreement must be renegotiated based upon the RIDEM approved plan.

NBC has a second Consent Agreement with RIDEM for nitrogen limits at both the FPWWTF and BPWWTF. The Consent Agreement requires that NBC achieve a total seasonal nitrogen limit of 5 mg/l from May to October at both facilities. In order to achieve this, NBC constructed new facilities at Field's Point which was completed in May 2013 and at Bucklin Point which was completed in August 2014.

## Financial Obligations

As part of NBC's long-term debt issuance, the NBC must comply with Continuous Disclosure requirements including the timely filing of certain financial information, operating data, and certain material events. NBC is also subject to other post-issuance compliance requirements associated with its issuance of tax-exempt debt. NBC must also undergo an annual credit review with Standard & Poor's as part of the Variable Rate Demand Bonds and prior to the issuance of new debt.

## Facilities

NBC owns and operates Rhode Island's two largest Wastewater Treatment Facilities (WWTF) along with an extensive infrastructure of interceptors, pump stations, tide-gates and combined sewer overflows. The location of the two wastewater treatment facilities is shown on the following map.





## Field's Point Service Area Facilities and Technology

The Field's Point WWTF provides secondary treatment and nitrogen removal for dry weather flow of up to 65 million gallons per day (MGD) and sustained wet weather flow of 77 MGD. The wet weather facilities at the plant provide primary treatment and disinfection for an additional 123 MGD of wet weather flows. Total wet weather treatment capacity at Field's Point is 200 MGD.



*Photo: Aeration Tanks at the Fields Point Wastewater Treatment Facility*

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 in Johnston. The Ernest Street Pump Station is located adjacent to the Field's Point WWTF and handles 98% of the flow to Field's Point. The Tunnel Pump Station, also adjacent to the Field's Point WWTF, pumps flow stored in the Phase I CSO Tunnel to the Field's Point WWTF.

NBC maintains 19 permanent flow metering stations that are used to measure flows at various points in the sewer system. In addition, NBC owns and is responsible for the maintenance and correction of 35 CSO's, 32 tide gates and 80 miles of interceptors in the Field's Point Service Area.

## Bucklin Point Service Area Facilities and Technology

The former Blackstone Valley District Commission (BVDC) was established by the Rhode Island General Assembly in 1947 to service the Blackstone Valley area. State legislation effectuated the merger of BVDC into NBC on January 1, 1992.



*Photo: Bucklin Point Wastewater Treatment Facility*

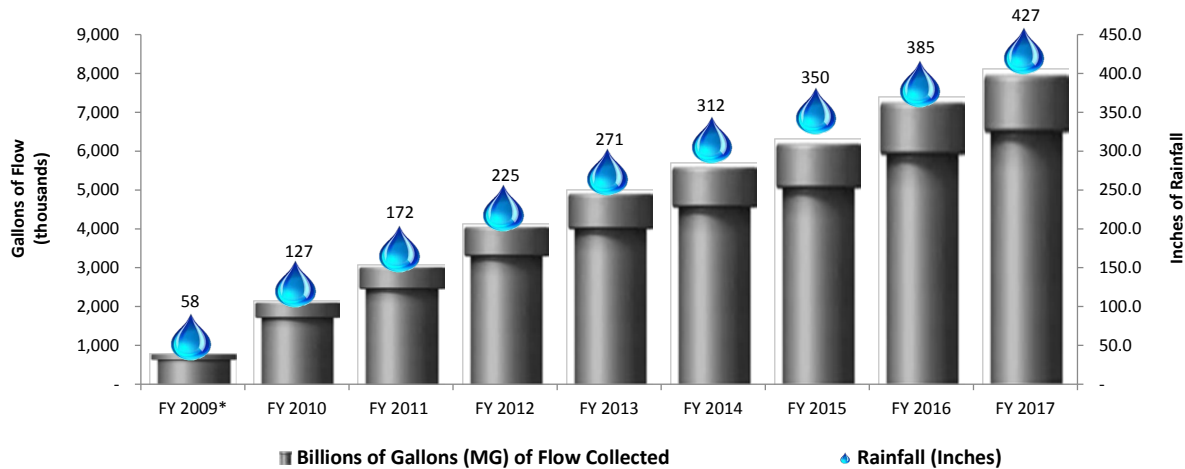
Upgrades of the Bucklin Point WWTF were completed in 2006 and 2013 to provide nitrogen removal and other improvements. The facility provides secondary-treatment with nitrogen removal for flows up to 46 MGD and primary treatment for flows up to 116 MGD.

NBC also owns and operates the Omega Pump Station in East Providence and the Saylesville and the Washington Highway Pump Stations in Lincoln. NBC is responsible for 26 Combined Sewer Overflows in the Bucklin Point service area and 30 miles of interceptors.

## 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 8 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

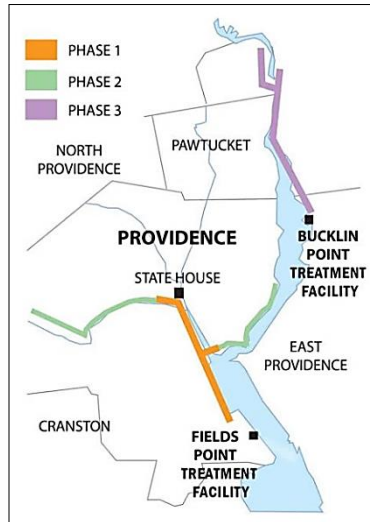
## CSO Phase II Facilities

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. As a result of a reevaluation process, the Phase III CSO Program was subdivided into four phases to be constructed over a period of 20 years. 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. 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 ground stormwater infiltration projects, with expenditures of \$10 million on GSI in each phase.

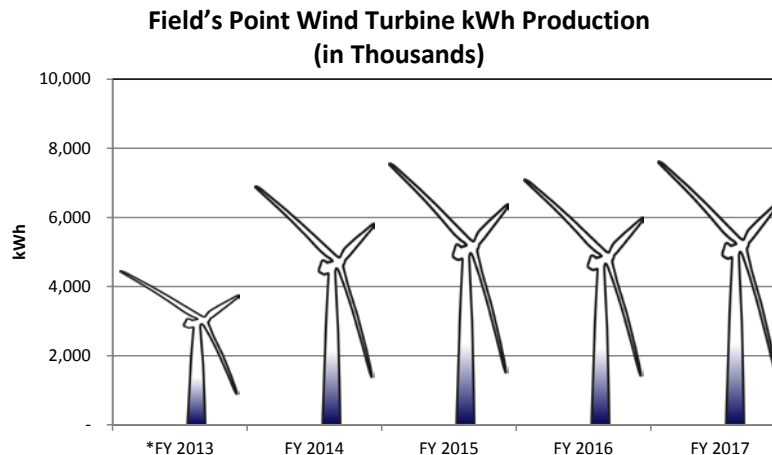
The total pre-design estimate for the four phases of the CSO Phase III Facilities is \$795.2 million in 2018 dollars, with expenditures of approximately \$14.7 million in FY 2018 and \$101.0 million in the five year period of FY 2019-2023 in this year's CIP window. A description of the facilities to be constructed in each of the four phases, as well as the estimated costs and schedules are included in the CIP Impact and Long-Term Plan section of the Operating Budget.

## Sustainable Energy

In accordance with NBC's environmental performance goals of minimizing environmental impact, 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 use of sustainable renewable energy resources.

### Field's Point Wind Turbines

In October 2012, the Commission began operation of three 1.5 MW wind turbines located at the Field's Point campus. The turbines use wind energy to produce sustainable electricity. The electricity generated is used on-site to support facility operations and any excess is net metered back to the grid to offset billable usage. In addition to \$1.6 million in REC revenue, the turbines have generated more than 36.8 million kWh of clean renewable energy since becoming operational. The following graph below shows the annual electricity production since 2013.



\*Facilities operational in October 2012

## WED (Wind Energy Development) Turbines



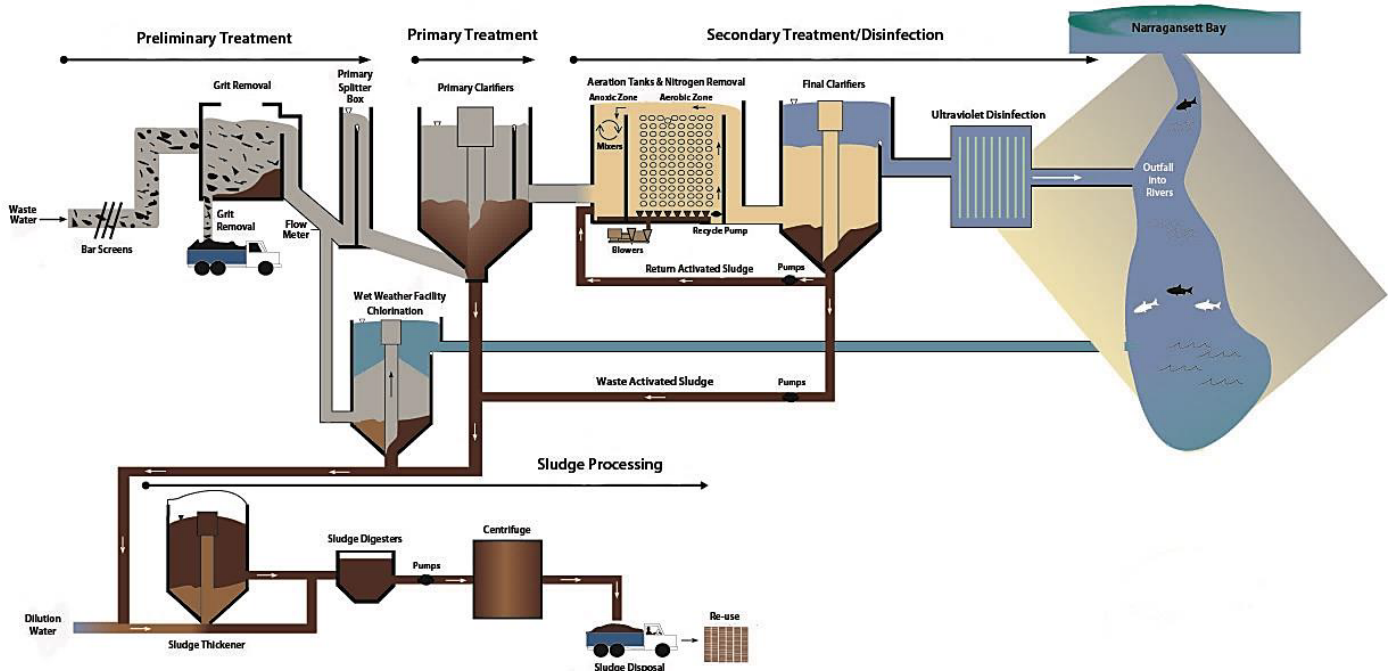
Photo: NBC's "WED 4" turbine in Coventry, RI

In 2016, NBC expanded its renewable energy resources and 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 generate clean renewable wind energy which is net metered. The energy credits are then applied to NBC's electricity bills. In addition, the WED turbines generate revenue through the sale of RECs.

## 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.

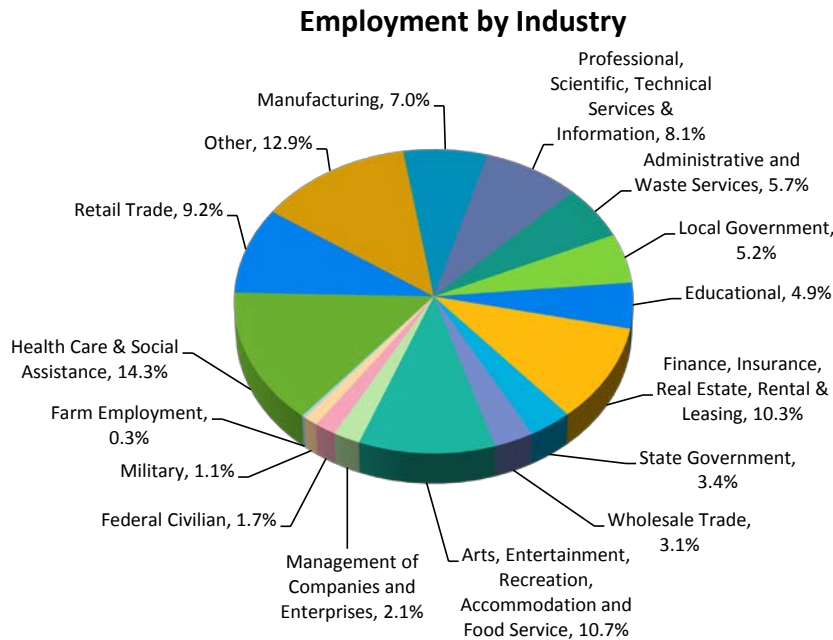
The schematic below shows the state-of-the-art treatment process at the Bucklin Point WWTF.



# Demographics

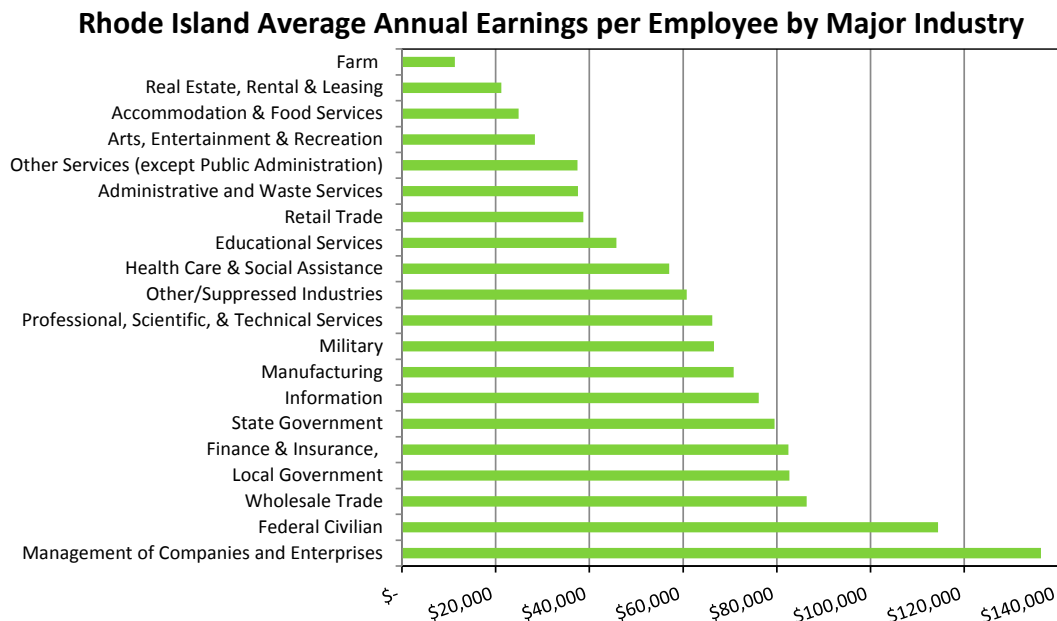
## Rhode Island Economy

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 the calendar year 2015.



\*Source: United States Regional Economic Analysis Project Industries by State 2015

Employment in Rhode Island reflects the national trend towards higher employment in the services sector. The chart below illustrates Rhode Island's average annual earnings per employee in each major industry for 2015.

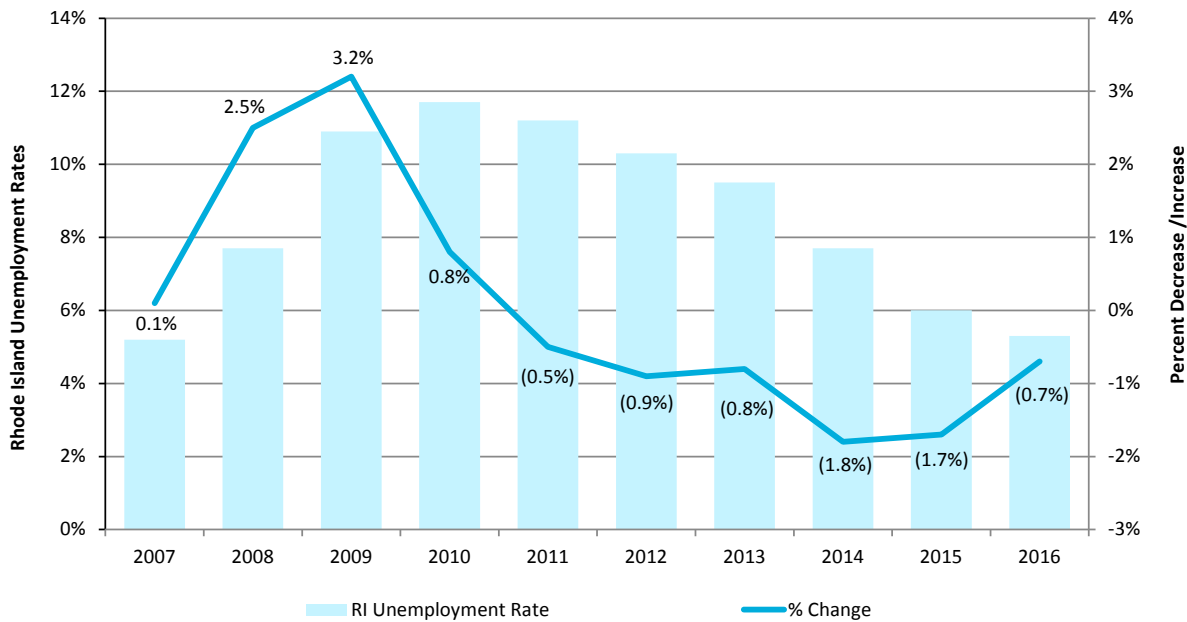


\*Source: United States Regional Economic Analysis Project Industries by State 2015



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 six years from a peak rate of 11.7% in 2010 to 5.3% in 2016.

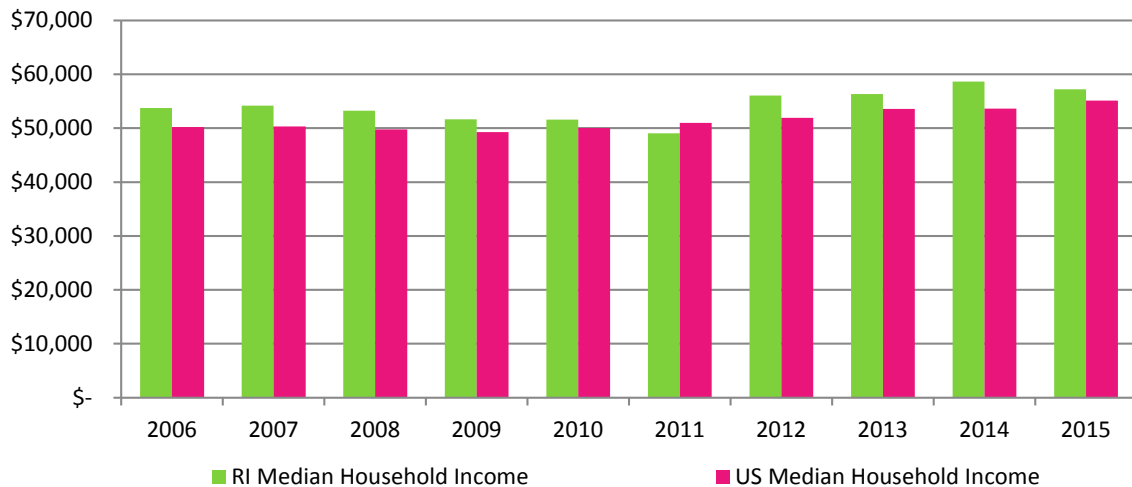
### Rhode Island Unemployment Rates



\*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 2006-2015 compared to national statistics. Rhode Island's median household income remained above the national figure from 2006-2010, and then dropped to approximately 2% below the national level in 2011. Since that time, the Rhode Island median household income has remained above the national median by approximately 4% or \$2,084 in 2015 CPI-U-RS (Consumer Price Index Research Series Using Current Methods) adjusted dollars, with median household income of \$57,201.

### Median Household Income - Rhode Island vs. United States

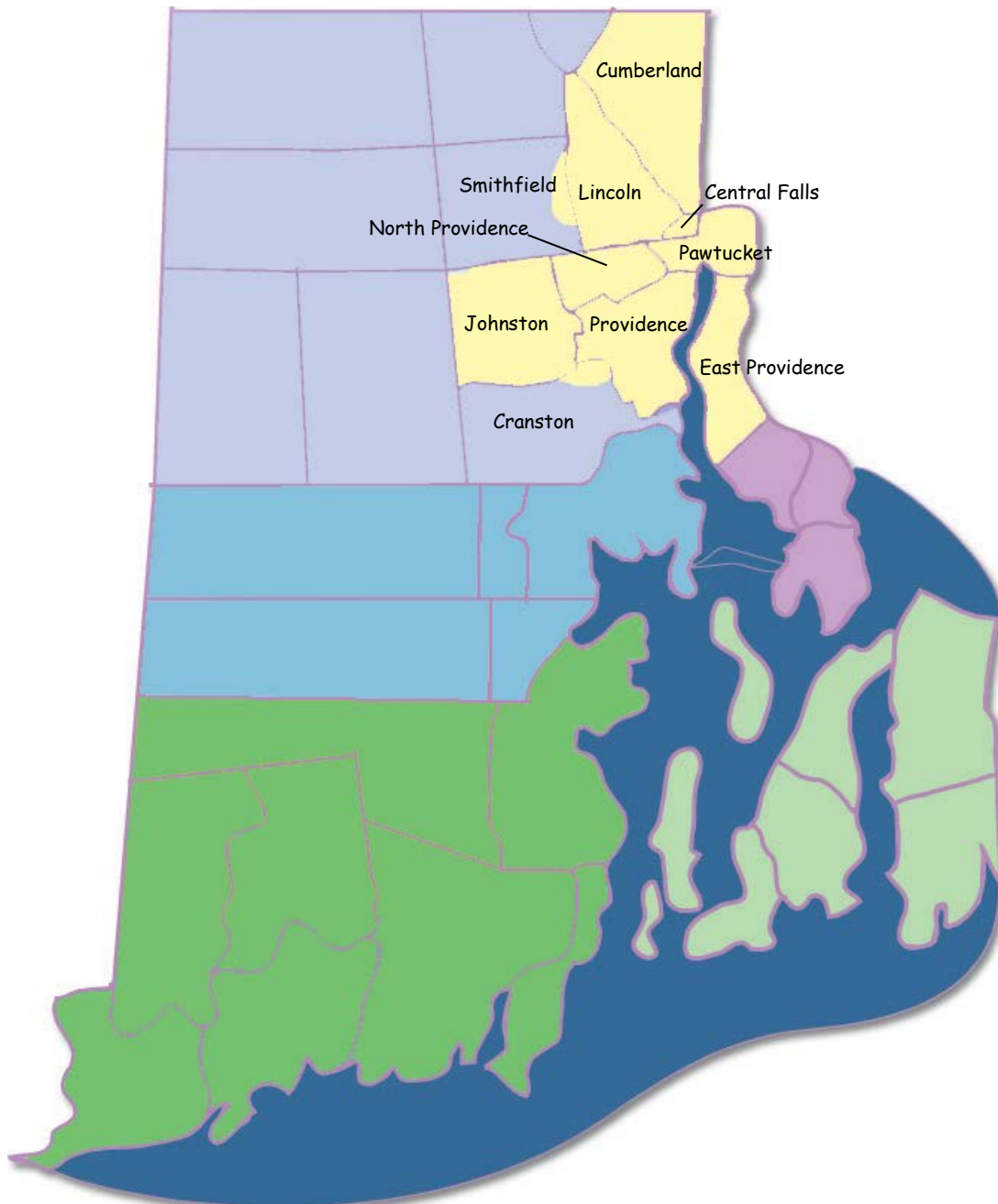


\*Source: United States Census Bureau – Median Household Income by State – Two-Year Moving Averages: 2014-2015

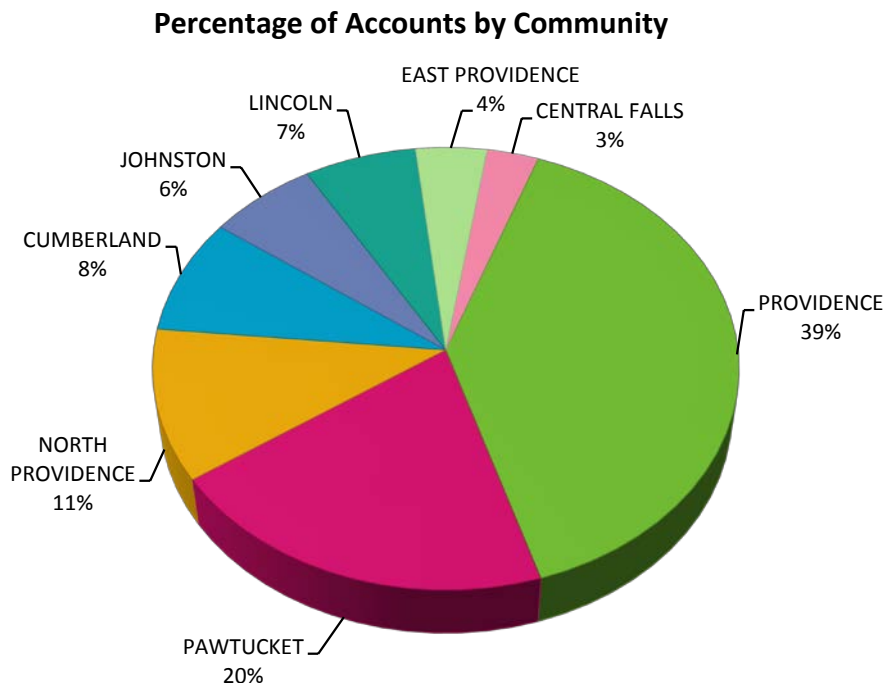
## NBC Service Area

NBC provides reliable, cost-effective wastewater collection and treatment services to over 360,000 residents and approximately 7,740 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 the 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 70% of the accounts. The following chart illustrates the distribution of accounts across the eight communities.



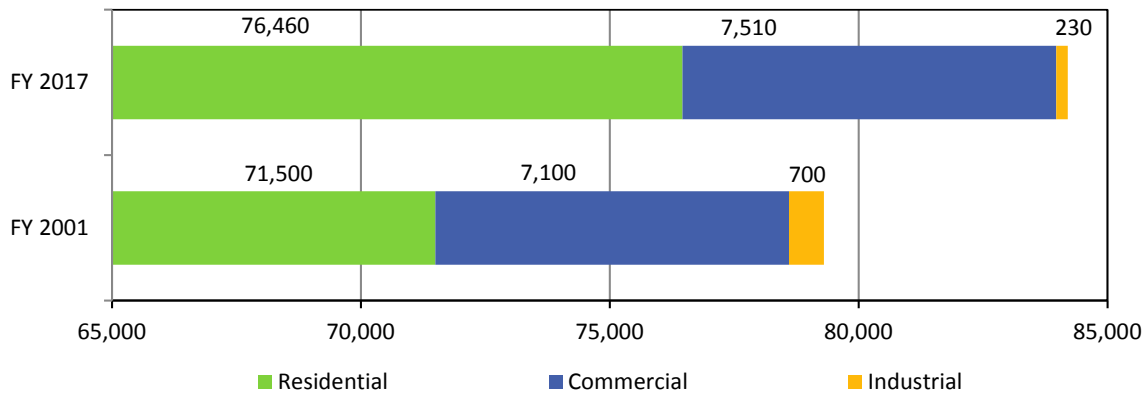
The residential customer class has approximately 76,460 accounts, while the non-residential customer class has approximately 7,740 accounts. The largest NBC customers are primarily service and education providers. The ten largest customers based on FY 2017 projected billings are also listed in the table below:

Top Ten NBC Customers			
	Customer	FY 2017 Projected Billing	Percentage of Total Annual User Charges
1	 Providence Housing Authority	\$ 1,649,478	1.70%
2	 Rhode Island Hospital	1,551,623	1.60%
3	 Brown University	1,288,434	1.33%
4	 City of Providence	703,222	0.72%
5	 City of Pawtucket	671,608	0.69%
6	 Johnson & Wales University	476,452	0.49%
7	 Providence College	472,758	0.49%
9	 Providence School Department	431,381	0.44%
8	 Rhode Island Resource Recovery	393,560	0.41%
10	 State of Rhode Island	382,796	0.39%

Source: NBC's billing records

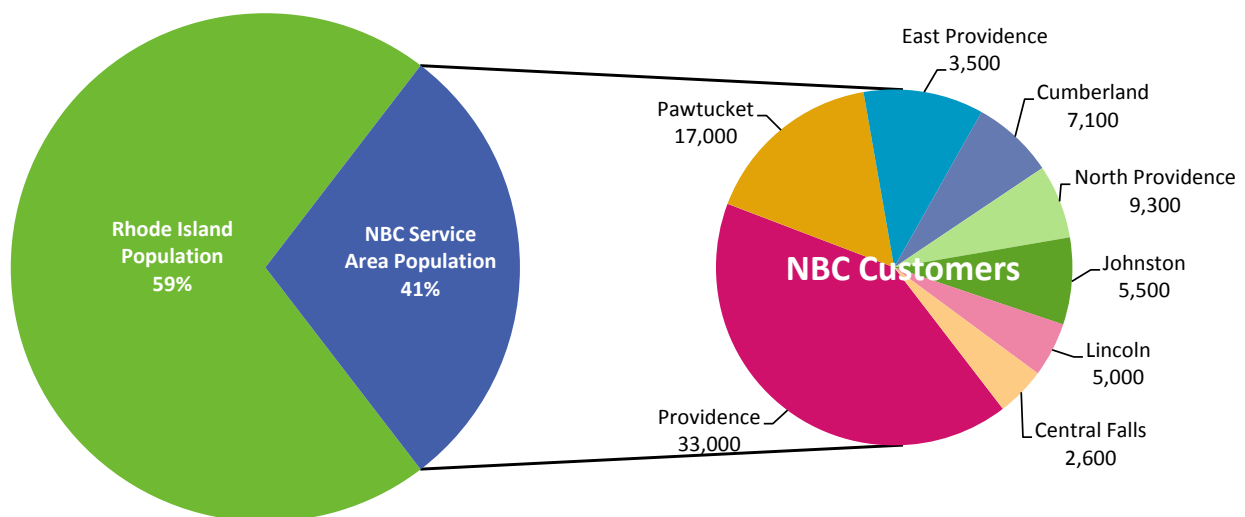
Over the last sixteen years, there has been a 6.2% increase in the number of customer accounts. This is the net effect of a 67.1% decrease in the number of industrial accounts from 700 to 230 which has been offset by a 6.9% increase in the number of residential accounts and a 5.8% increase in the number of commercial accounts.

### Number of Accounts by Customer Class



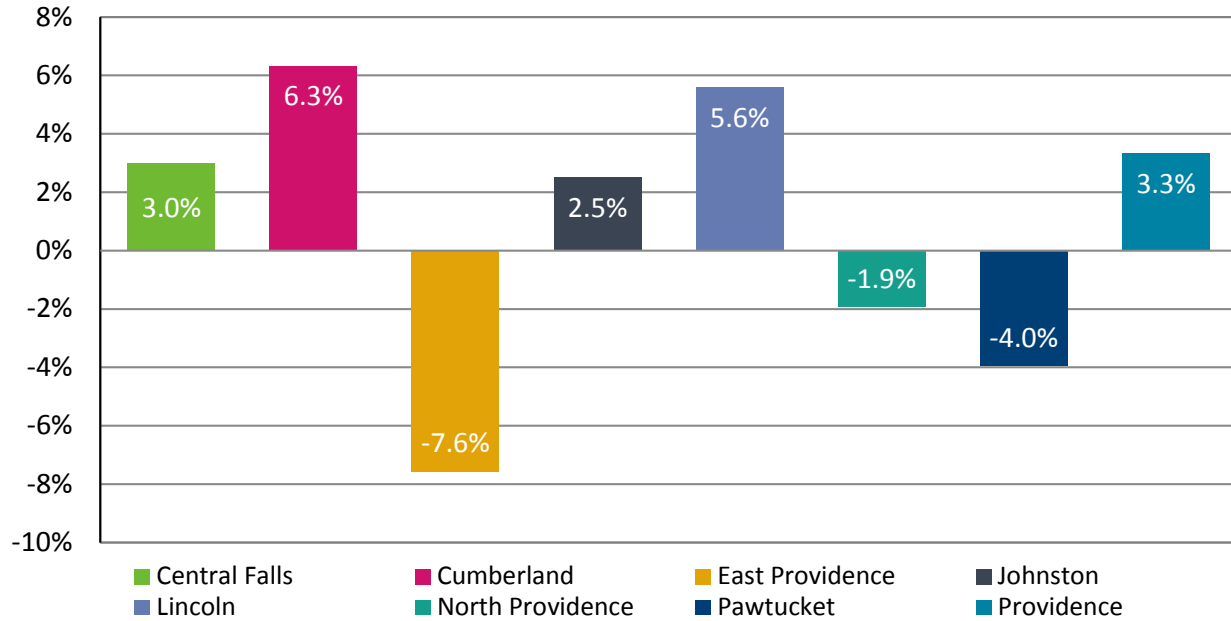
### NBC Service Area Population and Statistical Information

According to the 2010 United States Census Bureau, the total population for Rhode Island 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 are in the City of Providence with approximately 33,000 customers followed by the City of Pawtucket with approximately 17,000 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 increase 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.

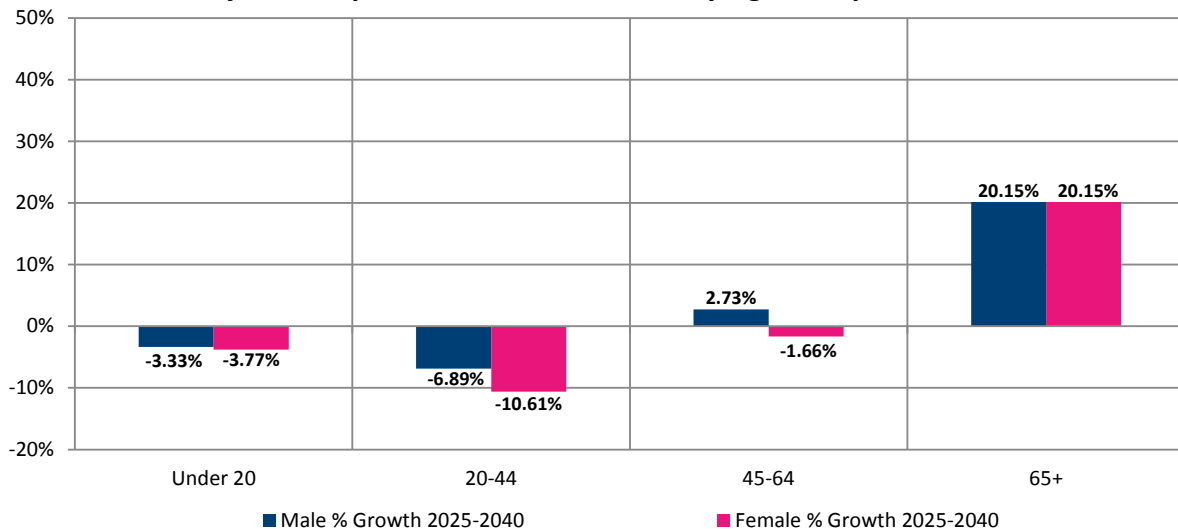
**Projected Population Growth by City/Town 2025-2040**



\*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 10.61%. 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



## The Strategic Plan and the FY 2018 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 operating 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 an operating 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

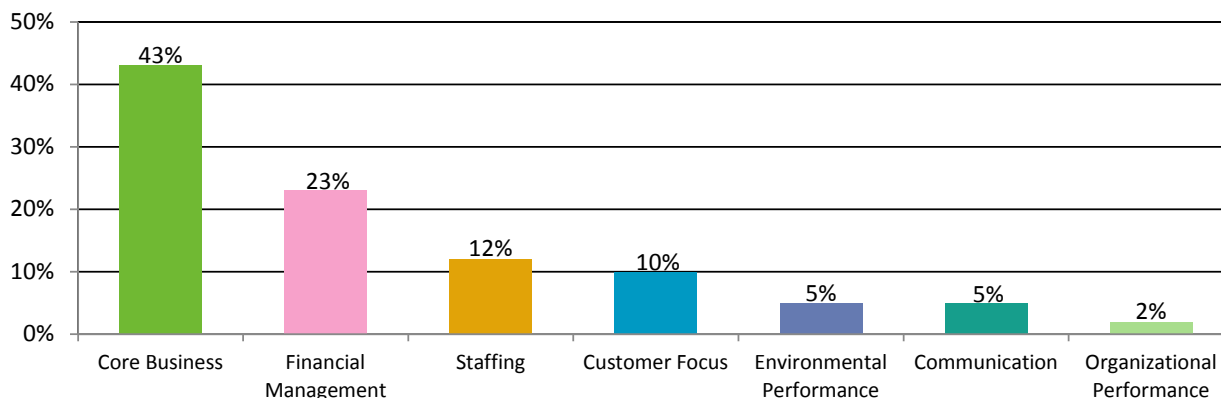
NBC's first Strategic Plan was developed in 2004 with input from the outside stakeholders such as NBC's Commissioners, Citizen Advisory Committee members, regulatory agencies, and other interest groups, as well as NBC staff. The Strategic Plan is a dynamic document and its content was expanded in 2005, 2006, 2011, and again in 2016. 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

<b>CORE BUSINESS:</b>	Operate, maintain and protect our collection and treatment systems to ensure that all State and Federal requirements are met or surpassed.
<b>ENVIRONMENTAL PERFORMANCE:</b>	Continuously evaluate NBC environmental performance to identify, quantify and minimize NBC impacts to the environment in a cost effective manner.
<b>FINANCIAL MANAGEMENT:</b>	Manage NBC's finances through strong financial planning and controls such that sewer users charges are minimized.
<b>CUSTOMER FOCUS:</b>	Maintain a customer-focused attitude throughout the organization.
<b>STAFFING:</b>	Attract, develop and retain highly qualified employees.
<b>COMMUNICATION:</b>	Improve and enhance internal and external communication to increase understanding of "who we are" and "what we do".
<b>ORGANIZATIONAL PERFORMANCE:</b>	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 66% of the Actions for Achievement were aligned to Core Business and Financial Management goals. In addition, 12% of the Actions for Achievement relate to Staffing and 10% 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.

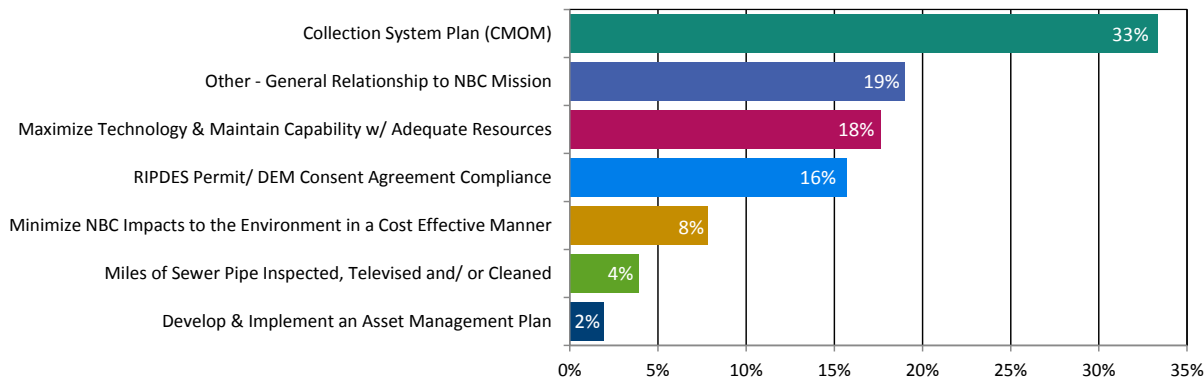
**Percentage of Actions for Achievement by Strategic Objective**



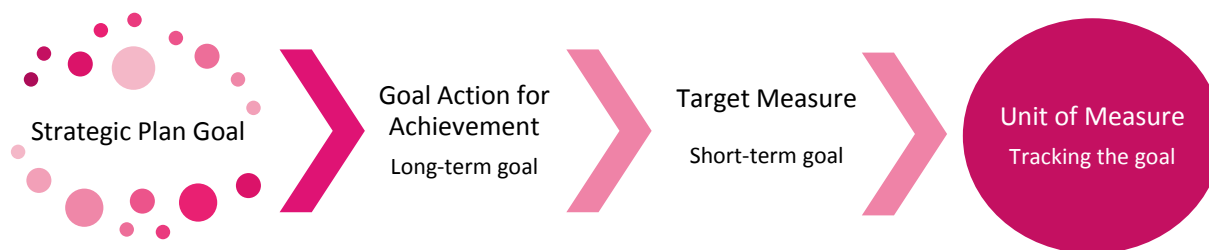
The Strategic Plan is also integrated into the Capital Improvement Program. Due to the increasing complexity of the CIP and NBC’s funding constraints, NBC evaluated proposed capital investments in light of their strategic value. NBC’s Strategic Plan ensures the ability to meet water quality objectives within the constraints of regulatory requirements through short term and long term objectives. As part of the CIP development process, project managers determine the specific strategic goal or goals that the project will address.

Of the 40 CIP projects, 33% are related to NBC’s Collection System Plan strategic objective. These include interceptor rehabilitation and construction projects. In addition, 19% of the projects in the CIP are aligned with the General Relationship to NBC Mission strategic objective and 18% of the projects are aligned with the Maximize Technology & Maintain Capability with Adequate Resources strategic objective. The remaining projects are aligned with the RIPDES Permit and RIDEM Consent Agreements strategic objective.

**Percentage of Capital for Achievement by Strategic Objective**



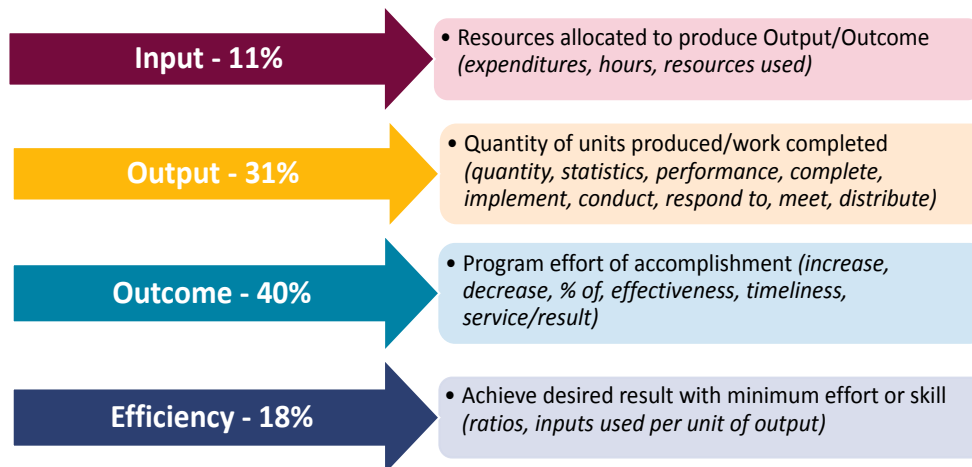
Actions for Achievement or long-term goals are then linked to each Programs target measures or short-term goals by one of four types of performance indicators. The four types of performance indicators are input, output, efficiency, and outcome. A unit of measure is then depicted by the Program Manager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



The FY 2018 budget further aligns the performance measures to the GFOA S.M.A.R.T goal framework. 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 Programs 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 performance data aligned with the indicators in accordance with this framework as shown below.

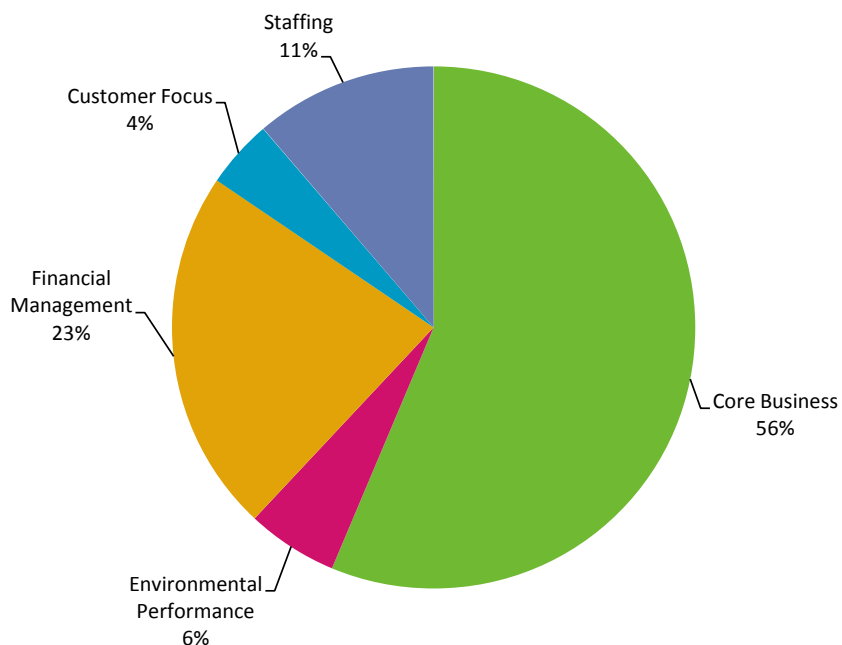
<b>SPECIFIC</b>	A specific goal is more likely to be reached because people know precisely what the objective is
<b>MEASURABLE</b>	Establish standards of evidence for gauging progress toward the goal and whether intended benefits are being realized
<b>ATTAINABLE</b>	Goals should have a certain amount of “stretch” in them – achieving the goal should require going beyond current patterns of performance and ways of thinking
<b>RESULT-ORIENTED</b>	The goal should be focused on results that make a real difference to financial position
<b>TIME-LIMITED</b>	The goal should have a clear timeframe for achievement

Each quarter of the matrix represents the percentage of the target measures, short term goals, by indicator for the entire NBC Organization. Of the 256 target measures, the majority or 40% are Outcome or result related whereas 31% of the measures are Output or quantifiable measures. The remaining 29% 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 2018 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 71 priorities for FY 2018 for the NBC, 40 or 56% are categorized under Core Business followed by Financial Management at 23% or 16 priorities. The following graph shows the percentage of NBC's section's priorities by goal action for achievement.

### Fiscal Year 2018 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
- CB 2** Manage the planning, design and construction of NBC's capital improvements in the most cost-effective manner and in compliance with regulatory requirements
- CB 3** Ensure the highest level of availability of systems' applications and network stability
- CB 4** Maximize efficiency through service automation, applications security and NBC campus security
- CB 5** Maintain NBC's asset management program for infrastructure and assets, ensure integrity and maximize the investment

## ***Environmental Performance***

- EP 1** Minimize environmental impacts and implement conservation and sustainability measures
- EP 2** Evaluate the NBC Program and report the data to the public
- EP 3** Provide technical assistance to evaluate energy conservation and renewable energy opportunities
- EP 4** 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
- FM 2** Integrate NBC's strategic goals into the allocation of NBC's resources
- FM 3** 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
- FM 7** Initiate and evaluate grant funding
- FM 8** Evaluate savings opportunities and optimize NBC operations and processes

## ***Customer Focus***

- CF 1** Maintain programs and conduct projects that give back to the community
- CF 2** Provide prompt, courteous, efficient and educational services
- CF 3** Enhance communications to ensure consistency, reliability and satisfaction
- CF 4** Maximize customer focus attitude by providing excellent customer service and developing strong customer relationships
- CF 5** Ensure compliance with NBC internal controls

### ***Staffing***

- S 1** Ensure compliance with Federal and State labor laws
- S 2** Foster a positive working environment through effective communication
- S 3** Provide professional, technical and/or safety training to optimize team performance and ensure user comfort with systems and processes
- S 4** Provide a healthy and safe working environment
- S 5** Develop mechanisms and establish opportunities for continued growth and professional development

### ***Communication***

- C 1** Continue to expand and conduct NBC public outreach programs
- C 2** Proactively manage NBC's public and legislative affairs and communicate NBC initiatives and ongoing activities
- C 3** Effectively communicate status of capital projects to NBC staff and Board members
- C 4** Enhance operating budget, CIP and compliance reports as a communication device
- C 5** 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, regulatory agenda filing and disclosure of consultants requirements
- OP 4** Provide end-user technology and systems to meet NBC's strategic goals



# Budget Philosophy, Process and Policies

## Philosophy

NBC is committed to protecting Narragansett Bay and its surrounding rivers and to providing a high level of service at a reasonable cost. To this end, NBC strives to identify all potential impacts to revenue and expense for the upcoming fiscal year when developing the annual Operating Budget.

## 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 2018 budget year begins July 1, 2017 and ends June 30, 2018. The prior fiscal year or FY 2017 is the 12 month period that ends June 30, 2017.

## Basis of Accounting

The accounting policies of NBC conform to Generally Accepted Accounting Principles 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 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 Generally Accepted Accounting Principles. The major difference is how debt service and capital expenditures are reflected.

## Basis of Budgeting

The NBC prepares its operating 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	Basis of Budget
	Full Accrual	Modified Accrual
<b>Revenue Recognition</b>	When earned	When measurable and available
<b>Expense Recognition</b>	When liability incurred	When liability incurred
Capital Expenditures	Increase Asset	Budgeted as expense
Depreciation	Expensed	Not Budgeted as expense
Principal Payments	Reduction of liability	Budgeted as expense
Bad Debt	Expensed	Not budgeted as expense

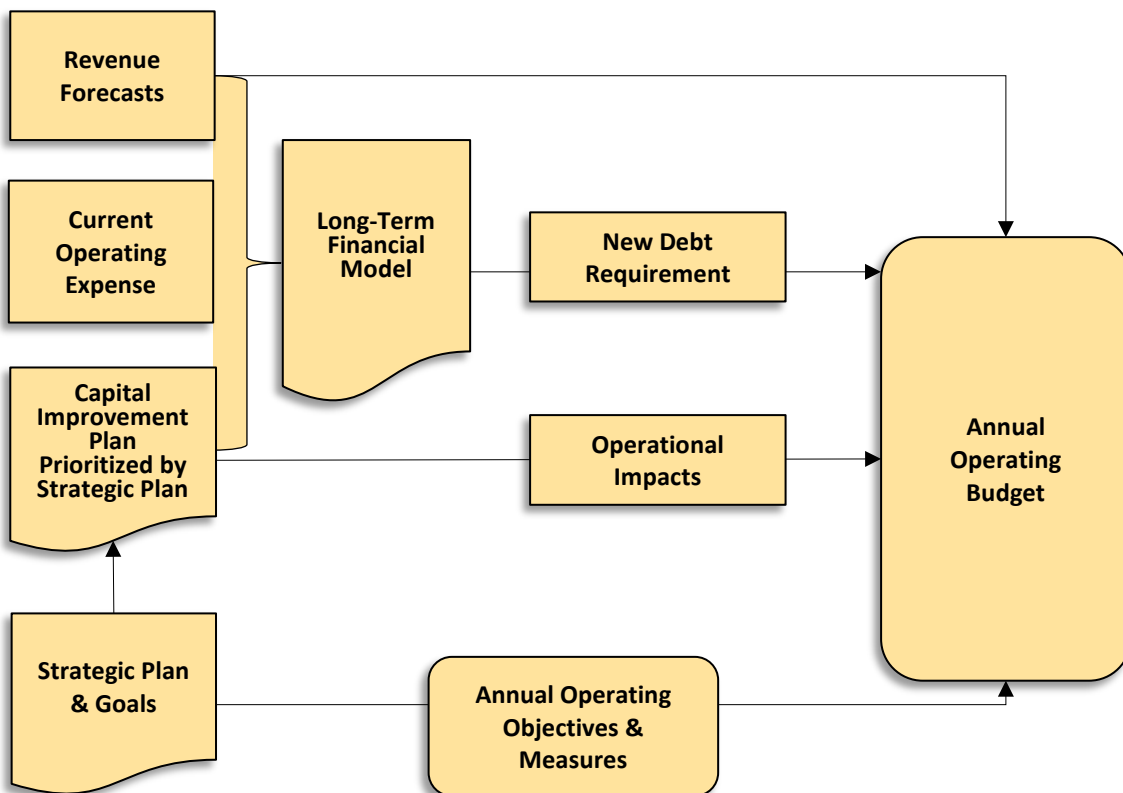
# The Budget Process

As a regulated agency, it is important that NBC analyze financial and operational needs throughout the year. The formal review for the operating 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), which is developed in conjunction with the annual operating budget. Both the CIP and the annual operating budget are developed within the context of the Strategic Plan’s long-term goals. The CIP identifies projects on a five-year basis. This plan, as well as known operating expense parameters and revenue projections, are integrated into the long-term financial planning model in order to assess new debt requirements. The model identifies available funding sources and funding needs (see CIP Impact and Long-Term Plan for more details) for the next decade. The model details the existing and new debt service requirements which are included in the annual operating budget. Operational impacts of the CIP are also included in the operating budget.

Revenue for the upcoming fiscal year is determined by the projected user rates and factors affecting non-operating revenue, such as grants, collection rates and the expected rate of return on cash balances. If it is determined that user fee revenue will not be sufficient to meet NBC’s future financial obligations, the 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**



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 30<sup>th</sup> to ensure that new rates are in effect by the following July 1<sup>st</sup> (see The Rate Setting Process for more information).

In November, the Administration and Finance Division presents short and long-term budget directives to all Division Directors and Program Managers. The managers are given online operating 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
- Personnel worksheet with salary and benefit rates and guidelines
- Proposed Budget worksheet with budget account detail forms
- Program and Operational change detail forms
- Operating Capital Plan for the FY 2018 budget and four out-years (5 year plan)
- Maintenance Contracts, Service Agreements and Large Operating Account detail forms
- Awards and Recognitions forms

In mid-November, Program Managers are asked to develop their Program objectives and provide performance data for their section. The Program Managers provide their prior year major accomplishments and submit the program's 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 About NBC section of this document. Development of the five-year Operating Capital Plan begins in December.

Beginning in January, Program Managers prepare their proposed budgets and the Finance section provides support throughout this timeframe. The Finance section conducts mid-year reviews of the current year budget to identify potential issues and trends that should be considered by Program Managers as part of the development of their proposed budgets. After a preliminary review of the draft operating budgets with Administration and Finance staff, the Division Directors and Program Managers present their proposed budgets to the Administration and Finance Director and the Executive Director in February.

Development of the CIP also takes place during February and March. Project Managers prepare capital budgets by project to identify both new and completed projects as well as update the costs and schedules of ongoing capital projects. As part of this process, Project Managers submit monthly cash flow and operating expense impact projections. Finance staff analyzes the information and subsequent to review by the Executive Director and Project Managers, the CIP document is drafted.

In March and April, the Finance section assesses year-to-date budget performance and analyzes funding requests. The draft Operating Budget undergoes a line-by-line examination by Finance staff and feedback obtained through the rate case process is used to update revenue and expense projections.

In May, the long-term financial model is updated based upon the CIP inputs and an analysis of available capital funds. The outputs from the long-term financial model are used to identify the CIP funding sources and uses. These outputs, along with the CIP operating expense impacts are then incorporated into NBC's rate model to develop five-year rate projections.

Revenue projections are finalized in May and Finance staff prepares recommended budget adjustments for the Executive Director's review. Once approved by the Executive Director, the draft Operating Budget is submitted to NBC's Board of Commissioner's Finance Committee for review in late May.

Additional fine-tuning of the Operating Budget takes place in early June. Drafting of the formal budget document is also completed and it is printed in early June. The CIP is reviewed and approved by the Long Range Planning (LRP) Committee in June. The Operating Budget is reviewed and approved by the Finance Committee in June as well. The CIP and the Operating Budget, along with the Authorizing Resolutions, are presented to the Board of Commissioners for review and approval at the June Board meeting.

## Budget Monitoring and Amendment Procedures

### General

- A line item budget is maintained for each individual cost center. Budget transfers are required to prevent any significant expense overrun on any line item.
- 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 to actual status are submitted and presented to the Finance Committee.
- 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 operating 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 Director of Administration and Finance must then approve all budgetary line item adjustments within and between categories. The Executive Director must notify the Finance Committee of such adjustments on a monthly basis.
- No budget transfers shall be made from capital to operating expense under normal circumstances.
- All budget transfers are reported to the Finance Committee monthly.
- Changes to Budgeted Operating Capital in excess of \$50,000 must be approved by the Finance Committee.
- All budget transfers are reviewed by Finance and tracked on NBC's computerized financial system.

# FY 2018 Budget Calendar

## July 2016 - August 2016

- Projection of FY 2018 revenue, expense, and financial obligations
- Comparison of needs to PUC approved cost of service

## November 2016

- Budget Kick-off - short and long term budget directives
- Overview, Responsibilities & Draft Performance Data submitted by November 30th

## December 2016

- Performance Data review, transition to GFOA Indicator Standards and SMART Goals

## January 2017

- Final Performance Data due January 6<sup>th</sup>

## February 2017

- FY 2017 Mid-Year Budget Reviews conducted February 1<sup>st</sup>, 2<sup>nd</sup> & 6<sup>th</sup>
- Preliminary Budget submittals to Finance for review by February 8<sup>th</sup>
- Preparation of utilities, biosolids and chemical usage, cost projections and analysis
- Completion of salary and fringe calculations
- Capital Improvement Plan - Project Overview, Cash Flows and Schedule Detail forms submitted by February 8<sup>th</sup>

## March 2017

- Budget Presentations to Executive Director on March 7<sup>th</sup>
- Addition of enhancements to budget document
- FY 2018 Budget Change Requests submitted on March 23<sup>rd</sup>

## April 2017

- Comparison to prior year expenditures and PUC cost of service
- Analysis of FY 2017 year to date expense and revenue
- Preparation of CIP and revenue projections
- Review draft CIP by the CIP Review Committee on April 18<sup>th</sup>
- Presentation of preliminary budget adjustments and status to Executive Director

## May 2017

- Balance Budget
- Preparation of Budget documents
- Update of Long-term Debt Model, CIP sources and uses
- Projection of carry-forward, FY 2017 Finish, Fund balances
- Health insurance renewal
- Finance Committee review of Draft Budget on May 23<sup>rd</sup>

## June 2017

- Final Budget revisions and Budget document preparation
- Long-Term Planning Committee and Board Review and Approval of FY 2019-2023 CIP on June 20<sup>th</sup>
- Finance Committee and Board review and adoption of Fiscal Year 2018 Operating Budget on June 20<sup>th</sup>

# 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 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 and this 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 typically 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 twice, most recently for FY 2013 through FY 2017. 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.

Rate History					
Effective Date	1/1/2013	7/1/2013	9/19/2014	7/1/2015	7/1/2016
Type of Filing	Compliance	General	General	Compliance	Compliance
Purpose	Debt	O&M/Rate Base	O&M/Rate Base	Debt	Debt
Revenue Increase	7.09%	9.32%	3.83%	2.29%	1.48%
User Rate Increase	7.35%	9.67%	3.97%	2.40%	1.53%
Average Annual Residential Fee (150 gpd)	\$403	\$442	\$459	\$470	\$477



# 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.

## 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 2017 Goal	FY 2018 Goal
Review and update of Strategic Plan	Annually	Annually
Update Long-Term Financial Plan	Semi-Annually	Semi-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 2017 Goal	FY 2018 Goal
File with PUC to maintain sufficient operating and capital funding	No filing	No filing
Revise Capital cash flow projected draw	2 Updates	2 Updates
Update Long-Term Financial Plan	Semi-Annually	Semi-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 2017 Goal	FY 2018 Goal
Purchase requisitions completed within two weeks	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%
Ensure NBC's fleet does not include more than 50 vehicles that weigh less than 8,500 tons	≤50	≤50

### 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 2017 Goal	FY 2018 Goal
Receive the GFOA Certificate of Achievement for Excellence in Financial Reporting	15 Years	16 Years
Complete audit by September 30 <sup>th</sup>	9/30/2017	9/30/2018
Complete audit with clean opinion and no management letter	Yes	Yes
Complete single audit by March 31 <sup>st</sup>	3/31/2018	3/31/2019
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 operating 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 operating budget to ensure that sufficient resources are available to safely and effectively provide wastewater treatment.

Measure of Compliance	FY 2017 Goal	FY 2018 Goal
Prepare and transmit monthly financial report to NBC's Finance Committee	Monthly	Monthly
Upload and maintain Operating Budget and CIP internet features	100%	100%
Develop and administer a high quality annual Operating Budget and CIP	Yes	Yes
Receive GFOA Distinguished Budget Presentation Award	15 Years	16 Years
Process 100% of budget transfers 5 days prior to month end	100%	100%
Operating 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 Improvement Program and update it on an annual basis.
- The projects in the Capital Improvement Program will be prioritized based upon their strategic importance.

- NBC will adopt and maintain a five-year operating capital plan and update it on an annual basis.

Measure of Compliance	FY 2017 Goal	FY 2018 Goal
Revise capital cash flow projected draw	2 Updates	2 Updates
Develop and administer a high quality annual Operating Budget and CIP	Yes	Yes

## 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 Director of Administration and Finance, in conjunction with NBC’s Financial Advisor, will evaluate the options and implement recommendations that will minimize risk and maximize benefits. NBC’s lowest cost of permanent financing is through subsidized SRF loans from the Rhode Island Infrastructure Bank. NBC will use SRF funds to the extent they are available 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. Short-term debt may also be issued 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 Director of Administration and Finance 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 Director of Administration and Finance 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 2017 Goal	FY 2018 Goal
Credit Rating with Standard & Poor's	AA-	AA-
Update Long-Term Financial Plan Semi-Annually	Semi-Annually	Semi-Annually
Ensure compliance with federal tax laws and regulations to maintain tax exempt status of NBC's bond issues	100%	100%
Tax Exempt Spend Down Requirement	Monthly	Monthly
Determine Arbitrage Liability by August 31 <sup>st</sup>	8/31/2016	8/31/2017
Provide Arbitrage Calculation Information	100%	100%
File with PUC to maintain sufficient operating and capital funding	10/1/2016	10/1/2017
Compliance with Continuing Disclosure Commitments	3/31/2018	3/31/2019

### 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 will all Federal, State and other legal requirements.

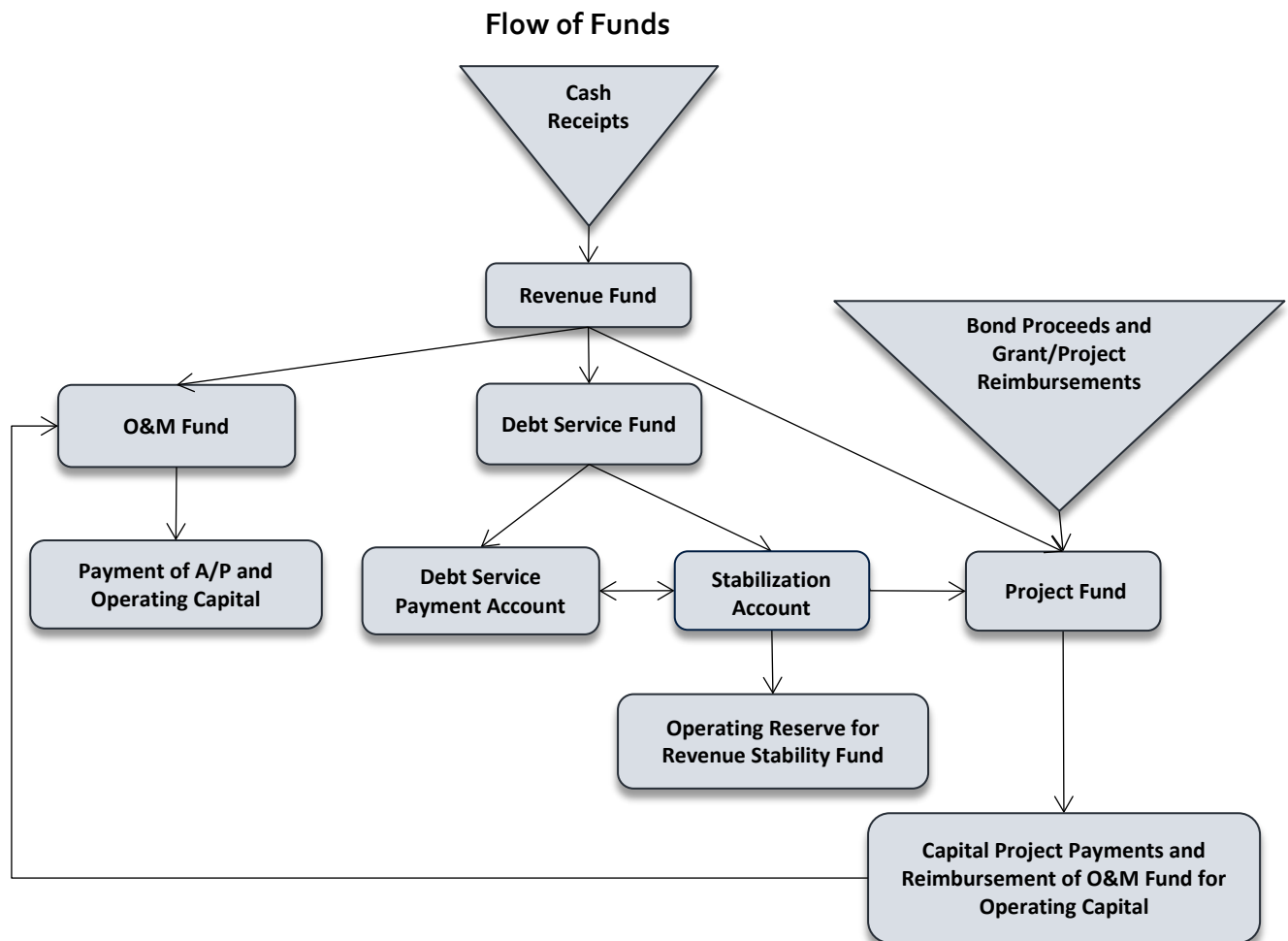
Measure of Compliance	FY 2017 Goal	FY 2018 Goal
Ensure compliance with federal tax laws and regulations to maintain tax exempt status of NBC's bond issues	100%	100%

# 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 24 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	December 12, 2007	20	March 6, 2014
9	July 1, 2008	21	October 28, 2014
10	November 1, 2008	22	May 5, 2015
11	October 6, 2009	23	July 30, 2015
12	February 12, 2010	24	June 2, 2016
13	June 24, 2010		

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.



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, and operating capital.

#### 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 Improvement Plan. Funds are transferred from the Project Fund to reimburse the O&M Fund for operating capital.

#### 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 operating 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 2018 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 2017 multiplied by the percentage increase in the FY 2018 operating budget, or 6.6%. The FY 2018 monthly Operation and Maintenance Fund transfers are shown in the table below.

O&M Monthly Certified Trust Transfer	
Month	Amount
Jul-16	\$ 4,199,440
Aug-16	4,913,234
Sep-16	2,634,038
Oct-16	2,977,887
Nov-16	3,651,513
Dec-16	3,987,838
Jan-17	3,076,207
Feb-17	3,678,858
Mar-17	3,195,476
Apr-17	2,597,077
May-17	2,844,921
Jun-17	4,052,104
<b>Total</b>	<b>\$ 41,808,594</b>

## Net Position

The data in this budget has been used to project net position for June 30, 2018, as shown in the table below.

Fund	Net Position FY 2016	Net Change	Projected Net Position FY 2017	Net Change	Projected Net Position FY 2018
Revenue Fund	\$ 26,473,423	\$ (1,221,441)	\$ 25,251,982	\$ (1,291,547)	\$ 23,960,435
Operation and Maintenance Fund	(19,905,209)	2,331,406	(17,573,803)	-	(17,573,803)
Debt Service Fund	38,954,893	(1,071,847)	37,883,046	(1,071,847)	36,811,199
Project Fund	399,166,991	28,560,958	427,727,949	25,506,456	453,234,405
Operating Reserve for Revenue Stability Fund	4,501,062	(1,062)	4,500,000	-	4,500,000
Renewal and Replacement Fund	-	-	-	-	-
Debt Service Reserve Fund	3,502,206	(5,206)	3,497,000	-	3,497,000
Operation and Maintenance Reserve Fund	-	-	-	-	-
Redemption Fund	-	-	-	-	-
Insurance Reserve Fund	-	-	-	-	-
Unrestricted Fund	-	-	-	-	-
Rebate Fund	-	-	-	-	-
Environmental Enforcement Fund	90,910	5,090	96,000	(5,000)	91,000
<b>Net Position</b>	<b>\$ 452,784,276</b>	<b>\$ 28,597,898</b>	<b>\$ 481,382,174</b>	<b>\$ 23,138,062</b>	<b>\$ 506,714,401</b>

Significant changes in the net position are as follows:

**Revenue Fund:** The Revenue Fund is the initial depository for all NBC receipts except those deposited into the EEF. The Revenue Fund net position is expected to decrease by \$1.2 million or 4.6% from FY 2016 to FY 2017 and \$1.3 million or 5.1% from FY 2017 to FY 2018. NBC must transfer a fixed percentage of receipts into restricted accounts based upon a Report and Order from the PUC. The percentage is calculated based on the PUC approved levels for revenue and debt service. Because NBC's receipts in FY 2017 and budgeted revenue in FY 2018 are higher than the PUC approved revenue, additional cash is transferred to the Debt Service Fund resulting in a decrease in net position of the Revenue Fund.

**Operation & Maintenance (O&M) Fund:** The FY 2016 negative net position reflects the net pension liability recorded as a result of the implementation of GASB Statement 68. From FY 2016 to FY 2017 the O&M net position is expected to increase by \$2.3 million due the projected operating budget surplus. Given that NBC has adopted a balanced operating budget for FY 2018, no change is projected between the June 30, 2017 and the June 30, 2018 ending net position.

**Debt Service Fund:** The Debt Service Fund net position is projected to decrease 2.8% in FY 2017 and in FY 2018 by an additional 2.8%. This decrease is the result of the projected higher cash balance required for the PUC restricted calculation referenced in the Revenue Fund section above which causes a higher amount to be transferred from the Stabilization Account in the Debt Service Fund to the Restricted Account – CIP in the Project Fund.

**Project Fund:** In FY 2017 the Project Fund net position is projected to increase by 7.2% or \$28.6 million and in FY 2018 it is projected to increase by 6.0% or \$25.5 million. This projection is based on the average increase in capital project assets, transfers in from the Stabilization Account in the Debt Service Fund, minus principal payments for the past two years.

**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 and 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 year-end 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.

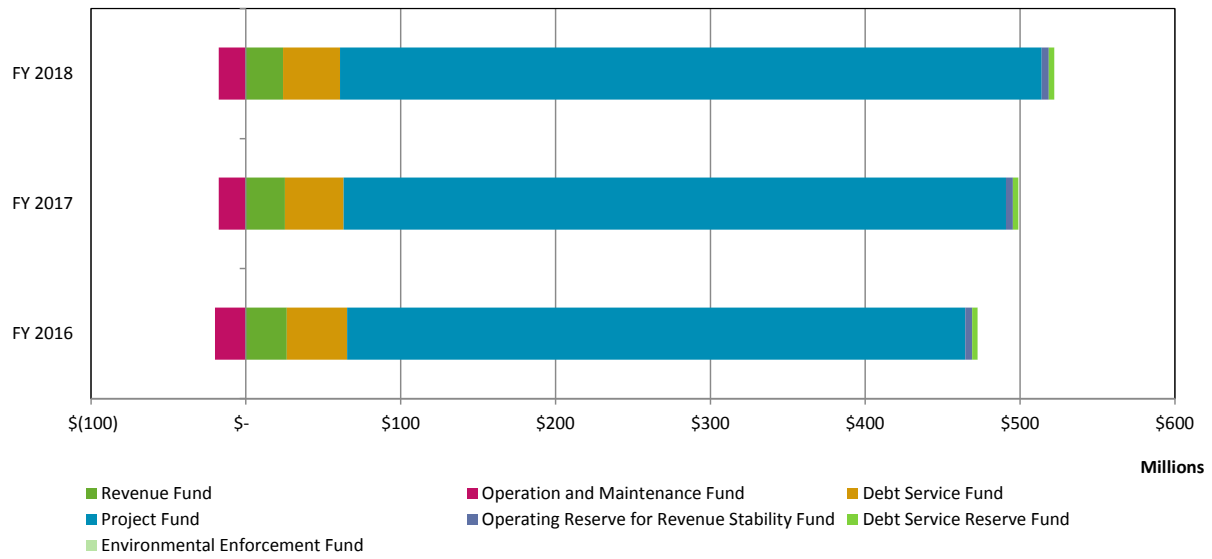
**Insurance Reserve Fund:** This fund has no assets or liabilities and NBC does not plan on using this fund.

**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 operating budget. A \$5,090 increase in net position is projected for the year ending June 30, 2017 as the result of a large fine. The net position is projected to decrease by \$5,000 for the year ending June 30, 2018 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 2016, FY 2017 and FY 2018 is shown in the chart below.



For an overview showing the relationship between major funds and Divisions / Sections please see the Fund – Organization Matrix in the Supporting Schedules section of this budget.



# Budget Summary Information

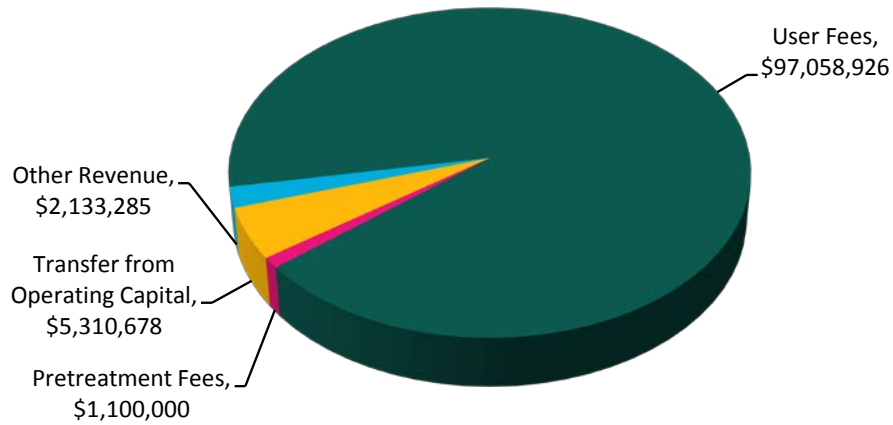
## Budget Overview

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget	Budgeted Difference
<b>Revenue</b>				
<b>Operating Revenue:</b>				
User Fees	\$ 96,078,624	\$ 96,899,643	\$ 97,058,926	\$ 159,283
Pretreatment Fees	1,088,763	1,100,000	1,100,000	-
Septage	358,719	325,000	325,000	-
Connection Permit Fees	124,450	125,000	130,000	5,000
<i>Total Operating Revenue</i>	97,650,556	98,449,643	98,613,926	164,283
<b>Non-Operating Revenue:</b>				
Investment Income	112,094	5,000	120,000	115,000
Late Charges	932,178	930,000	900,000	(30,000)
Transfer from Operating Capital	3,652,894	5,479,500	5,310,678	(168,822)
Miscellaneous	626,115	1,261,728	286,400	(975,328)
Renewable Energy Credits*	-	-	371,885	371,885
<i>Total Non-Operating Revenue</i>	5,323,281	7,676,228	6,988,963	(687,265)
<b>Total Revenue</b>	<b>\$ 102,973,837</b>	<b>\$ 106,125,871</b>	<b>\$ 105,602,889</b>	<b>\$ (522,982)</b>
<b>Expense</b>				
<b>Operation and Maintenance Expense:</b>				
Personnel	\$ 22,401,349	\$ 25,225,531	\$ 25,264,376	\$ 38,845
Operating Supplies/Expense	14,177,379	15,140,547	15,308,168	167,621
Professional Services	1,019,108	1,237,150	1,236,050	(1,100)
<i>Total O &amp; M</i>	37,597,836	41,603,228	41,808,594	205,366
<b>Debt Service:</b>				
Debt Service	42,907,662	45,137,622	46,786,894	1,649,272
Programmed New Debt	-	-	-	-
<i>Total Debt Service</i>	42,907,662	45,137,622	46,786,894	1,649,272
<b>Debt Service Coverage</b>	18,815,445	13,905,521	11,696,723	(2,208,798)
<b>Operating Capital</b>	3,652,894	5,479,500	5,310,678	(168,822)
<b>Total Expense</b>	<b>\$ 102,973,837</b>	<b>\$ 106,125,871</b>	<b>\$ 105,602,889</b>	<b>\$ (522,982)</b>
<b>Debt Service Coverage Ratio</b>	1.44	1.31	1.25	

\*Included with Miscellaneous Non-Operating Revenue Prior to FY 2018

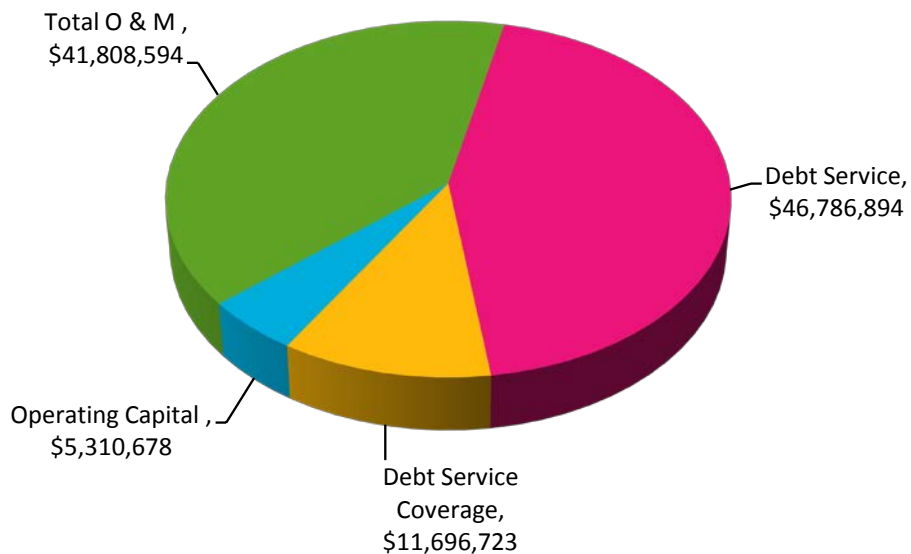
The Budget Overview table on the previous page shows that budgeted operating revenue is \$164,283 or 0.2% higher than last year's budget. Total projected revenue for FY 2018 is approximately \$105.6 million and user fees are the most significant source of revenue, representing \$97.1 million or 91.9% of total revenue. The chart below illustrates the sources of FY 2018 budgeted revenue.

### Sources of Revenue



The largest category of expense in FY 2018 is Debt Service, which is approximately \$46.8 million and represents 44.3% of total uses of revenue; however, no programmed new debt is budgeted in FY 2018. Budgeted Operation and Maintenance expense is \$41.8 million or 39.6%. The budget also includes debt service coverage of \$11.7 million and operating capital of \$5.3 million. The debt service coverage ratio is 1.25 which is consistent with the rate covenant of 1.25 set forth in NBC's Trust Indenture. The chart below illustrates FY 2018 budgeted uses of revenue.

### Uses of Revenue

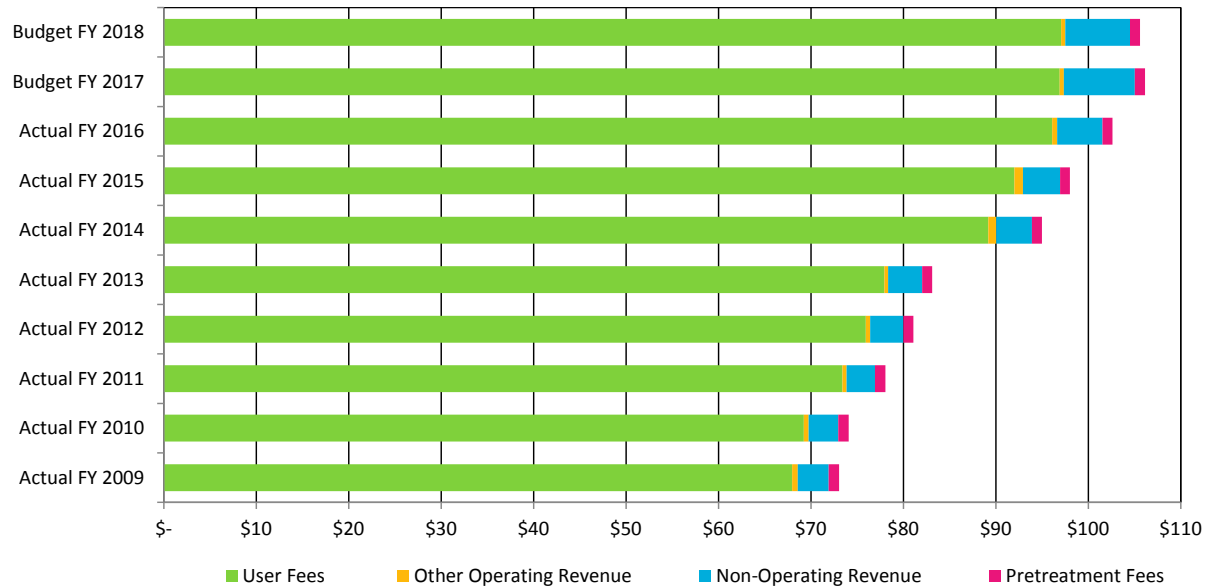




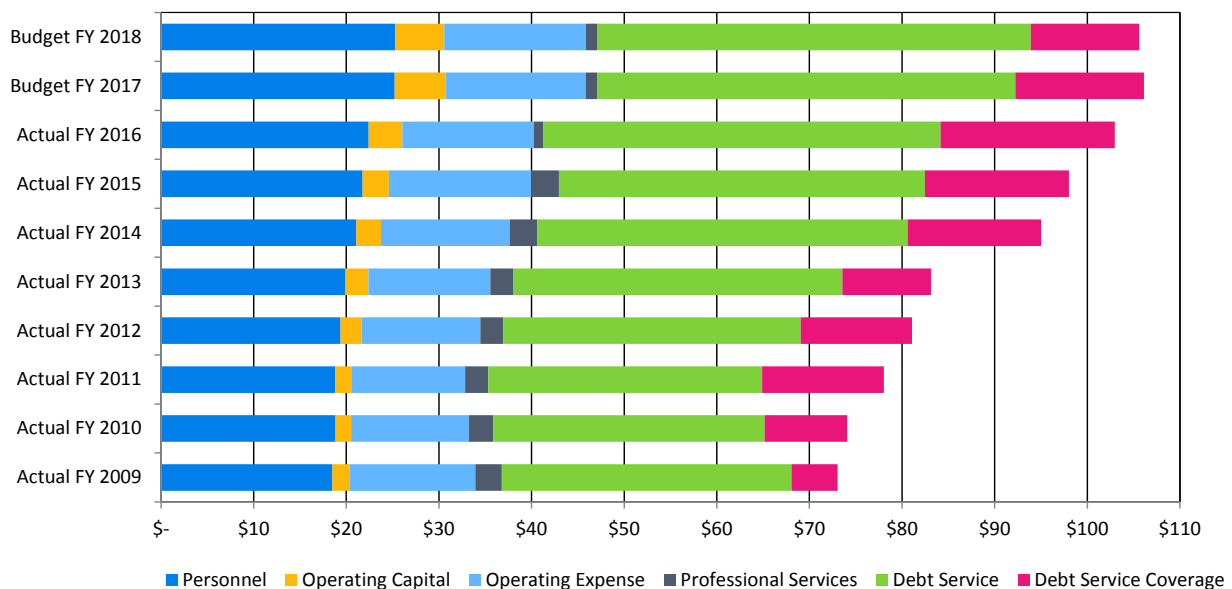
# Historical Overview

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 Revenue Comparison (Millions \$)**



**Ten-Year Historical Expense Comparison (Million \$)**



## FY 2018 Budget – Key Assumptions

The development of the FY 2018 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 CIP.
- The operating capital policy defines operating capital items as those with cost 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 plan.

### **\* Key short-term guidelines:**

- User fee revenue reflects the current rate base with an adjustment for a new commercial user.
- REC revenue rates of \$26 /REC Field's Point Turbines and \$20/REC - WED Turbines and Biogas Reuse
- Revenue available for operation and maintenance expense is calculated in accordance with the Trust Indenture as total revenue less debt service, debt service coverage, and operating capital.
- The budget includes contracted step increases for union employees and merit increases for non-union employees.
- NBC's FY 2018 contribution rate to the Rhode Island State Retirement System on behalf of participating union employees is unchanged from the prior year at 26.34% in FY 2018.
- NBC's contribution rate to the State Retirement Health Benefit for participating union employees is unchanged from the prior year at 5.97% in FY 2018.
- Fringe benefit rates reflect a 12.9% increase in the High Deductible Health Plan (HDHP) along with NBC partial funding of a Health Savings Account (HSA) and/or Health Reimbursement Arrangement (HRA). Dental insurance premiums are unchanged from FY 2018, vision insurance premiums increased by 11.3% and Long-Term Disability insurance premiums increased by 5.0% over the prior year level. (See Budgeted Benefits Comparison schedule in Supporting Schedules for more information).
- The FY 2018 budget includes funding for five less positions than the prior year and a reduction in budgeted turnover from four to two positions resulting in a net decrease of three FTEs compared to the prior year.
- The FY 2018 budget reflects reorganizational changes related primarily to the engineering function.
- Fringe benefits are budgeted based on actual enrollment and a weighted average for unfilled positions.

- Consumer Price Index (CPI) projected an increase of 3.0% in the prorated contracted biosolids disposal rate and a combined lower production at Field's Point and Bucklin Point of 352 dry tons.
- A 5.4% increase in the electricity supply rate to \$0.06336 per kWh effective through June 30, 2018.
- Electricity use and expense reflects the net impact of NBC's renewable energy resources and the calculation is discussed in detail on pages 66 and 67 in the Expense Profile section.
- Decrease of 3.8% in the budgeted natural gas supply rate and net decrease in the number of therms budgeted of 1.6% from the prior year.
- Chemical rate changes as follows:

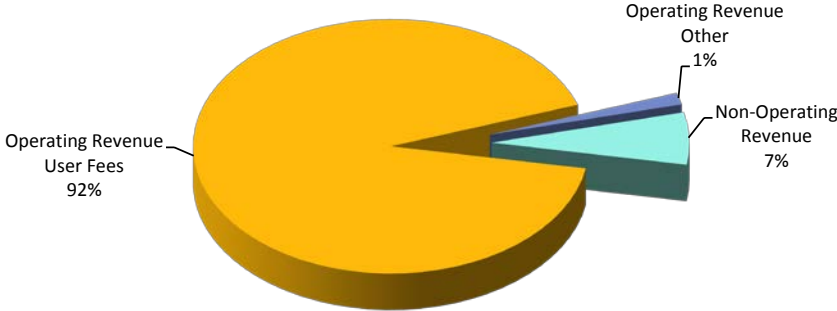
	Price per Unit		
	FY 2017	FY 2018	% Change
Hypochlorite	\$ 0.51070	\$ 0.52090	2.0%
Bisulfite	1.03000	1.12000	8.7%
Sodium Hydroxide	1.32400	1.69480	28.0%
Carbon Feed	2.15000	2.10000	(2.3%)
Polymer-Liquid	1.09200	1.11000	1.6%
Polymer-Powder	2.25000	1.92000	(14.7%)
Soda Ash	0.22440	0.20350	(9.3%)

#### Other Assumptions:

- FY 2018 Programmed New Debt is based on the Long-Term Financial Planning model that reflects the cash flow requirements in the FY 2019-2023 CIP.
- The budget is consistent with the percent of user fees restricted for debt service and debt service coverage that are transferred from the Revenue Fund into the Debt Service Fund monthly. Principal and interest payments are made from the Debt Service Payment Accounts and the debt service coverage is deposited into the Stabilization Account. The PUC has authorized the transfer of the funds in the Stabilization Account to the Project Fund for funding operating capital and direct funding of capital projects, as well as funding of the Operating Reserve for Revenue Stability Fund. Upon the completion of the fiscal year, a calculation is made to determine the amount that can be transferred from the Stabilization Account to the Project Fund for the PUC approved uses. In FY 2018, \$5.3 million is available in the Project Fund to fund FY 2018 operating capital.
- The budget is consistent with the flow of funds set forth in the Trust Indenture and Twenty-Four Supplemental Trust Indentures (see Fund Definitions in the Budget Process and Policies section).

# Revenue Profile

Revenue by Category



Budgeted revenue in FY 2018 is approximately \$105.6 million or 0.5% less than FY 2017. This is the net effect of a 0.2% increase in operating revenue and a 9.0% decrease in non-operating revenue. Historical and budgeted revenue is shown in the table below.

Revenue	FY 2015 Actual	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget	Percent Change
<b>Operating Revenue</b>					
User Fees	\$ 92,007,299	\$ 96,078,624	\$ 96,899,643	\$ 97,058,926	0.2%
Pretreatment Fees	1,076,481	1,088,763	1,100,000	1,100,000	0.0%
Septage	336,037	358,719	325,000	325,000	0.0%
Connection Permit Fees	100,906	124,450	125,000	130,000	4.0%
<i>Total Operating Revenue</i>	<i>93,520,723</i>	<i>97,650,556</i>	<i>98,449,643</i>	<i>98,613,926</i>	<i>0.2%</i>
<b>Non-Operating Revenue</b>					
Investment Income	5,839	112,094	5,000	120,000	2300.0%
Late Charges	999,867	932,178	930,000	900,000	(3.2%)
Transfer from Operating Capital	2,831,086	3,652,894	5,479,500	5,310,678	(3.1%)
Miscellaneous	652,914	626,115	1,261,728	286,400	(77.3%)
Renewable Energy Credits*		-	-	371,885	0.0%
<i>Total Non-Operating Revenue</i>	<i>4,489,706</i>	<i>5,323,281</i>	<i>7,676,228</i>	<i>6,988,963</i>	<i>(9.0%)</i>
<b>Total Revenue</b>	<b>\$ 98,010,429</b>	<b>\$ 102,973,837</b>	<b>\$ 106,125,871</b>	<b>\$105,602,889</b>	<b>(0.5%)</b>

\* Included with Miscellaneous Non-Operating Revenue Prior to FY 2018

Of the \$105.6 million in total revenue, approximately \$97.1 million is from user fees, \$1.6 million is from other operating revenue and \$7.0 million is from non-operating revenue. Looking at a four-year trend, NBC’s largest source of revenue, user fees, has increased by 5.5% since FY 2015. This has been primarily for debt service and debt service coverage to finance NBC’s Capital Improvement Program.

NBC has raised rates five times in the last six years. In addition to supporting debt service, these rate increases have been required to adjust for changes in NBC’s rate base. The rate base was adjusted for declining consumption, the “downsizing” of non-residential meters and the decline in the number of non-residential meters. A portion of two rate increases also supported higher operating expense. The chart on the following page shows NBC’s rate increase history since January 1, 2013.

Rate History					
Effective Date	1/1/2013	7/1/2013	9/19/2014	7/1/2015	7/1/2016
Type of Filing	Compliance	General	General	Compliance	Compliance
Purpose	Debt	O&M/Rate Base	O&M/Rate Base	Debt	Debt
Revenue Increase	7.09%	9.32%	3.83%	2.29%	1.48%
User Rate Increase	7.35%	9.67%	3.97%	2.40%	1.53%
Average Annual Residential Fee (150 gpd)	\$403	\$442	\$459	\$470	\$477

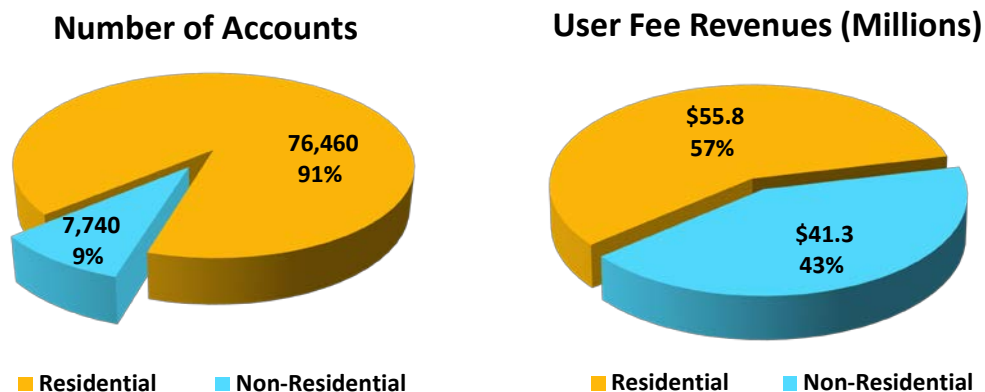
On a year-to-year basis, budgeted user fees have increased by 0.2% over last year’s budget reflecting FY 2017 rate base with a minor adjustment for revenue associated with a new commercial user projected to connect to NBC’s system in November 2017. Budgeted Septage revenue remains unchanged from the prior year and Connection Permit Fee revenue is budgeted 4% higher than last year. Budgeted late charge revenue is \$30,000 or 3.2% lower than the prior year as receivables are declining. The budgeted transfer from Operating Capital is \$168,822 or 3.1% lower than FY 2017. Lastly, this year’s budget provides additional information related to the Renewable Energy Credit (“REC”) revenue generated from NBC’s renewable resource projects. Previously included in the miscellaneous revenue line item, this year’s budget now shows this revenue source as a separate line item with a FY 2018 budgeted level of \$371,885. These changes are discussed in more detail in the following sections on Operating and Non-Operating Revenue.

### Operating Revenue

In FY 2018, user fees represent 98.4% of the projected operating revenue and 91.9% of total revenue. Revenue projections are calculated based upon projected user fees for residential and non-residential user classifications. Residential customers include residential structures up to and including six dwelling units, and all condominiums, regardless of the number of dwelling units. NBC projects that in FY 2018 residential user fees will be billed to approximately 76,460 accounts with approximately 119,200 dwelling units within the service area. Non-residential accounts include residential structures containing more than six dwelling units, commercial, mixed-use and industrial properties. There are approximately 7,740 non-residential accounts with approximately 8,200 billable meters. The FY 2018 budget does not include an increase in the number of residential dwelling units. NBC has included a projected user fee revenue increase of \$135,950 related to consumption as well as \$23,333 from the Johnston Sewer Improvements/Greenville Avenue Project (30460).

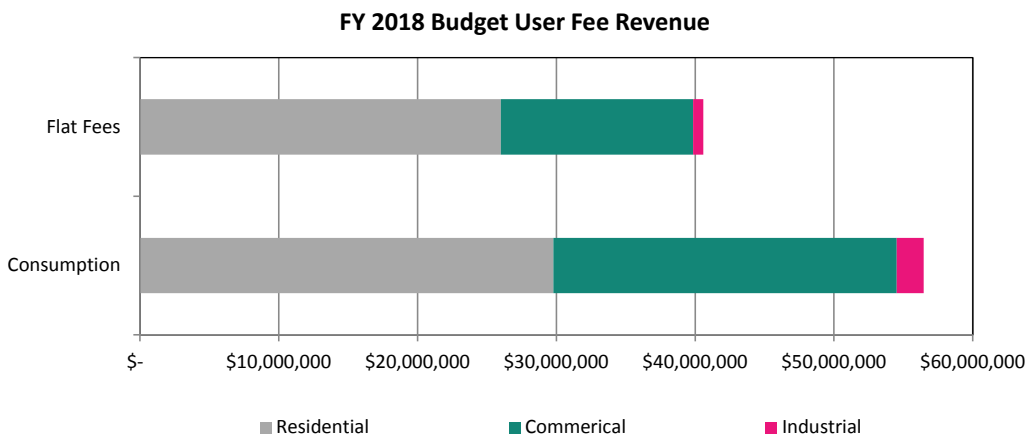
Residential customers make up 91% of NBC’s sewer user accounts and generate 57% of total user fees. Conversely, non-residential customers comprise 9% of total sewer user accounts and generate 43% of total user fees. The revenue recovery allocation between the residential and non-residential accounts is in closer alignment with the relative billable consumption which is 61% and 39%, respectively. The charts below show the residential versus non-residential split between the number of accounts and user fees billed.

### Residential and Non-Residential Accounts

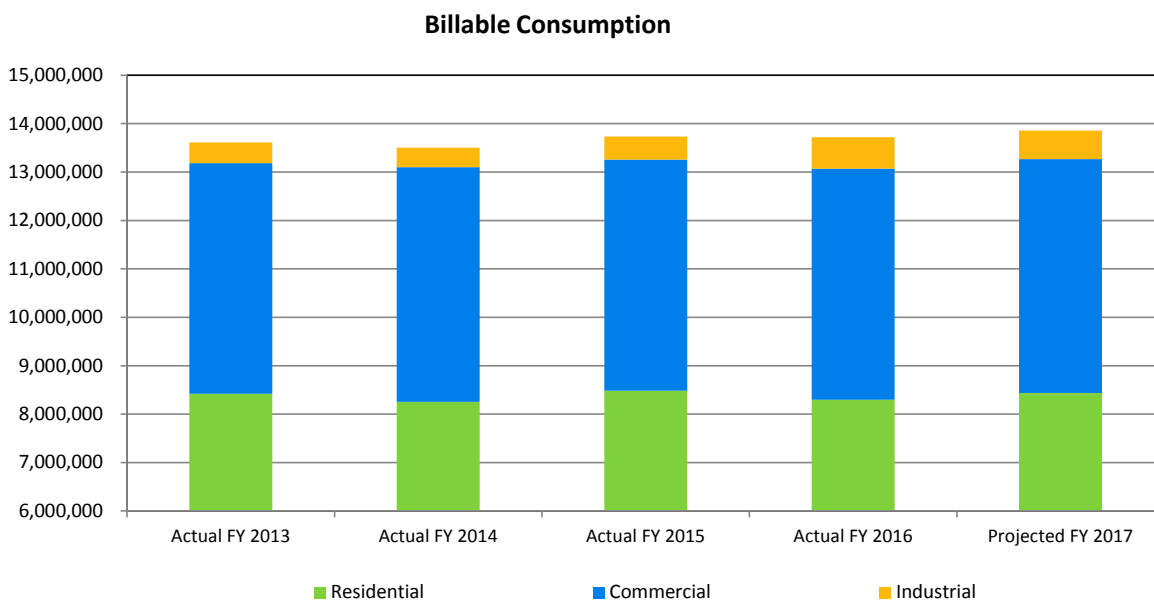


NBC's sewer user charges consist of a flat fee and a consumption fee. The flat fee is based on the number of dwelling units for residential customers and billable meters by meter size for non-residential customers. The projected user fee revenue is based upon the FY 2017 billed revenue, with higher flat fees of \$23,333 to reflect a new large commercial user anticipated to connect to NBC's sewer system in November.

FY 2018 Budgeted User Fee Revenue			
	Consumption	Flat Fees	Total
Residential	\$ 29,778,335	\$ 26,003,254	\$ 55,781,589
Commerical	24,742,457	13,849,474	38,591,931
Industrial	1,944,430	740,976	2,685,406
<b>Total</b>	<b>\$ 56,465,222</b>	<b>\$ 40,593,704</b>	<b>\$ 97,058,926</b>



With respect to consumption fees, this revenue is calculated based upon water usage. The total billable consumption rate base appears to have stabilized with the billable industrial consumption approximately 46% higher than FY 2014 levels. NBC is budgeting FY 2018 consumption based on the projected FY 2017 billable consumption.

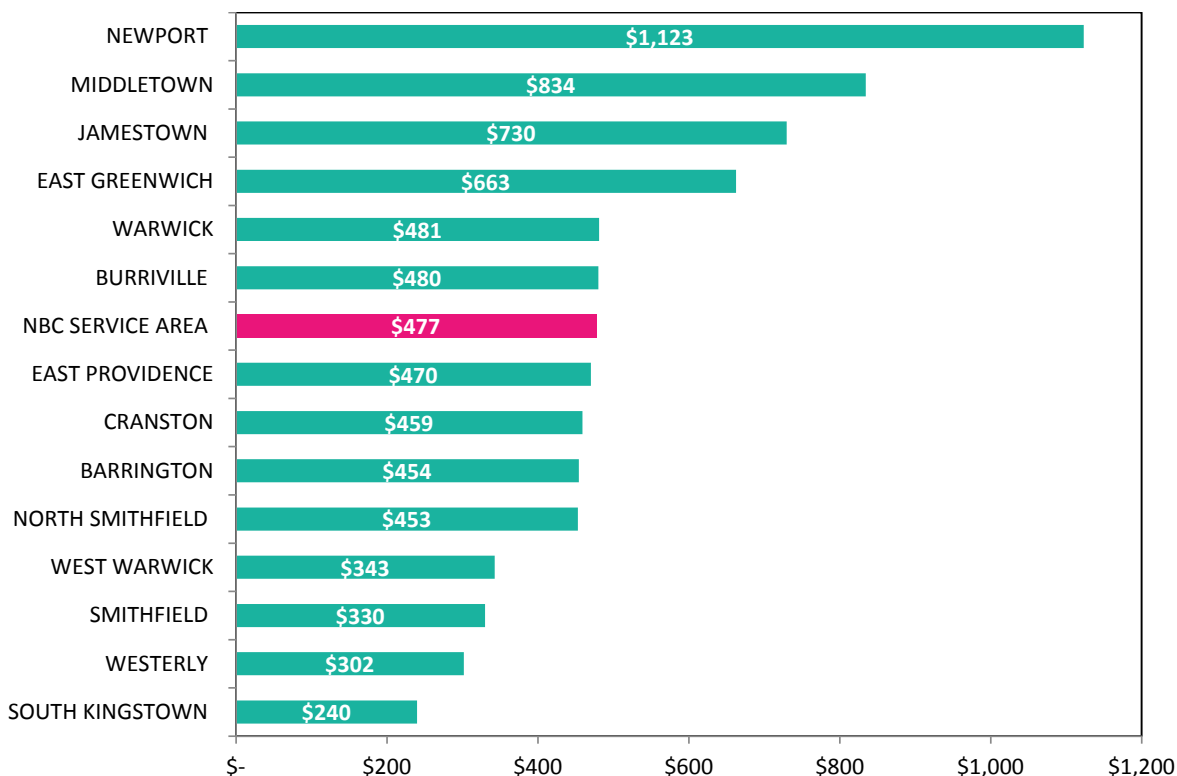


NBC's did not file for rate relief in FY 2017 and the most recent rate increase was 1.53% effective July 1, 2016. The table below shows NBC's FY 2018 user rates for residential and non-residential users. At these rates, NBC's estimated average annual residential sewer user charge based on annual usage of 150 gallons per day is \$477.

NBC User Fees Effective 7/1/2016		
Residential:	Non-Residential	
Customer Charge - based on number of Dwelling Units	<b>Meter Size</b>	<b>Charge</b>
Residential Customer Charge: \$218.80 /dwelling unit	5/8"	\$523
Consumption Charge \$3.531 /hcf	3/4"	\$782
Total Annual Average Residential Rate \$477	1"	\$1,300
(Based on 73.2 hcf* or 150 gallons per day)	1 1/2"	\$2,607
	2"	\$4,164
	3"	\$7,802
<b>Non-Residential:</b>	4"	\$13,000
Customer Charge - Based on Meter Size	6"	\$26,010
Commercial Consumption Charge \$5.120 /hcf	8"	\$41,615
Industrial Consumption Charge \$3.292 /hcf	10"	\$59,824
*hcf = hundred cubic feet		

In FY 2017, NBC began to calculate the average annual residential user charge based on consumption of 150 gallons per day, the updated actual average consumption per dwelling unit. The table below shows the results of NBC's 2016 sewer rate survey based upon usage of 150 gallons per day. It shows that despite NBC's large operations and significant capital improvements, NBC's average residential user rate of \$477 is below the State average of \$523.

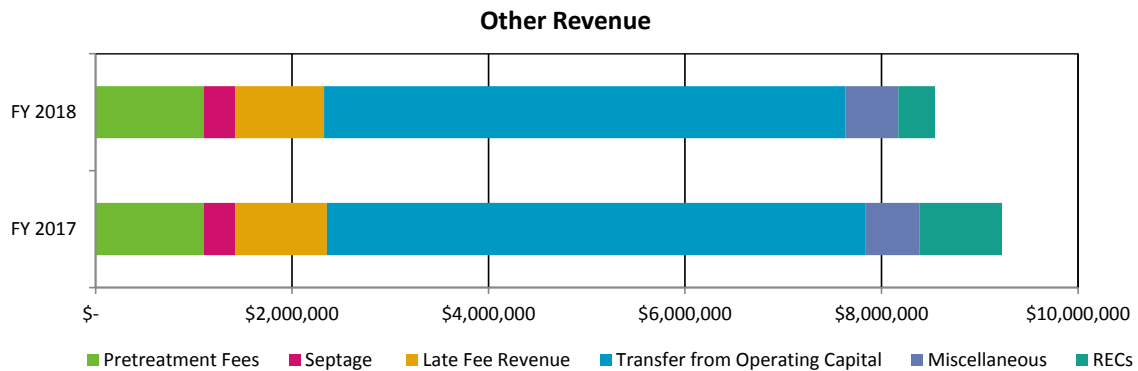
**2016 Annual Rhode Island Residential Sewer Charges**





## Other Revenue

The chart below shows that the largest source of other revenue is the operating capital transfer, followed by pretreatment fees, late fees and miscellaneous revenue. Overall, budgeted other revenue is \$682,265 or 7.4% less in FY 2018 than the prior year.



## Other Operating Revenue

While the primary source of operating revenue is user fees, NBC has other operating revenue such as pretreatment fees, septage fees, and sewer connection permits, which represent approximately 1.6% of total budgeted operating revenue.

The 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. Customers are billed pretreatment fees based on a user classification system. In order to keep fees consistent with industry levels, these fees have not increased since FY 2004. The FY 2018 budgeted Pretreatment fee revenue is the same as the prior year.

Septage fees are paid by permitted haulers based upon the amount of septage that they discharge at NBC's Septage Receiving Station. In FY 2018 septage revenue is projected to remain unchanged from the FY 2017 budgeted level.

NBC's connection permit fees, for new sewer connections to NBC facilities are budgeted 4% higher in the FY 2018 budget year based upon FY 2017 activity.

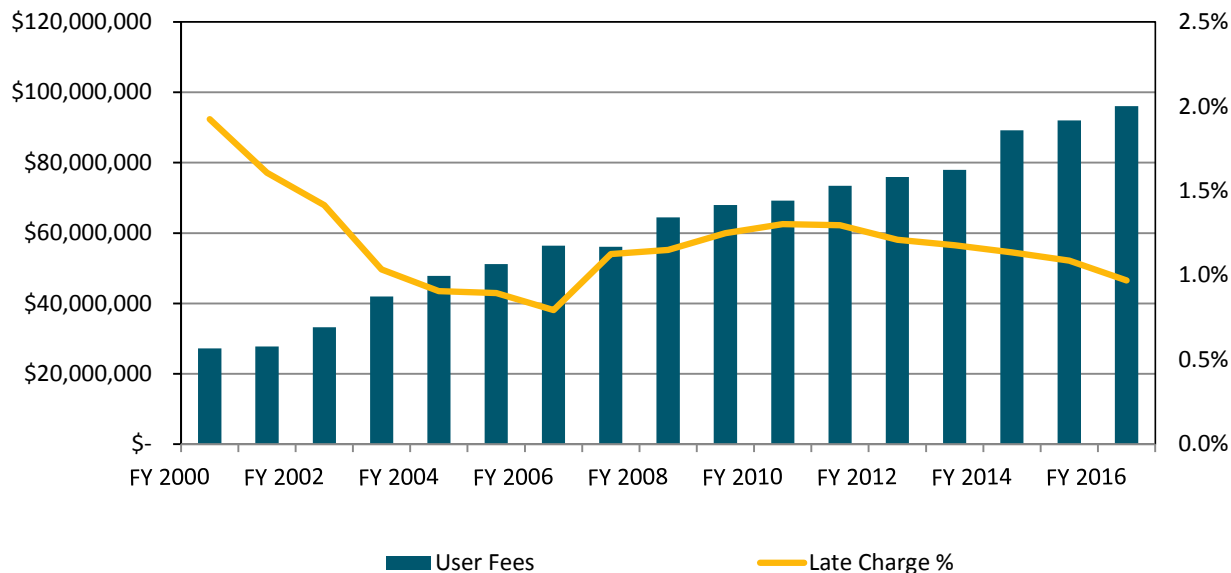
## Non-Operating Revenue

Non-Operating revenue includes investment income, late charges and other miscellaneous revenue. It also includes the transfer from operating capital which is a funding mechanism approved by the PUC that allows a portion of the prior year's debt service coverage to be used to fund operating capital. Total Non-Operating revenue is projected to decrease \$687,265 in FY 2018, a decrease of approximately 9.0% from the FY 2017 budget.

In FY 2018, investment income revenue is budgeted \$115,000 or 2300% higher than the FY 2017 budgeted level. Late charge revenue is projected to decrease by 3.2% or \$30,000 from the prior year due to effective collection activity which has reduced receivables. Late fees are assessed at the rate of 1% per month on any unpaid balance 30 days after the billing date, including any outstanding late fees. The chart below shows how

late fee revenue as a percentage of user fee revenue has been declining over the past four fiscal years, an indication of effective collections.

**Late Fees as a Percentage of User Fee Revenue**



This year’s budget reflects a decrease in the Transfer from Operating Capital of approximately \$168,822, or 3.1% from the FY 2017 budget. This is a pass-through and matches the amount budgeted for operating capital.

In the FY 2018 budget, miscellaneous non-operating revenue has been separated into two separate revenue line items, Miscellaneous and Renewable Energy Credits or “REC” revenue. On a year-over-year basis, miscellaneous non-operating revenue is budgeted 77.3% or \$658,285 lower, as the financial incentive for the LED replacement budgeted last year was non-recurring and the REC revenue is now budgeted separately. With respect to REC revenue, the FY 2018 budget is 56% lower than the prior year due to falling REC rates. The table below shows the projected REC revenue in FY 2018 at rates of \$26 to \$20 per REC, which is significantly lower than historical rates of \$50/REC. The budget figures are based upon the assumption that the biogas reuse facilities at Bucklin Point will be operational for one month in FY 2018.

FY 2018 Renewable Energy Credit (REC) Revenue			
Location	Number of RECs	Rate per REC	Revenue*
Field’s Point Turbines	7,308	\$ 26	\$ 190,000
WED Turbines	8,695	20	174,000
Biogas Reuse	399	20	8,000
<b>Total</b>	<b>16,402</b>		<b>\$ 372,000</b>

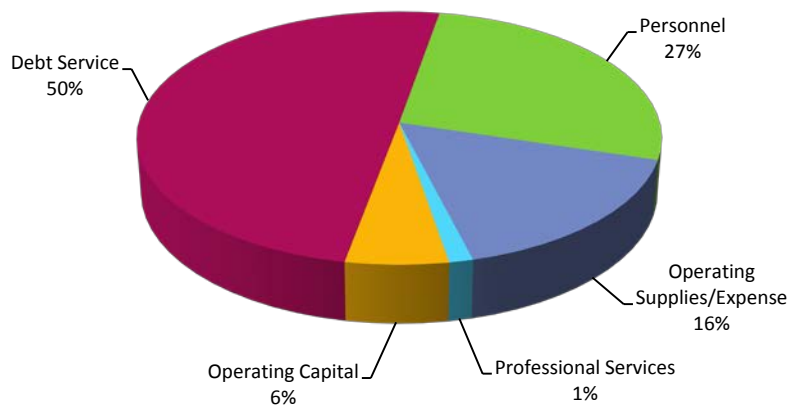
\* Rounded to nearest thousand

# Expense Profile

## Expense by Element

The chart below shows the fiscal year 2018 operating expense by element. Debt Service accounts for nearly half of the total budget, at 50%, with the next largest expense category being Personnel, at 27% of the budget followed by Operating Supplies and Expense at 16% of the budget.

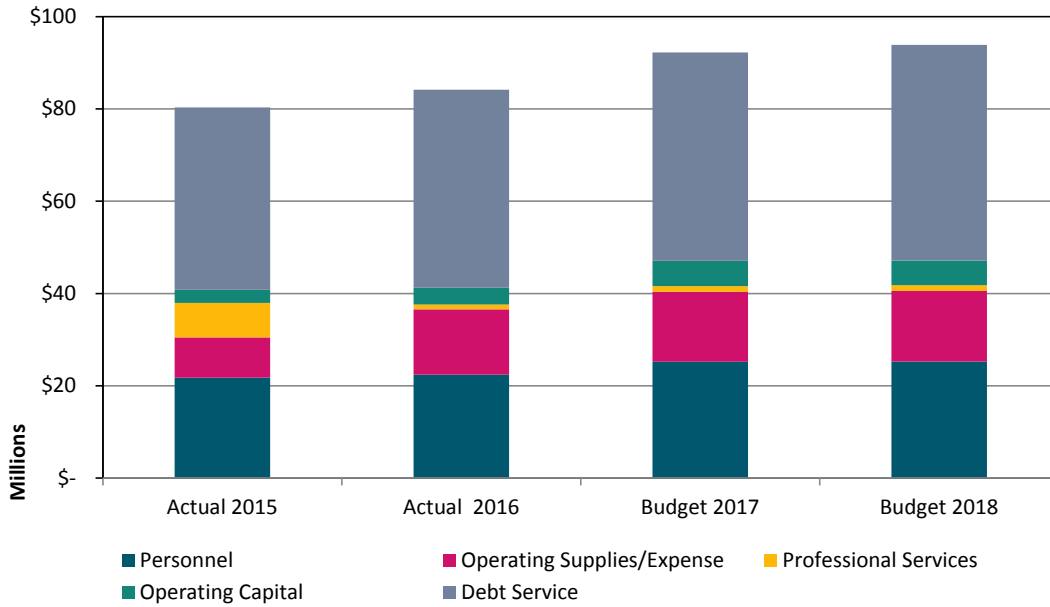
**FY 2018 Operating Budget by Element of Expense**



NBC's total Operating Budget for FY 2018 is \$93,906,166 excluding Debt Service Coverage. This is an increase of approximately \$1.7 million, or 1.8% from the approved FY 2017 budget. The table below and chart on the following page show historical and budgeted expense over a four-year period.

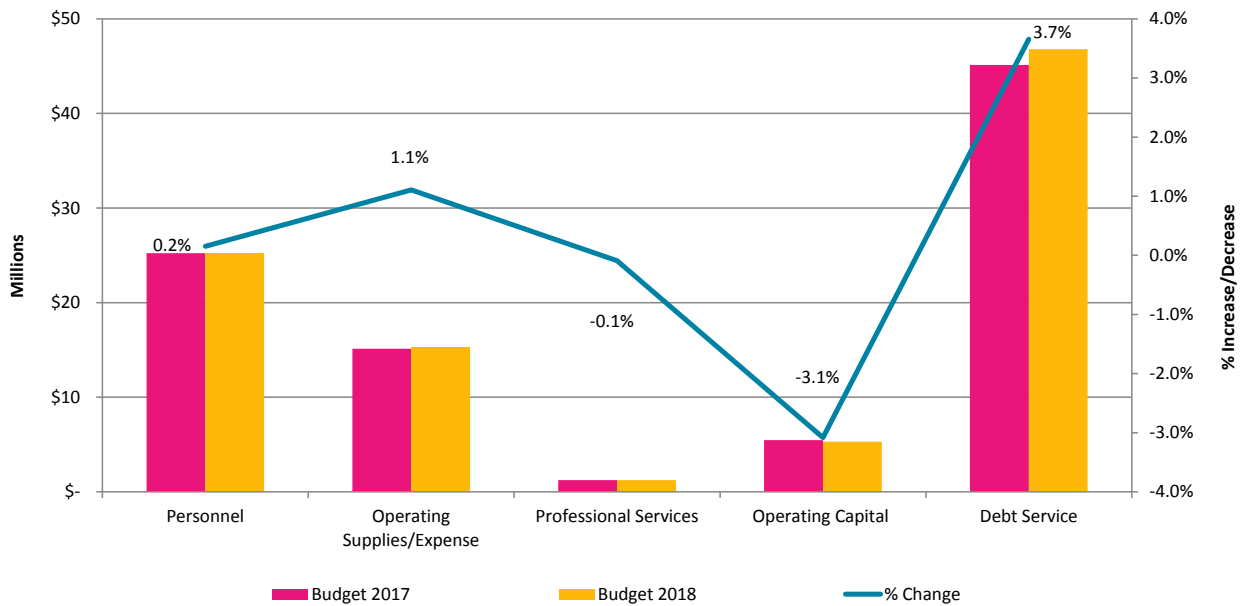
	Actual 2015	Actual 2016	Budget 2017	Budget 2018	FY 17 - FY 18 % Change	FY 2018 % Budget
<b>Personnel</b>	\$ 21,766,376	\$ 22,401,349	\$ 25,225,531	\$ 25,264,376	0.2%	26.9%
<b>Operating Supplies/Expense</b>	8,745,189	14,177,379	15,140,547	15,308,168	1.1%	16.3%
<b>Professional Services</b>	7,469,034	1,019,108	1,237,150	1,236,050	(0.1%)	1.3%
<i>Total Operation &amp; Maintenance</i>	37,980,599	37,597,836	41,603,228	41,808,594	0.5%	44.5%
<b>Operating Capital</b>	2,831,086	3,652,894	5,479,500	5,310,678	(3.1%)	5.7%
<b>Debt Service</b>	39,503,789	42,907,662	45,137,622	46,786,894	3.7%	49.9%
<b>Total</b>	<b>\$ 80,315,474</b>	<b>\$ 84,158,392</b>	<b>\$ 92,220,350</b>	<b>\$ 93,906,166</b>	<b>1.8%</b>	<b>100.0%</b>

### Budget by Element of Expense



The graph below compares budgeted expense in fiscal year 2017 to 2018 and illustrates the increases and decreases for each element of expense. Expense has increased in three of the five categories over the prior year’s budget. Personnel Expense increased by 0.2% or \$38,845; Operating Supplies/Expense increased by 1.1%, or \$167,621; Professional Services decreased by 0.1%, or approximately \$1,100; Operating Capital decreased by 3.1% or \$168,822; and Debt Service increased by 3.7% or \$1,649,272 from last year’s budget.

### FY 2017/2018 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 2018 budgeted personnel expense is \$25.3 million, which represents a net increase of approximately 0.2% or \$38,845 over the prior year.

The NBC employs 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 negotiated COLA (for union employees in accordance with the CBA contract. Salaries for non-union employees reflect comparable merit increases (3.0%).

### Budgeted Positions and Reorganization

The FY 2018 budget reflects five fewer budgeted positions however turnover has been reduced from 4.0 FTEs to 2.0 FTEs. As a result, the net number of positions funded in FY 2018 is 267.0 FTEs or 3.0 FTEs less than FY 2017. This year's budget also reflects changes to the organizational chart that occurred in FY 2017, a reorganization of the Engineering function and funding for a number of proposed non-union grade changes.

CC	Union FTEs			Non-Union FTEs			Total FTEs		
	FY 2017	FY 2018 Changes	FY 2018	FY 2017	FY 2018 Changes	FY 2018	FY 2017	FY 2018	Change 2017/2018
21	-	-	-	8	-	8	8	8	-
22	-	-	-	11	(1)	10	11	10	(1)
24	-	-	-	5	-	5	5	5	-
25	-	-	-	-	7	7	-	7	7
31	-	-	-	5	1	6	5	6	1
23	1	-	1	3	-	3	4	4	-
32	2	-	2	8	-	8	10	10	-
33	-	-	-	12	-	12	12	12	-
34	15	-	15	10	-	10	25	25	-
36	1	(1)	-	3	-	3	4	3	(1)
43	14	(3)	11	6	1	7	20	18	(2)
44	-	-	-	9	(2)	7	9	7	(2)
46	43	(1)	42	16	(4)	12	59	54	(5)
47	38	(1)	37	7	1	8	45	45	-
51	-	-	-	5	(2)	3	5	3	(2)
52	3	-	3	11	-	11	14	14	-
53	9	-	9	8	-	8	17	17	-
54	-	-	-	4	-	4	4	4	-
55	9	-	9	8	-	8	17	17	-
	135	(6)	129	139	1	140	274	269	(5)
				<i>Less: Turnover</i>			(4.0)	(2.0)	2.0
				<i>Net Positions</i>			270.0	267.0	(3.0)

The five positions funded in FY 2017 that are not funded and/or have not been reallocated in FY 2018 budget are identified in the following table:

Construction	IM	Field's Point
Senior Resident Representative (Non-Union)	Operator/HEO (Union)	Operator I (Union)
	Operator II (Union)	
	Mechanic (Union)	

This year's budget also reflects organizational changes designed to meet future demands with specific emphasis on engineering and operations related functions. A new cost center, number 25, has been created and the personnel and support costs associated with the Engineering functions have been transferred to this new section. In addition, the cost center will now report to the Director of the newly titled Construction and Engineering Division. A number of changes to Division and Section names were also implemented to reflect the primary responsibilities as they have been assigned. The other significant organizational change is the reallocation of four positions responsible for the process control and asset management functions to the newly named Operations & Maintenance Services section. Please refer to the table below where the organizational changes have been highlighted.

From	To
<b>Construction Services Division</b>	<b>Construction &amp; Engineering Division</b>
22 Construction Service Section	22 Construction Services Section
	NEW 25 Engineering Section
<b>Operations &amp; Engineering Division</b>	<b>Operations &amp; Maintenance Division</b>
43 Interceptor Maintenance	43 Interceptor Maintenance
44 Engineering	44 Operations & Maintenance Services
46 Field's Point	46 Field's Point
47 Bucklin Point	47 Bucklin Point
<b>Planning, Policy &amp; Regulation Division</b>	<b>Environmental Science &amp; Compliance Division</b>
51 Planning	51 Water Quality & Compliance
52 Pretreatment	52 Pretreatment
53 Laboratory	53 Laboratory
54 ESTA	54 ESTA
55 EMDA	55 EMDA

The table below provides the detail of the how the positions are assigned as a result:

From		To	
Cost Center	Title	Cost Center	Title
44	ENGINEERING MANAGER	25	ENGINEERING MANAGER
44	FACILITIES ENGINEER	25	FACILITIES ENGINEER
44	PRINCIPAL ENVIRONMENTAL ENGINEER	25	PRINCIPAL ENVIRONMENTAL ENGINEER
44	PRINCIPAL ENVIRONMENTAL ENGINEER	25	PRINCIPAL ENVIRONMENTAL ENGINEER
44	ENVIRONMENTAL ENGINEER	25	ENVIRONMENTAL ENGINEER
44	INSTRUMENTATION ENGINEER	43	INSTRUMENTATION ENGINEER
51	PERMITS COORDINATOR	25	PERMITS COORDINATOR
46	CONTROL SYSTEMS ADMINISTRATOR	44	CONTROL SYSTEMS ADMINISTRATOR
46	ASST. CONTROL SYSTEM ADMINISTRATOR	44	ASST. CONTROL SYSTEM ADMINISTRATOR
46	ASSET MANAGEMENT ADMINISTRATOR	44	ASSET MANAGEMENT ADMINISTRATOR
46	CONTROL SYSTEMS ASSOCIATE	44	CONTROL SYSTEMS ASSOCIATE

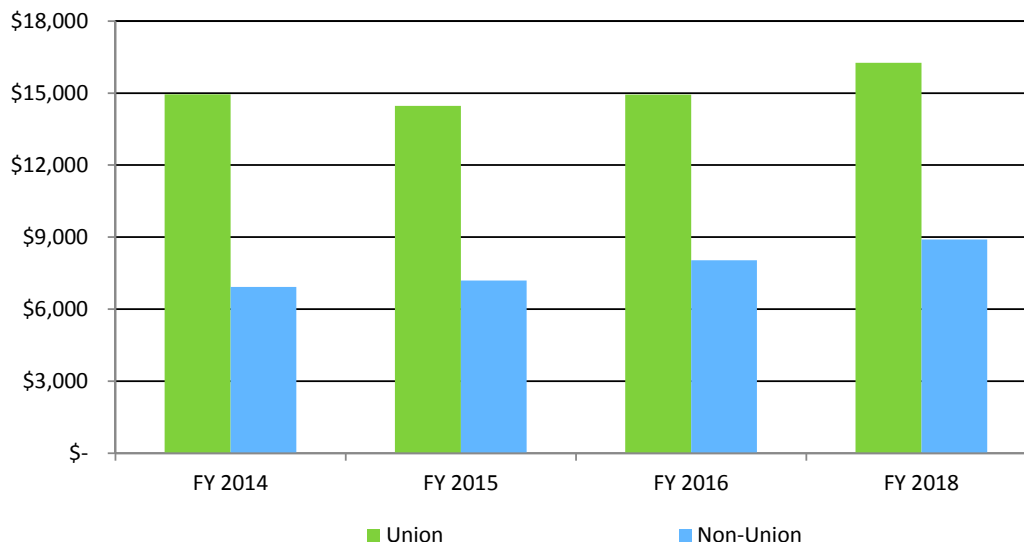
One additional non-union position is funded in the finance section and one less union position is funded in the Purchasing section. In addition, the budget supports a number of position title and grade changes to reflect increased and/or modified duties and responsibilities.

FY 2018 budgeted overtime for union and non-union employees, is \$42,000 and \$33,500 higher respectively. This reflects increased hours related to mandatory sampling and analysis as well as other requirements associated with continuous operation of the wastewater treatment facilities 24 hours per day.

## **Benefits**

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 2018 employer contribution to the Union Pension benefit remained at the FY 2017 budget rate of 26.34%. The budget for the union pension decreased \$20,553 from the prior year budget due to fewer budgeted union positions. The budget includes \$81,084 less in the non-union retirement expense line item, a function of the NBC's pension funding goals. The following chart shows that the average employer retirement contribution per FTE for union employees is nearly double that of non-union employees.

**Average Budgeted Pension Expense per FTE**



In FY 2018, NBC will offer a HDHP with partial employer funding of a HSA and/or HRA. This budget reflects a net increase of 12.1% to the health insurance budgeted line item as a result of an increase in the insurance premium. Dental insurance premiums are unchanged from FY 2017, vision insurance premiums increased by 11.3%. There was a 5% increase in the non-union Long-Term Disability insurance premium over the prior year level.

Family Coverage	FY 2014	FY 2015*	FY 2016*	FY 2017*	FY 2018*	FY17 - FY18 % Change
Health (net of co-pay)*	\$ 17,673	\$ 13,156	\$ 13,576	\$ 15,342	\$ 17,202	12.1%
Dental	1,228	1,335	1,435	1,510	1,510	0.0%
Vision	195	195	195	195	217	11.3%
<b>Total</b>	<b>\$ 19,096</b>	<b>\$ 14,686</b>	<b>\$ 15,207</b>	<b>\$ 17,047</b>	<b>\$ 18,929</b>	<b>11.0%</b>

\*Does not include \$3,600 NBC HSA Contribution/Employee

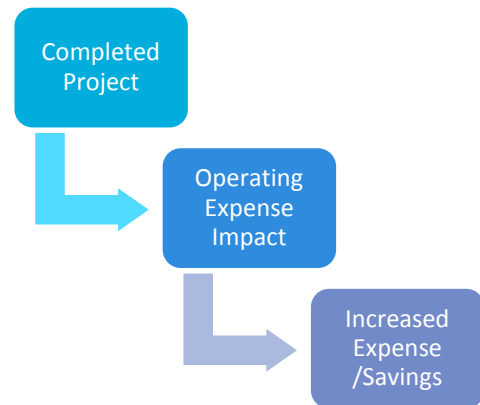


## Operating Supplies and Expense

Operating Supplies and Expense (OSE) represent 16.3% of the total FY 2018 operating budget not including debt service coverage. 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, service agreements, and insurance expense. Overall, the FY 2018 OSE budget increased 1.1% or \$167,621 from the FY 2017 budget.

## CIP Operating Expense Impacts

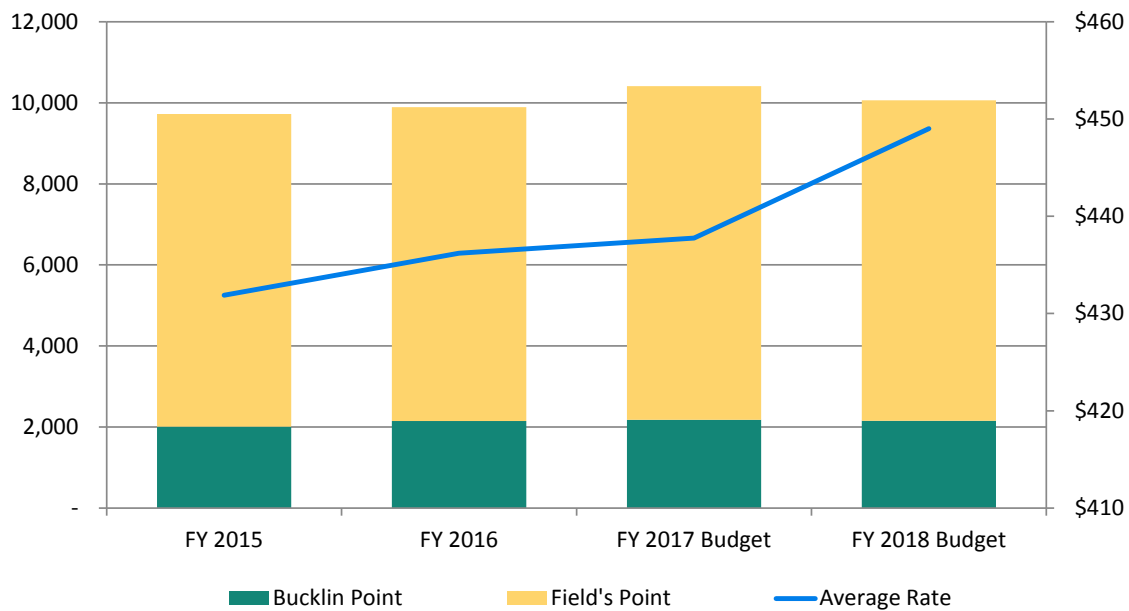
The FY 2018 budget includes additional information regarding the operating expense impact, identified on a project by project basis. NBC recognizes the importance of financial planning and certain capital improvements will directly impact operating expense. The impact is shown as either an increase in expense or savings (a reduction in expense). NBC plans on one month or 399,244 kWh of electricity generation from the Bucklin Point Biogas Reuse project scheduled to be on-line in June 2018.



The expense impact on future years and an in-depth overview of the operating impacts by project are provided in the CIP Impact and Long-Term Plan section of this document.

Approximately 29.5% of NBC's FY 2018 budgeted OSE is for biosolids disposal at the WWTFs. The FY 2018 budget reflects a projected increase in the contracted biosolids rate of 3.0% or approximately \$11.26 per dry ton which is offset by lower budgeted dry ton production. The budget reflects 322 fewer dry tons produced at Field's Point and 30 fewer dry tons produced at Bucklin Point. Overall, the biosolids disposal expense is \$40,791 lower than the FY 2017 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**



The FY 2018 electricity usage is a complex calculation that takes into consideration NBC’s renewable energy sources. The first step is the determination of the number of kWh to be budgeted. The FY 2018 budgeted kWh usage is based upon the following assumptions:

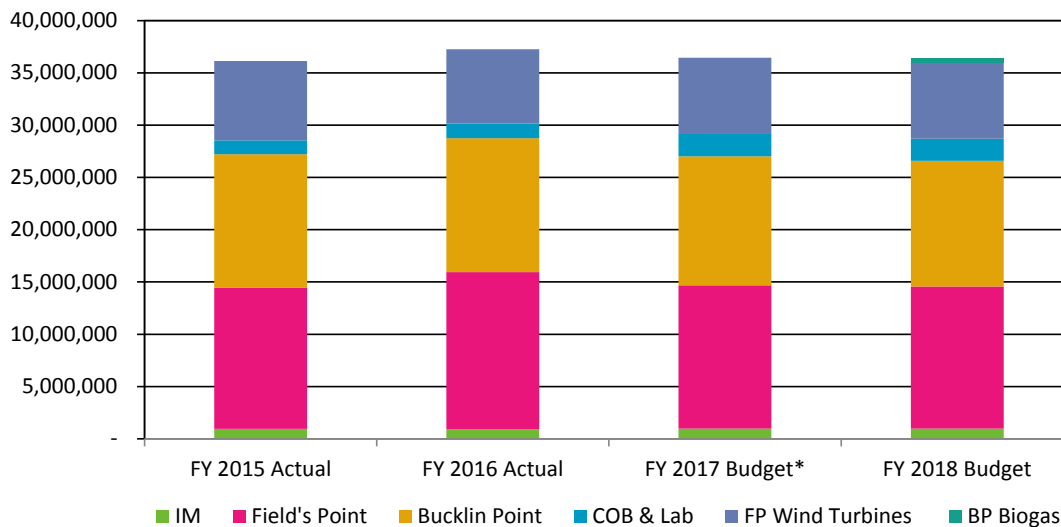
- Purchased kWh for IM, COB and Lab locations is based on FY 2017 usage
- Field’s Point - purchased kWh - based upon 2-year average less projected WED credits
- Bucklin Point - purchased kWh - based upon 2-year average less projected WED credits
- Field’s Point wind turbine kWh production is based on FY 2017 budget level
- WED turbine kWh production is based on annualized FY 2017 performance at 98%

Budgeted kWh					
Facility	FY 2015 Actual	FY 2016 Actual	FY 2017 Budget*	FY 2018 Budget	Budgeted Difference
Interceptor Maintenance	964,895	914,657	970,301	970,301	-
Field's Point	13,478,792	15,036,343	13,713,269	13,594,741	(118,528)
Bucklin Point	12,772,811	12,804,747	12,342,981	12,029,756	(313,225)
COB & Lab	1,334,983	1,392,427	2,119,297	2,119,297	-
<b>kWh</b>	<b>28,551,481</b>	<b>30,148,174</b>	<b>29,145,848</b>	<b>28,714,095</b>	<b>(431,753)</b>
FP Wind Turbines kWh	7,585,477	7,111,499	7,307,579	7,307,579	-
BP Biogas kWh	-	-	-	399,244	399,244
<b>Total kWh</b>	<b>36,136,958</b>	<b>37,259,673</b>	<b>36,453,427</b>	<b>36,420,918</b>	<b>(32,509)</b>

\*Budgeted kWh and Expense modified based on Schedule B's for Net Metering Credits

As is shown in the table above and the chart below, the FY 2018 budget is based on usage of 36,420,918 kWh which is 32,509 kWh less than the prior year.

**Budgeted Electricity (kWh)**



\*Budgeted kWh and Expense modified based on Schedule B's for Net Metering

The next step is to calculate the electricity expense. The FY 2018 budget incorporates the electricity expense impacts of NBC’s renewable energy projects. The location of the renewable energy facility 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 the

“Net-Metered” projects reduce NBC’s electricity expense through the application of renewable energy credits. The table below highlights some of the distinctions.

Budgetary Impact of Renewable Energy Resources	
“Behind the Meter” Projects	“Net Metered” Projects
<b>Field’s Point Wind Turbines</b>	<b>WED Turbines</b>
<b>Biogas Reuse</b>	
Energy is produced and used on-site	Energy is produced off-site and net metered
Reduces the kWh purchased through National Grid	Generates credits – applied to National Grid invoices
Reflected as a reduction in purchased kWh	Reflected as a reduction in National Grid Expense
NBC saves supply, distribution and related costs	Renewable Energy Credit rate is variable based on C-06 Rate
Generates REC Revenue	Generates REC Revenue

Additional assumptions with respect to the calculation of budgeted electricity expense as follows:

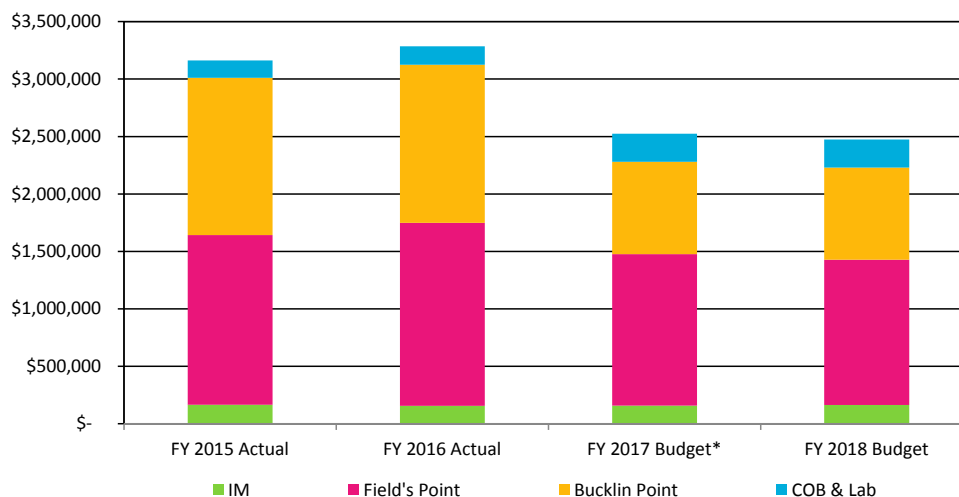
- Renewable Energy Credit rate is assumed to be the same as NBC composite rate for Field’s Point and Bucklin Point of \$0.1189/kWh
- 100% of the WED 3 credits shall be applied to Field’s Point
- 100% of the WED 1 and WED 4 credits shall be applied to Bucklin Point
- NBC purchased electricity supply rate is \$0.06336 per kWh
- NBC’s new biogas reuse facility will generate one month of electricity in FY 2018

Budgeted Electricity Expense Post Net Metering Credits					
Facility	FY 2015 Actual	FY 2016 Actual	FY 2017 Budget*	FY 2018 Budget	Budgeted Difference
Interceptor Maintenance	\$ 164,689	\$ 156,599	\$ 158,818	\$ 163,063	\$ 4,245
Field's Point	1,477,618	1,592,525	1,318,283	1,265,670	(52,613)
Bucklin Point	1,369,069	1,375,846	802,954	800,177	(2,777)
COB & Lab	151,349	160,733	244,723	245,896	1,173
<b>Total Expense</b>	<b>\$ 3,162,725</b>	<b>\$ 3,285,703</b>	<b>\$ 2,524,778</b>	<b>\$ 2,474,806</b>	<b>\$ (49,972)</b>

\*Budgeted kWh and Expense modified based on Schedule B's for Net Metering Credits

The table above shows that the FY 2018 electricity budget is \$2,474,806 which is \$49,972 or 2.0% lower than the prior year. The chart below shows that NBC’s electricity expense is projected to decline more than \$800,000 from FY 2016 levels as a result of the purchase of the WED turbines.

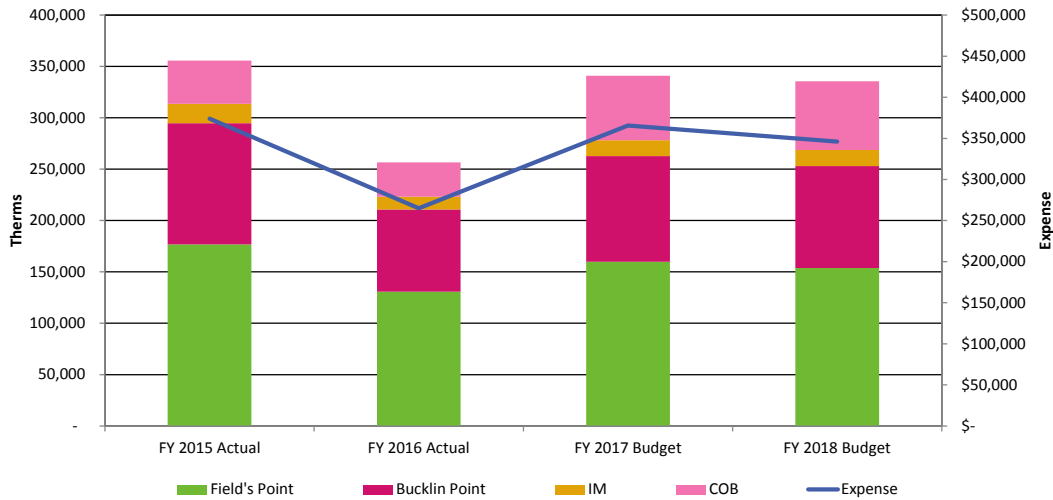
### Budgeted Electricity Expense



\*Budgeted kWh and Expense modified based on Schedule B's for Net Metering

The FY 2018 budgeted natural gas expense represents approximately 2.3% of the OSE budget. The budgeted amount of \$346,180 is based on projected use of 335,512 therms at a supply rate of \$1.032 per therm, 3.8% lower than the prior year's rate. Overall budgeted therms have decreased by 1.6% from the prior year and represent a 24-month average usage for existing facilities and includes usage for the new WQS Building. The year-to-year budgeted gas use and expense is shown in the following chart.

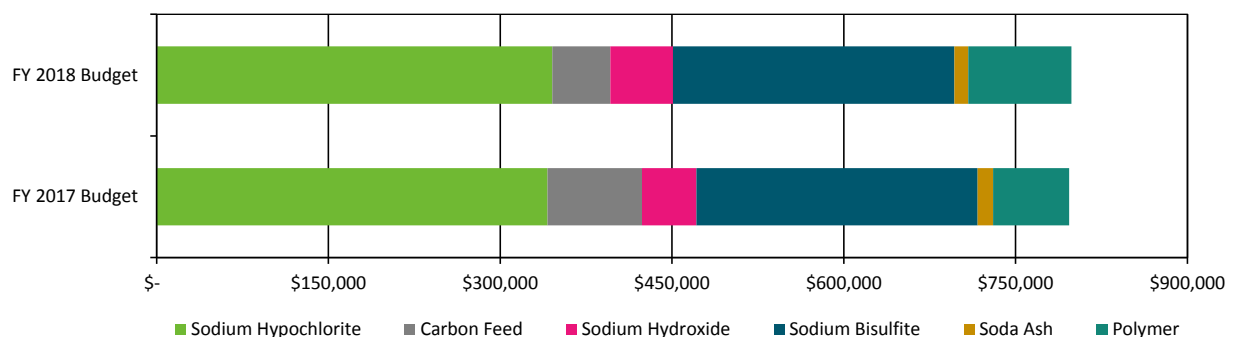
### NBC Natural Gas Use and Expense



The chemical expense for both the Bucklin Point and Field's Point Wastewater Treatment Facilities represents approximately 5.2% of the FY 2018 OSE budget. Budgeted chemical expense is \$798,771 in FY 2018. Overall, chemical use is projected to be lower for two of the six chemicals, while the prices for some chemicals are higher and others are lower than the prior year. As a result, the budget is \$2,032 or 0.3% higher than the prior year. The table below shows the change in budgeted chemicals compared to the prior year.

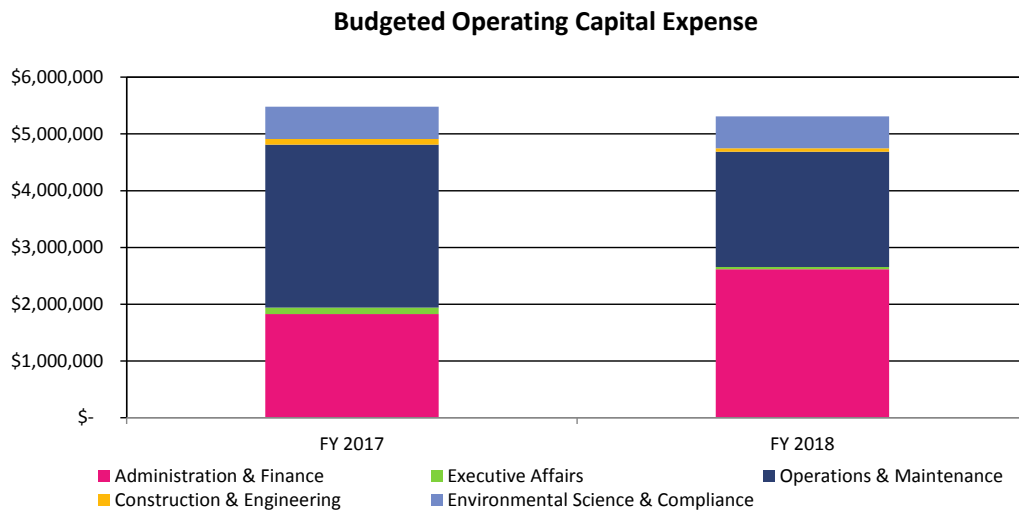
### NBC Chemical Use and Expense

Chemicals	FY 2017 Budget	FY 2018 Budget	Budgeted Difference
Sodium Hypochlorite	\$ 341,221	\$ 345,506	\$ 4,285
Sodium Bisulfite	245,487	245,692	205
Sodium Hydroxide	47,664	54,717	7,053
Carbon Feed	82,493	50,587	(31,906)
Polymer	66,410	90,060	23,650
Soda Ash	13,464	12,210	(1,254)
<b>Total</b>	<b>\$ 796,739</b>	<b>\$ 798,771</b>	<b>\$ 2,032</b>

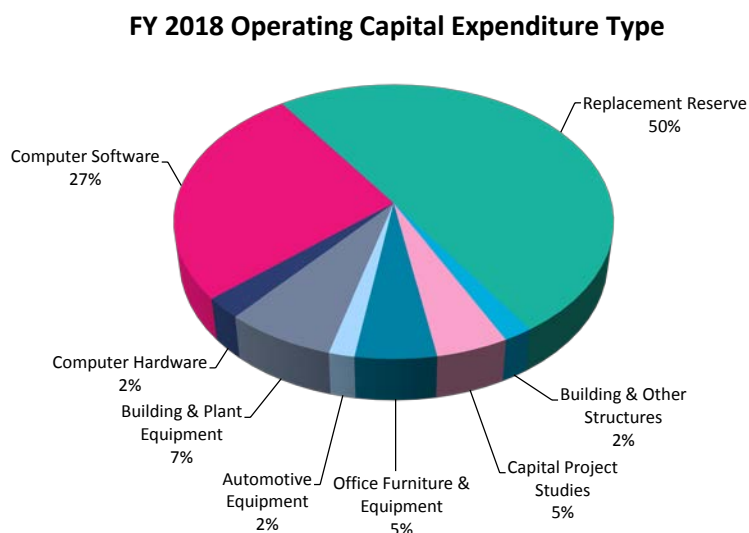


## Operating Capital

Operating capital makes up 5.0% of the FY 2018 operating budget. The operating capital budget funds the needs identified through NBC’s asset management system such as fleet vehicles, laboratory equipment, and pumps necessary for the collection and treatment of wastewater as well as building and IT investments. On a year-to-year basis, this element of expense shows a decrease of 3.1%, from approximately \$5.5 million in FY 2017 to approximately \$5.3 million in FY 2018 as shown in the graph below.



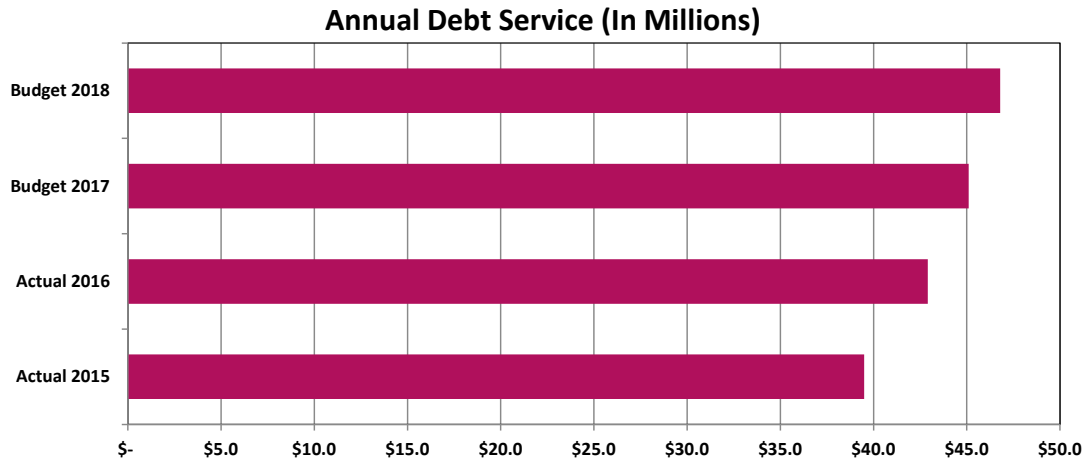
The single largest item included in the operating capital budget is for the Customer Service Application for Customer Service at a cost \$900,000. Other major items include two large specialized vehicles needed by both the Interceptor Maintenance and Field’s Point sections, the LIMs Application and a User Fee Rate Study. Lastly, the FY 2018 budget includes \$430,000 for a SAN and Backup Solution Replacement. The IT investments account for the majority or 49% of the total FY 2018 operating capital budget. The allocation of NBC’s FY 2018 Operating Capital budget by type of expenditure is illustrated in the chart below.



As noted previously in this budget document, Operating Capital is funded from the prior year debt service coverage. For a complete list of the actual items budgeted in this category see the FY 2018 Operating Capital and the Five-Year Operating Capital schedules in the supporting schedules section.

## Debt Service

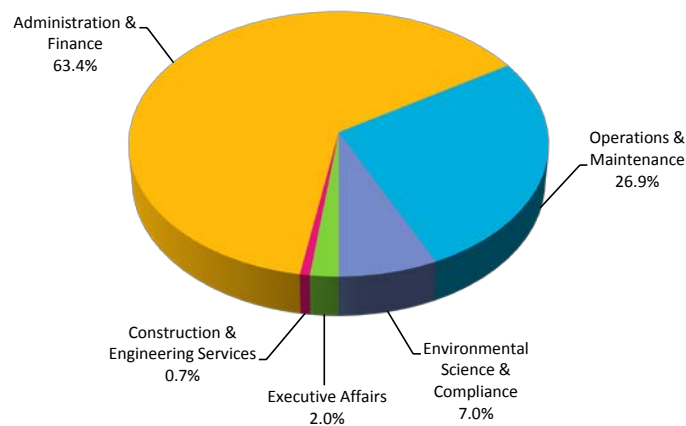
Debt service is the largest element of expense in NBC's FY 2018 budget, representing 44.3% of the total budget. NBC's budgeted debt service for FY 2018 is 3.65% greater than last year's budget and no new debt is anticipated to be issued in FY 2018. Total debt service budgeted in FY 2018 is approximately \$46.8 million. The graph below shows actual and budgeted existing and programmed new debt for the four-year period beginning FY 2015.



For more on the capital projects and related financing, 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 2018 budget that the Divisions represent.



A number of organizational changes were incorporated into the FY 2018 budget and these are detailed in the Personnel section of the budget beginning on page 62. In prior years, the Executive Affairs Division and Construction Services Division were shown on a combined basis. Now that the Engineering function is part of the newly named Construction and Engineering Services Division, costs for the two Divisions are presented in the FY 2018 budget separately and it is difficult to compare the costs for these areas on a year-to-year and historical basis. Overall, the Executive Affairs, Engineering and Construction Services, and the newly named Environmental Science and Compliance Divisions represent 2.0%, 0.7% and 7.0% of the total budget.

The Administration and Finance Division represents 63.4% of the total FY 2018 operating budget, reflecting the fact that debt service is contained in this division’s budget. The Division includes Human Resources, Finance, Accounting, Information Technology, Customer Service, Purchasing and the General Administration sections. The FY 2018 budget is \$2.3 million or 4.0% greater than the FY 2017 budget. Personnel decreased by \$96,734. Operating supplies and expense and professional services decreased by \$76,602 from the prior year and reflect no budgeted lease expense or rate relief filing expense. Operating Capital increased by \$790,000 and reflects Information Technology investments. Debt service increased by \$1.6 million over the prior year, reflecting the debt service associated with NBC’s 2015 Series B and 2016 Series A bonds.

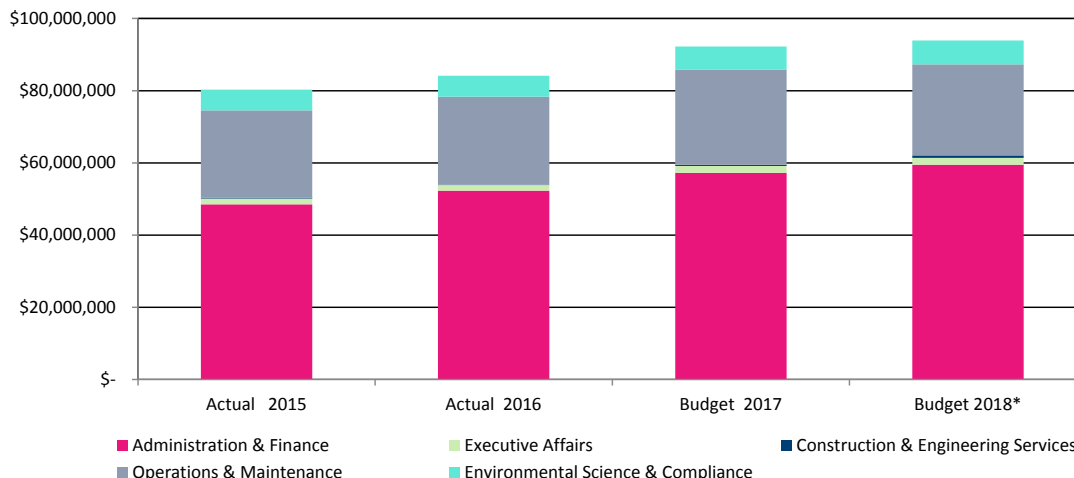
The Operations and Maintenance Division represents approximately 26.9% of the total operating budget. This Division includes the Field’s Point and Bucklin Point WWTFs, the Interceptor Maintenance and the Operations & Maintenance Services sections. The budget for the Operations and Maintenance Division decreased by 3.9% or \$1.0 million from the FY 2017 budget. Personnel decreased by \$220,377 or 1.8% as a result of organizational changes and funding for nine fewer budgeted positions compared to the prior year, as discussed previously. Operating supplies and expense and professional services have increased by approximately \$101,888 and include service agreements for electrical testing and the Field’s Point wind turbines. Operating Capital reflects a decrease of \$907,100 from the prior year.

The Environmental Science & Compliance Division consists of the Water Quality & Compliance (WQ Compliance), Pretreatment, the Laboratory, Environmental Safety and Technical Assistance (ESTA), and Environmental Monitoring and Data Analysis (EMDA) sections. This Division represents 7.0% of the total budget and increased by 2.8% or \$177,008 from the prior year. Personnel expense increased by \$116,120 or 2.3%. Operating supplies and expense and professional services expense have increased by \$67,610 over the prior year and include maintenance contracts for critical laboratory and monitoring equipment. Operating Capital decreased by \$6,722 from the prior year.

	Actual 2015	Actual 2016	Budget 2017	Budget 2018*	FY 17 - FY 18 % Change	FY 2018 % of Budget
Executive Affairs	\$ 1,605,228	\$ 1,575,081	\$ 1,904,820	\$ 1,888,606	(0.9%)	2.0%
Construction & Engineering Services	208,682	121,641	372,960	657,634	76.3%	0.7%
Administration & Finance	48,540,541	52,297,455	57,240,306	59,506,242	4.0%	63.4%
Operations & Maintenance	24,201,568	24,365,565	26,288,591	25,263,002	(3.9%)	26.9%
Environmental Science & Compliance	5,759,455	5,798,650	6,413,673	6,590,681	2.8%	7.0%
<b>Total</b>	<b>\$ 80,315,474</b>	<b>\$ 84,158,392</b>	<b>\$ 92,220,350</b>	<b>\$ 93,906,165</b>	<b>1.8%</b>	<b>100.0%</b>

\*First year Executive and Construction were not combined for presentation purposes and also reflects reorganizational changes of the Engineering function

### Budget by Division



More detailed data for each Division may be found in the Division Summaries section of this document.





# CIP Impact and Long-Term Plan

This year’s CIP identifies a total of 40 projects that are either in progress, to be initiated, or to be completed during FY 2018-2023. The estimated costs for this year’s CIP window are \$156.1 million, with additional expenditures of \$48.0 million in FY 2018 for a total of \$204.1 million. The majority or 65% of the expenditures are related to the third and final phase of the Combined Sewer Overflow (CSO) Abatement Facilities. Other projects in the CIP account for the remaining 35% and reflect the continued investment in NBC’s wastewater treatment and collection system infrastructure.

## 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. It is particularly important this year as many of NBC’s planned capital projects are projected to have a significant impact on NBC’s operating budget. The following table describes the impact categories and it should be used to interpret the figures in the detailed operating impact tables in this section of the budget.

Impact	Description	Reflection in Tables
<b>Savings</b>	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
<b>Increased Expense</b>	An increase in operating costs resulting from new facilities becoming operational	Shown as an increase in Operating Costs
<b>Increased Revenue</b>	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 2018 Revenue and Expense Impacts

NBC has identified the operating and expense impacts related to ten capital projects that are anticipated to be completed during FY 2018. Of the ten projects scheduled for completion in FY 2018, eight are inspections, restorations, or studies and are not anticipated to have any operating impacts or start-up costs. Two projects, the BPWWTF Biogas Reuse and the Johnston Sewer Improvements/Greenville Avenue are projected to have operating impacts with the combined impact of these projects resulting in a \$31,318 increase in revenue and \$47,483 in savings.

Projects with savings, expense or revenue impacts are discussed in the following section.

### Johnston Sewer Improvements/Greenville Avenue

The Johnston Sewer Improvements/Greenville Avenue Project (30460) includes the design and construction of improvements to expand sewers in the Town of Johnston. This project involves the installation of approximately 6,750 linear foot of 12” pipe along Greenville Avenue in Johnston. The revenue generated as a result of new customers connecting to NBC’s system is estimated at \$23,333 in FY 2018 and an additional \$257,355 in FY 2019.

Johnston Sewer Improvements/Greenville Avenue			
	FY 2018	FY 2019	Annual
<b>Increased Revenue</b>			
User Fees	\$ 23,333	\$ 257,355	\$ 280,688
<b>Revenue Impact</b>	<b>\$ 23,333</b>	<b>\$ 257,355</b>	<b>\$ 280,688</b>

## BPWWTF – Biogas Reuse

The BPWWTF – Biogas Reuse Project (12000) consists of the installation of a combined heat and power system that will burn biogas generated from the anaerobic biosolids digestion process. This system is projected to generate approximately 4.8 million KWh of electricity annually to be used on-site which will result in estimated purchased electricity savings of \$569,793 and REC revenue of \$95,819 annually. The FY 2018 figures in the table reflect one month of operation and the figures in the FY 2019 column represent the incremental changes in the subsequent year. NBC estimates annual maintenance cost of \$165,000 in future years. All start-up costs are included in the project.

BPWWTF Biogas Reuse			
	FY 2018	FY 2019	Annual
<b>Increased Revenue</b>			
Sale of Renewable Energy Credits	\$ 7,985	\$ 87,834	\$ 95,819
<b>Revenue Impact</b>	<b>\$ 7,985</b>	<b>\$ 87,834</b>	<b>\$ 95,819</b>
<b>Savings</b>			
Electricity	(47,483)	(522,310)	(569,793)
<b>Increased Expense</b>			
Maintenance Contract	-	165,000	165,000
<b>Net O&amp;M Impact</b>	<b>\$ (47,483)</b>	<b>\$(357,310)</b>	<b>\$ (404,793)</b>

## FY 2019-2023 Revenue and Expense Impacts

The table below summarizes the projected incremental impact of capital projects scheduled to become operational in FY 2018-2023. Projects that involve inspection, studies, cleaning and rehabilitation generally do not have operating cost impacts and are excluded from this list. The FY 2018 impacts have been incorporated into the operating budget. In FY 2023, the estimated impact as a result of these projects is increased annual revenue of \$585,188, savings of \$3.6 million and increased expense of 3.2 million. Projects with revenue, savings or expense impacts are discussed in the following section.

	Incremental CIP Impacts					
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
<b>Increased Revenue</b>						
BPWWTF Biogas Reuse	\$ 7,985	\$ 87,834	\$ 87,834	\$ 87,834	\$ 87,834	\$ 87,834
Johnston Sewer Improvements/Greenville Avenue	23,333	257,355	257,355	257,355	257,355	257,355
Louisquisset Pike Interceptor Replacement	-	-	240,000	240,000	240,000	240,000
<b>Revenue Impact</b>	<b>\$ 31,318</b>	<b>\$ 345,188</b>	<b>\$ 585,188</b>	<b>\$ 585,188</b>	<b>\$ 585,188</b>	<b>\$ 585,188</b>
<b>Savings</b>						
FPWWTF - Blower Improvements Phase II	-	-	(2,864,264)	(2,864,264)	(2,864,264)	(2,864,264)
BPWWTF Biogas Reuse	(47,483)	(522,310)	(522,310)	(522,310)	(522,310)	(522,310)
BPWWTF UV Disinfection Improvements	-	-	-	-	-	(216,100)
	(47,483)	(522,310)	(3,386,574)	(3,386,574)	(3,386,574)	(3,602,674)
<b>Increased Expense</b>						
Louisquisset Pike Interceptor Replacement	-	-	-	-	-	10,000
Johnston Sewer Improvements/Greenville Avenue	-	-	-	-	-	10,000
FPWWTF - Blower Improvements Phase II	-	-	2,864,264	2,864,264	2,864,264	2,864,264
BPWWTF Biogas Reuse	-	165,000	165,000	165,000	165,000	165,000
New IM Facilities	-	-	-	-	97,288	97,288
FPWWTF New Maintenance Facilities	-	-	-	-	63,000	63,000
Johnston Sewer Improvements/Hartford Avenue	-	-	-	-	-	10,000
Field's Point Drive Interceptor Improvements	-	-	-	-	-	10,000
BPWWTF UV Disinfection Improvements	-	-	-	-	-	10,600
	-	165,000	3,029,264	3,029,264	3,189,552	3,240,152
<b>Net O&amp;M Impact</b>	<b>\$(47,483)</b>	<b>\$(357,310)</b>	<b>\$(357,310)</b>	<b>\$(357,310)</b>	<b>\$(197,022)</b>	<b>\$(362,522)</b>

### Louisquisset Pike Interceptor Replacement

Louisquisset Pike Interceptor Replacement Project (30421) is scheduled to be completed in FY 2020. The project consists of the construction of a larger replacement interceptor in the northern section of the Town of Lincoln to accommodate additional flow. Preliminary projections indicate that the flow will generate additional sewer user fee revenue of \$240,000 annually. There are no start-up costs associated with the construction of this interceptor. Operating costs are \$10,000 every five years for maintenance.

Louisquisset Pike Interceptor			
	Savings	Increased Expense	Increased Revenue
User Fees	\$ -	\$ -	\$ 240,000
Maintenance	-	10,000	-
<b>Total</b>	<b>\$ -</b>	<b>\$ 10,000</b>	<b>\$ 240,000</b>

### FPWWTF Blower Improvements Phase II

The FPWWTF Blower Improvements Phase II Project (10908) involves the replacement of the Field's Point aeration blowers to provide a reliable air source for in the aeration treatment process. The estimated ongoing operation expense for the blowers is \$2,864,264. Since these blowers are replacing existing equipment, the projected savings is \$2,864,264 and the net impact is zero. The new blowers are scheduled to become operational in FY 2020 and the start-up costs are carried in the project.

FPWWTF Blower Improvements Phase II			
	Savings	Increased Expense	Increased Revenue
Electricity	\$ (2,853,764)	\$ 2,853,764	\$ -
Water	(500)	500	-
Maintenance	(10,000)	10,000	-
<b>Total</b>	<b>\$ (2,864,264)</b>	<b>\$ 2,864,264</b>	<b>\$ -</b>

### BPWWTF UV Disinfection Improvements

The BPWWTF UV Disinfection Improvements Project (81000) involves the evaluation, design, and construction of a new UV Disinfection system at the BPWWTF should it be determined to be in the best interest of NBC. Based upon the assumption that the assessment will result in the implementation of newer, lower cost technology, the project is estimated to result in \$205,500 annual net savings related to lower electricity use and fewer lamp replacements. Completion of this project is scheduled for FY 2022.

BPWWTF UV Disinfection Improvements			
	Savings	Increased Expense	Increased Revenue
Electricity	\$ (201,100)	\$ -	\$ -
Chemicals	-	10,600	-
Labor	(15,000)	-	-
<b>Total</b>	<b>\$ (216,100)</b>	<b>\$ 10,600</b>	<b>\$ -</b>

### IM Facilities

The IM Facilities Project (12400) is scheduled for completion in FY 2022. This project involves 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 communities 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 additional operating expense associated with the new building is approximately \$97,288 annually. All project startup costs, such as staff and equipment relocation are included in the project cost.

IM Facilities			
	Savings	Increased Expense	Increased Revenue
Electricity	\$ -	\$ 23,180	\$ -
Natural Gas	-	39,072	-
Water	-	3,000	-
Maintenance	-	32,036	-
<b>Total</b>	<b>\$ -</b>	<b>\$ 97,288</b>	<b>\$ -</b>

#### FPWWTF Maintenance Facilities

The FPWWTF New Maintenance Facilities Project (13200) consists of the design and construction of a new maintenance building and facilities for storage of equipment at the FPWWTF. While not critical to plant operations, it will improve efficiency because the existing maintenance building, built nearly 117 years ago, is small and outdated. This new facility has an estimated annual operating expense of \$63,000.

FPWWTF Maintenance Facilities			
	Savings	Increased Expense	Increased Revenue
Electricity	\$ -	\$ 20,000	\$ -
Natural Gas	-	40,000	-
Water	-	3,000	-
<b>Total</b>	<b>\$ -</b>	<b>\$ 63,000</b>	<b>\$ -</b>

#### Johnston Sewer Improvements/Hartford Avenue

The Johnston Sewer Improvements/Hartford Avenue Project (30464) will extend the Hartford Avenue sewer approximately 5,400 feet to the area west of Route 295 to enable development within the Town of Johnston in conformance with the approved facilities plan. NBC anticipates that it will need to expend approximately \$10,000 every 5 years for ongoing maintenance of the collection system.

Johnston Sewer Improvements/Hartford Avenue			
	Savings	Increased Expense	Increased Revenue
Maintenance	\$ -	\$ 10,000	\$ -
<b>Total</b>	<b>\$ -</b>	<b>\$ 10,000</b>	<b>\$ -</b>

#### Field's Point Drive Interceptor Improvements

The Field's Point Drive Interceptor Improvements Project (30465) is scheduled to be completed in FY 2019. The project consists of replacing a collapsed sewer pipe in one location and repairing broken pipe in several other locations. In other locations the pipe is cracked and will need to be lined. These measures will restore the sewer to its original capacity. The estimated operating expense is \$10,000 every 5 years for ongoing maintenance of the collection system.

Field's Point Drive Interceptor Improvements			
	Savings	Increased Expense	Increased Revenue
Maintenance	\$ -	\$ 10,000	\$ -
<b>Total</b>	<b>\$ -</b>	<b>\$ 10,000</b>	<b>\$ -</b>

## Projects in Progress or Initiated but Not Completed in FY 2019-2023

### BPWWTF O&M Support Facilities

The BPWWTF O&M Support Facilities Project (81500) includes the evaluation and construction of improvements to the Operations & Maintenance Support Facilities at the BPWWTF. The facilities are expected to operational in FY 2026 with an estimated annual operating expense of \$71,000.

BPWWTF O&M Support Facilities			
	Savings	Increased Expense	Increased Revenue
Electricity	\$ -	\$ 20,000	\$ -
Natural Gas	-	40,000	-
Water	-	6,000	-
Maintenance	-	5,000	-
<b>Total</b>	<b>\$ -</b>	<b>\$ 71,000</b>	<b>\$ -</b>

### CSO Phase III Facilities

No operating cost impacts related to the CSO Phase III Facilities are anticipated to occur until FY 2028. For planning purposes, however, the CIP identifies estimated annual operating expense for the first phase of the CSO Phase III A Facilities based upon pre-design estimates. These costs include electricity to pump flow from the Pawtucket tunnel pump station and provide dehumidification, natural gas for heat in the pump station, screening and grit disposal, biosolids, water, treatment chemicals, and maintenance. Additional labor costs are anticipated to operate the facilities bringing the total estimated operating cost up to \$1M annually. The start-up costs are included in the project. The operating expense of the remaining three phases will be determined once the design plans are available.

CSO Phase III Facilities				
Capital Project	Projected Year Facilities Online	Savings	Increased Expense	Increased Revenue
Phase III CSO Facilities - Phase A				
Electricity	FY 2026	\$ -	\$ 646,950	\$ -
Natural Gas	FY 2026	-	64,240	-
Screening & Grit	FY 2026	-	49,660	-
Biosolids	FY 2026	-	194,866	-
Water	FY 2026	-	968	-
Hypochlorite	FY 2026	-	12,110	-
Sodium Bisulfite	FY 2026	-	4,942	-
Maintenance	FY 2026	-	29,033	-
Personnel	FY 2026	-	9,811	-
	<b>Total</b>	<b>\$ -</b>	<b>\$ 1,012,580</b>	<b>\$ -</b>
Phase III CSO Facilities - Phase B	FY 2031	None	TBD	None
Phase III CSO Facilities - Phase C	FY 2037	None	TBD	None
Phase III CSO Facilities - Phase D	FY 2042	None	TBD	None

## CIP 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 debt service coverage line item. 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 in the Long-Term Plan section of the Operating Budget. Traditionally NBC has financed the capital improvement program through the issuance of debt.

### Funding Sources

NBC has four sources of capital funding as follows:

Funding Source	Description
Restricted Account	Transfers from Stabilization Account – Prior Year Debt Coverage
Grant and Project Reimbursement Account	State or federal grant funds, capital project reimbursements, energy efficiency incentives, and transfers from the Renewal and Replacement Fund
State Revolving Fund Loans through RIIB	Borrowings from the RIIB backed by NBC tax-exempt revenue bonds - traditionally subsidized at 1/3 of NBC’s market rate
Revenue Bonds	NBC tax-exempt debt issuance

### Restricted Account

The NBC is regulated by the Rhode Island Public Utilities Commission (PUC) and the PUC has permitted the use of prior year debt service coverage 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 may also fund initial project costs from the Restricted Account until SRF funds become available.

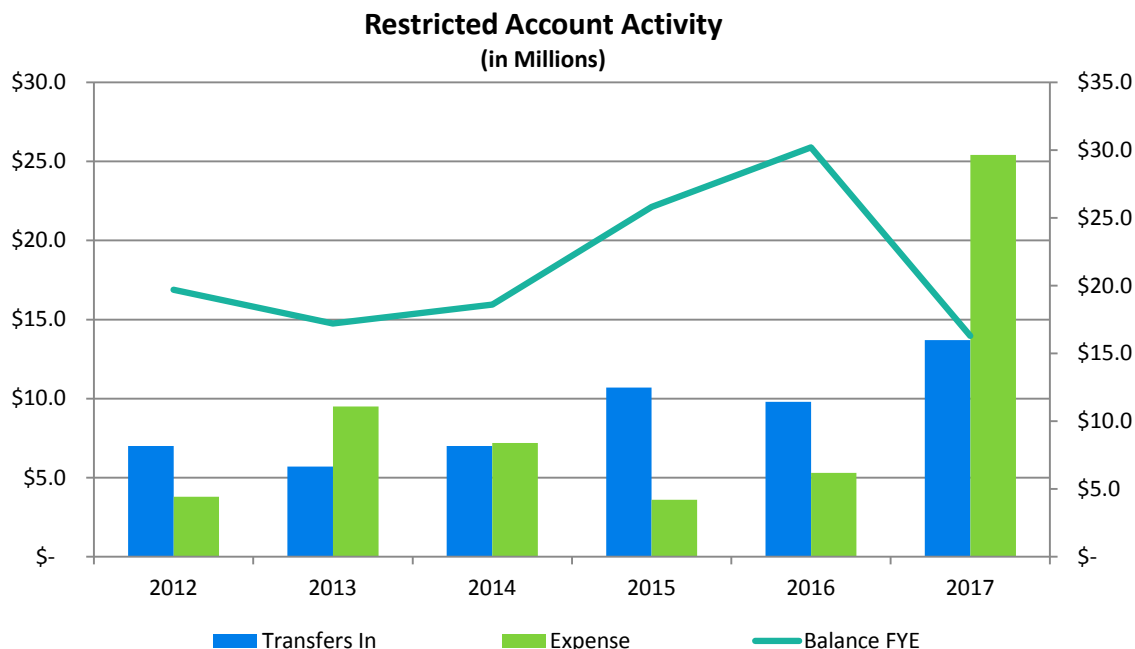
In FY 2017 NBC funded approximately \$25.2 million from the Restricted Account, which is significantly more than in prior years. This included costs of \$18.4 million for the remainder of the purchase and installation of the three Wind Energy Development (WED) Turbines. In addition, NBC funded \$3.9 million of the CSO Phase III Facilities design costs with restricted funds. Although NBC has borrowed funds through the RIIB to finance the CSO Phase III Facilities, RIDEM has deemed these costs not yet eligible for SRF funding since RIDEM has not approved the revised plan. NBC will continue to fund the CSO Phase III design costs with restricted funds until RIDEM approves the plan and will then request reimbursement from unspent SRF proceeds. A listing of the projects and amounts that were funded with restricted funds in FY 2017 is as follows:

FY 2017 Restricted Account Expenditures*	
Major Project	Amount
WED Turbines	\$ 18,419,254
CSO Phase III Facilities	3,881,246
Collection System Infrastructure	1,305,308
WWTF Improvements	1,295,115
Other	321,681
<b>Total</b>	<b>\$ 25,222,604</b>

\* Based on 11 months



The projected restricted account balance available on July 1, 2017 is \$16.3 million. NBC estimates that the carry-forward transfer from FY 2017 will be \$12.6 million, bringing the restricted account balance available for capital projects in FY 2018 to \$28.9 million. This amount is in addition to the programmed funding of the FY 2018 Operating Capital. The following chart shows the transfers into the Restricted Account, Capital Projects expense and Fiscal Year End (FYE) Restricted Account balance by fiscal year.



### State Revolving Fund Loans – RIIB

The NBC's least cost source of debt financing is 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 the NBC submits a loan application in April for a loan that will be executed in June of the next 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. NBC does not directly receive the loan proceeds, rather the invoices are submitted to RIIB for payment. In order for a project cost to be eligible for payment, NBC must receive a Certificate of Approval (COA) from RIDEM.

NBC has unexpended proceeds from the 2015 Series B and 2016 Series A bonds. Actual cash draws have been below projection due to an outward shift in project schedules as well as the temporary ineligibility of CSO Phase III A design costs. The table below shows the SRF Expenditures in FY 2017.

FY 2017 SRF Expenditures*		
Major Project	2015 Series B	2016 Series B
Water Quality Science Building	\$ 2,572,296	\$ -
BPWWTF Biogas Reuse	542,340	-
CSO Phase II Facilities	1,272,878	-
CSO Phase III Facilities	177,259	-
Collection System Infrastructure	2,001,473	-
WWTF Improvements	471,744	739,971
<b>Total</b>	<b>\$ 7,037,989</b>	<b>\$ 739,971</b>

\* Based on 11 months

Below is a chart that shows NBC's outstanding debt from the RIIB.

Bond Issue	Interest Rate*	Outstanding as of June 30, 2017	Final Maturity
1997 Series - \$8.150M	3.14473%	\$ 1,625,307	September 1, 2020
1999 Series - \$23.955M	3.03200%	6,320,000	September 1, 2021
2001 Series - \$57M	2.67100%	13,630,000	September 1, 2022
2002 Series - \$57M	1.07850%	20,332,834	September 1, 2023
2003 Series - \$40M	1.34900%	17,820,000	September 1, 2025
2004 Series B - \$40M	1.40400%	22,230,000	September 1, 2025
2005 Series B - \$30M	1.39700%	14,903,000	September 1, 2026
2006 Series A - \$30M	1.27000%	16,305,000	September 1, 2027
2007 Series B - \$25M	1.47500%	17,517,000	September 1, 2029
2009 Series A - \$55M	0.87700%	41,603,572	September 1, 2031
2010 Series A - \$2M	0.52200%	1,205,655	September 1, 2030
2010 Series B - \$20M	2.14300%	15,028,000	September 1, 2031
2011 Series A - \$30M	2.25900%	22,453,337	September 1, 2032
2012 Series A - \$25.75M	2.08800%	21,086,426	September 1, 2033
2013 Series B - \$25M	2.09200%	21,731,401	September 1, 2034
2014 Series A - \$45M	2.46700%	41,273,000	September 1, 2035
2015 Series B - \$41.7535M	2.54900%	41,241,430	September 1, 2045
2016 Series A - \$23.0M	1.96700%	23,000,000	September 1, 2037
		<b>\$ 359,305,962</b>	

\* RIIB loans have a 0.5% service fee

### Revenue Bonds

Since the statewide demand for SRF loans exceeds the RIIB lending capacity, NBC issues revenue bonds to the extent that SRF funds are not available. NBC did not have any unspent proceeds in FY 2017. The table below shows NBC's outstanding revenue bonds.

Bond Issue	Interest Rate*	Outstanding as of June 30, 2017	Final Maturity
2008 Series A - \$66.0M	Variable	\$ 56,465,000	August 1, 2035
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	September 1, 2037
		<b>\$ 242,820,000</b>	

With respect to this year's CIP, a number of funding sources have been identified as part of the Long-Term Plan as follows:

Funding Source	Description
<b>Restricted Account*</b>	Transfers from Stabilization Account - Prior Year Debt Coverage
<b>2015 Series B (SRF)</b>	Unspent Proceeds from 2015 Series B
<b>2016 Series A (SRF)</b>	Unspent Proceeds from 2016 Series A
<b>New SRF Revenue Bonds</b>	New borrowings from the RIIB backed by NBC revenue bonds
<b>New Revenue Bonds</b>	New NBC tax-exempt revenue bond issues

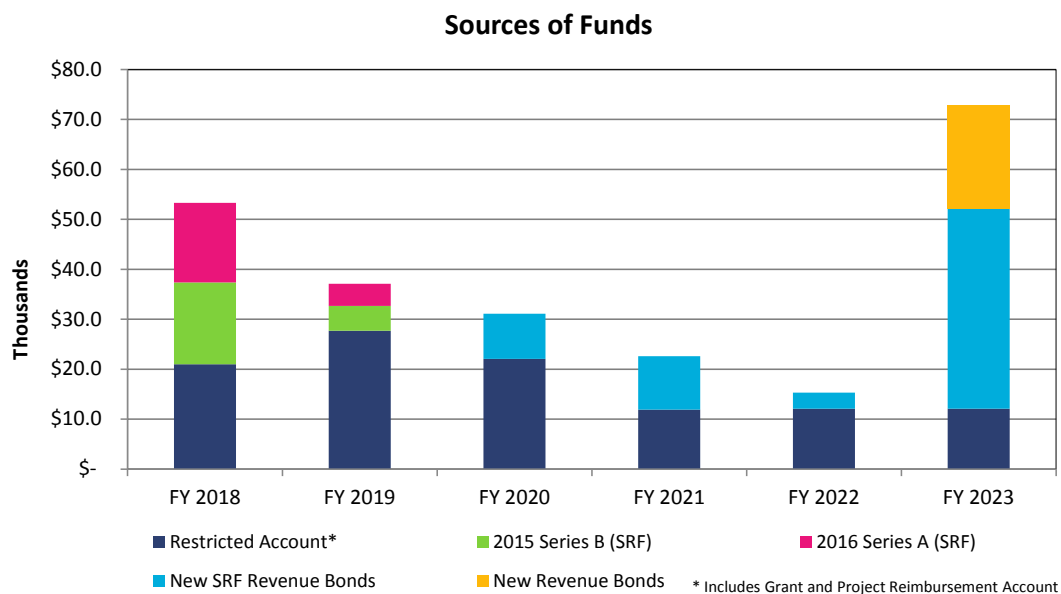
\* Includes Grant and Project Reimbursement Account

In FY 2018, NBC plans to fund its capital improvement program with approximately \$21.0 million in restricted funds and \$32.3 million in unspent SRF proceeds. For presentation purposes, the projected \$1.5 million balance in the Grant and Project Reimbursement Account is grouped into the Restricted Account Balance. During the period of FY 2018-2023, the long-term model reflects the use of \$106.8 million in restricted funds or “pay-as-you-go” capital, \$41.7 million in unspent SRF proceeds, \$63.0 million in new borrowings through the RIIB, and \$20.8 million in revenue bonds. The long-term model does not include any new borrowings from RIIB during FY 2018-2019 or the issuance of any revenue bonds during fiscal years 2018 through 2022. The table below shows the projected sources of funds in fiscal years 2018-2023.

Sources of Funds (Thousands)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total FY 2019-2023	Total FY 2018-2023
<b>Restricted Account*</b>	\$ 20,995	\$ 27,684	\$ 22,067	\$ 11,922	\$ 12,064	\$ 12,085	\$ 85,822	\$ 106,817
<b>2015 Series B (SRF)</b>	16,369	4,967	-	-	-	-	4,967	21,337
<b>2016 Series A (SRF)</b>	15,958	4,445	-	-	-	-	4,445	20,403
<b>New SRF Revenue Bonds</b>	-	-	9,060	10,663	3,243	40,000	62,965	62,965
<b>New Revenue Bonds</b>	-	-	-	-	-	20,787	20,787	20,787
<b>Total</b>	<b>\$ 53,322</b>	<b>\$ 37,097</b>	<b>\$ 31,126</b>	<b>\$ 22,584</b>	<b>\$ 15,307</b>	<b>\$ 72,872</b>	<b>\$ 178,986</b>	<b>\$ 232,309</b>

\* Includes Grant and Project Reimbursement Account

The actual timing and type of debt issuance will be determined based upon cash flows, market conditions, RIIB loan availability, and other factors. The graph below illustrates the projected sources of funds from FY 2018 through FY 2023. NBC does not plan on executing any new loans from RIIB until FY 2020 in anticipation of construction of the CSO Phase III A Facilities.



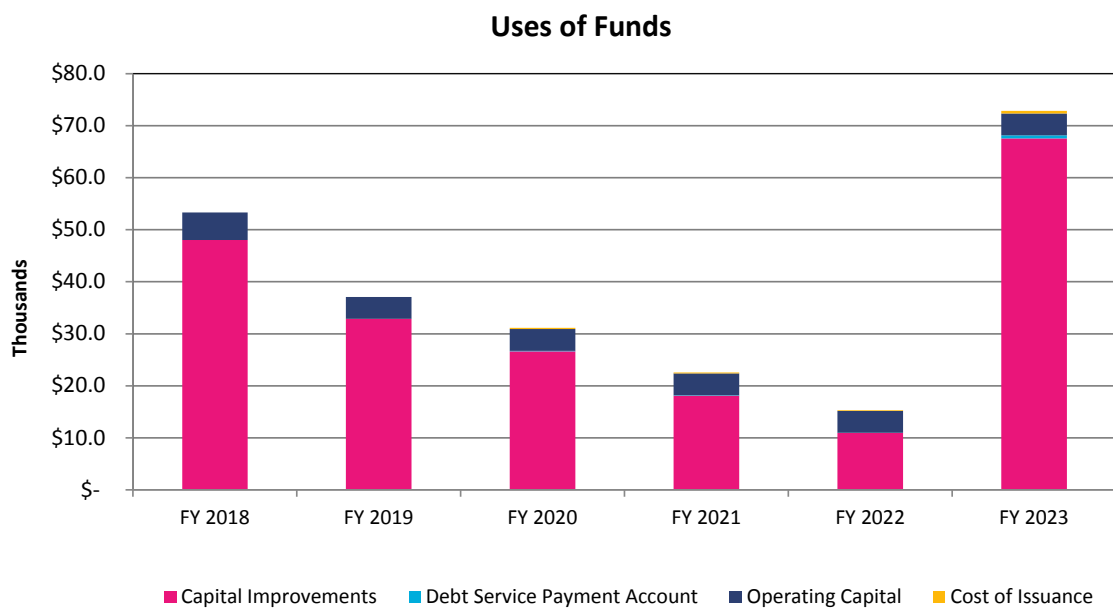
NBC must also take into consideration the appropriate uses of capital funds as part of the planning process. The following table lists the individual funding uses along with their descriptions. In addition to payments for capital projects, the table identifies operating capital expense and incremental increase to the debt service payment account. The cost of issuance expense is also shown and is financed from bond proceeds.

Funding Use	Description
<b>Operating Capital</b>	Annual Operating Capital Purchases
<b>Capital Improvements</b>	Projects identified in the Capital Improvement Program
<b>Debt Service Payment Account</b>	Incremental increase in monthly deposits due to debt issuance
<b>Cost of Issuance</b>	RIIB service fee, underwriting, bond counsel, financial advisory services, etc.

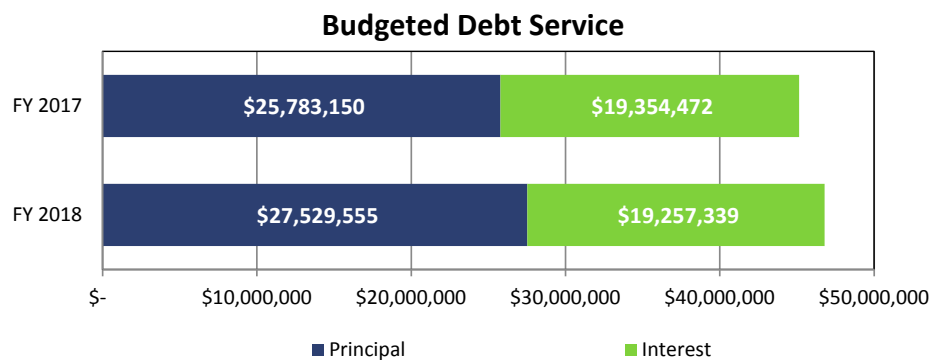
The following table shows that the largest use of capital funds is for Capital Improvements at 88% of the total uses for the FY 2018-2023 CIP window.

Uses of Funds (Thousands)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total FY 2019-2023	Total FY 2018-2023
Operating Capital	\$ 5,311	\$ 4,200	\$ 4,200	\$ 4,200	\$ 4,200	\$ 4,200	\$ 21,000	\$ 26,311
Capital Improvements	48,011	32,897	26,645	18,071	10,942	67,564	156,119	204,131
Debt Service Payment Account	-	-	91	107	32	608	838	838
Cost of Issuance	-	-	191	207	132	500	1,030	1,030
<b>Total</b>	<b>\$ 53,322</b>	<b>\$ 37,097</b>	<b>\$ 31,126</b>	<b>\$ 22,584</b>	<b>\$ 15,307</b>	<b>\$ 72,872</b>	<b>\$ 178,986</b>	<b>\$ 232,309</b>

The chart below shows the uses of capital funds by fiscal year. Expenditures on capital improvements are \$48.0 million in FY 2018 and will decline in each of the four following fiscal years. FY 2023 shows higher programmed costs at \$67.6 million, of which NBC plans on spending the majority or \$62.7 million on CSO Phase III A Facilities construction costs.



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. Budgeted debt service in FY 2018 is \$46.8 million, which is 3.7% higher than the prior year. The following table shows debt service expense in Fiscal Year 2018 compared to the prior year. The higher debt service reflects the debt service associated with NBC’s most recent borrowings from the RIIB.



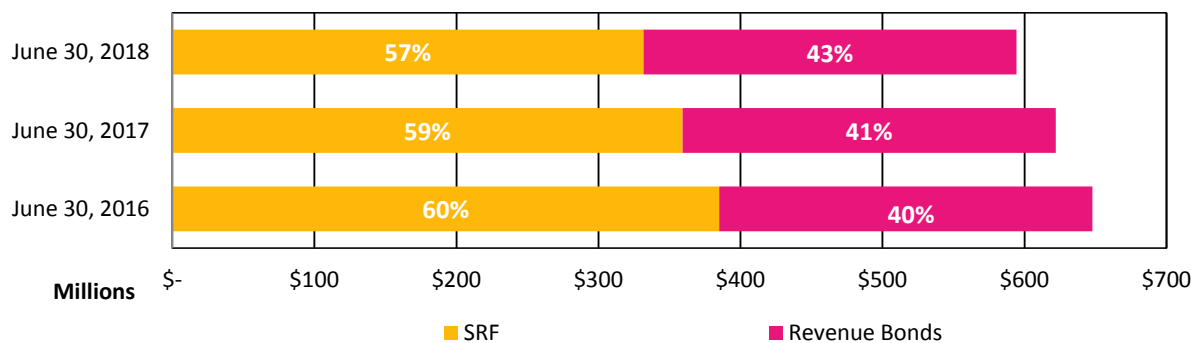
The table below shows the changes in outstanding debt at fiscal year-end for 2016, 2017 and 2018. The Additions/Principal Payments column reflects the net effect of principal payments and new SRF bond issuance. Because NBC does not plan on issuing any new debt until FY 2020, outstanding debt is projected to decrease 8% from \$647.7 million at June 30, 2016 to \$594.4 million at June 30, 2018.

### Outstanding Debt

Issuance	Outstanding Debt as of June 30, 2016	Additions/ Principal Payments	Outstanding Debt as of June 30, 2017	Additions/ Principal Payments	Outstanding Debt as of June 30, 2018
<b>SRF Loans</b>					
SRF Loans	\$ 385,089,111	\$ (25,783,150)	\$ 359,305,961	\$ (27,529,555)	\$ 331,776,406
<i>Subtotal SRF</i>	385,089,111	(25,783,150)	359,305,961	(27,529,555)	331,776,406
<b>Revenue Bonds</b>					
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
<i>Subtotal Revenue Bonds</i>	242,820,000	-	242,820,000	-	242,820,000
<b>Subtotal Bonds</b>	<b>\$ 627,909,111</b>	<b>\$ (25,783,150)</b>	<b>\$ 602,125,961</b>	<b>\$ (27,529,555)</b>	<b>\$ 574,596,406</b>
<b>Premiums</b>					
2013 Series A	4,131,888	-	4,131,888	-	4,131,888
2013 Series C	2,274,637	-	2,274,637	-	2,274,637
2014 Series B Refunding Bonds	7,381,545	-	7,381,545	-	7,381,545
2015 Series A Refunding Bonds	5,996,114	-	5,996,114	-	5,996,114
<b>Subtotal Premiums</b>	<b>\$ 19,784,184</b>	<b>\$ -</b>	<b>\$ 19,784,184</b>	<b>\$ -</b>	<b>\$ 19,784,184</b>
<b>Total Outstanding Debt</b>	<b>\$ 647,693,295</b>	<b>\$ (25,783,150)</b>	<b>\$ 621,910,145</b>	<b>\$ (27,529,555)</b>	<b>\$ 594,380,590</b>

The chart below shows the decrease in outstanding debt is related to the SRF borrowings since the NBC's revenue bonds have 30 year maturities and were structured to "wrap" around SRF loans. NBC anticipates that outstanding debt will continue to decline until construction of CSO Phase III A Facilities begins.

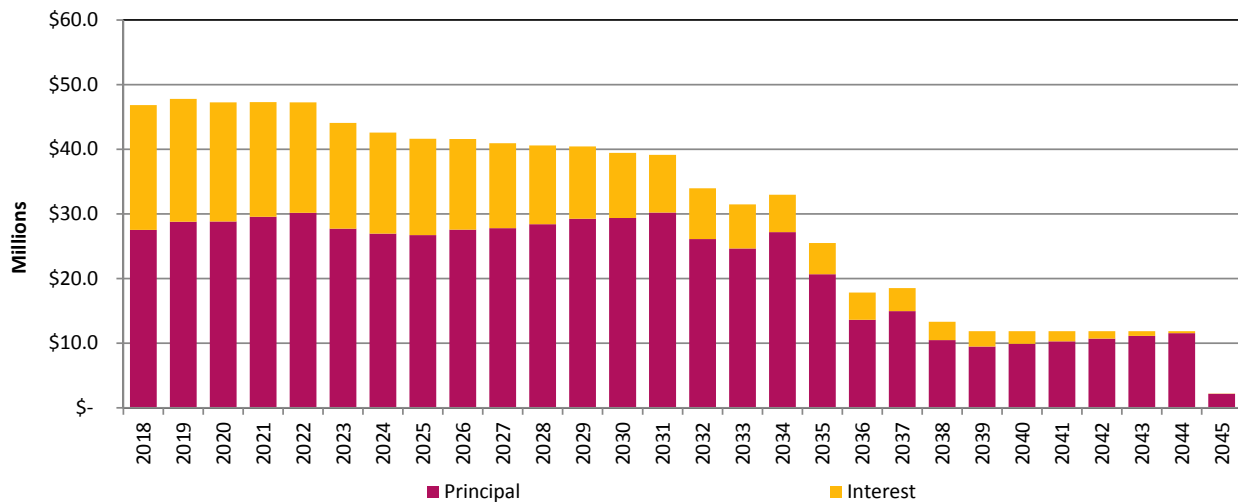
### Outstanding Debt by Issuance Type



The following table shows debt service payments through maturity.

### Debt Service Payments through Maturity

Fiscal Year	Debt	Principal	Interest	Total Payment
2018	\$ 854,112,617	\$ 27,529,555	\$ 19,325,165	\$ 46,854,720
2019	807,257,897	28,801,972	19,011,195	47,813,167
2020	759,444,730	28,848,394	18,405,267	47,253,661
2021	712,191,069	29,564,498	17,751,697	47,316,195
2022	664,874,874	30,181,899	17,060,829	47,242,728
2023	617,632,146	27,725,747	16,354,696	44,080,443
2024	573,551,703	26,964,509	15,636,516	42,601,025
2025	530,950,678	26,741,562	14,873,236	41,614,798
2026	489,335,880	27,564,901	14,047,285	41,612,185
2027	447,723,694	27,797,035	13,127,895	40,924,930
2028	406,798,765	28,408,268	12,204,311	40,612,579
2029	366,186,185	29,273,863	11,176,253	40,450,117
2030	325,736,069	29,356,698	10,081,924	39,438,622
2031	286,297,447	30,212,923	8,939,929	39,152,852
2032	247,144,595	26,120,242	7,842,435	33,962,676
2033	213,181,918	24,647,493	6,827,764	31,475,257
2034	181,706,661	27,196,453	5,784,122	32,980,574
2035	148,726,087	20,685,448	4,837,774	25,523,223
2036	123,202,864	13,644,000	4,186,104	17,830,104
2037	105,372,760	14,988,000	3,535,274	18,523,274
2038	86,849,486	10,498,000	2,833,224	13,331,224
2039	73,518,262	9,508,000	2,377,495	11,885,495
2040	61,632,767	9,919,000	1,962,201	11,881,201
2041	49,751,566	10,311,000	1,569,886	11,880,886
2042	37,870,681	10,721,000	1,162,043	11,883,043
2043	25,987,638	11,142,000	738,108	11,880,108
2044	14,107,530	11,581,000	297,525	11,878,525
2045	2,229,005	2,192,500	36,505	2,229,005
<b>Total</b>		<b>\$ 602,125,962</b>	<b>\$ 251,986,656</b>	<b>\$ 854,112,618</b>



## Projected Revenue and Expense

NBC has projected operating budget revenue and expense for FY 2018 – FY 2023 taking into consideration the capital program and a number of other assumptions. The FY 2018 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.

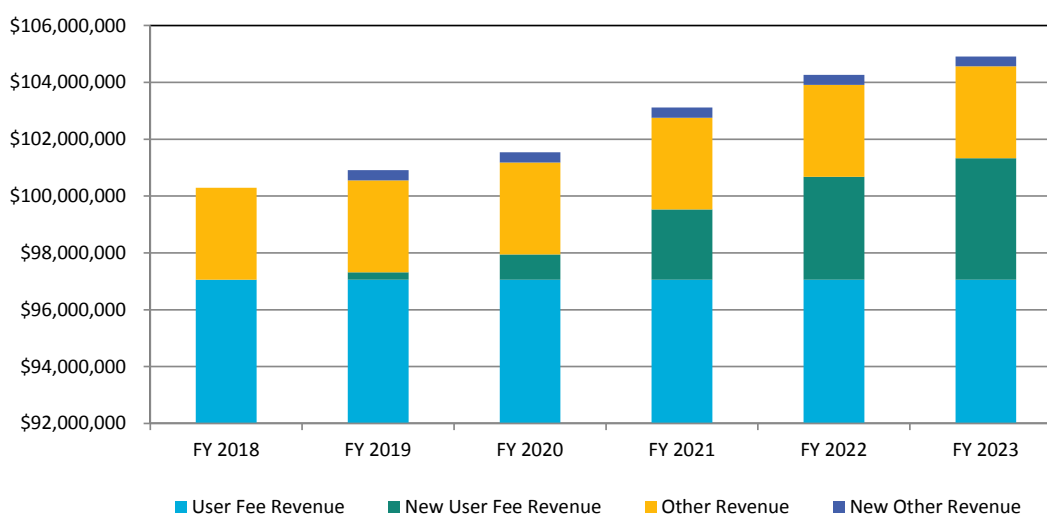
### Projected Revenue

User fees are the largest source of NBC’s revenue. Over the six-year period user fee revenue is projected to increase 4.4% due to the CIP and rate increases. The table below shows projected incremental changes in revenue assuming that all budgeted FY 2018 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 2019 and FY 2020. In addition, NBC projects user fee rate increases beginning in FY 2020 to demonstrate that rates will generate sufficient revenue to meet debt service and debt service coverage requirements during the three years subsequent to new debt issuance.

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
<b>REVENUE</b>						
Base User Fee Revenue	\$ 97,058,926	\$ 97,058,926	\$ 97,058,926	\$ 97,058,926	\$ 97,058,926	\$ 97,058,926
CIP New User Fee Revenue	-	257,355	497,355	497,355	497,355	497,355
Rate Increase Revenue	-	-	390,349	1,970,339	3,121,319	3,773,374
<b>Total User Fee Revenue</b>	<b>97,058,926</b>	<b>97,316,281</b>	<b>97,946,630</b>	<b>99,526,620</b>	<b>100,677,600</b>	<b>101,329,655</b>
Base Other Revenue	3,233,285	3,233,285	3,233,285	3,233,285	3,233,285	3,233,285
CIP New REC Revenue	-	87,834	87,834	87,834	87,834	87,834
Solar PPA REC Revenue	-	274,080	269,983	265,947	261,971	258,054
<b>Total Other Revenue</b>	<b>3,233,285</b>	<b>3,595,199</b>	<b>3,591,102</b>	<b>3,587,065</b>	<b>3,583,089</b>	<b>3,579,173</b>
<b>Total Revenue</b>	<b>\$ 100,292,211</b>	<b>\$ 100,911,480</b>	<b>\$ 101,537,731</b>	<b>\$ 103,113,685</b>	<b>\$ 104,260,689</b>	<b>\$ 104,908,828</b>

In addition, during the FY 2018 to FY 2023 period, Other Revenue is anticipated to increase as a result of additional REC revenue from two renewable energy programs including the Bucklin Point Biogas Reuse Project and a Solar Energy Power Purchase Agreement (PPA). Overall Other Revenue is projected to increase 10.7% over the six-year period.

**Projected Operating Budget Revenue**



## Projected Expense

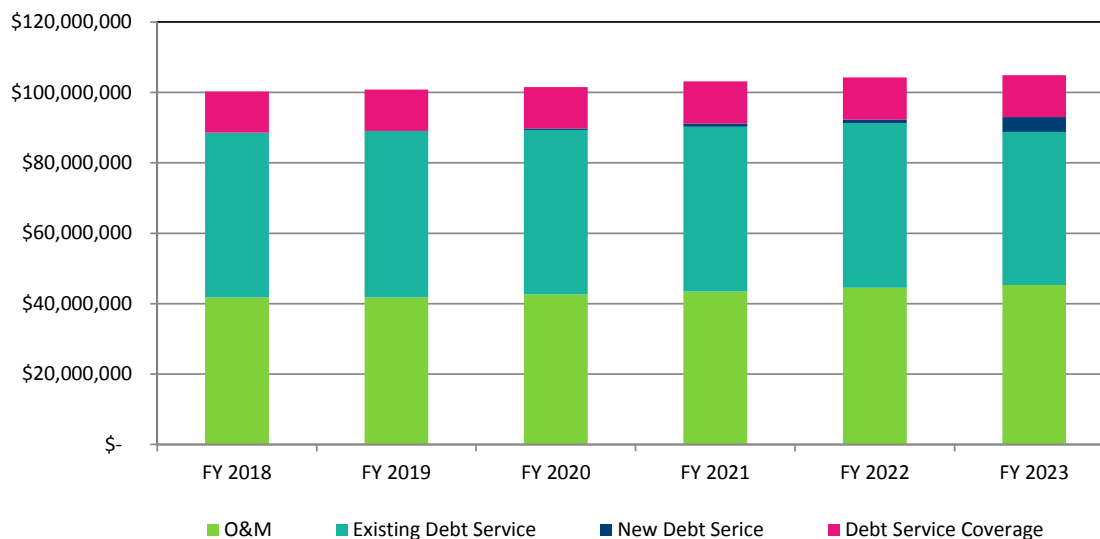
With respect to projected Operation and Maintenance (O&M) expense, a number of assumptions have been incorporated into the projections. First, NBC has inflated annual O&M at 2% per year. The incremental net impact of the CIP is anticipated to reduce O&M expense by \$357,310 in FY 2019, with additional changes in FY 2022 and FY 2023. NBC also incorporated savings resulting from the proposed Solar PPA.

NBC's largest expense is for debt service. For the purpose of modeling and rate increase projections, NBC is using projected interest expense on the \$56.5 million VRDOs at 2.5% including fees beginning in FY 2019. This is a lower rate than NBC has traditionally used for budgeting purposes; however, the average interest rate since inception (April 29, 2004) is 1.22% and the 20-year SIFMA tax-exempt Index has averaged 1.64%. NBC's model shows that NBC will need to access capital markets in FY 2020 to finance its CIP. Because debt service associated with some of NBC's earlier issues is maturing, the overall impact on debt service expense is relatively modest over the six-year period.

The table below shows that NBC will meet coverage requirements during the six-year period based on the assumptions as outlined. NBC will continue to update the projections as part of the ongoing planning process.

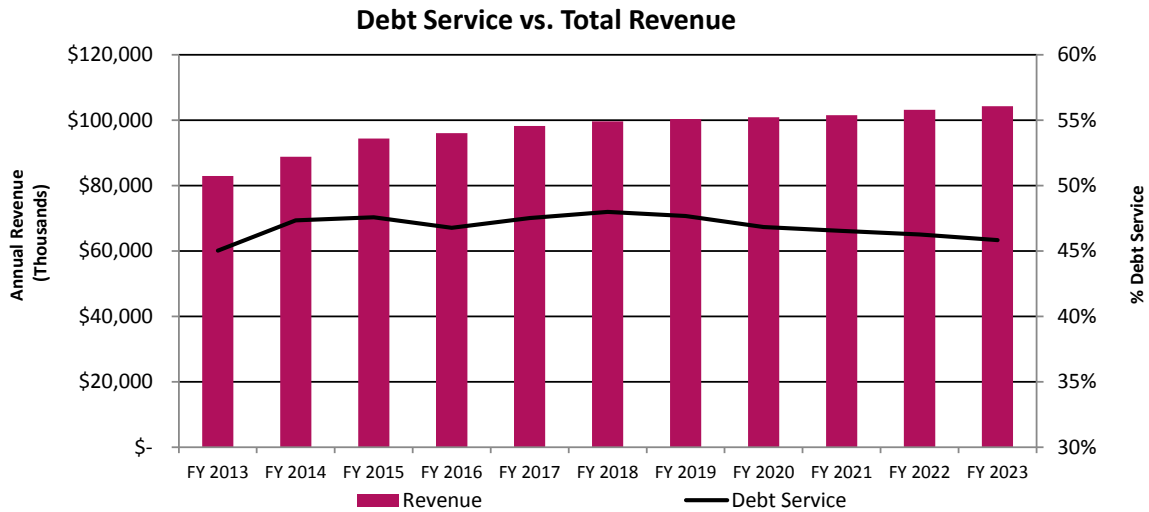
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
<b>EXPENSE</b>						
Base O&M Expense with CPI @ 2%	\$ 41,808,594	\$ 42,644,766	\$ 43,497,661	\$ 44,367,615	\$ 45,254,967	\$ 46,160,066
CIP Net Expense Impact	-	(357,310)	(357,310)	(357,310)	(197,022)	(362,522)
Solar PPA Expense Impact	-	(498,768)	(504,860)	(511,026)	(517,267)	(523,585)
<b>Total O&amp;M</b>	<b>41,808,594</b>	<b>41,788,688</b>	<b>42,635,491</b>	<b>43,499,279</b>	<b>44,540,677</b>	<b>45,273,959</b>
Existing Debt Service	46,786,894	47,813,167	47,253,661	47,316,195	47,242,728	44,080,443
VRDB Interest from 3.5% to 2.5%	-	(564,650)	(564,650)	(565,685)	(563,614)	(564,650)
New Debt Service	-	-	432,780	941,015	1,096,895	4,192,103
<b>Total Debt Service</b>	<b>46,786,894</b>	<b>47,248,517</b>	<b>47,121,791</b>	<b>47,691,525</b>	<b>47,776,009</b>	<b>47,707,895</b>
Debt Service Coverage @ 25%	11,696,723	11,812,129	11,780,448	11,922,881	11,944,002	11,926,974
<b>Total Expense</b>	<b>\$ 100,292,211</b>	<b>\$ 100,849,334</b>	<b>\$ 101,537,731</b>	<b>\$ 103,113,685</b>	<b>\$ 104,260,689</b>	<b>\$ 104,908,828</b>
Net Income (Loss)	\$ (0)	\$ 62,146	\$ 0	\$ 0	\$ 0	\$ (0)
<b>Coverage</b>	<b>1.25</b>	<b>1.25</b>	<b>1.25</b>	<b>1.25</b>	<b>1.25</b>	<b>1.25</b>

**Projected Operating Budget Expense**



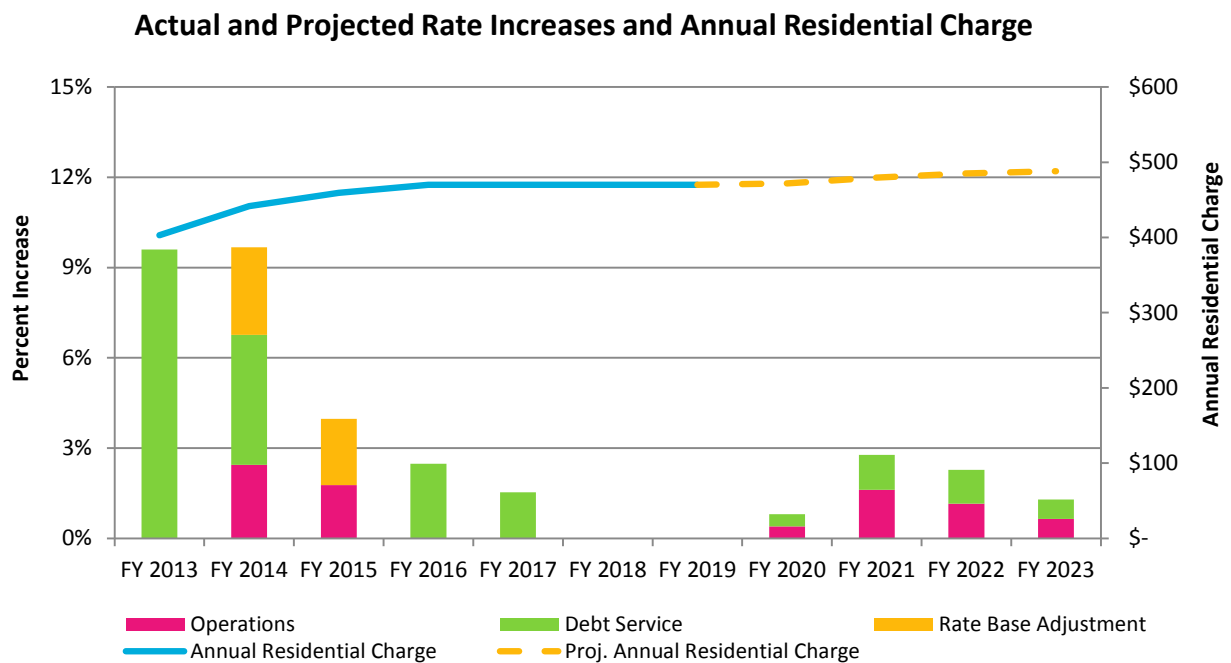


The chart below shows how debt service as a percent of total revenue is projected to decrease from approximately 48% of total revenue in FY 2018 to 46% of total revenue in FY 2023. This is the result of the outward shift in the construction costs of the CSO Phase III A Facilities. All debt service projections are based on a number of assumptions including the cash flow estimates outlined in the CIP.



## Sewer User Fee Rate Projections

The following chart shows the actual and projected rate increases along with the annual residential charge for FY 2013- FY 2023. Based on projections, it is anticipated that current rates are sufficient to support NBC’s operations, debt service and debt service coverage through FY 2019. In FY 2020 rate relief will be required to meet projected higher O&M and debt service costs.



The NBC’s average annual residential user charge is projected to increase from \$470 in FY 2018 to \$488 in FY 2023. The largest projected rate increase over the five-year period is in FY 2021 at 1.61%. This is significantly

lower than what was projected last year and is the result of the outward shift in the schedule of the CSO Phase III A Facilities. The new schedule defers NBC's borrowing needs and also affords NBC an opportunity to reduce outstanding debt in the interim. These impacts will change, however, if NBC must begin construction of the CSO Phase III A Facilities earlier than what is programmed in the CIP, there are significant changes in other capital, operation and maintenance costs, the CIP impacts are different than projected, or the Solar PPA is not executed or varies from projections. The impacts may also change if there are changes in the rate base or other factors out of NBC's control including the rate for RECs, short-term interest rates, wind, etc.

Even with the projected rate increases, NBC's sewer rates remain competitive. As can be seen in the following table, when NBC's 2016 rate is calculated based on consumption of 120 HCF, it is approximately 9.6% below the national average of \$702 for major U.S. Cities. Survey results for the State of Rhode Island are shown in the Budget Summary section of this document.

2016 Annual Residential Sewer Charges for Major U.S. Cities			
Seattle, WA	\$ 1,472	New Orleans, LA	\$ 656
San Francisco, CA	1,360	Providence, RI	642
Honolulu, HI	1,264	Houston, TX	620
Portland, ME	984	San Diego, CA	616
Flint, MI	931	Dallas, TX	534
MWRA Service Area	929	Columbus, OH	531
Austin, TX	897	Los Angeles, CA	510
Boston, MA	814	Fort Worth, TX	497
Washington, DC	753	Saint Paul, MN	480
New York, NY	727	Newark, NJ	457
Detroit, MI	692	Philadelphia, PA	452
Jacksonville, FL	687	San Jose, CA	427
Saint Louis, MO	664	San Antonio, TX	375
Indianapolis, IN	656	Milwaukee, WI	245

# 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 also incorporates needs identified through NBC’s asset management program. These capital improvements include construction of new facilities, 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) 2018 as well as the following five-year period of FY 2019-2023, which is referred to in this document as the “window”. Structuring the CIP this way also enables NBC’s program to be easily incorporated into the capital budget of the State of Rhode Island.

## Capital Improvement Program Overview

This year’s CIP identifies a total of 40 projects that are either in progress, to be initiated, or to be completed during FY 2018-2023. The estimated costs for this year’s CIP window are \$156.1 million, with additional expenditures of \$48.0 million in FY 2018 for a total of \$204.1 million. The majority or 65% of the expenditures are related to the third and final phase of the Combined Sewer Overflow (CSO) Abatement Facilities. Other projects in the CIP account for the remaining 35% and reflect the continued investment in NBC’s wastewater treatment and collection system infrastructure.

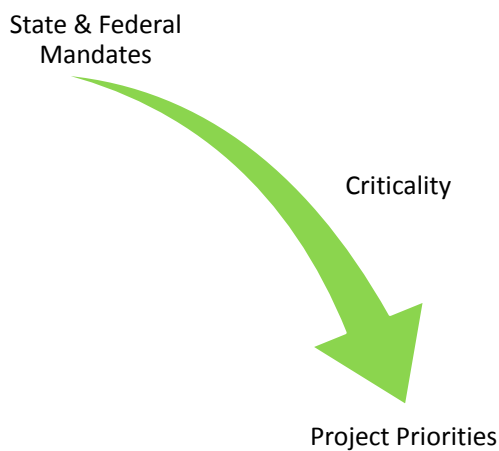
**FY 2018-2023 CIP Costs**  
(In thousands)

Category	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2019-2023
<b>Administrative</b>	\$ 2,009	\$ 1,149	\$ 824	\$ 612	\$ 462	\$ 500	\$ 3,547
<b>Land</b>	2,041	50	-	-	2,000	-	2,050
<b>A/E Professional</b>	13,919	13,178	11,230	8,690	4,478	12,021	49,597
<b>Construction</b>	25,832	15,454	13,042	7,289	3,092	54,773	93,651
<b>Contingency</b>	2,464	1,469	1,175	1,260	750	150	4,804
<b>Other</b>	1,746	1,596	374	220	160	120	2,470
<b>Total</b>	<b>\$ 48,011</b>	<b>\$ 32,897</b>	<b>\$ 26,645</b>	<b>\$ 18,071</b>	<b>\$ 10,942</b>	<b>\$ 67,564</b>	<b>\$ 156,119</b>

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; however, these projects are discussed in the completed projects section of the CIP that begins on page 98. The CIP projects are also identified by one of four priority classifications to 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. Lastly, information relating to the funding of the CIP as well as a discussion of the projected rate impacts associated with the CIP is provided.

## 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 timeline. A timeline with all of the detailed project schedules can be found on page 112. 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 and 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

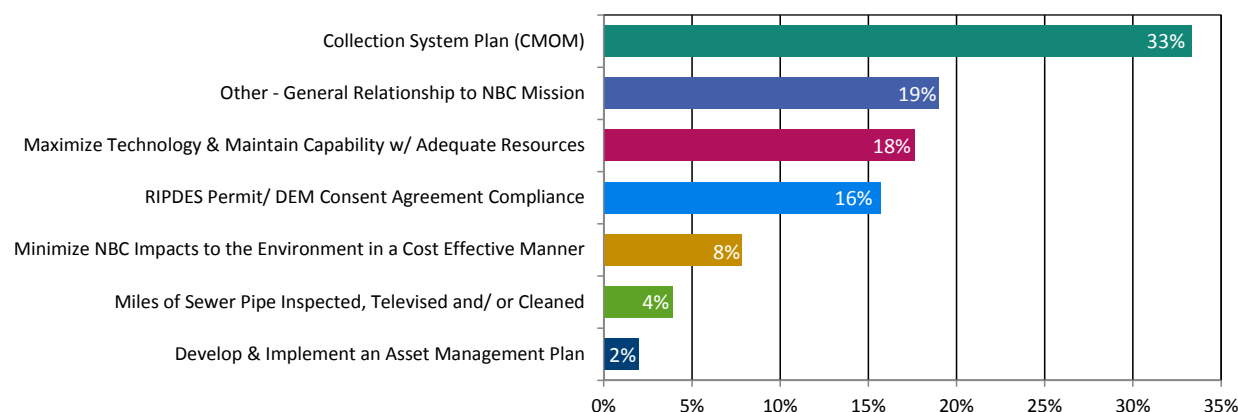
The costs and schedules included in this year's CIP reflect NBC's best estimates and are based on a number of assumptions as follows:

- Costs and cash flows are based on planning or design estimates and/or bids once available.
- The majority of construction projects include a 12% contingency based on the original construction cost estimate, which reflects recent industry experience. The contingency may be 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 data.
- 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 that are identified in NBC's annual operating budget and are outlined in the five-year Operating Capital Plan.

## 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 below illustrates the percentage of capital projects in this year's CIP aligned with each Strategic Objective.

**Percentage of Capital Projects by Strategic Objective**

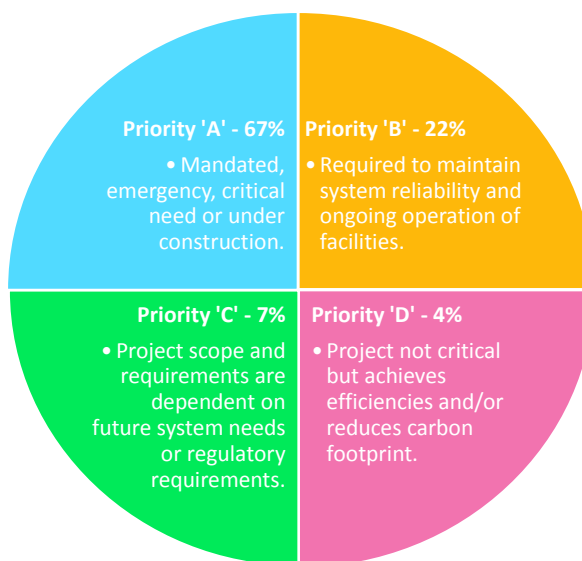


Of the 40 CIP projects, 33% are related to NBC's Collection System Plan strategic objective. These include interceptor rehabilitation and construction projects. In addition, 19% of the projects in the CIP are aligned with the General Relationship to NBC Mission strategic objective and 18% of the projects are aligned with the Maximize Technology & Maintain Capability with Adequate Resources strategic objective. The remaining projects are aligned with the RIPDES Permit and RIDEM Consent Agreements strategic objective.

## Project Priorities

As part of the CIP program development, the criticality of each project is assessed and a priority ranking is assigned based on that assessment. Projects with a ranking of "A", represent a critical need and are either mandated an emergency or currently under construction. Approximately 67% of the projects identified in the window are prioritized with an "A" ranking and total \$104.5 million.

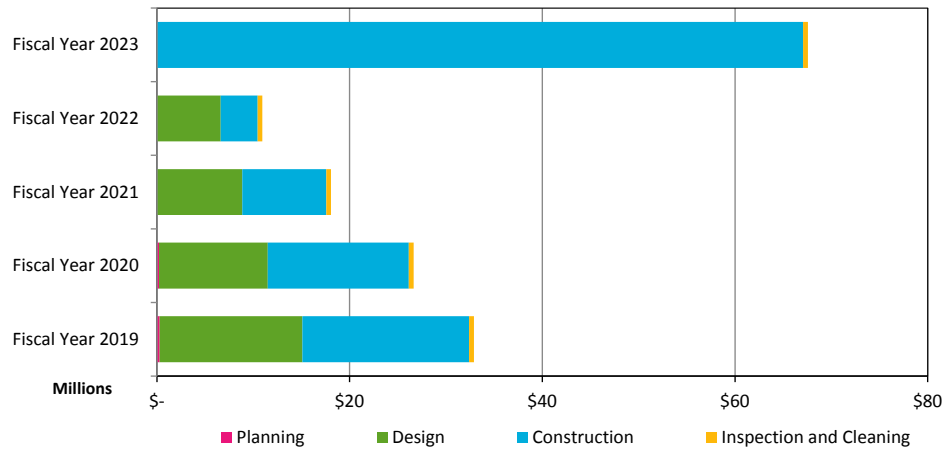
In addition, 22% of projects are identified with a "B" ranking and total \$34.2 million, which includes projects that are required to maintain system reliability and ongoing operations of NBC's facilities. Projects with a rank of "C" are dependent on future system needs or regulatory requirements and represent 7% or \$11.4 million. The remaining 4% are ranked as "D" and include projects that are not critical but achieve efficiencies and/or reduce NBC's carbon footprint totaling \$6.0 million.



\*Percentage calculated on project cost

## Capital Expenditure by Phase

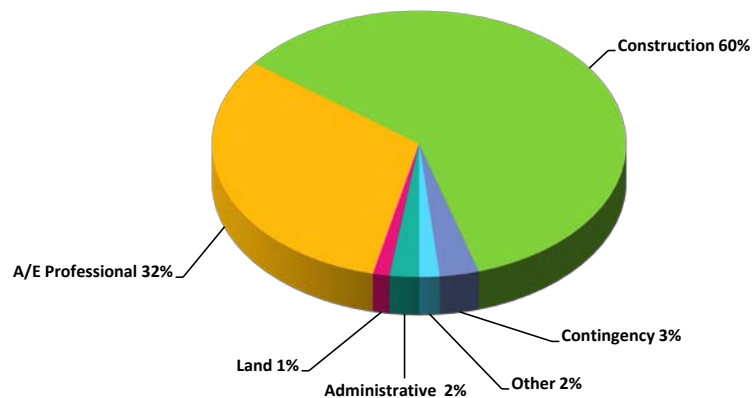
NBC's construction projects are generally comprised of three phases including planning, design, and construction. Planning consists of tasks such as feasibility studies and determination of the technology to be implemented. The design phase includes the development of plans and specifications, the acquisition 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 of the programmed expenditures during the five-year CIP window relate to the construction phase at 71% or \$111.5 million.



## 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 Land category includes costs for easements, as well as land acquisition. 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 \$93.6 million, or approximately 60% of the total costs within the FY 2019-2023 window. A/E Professional services represent approximately \$49.6 million or 32% 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 five 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)	Energy Sustainability, Easement Restoration and System Improvements
CSO Phase III Facilities	CSO Phase III A ,B, C, and D
Interceptor Inspection and Cleaning (IIC)	Remote Television Inspection and Grit/Debris Removal and Disposal
Interceptor Repair 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 is the 63% or \$168.8 million decrease in the CSO Phase III A Facilities compared to last year's CIP. This is the result of both the outward shift in the construction schedule and a reduction in the estimated construction cost. Programmed expense for Wastewater Treatment Facility Improvements increased 51% from the prior year and Interceptor Restoration and Construction increased 16% from the prior year due to a number of new projects. Overall, programmed expenditures are 50% or \$157.6 million less in the current CIP window compared to last year.

Functional Area (In thousands)	Prior Year CIP (FY 2018-2022)	Current Year CIP (FY 2019-2023)	% Change
Wastewater Treatment Facility	\$ 19,173	\$ 28,890	51%
Infrastructure Management	3,633	2,087	(43%)
CSO Phase III A Facilities	269,748	100,994	(63%)
Interceptor Inspection and Cleaning	2,500	2,500	0%
Interceptor Restoration and Construction	18,708	21,648	16%
<b>Total</b>	<b>\$ 313,762</b>	<b>\$ 156,119</b>	<b>(50%)</b>

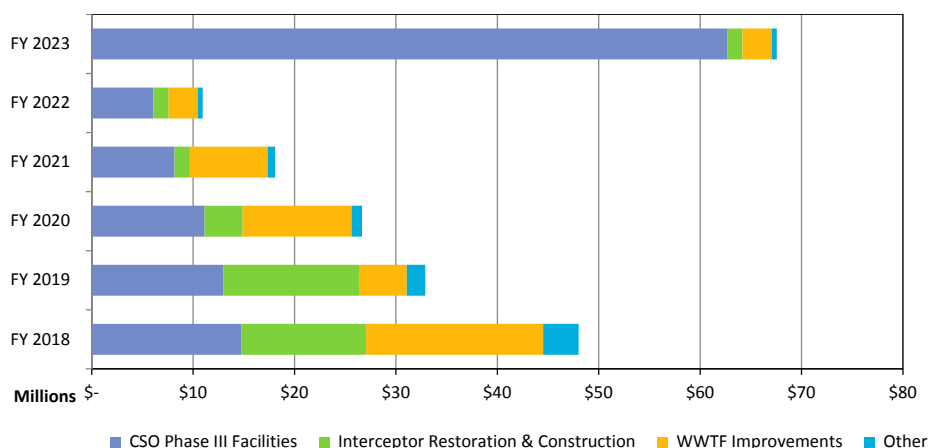
## Significant Capital Improvement Projects

The most significant project included in this year's CIP is the CSO Phase III A Facilities which accounts for \$101.0 million or 64.7% of the CIP's programmed costs. Expenditures on this project are projected to increase significantly in FY 2023 as NBC progresses from the design phase to construction. Other projects account for the remaining 35.3% of the CIP programmed costs. The following table and graph show the programmed expenditures for the CSO Phase III Facilities and other projects included in the current CIP window.

### Expenditures by Major Project

Project (in Thousands)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total Costs FY 2019 - 2023	% of Five Year Window
CSO Phase III Facilities	\$14,727	\$12,965	\$11,119	\$ 8,164	\$ 6,076	\$62,670	\$ 100,994	64.7%
WWTF Improvements	17,462	4,708	10,745	7,677	2,866	2,894	28,890	18.5%
Interceptor Restoration & Construction	12,327	13,392	3,756	1,500	1,500	1,500	21,648	13.9%
Other	3,496	1,832	1,025	730	500	500	4,587	2.9%
<b>Total</b>	<b>\$48,011</b>	<b>\$32,897</b>	<b>\$26,645</b>	<b>\$18,071</b>	<b>\$ 10,942</b>	<b>\$ 67,564</b>	<b>\$ 156,119</b>	<b>100.0%</b>

### Expenditures by Major Project



Projects related to WWTF Improvements at Field’s Point include Phase II of the Blower Improvements at \$9.3 million; Final Clarifier Improvements at \$4.1 million; Maintenance Facilities at \$6.4 million, and the IM Facilities at \$6.6 million. Improvements at Bucklin Point include Biogas Reuse at \$8.3 million, UV Disinfection Improvements at \$7.3 million and O&M Support Facilities at \$15.2 million. In addition, this year NBC is programming \$500 thousand annually for improvements to the wastewater treatment plants to ensure funding is available to support required investments at the facilities as they are identified through asset management and inspection.

NBC’s CIP also includes funding for various NBC’s Interceptor Restoration and Construction Projects. Specifically, the Johnston Sewer Improvements/Greenville at a cost of \$9.3 million and Johnston Sewer Improvements/Hartford at a cost of \$2.4 million which involve the extension of interceptors in the NBC’s district to locations that are not presently served. NBC has also programmed improvements to the Moshassuck Valley Interceptor at \$7.0 million, the Louisquisset Pike Interceptor at \$4.0 million and the Providence River Siphon at \$6.6 million.

Additional projects include the AVI and BVI Interceptor Easement Restorations at a total cost of \$2.2 million, System-wide RIPDES flow monitoring at \$848 thousand, South Providence Interceptor Cleaning at \$662 thousand, along with green projects and studies.

The table below shows increased programmed expenditures for non-CSO projects over the prior year.

Year-over-Year Difference in the Capital Improvement Program by Major Project					
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
WWTF Improvements	\$ 12,220	\$ 2,534	\$ 4,721	\$ 3,217	\$ 1,592
Interceptor Restoration & Construction	15	11,496	2,256	-	-
Other	994	659	(138)	(64)	-
<b>Total Change Non-CSO Projects</b>	<b>\$ 13,229</b>	<b>\$ 14,689</b>	<b>\$ 6,839</b>	<b>\$ 3,153</b>	<b>\$ 1,592</b>
<b>Percent Change in Non-CSO Projects</b>	<b>66.0%</b>	<b>280.1%</b>	<b>78.7%</b>	<b>46.7%</b>	<b>48.6%</b>



## CSO Phase III Facilities (Project 308)

In accordance with the terms and schedule set forth in the Consent Agreement between NBC and RIDEM, this CIP includes NBC's design and construction of the third and final phase of the federally mandated CSO Abatement Program. Required as part of a Consent Agreement between NBC and RIDEM, this project represents NBC's largest capital investment in this year's CIP.

NBC initiated the reevaluation of the Phase III Facilities in January 2014 with a focus on affordability issues, an evaluation of the significant improvements in water quality achieved through the first two phases, use of an integrated approach and an investigation of "green" technologies to determine if the third phase facilities, as originally developed, remained the most cost effective approach.



**Photo: Alignment of CSO Phase III**

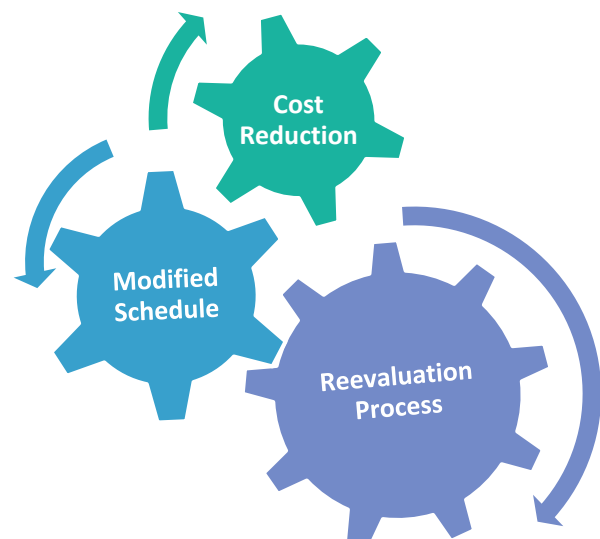
Several alternatives were developed through this reevaluation process and a series of Stakeholder meetings were held to evaluate the alternatives and financial impacts. The affordability analysis based upon EPA criteria was thoroughly conducted to evaluate ratepayer impact on the various communities and census tracts in NBC's service area. The Commission selected an alternative on April 28, 2015 which has a pre-design cost estimate of \$795.2 million in 2018 dollars. The reevaluation report was submitted to RIDEM in July 2015 and RIDEM provided comments to NBC in March 2016. NBC is incorporating RIDEM's comments into a revised conceptual design report which will be submitted to RIDEM for approval. RIDEM has also required NBC to submit an updated Environmental Assessment (EA) for Phase III. The draft EA was submitted to RIDEM in February 2017. NBC's Consent Agreement must also be renegotiated based upon the approved plan.

As a result of the reevaluation process, the Phase III CSO 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 \$10.0 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 \$795.2 million in 2018 dollars, with expenditures of approximately \$14.7 million in FY 2018 and \$101.0 in the five year period of FY 2019-2023. NBC has commenced preliminary design of the Phase III A Facilities. Construction of this first phase is expected to begin in 2022.

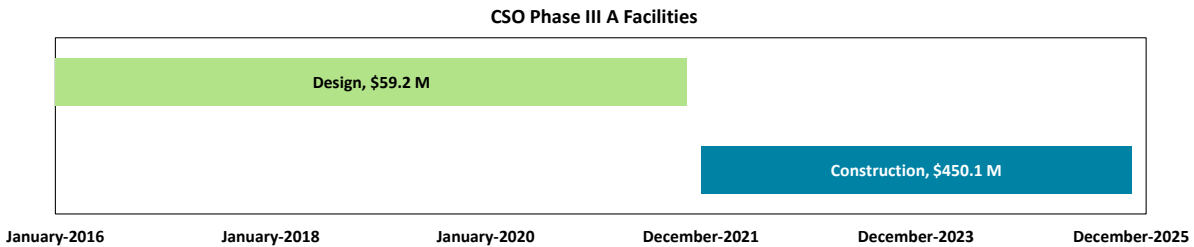
Subsequent to the completion of the reevaluation report and development of the revised plan, NBC further evaluated this alternative to determine if the facilities could be modified to further reduce the cost of the Phase III program. A description of the optimized facilities to be constructed in each of the four phases, as well as estimated costs and schedules are on the following page. The estimated construction costs will be updated as the design proceeds.

### CSO Phase III Facilities Optimization Process



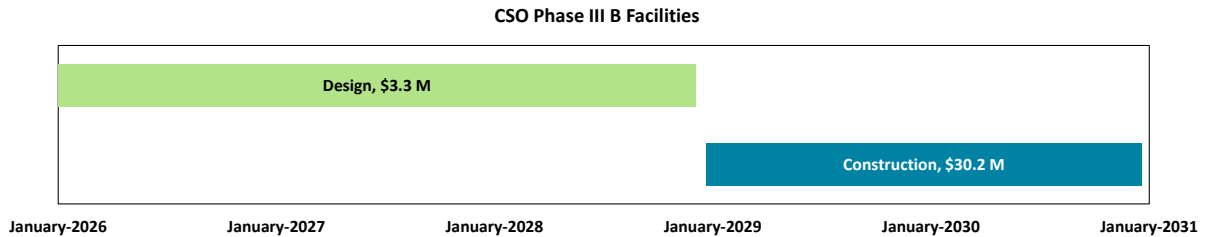
**Phase III A**

This Phase includes the design and construction of a deep rock tunnel in Pawtucket approximately 13,000 feet in length from the Bucklin Point WWTF in East Providence to Pawtucket, a Pump Station to convey flow to the Bucklin Point WWTF, drop shafts and consolidation conduits. The pre-design estimated cost for design and construction of these facilities in 2018 dollars is \$509.3 million. Construction of this phase is scheduled to begin in FY 2022.



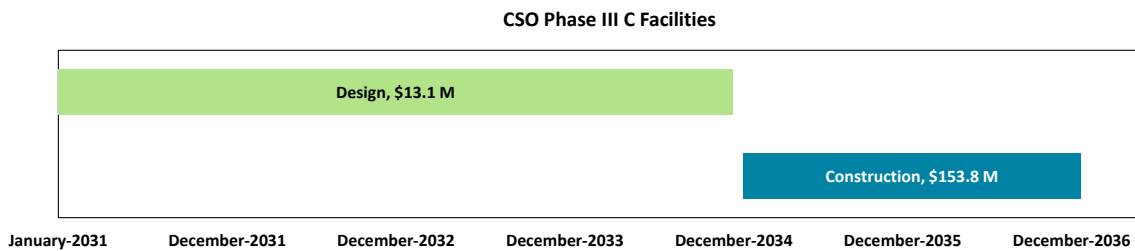
**Phase III B**

This phase includes the design and construction of two interceptors at High and Cross Streets which will be approximately 4,200 feet in length and one interceptor at Middle Street approximately 2,000 feet in length. The pre-design estimated cost for design and construction of this phase in 2018 dollars is \$33.5 million. Construction of this phase is scheduled to begin in FY 2029.



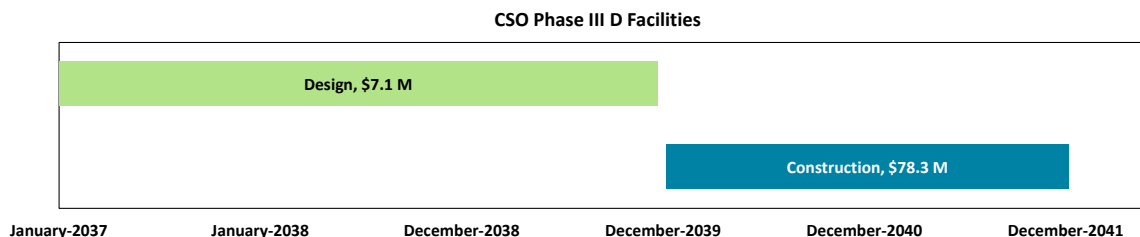
**Phase III C**

This phase involves the design and construction of a stub tunnel to convey flow from OF-220 to the Pawtucket tunnel at a pre-design estimated cost in 2018 dollars of \$166.9 million. Construction of this phase is scheduled to begin in FY 2035.



**Phase III D**

This phase involves the design and construction of an interceptor that will store flow from OF 039 and OF 056 during a storm and subsequently release the flow into the system as capacity allows and sewer separation for OF 035. The pre-design estimated cost in 2018 dollars is \$85.4 million. Construction of this phase is scheduled to begin in FY 2040.



## Climate Change and Sustainability

To achieve NBC's environmental performance goals of minimizing environmental impact, NBC has programmed a number of projects in the CIP. The Green House Gas Study involves quantifying NBC's overall carbon footprint by measuring the gas emissions from the wastewater collection and treatment process. The results of this study will enable NBC to quickly respond to new requirements related to emissions as they are enacted. In addition, NBC plans to maximize energy efficiencies and renewable resources through the Energy Sustainability Program which involves the identification and implementation of conservation methods, improved efficiency options, and the use of sustainable renewable energy resources.



*Photo: Field's Point Wind Turbine*

### Bucklin Point Biogas Reuse



*Photo: Bucklin Point Digester*

This year's CIP also includes the Bucklin Point Biogas Reuse Project (12000) which includes the installation of a biogas cogeneration system that will burn the biogas generated from the anaerobic biosolids digestion process and simultaneously generate electricity and heat for reuse in the treatment facility.

This process will reduce NBC's dependency on fossil fuel and generate approximately 4.8 million kWh of electricity annually which will offset the annual electricity expense at the Bucklin Point WWTF. Additionally, this project will generate revenue through the sale of Renewable Energy Credits or RECs. The estimated construction cost is \$8.3 million and this "green" project is eligible

for \$512 thousand in principal forgiveness administered through the Rhode Island Infrastructure Bank (RIIB). In addition, it is anticipated that NBC will receive approximately \$740 thousand in grants and incentives for the project. Overall, the project is 16% complete and the facilities are expected to be on-line in June 2018.

### Wastewater Treatment Facility Improvements

This year's CIP includes \$62.9 million in programmed funding for projects related to NBC's wastewater treatment facilities. The major projects at Field's Point include Phase II of the Blower Improvements (10908) which involves the replacement of the aeration blowers to ensure a reliable air source for the aeration treatment process and Final Clarifier Improvements (13000) which includes the replacement of internal drives, scraper mechanisms and launder covers. Construction of the new Maintenance Facilities (13200) addresses the need for new maintenance and equipment storage facilities.



*Photo: Ultraviolet Disinfection System*

The major projects at Bucklin Point include the evaluation of the Ultraviolet Disinfection system to determine if the system should be replaced, upgraded or substituted with an alternate technology. The existing piping and controls in the Digester Building will be replaced as part of Digester and Miscellaneous Improvements Project (81400). Also included in the CIP is construction of the Operations and Maintenance Support Facilities (81500) which will include a new operations building, storage and maintenance facilities at this location. The Biogas Reuse Project (12000) mentioned above is also at Bucklin Point.

On a system-wide basis, this year NBC made a policy decision to program \$500 thousand annually for wastewater treatment facility improvements which will ensure resources are available to address the ongoing improvements required to ensure the integrity of the treatment facilities. Funds are also programmed for new IM Facilities (12400) that may be necessary if NBC is required to assume ownership of the lateral sewers currently owned by local communities in NBC's service area.

Project Number	Project Name	Total Estimated Project Cost
10908	FPWWTF Blower Improvements Phase II	\$ 9,284
12000	BPWWTF Biogas Reuse	8,272
12400	IM Facilities	6,607
12900	FPWWTF Operations and Lab Building Reuse	760
13000	FPWWTF Final Clarifier Improvements	4,137
132000	FPWWTF Maintenance Facilities	6,448
20000	WWTF Improvements	2,888
20100	FY 17 WWTF Improvements	675
81000	BPWWTF UV Disinfection Improvements	7,289
81400	BPWWTF Digester & Miscellaneous Improvements	1,354
81500	BPWWTF O&M Support Facilities	15,189
<i>Total</i>		<u>\$ 62,903</u>

## Collection System Infrastructure

This CIP includes several collection system infrastructure projects totaling \$37.9 million. The two largest projects include the design and construction of improvements to expand NBC's service area along Greenville Avenue (30460) and Hartford Avenue (30464) in the Town of Johnston. Other interceptor projects include the replacement of a portion of the Moshassuck Valley Interceptor (30444) and increasing the capacity of the Louisquisset Pike Interceptor (30421).



*Photo: NBC's staff utilizing a digger*

In addition, projects such as the Field's Point Drive Interceptor Improvements (30465) and Improvements to Interceptors FY 2017 (30463) address various deficiencies throughout NBC's service area and include sewer lining, point repairs and replacements, outfall pipes and manhole rehabilitation.

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

In FY 2017, NBC completed eight capital projects at a cost of \$44.2 million. One of the largest projects, the 36,790 square foot Water Quality Science Building (11900), was completed at a cost of \$21.9 million. Staff moved into the new state-of-the-art laboratory and environmental analysis facility, in July 2016. Another large project, the Wind Energy Development Turbines (50500) was also completed in FY 2017 at a cost of \$19.0 million. Two turbines were purchased in July 2016 and a third turbine was purchased in September 2016. The three 1.5 MW wind turbines convert wind energy into electricity at an off-site location which is net-metered. The following table shows the completed projects and estimated costs.

Project Number	Project Name	Cost (In thousands)
11900	Water Quality Science Building	\$ 21,906
13100	NBC Energy Efficiency Upgrades	865
81300	BPWWTF Flood Protection	423
1140400	Evaluate NBC Facilities for Climate Resiliency	5
50500	Wind Energy Development Turbines	19,000
30473	Lockbridge and Valley Street Inspection & Cleaning	534
30474	BVI Inspection & Cleaning	80
30462	NBC East Providence Interceptor Improvements	1,381
<b>Total</b>		<b>\$ 44,194</b>

## New Projects

This year's CIP includes eleven new capital projects totaling \$39.0 million. Six of these projects relate to improvements at NBC's Field's Point and Bucklin Point WWTF's. The other new projects are related to NBC's RIPDES permit and the collection system. The new projects and their estimated costs are summarized in the following table and are discussed below.

Project Number	Project Name	Estimated Cost (In thousands)
13200	FPWWTF New Maintenance Facilities	\$ 6,448
20000	WWTF Improvements	2,888
20100	FY 2017 WWTF Improvements	675
81000	BPWWTF UV Disinfection	7,289
81400	BPWWTF Digester Building Improvements	1,354
81500	BPWWTF O&M Support Facilities	15,189
40400	FPWWTF Facilities Plan Update	255
40500	NBC System-wide RIPDES Flow Monitoring	848
30475	Providence-South Providence IIC	662
30464	Johnston Sewer Improvements/Hartford Avenue	2,429
30465	Field's Point Drive Interceptor Improvements	937
<b>Estimated Total</b>		<b>\$ 38,974</b>

With respect to the new WWTF projects, Project 13200 includes design and construction of a new maintenance building and support facilities for equipment storage at Field's Point. Project 20000 reflects funding of a "placeholder" for potential facility improvements at both of NBC's WWTFs. Project 20100 includes improvements to the hypochlorite tank pad and chlorination building, rehabilitation of the aeration tank wall, and the installation of an energy recovery system within the grit building at Field's Point. The three remaining WWTF projects are for improvements at the Bucklin Point WWTF and include Project 81000 to address the Ultraviolet Disinfection system, Project 81400 to replace the digester piping and Project 81500 to evaluate and construct operations, maintenance, and equipment storage facilities at Bucklin Point.

Funding has been included for two new projects related to NBC's RIPDES Permits. Project 40400 is the development of a Facilities Plan Update at Field's Point to determine the maximum Nitrogen and BOD loads that can be accepted at the facility while ensuring compliance with the permit. Project 40500 involves condition assessments of existing flow monitoring equipment located throughout NBC's collection system in order to ensure consistent and accurate monitoring of flow conditions and measurements in accordance with the RIPDES permit.

The CIP also contains three new projects related to the NBC's collection system infrastructure. These projects include the inspection and cleaning of interceptors as part of Project 30475, an extension of NBC's interceptor along Hartford Avenue in the Town of Johnston under Project 30464, and interceptor restoration along Field's Point Drive, adjacent to the FPWWTF as part of Project 30465.



## Financial Impact

NBC recognizes the importance of planning for capital expenditures and is committed to minimizing ratepayer impact through an assessment of both operating costs and financing impacts. NBC has incorporated an expanded analysis and presentation of these impacts in the CIP. The project specific information is included in the following discussion rather than on the individual project sheets.

### FY 2018 Operating Budget Impacts

Certain capital improvements will directly impact the operating budget either through increased revenue, increased expense, or cost savings. NBC has identified these projects that have a significant impact on NBC's operating budget. 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 CIP.

Impact	Description	Reflection 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

NBC has identified the operating and expense impacts related to ten capital projects that are anticipated to be completed during FY 2018. As is shown below, eight of the projects scheduled for completion in FY 2018 are inspections, restorations, or studies and are not anticipated to have any operating impacts or start-up costs. Two projects, the BPWWTF Biogas Reuse, and the Johnston Sewer Improvements/Greenville Avenue are projected to have operating impacts with the combined impact of these projects resulting in a \$31,318 increase in revenue and \$47,483 in savings.

Estimated Operating Impact of Projects to Be Completed in Fiscal Year 2018			
Capital Project	Savings	Increased Expense	Increased Revenue
FPWWTF- Operations and Lab Building Reuse	\$ -	\$ -	\$ -
Upper Bay Dissolved Oxygen Evaluation	-	-	-
Greenhouse Gas Study	-	-	-
NBC Interceptor Easement Restoration, AVI	-	-	-
Municipal Lateral Sewer Acquisition Impact	-	-	-
FPWWTF Facilities Plan Update	-	-	-
Providence - South Providence Interceptor Inspection Cleaning	-	-	-
Johnston Sewer Improvements/Hartford Avenue	-	-	-
BPWWTF Biogas Reuse	(47,483)	-	7,985
Johnston Sewer Improvements/Greenville Avenue	-	-	23,333
<b>Total</b>	<b>\$ (47,483)</b>	<b>\$ -</b>	<b>\$ 31,318</b>

\* Start-up costs carried in project cost

### BPWWTF – Biogas Reuse

The BPWWTF – Biogas Reuse Project (12000) consists of the installation of a combined heat and power system that will burn the biogas generated from the anaerobic biosolids digestion process. This system is projected to generate approximately 4.8 million KWh of electricity annually to be used on-site. This program has secondary benefits such as a reduction in greenhouse gas emissions associated with electricity production. This project will generate an estimated purchased electricity savings of \$569,793 and REC revenue of \$95,819 annually. The figures in the FY 2018 column of the table reflect one month of operation. NBC estimates annual maintenance cost of \$165,000 in future years. All start-up costs are included in the project.

BPWWTF Biogas Reuse		
	FY 2018	Annual
<b>Increased Revenue</b>		
Sale of Renewable Energy Credits	\$ 7,985	\$ 95,819
<b>Revenue Impact</b>	<b>\$ 7,985</b>	<b>\$ 95,819</b>
<b>Savings</b>		
Electricity	(47,483)	(569,793)
<b>Increased Expense</b>		
Maintenance Contract	-	165,000
<b>Net O&amp;M Impact</b>	<b>\$ (47,483)</b>	<b>\$ (404,793)</b>

### Johnston Sewer Improvements/Greenville Avenue

The Johnston Sewer Improvements/Greenville Avenue Project (30460) includes the design and construction of improvements to expand sewers in the Town of Johnston. This project involves the installation of approximately 6,750 linear foot of 12" pipe along Greenville Avenue in Johnston. The revenue generated as a result of new customers connecting to NBC's system is estimated at \$23,333 in FY 2018 and \$280,688 on an annual basis.

Johnston Sewer Improvements/Greenville Avenue		
	FY 2018	Annual
<b>Increased Revenue</b>		
User Fees	\$ 23,333	\$ 280,688
<b>Revenue Impact</b>	<b>\$ 23,333</b>	<b>\$ 280,688</b>

### FY 2019-2023 Revenue and Expense Impacts

The table below summarizes the projected impact of new capital projects scheduled to become operational in FY 2019-2023. Projects that involve inspection, studies, cleaning and rehabilitation generally do not have operating cost impacts and are excluded from this list. The estimated impact as a result of these projects is increased revenue of \$240 thousand, savings of \$3.1 million and increased expense of \$3.1 million. Projects with revenue, savings or expense impacts are discussed in the following section.

CIP Impacts FY 2019-2023	Fiscal Year	Savings	Increased Expense	Increased Revenue
Field's Point Drive Interceptor Improvements	2019	\$ -	\$ 10,000	\$ -
Louisquisset Pike Interceptor Replacement	2020	-	10,000	240,000
FPWWTF - Blower Improvements Phase II	2020	(2,864,264)	2,864,264	-
BPWWTF UV Disinfection Improvements	2022	(216,100)	10,600	-
IM Facilities	2022	-	97,288	-
FPWWTF Maintenance Facilities	2023	-	63,000	-
Johnston Sewer Improvements/Hartford Avenue	2023	-	10,000	-

### Field's Point Drive Interceptor Improvements

The Field's Point Drive Interceptor Improvements Project (30465) is scheduled to be completed in FY 2019. The project consists of replacing a collapsed sewer pipe in one location and repairing broken pipe in several other locations. In other locations the pipe is cracked and will need to be lined. These measures will restore the sewer to its original capacity. The estimated operating expense is \$10,000 every 5 years for ongoing maintenance of the collection system.

Field's Point Drive Interceptor Improvements			
	Savings	Increased Expense	Increased Revenue
Maintenance	\$ -	\$ 10,000	\$ -
<b>Total</b>	<b>\$ -</b>	<b>\$ 10,000</b>	<b>\$ -</b>

### Louisquisset Pike Interceptor Replacement

Louisquisset Pike Interceptor Replacement Project (30421) is scheduled to be completed in FY 2020. The project consists of the construction of a larger replacement interceptor in the northern section of the Town of Lincoln to accommodate the additional flow. Preliminary projections indicate that the flow will generate additional sewer user fee revenue of \$240,000 annually. There are no start-up costs associated with the construction of this interceptor. Operating costs are \$10,000 every five years for maintenance.

Louisquisset Pike Interceptor			
	Savings	Increased Expense	Increased Revenue
User Fees	\$ -	\$ -	\$ 240,000
Maintenance	-	10,000	-
<b>Total</b>	<b>\$ -</b>	<b>\$ 10,000</b>	<b>\$ 240,000</b>

### FPWWTF Blower Improvements Phase II

The FPWWTF Blower Improvements Phase II Project (10908) involves the replacement of the Field's Point aeration blowers to provide a reliable air source for the aeration treatment process. The estimated ongoing operation expense for the blowers is \$2,864,264. Since these blowers are replacing existing equipment, the projected savings is \$2,864,264 and the net impact is zero. The new blowers are scheduled to become operational in FY 2020 and the start-up costs are carried in the project.

FPWWTF Blower Improvements Phase II			
	Savings	Increased Expense	Increased Revenue
Electricity	\$ (2,853,764)	\$ 2,853,764	\$ -
Water	(500)	500	-
Maintenance	(10,000)	10,000	-
<b>Total</b>	<b>\$ (2,864,264)</b>	<b>\$ 2,864,264</b>	<b>\$ -</b>



### BPWWTF UV Disinfection Improvements

The BPWWTF UV Disinfection Improvements Project (81000) involves the evaluation, design, and construction of a new UV disinfection system at the BPWWTF should it be determined to be in the best interest of NBC. Based upon the assumption that the assessment will result in the implementation of newer, lower cost technology, the project is estimated to result in \$205,500 annual net savings related to lower electricity use and fewer lamp replacements. Completion of this project is scheduled for FY 2022.

BPWWTF UV Disinfection Improvements			
	Savings	Increased Expense	Increased Revenue
Electricity	\$ (201,100)	\$ -	\$ -
Chemicals	-	10,600	-
Labor	(15,000)	-	-
<b>Total</b>	<b>\$ (216,100)</b>	<b>\$ 10,600</b>	<b>\$ -</b>

### IM Facilities

The IM Facilities Project (12400) is scheduled for completion in FY 2022. This project involves 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 communities 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 additional operating expense associated with the new building is approximately \$97,288 annually. All project startup costs, such as staff and equipment relocation are included in the project cost.

IM Facilities			
	Savings	Increased Expense	Increased Revenue
Electricity	\$ -	\$ 23,180	\$ -
Natural Gas	-	39,072	-
Water	-	3,000	-
Maintenance	-	32,036	-
<b>Total</b>	<b>\$ -</b>	<b>\$ 97,288</b>	<b>\$ -</b>

### FPWWTF Maintenance Facilities

The FPWWTF Maintenance Facilities Project (13200) consists of the design and construction of a new maintenance building and facilities for storage of equipment at the FPWWTF. While not critical to plant operations it will improve efficiency because the existing maintenance building, built nearly 117 years ago, is small and outdated. This new facility has an estimated annual operating expense of \$63,000.

FPWWTF Maintenance Facilities			
	Savings	Increased Expense	Increased Revenue
Electricity	\$ -	\$ 20,000	\$ -
Natural Gas	-	40,000	-
Water	-	3,000	-
<b>Total</b>	<b>\$ -</b>	<b>\$ 63,000</b>	<b>\$ -</b>

### Johnston Sewer Improvements/Hartford Avenue

The Johnston Sewer Improvements/Hartford Avenue Project (30464) will extend the Hartford Avenue sewer approximately 5,400 feet to the area west of Route 295 to enable development within the Town of Johnston in conformance with the approved facilities plan. NBC anticipates that it will need to expend approximately \$10,000 every 5 years for ongoing maintenance of the collection system.

Johnston Sewer Improvements/Hartford Avenue			
	Savings	Increased Expense	Increased Revenue
Maintenance	\$ -	\$ 10,000	\$ -
<b>Total</b>	<b>\$ -</b>	<b>\$ 10,000</b>	<b>\$ -</b>

### Projects in Progress or Initiated but Not Completed in FY 2019-2023

#### BPWWTF O&M Support Facilities

The BPWWTF O&M Support Facilities Project (81500) includes the evaluation and construction of improvements to the Operations & Maintenance Support Facilities at the BPWWTF. The facilities are expected to be operational in FY 2026 with an estimated annual operating expense of \$71,000.

BPWWTF O&M Support Facilities			
	Savings	Increased Expense	Increased Revenue
Electricity	\$ -	\$ 20,000	\$ -
Natural Gas	-	40,000	-
Water	-	6,000	-
Maintenance	-	5,000	-
<b>Total</b>	<b>\$ -</b>	<b>\$ 71,000</b>	<b>\$ -</b>

#### CSO Phase III Facilities

No operating cost impacts related to the CSO Phase III Facilities are anticipated to occur until FY 2028. For planning purposes, however, the CIP identifies estimated annual operating expense for the first phase of the CSO Phase III A Facilities based upon pre-design estimates. These costs include electricity to pump flow from the Pawtucket tunnel pump station and provide dehumidification, natural gas for heat in the pump station, screening and grit disposal, biosolids, water, treatment chemicals, and maintenance. Additional labor costs are anticipated to operate the facilities bringing the total estimated operating cost up to \$1.0M annually. The start-up costs are included in the project. The operating expense of the remaining three phases will be determined once the design plans are available.

CSO Phase III Facilities				
Capital Project	Projected Year Facilities Online	Savings	Increased Expense	Increased Revenue
Phase III CSO Facilities - Phase A				
Electricity	FY 2026	\$ -	\$ 646,950	\$ -
Natural Gas	FY 2026	-	64,240	-
Screening & Grit	FY 2026	-	49,660	-
Biosolids	FY 2026	-	194,866	-
Water	FY 2026	-	968	-
Hypochlorite	FY 2026	-	12,110	-
Sodium Bisulfite	FY 2026	-	4,942	-
Maintenance	FY 2026	-	29,033	-
Personnel	FY 2026	-	9,811	-
	<b>Total</b>	<b>\$ -</b>	<b>\$ 1,012,580</b>	<b>\$ -</b>
Phase III CSO Facilities - Phase B	FY 2031	None	TBD	None
Phase III CSO Facilities - Phase C	FY 2037	None	TBD	None
Phase III CSO Facilities - Phase D	FY 2042	None	TBD	None

## Project Financing

In addition to operating cost impacts, the debt service related to the financing the NBC's capital improvement program also impacts the operating budget. NBC's operating budget includes principal and interest payments as well as a debt service coverage line item. 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 in the Long-Term Plan section of the Operating Budget. Traditionally, NBC has financed the capital improvement program through the issuance of debt.

## CIP Funding Sources

NBC has four sources of capital funding as follows:

Funding Source	Description
Restricted Account	Transfers from Stabilization Account – Prior Year Debt Coverage
Grant and Project Reimbursement Account	State or federal grant funds, capital project reimbursements, energy efficiency incentives, and transfers from the Renewal and Replacement Fund
State Revolving Fund Loans through RIIB	Borrowings from the RIIB backed by NBC tax-exempt revenue bonds - traditionally subsidized at 1/3 of NBC's market rate
Revenue Bonds	NBC tax-exempt debt issuance

### Restricted Account

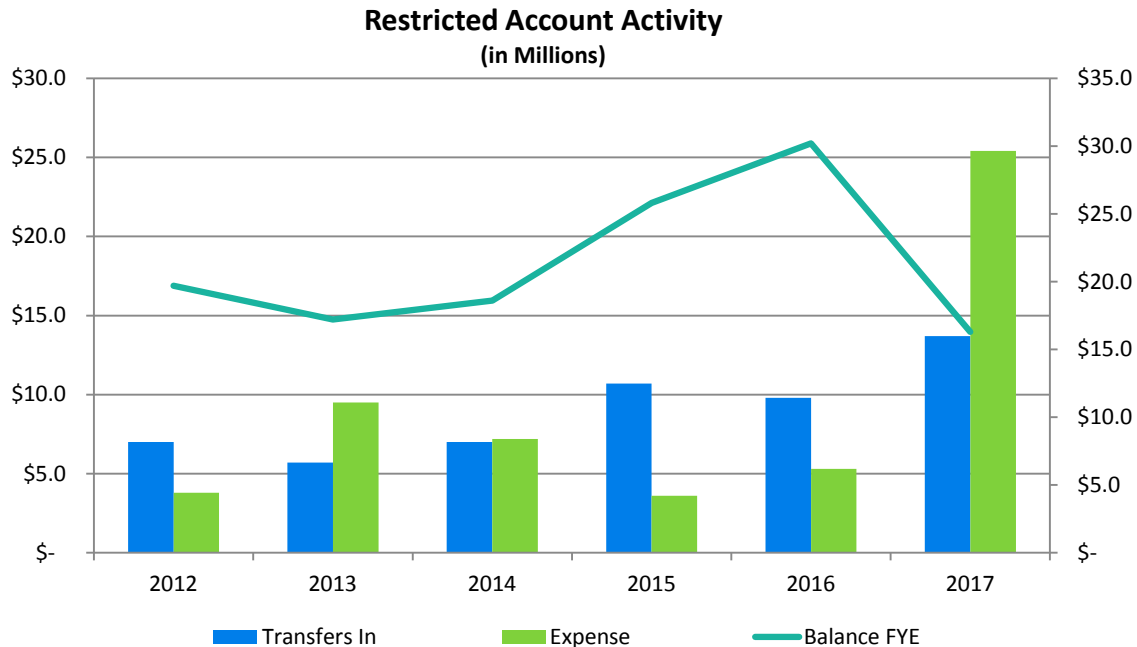
The NBC is regulated by the Rhode Island Public Utilities Commission (PUC) and the PUC has permitted the use of prior year debt service coverage to finance "pay as you go" capital. NBC typically programs these funds for interceptor cleaning and inspection, studies, land and other projects that may not be eligible or reachable for funding from the RIIB. NBC may also fund initial project costs from the Restricted Account until SRF funds become available.

In FY 2017 NBC funded approximately \$25.2 million from the Restricted Account, which is significantly more than in prior years. This included costs of \$18.4 million for the remainder of the purchase and installation of the three Wind Energy Development (WED) Turbines. In addition, NBC funded \$3.9 million of the CSO Phase III Facilities design costs with restricted funds. Although NBC has borrowed funds through the RIIB to finance the CSO Phase III Facilities, RIDEM has deemed these costs not yet eligible for SRF funding since RIDEM has not approved the revised plan. NBC will continue to fund the CSO Phase III design costs with restricted funds until RIDEM approves the plan and will then request reimbursement from unspent SRF proceeds. A listing of the projects and amounts that were funded with restricted funds in FY 2017 is as follows:

FY 2017 Restricted Account Expenditures*	
Major Project	Amount
WED Turbines	\$ 18,419,254
CSO Phase III Facilities	3,881,246
Collection System Infrastructure	1,305,308
WWTF Improvements	1,295,115
Other	321,681
<b>Total</b>	<b>\$ 25,222,604</b>

\* Based on 11 months

The projected restricted account balance available on July 1, 2017 is \$16.3 million. NBC estimates that the carry-forward transfer from FY 2017 will be \$12.6 million, bringing the restricted account balance available for capital projects in FY 2018 to \$28.9 million. This amount is in addition to the programmed funding of the FY 2018 Operating Capital. The following chart shows the transfers into the Restricted Account, Capital Projects expense and Fiscal Year End (FYE) Restricted Account balance by fiscal year.



### State Revolving Fund Loans – RIIB

The NBC's least cost source of debt financing is 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 the NBC submits a loan application in April for a loan that will be executed in June of the next 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. NBC does not directly receive the loan proceeds, rather the invoices are submitted to RIIB for payment. In order for a project cost to be eligible for payment, NBC must receive a Certificate of Approval (COA) from RIDEM.

NBC has unexpended proceeds from the 2015 Series B and 2016 Series A bonds. Actual cash draws have been below projection due to an outward shift in project schedules as well as the temporary ineligibility of CSO Phase III A design costs. The table below shows the SRF Expenditures in FY 2017.

FY 2017 SRF Expenditures*		
Major Project	2015 Series B	2016 Series B
Water Quality Science Building	\$ 2,572,296	\$ -
BPWWTF Biogas Reuse	542,340	-
CSO Phase II Facilities	1,272,878	-
CSO Phase III Facilities	177,259	-
Collection System Infrastructure	2,001,473	-
WWTF Improvements	471,744	739,971
<b>Total</b>	<b>\$ 7,037,989</b>	<b>\$ 739,971</b>

\* based on 11 months

Below is a chart that shows NBC's outstanding debt from the RIIB.

RIIB SRF Loans				
Bond Issue	Interest Rate*	Outstanding	Final Maturity	
1997 Series - \$8.150M	3.14473%	\$ 2,129,247	September 1, 2020	
1999 Series - \$23.955M	3.03200%	8,839,999	September 1, 2021	
2001 Series - \$57M	2.67100%	16,280,000	September 1, 2022	
2002 Series - \$57M	1.07850%	23,421,360	September 1, 2023	
2003 Series - \$40M	1.34900%	19,849,000	September 1, 2025	
2004 Series B - \$40M	1.40400%	25,125,000	September 1, 2025	
2005 Series B - \$30M	1.39700%	16,402,000	September 1, 2026	
2006 Series A - \$30M	1.27000%	17,781,000	September 1, 2027	
2007 Series B - \$25M	1.47500%	18,798,000	September 1, 2029	
2009 Series A - \$55M	0.87700%	43,301,677	September 1, 2031	
2010 Series A - \$2M	0.52200%	1,280,371	September 1, 2030	
2010 Series B - \$20M	2.41300%	15,890,000	September 1, 2031	
2011 Series A - \$30M	2.25900%	23,629,263	September 1, 2032	
2012 Series A - \$25.75M	2.08800%	22,175,818	September 1, 2033	
2013 Series B - \$25M	2.09200%	22,801,946	September 1, 2034	
2014 Series A - \$45M	2.46700%	43,143,000	September 1, 2035	
2015 Series B - \$41.7535M	2.54900%	41,241,430	September 1, 2045	
2016 Series A - \$23.0M	1.96700%	23,000,000	September 1, 2037	
		<b>\$ 385,089,111</b>		

\* RIIB loans have a 0.5% service fee

### Revenue Bonds

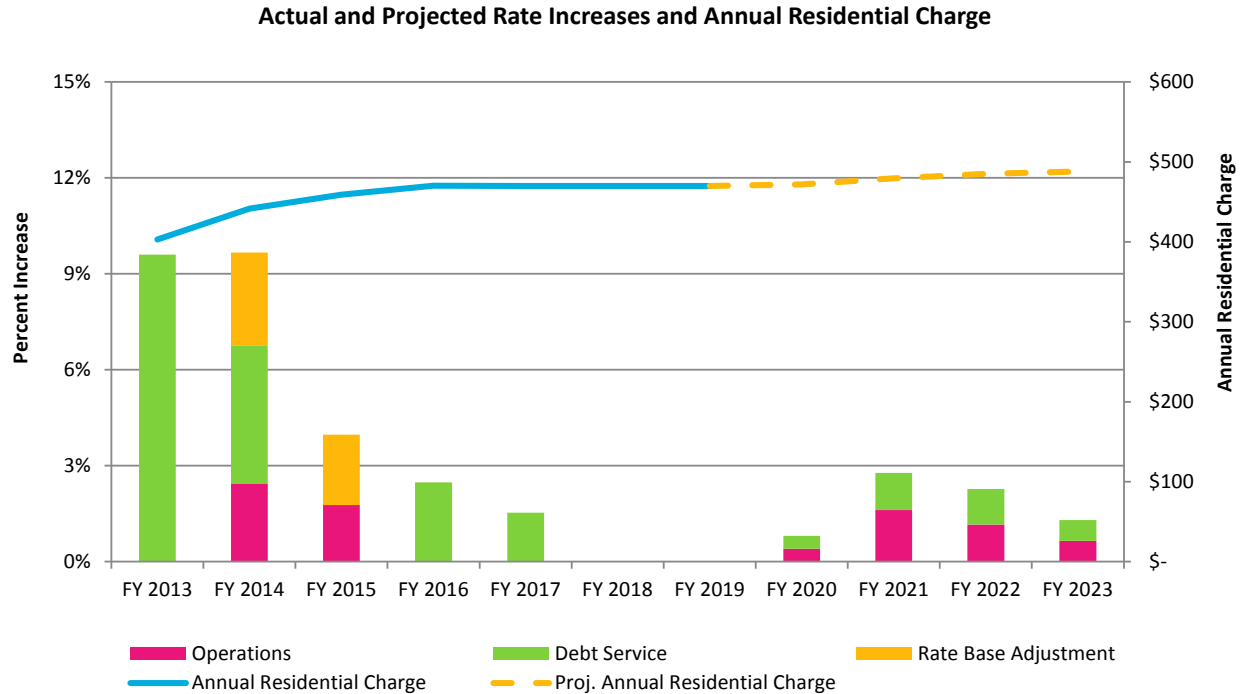
Because the statewide demand for SRF loans exceeds the RIIB lending capacity, NBC issues revenue bonds to the extent that SRF funds are not available. NBC did not have any unspent proceeds in FY 2017. The table below shows NBC's outstanding revenue bonds.

Revenue Bonds				
Bond Issue	Interest Rate	Outstanding	Final Maturity	
2008 Series A - \$66.0M	Variable	\$ 56,465,000	August 1, 2035	
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	September 1, 2037	
		<b>\$ 242,820,000</b>		

### Impact of CIP Financing

Primarily as a result of the modified schedule for the CSO Phase III Facilities, no additional debt financing is anticipated to be needed until FY 2020. In fiscal years 2018 through 2019 NBC will use existing loan proceeds and restricted funds to finance the CIP. More detailed information regarding capital funding sources and uses is included in the Long-Term Plan section of the FY 2018 Operating Budget.

The following chart shows the actual and projected rate increases along with the annual residential charge for FY 2013- FY 2023. Based on projections, it is anticipated that current rates are sufficient to support NBC's operations, debt service and debt service coverage through FY 2019. In FY 2020 rate relief will be required to meet projected higher O&M and debt service costs.



### Capital Project Summary by Fiscal Year

Project Number	Project Name	Project Priority	Pre-Fiscal Year 2018	Fiscal Year 2018	Fiscal Years 2019-2023	Post-Fiscal Year 2023	Total Estimated Project Cost
<b>Wastewater Treatment Facility Improvements</b>							
10908	FPWWTF Blower Improvements Phase II	A	\$ 1,547	\$ 5,246	\$ 2,492	\$ -	\$ 9,284
12000	BPWWTF Biogas Reuse	A	2,265	5,958	49	-	8,272
12400	IM Facilities	C	-	268	6,339	-	6,607
12900	FPWWTF Operations and Lab Building Reuse	A	75	685	-	-	760
13000	FPWWTF Final Clarifier Improvements	A	920	2,925	292	-	4,137
13200	FPWWTF Maintenance Facilities	D	3	396	6,049	-	6,448
20000	WWTF Improvements	B	-	-	2,388	500	2,888
20100	FY 17 WWTF Improvements	B	51	512	112	-	675
81000	BPWWTF UV Disinfection Improvements	B	6	139	7,144	-	7,289
81400	BPWWTF Digester & Miscellaneous Improvements	A	13	1,333	8	-	1,354
81500	BPWWTF O&M Support Facilities	B	-	-	4,018	11,171	15,189
	<i>Subtotal</i>		4,880	17,462	28,890	11,671	62,903
<b>Infrastructure Management</b>							
1100000	Site Specific Study	C	211	-	245	-	457
1140100	River Model Development	C	322	80	135	-	537
1140200	Upper Bay Dissolved Oxygen Evaluation	C	-	300	-	-	300
1140300	Greenhouse Gas Study	C	31	46	-	-	77
1140500	NBC Energy Sustainability	C	42	34	9	-	85
30438	NBC Interceptor Easement Restoration, AVI	A	714	116	-	-	830
30500	NBC Interceptor Easements Restoration, Various Locations	A	-	220	634	-	854
30501	NBC Interceptor Easements Restoration, BVI	B	313	1,069	17	-	1,399
30700	NBC System-wide Facilities Planning	C	-	49	337	-	386
40100	NBC Facility Electrical Improvements	B	-	21	109	-	130
40101	FPWWTF Facility Electrical Improvements	B	21	40	64	-	125
40200	NBC System-wide Inflow Reduction	C	-	-	318	-	318
40300	Municipal Lateral Sewer Acquisition Impact	C	3	293	-	-	296
40400	FPWWTF Facilities Plan Update	A	155	100	-	-	255
40500	NBC System-wide RIPDES Flow Monitoring	C	-	629	219	-	848
	<i>Subtotal</i>		1,812	2,996	2,087	-	6,896
<b>Phase III CSO Facilities</b>							
30800	CSO Phase III A Facilities	A	6,286	14,727	100,994	387,340	509,347
30810	CSO Phase III B Facilities	A	-	-	-	33,522	33,522
30820	CSO Phase III C Facilities	A	-	-	-	166,909	166,909
30830	CSO Phase III D Facilities	A	-	-	-	85,377	85,377
	<i>Subtotal</i>		6,286	14,727	100,994	673,148	795,155
<b>Interceptor Inspection &amp; Cleaning</b>							
30400M	Interceptor Inspection and Cleaning	B	-	51	2,500	500	3,051
30475	Providence - South Providence Interceptor Inspection Cleaning	B	213	449	-	-	662
	<i>Subtotal</i>		213	500	2,500	500	3,713
<b>Interceptor Restoration &amp; Construction</b>							
30400C	Interceptor Restoration and Construction	B	-	-	4,500	1,500	6,000
30421	Louisquisset Pike Interceptor Improvements	C	-	279	3,765	-	4,044
30444	Moshassuck Valley Interceptor	B	491	33	6,511	-	7,035
30457	Providence River Siphon	B	362	89	6,101	-	6,553
30460	Johnston Sewer Improvements/Greenville Avenue	A	1,304	8,022	-	-	9,325
30463	Improvements to Interceptors FY 2017	A	245	1,315	11	-	1,571
30464	Johnston Sewer Improvements/Hartford Avenue	B	17	2,412	-	-	2,429
30465	Field's Point Drive Interceptor Improvements	B	-	177	760	-	937
	<i>Subtotal</i>		2,419	12,327	21,648	1,500	37,894
<b>Total Capital Improvement Program</b>			<b>\$ 15,610</b>	<b>\$ 48,011</b>	<b>\$ 156,119</b>	<b>\$ 686,819</b>	<b>\$ 906,559</b>

Priority	Description
A	Mandated, emergency, critical need or under construction.
B	Required to maintain system reliability and ongoing operation of facilities.
C	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.

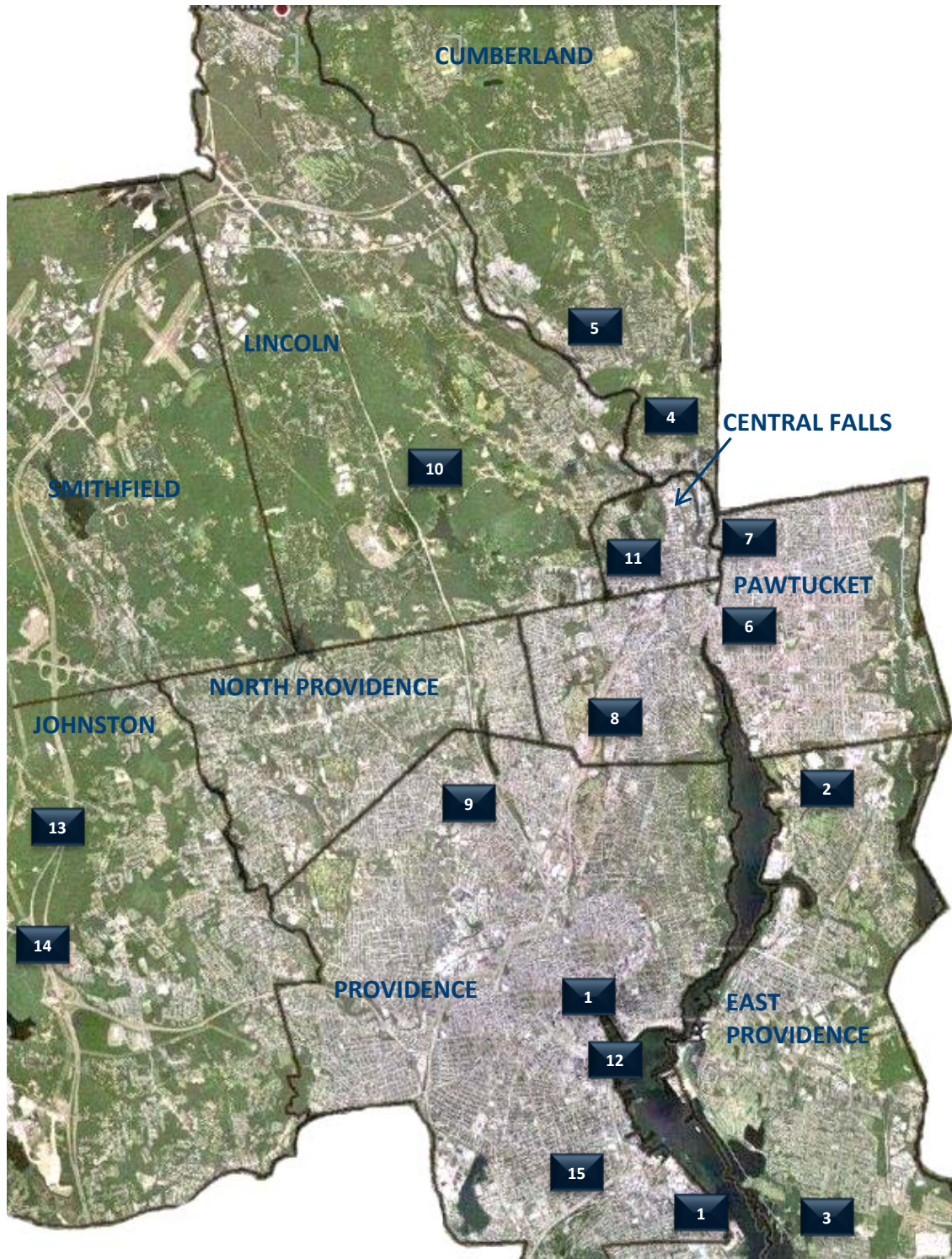
## Capital Improvement Program Project Locations

The capital projects identified in this year's CIP are shown on the map on the following page. The map highlights 15 project locations as identified below. Some projects are System-Wide and noted as SW.

Legend Key	Project Number	Project Name
<b>Wastewater Treatment Facility Improvements</b>		
1	10908	FPWWTF Blower Improvements Phase II
2	12000	BPWWTF - Biogas Reuse
1	12400	New IM Facilities
1	12900	FPWWTF- Operations and Lab Building Reuse
1	13000	FPWWTF Final Clarifier Improvements
1	13200	FPWWTF New Maintenance Facilities
1	20100	FY 2017 WWTF Improvements
2	81000	BPWWTF UV Disinfection
2	81400	BPWWTF Digester Pipe and Miscellaneous Improvements
2	81500	BPWWTF O&M Support Facilities
<b>Infrastructure Management</b>		
3	1100000	Site Specific Study
3	1140100	River Model Development
3	1140200	Receiving Water Compliance Study
1, 2	1140300	Green House Gas Study
SW	1140500	NBC Energy Sustainability
4	30438	NBC Interceptor Easement Restoration - AVI
SW	30500	NBC Interceptor Easements Restoration - Various Locations
5	30501	NBC Interceptor Easements Restoration - BVI
SW	30700	NBC System-wide Facilities Planning
1, 2	40100	NBC Facility Electrical Improvements
1	40101	FPWWTF Facility Electrical Improvements
SW	40200	NBC System-Wide Inflow Reduction
SW	40300	Municipal Lateral Sewer Acquisition Impact
1	40400	FPWWTF Facilities Plan Update-P
SW	40500	NBC System-wide RIPDES Flow Monitoring
<b>Phase III CSO Facilities</b>		
6	30800	CSO Phase III A Facilities
7	30810	CSO Phase III B Facilities
8	30820	CSO Phase III C Facilities
9	30830	CSO Phase III D Facilities
<b>Interceptor Inspection &amp; Cleaning and Restoration and Construction</b>		
15	30475	Providence-South Providence Interceptor Inspection Cleaning
10	30421	Louisquisset Pike Interceptor
11	30444	Moshassuck Valley Interceptor
12	30457	Providence River Siphon
13	30460	Johnston Sewer Improvements
SW	30463	Improvements to Interceptors FY 2017
14	30464	Johnston Sewer Improvements-Hartford
1	30465	Field's Point Drive Interceptor Improvements



# Capital Improvement Program Project Locations



Task Name	2017				2018				2019				2020				2021				2022				
	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	
<b>Wastewater Treatment Facility Improvements</b>																									
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Construction																									
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Construction																									
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Construction																									
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Design																									
Construction																									

Task Name	2017				2018				2019				2020				2021				2022							
	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4		
<b>Infrastructure Management (continued)</b>																												
30501 - Interceptor Easements Restoration, BVI																												
Design																												
Bid/Award Process																												
Construction																												
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Construction																												
40300 - Municipal Sewer Acquisition Impact																												
Planning																												
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Construction																												
30464 - Johnston Sewer Improvements / Hartford																												
Design																												
Construction																												
30465 - Fields Point Drive Interceptor Improvements																												
Design																												
Construction																												

# 10908

## FPWWTF Blower Improvements Phase II

Project Manager: Rich Bernier, P.E.  
 Contractor(s): Hart Engineering, Corp.

Field's Point (Providence, RI)  
 Project Priority: A

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	February-15	April-16	14 Months	\$682
Construction	October-16	May-20	42 Months	9,284
<b>Total Project</b>	<b>February-15</b>	<b>May-20</b>	<b>63 Months</b>	<b>\$9,966</b>



Photo: Aeration tanks at Field's Point

This project involves the replacement of the Field's Point aeration blowers to ensure a reliable air source for the aeration treatment process.

### CIP Window Summary

	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
	\$ 1,547	\$ 5,246	\$ 2,448	\$ 43	\$ -	\$ -	\$ -	\$ -	\$ 9,284

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 81	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 81
Land	-	-	-	-	-	-	-	-	-
A/E Professional	582	-	-	-	-	-	-	-	582
Other	19	-	-	-	-	-	-	-	19
<b>Total</b>	<b>\$ 682</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 682</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 48	\$ 65	\$ 15	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 128
A/E Professional	125	260	60	-	-	-	-	-	445
Construction	1,349	4,851	1,585	43	-	-	-	-	7,828
Contingency	-	-	783	-	-	-	-	-	783
Other	25	70	5	-	-	-	-	-	100
<b>Total</b>	<b>\$ 1,547</b>	<b>\$ 5,246</b>	<b>\$ 2,448</b>	<b>\$ 43</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 9,284</b>

Note: Cash Flow Basis in Thousands



# 12000

## BPWWTF Biogas Reuse

Project Manager: Rich Bernier, P.E.  
 Contractor(s): Daniel O'Connell's Sons

Location: Bucklin Point WWTF (East Providence, RI)  
 Project Priority: A

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	June-07	December-09	30 Months	\$47
Design	April-10	June-14	50 Months	473
Construction	May-14	May-19	60 Months	8,272
<b>Total Project</b>	<b>June-07</b>	<b>May-19</b>	<b>143 Months</b>	<b>\$8,792</b>



Photo: Bucklin Point Digester and Heat Exchanger Building

This project is to install a biogas cogeneration, or combined heat and power system, to burn the biogas generated within the biosolids anaerobic digesters at the Bucklin Point WWTF as a fuel to generate electricity and heat for reuse in the treatment facility. The system is projected to generate approximately 4.8 million kWh of electricity annually.

### CIP Window Summary

	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
	\$ 2,265	\$ 5,958	\$ 49	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,272

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 22	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 22
A/E Professional	25	-	-	-	-	-	-	-	25
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ 47</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 47</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 123	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 123
Land	-	-	-	-	-	-	-	-	-
A/E Professional	323	-	-	-	-	-	-	-	323
Other	27	-	-	-	-	-	-	-	27
<b>Total</b>	<b>\$ 473</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 473</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 229	\$ 99	\$ 4	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 332
A/E Professional	260	60	-	-	-	-	-	-	320
Construction	1,776	5,159	35	-	-	-	-	-	6,970
Contingency	-	600	-	-	-	-	-	-	600
Other	-	40	10	-	-	-	-	-	50
<b>Total</b>	<b>\$ 2,265</b>	<b>\$ 5,958</b>	<b>\$ 49</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 8,272</b>

Note: Cash Flow Basis in Thousands

# 12400

## IM Facilities

Project Manager: Thomas Brueckner, P.E.  
 Contractor(s): N/A

Location: Field's Point (Providence, RI)  
 Project Priority: C

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	March-15	February-19	47 Months	\$555
Construction	March-19	July-21	28 Months	6,052
<b>Total Project</b>	<b>March-15</b>	<b>July-21</b>	<b>76 Months</b>	<b>\$6,607</b>



Photo: Existing 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 along with a garage area and storage yard.

### CIP Window Summary

	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
	\$ -	\$ 268	\$ 319	\$ 5,253	\$ 717	\$ 50	\$ -	\$ -	\$ 6,607

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ 18	\$ 17	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 35
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	250	250	-	-	-	-	-	500
Other	-	-	20	-	-	-	-	-	20
<b>Total</b>	<b>\$ -</b>	<b>\$ 268</b>	<b>\$ 287</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 555</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ 17	\$ 320	\$ 15	\$ -	\$ -	\$ -	\$ 352
A/E Professional	-	-	15	33	2	-	-	-	50
Construction	-	-	-	4,900	50	50	-	-	5,000
Contingency	-	-	-	-	600	-	-	-	600
Other	-	-	-	-	50	-	-	-	50
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 32</b>	<b>\$ 5,253</b>	<b>\$ 717</b>	<b>\$ 50</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,052</b>

Note: Cash Flow Basis in Thousands

# 12900

## FPWWTF Operations and Laboratory Building Reuse

Project Manager: Thomas Brueckner, P.E.  
 Contractor(s): Dome Construction

Location: Service Road (Providence, RI)  
 Project Priority: A

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	July-14	March-17	32 Months	\$42
Design	N/A	N/A	N/A	N/A
Construction	February-17	June-18	16 Months	760
<b>Total Project</b>	<b>July-14</b>	<b>June-18</b>	<b>47 Months</b>	<b>\$802</b>



*Photo: Old Laboratory Building*

With the completion of the Water Quality Science Building, the old Laboratory Building is empty and there is vacated space in the old FPWWTF Operations Building. This project involves the evaluation of these newly vacated spaces for reuse and construction of the recommended improvements.

### CIP Window Summary

	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
<b>Summary</b>	\$ 75	\$ 685	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 760

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 42	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 42
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ 42</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 42</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 25	\$ 60	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 85
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	50	590	-	-	-	-	-	-	640
Contingency	-	10	-	-	-	-	-	-	10
Other	-	25	-	-	-	-	-	-	25
<b>Total</b>	<b>\$ 75</b>	<b>\$ 685</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 760</b>

Note: Cash Flow Basis in Thousands

# 13000

## FPWWTF Final Clarifier Improvements

Project Manager: Rich Bernier, P.E.  
 Contractor(s): Hart Engineering Corp.

Location: Field's Point WWTF (Providence, RI)  
 Project Priority: A

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	July-15	May-16	10 Months	\$50
Construction	May-16	January-19	31 Months	4,137
<b>Total Project</b>	<b>July-15</b>	<b>January-19</b>	<b>42 Months</b>	<b>\$4,187</b>



Photo: Final Clarifier at FPWWTF

This project involves replacement of the internal drive and scraper mechanisms and new launder covers on final clarifiers 1, 2 and 3 and new launder covers on final clarifiers 4-9 at the Field's Point WWTF. This project includes a new Grit Pad, Return Sludge Pump Station #2 HVAC unit replacement and installation of rip rap on the slope along New York Ave.

### CIP Window Summary

Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
\$ 920	\$ 2,925	\$ 292	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,137

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 50	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ 50</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 50</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 46	\$ 48	\$ 10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 104
A/E Professional	-	30	-	-	-	-	-	-	30
Construction	870	2,817	40	-	-	-	-	-	3,727
Contingency	-	-	236	-	-	-	-	-	236
Other	4	30	6	-	-	-	-	-	40
<b>Total</b>	<b>\$ 920</b>	<b>\$ 2,925</b>	<b>\$ 292</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 4,137</b>

Note: Cash Flow Basis in Thousands



# 13200

## FPWWTF Maintenance Facilities

Project Manager: Tom Brueckner, P.E.  
 Contractor(s): N/A

Location: Field's Point & Bucklin Point WWTF  
 Project Priority: D

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	May-17	December-18	19 Months	\$724
Construction	March-19	April-21	25 Months	5,724
<b>Total Project</b>	<b>May-17</b>	<b>April-21</b>	<b>47 Months</b>	<b>\$6,448</b>



*Photo: Existing Maintenance Building*

This project involves the design and construction of a new maintenance building and support facilities for equipment storage at the FPWWTF. While not critical to plant operations, it will improve efficiency in maintenance support because the existing maintenance building was built nearly 117 years ago and is outdated.

### CIP Window Summary

Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
\$ 3	\$ 396	\$ 764	\$ 2,611	\$ 2,674	\$ -	\$ -	\$ -	\$ 6,448

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 3	\$ 38	\$ 18	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 59
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	342	282	-	-	-	-	-	624
Other	-	16	25	-	-	-	-	-	41
<b>Total</b>	\$ 3	\$ 396	\$ 325	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 724

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ 17	\$ 60	\$ 55	\$ -	\$ -	\$ -	\$ 132
A/E Professional	-	-	6	24	22	-	-	-	52
Construction	-	-	416	2,497	2,087	-	-	-	5,000
Contingency	-	-	-	-	500	-	-	-	500
Other	-	-	-	30	10	-	-	-	40
<b>Total</b>	\$ -	\$ -	\$ 439	\$ 2,611	\$ 2,674	\$ -	\$ -	\$ -	\$ 5,724

Note: Cash Flow Basis in Thousands

## 20000

### WWTF Improvements

Project Manager: Thomas Brueckner, P.E.  
Contractor(s): N/A

Location: Field's Point & Bucklin Point  
Project Priority: B

#### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	N/A	N/A	N/A	N/A
Construction	March-18	Ongoing	Ongoing	\$2,888
<b>Total Project</b>	<b>March-18</b>	<b>Ongoing</b>	<b>Ongoing</b>	<b>\$2,888</b>



Photo: Aeration Tank Pumps

Project 20000 reflects funding of potential facility improvements at NBC's WWTFs to comply with current and future regulatory requirements and ensure uninterrupted wastewater treatment processing, 24 hours per day and 365 days per year. As new improvement projects are identified, they will be given a unique project number and draw funding from the funds available in Project 20000.

#### CIP Window Summary

	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
	\$ -	\$ -	\$ 388	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$ 2,888

#### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

#### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

#### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -		\$ 46	\$ 58	\$ 58	\$ 58	\$ 58	\$ 58	\$ 336
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	-	-	327	422	422	422	422	422	2,437
Contingency	-	-	-	-	-	-	-	-	-
Other	-	-	15	20	20	20	20	20	115
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 388</b>	<b>\$ 500</b>	<b>\$ 500</b>	<b>\$ 500</b>	<b>\$ 500</b>	<b>\$ 500</b>	<b>\$ 2,888</b>

Note: Cash Flow Basis in Thousands

## 20100

### FY 2017 WWTF Improvements

Project Manager: Thomas Brueckner, P.E.  
Contractor(s): N/A

Location: 2 Ernest Street, Providence, RI  
Project Priority: B

#### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	N/A	N/A	N/A	N/A
Construction	February-17	August-18	17 Months	\$675
<b>Total Project</b>	<b>February-17</b>	<b>August-18</b>	<b>17 Months</b>	<b>\$675</b>



Photo: Hypochlorite Tank Pad

Project 20100 involves improvements to the hypochlorite tank pad and chlorination building. Other improvements include rehabilitation of the aeration tank wall, installation of an energy recovery system for air handling and replacement of piping in the grit building.

#### CIP Window Summary

	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
	\$ 51	\$ 512	\$ 112	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 675

#### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

#### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

#### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 20	\$ 60	\$ 15	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 95
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	31	432	57	-	-	-	-	-	520
Contingency	-	-	40	-	-	-	-	-	40
Other	-	20	-	-	-	-	-	-	20
<b>Total</b>	\$ 51	\$ 512	\$ 112	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 675

Note: Cash Flow Basis in Thousands

# 81000

## BPWWTF UV Disinfection Improvements

Project Manager: Thomas Brueckner, P.E.  
Contractor(s): N/A

Location: Bucklin Point WWTF (East Providence, RI)  
Project Priority: B

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	October-14	August-15	10 Months	\$26
Design	May-17	April-19	23 Months	360
Construction	October-19	October-21	24 Months	6,929
<b>Total Project</b>	<b>October-14</b>	<b>October-21</b>	<b>84 Months</b>	<b>\$7,315</b>



Photo: Ultraviolet Disinfection System

This project is to evaluate the current Ultraviolet (UV) Disinfection system at Bucklin Point and determine a system replacement/upgrade or use of an alternate technology. 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 Summary

Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
\$ 6	\$ 139	\$ 226	\$ 2,128	\$ 3,140	\$ 1,650	\$ -	\$ -	\$ 7,289

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5
A/E Professional	20	-	-	-	-	-	-	-	20
Other	2	-	-	-	-	-	-	-	2
<b>Total</b>	<b>\$ 26</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 26</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 6	\$ 34	\$ 30	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 70
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	100	150	-	-	-	-	-	250
Other	-	5	35	-	-	-	-	-	40
<b>Total</b>	<b>\$ 6</b>	<b>\$ 139</b>	<b>\$ 215</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 360</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ 8	\$ 82	\$ 84	\$ 28	\$ -	\$ -	\$ 202
A/E Professional	-	-	3	36	36	12	-	-	87
Construction	-	-	-	2,000	3,000	1,000	-	-	6,000
Contingency	-	-	-	-	-	600	-	-	600
Other	-	-	-	10	20	10	-	-	40
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 11</b>	<b>\$ 2,128</b>	<b>\$ 3,140</b>	<b>\$ 1,650</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,929</b>

Note: Cash Flow Basis in Thousands

# 81400

## BPWWTF Digester & Miscellaneous Improvements

Project Manager: Rich Bernier, P.E.  
 Contractor(s): Hart Engineering Corp

Location: Bucklin Point WWTF (East Providence, RI)  
 Project Priority: A

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	N/A	N/A	N/A	N/A
Construction	December-16	February-19	26 Months	\$1,354
<b>Total Project</b>	<b>December-16</b>	<b>February-19</b>	<b>26 Months</b>	<b>\$1,354</b>



Photo: Existing Digester Methane Piping

The existing piping in the Digester Building was installed nearly 60 years ago and has been deemed deficient. This project involves replacement of existing digester methane piping and controls.

### CIP Window Summary

Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
\$ 13	\$ 1,333	\$ 8	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,354

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 13	\$ 59	\$ 2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 74
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	-	1,194	6	-	-	-	-	-	1,200
Contingency	-	60	-	-	-	-	-	-	60
Other	-	20	-	-	-	-	-	-	20
<b>Total</b>	\$ 13	\$ 1,333	\$ 8	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,354

Note: Cash Flow Basis in Thousands

# 81500

## BPWWTF O&M Support Facilities

Project Manager: Thomas Brueckner, P.E.  
Contractor(s): N/A

Location: Bucklin Point WWTF (East Providence, RI)  
Project Priority: B

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	September-18	March-20	18 Months	\$309
Design	June-20	June-22	23 Months	1,315
Construction	November-22	October-25	35 Months	13,565
<b>Total Project</b>	<b>September-18</b>	<b>October-25</b>	<b>85 Months</b>	<b>\$15,189</b>



Photo: O&M Support Facilities

This project includes the evaluation and construction of improvements required to the Operations & Maintenance Support Facilities at the BPWWTF. The primary need to be addressed will be planning, development and construction of operations and maintenance buildings and to provide a new operations building, storage building and maintenance facilities.

### CIP Window Summary

Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
\$ -	\$ -	\$ 102	\$ 210	\$ 646	\$ 666	\$ 2,394	\$ 11,171	\$ 15,189

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ 32	\$ 27	\$ -	\$ -	\$ -	\$ -	\$ 59
A/E Professional	-	-	60	140	-	-	-	-	200
Other	-	-	10	40	-	-	-	-	50
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 102</b>	<b>\$ 207</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 309</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ 3	\$ 36	\$ 36	\$ -	\$ -	\$ 75
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	-	-	600	600	-	-	1,200
Other	-	-	-	-	10	30	-	-	40
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3</b>	<b>\$ 646</b>	<b>\$ 666</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,315</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 42	\$ 168	\$ 210
A/E Professional	-	-	-	-	-	-	21	84	105
Construction	-	-	-	-	-	-	2,331	9,669	12,000
Contingency	-	-	-	-	-	-	-	1,200	1,200
Other	-	-	-	-	-	-	-	50	50
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,394</b>	<b>\$ 11,171</b>	<b>\$ 13,565</b>

Note: Cash Flow Basis in Thousands

# 1100000

## Site Specific Study

Project Manager: John Motta  
 Contractor(s): N/A

Location: NBC Receiving Waters  
 Project Priority: C

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	June-03	June-19	192 Months	\$457
Construction	N/A	N/A	N/A	N/A
<b>Total Project</b>	<b>June-03</b>	<b>June-19</b>	<b>192 Months</b>	<b>\$457</b>



Photo: NBC Staff Collecting Samples

Preliminary work for the Site Specific Study required by NBC's RIPDES permit was completed in FY 2003 and final results were submitted to RIDEM in FY 2004. This study characterized the level of dissolved and total metals in the receiving waters at both Field's Point and Bucklin Point. The data obtained from this study was used for project 1140100, as well as by NBC and RIDEM in the joint development of new discharge permits and consent agreements for both plants. RIDEM is currently developing new RIPDES permits for each WWTF. As a result, new studies may be required as part of the re-permitting process if lower limits are proposed.

### CIP Window Summary

Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
\$ 211	\$ -	\$ 245	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 457

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 16	\$ -	\$ 234	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 250
Land	-	-	-	-	-	-	-	-	-
A/E Professional	163	-	6	-	-	-	-	-	169
Other	33	-	5	-	-	-	-	-	38
<b>Total</b>	<b>\$ 211</b>	<b>\$ -</b>	<b>\$ 245</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 457</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-
Contingency	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

Note: Cash Flow Basis in Thousands



# 1140100

## River Model Development

Project Manager: Thomas Uva  
 Contractor(s): Kincaid Consulting

Location: NBC Receiving Waters  
 Project Priority: C

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	March-05	June-21	195 Months	\$537
Construction	N/A	N/A	N/A	N/A
<b>Total Project</b>	<b>March-05</b>	<b>June-21</b>	<b>195 Months</b>	<b>\$537</b>

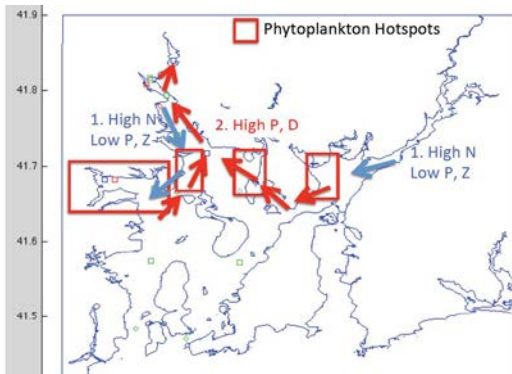


Photo: Map of phytoplankton flow dynamics seen in the ROMS biological model.

NBC has partnered with the University of Rhode Island (URI) Graduate School of Oceanography (GSO) and Kincaid Consulting to develop the Regional Ocean Modeling System (ROMS) for the Providence and Seekonk Rivers and Narragansett Bay. This computer model tracks the circulation and transport of nutrients in the Bay and determines how changing nitrogen loads affect the biology and water quality of the NBC receiving waters and Narragansett Bay. Work on the physical and biological model is ongoing to further improve model predictions and to validate model accuracy, which is necessary for acceptance by stakeholders and regulators.

### CIP Window Summary

	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
<b>Summary</b>	\$ 322	\$ 80	\$ 35	\$ 55	\$ 45	\$ -	\$ -	\$ -	\$ 537

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 56	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 56
Land	-	-	-	-	-	-	-	-	-
A/E Professional	228	80	35	35	45	-	-	-	423
Other	38	-	-	20	-	-	-	-	58
<b>Total</b>	\$ 322	\$ 80	\$ 35	\$ 55	\$ 45	\$ -	\$ -	\$ -	\$ 537

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-
Contingency	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Note: Cash Flow Basis in Thousands



**1140200**

**Upper Bay Dissolved Oxygen Evaluation**

Project Manager: Thomas Uva  
 Contractor(s): N/A

Location: NBC Receiving Waters  
 Project Priority: C

**Total Project Duration/Cost**

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	July-17	June-18	11 Months	\$300
Construction	N/A	N/A	N/A	N/A
<b>Total Project</b>	<b>July-17</b>	<b>June-18</b>	<b>11 Months</b>	<b>\$300</b>



Project 1140200 is to evaluate the effect of nitrogen reductions on dissolved oxygen levels in upper Narragansett Bay. The project involves the collection of data and the development of a comprehensive report that will assist NBC with information relative to potential permit requirements. This project also entails the engagement of consultants and legal counsel related to permit requirements that would mandate NBC to make additional capital investments.

*Photo: Dissolved inorganic nitrogen concentration in the upper bay in relation to amount of low dissolved oxygen events at Bullock's Reach.*

**CIP Window Summary**

	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
	\$ -	\$ 300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 300

**Projected Expenditures - Planning**

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

**Projected Expenditures - Design**

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ 150	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 150
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	150	-	-	-	-	-	-	150
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ 300</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 300</b>

**Projected Expenditures - Construction**

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-
Contingency	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

**Note: Cash Flow Basis in Thousands**

# 1140300

## Greenhouse Gas Study

Project Manager: James McCaughey, P.E.  
 Contractor(s): University of Rhode Island

Location: Field's Point  
 Project Priority: C

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	October-14	May-18	43 Months	\$77
Construction	N/A	N/A	N/A	N/A
<b>Total Project</b>	<b>October-14</b>	<b>May-18</b>	<b>43 Months</b>	<b>\$77</b>



*Photo: Greenhouse Gas Collection*

NBC's Greenhouse Gas Study is designed to quantify NBC's overall carbon footprint by measuring greenhouse gas emissions from wastewater collection and treatment operations. NBC's Greenhouse Gas Study will help NBC to better address potential future regulatory requirements related to greenhouse gas emissions.

### CIP Window Summary

	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
	\$ 31	\$ 46	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 77

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 11	\$ 6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17
Land	-	-	-	-	-	-	-	-	-
A/E Professional	20	40	-	-	-	-	-	-	60
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ 31</b>	<b>\$ 46</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 77</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-
Contingency	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

Note: Cash Flow Basis in Thousands

# 1140500

## NBC Energy Sustainability

Project Manager: James McCaughey, P.E.  
Contractor(s): Various

Location: Various Locations  
Project Priority: C

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	January-16	August-18	31 Months	\$85
Construction	N/A	N/A	N/A	N/A
<b>Total Project</b>	<b>January-16</b>	<b>August-18</b>	<b>31 Months</b>	<b>\$85</b>



Photo: Methods of generating energy

NBC's Energy Sustainability Program is designed to identify, measure, and implement ways of obtaining and using energy in such ways that energy needs of today are met while minimizing environmental impacts and assuring sufficient sources of energy are available to meet future needs. NBC will maximize use of conservation, efficiency, and sustainable renewable energy resources in an economically viable and sound manner.

### CIP Window Summary

	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
	\$ 42	\$ 34	\$ 9	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 85

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 28	\$ 27	\$ 9	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 64
Land	-	-	-	-	-	-	-	-	-
A/E Professional	5	-	-	-	-	-	-	-	5
Other	9	6	-	-	-	-	-	-	15
<b>Total</b>	\$ 42	\$ 34	\$ 9	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 85

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-
Contingency	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Note: Cash Flow Basis in Thousands

# 30438

## NBC Interceptor Easement Restoration, AVI

Project Manager: Rich Bernier, P.E.  
 Contractor(s): Manafort Brother's Inc.

Location: Cumberland, RI  
 Project Priority: A

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	October-05	April-17	138 Months	\$831
Construction	March-16	June-18	26 Months	830
<b>Total Project</b>	<b>October-05</b>	<b>June-18</b>	<b>152 Months</b>	<b>\$1,661</b>



Photo: Cumberland sewer system easement locations

Much of the NBC sewer system in Cumberland is located in easements that cross private property. This project is to evaluate the Abbott Valley Interceptor easements and clear the easements to provide necessary access under the construction phase of this project to maintain the integrity of the collection system.

### CIP Window Summary

	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
	\$ 714	\$ 116	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 830

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 300
Land	84	-	-	-	-	-	-	-	84
A/E Professional	428	-	-	-	-	-	-	-	428
Other	18	-	-	-	-	-	-	-	18
<b>Total</b>	<b>\$ 831</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 831</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 95	\$ 27	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 122
A/E Professional	42	1	-	-	-	-	-	-	43
Construction	533	7	-	-	-	-	-	-	540
Contingency	-	50	-	-	-	-	-	-	50
Other	44	31	-	-	-	-	-	-	75
<b>Total</b>	<b>\$ 714</b>	<b>\$ 116</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 830</b>

Note: Cash Flow Basis in Thousands

# 30500

## NBC Interceptor Easements Restoration, Various Locations

Project Manager: Thomas Brueckner, P.E.  
 Contractor(s): N/A

Location: NBC Service Area  
 Project Priority: A

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	September-17	November-18	14 Months	\$415
Construction	April-19	November-19	7 Months	439
<b>Total Project</b>	<b>September-17</b>	<b>November-19</b>	<b>26 Months</b>	<b>\$854</b>

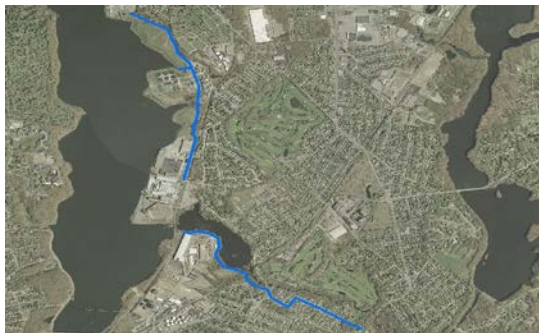


Photo: Proposed area for the East Providence easement investigation

This project involves verification of easement locations and clearing the easements in overland areas to ensure sufficient access.

### CIP Window Summary

	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
	\$ -	\$ 220	\$ 313	\$ 321	\$ -	\$ -	\$ -	\$ -	\$ 854

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ 20	\$ 30	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50
Land	-	-	50	-	-	-	-	-	50
A/E Professional	-	200	100	-	-	-	-	-	300
Other	-	-	15	-	-	-	-	-	15
<b>Total</b>	<b>\$ -</b>	<b>\$ 220</b>	<b>\$ 195</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 415</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ 18	\$ 20	\$ -	\$ -	\$ -	\$ -	\$ 38
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	-	-	100	250	-	-	-	-	350
Contingency	-	-	-	35	-	-	-	-	35
Other	-	-	-	16	-	-	-	-	16
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 118</b>	<b>\$ 321</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 439</b>

Note: Cash Flow Basis in Thousands

# 30501

## NBC Interceptor Easements Restoration, BVI

Project Manager: Thomas Brueckner, P.E.  
 Contractor(s): VHB

Location: Cumberland & Lincoln Rhode Island  
 Project Priority: B

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	July-09	April-18	105 Months	\$428
Construction	March-17	October-18	18 Months	971
<b>Total Project</b>	<b>July-09</b>	<b>October-18</b>	<b>111 Months</b>	<b>\$1,399</b>

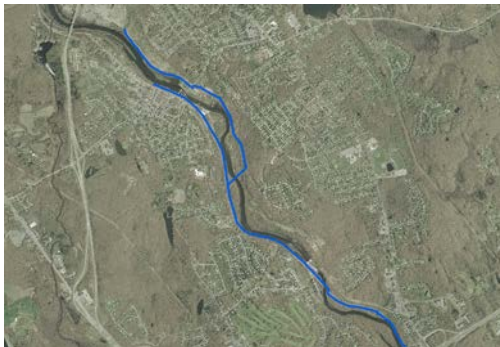


Photo: Blackstone Valley Interceptor in Lincoln

This project involves the location of manholes along the Blackstone Valley Interceptor in Lincoln and Cumberland and verification of NBC easement locations. Once easements are verified, easement clearing will commence as necessary to provide access to maintain the collection system. This project is critical to maintain NBC's infrastructure.

### CIP Window Summary

	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
	\$ 313	\$ 1,069	\$ 17	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,399

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 85	\$ 30	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 115
Land	-	10	-	-	-	-	-	-	10
A/E Professional	228	50	-	-	-	-	-	-	278
Other	-	25	-	-	-	-	-	-	25
<b>Total</b>	<b>\$ 313</b>	<b>\$ 115</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 428</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ 84	\$ 2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 86
A/E Professional	-	46	-	-	-	-	-	-	46
Construction	-	675	15	-	-	-	-	-	690
Contingency	-	150	-	-	-	-	-	-	150
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ 954</b>	<b>\$ 17</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 971</b>

Note: Cash Flow Basis in Thousands

# 30700

## NBC System-wide Facilities Planning

Project Manager: Thomas Brueckner, P.E.  
 Contractor(s): N/A

Location: NBC Service Area  
 Project Priority: C

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	February-18	August-19	18 Months	\$386
Construction	N/A	N/A	N/A	N/A
<b>Total Project</b>	<b>February-18</b>	<b>August-19</b>	<b>18 Months</b>	<b>\$386</b>

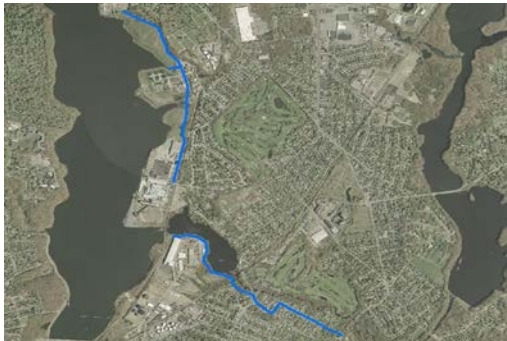


Photo: Proposed area for the East Providence capacity analysis

Project 30700 is to continue NBC's studies to determine if there is adequate capacity for the next twenty years and 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 and draw funding from project 30700.

### CIP Window Summary

	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
	\$ -	\$ 49	\$ 268	\$ 69	\$ -	\$ -	\$ -	\$ -	\$ 386

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ 17	\$ 60	\$ 5	\$ -	\$ -	\$ -	\$ -	\$ 82
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	32	208	34	-	-	-	-	274
Other	-	-	-	30	-	-	-	-	30
<b>Total</b>	<b>\$ -</b>	<b>\$ 49</b>	<b>\$ 268</b>	<b>\$ 69</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 386</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-
Contingency	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

Note: Cash Flow Basis in Thousands



# 40100

## NBC Facility Electrical Improvements

Project Manager: Thomas Brueckner, P.E.  
 Contractor(s): N/A

Location: Providence, RI  
 Project Priority: B

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	May-18	May-19	12 Months	\$130
Design	N/A	N/A	N/A	N/A
Construction	N/A	N/A	N/A	N/A
<b>Total Project</b>	<b>May-18</b>	<b>May-19</b>	<b>12 Months</b>	<b>\$130</b>



Photo: NBC FPWWTF Electrical Facilities

This project is to evaluate 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 NBC's facilities.

### CIP Window Summary

Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
\$ -	\$ 21	\$ 109	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 130

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ 3	\$ 17	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20
A/E Professional	-	8	92	-	-	-	-	-	100
Other	-	10	-	-	-	-	-	-	10
<b>Total</b>	<b>\$ -</b>	<b>\$ 21</b>	<b>\$ 109</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 130</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-
Contingency	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

Note: Cash Flow Basis in Thousands



# 40101

## FPWWTF Facility Electrical Improvements

Project Manager: Thomas Brueckner, P.E.  
 Contractor(s): N/A

Location: Providence, RI  
 Project Priority: B

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	May-16	December-18	31 Months	\$125
Design	N/A	N/A	N/A	N/A
Construction	N/A	N/A	N/A	N/A
<b>Total Project</b>	May-16	December-18	<b>31 Months</b>	<b>\$125</b>



Photo: Field's Point Electrical Panel

This project is to evaluate and install standby power capabilities for critical facilities at the FPWWTF to maintain uninterrupted facilities operation.

### CIP Window Summary

	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
	\$ 21	\$ 40	\$ 64	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 125

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 6	\$ 20	\$ 24	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50
A/E Professional	-	15	40	-	-	-	-	-	55
Other	15	5	-	-	-	-	-	-	20
<b>Total</b>	<b>\$ 21</b>	<b>\$ 40</b>	<b>\$ 64</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 125</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-
Contingency	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

Note: Cash Flow Basis in Thousands

# 40200

## NBC System-wide Inflow Reduction Program-Design

Project Manager: Thomas Brueckner, P.E.  
 Contractor(s): N/A

Location: NBC Service Area  
 Project Priority: C

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	September-18	January-20	16 Months	\$108
Construction	March-20	May-21	14 Months	210
<b>Total Project</b>	<b>September-18</b>	<b>May-21</b>	<b>32 Months</b>	<b>\$318</b>



Photo: Downspouts at the NBC COB

This project is to develop and implement an inflow reduction program to remove storm water from sanitary sewers in the NBC's service area. This project is imperative to ongoing operation to prevent surcharging of sewers that could cause illegal sanitary sewer overflows in wet weather.

### CIP Window Summary

Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
\$ -	\$ -	\$ 53	\$ 80	\$ 185	\$ -	\$ -	\$ -	\$ 318

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ 18	\$ 11	\$ -	\$ -	\$ -	\$ -	\$ 29
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	30	44	-	-	-	-	74
Other	-	-	5	-	-	-	-	-	5
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 53</b>	<b>\$ 55</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 108</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ 12	\$ 44	\$ -	\$ -	\$ -	\$ 56
A/E Professional	-	-	-	3	11	-	-	-	14
Construction	-	-	-	10	110	-	-	-	120
Contingency	-	-	-	-	10	-	-	-	10
Other	-	-	-	-	10	-	-	-	10
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 25</b>	<b>\$ 185</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 210</b>

Note: Cash Flow Basis in Thousands

# 40300

## Municipal Sewer Acquisition Impact

Project Manager: Thomas Brueckner, P.E.  
 Contractor(s): N/A

Location: NBC Service Area  
 Project Priority: C

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	June-17	April-18	10 Months	\$296
Design	N/A	N/A	N/A	N/A
Construction	N/A	N/A	N/A	N/A
<b>Total Project</b>	<b>June-17</b>	<b>April-18</b>	<b>10 Months</b>	<b>\$296</b>



Photo: Municipal Sewer Manhole Cover

This project is to evaluate 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.

### CIP Window Summary

	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
	\$ 3	\$ 293	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 296

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 3	\$ 33	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 36
A/E Professional	-	250	-	-	-	-	-	-	250
Other	-	10	-	-	-	-	-	-	10
<b>Total</b>	<b>\$ 3</b>	<b>\$ 293</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 296</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-
Contingency	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

Note: Cash Flow Basis in Thousands

# 40400

## FPWWTF Facilities Plan Update

Project Manager: Thomas Brueckner, P.E.  
 Contractor(s): CH2M Hill

Location: Providence, RI  
 Project Priority: A

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	January-17	October-17	9 Months	\$255
Design	N/A	N/A	N/A	N/A
Construction	N/A	N/A	N/A	N/A
<b>Total Project</b>	<b>January-17</b>	<b>October-17</b>	<b>9 Months</b>	<b>\$255</b>



Photo: Aeration Tanks FPWWTF

This project is to update the FPWWTF Facilities Plan and determine the maximum Nitrogen and BOD loads that can be accepted at the facility within RIPDES permit limits.

### CIP Window Summary

	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
<b>Summary</b>	\$ 155	\$ 100	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 255

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 135	\$ 100	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 235
A/E Professional	20	-	-	-	-	-	-	-	20
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ 155</b>	<b>\$ 100</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 255</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-
Contingency	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

Note: Cash Flow Basis in Thousands

# 40500

## NBC System-wide RIPDES Flow Monitoring

Project Manager: Meg Goulet, P.E.  
Contractor(s): N/A

Location: Field's Point and Bucklin Point  
Project Priority: C

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	August-17	September-18	13 Months	\$848
Construction	N/A	N/A	N/A	N/A
<b>Total Project</b>	<b>August-17</b>	<b>September-18</b>	<b>13 Months</b>	<b>\$848</b>



Photo: Floatables Control Facility

This project involves condition assessments 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.

### CIP Window Summary

Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
\$ -	\$ 629	\$ 219	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 848

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ 74	\$ 24	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 98
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	555	195	-	-	-	-	-	750
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	\$ -	\$ 629	\$ 219	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 848

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-
Contingency	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Note: Cash Flow Basis in Thousands

# 30800

## CSO Phase III A Facilities

Project Manager: Kathryn Kelly, P.E.  
Contractor(s): Stantec Consulting Services

Location: Pawtucket, RI  
Project Priority: A

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	April-13	December-21	104 Months	\$59,217
Construction	January-22	December-25	47 Months	450,130
<b>Total Project</b>	<b>April-13</b>	<b>December-25</b>	<b>152 Months</b>	<b>\$509,347</b>



Photo: Proposed Phase III CSO Facilities

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 Summary

Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
\$ 6,286	\$ 14,727	\$ 12,965	\$ 11,119	\$ 8,164	\$ 6,076	\$ 62,670	\$ 387,340	\$ 509,347

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 663	\$ 225	\$ 145	\$ 120	\$ 190	\$ 90	\$ -	\$ -	\$ 1,433
Land	-	2,000	-	-	-	2,000	-	-	4,000
A/E Professional	5,577	11,292	11,520	10,866	7,974	3,866	-	-	51,095
Other	46	1,210	1,300	133	-	-	-	-	2,689
<b>Total</b>	<b>\$ 6,286</b>	<b>\$ 14,727</b>	<b>\$ 12,965</b>	<b>\$ 11,119</b>	<b>\$ 8,164</b>	<b>\$ 5,956</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 59,217</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 120	\$ 270	\$ 2,340	\$ 2,730
A/E Professional	-	-	-	-	-	-	12,000	54,000	66,000
Construction	-	-	-	-	-	-	50,400	308,000	358,400
Contingency	-	-	-	-	-	-	-	23,000	23,000
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 120</b>	<b>\$ 62,670</b>	<b>\$ 387,340</b>	<b>\$ 450,130</b>

Note: Cash Flow Basis in Thousands



# 30810

## CSO Phase III B Facilities

Project Manager: Kathryn Kelly, P.E.  
Contractor(s): N/A

Location: Central Falls, RI  
Project Priority: A

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	January-26	December-28	35 Months	\$3,305
Construction	January-29	December-30	23 Months	30,217
<b>Total Project</b>	<b>January-26</b>	<b>December-30</b>	<b>59 Months</b>	<b>\$33,522</b>



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.

### CIP Window Summary

Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 33,522	\$ 33,522

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 505	\$ 505
Land	-	-	-	-	-	-	-	500	500
A/E Professional	-	-	-	-	-	-	-	2,100	2,100
Other	-	-	-	-	-	-	-	200	200
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,305</b>	<b>\$ 3,305</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 500	\$ 500
A/E Professional	-	-	-	-	-	-	-	4,224	4,224
Construction	-	-	-	-	-	-	-	23,193	23,193
Contingency	-	-	-	-	-	-	-	2,300	2,300
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 30,217</b>	<b>\$ 30,217</b>

Note: Cash Flow Basis in Thousands

# 30820

## CSO Phase III C Facilities

Project Manager: Kathryn Kelly, P.E.  
Contractor(s): N/A

Location: Pawtucket, RI  
Project Priority: A

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	January-31	December-34	47 Months	\$13,110
Construction	January-35	December-36	23 Months	153,799
<b>Total Project</b>	<b>January-31</b>	<b>December-36</b>	<b>71 Months</b>	<b>\$166,909</b>



Photo: Proposed Phase III CSO Facilities

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.

### CIP Window Summary

Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 166,909	\$ 166,909

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 505	\$ 505
Land	-	-	-	-	-	-	-	200	200
A/E Professional	-	-	-	-	-	-	-	11,305	11,305
Other	-	-	-	-	-	-	-	1,100	1,100
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 13,110</b>	<b>\$ 13,110</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 430	\$ 430
A/E Professional	-	-	-	-	-	-	-	18,611	18,611
Construction	-	-	-	-	-	-	-	122,358	122,358
Contingency	-	-	-	-	-	-	-	12,200	12,200
Other	-	-	-	-	-	-	-	200	200
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 153,799</b>	<b>\$ 153,799</b>

Note: Cash Flow Basis in Thousands



# 30830

## CSO Phase III D Facilities

Project Manager: Kathryn Kelly, P.E.  
Contractor(s): N/A

Location: Providence, RI  
Project Priority: A

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	January-37	December-39	35 Months	\$7,083
Construction	January-40	December-41	23 Months	78,294
<b>Total Project</b>	<b>January-37</b>	<b>December-41</b>	<b>59 Months</b>	<b>\$85,377</b>



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.

Photo: Proposed Phase III CSO Facilities

### CIP Window Summary

Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 85,377	\$ 85,377

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 575	\$ 575
Land	-	-	-	-	-	-	-	200	200
A/E Professional	-	-	-	-	-	-	-	5,735	5,735
Other	-	-	-	-	-	-	-	573	573
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 7,083</b>	<b>\$ 7,083</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 500	\$ 500
A/E Professional	-	-	-	-	-	-	-	9,484	9,484
Construction	-	-	-	-	-	-	-	62,100	62,100
Contingency	-	-	-	-	-	-	-	6,210	6,210
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 78,294</b>	<b>\$ 78,294</b>

Note: Cash Flow Basis in Thousands

## 304 M Summary

### Interceptor Inspection and Cleaning

Project Manager: Meg Goulet, P.E.  
Contractor(s): Various

Location: NBC Service Area  
Project Priority: B

#### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
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	\$3,713
<b>Total Project</b>	<b>July-09</b>	<b>Ongoing</b>	<b>Ongoing</b>	<b>\$3,713</b>



Photo: End of North Outfall Pipe

The 304 M projects continue NBC's program to clean and inspect NBC interceptors as needed. The TV inspections assist in determining pipe conditions and developing solutions to any problems which may be identified. Based on completed inspections to date, the cleaning is needed to remove accumulated grit. As new inspection and cleaning projects are identified, they will be given a unique project number and draw funding from the funds available in Project 30400M.

<b>CIP Window Summary</b>	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
	\$ 213	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$ 3,713

#### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

#### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

#### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 23	\$ 52	\$ 55	\$ 55	\$ 55	\$ 55	\$ 55	\$ 55	\$ 405
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	160	370	370	370	370	370	370	370	2,750
Contingency	-	-	-	-	-	-	-	-	-
Other	30	78	75	75	75	75	75	75	558
<b>Total</b>	\$ 213	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$ 500	\$ 3,713

Note: Cash Flow Basis in Thousands

# 30400C

## Interceptor Restoration and Construction

Project Manager: Rich Bernier, P.E.  
 Contractor(s): Various

Location: NBC Service Area  
 Project Priority: B

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	N/A	N/A	N/A	N/A
Construction	July-01	Ongoing	Ongoing	\$6,000
<b>Total Project</b>	<b>July-01</b>	<b>Ongoing</b>	<b>Ongoing</b>	<b>\$6,000</b>



Photo: Proposed portion of Lincoln Interceptor Replacement

Project 30400C reflects funding of potential restoration and construction resulting from NBC's inspection and cleaning projects and emergency situations. Interceptor restoration and construction projects result from such issues as root intrusion, structural damage, odor control, aging infrastructure, inaccessible structures, pipe damage and emergency situations. As new repair and construction projects are identified, they are given a unique project number and draw funding from the funds available in Project 30400C.

### CIP Window Summary

Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
\$ -	\$ -	\$ -	\$ -	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500	\$ 6,000

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ 75	\$ 75	\$ 75	\$ 75	\$ 300
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	1,250	1,250	1,250	1,250	5,000
Contingency	-	-	-	-	150	150	150	150	600
Other	-	-	-	-	25	25	25	25	100
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,500</b>	<b>\$ 1,500</b>	<b>\$ 1,500</b>	<b>\$ 1,500</b>	<b>\$ 6,000</b>

Note: Cash Flow Basis in Thousands

# 30421

## Louisquisset Pike Interceptor Improvements

Project Manager: Thomas Brueckner, P.E.  
 Contractor(s): N/A

Location: Lincoln, RI  
 Project Priority: C

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	May-07	May-09	23 Months	\$178
Construction	March-18	November-19	20 Months	4,044
<b>Total Project</b>	<b>May-07</b>	<b>November-19</b>	<b>149 Months</b>	<b>\$4,222</b>



*Photo: Lincoln Interceptor Replacement Location*

This project is to design and construct 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 Summary

Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
\$ -	\$ 279	\$ 3,490	\$ 275	\$ -	\$ -	\$ -	\$ -	\$ 4,044

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 23	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23
Land	-	-	-	-	-	-	-	-	-
A/E Professional	155	-	-	-	-	-	-	-	155
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ 178</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 178</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ 20	\$ 96	\$ 25	\$ -	\$ -	\$ -	\$ -	\$ 141
A/E Professional	-	9	44	-	-	-	-	-	53
Construction	-	250	3,000	250	-	-	-	-	3,500
Contingency	-	-	350	-	-	-	-	-	350
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ 279</b>	<b>\$ 3,490</b>	<b>\$ 275</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 4,044</b>

Note: Cash Flow Basis in Thousands

30444

## Mosshassuck Valley Interceptor

Project Manager: Thomas Brueckner, P.E.  
 Contractor(s): N/A

Location: Central Falls  
 Project Priority: B

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	May-06	October-06	5 Months	\$22
Design	January-12	July-17	66 Months	504
Construction	March-18	December-19	21 Months	6,531
<b>Total Project</b>	<b>May-06</b>	<b>December-19</b>	<b>163 Months</b>	<b>\$7,057</b>



Photo: Portion of the Moshassuck Valley Interceptor to be replaced

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 is to design and construct a new sewer to replace the existing sewer.

### CIP Window Summary

Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 22	Post FY 23	Total
\$ 491	\$ 33	\$ 3,997	\$ 2,514	\$ -	\$ -	\$ -	\$ -	\$ 7,035

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 22	Post FY 23	Total
Administrative	\$ 2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2
A/E Professional	20	-	-	-	-	-	-	-	20
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ 22</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 22</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 22	Post FY 23	Total
Administrative	\$ 72	\$ 6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 78
Land	95	-	-	-	-	-	-	-	95
A/E Professional	317	7	-	-	-	-	-	-	324
Other	7	-	-	-	-	-	-	-	7
<b>Total</b>	<b>\$ 491</b>	<b>\$ 13</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 504</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 22	Post FY 23	Total
Administrative	\$ -	\$ 14	\$ 63	\$ 22	\$ -	\$ -	\$ -	\$ -	\$ 99
A/E Professional	-	6	24	12	-	-	-	-	42
Construction	-	-	3,900	1,900	-	-	-	-	5,800
Contingency	-	-	-	580	-	-	-	-	580
Other	-	-	10	-	-	-	-	-	10
<b>Total</b>	<b>\$ -</b>	<b>\$ 20</b>	<b>\$ 3,997</b>	<b>\$ 2,514</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,531</b>

Note: Cash Flow Basis in Thousands

30457

## Providence River Siphon

Project Manager: Thomas Brueckner, P.E.  
 Contractor: Stantec Consulting Services

Location: Providence, RI  
 Project Priority: B

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	March-13	May-15	26 Months	\$228
Design	July-15	December-17	29 Months	414
Construction	January-18	July-19	18 Months	6,139
<b>Total Project</b>	<b>March-13</b>	<b>July-19</b>	<b>76 Months</b>	<b>\$6,781</b>



Photo: Siphon Outlet Chamber

During the planning phase of this project, it was determined 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. These deficiencies will be corrected in the design and construction phases.

### CIP Window Summary

	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
	\$ 362	\$ 89	\$ 5,134	\$ 967	\$ -	\$ -	\$ -	\$ -	\$ 6,553

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 100	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100
A/E Professional	123	-	-	-	-	-	-	-	123
Other	5	-	-	-	-	-	-	-	5
<b>Total</b>	<b>\$ 228</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 228</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 112	\$ 12	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 124
Land	-	21	-	-	-	-	-	-	21
A/E Professional	251	18	-	-	-	-	-	-	269
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ 362</b>	<b>\$ 51</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 414</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ 20	\$ 48	\$ 4	\$ -	\$ -	\$ -	\$ -	\$ 72
A/E Professional	-	18	36	3	-	-	-	-	57
Construction	-	-	5,000	400	-	-	-	-	5,400
Contingency	-	-	-	560	-	-	-	-	560
Other	-	-	50	-	-	-	-	-	50
<b>Total</b>	<b>\$ -</b>	<b>\$ 38</b>	<b>\$ 5,134</b>	<b>\$ 967</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 6,139</b>

Note: Cash Flow Basis in Thousands



# 30460

## Johnston Sewer Improvements/Greenville Avenue

Project Manager: Rich Bernier, P.E.  
 Contractor(s): DiGregorio, Inc.

Location: Johnston, RI  
 Project Priority: A

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	May-16	September-17	16 Months	\$410
Construction	February-17	April-18	13 Months	8,915
<b>Total Project</b>	<b>May-16</b>	<b>April-18</b>	<b>23 Months</b>	<b>\$9,325</b>



Photo: Construction on Greenville Avenue

The Facilities Plan for Johnston has been completed and approved by RIDEM. The plan recommended that sewers in the Town be expanded to accommodate future development in the Town. This project is to design and construct the first of these proposed improvements. This project involves the installation of approximately 6,750 linear foot of 12" pipe in Greenville Avenue from Salina Rd. to west of Rt. 295.

### CIP Window Summary

Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
\$ 1,304	\$ 8,022	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,325

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 119	\$ 27	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 145
Land	50	-	-	-	-	-	-	-	50
A/E Professional	210	-	-	-	-	-	-	-	210
Other	5	-	-	-	-	-	-	-	5
<b>Total</b>	<b>\$ 384</b>	<b>\$ 27</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 410</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 80	\$ 255	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 335
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	840	6,990	-	-	-	-	-	-	7,830
Contingency	-	750	-	-	-	-	-	-	750
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ 920</b>	<b>\$ 7,995</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 8,915</b>

Note: Cash Flow Basis in Thousands



# 30463

## Improvements to Interceptors FY 2017

Project Manager: Rich Bernier, P.E.  
 Contractor(s): R. Zoppo Corp.

Location: Throughout The System  
 Project Priority: A

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	N/A	N/A	N/A	N/A
Construction	April-17	December-18	19 Months	\$1,571
<b>Total Project</b>	<b>April-17</b>	<b>December-18</b>	<b>19 Months</b>	<b>\$1,571</b>



Photo: Conducting Sewer System Repairs

This project is to correct various deficiencies throughout the sewer system in Providence, Central Falls and Cumberland such as sewer lining, point repairs to sewers, install hatches for better access to structures, abandonment of an outfall pipe, and rehabilitation to leaking manholes.

### CIP Window Summary

	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
	\$ 245	\$ 1,315	\$ 11	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,571

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 79	\$ 175	\$ 8	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 262
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	166	598	3	-	-	-	-	-	767
Contingency	-	442	-	-	-	-	-	-	442
Other	-	100	-	-	-	-	-	-	100
<b>Total</b>	<b>\$ 245</b>	<b>\$ 1,315</b>	<b>\$ 11</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,571</b>

Note: Cash Flow Basis in Thousands

30464

## Johnston Sewer Improvements/Hartford Avenue

Project Manager: Tom Brueckner, P.E.  
Contractor(s): PARE Corporation

Location: Johnston, RI  
Project Priority: B

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	February-17	June-17	4 Months	\$248
Construction	June-17	October-17	4 Months	2,429
<b>Total Project</b>	<b>February-17</b>	<b>October-17</b>	<b>8 Months</b>	<b>\$2,677</b>



Photo: Aerial View Hartford Avenue in Johnston

This project is to extend the Hartford Avenue sewer approximately 5,400 feet to the area west of Route 295 to enable development within the Town of Johnston.

### CIP Window Summary

	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
	\$ 17	\$ 2,412	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,429

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 55	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 55
Land	-	-	-	-	-	-	-	-	-
A/E Professional	189	-	-	-	-	-	-	-	189
Other	4	-	-	-	-	-	-	-	4
<b>Total</b>	<b>\$ 248</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 248</b>

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ 17	\$ 105	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 122
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	-	1,900	-	-	-	-	-	-	1,900
Contingency	-	402	-	-	-	-	-	-	402
Other	-	5	-	-	-	-	-	-	5
<b>Total</b>	<b>\$ 17</b>	<b>\$ 2,412</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,429</b>

Note: Cash Flow Basis in Thousands

30465

## Field's Point Drive Interceptor Improvements

Project Manager: Tom Brueckner, P.E.  
Contractor(s): N/A

Location: Providence, RI  
Project Priority: B

### Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	September-17	April-18	6 Months	\$177
Construction	July-18	May-19	9 Months	760
<b>Total Project</b>	<b>September-17</b>	<b>May-19</b>	<b>19 Months</b>	<b>\$937</b>



Photo: Field's Point Drive

The Field's Point Drive sewer has collapsed in one location and in several other locations the pipe is broken and will need to be repaired. In other locations the pipe is cracked and will need to be lined. These measures will restore the sewer to its original capacity.

### CIP Window Summary

	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
	\$ -	\$ 177	\$ 760	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 937

### Projected Expenditures - Planning

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

### Projected Expenditures - Design

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ 27	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 27
Land	-	10	-	-	-	-	-	-	10
A/E Professional	-	100	-	-	-	-	-	-	100
Other	-	40	-	-	-	-	-	-	40
<b>Total</b>	\$ -	\$ 177	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 177

### Projected Expenditures - Construction

Cost Category	Pre FY 18	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23	Post FY 23	Total
Administrative	\$ -	\$ -	\$ 68	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 68
A/E Professional	-	-	22	-	-	-	-	-	22
Construction	-	-	600	-	-	-	-	-	600
Contingency	-	-	60	-	-	-	-	-	60
Other	-	-	10	-	-	-	-	-	10
<b>Total</b>	\$ -	\$ -	\$ 760	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 760

Note: Cash Flow Basis in Thousands

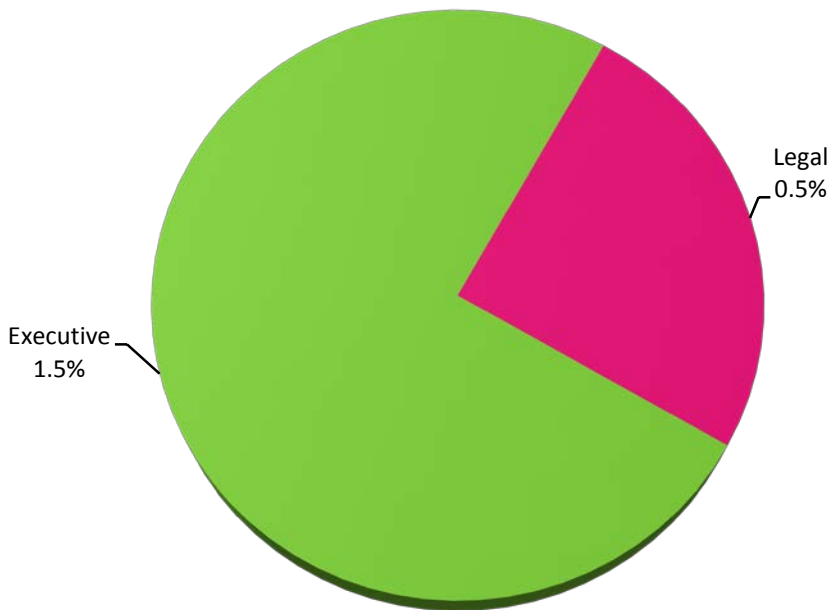
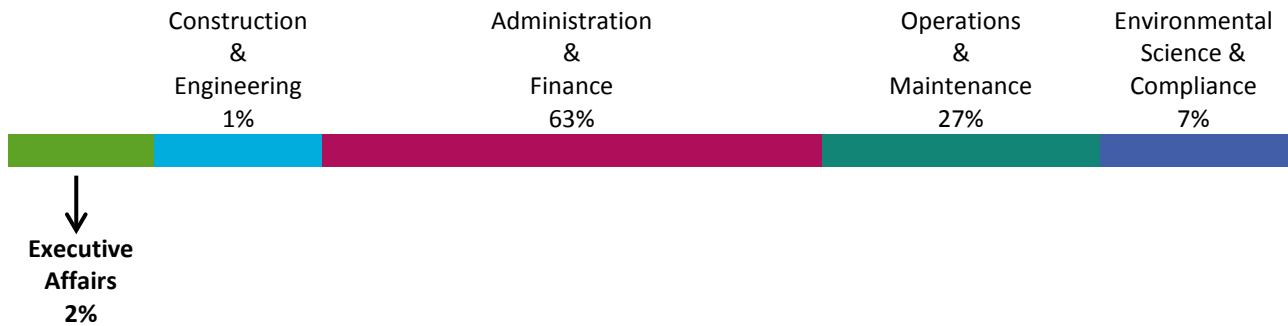
# EXECUTIVE AFFAIRS DIVISION

## Division Summary

EXECUTIVE

LEGAL

### NBC Division Budgets



## EXECUTIVE AFFAIRS DIVISION - The Program

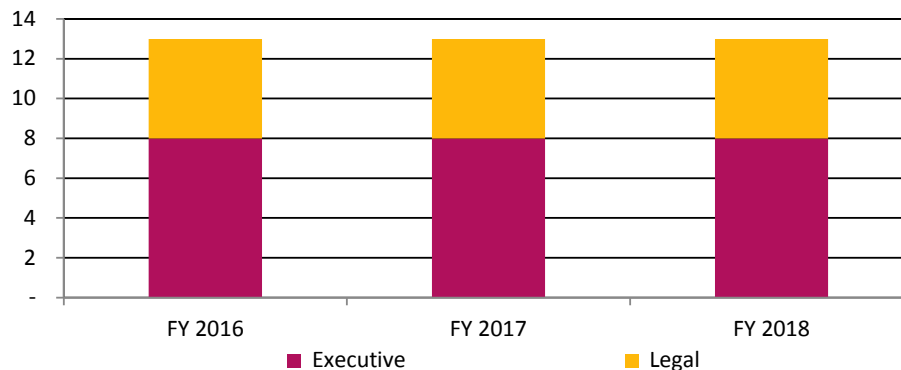
### Division Summary

#### Purpose and Overview:

The Executive Affairs Division is responsible for Executive Affairs, Public Relations, Government Affairs, Labor/Employee Relations and Legal Services.

All of the agency divisions: Executive Affairs; Construction and Engineering; Administration and Finance; Operations and Maintenance; and Environmental Science and Compliance report directly to the Executive Director.

**Budgeted Positions (FTEs)**  
**Executive Affairs Division**



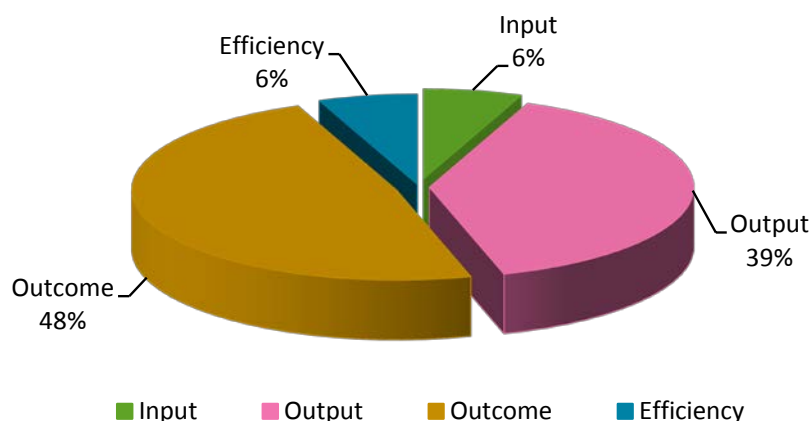
#### Significant Budget Modifications:

The FY 2018 Executive Affairs Division budget reflects an overall decrease of \$16,213 or 1.0% less than FY 2017 budget. Personnel increased by \$24,687 from the prior year. Operating supplies and expense and professional services have also increased by \$34,100 compared to FY 2017 as a result of increases in dues and legal fees. Operating Capital reflects a decrease of \$75,000 from the prior year.

#### Executive Affairs Division Performance Data Summary:

The chart below illustrates the Executive Affairs 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 54% of the performance measures.

**Percentage of Performance Measurement Types**  
**EXECUTIVE AFFAIRS DIVISION**

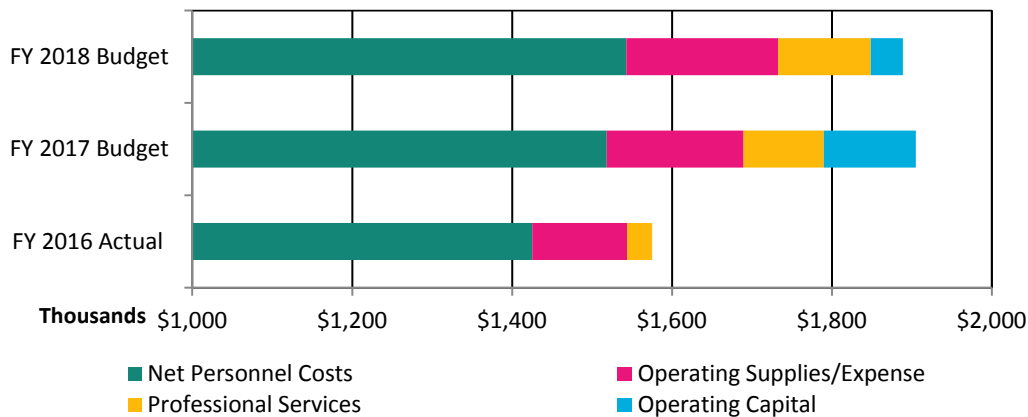


## EXECUTIVE AFFAIRS DIVISION - The Budget

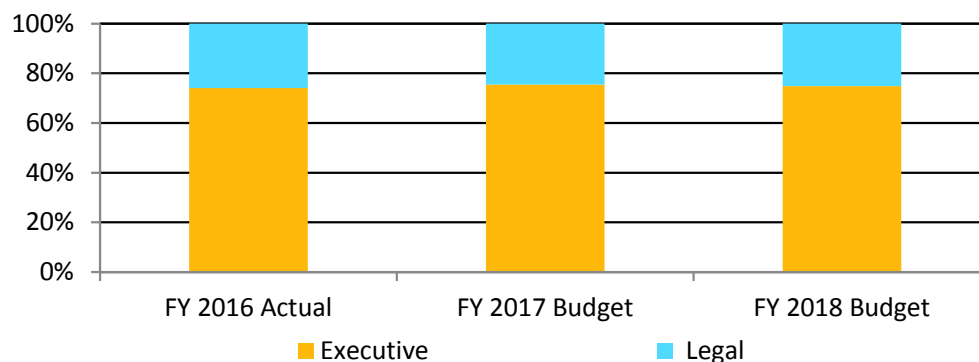
### Division Summary

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	\$ 1,569,083	\$ 1,587,473	\$ 1,612,158
Less Capital Reimbursements	(143,814)	(69,228)	(69,227)
<i>Net Personnel</i>	1,425,269	1,518,245	1,542,931
Operating Supplies/Expense	118,475	171,075	189,675
Professional Services	31,337	100,500	116,000
Operating Capital	-	115,000	40,000
Debt Service	-	-	-
<b>Total Expenditures</b>	<b>\$ 1,575,081</b>	<b>\$ 1,904,820</b>	<b>\$ 1,888,606</b>
<b>Expenditures by Funding Source</b>			
Revenue	\$ 1,575,081	\$ 1,789,820	\$ 1,848,606
Operating Capital Transfer	-	115,000	40,000
Grant	-	-	-
<b>Total Expenditures by Source</b>	<b>\$ 1,575,081</b>	<b>\$ 1,904,820</b>	<b>\$ 1,888,606</b>

#### Division's Cost By Element



#### Percent of Division's Budget By Section



## EXECUTIVE - The Program

### Mission and Overview:

The Executive section includes the Executive Director, Director of Executive Affairs, Public Affairs, Labor/Employee Relations and Government Affairs. The Executive 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.

### Major Accomplishments FY 2017 by Key Code:

- CB 1** Continued negotiations on RIPDES permits for both Field's Point and Bucklin Point
- CB 1** Completed the nitrogen permit year ending October 31, 2016 with 100% compliance at Field's Point
- CB 2** Revised the hydraulic model, completed survey work and refined alternative recommendations for preliminary design of CSO Phase III Facilities
- CB 2** Collaborated with the State of RI and Town of Johnston officials on economic development projects that expand NBC's sewer system and revenue base
- CB 2** Successfully defended a \$1 million + CSO Phase II construction claim in arbitration
- FM 8** Purchased three off-site wind turbines, expanding NBC's renewable energy portfolio through net metering
- S 5** Initiated succession planning with NBC Directors
- C 1** Held NBC's first STEM career day for high school students to promote careers in clean water science and engineering and showcased the technological leadership of the NBC
- C 1** Conducted 38 educational tours of the FPWWTF and the 3 on-site tours of the wind turbines
- C 1** The NBC Watershed Explorers visited 13 schools, and provided education to 690 students from cities and towns within NBC's service district
- C 2** Successfully lobbied and amended renewable energy legislation that extended two deadlines for net metering; allowing NBC to move forward with its solar energy projects.

### Top Priorities for FY 2018 and How They Relate to the Strategic Plan/Goals and by Key Code:

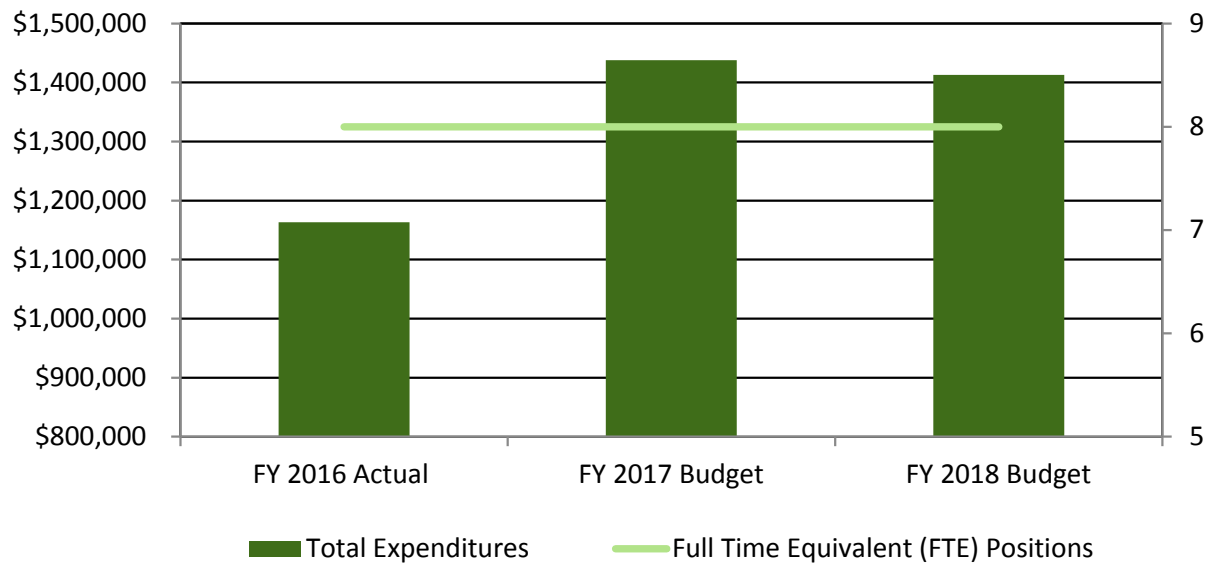
- CB 2** Negotiate CSO Phase III Facilities Consent Agreements with RIDEM
- CB 2** Obtain approval from RIDEM on the revised CSO Phase III Facilities Plan Conceptual Design Report and continue with design
- S 5** Continue agency-wide succession planning



## EXECUTIVE - The Budget

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	\$ 1,144,381	\$ 1,134,120	\$ 1,157,940
Less Capital Reimbursements	(117,453)	(60,703)	(60,702)
<i>Net Personnel</i>	1,026,928	1,073,417	1,097,238
Operating Supplies/Expense	110,488	155,650	166,450
Professional Services	29,775	94,000	109,500
Operating Capital	-	115,000	40,000
Debt Service	-	-	-
<b>Total Expenditures</b>	<b>\$ 1,167,190</b>	<b>\$ 1,438,067</b>	<b>\$ 1,413,188</b>
<b>Expenditures by Funding Source</b>			
Revenue	\$ 1,167,190	\$ 1,323,067	\$ 1,373,188
Operating Capital Transfer	-	115,000	40,000
Grant	-	-	-
<b>Total Expenditures by Source</b>	<b>\$ 1,167,190</b>	<b>\$ 1,438,067</b>	<b>\$ 1,413,188</b>

## EXECUTIVE - Historical Data



<b>PROGRAM STAFFING (BUDGETED)</b>			
Executive Director	1.0	Government Affairs Manager	1.0
Director of Executive Affairs	1.0	Labor and Employee Relations Manager	1.0
Environmental Education Coordinator	1.0	Public Affairs Manager	1.0
Executive Assistant	1.0	Public Affairs Specialist	1.0
<b>8.0 FTEs</b>			

## EXECUTIVE - Performance Data

**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 to update managers on the status of capital projects

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Quantity	51 Awards/Scholarships	40	40	40

#### TARGET MEASURE:

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Lessons Conducted	100	100	100	100
Participating Students	720	480	480	480

#### TARGET MEASURE:

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Quantity	20	20	20	20

#### TARGET MEASURE:

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	10 Schools	100%	100%	100%

#### TARGET MEASURE:

Respond to 100% of requests for WWTF presentations/tours

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Quantity	57 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Frequency	1	2	2	2

**TARGET MEASURE:**

Receive the Best Places to Work in RI Award

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Consecutive Years	6	6	7	8

**TARGET MEASURE:**

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Frequency	12	Monthly	Monthly	Monthly
Quantity - Articles	87	50	50	50

**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:**

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

**TARGET MEASURE:**

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Frequency	52 Updates	Weekly	Weekly	Weekly

**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 each year

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	2,470 Bills Reviewed	100%	100%	100%

**TARGET MEASURE:**

Propose 100% of NBC related legislation amendments where appropriate

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	7 Proposed Amendments	100%	100%	100%

**TARGET MEASURE:**

Provide the annual report to members of the General Assembly by due date and Final Legislative Report to Board

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Due Date	1/31/2016	1/31/2016	1/31/2017	1/31/2018

**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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Legislative Reports	14 Pieces of Legislation	100%	100%	100%
Final Legislative Report	9/20/2016	9/2016	9/2017	9/2018

**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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 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

<b>Unit of Measure</b>	<b>FY 2016 Actual</b>	<b>FY 2016 Goal</b>	<b>FY 2017 Goal</b>	<b>FY 2018 Goal</b>
Meeting Notices <i>Within 48 Hours Prior to Meeting</i>	<48 hours	<48 hours	<48 hours	<48 hours
Draft Minutes <i>Within 35 Days of Meeting</i>	<35 days	<35 days	<35 days	<35 days
Approved Minutes <i>Within 35 Days of Approval</i>	<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

<b>Unit of Measure</b>	<b>FY 2016 Actual</b>	<b>FY 2016 Goal</b>	<b>FY 2017 Goal</b>	<b>FY 2018 Goal</b>
Due Date	8/1/2015	8/1/2015	8/1/2016	8/1/2017

## LEGAL - The Program

### Mission and Overview:

The Legal section provides prompt and accurate legal advice to agency staff with regard 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 sources are used to supplement in-house expertise as needed.

### Major Accomplishments FY 2017 by Key Code:

- CB 1** Assisted Pretreatment with all legal aspects related to the Pretreatment Program
- CB 2** Assisted Construction and Engineering with legal aspects of Field's Point Biological Nutrient Removal and CSO Phase II Facilities projects
- CB 2** Assisted Engineering with legal and regulatory aspects of CSO Phase III Facilities projects
- FM 3** Conducted one lien sale which resulted in the collection of approximately \$500,000
- CF 2** Responded to all public records requests within statutory timeframe, to the appropriate Rhode Island agencies/parties
- C 2** Reviewed, analyzed and opined on pending legislation
- OP 3** Filed all compliance filings (ethics, disclosure of government consultants, regulatory reform agenda, and public records training compliance) within the required timeframe

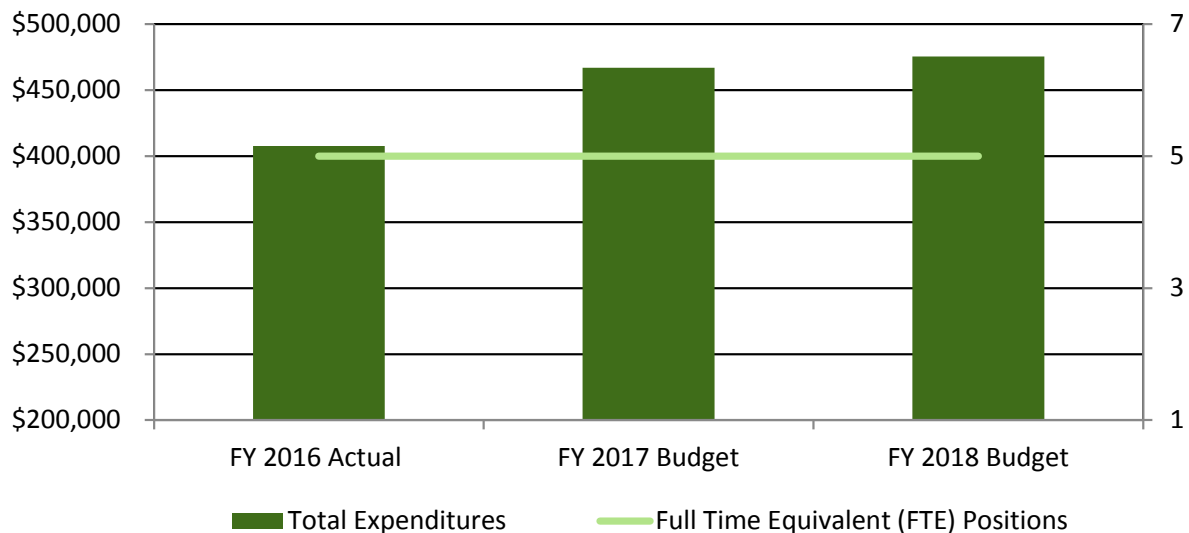
### Top Priorities for FY 2018 and How They Relate to the Strategic Plan/Goals and by Key Code:

- CB 1** Assist Construction and Engineering with legal aspects of Field's Point and Bucklin Point RIPDES Permits CSO Phase III Consent Decrees
- FM 3** Conduct two lien sales to collect past due customer accounts and reduce accounts receivable
- FM 3** Monitor customer accounts subject to the US Bankruptcy Code/RI Receivership Petitions, including filing proof of claims within the required timeframes

## LEGAL – The Budget

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	\$ 424,702	\$ 453,353	\$ 454,218
Less Capital Reimbursements	(26,361)	(8,525)	(8,525)
<i>Net Personnel</i>	398,341	444,828	445,693
Operating Supplies/Expense	7,988	15,425	23,225
Professional Services	1,562	6,500	6,500
Operating Capital	-	-	-
Debt Service	-	-	-
<b>Total Expenditures</b>	<b>\$ 407,891</b>	<b>\$ 466,753</b>	<b>\$ 475,418</b>
<b>Expenditures by Funding Source</b>			
Revenue	\$ 407,891	\$ 466,753	\$ 475,418
Operating Capital Transfer	-	-	-
Grant	-	-	-
<b>Total Expenditures by Source</b>	<b>\$ 407,891</b>	<b>\$ 466,753</b>	<b>\$ 475,418</b>

### LEGAL - Historical Data



<b>PROGRAM STAFFING (BUDGETED)</b>			
Chief Legal Counsel	1.0	Executive Paralegal II	1.0
Executive Paralegal	1.0	Legal Counsel	2.0
<b>5.0 FTEs</b>			

## LEGAL - Performance Data

**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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	3 Enforcement Actions	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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Frequency	2 Lien Sales	2	2	2

#### TARGET MEASURE:

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	90%	65%	65%	65%

#### TARGET MEASURE:

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Flagged Bankruptcies/Proof of Claims	129	100%	100%	100%
Discharged Accounts	129	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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Certifications	4	4	4	4
Request Response Time	7 Days	≤30 days	≤30 days	≤30 days
Number of Responses	7 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Hours	30	40	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:**

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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Quantity	2	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, regulatory agenda filing and disclosure of consultants requirements • OP 3

**TARGET MEASURE:**

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	3 Forms Executed	100%	100%	100%

**TARGET MEASURE:**

Prepare and file regulatory agenda bi-annually

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Frequency	2	2	2	2

**TARGET MEASURE:**

File annual disclosures

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Due Date	September 29, 2015	October 1, 2015	October 1, 2016	October 1, 2017

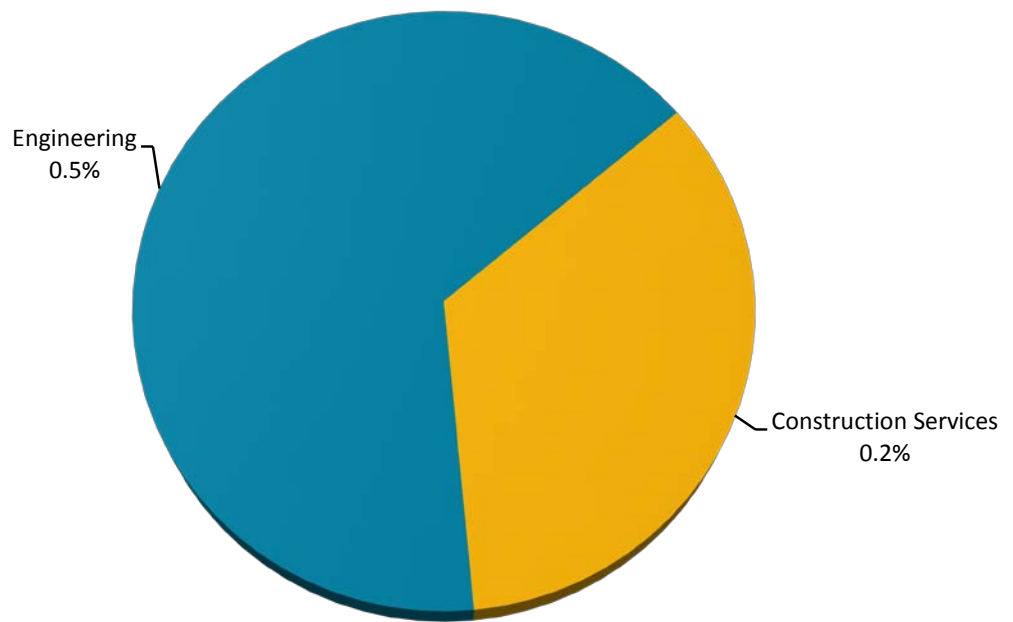
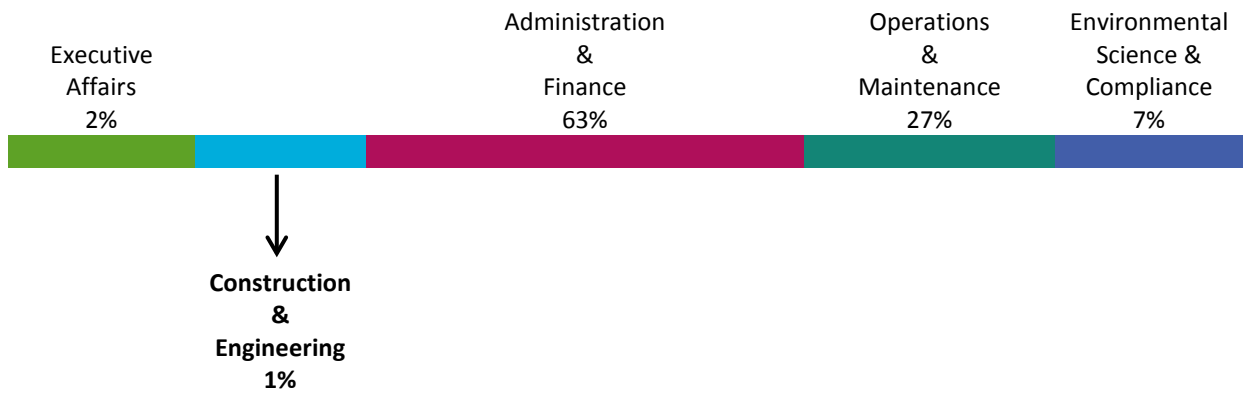
# CONSTRUCTION AND ENGINEERING DIVISION

## Division Summary

CONSTRUCTION SERVICES

ENGINEERING

### NBC Division Budgets

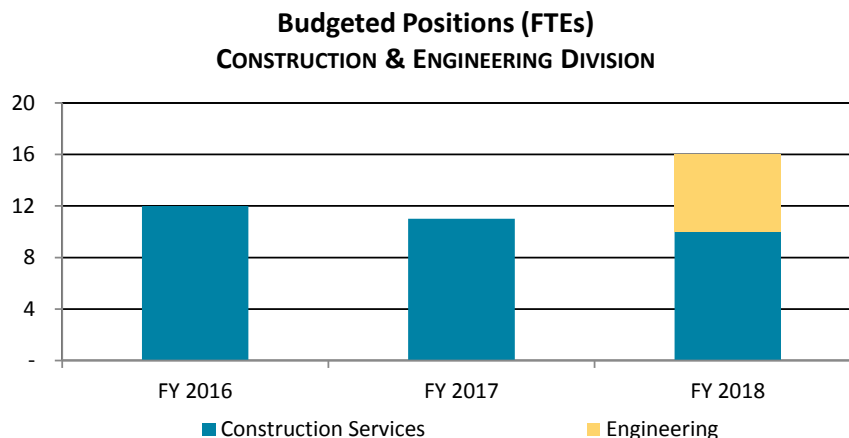


## CONSTRUCTION AND ENGINEERING DIVISION - The Program

### Division Summary

#### Purpose and Overview:

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 services for the entire NBC campus. This Division includes Construction Services and Engineering.

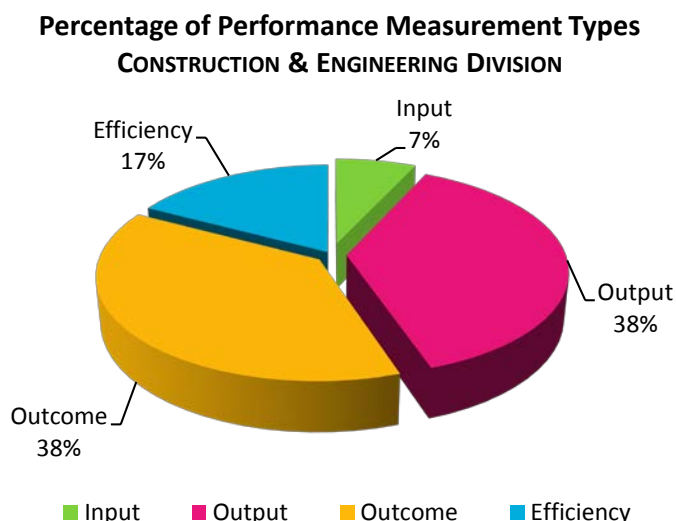


#### Significant Budget Modifications:

The FY 2018 Construction and Engineering Division budget is a total of \$284,674 or 76.3% higher than the FY 2017 Construction Services Division budget. This reflects the organizational changes and the creation of cost center 25, Engineering, which is now part of this Division. As a result, personnel increased by \$215,149; Operating supplies and expense and professional services increased by \$36,025 and Operating Capital has increased by \$30,000 compared to FY 2017.

#### 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 55% of the performance measures.

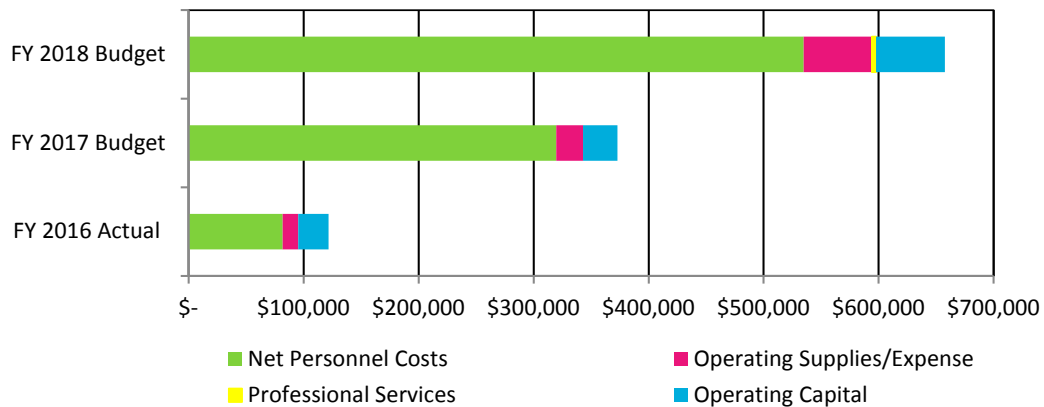


## CONSTRUCTION AND ENGINEERING DIVISION - The Budget

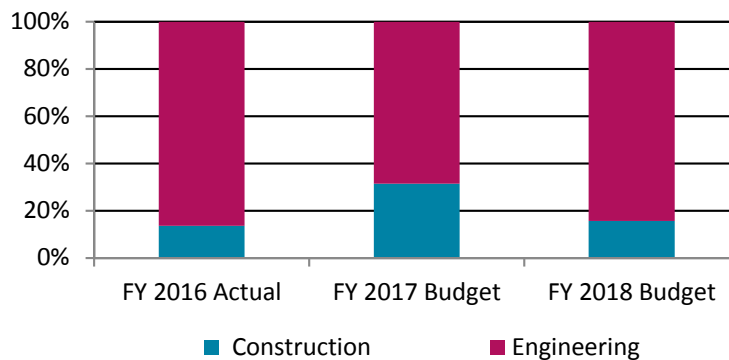
### Division Summary

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	\$ 1,236,322	\$ 1,325,704	\$ 1,962,340
Less Capital Reimbursements	(1,154,626)	(1,005,969)	(1,427,456)
<i>Net Personnel</i>	81,696	319,735	534,884
Operating Supplies/Expense	13,579	23,225	59,250
Professional Services	-	-	3,500
Operating Capital	26,366	30,000	60,000
Debt Service	-	-	-
<b>Total Expenditures</b>	<b>\$ 121,641</b>	<b>\$ 372,960</b>	<b>\$ 657,634</b>
<b>Expenditures by Funding Source</b>			
Revenue	\$ 95,275	\$ 342,960	\$ 597,634
Operating Capital Transfer	26,366	30,000	60,000
Grant	-	-	-
<b>Total Expenditures by Source</b>	<b>\$ 121,641</b>	<b>\$ 372,960</b>	<b>\$ 657,634</b>

### Division's Cost By Element



### Percent of Division's Budget by Section



## **CONSTRUCTION SERVICES - The Program**

### **Mission and Overview:**

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 storm water flows that enter NBC's Collection System.

### **Major Accomplishments FY 2017 by Key Code:**

- CB 2** Managed the emergency contract for installation of backup blowers for the aeration system at the FPWWTF
  
- CB 2** Completed the in-house design, bidding and award of the following projects:
  - FPWWTF Final Clarifier Improvements (Project 13000)
  - NBC Interceptor Easement Restoration, Abbott Valley Interceptor (Project 30438)
  - NBC East Providence Interceptor Improvements (Project 30462)
  - NBC Interceptor Improvements FY 17 (Project 30463)
  - Omega Pump Station Improvements (Project 70800)
  - BPWWTF Flood Protection (Project 81300)
  - BPWWTF Digester Gas Piping Replacement (Project 81400)
  
- CB 2** Closed out the CSO Phase II Facilities construction contracts
  
- CB 2** Completed the construction of the Water Quality Science Building
  
- CB 2** Successfully defended NBC from a significant claim in arbitration

### **Top Priorities for FY 2018 and How They Relate to the Strategic Plan/Goals and by Key Code:**

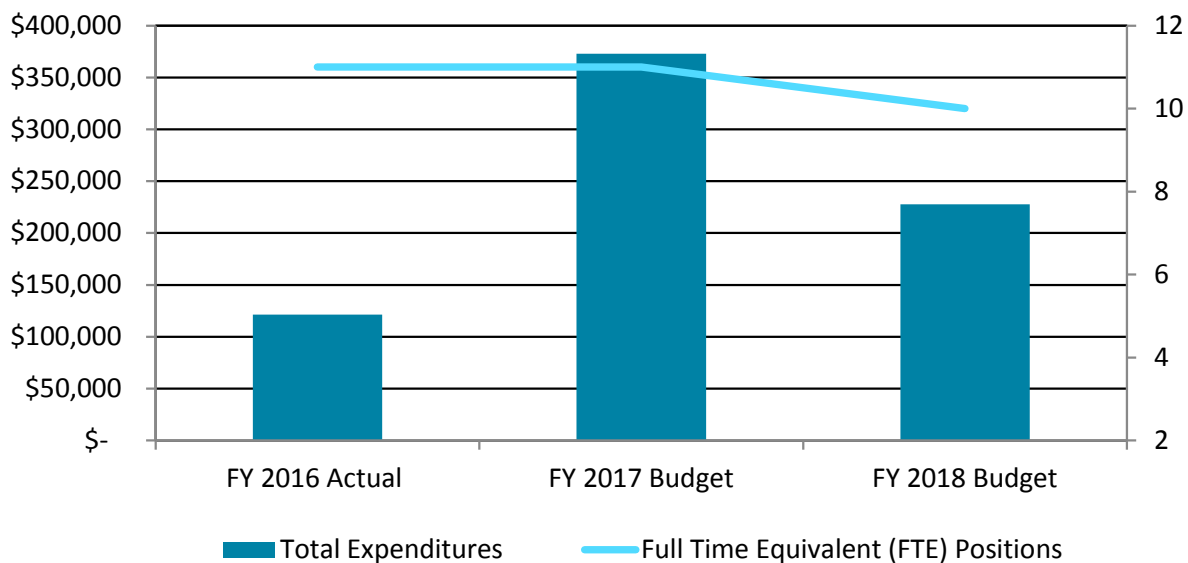
- CB 2** Put out to bid and begin construction for Phase II of the FPWWTF Blower Improvements
  
- CB 2** Assist with design of the CSO Phase III Facilities

## CONSTRUCTION SERVICES - The Budget

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	\$ 1,236,322	\$ 1,325,704	\$ 1,292,034
Less Capital Reimbursements	(1,154,626)	(1,005,969)	(1,116,724)
<i>Net Personnel</i>	81,696	319,735	175,310
Operating Supplies/Expense	13,579	23,225	22,325
Professional Services	-	-	-
Operating Capital	26,366	30,000	30,000
Debt Service	-	-	-
<b>Total Expenditures</b>	<b>\$ 121,641</b>	<b>\$ 372,960</b>	<b>\$ 227,635</b>

<b>Expenditures by Funding Source</b>			
Revenue	\$ 95,275	\$ 342,960	\$ 197,635
Operating Capital Transfer	26,366	30,000	30,000
Grant	-	-	-
<b>Total Expenditures by Source</b>	<b>\$ 121,641</b>	<b>\$ 372,960</b>	<b>\$ 227,635</b>

## CONSTRUCTION SERVICES - Historical Data



PROGRAM STAFFING (BUDGETED)			
Director of Construction and Engineering	1.0	Engineering Construction Coordinator	1.0
Construction Manager	1.0	Mechanical Inspector	1.0
Construction Office Coordinator	1.0	Resident Representative	3.0
CSO Construction Manager	1.0	Senior Construction Coordinator	1.0
<b>10.0 FTEs</b>			

## CONSTRUCTION SERVICES - Performance Data

### 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	11.53%	≤15%	≤15%	≤15%

#### TARGET MEASURE:

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	4.78%	≤8%	≤8%	≤8%

#### TARGET MEASURE:

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	85%	85%	85%	85%

#### TARGET MEASURE:

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	4 Plans	100%	100%	100%

#### TARGET MEASURE:

Collect, review and maintain certified payrolls

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Frequency	12	Monthly	Monthly	Monthly

#### TARGET MEASURE:

Process 100% of Change Orders

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	9 Change Orders	100%	100%	100%

#### TARGET MEASURE:

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	4 Contracts	100%	100%	100%

#### TARGET MEASURE:

Conduct weekly meetings with all contractors for active ongoing projects.

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	4 COAs	100%	100%	100%

#### TARGET MEASURE:

Comply with MBE/WBE quarterly reporting requirements

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Frequency	4	4	4	4

#### TARGET MEASURE:

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	2 Plans/Specifications	100%	100%	100%

#### TARGET MEASURE:

Review constructability and bid ability of all design specifications

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	4 Design Specifications	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:**

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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	46 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	0 Change 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 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 a minimum of 4 meetings with NBC staff, Board Members and public to provide ongoing construction updates

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Frequency	3	4	0	0



## **ENGINEERING - The Program**

### **Mission and Overview:**

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 are identified in the NBC's five-year Capital Improvement Plan. The types of capital projects designed by the Engineering section 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 services for the FPWWTF and BPWWTF.

### **Major Accomplishments FY 2017 by Key Code:**

- CB 2** Completed the construction phase for the Omega Pump Station (Project 70800)
- CB 2** Completed the evaluation of Lab Building reuse options (Project 12900)
- CB 2** Completed the design of the Moshassuck Valley Interceptor (Project 30444)
- CB 2** Completed design for the Providence River Siphon (Project 30457)
- CB 2** Completed design of the interceptor easements at BVI (Project 30501)
- CB 2** Completed optimization, survey, the preliminary geological investigation and updated the sewer model for Phase III
- CB 2** Completed the BVI inspection and cleaning (Project 30474)
- CB 2** Completed the Design for the Seekonk Siphon Structure rehabilitation (Project 30457)
- CB 2** Completed Design for the Johnston Sewer Improvement Project (Project 30460)
- CF 5** Issued 232 sewer connection permits

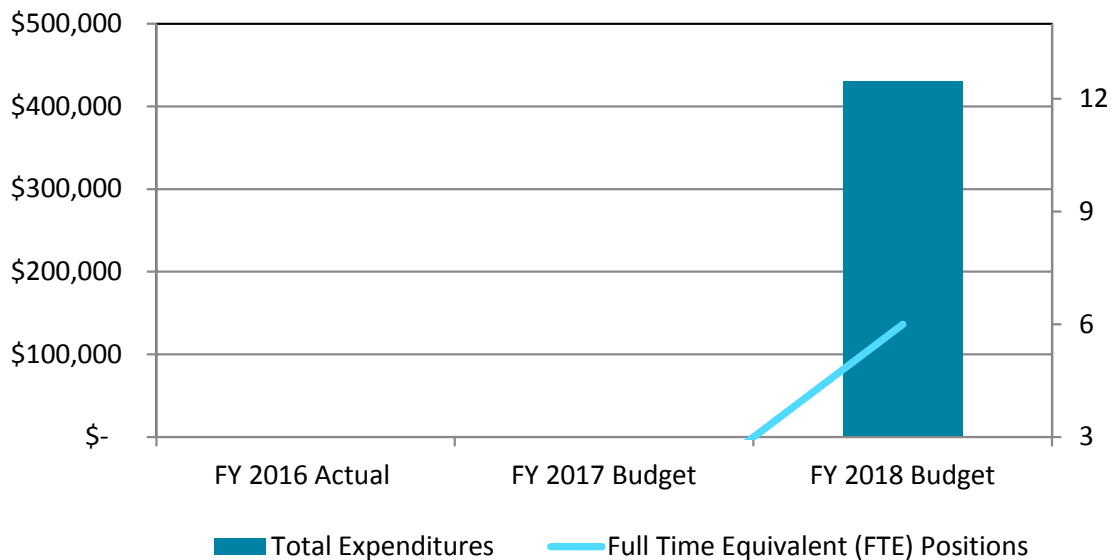
### **Top Priorities for FY 2018 and How They Relate to the Strategic Plan/Goals and by Key Code:**

- CB 2** Begin design of Phase A of the CSO Phase III Program
- CB 2** Initiate design of the Lab Building Reuse Project
- CB 2** Initiate the planning phase for a new Maintenance building at Field's Point and Service building and electrical upgrades at Bucklin Point
- CB 5** Continue to improve the on-line sewer permit file process for sewer connection and stormwater permits

## ENGINEERING - The Budget

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	N/A	N/A	\$ 670,306
Less Capital Reimbursements	N/A	N/A	(310,731)
<i>Net Personnel</i>	N/A	N/A	359,575
Operating Supplies/Expense	N/A	N/A	36,925
Professional Services	N/A	N/A	3,500
Operating Capital	N/A	N/A	30,000
Debt Service	N/A	N/A	-
<b>Total Expenditures</b>	<b>N/A</b>	<b>N/A</b>	<b>\$ 430,000</b>
<b>Expenditures by Funding Source</b>			
Revenue	N/A	N/A	\$ 400,000
Operating Capital Transfer	N/A	N/A	30,000
Grant	N/A	N/A	-
<b>Total Expenditures by Source</b>	<b>N/A</b>	<b>N/A</b>	<b>\$ 430,000</b>

## ENGINEERING - Historical Data



PROGRAM STAFFING (BUDGETED)			
Engineering Manager	1.0	Permits Coordinator	1.0
Environmental Engineer	1.0	Principal Environmental Engineer	2.0
Facilities Engineer	1.0		
<b>6.0 FTEs</b>			

## ENGINEERING - Performance Data

**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:

Prepare annual stormwater inspection report for both WWTF's

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Field's Point Due Date	10/18/2015	12/30/2015	12/30/2016	12/30/2017
Bucklin Point Due Date	10/19/2015	12/30/2015	12/30/2016	12/30/2017

#### TARGET MEASURE:

Renewal of RIPDES stormwater permits per RIDEM requirements within 30 days of notice

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Timeframe	Renewal not required	Within 30 days	Within 30 days	Within 30 days

### 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 projects to ensure integrity of NBC's infrastructures and achieve operating efficiencies

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Nutrient Removal	No Projects	No Projects	1	1
Sewer Collection System	3	4	2	1
Phase III Combined Sewer Overflow	0	1	1	2
WWTF Improvements	0	0	3	4

#### TARGET MEASURE:

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	100%	100%	100%	100%

#### TARGET MEASURE:

Record 100% of file easements for projects

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	100%	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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Database Updates	100%	100%	100%	100%
Software Updates	100%	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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Mechanical Equipment	5 Inspections	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:**

Collect 100% of Permit Fees

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	\$108,835	100%	100%	100%

**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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Timeframe	7 Business Days	≤10 Business Days	≤10 Business Days	≤10 Business Days

**TARGET MEASURE:**

Issue Sewer Alteration Permits within 10 business days

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Timeframe	7 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	232 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Sessions	1	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:**

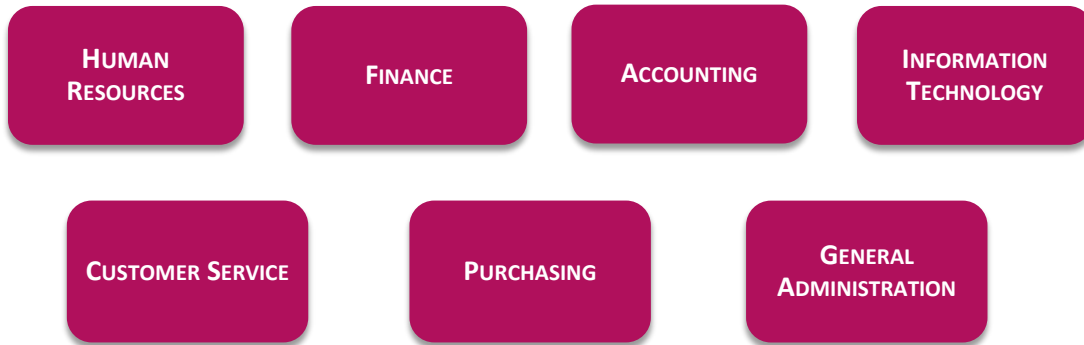
Conduct monthly capital project meetings

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Quantity	9 Meetings	10	10	10



# ADMINISTRATION AND FINANCE DIVISION

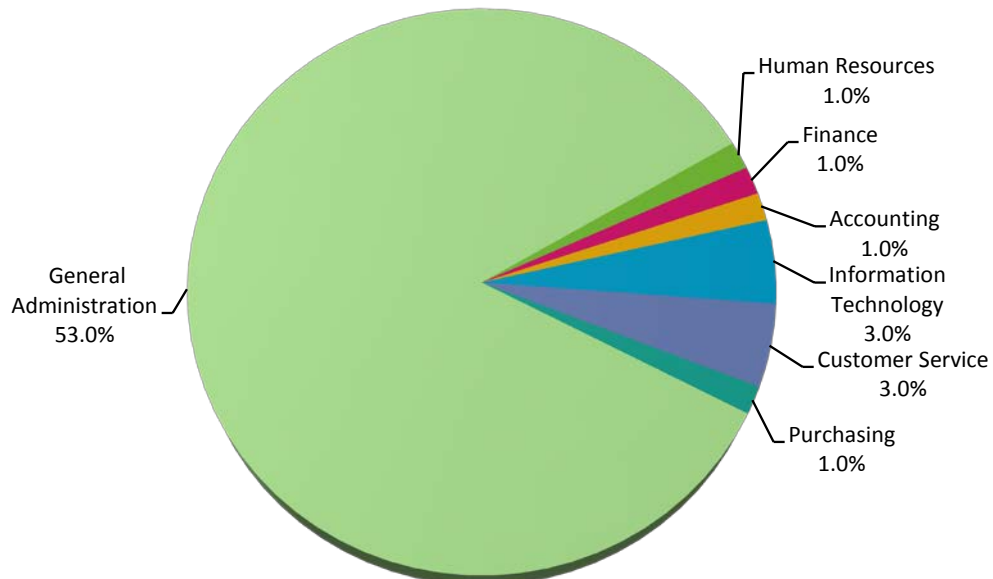
## Division Summary



## NBC Division Budgets



Administration & Finance  
63%

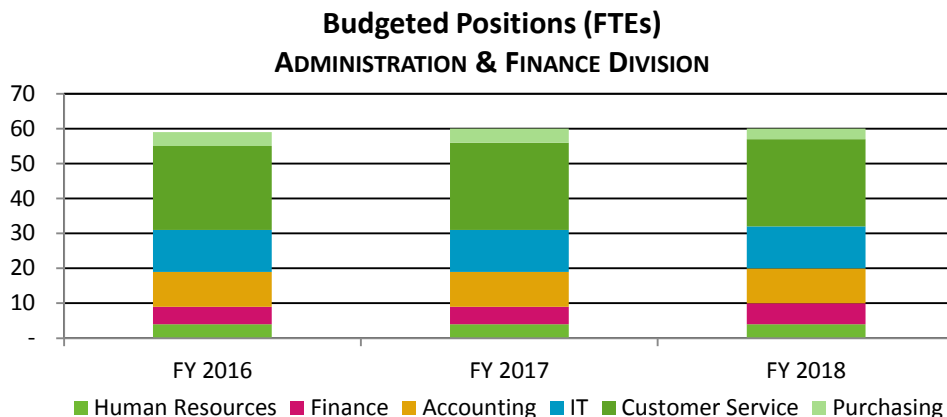


## ADMINISTRATION & FINANCE DIVISION - The Program

### Division Summary

#### Purpose and Overview:

The Administration and Finance Division is responsible for the Finance, Cash Management, Payroll, Employee Benefits, Accounting, Customer Service, Purchasing, Human Resources and Information Technology (IT) 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 the issuance of long-term debt, rate filings, the administration of the retirement plans, and ensuring compliance with applicable state and federal laws, rules and regulations.

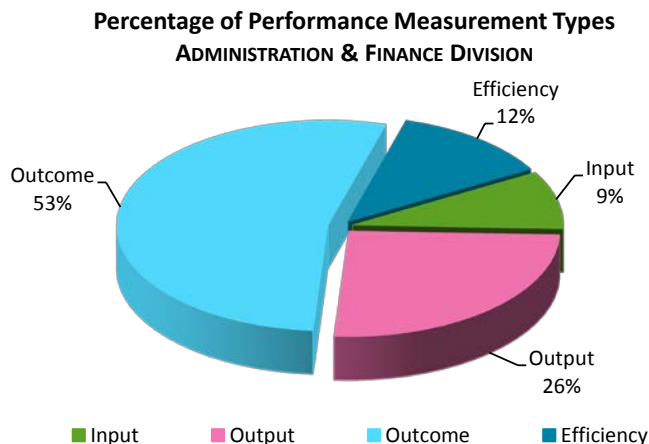


#### Significant Budget Modifications:

The FY 2018 Administration and Finance Division budget is approximately \$2.3 million or 4.0% higher than the FY 2017 budget. Personnel has decreased by \$96,734. Operating supplies and expense and professional services have decreased by \$76,602 and reflects lower postage, lease and rate filing related expense. Operating Capital, which includes Information Technology investments and a new Customer Service Application, increased by \$790,000 and debt service increased by approximately \$1.6 million over the prior year, reflecting the debt service associated with NBC's 2015 Series B and 2016 Series A bonds.

#### Administration & Finance Division Performance Data Summary:

The chart below illustrates the Administration and 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.

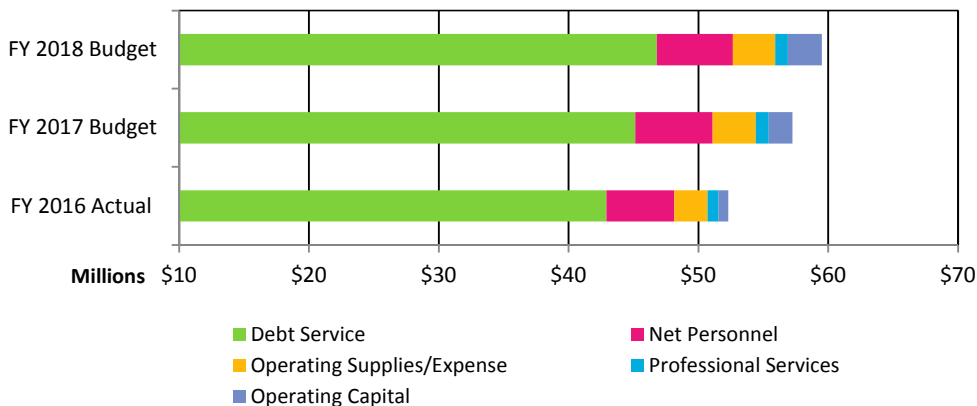


# ADMINISTRATION & FINANCE DIVISION - The Budget

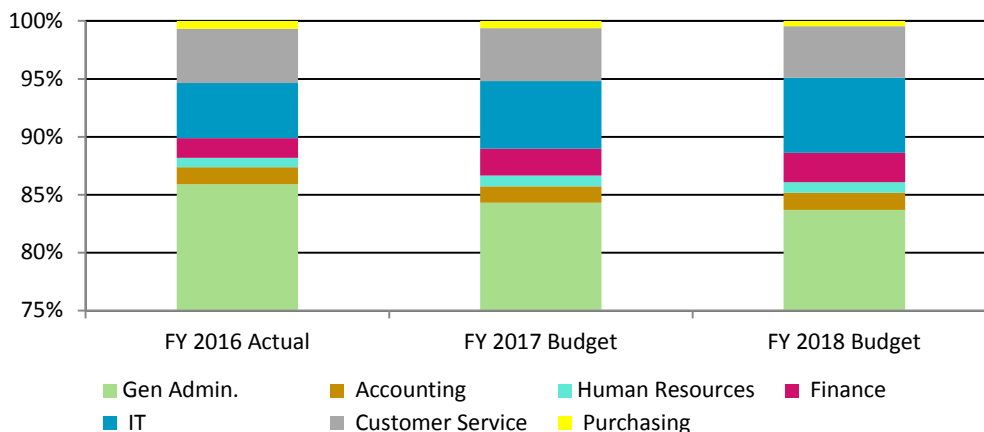
## Division Summary

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	\$ 5,366,877	\$ 6,070,557	\$ 5,973,823
Less Capital Reimbursements	(118,733)	(116,250)	(116,250)
<i>Net Personnel</i>	5,248,144	5,954,307	5,857,573
Operating Supplies/Expense	2,547,272	3,321,377	3,260,375
Professional Services	854,569	1,002,000	986,400
Operating Capital	743,882	1,825,000	2,615,000
Debt Service	42,903,588	45,137,622	46,786,894
<b>Total Expenditures</b>	<b>\$ 52,297,455</b>	<b>\$ 57,240,306</b>	<b>\$ 59,506,242</b>
<b>Expenditures by Funding Source</b>			
Revenue	\$ 51,553,573	\$ 55,415,306	\$ 56,891,242
Operating Capital Transfer	743,882	1,825,000	2,615,000
Grant	-	-	-
<b>Total Expenditures by Source</b>	<b>\$ 52,297,455</b>	<b>\$ 57,240,306</b>	<b>\$ 59,506,242</b>

### Division's Cost by Element



### Percent of Division's Budget By Section





## FINANCE - The Program

### Mission and Overview:

The Finance section ensures that NBC has sufficient resources to carry out its mission and employs sound fiscal policies and practices to enable NBC 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 5-year Capital Improvement Plan, 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 and NBC's retirement plans.

### Major Accomplishments FY 2017 by Key Code:

- FM 1** Received affirmation of the AA-/Stable Long Term unenhanced credit rating from Standard & Poor's and AAA/A-1+ Long Term rating
- FM 4** Prepared the Amendment of the NBC Non-Union Defined Benefit Plan and associated Summary of Plan Provisions
- FM 4** Developed a new internal Budget webpage with fillable forms to facilitate the budget process
- FM 4** Developed and administered the operating budget, finishing under budget for the 25th year
- FM 4** Developed the five-year Capital Improvement Program and managed capital funding
- FM 5** Developed a No Event of Default Certification checklist to accompany the Certificate of No Default for the Direct Pay Letter of Credit supporting NBC's 2008 Series A Revenue Refunding Bonds
- FM 5** Replaced the Direct Pay Letter of Credit supporting NBC's 2008 Series A Revenue Refunding Bonds
- FM 5** Assisted with the preparation of the NBC's Non-Union Defined Benefit Plan Financial Reports for FY 2016 in conformance with GASB 67 and GASB 68
- FM 5** Finalized amendments to Original Tax Certificates for Outstanding Bonds related to the treatment of the Stabilization Account of the Debt Service Fund
- C 4** Received the Government Finance Officers' Association (GFOA) Distinguished Budget Presentation Award and received both Special Capital Recognition and Special Performance Measures Recognition
- OP 3** Prepared and submitted information required per Continuing Disclosure, Post-Issuance Compliance, Trust Indenture, Letter of Credit, RIPUC Orders, IRS and other commitments

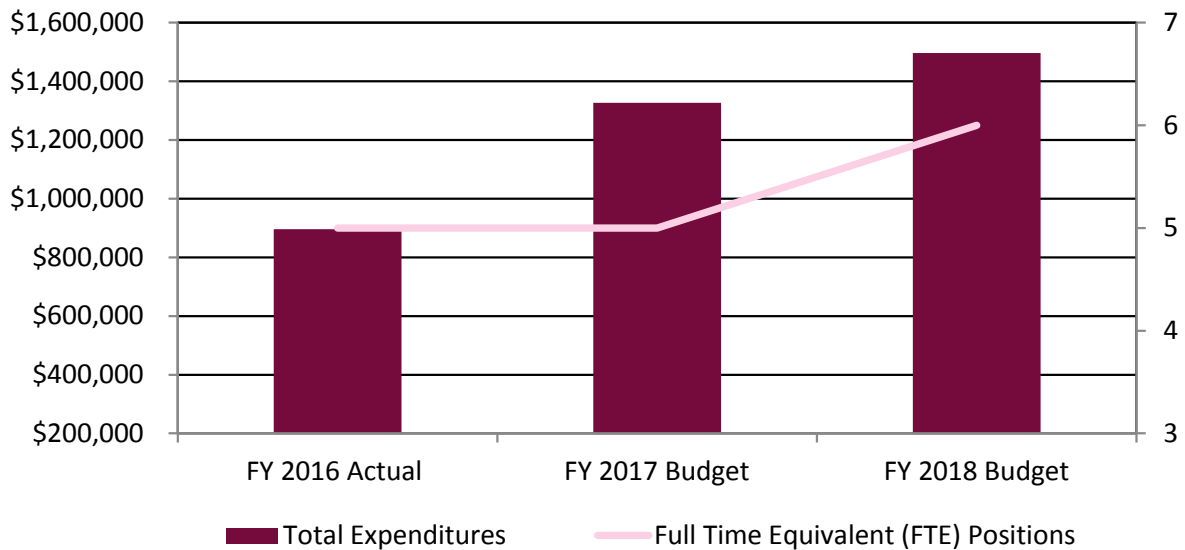
### Top Priorities for FY 2018 and How They Relate to the Strategic Plan/Goals and by Key Code:

- FM 1** Ensure sufficient operating and capital funding with the least ratepayer impact
- FM 1** Maintain AA- and AAA/A-1+ credit ratings from Standard and Poor's
- FM 5** Ensure compliance with the Trust Indenture and Supplemental Indentures, The IRS, The RIPUC and all applicable laws, rules and regulations including Continuing Disclosure

## FINANCE – The Budget

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	\$ 439,060	\$ 536,124	\$ 636,441
Less Capital Reimbursements	-	-	-
<i>Net Personnel</i>	439,060	536,124	636,441
Operating Supplies/Expense	17,250	31,030	30,050
Professional Services	437,294	500,000	480,000
Operating Capital	1,993	260,000	350,000
Debt Service	-	-	-
<b>Total Expenditures</b>	<b>\$ 895,597</b>	<b>\$ 1,327,154</b>	<b>\$ 1,496,491</b>
<b>Expenditures by Funding Source</b>			
Revenue	\$ 893,604	\$ 1,067,154	\$ 1,146,491
Operating Capital Transfer	1,993	260,000	350,000
Grant	-	-	-
<b>Total Expenditures by Source</b>	<b>\$ 895,597</b>	<b>\$ 1,327,154</b>	<b>\$ 1,496,491</b>

### FINANCE - Historical Data



<b>PROGRAM STAFFING (BUDGETED)</b>			
Director of Administration and Finance	1.0	Financial Analyst	1.0
Administrative Assistant	1.0	Rate Analyst	1.0
Compliance Analyst	1.0	Senior Budget Analyst	1.0
<b>6.0 FTEs</b>			

## FINANCE - Performance Data

**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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
General Rate Filing	Filing not needed	10/1/2015	No filing	No filing
Debt Service Filing	2/16/2016	3/1/2016	No filing	No filing

#### TARGET MEASURE:

Spend .5% or Less of Requested Revenue on Outside Rate Case Assistance

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	0.74%	0.5%	0.5%	0.5%

#### TARGET MEASURE:

Transmit compliance reports to the Public Utilities Commission

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Capital Projects	2	2	2	2
Restricted Accounts	4	4	4	4
Non-Union Retirement Plans	9/1/2016	1	1	1

#### TARGET MEASURE:

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
S&P Credit Rating	AA- AAA/A-1+	AA- AAA/A-1+	AA- AAA/A-1+	AA- AAA/A-1+

#### TARGET MEASURE:

Update Long-Term Financial Plan semi-annually

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Frequency	2	2	2	2

### 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Annual Operating Data and CAFR on EMMA	12/12/2016	3/31/2017	3/31/2018	3/31/2019
Annual Operating Data and CAFR with RIIB	12/12/2016	3/31/2017	3/31/2018	3/31/2019
Material Events within 10 days of Occurrence	N/A	<10 Days	<10 Days	<10 Days

#### TARGET MEASURE:

Ensure compliance with federal tax laws and regulations to maintain tax exempt status of NBC's bond issues

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Tax Due Diligence Prior to Issuance	1 Tax Due Diligence	100%	100%	100%

#### TARGET MEASURE:

Perform Post-Issuance Compliance monthly reporting

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Tax Exempt Spend Down Requirements	Monthly	Monthly	Monthly	Monthly
Due Date - Determine Arbitrage Liability	8/31/2015	8/31/2015	8/31/2016	8/31/2017
Provide Arbitrage Calculation Information	6 Requests	100%	100%	100%

#### TARGET MEASURE:

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Frequency	2 Updates	2 Updates	2 Updates	2 Updates

**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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Consecutive Years	14	14	15	16

**TARGET MEASURE:**

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	100%	100%	100%	100%

**TARGET MEASURE:**

Prepare and transmit monthly finance report to Finance Committee

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Frequency	Monthly	Monthly	Monthly	Monthly

**TARGET MEASURE:**

Upload and maintain Operating Budget and CIP internet features

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	248 Updates	100%	100%	100%

**TARGET MEASURE:**

Prudently administer the non-union defined benefit plan

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Due Date - Actuarial Study	8/18/2016	3/31/2016	3/31/2017	3/31/2018
Percentage - Funded Minimum ARC	100%	100%	100%	100%
Due Date - GASB Financial Report	8/30/2016	8/31/2016	8/31/2017	8/31/2018

**TARGET MEASURE:**

Review retirement plan investments quarterly

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 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 receive Finance Committee approval for all operating capital transfer requests over \$50,000 prior to processing

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Total Transfer Requests	34	100%	100%	100%
Transfer Requests >\$50,000	4	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/Seminars hours

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Hours	83.5	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:**

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

**TARGET MEASURE:**

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Received	Proficient/Outstanding	Yes	Yes	Yes

**TARGET MEASURE:**

Complete Annual Sewer User Fee Survey

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
MWRA	5/11/2016	Yes	Yes	Yes
NACWA	12/15/2015	Yes	Yes	Yes
NBC Statewide	5/11/2016	Yes	Yes	Yes

## **HUMAN RESOURCES - The Program**

### **Mission and Overview:**

The Human Resources section 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. 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.

### **Major Accomplishments FY 2017 by Key Code:**

- FM 4** Evaluated and renewed Group Life, Long-Term Disability, Dental Insurance and Flexible Spending Account Plans
- FM 4** Provided daily administration of the non-union retirement plans
- 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 2** Received Best Places to Work in RI Award
- S 4** Provided workplace wellness and training programs to staff
- S 4** Achieved workers' compensation experience modification of 1.19

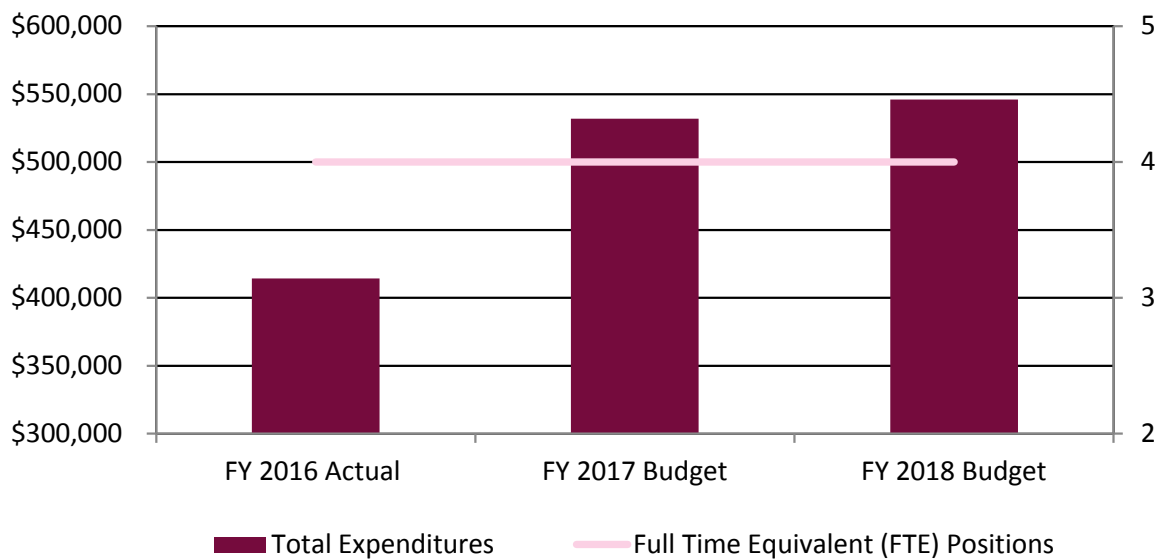
### **Top Priorities for FY 2018 and How They Relate to the Strategic Plan/Goals and by Key Code:**

- 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 4** Continue the workplace wellness initiative

## HUMAN RESOURCES - The Budget

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	\$ 381,372	\$ 402,833	\$ 417,090
Less Capital Reimbursements	-	-	-
<i>Net Personnel</i>	381,372	402,833	417,090
Operating Supplies/Expense	17,217	22,000	22,000
Professional Services	16,063	57,000	57,000
Operating Capital	-	50,000	50,000
Debt Service	-	-	-
<b>Total Expenditures</b>	<b>\$ 414,652</b>	<b>\$ 531,833</b>	<b>\$ 546,090</b>
<b>Expenditures by Funding Source</b>			
Revenue	\$ 414,652	\$ 481,833	\$ 496,090
Operating Capital Transfer	-	50,000	50,000
Grant	-	-	-
<b>Total Expenditures by Source</b>	<b>\$ 414,652</b>	<b>\$ 531,833</b>	<b>\$ 546,090</b>

## HUMAN RESOURCES - Historical Data



<b>PROGRAM STAFFING (BUDGETED)</b>			
Human Resources Manager	1.0	Human Resources Representative/Benefits Coordinator	1.0
Human Resources Clerk	1.0	Senior Human Resources Representative	1.0
<b>4.0 FTEs</b>			

## HUMAN RESOURCES - Performance Data

### 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	100%	100%	100%	100%

##### TARGET MEASURE:

Complete Retirement Plan Census by due date

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Due Date - Defined Benefit	2/1/2016	2/28/2016	2/28/2017	2/28/2018
Due Date - Defined Contribution	7/30/2015	7/30/2015	7/30/2016	7/30/2017

### 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Frequency	10 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Due date	8/1/2015	8/1/2015	8/1/2016	8/1/2017

#### 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	52% - 11 Exit Interviews	100%	100%	100%

##### TARGET MEASURE:

Prepare and distribute employment postings within 1 week of approval

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	58 Employment Postings	100%	100%	100%

##### TARGET MEASURE:

Implement a minimum of 2 "Good Health" programs

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Quantity	2	2	2	2



**TARGET MEASURE:**

Implement a minimum of 1 employee training program

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Quantity	2	1	1	1

**TARGET MEASURE:**

Receive the Best Places to Work in RI Award

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Consecutive Years	6	6	7	8

**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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Quantity	5	2	2	2

**TARGET MEASURE:**

Provide a minimum of 2 workshops and 10 participant meetings with NBC's investment advisor

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Workshops	2	2	2	2
Participant Meetings	14	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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	22 Investigations	100%	100%	100%

**TARGET MEASURE:**

Implement a minimum of 2 Wellness Incentive Programs

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Programs Offered	5	2	2	2
Participating Employees	80%	50%	50%	50%
Employees Reaching Wellness Maximum	31%	30%	30%	30%

**TARGET MEASURE:**

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Rating	.96	≤1.00	≤1.00	≤1.00

## ACCOUNTING - The Program

### Mission and Overview:

The Accounting section is responsible for preparing and issuing monthly financial statements in accordance with "Generally Accepted Accounting Principles". Accounting also 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, maintaining the general ledger, assisting in securing financing, rate filings and processing capital project expenditures.

### Major Accomplishments FY 2017 by Key Code:

- FM 5** Completed the FY 2016 audit by the statutory September 30<sup>th</sup> deadline
- FM 5** Completed the FY 2016 Single Audit by the November 30<sup>st</sup> deadline
- FM 5** Received a clean audit opinion and no management letter for the 19<sup>th</sup> consecutive year
- FM 5** Received the GFOA Certificate of Achievement for Excellence in Financial Reporting for the 14<sup>th</sup> consecutive year
- FM 5** Assisted with the preparation of the FY 2016 Financial Reports for the NBC's Non-Union Defined Benefit Plan in conformance with GASB 67 and GASB 68
- FM 5** Accurately calculated and submitted the monthly transfers as required by the Trust Indenture
- FM 5** Prepared and distributed first year ACA IRS reporting for CY 2016
- FM 5** Accurately completed the PUC's monthly restricted account reporting
- FM 6** Processed and submitted approximately \$39.5 million in capital invoices to NBC's Trustee and the RIIB
- FM 6** Processed all operating invoices and bi-weekly payrolls in a timely manner and received \$3,802 in discounts for prompt payment

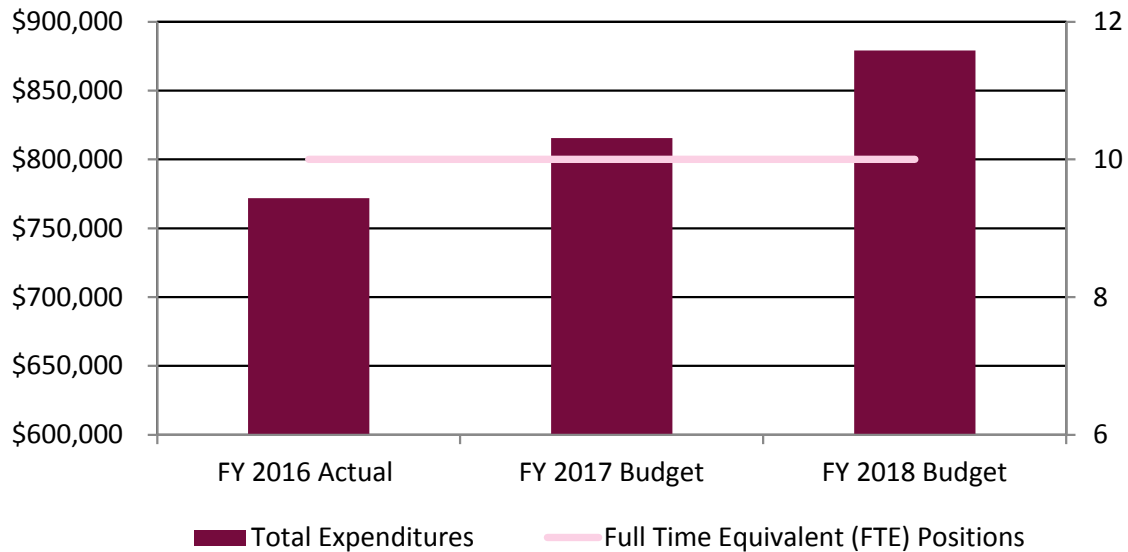
### Top Priorities for FY 2018 and How They Relate to the Strategic Plan/Goals and by Key Code:

- FM 5** Complete the FY 2017 audit in a timely basis and receive a clean audit opinion and no management letter
- FM 5** Ensure proper calculation and processing of the monthly transfers as required by the Trust Indenture
- FM 6** Process all operating invoices, capital invoices, and the bi-weekly payroll in a timely manner

## ACCOUNTING - The Budget

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	\$ 847,111	\$ 881,564	\$ 872,374
Less Capital Reimbursements	(118,733)	(116,250)	(116,250)
<i>Net Personnel</i>	728,378	765,314	756,124
Operating Supplies/Expense	8,492	10,125	10,095
Professional Services	35,000	35,000	38,000
Operating Capital	-	5,000	75,000
Debt Service	-	-	-
<b>Total Expenditures</b>	<b>\$ 771,870</b>	<b>\$ 815,439</b>	<b>\$ 879,219</b>
<b>Expenditures by Funding Source</b>			
Revenue	\$ 771,870	\$ 810,439	\$ 804,219
Operating Capital Transfer	-	5,000	75,000
Grant	-	-	-
<b>Total Expenditures by Source</b>	<b>\$ 771,870</b>	<b>\$ 815,439</b>	<b>\$ 879,219</b>

## ACCOUNTING - Historical Data



<b>PROGRAM STAFFING (BUDGETED)</b>			
Accounting Manager	1.0	Payroll Administrator	1.0
Capital Accounting Assistant	1.0	Payroll Supervisor	1.0
Capital Principal Accountant	1.0	Principal Accountant	1.0
Fiscal Clerk	1.0	Senior Fiscal Clerk	1.0
		Staff Accountant	2.0
<b>10.0 FTEs</b>			

## ACCOUNTING - Performance Data

### 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Consecutive Years	14	14	15	16

#### TARGET MEASURE:

Timely completion of financial audit

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Completion of CAFR	9/30/2016	9/30/2016	9/30/2017	9/30/2018
Consecutive Years - No Management Letter	18	18	19	20
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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Completion of Single Audit	9/30/2016	3/31/2017	3/31/2018	3/21/2019
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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Timeframe	4 Days	Within 5 days	Within 5 days	Within 5 days

#### TARGET MEASURE:

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	2 Pronouncements Implemented	100%	100%	100%

#### TARGET MEASURE:

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Timeframe	19 Days	≤25 Days	≤25 Days	≤25 Days

#### TARGET MEASURE:

Prepare trust transfers on the fourth business day prior to month-end

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Timeframe	4 <sup>th</sup> Business Day	4 <sup>th</sup> Business Day	4 <sup>th</sup> Business Day	4 <sup>th</sup> Business Day

#### TARGET MEASURE:

Perform monthly fund reconciliation within 25 days after month-end

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Timeframe	20 Days	≤25 Days	≤25 Days	≤25 Days

#### TARGET MEASURE:

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
W-2s	281 - W-2s	100%	100%	100%
1099s	107 - 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 1<sup>st</sup> of each year

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Due Date	9/29/2015	10/1/2015	10/1/2016	10/1/2017

**TARGET MEASURE:**

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Operating Invoices	7,947 Operating Invoices	100%	100%	100%
Capital Invoices	473 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Hours	73	50	50	50

## **INFORMATION TECHNOLOGY - The Program**

### **Mission and Overview:**

The IT section of NBC is responsible for all aspects of networks, telecommunications, hardware, software and databases for the entire enterprise. As a group, IT provides the infrastructure to enable NBC to have a cohesive, productive workforce. IT is responsible for ensuring the agency has the technology to perform at the expected level of 99% uptime.

### **Major Accomplishments FY 2017 by Key Code:**

- CB 3** Replaced critical server infrastructure at the Corporate Office Building
- CB 3** Initiated replacement of the Laboratory Information System
- CB 3** Expanded wireless mesh network at Bucklin Point
- CB 3** Expanded thin client roll out to EMDA and Pretreatment
- CB 3** Initiated the migration to a 3<sup>rd</sup> party Customer Service Application
- CB 3** Upgraded Hansen to latest version
- CB 3** Migrated databases to latest version of Oracle

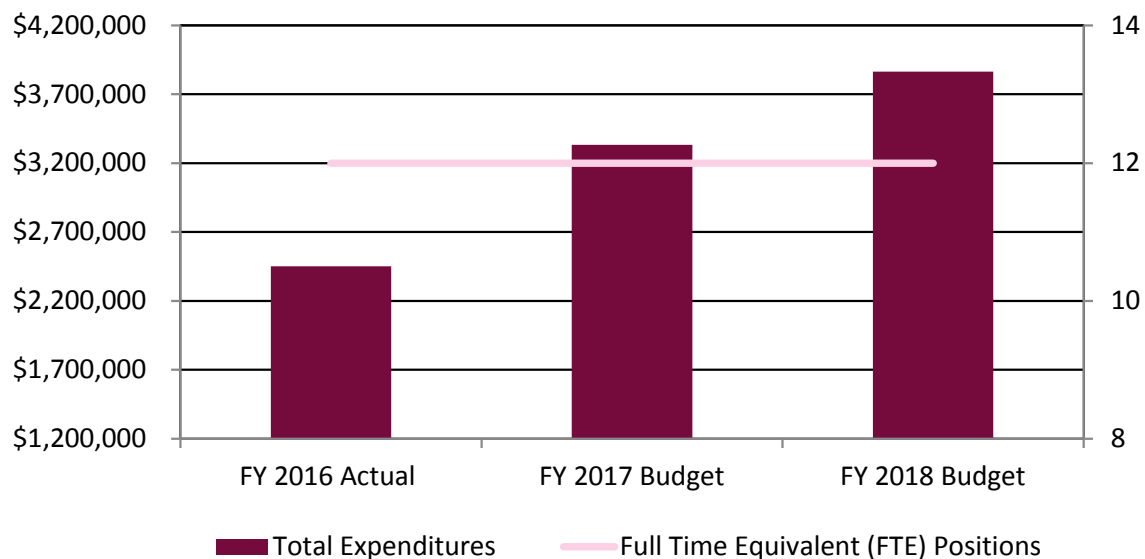
### **Top Priorities for FY 2018 and How They Relate to the Strategic Plan/Goals and by Key Code:**

- CB 3** Replace Storage Area Network (SAN) at the Corporate Office Building
- CB 3** Replace the Laboratory Information Management System
- CB 3** Upgrade Edge Switch Infrastructure
- CB 3** Expand Thin-Clients throughout NBC campus
- CB 3** Implement Customer Service Application

## INFORMATION TECHNOLOGY – The Budget

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	\$ 1,324,517	\$ 1,370,533	\$ 1,342,256
Less Capital Reimbursements	-	-	-
<i>Net Personnel</i>	1,324,517	1,370,533	1,342,256
Operating Supplies/Expense	566,453	628,236	603,240
Professional Services	-	-	-
Operating Capital	588,432	1,335,000	1,920,000
Debt Service	-	-	-
<b>Total Expenditures</b>	<b>\$ 2,479,402</b>	<b>\$ 3,333,769</b>	<b>\$ 3,865,496</b>
<b>Expenditures by Funding Source</b>			
Revenue	\$ 1,890,970	\$ 1,998,769	\$ 1,945,496
Operating Capital Transfer	588,432	1,335,000	1,920,000
Grant	-	-	-
<b>Total Expenditures by Source</b>	<b>\$ 2,479,402</b>	<b>\$ 3,333,769</b>	<b>\$ 3,865,496</b>

### INFORMATION TECHNOLOGY - Historical Data



<b>PROGRAM STAFFING (BUDGETED)</b>			
Information Technology Manager	1.0	Senior Database and Linux Administrator	1.0
Computer Training Support Specialist	1.0	Senior Network and Communication Administrator	1.0
Junior Networks and Communications Administrator	1.0	Senior Systems Administrator	1.0
PC/Phone Support/Systems Administrator Specialist	1.0	Senior Systems Development Programmer	1.0
Senior Applications System Supervisor	1.0	Senior .NET Developer	1.0
Senior Database Administrator	1.0	Systems Design Programmer	1.0
<b>12.0 FTEs</b>			

## INFORMATION TECHNOLOGY - Performance Data

**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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Hours	3	≤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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	86%	100%	100%	100%

Prevent 100% of security breaches into NBC servers and applications

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	2,155,774 Scanned 45,098 Violations	100%	100%	100%

#### TARGET MEASURE:

Prevent 100% of security breaches into NBC email server

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	1,236,941 Blocked 6,719 Quarantined	100%	100%	100%

#### TARGET MEASURE:

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Audit Complete	Yes	Yes	No Audit	Yes

**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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Budgeted	14	100%	100%	100%
Completed	13			



**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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	99.6%	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 140 user training sessions

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Incentive	51	50	50	50
Non-Incentive	98	90	100	100

**TARGET MEASURE:**

Provide a minimum of 250 employee training hours

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Hours	292	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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
PCs	99%	100%	100%	100%
ThinClients	100%	100%	100%	100%

**TARGET MEASURE:**

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
PCs	100%	100%	100%	100%
ThinClients	100%	100%	100%	100%

## **CUSTOMER SERVICE - The Program**

### **Mission and Overview:**

The Customer Service is responsible for accurate and timely billing of approximately 84,200 accounts in the NBC service area. Water consumption based billings comprise more than half of the annually billed user charges, and the NBC receives water consumption data from seven different water supply boards. Customers are billed on a monthly basis. The billing section also responds to customer inquiries including closing requests. Additionally, Customer Service has field investigators who research accounts and facilitate the abatement program. Collection activity includes phone calls, the water shut-off process and support for the lien sale. Customer service is committed to providing NBC's customers with excellent service.

### **Major Accomplishments FY 2017 by Key Code:**

- FM 3** Completed timely and accurate monthly billings of NBC's 84,200 accounts
- FM 3** Billed more than \$97 million in user fee revenue
- FM 3** Collected approximately \$500,000 per month through the Water Shut-off program
- CF 3** Refined and expanded Customer Service Application to more efficiently service NBC customers
- CF 5** Obtained site readings for more than 400 customers per month on average
- CF 5** Received and responded to an average of 4,600 customer calls per month

### **Top Priorities for FY 2018 and How They Relate to the Strategic Plan/Goals and by Key Code:**

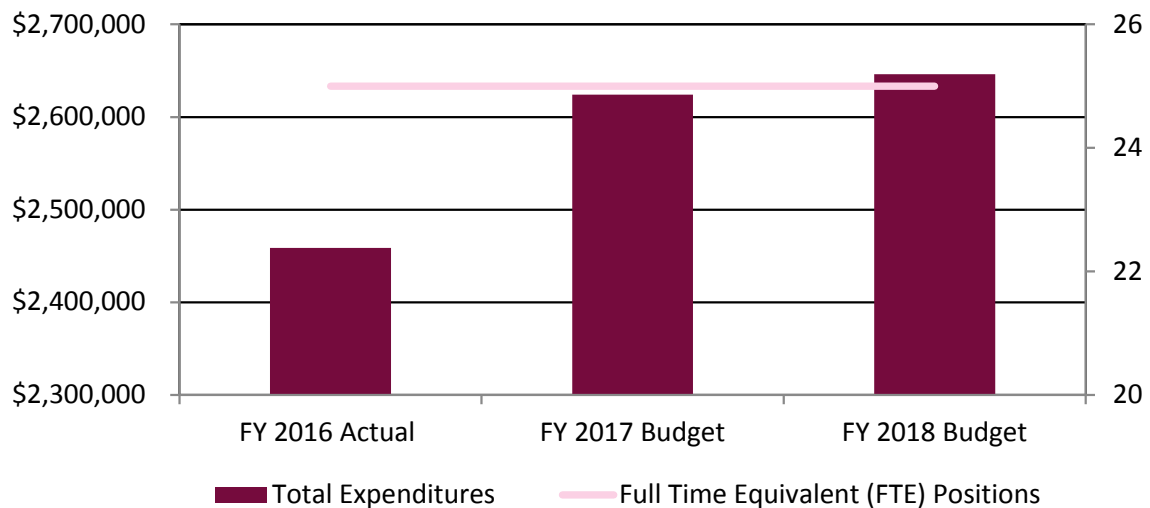
- CB 4** Assist with the implementation of a new Customer Service System Application
- FM 3** Ensure complete and accurate billings and streamline collection strategies to maximize results
- CF 2** Provide excellent customer service
- S 3** Continue to provide training for Customer Service staff

## CUSTOMER SERVICE - The Budget

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	\$ 1,850,727	\$ 2,001,488	\$ 2,030,018
Less Capital Reimbursements	-	-	-
<i>Net Personnel</i>	1,850,727	2,001,488	2,030,018
Operating Supplies/Expense	529,758	554,793	539,793
Professional Services	53,352	38,000	46,400
Operating Capital	25,208	30,000	30,000
Debt Service	-	-	-
<b>Total Expenditures</b>	<b>\$ 2,459,045</b>	<b>\$ 2,624,281</b>	<b>\$ 2,646,211</b>

<b>Expenditures by Funding Source</b>			
Revenue	\$ 2,433,837	\$ 2,594,281	\$ 2,616,211
Operating Capital Transfer	25,208	30,000	30,000
Grant	-	-	-
<b>Total Expenditures by Source</b>	<b>\$ 2,459,045</b>	<b>\$ 2,624,281</b>	<b>\$ 2,646,211</b>

### CUSTOMER SERVICE - Historical Data



<b>PROGRAM STAFFING (BUDGETED)</b>			
Customer Service Manager	1.0	Customer Service Analyst	2.0
Assistant Billing Supervisor	1.0	Customer Service Representative	8.0
Assistant Collections Supervisor	1.0	Customer Service Representative - Fiscal Clerk	2.0
Billing Supervisor	1.0	Customer Service Support Supervisor	1.0
Collections Analyst	1.0	Field Investigator	3.0
Collections Supervisor	1.0	Fiscal Clerk	1.0
Customer Research Supervisor	1.0	Senior Fiscal Clerk	1.0
<b>25.0 FTEs</b>			

## CUSTOMER SERVICE - Performance Data

### 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	827,275 Accounts	98%	98%	98%

#### TARGET MEASURE:

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	21,167 Accounts	90%	90%	90%

#### TARGET MEASURE:

Create a minimum of 10% of Budget Agreements for accounts with over 30-day balances

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	2,197 Accounts	8%	8%	8%

#### TARGET MEASURE:

Send foreclosure letters to 100% properties going into foreclosure

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	792 Accounts	100%	100%	100%

#### TARGET MEASURE:

Select a minimum of 5,000 accounts for Water Shut Off

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Selected	7,809	5,000	5,000	5,000
Posted	47% - 3,671 Accounts	50%	50%	50%
Terminated	10% - 811 Accounts	18%	18%	18%

#### TARGET MEASURE:

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	.97%	<1.5%	<1.5%	<1.5%

#### TARGET MEASURE:

Conduct monthly billing of NBC Accounts

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Billings	12	12	12	12
Accounts	200	200	200	200

### 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	280 Meters	100%	100%	100%

#### TARGET MEASURE:

Investigate new sewer connection permits

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	1,316 Permits	100%	100%	100%

**TARGET MEASURE:**

Process 100% of Abatement Applications

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	170 Applications	100%	100%	100%

**TARGET MEASURE:**

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
New	262 Accounts	100%	100%	100%
Updated	714 Accounts	100%	100%	100%

**TARGET MEASURE:**

Resolve account disputes within 30 days

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	98% - 3,137 Resolutions	96%	96%	96%

**TARGET MEASURE:**

Process closings requests within 48 hours

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Total Closings	5,628	95%	95%	95%
Processed within 48 hours	86% - 4,862 Requests			

**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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Quantity - Reviewed	27	15	15	15
Quantity - Read	700	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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Hours	1,868	1,500	1,500	1,500

## **PURCHASING - The Program**

### **Mission and Overview:**

The Purchasing section is responsible for ensuring the legal, timely and cost-effective purchasing of goods and services. This section also provides support for security and maintenance of the Corporate Office Building.

### **Major Accomplishments FY 2017 by Key Code:**

- CB 4** Added bid specifications and sole source documentation to SharePoint
- FM 5** Ensured that all purchases were in conformance with State of RI Purchasing Regulations and NBC Purchasing Regulations
- FM 6** Prepared 15 bid proposals and specifications within 30 days
- FM 6** Assisted with emergency purchases
- FM 8** Administered the net metering contract and renegotiated the contract for the sale of RECs generated by the wind turbines at Field's Point
- CF 5** Provided assistance to NBC staff to ensure compliance with State of RI Purchasing Regulations
- CF 5** Posted bid requests and awards online
- CF 6** Reviewed new legislation with NBC's Legal department to ensure compliance
- S 3** Ensured new employees were trained in the Oracle purchasing system

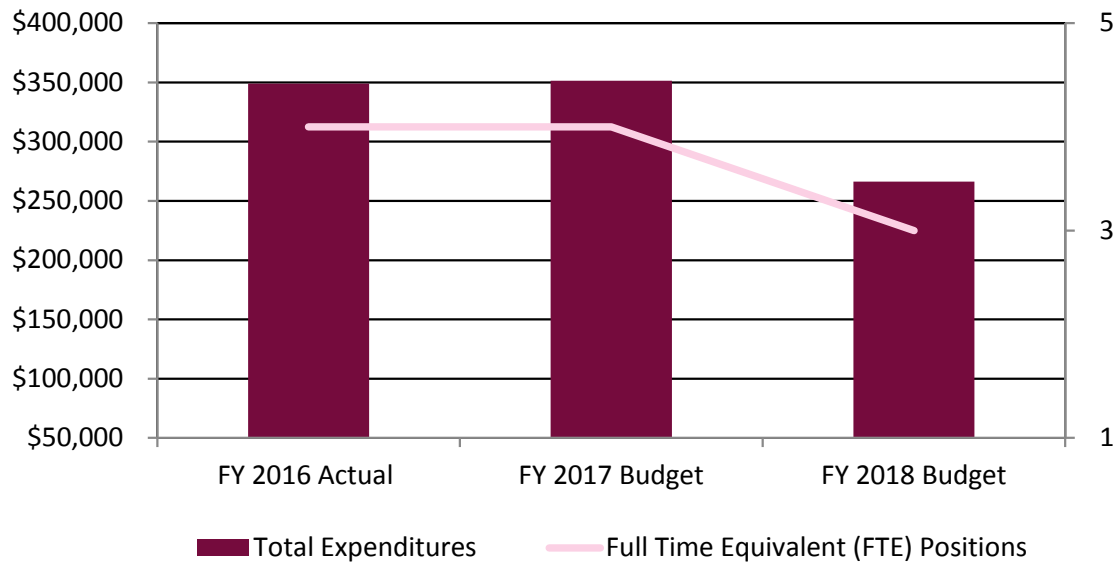
### **Top Priorities for FY 2018 and How They Relate to the Strategic Plan/Goals and by Key Code:**

- 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

## PURCHASING - The Budget

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	\$ 346,749	\$ 347,847	\$ 263,035
Less Capital Reimbursements	-	-	-
<i>Net Personnel</i>	346,749	347,847	263,035
Operating Supplies/Expense	2,286	3,600	3,200
Professional Services	-	-	-
Operating Capital	-	-	-
Debt Service	-	-	-
<b>Total Expenditures</b>	<b>\$ 349,035</b>	<b>\$ 351,447</b>	<b>\$ 266,235</b>
<b>Expenditures by Funding Source</b>			
Revenue	\$ 349,035	\$ 351,447	\$ 266,235
Operating Capital Transfer	-	-	-
Grant	-	-	-
<b>Total Expenditures by Source</b>	<b>\$ 349,035</b>	<b>\$ 351,447</b>	<b>\$ 266,235</b>

## PURCHASING - Historical Data



<b>PROGRAM STAFFING (BUDGETED)</b>			
Purchasing Manager	1.0	Purchasing Coordinator	1.0
Office Administrator	1.0		
<b>3.0 FTEs</b>			

## PURCHASING - Performance Data

### 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	3,013 Requisitions	100%	100%	100%

#### TARGET MEASURE:

Complete 85% of bid specifications within 30 days

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	89% - 40 Bid Specifications	85%	85%	85%

#### TARGET MEASURE:

Ensure contracts are awarded within 60 days of RFQP

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Timeframe	60 Days - 36 Contracts	Within 60 days	Within 60 days	Within 60 days

#### TARGET MEASURE:

Review all contracts three months prior to expiration

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	6 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 requisitions greater than \$10,000

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	167 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's fleet does not include more than 50 vehicles that weigh less than 8,500 tons

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Quantity	47	≤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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Hours	24	24	24	24



## **GENERAL ADMINISTRATION - The Program**

### **Mission and Overview:**

The General Administration section includes overhead items such as unemployment, insurance, workers' compensation insurance, and property management activities related to the Corporate Office Building and NBC Campus. Other overhead support items such as postage and telephones are also budgeted in this section. Debt service represents the most significant element of the General Administration budget.

### **Major Accomplishments FY 2017 by Key Code:**

- CB 5** Completed the reconfiguration of the fourth floor and the PP&R areas of the COB
- CB 5** Completed monthly analysis of COB maintenance expense
- CB 5** Coordinated with other NBC sections to ensure the continuous update and enhancement of security
- CB 5** Completed proper preventive and corrective maintenance at the COB
- CB 5** Maintained and tracked the inventory associated with HVAC parts and components
- FM 8** Assisted with the LED upgrade under the NBC Energy Efficiency Upgrades (Project 13100C)
- CF 2** Managed service request logs and ensured timely responses

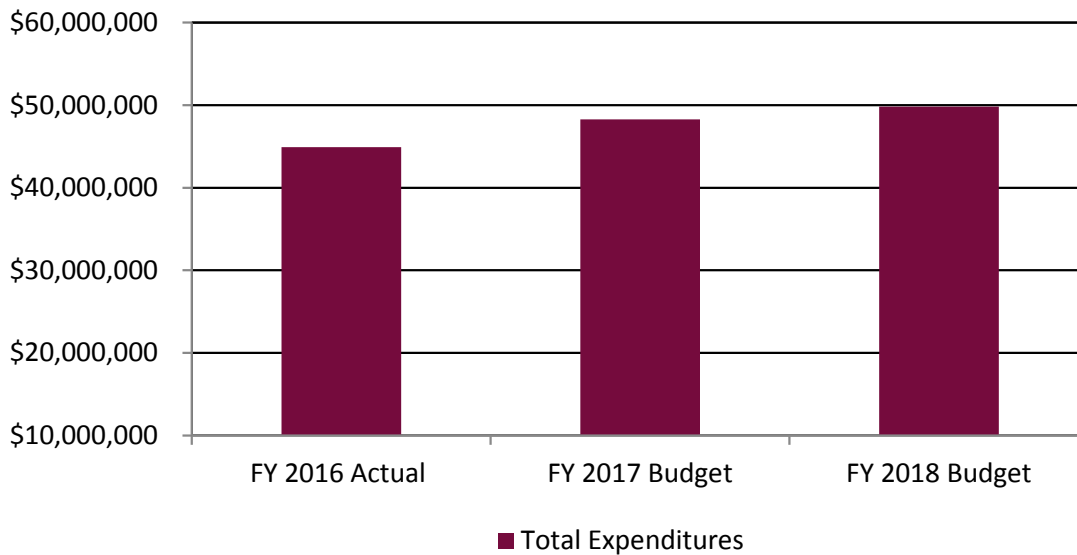
### **Top Priorities for FY 2018 and How They Relate to the Strategic Plan/Goals and by Key Code:**

- CB 3** Ensure all necessary security enhancements are completed
- CB 5** Provide cost-effective property management of the Corporate Office Building and NBC Campus
- CF 2** Ensure timely completion of service requests

## GENERAL ADMINISTRATION - The Budget

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	\$ 177,341	\$ 530,168	\$ 412,609
Less Capital Reimbursements	-	-	-
<i>Net Personnel</i>	177,341	530,168	412,609
Operating Supplies/Expense	1,405,815	2,071,593	2,051,997
Professional Services	312,860	372,000	365,000
Operating Capital	128,249	145,000	190,000
Debt Service	42,903,588	45,137,622	46,786,894
<b>Total Expenditures</b>	<b>\$ 44,927,853</b>	<b>\$ 48,256,383</b>	<b>\$ 49,806,500</b>
<b>Expenditures by Funding Source</b>			
Revenue	\$ 44,799,604	\$ 48,111,383	\$ 49,616,500
Operating Capital Transfer	128,249	145,000	190,000
Grant	-	-	-
<b>Total Expenditures by Source</b>	<b>\$ 44,927,853</b>	<b>\$ 48,256,383</b>	<b>\$ 49,806,500</b>

### GENERAL ADMINISTRATION - Historical Data



<b>PROGRAM STAFFING (BUDGETED)</b>
Responsibilities are executed by Purchasing Staff

## GENERAL ADMINISTRATION - Performance Data

**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:

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

#### TARGET MEASURE:

Perform quarterly facility inspections

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Elevators	8	Quarterly	Quarterly	Quarterly
Fire Alarms	8	Quarterly	Quarterly	Quarterly

#### TARGET MEASURE:

Complete 85% of building maintenance requests within two weeks

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	90% - 88 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:

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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Budgeted	7	100%	100%	100%
Planned	6			

#### TARGET MEASURE:

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Dollars per square foot	\$3.85	\$8.00	\$8.00	\$8.00

### 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Frequency	2 – 4,147 RECs	≥2	≥2	≥2

**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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	38 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

<b>Unit of Measure</b>	<b>FY 2016 Actual</b>	<b>FY 2016 Goal</b>	<b>FY 2017 Goal</b>	<b>FY 2018 Goal</b>
Percentage	100% - 3,012 Pieces	100%	100%	100%

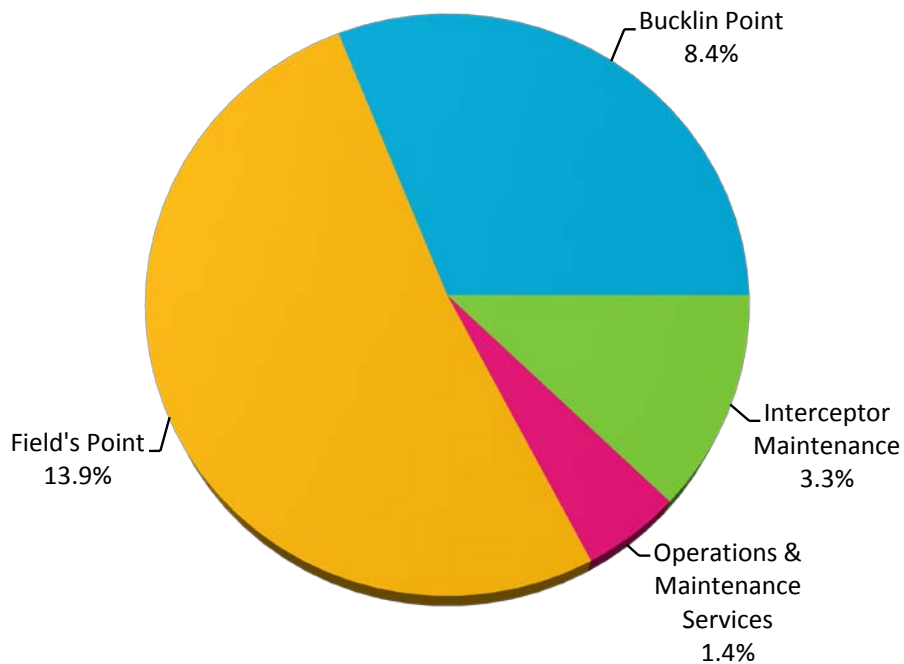
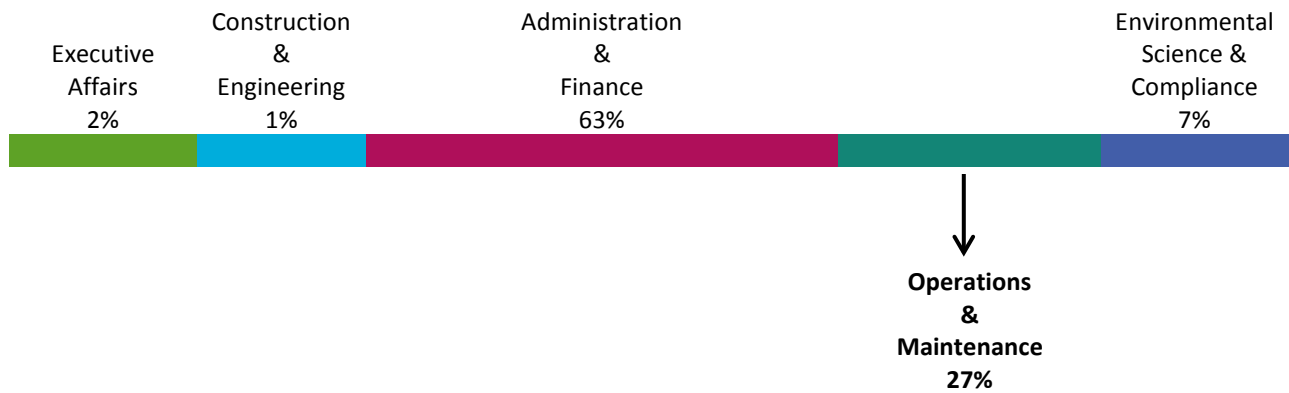


# OPERATIONS AND MAINTENANCE DIVISION

## Division Summary



## NBC Division Budgets

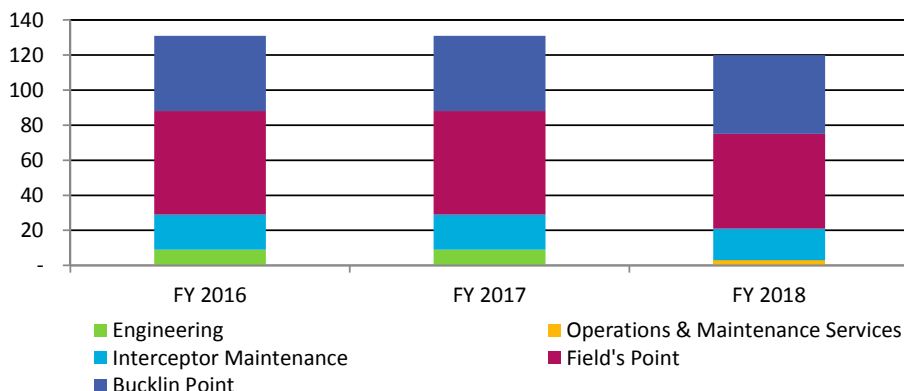


## OPERATIONS AND MAINTENANCE DIVISION - The Program Division Summary

### Purpose and Overview:

The Operations and Maintenance Division is responsible for managing, operating and maintaining NBC's wastewater treatment facilities, infrastructure, collection system and Asset Management Program. 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.

**Budgeted Positions (FTEs)**  
**OPERATIONS AND MAINTENANCE DIVISION**



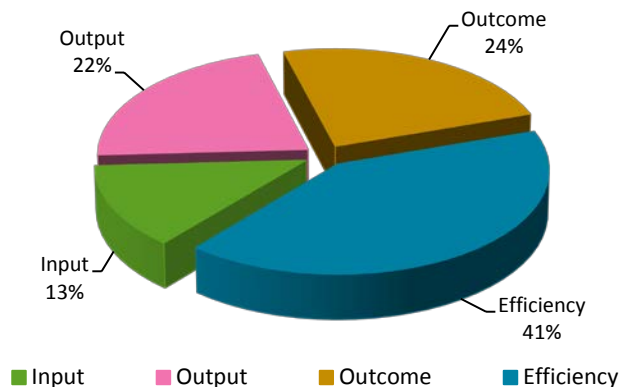
### Significant Budget Modifications:

The FY 2018 Operations and Maintenance Division budget decreased by approximately 3.9% or \$1.0 million from the FY 2017 budget. Personnel decreased by \$220,377 or 1.8% due to organizational changes and funding for nine fewer budgeted positions compared to the prior year. Operating supplies and expense and professional services increased by \$101,888 and includes service agreements for electrical testing and the Field's Point wind turbines. Operating Capital reflects a decrease of \$907,100 from the prior year.

### 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.

**Percentage of Performance Measurement Types**  
**OPERATIONS & MAINTENANCE DIVISION**



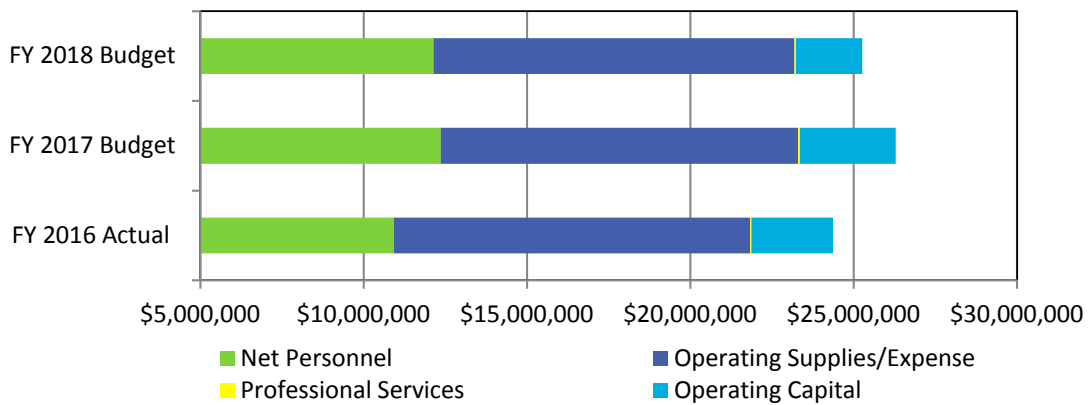
## OPERATIONS AND MAINTENANCE DIVISION - The Budget

### Division Summary

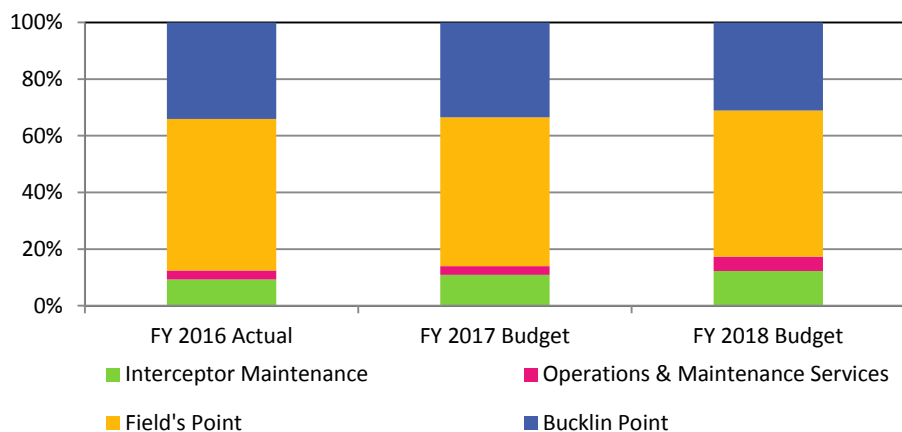
	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	\$ 11,327,578	\$ 12,709,983	\$ 12,212,414
Less Capital Reimbursements	(396,642)	(356,245)	(79,053)
<i>Net Personnel</i>	10,930,936	12,353,738	12,133,361
Operating Supplies/Expense	10,900,016	10,943,053	11,054,941
Professional Services	36,938	52,300	42,300
Operating Capital	2,497,674	2,939,500	2,032,400
Debt Service	-	-	-
<b>Total Expenditures</b>	<b>\$ 24,365,564</b>	<b>\$ 26,288,591</b>	<b>\$ 25,263,002</b>

<b>Expenditures by Funding Source</b>			
Revenue	\$ 21,867,890	\$ 23,349,091	\$ 23,230,602
Operating Capital Transfer	2,497,674	2,939,500	2,032,400
Grant	-	-	-
<b>Total Expenditures by Source</b>	<b>\$ 24,365,564</b>	<b>\$ 26,288,591</b>	<b>\$ 25,263,002</b>

#### Division's Cost By Element



#### Percent of Division's Budget by Section





## **INTERCEPTOR MAINTENANCE - The Program**

### **Mission and Overview:**

The Interceptor Maintenance (IM) section is responsible for maintaining NBC's infrastructure and collection system throughout the NBC service area to ensure sufficient capacity and transport of flow 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: validation of infrastructure and proper flow conditions; video monitoring inspections; correction of infrastructure impediments; performing minor construction repairs; monitoring any new development projects that may impact flows; assistance to communities as needed; general oversight of the entire district's sewage flow conditions; as well as numerous other activities required or deemed necessary to ensure flow conditions are uninterrupted.

### **Major Accomplishments FY 2017 by Key Code:**

- CB 5** Serviced approximately 50% of the flow meters to ensure proper operation
- CB 5** Inspected over one mile of interceptors throughout the service area
- CB 5** Replaced an estimated 120' of 20" diameter force main and restored an estimated 370' of interceptors to "like-new" condition
- CB 5** Removed approximately 163 tons of sediment built up in the collection system to regain transport capacity
- CB 5** Inspected over 1,200 regulators to insure proper system operations
- EP 2** Incurred no dry weather bypass events
- EP 2** Maintained netting facilities and removed approximately 19 tons of material in CSOs, preventing it from reaching the waterbody
- CF 2** Provided 26 man-hours of assistance to communities to aid in emergency situations
- S 3** Provided an estimated 19 hours of training for NBC staff

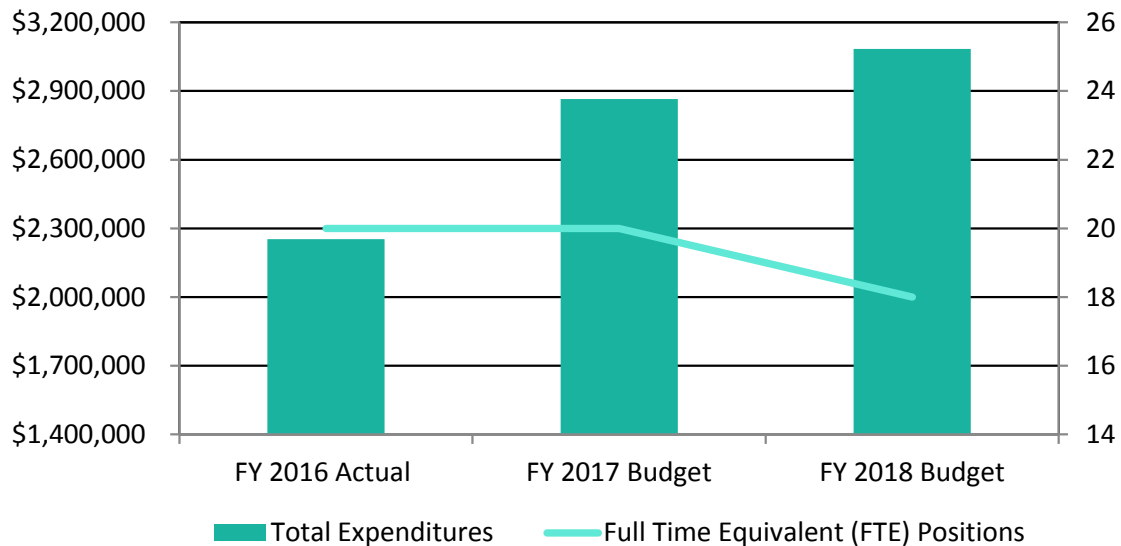
### **Top Priorities for FY 2018 and How They Relate to the Strategic Plan/Goals and by Key Code:**

- CB 1** Comply with 100% of RIPDES permit requirements for the collection system
- CB 5** Continue to improve efficiencies in servicing flow meters to ensure 100% of sites serviced
- S 3** Encourage staff to attend various training programs with a goal of completing 200 total training hours

## INTERCEPTOR MAINTENANCE - The Budget

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	\$ 1,429,445	\$ 1,761,773	\$ 1,665,328
Less Capital Reimbursements	(34,455)	(5,518)	(31,000)
<i>Net Personnel</i>	1,394,990	1,756,255	1,634,328
Operating Supplies/Expense	442,957	600,638	1,189,073
Professional Services	9,126	15,800	15,800
Operating Capital	411,243	492,000	244,000
Debt Service	-	-	-
<b>Total Expenditures</b>	<b>\$ 2,258,316</b>	<b>\$ 2,864,693</b>	<b>\$ 3,083,201</b>
<b>Expenditures by Funding Source</b>			
Revenue	\$ 1,847,073	\$ 2,372,693	\$ 2,839,201
Operating Capital Transfer	411,243	492,000	244,000
Grant	-	-	-
<b>Total Expenditures by Source</b>	<b>\$ 2,258,316</b>	<b>\$ 2,864,693</b>	<b>\$ 3,083,201</b>

## INTERCEPTOR MAINTENANCE - Historical Data



PROGRAM STAFFING (BUDGETED)				
Interceptor Maintenance Manager	1.0	Interceptor Maintenance Inspector		1.0
Assistant Interceptor Maintenance Manager	1.0	Instrumental Engineer		1.0
Clerk	1.0	Operator		10.0
Environmental Engineer	1.0	Interceptor Maintenance Senior Supervisor		1.0
		Senior Technical Assistant		1.0
		<b>18.0 FTEs</b>		

## INTERCEPTOR MAINTENANCE - Performance Data

### 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage - Event Reporting	100% - 2 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
Hurricane Barrier Inspections	Pre & Post Season	Pre & Post Season	Pre & Post Season	Pre & Post Season
Catch Basins Inspections	Semiannually	Semiannually	Semiannually	Semiannually

#### TARGET MEASURE:

Submit BMP report semi-annually and CMOM report by due date

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Frequency - BMP Report	2	2	2	2
Due Date - CMOM Report	1/31/2016	1/31/2016	1/31/2017	1/31/2018

### 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:

Address emergency situations within 24 hours of notification

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	72 Emergencies	100%	100%	100%

#### TARGET MEASURE:

Perform at least 90% of work orders

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Preventative Work Orders Completed	6,315	90%	90%	90%
Corrective Work Orders Completed	508			
Quantity - Staff Hours	7,563	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:

Alleviate dry weather bypass within 6 hours of initial notification

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Hours	0.6	≤6	≤6	≤6

#### TARGET MEASURE:

Remove pollutants from CSO trash nets within 72 hours of event

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	44.5 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Budgeted	6	100%	100%	100%
Completed	6			

**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:**

Provide assistance to NBC communities with collection system maintenance

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Hours	51.5	75	40	40

**GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:**

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

**TARGET MEASURE:**

Review sewer connection permits within 3 business days

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Timeframe	3 Business Days	≤3 Business Days	≤3 Business Days	≤3 Business Days

**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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Hours	125	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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Quantity	4 Meetings	4	4	4

## **OPERATIONS AND MAINTENANCE SERVICES – The Program**

### **Mission and Overview:**

The Operations and Maintenance Services section is responsible 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 control systems to allow for continuous operations and process control.

### **Major Accomplishments FY 2017 by Key Code:**

- CB 1** Processed 7 RIDEM regulatory permits for the wastewater treatment plants
- CB 1** Submitted the annual biosolids dry tons report to RIDEM
- CB 5** Developed the 2015 Asset Condition Report for NBC's Fiscal Sustainability Plan
- S 5** Successfully implemented a succession plan for the Operations and Maintenance Division
- S 4** Facilitated three Workplace Injury Prevention programs

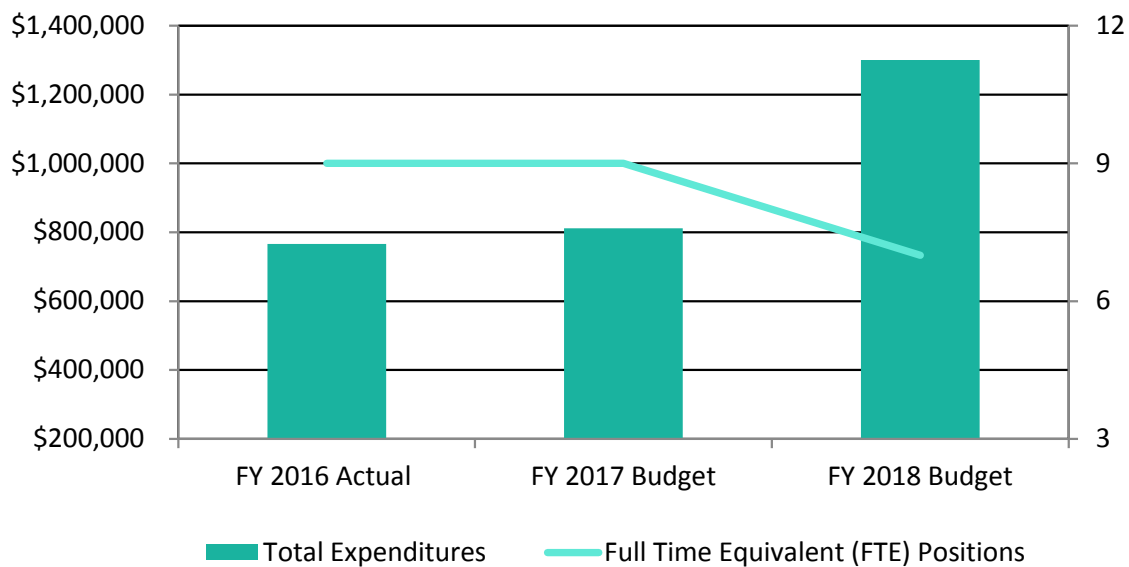
### **Top Priorities for FY 2018 and How They Relate to the Strategic Plan/Goals and by Key Code:**

- CB 1** Ensure Operations and Maintenance complies with all State and Federal Rules and Regulations
- CB 5** Utilize the asset management program to incorporate new assets into NBC's insurance policies
- CB 5** Update and maintain NBC's Asset Management Plan

## OPERATIONS AND MAINTENANCE SERVICES - The Budget

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	\$ 1,037,929	\$ 1,042,039	\$ 861,590
Less Capital Reimbursements	(353,132)	(350,727)	(48,053)
<i>Net Personnel</i>	684,797	691,312	813,537
Operating Supplies/Expense	58,716	42,100	292,273
Professional Services	5,419	8,000	-
Operating Capital	17,687	70,000	195,000
Debt Service	-	-	-
<b>Total Expenditures</b>	<b>\$ 766,619</b>	<b>\$ 811,412</b>	<b>\$ 1,300,810</b>
<b>Expenditures by Funding Source</b>			
Revenue	\$ 748,932	\$ 741,412	\$ 1,105,810
Operating Capital Transfer	17,687	70,000	195,000
Grant	-	-	-
<b>Total Expenditures by Source</b>	<b>\$ 766,619</b>	<b>\$ 811,412</b>	<b>\$ 1,300,810</b>

## OPERATIONS AND MAINTENANCE SERVICES - Historical Data



PROGRAM STAFFING (BUDGETED)			
Director of Operations and Maintenance	1.0	Control System Administrator	1.0
Asset Management Administrator	1.0	Control System Associate	1.0
Assistant Control System Administrator	1.0	Operations and Maintenance Fiscal Coordinator	1.0
		Operations and Maintenance Insurance Coordinator	1.0
		<b>7.0 FTEs</b>	

## OPERATIONS AND MAINTENANCE SERVICES - Performance Data

### 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Timeframe	3/3/2016	Annual	Annual	Annual

##### TARGET MEASURE:

Process 100% of regulatory permits for treatment plants by due date

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	7 Regulatory Permits	100%	100%	100%

##### TARGET MEASURE:

Complete and submit CRMC annual report

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Due Date	12/29/2015	12/31/2015	12/31/2016	12/31/2017

#### GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:

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

##### TARGET MEASURE

Ensure 100% up-to-date supported levels of applications and operating systems and licensing requirements

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Quantity-FP	4	100%	100%	100%
Quantity-BP	3	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:

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

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	11 Renewals	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:

Process 100% of insurance claims

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Auto Claims	8	100%	100%	100%
Third Party Claims	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 • S2

**TARGET MEASURE:**

Monthly planning/scheduling meeting with WWTF

<u>Unit of Measure</u>	<u>FY 2016 Actual</u>	<u>FY 2016 Goal</u>	<u>FY 2017 Goal</u>	<u>FY 2018 Goal</u>
Quantity	24	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 • S3

**TARGET MEASURE:**

Attend a minimum of 1 professional training session per year

<u>Unit of Measure</u>	<u>FY 2016 Actual</u>	<u>FY 2016 Goal</u>	<u>FY 2017 Goal</u>	<u>FY 2018 Goal</u>
Quantity	1	1	1	1

**GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:**

Provide a healthy and safe working environment • S4

**TARGET MEASURE:**

Facilitate Workplace Injury Prevention programs

<u>Unit of Measure</u>	<u>FY 2016 Actual</u>	<u>FY 2016 Goal</u>	<u>FY 2017 Goal</u>	<u>FY 2018 Goal</u>
Quantity	3	3	3	3



## FIELD'S POINT - The Program

### Mission and Overview:

The Field's Point WWTF is the largest wastewater treatment facility in Rhode Island and treats an average of 39 MGD. Flows up to 77 MGD receive full tertiary treatment. Flows greater than 77 MGD are initially sent to the CSO Tunnel system. If flows in excess of 77 MGD continue and the Tunnel storage has reached its holding capacity, then that excess flow will be pumped to the treatment plant and receive primary treatment and disinfection. Field's Point operates the CSO tunnel facilities to optimize, capture and treat up to 65 MGD. The Operations Staff efficiently and effectively operates the facility to produce the highest quality effluent to meet or exceed RIPDES permit requirements. Operations must ensure that all process functions are constantly optimized in order to meet each of the permit requirements.

### Major Accomplishments FY 2017 by Key Code:

- CB 1** Achieved the seasonal permit limit for total nitrogen (5 mg/l) in May 2016 through October 2016
- CB 1** Optimized the IFAS process to ensure compliance with the total seasonal nitrogen permit limits, RIPDES permits and consent agreements
- CB 1** Optimized operation of the facilities to safely allow additional gallons of leachate flow into the system
- S 3** Developed a basic training assessment tools checklist for all areas of the plant to identify training needs
- S 4** Implemented confined space entry methods and purchased OSHA compliant fall protection and retrieval equipment

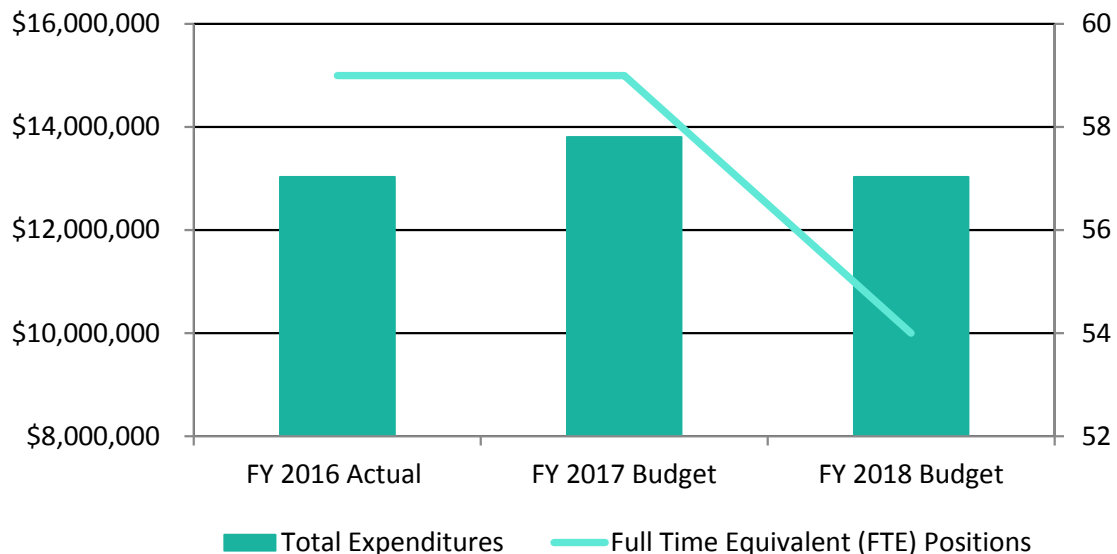
### Top Priorities for FY 2018 and How They Relate to the Strategic Plan/Goals and by Key Code:

- CB 1** Meet or exceed new RIPDES discharge monitoring permit requirements
- CB 2** Integrate (Project 13000C) Final Clarifier Improvements and (Project 10908C) Blower Improvements Phase II and minimize operational disruptions
- CB 5** Update the Master Control Panel (MCP) and the blower MCP to achieve the most open valve process control strategy
- CB 5** Continue maintenance efforts to protect infrastructure at the CSO facilities, gate and screenings structures, remote pumping stations and flow monitoring stations
- S 3** Implement basic training assessment tools checklist for all areas of the plant to identify training needs and provide instruction as needed
- S 4** Minimize the number of OSHA reportable injuries through continued safety awareness training

## FIELD'S POINT - The Budget

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	\$ 4,899,389	\$ 5,486,611	\$ 5,174,133
Less Capital Reimbursements	(9,055)	-	-
<i>Net Personnel</i>	4,890,334	5,486,611	5,174,133
Operating Supplies/Expense	7,069,136	7,036,547	7,090,565
Professional Services	10,629	14,500	14,500
Operating Capital	1,070,377	1,269,000	753,400
Debt Service	-	-	-
<b>Total Expenditures</b>	<b>\$ 13,040,476</b>	<b>\$ 13,806,658</b>	<b>\$ 13,032,598</b>
<b>Expenditures by Funding Source</b>			
Revenue	\$ 11,970,099	\$ 12,537,658	\$ 12,279,198
Operating Capital Transfer	1,070,377	1,269,000	753,400
Grant	-	-	-
<b>Total Expenditures by Source</b>	<b>\$ 13,040,476</b>	<b>\$ 13,806,658</b>	<b>\$ 13,032,598</b>

### FIELD'S POINT - Historical Data



PROGRAM STAFFING (BUDGETED)			
Operations Manager	1.0	Maintenance Supervisor	2.0
Assistant Operations Manager	1.0	Mechanic	11.0
Clerk	1.0	Operations and Maintenance Coordinator	1.0
Electronics and Instrumentation Technician	2.0	Operations and Maintenance Technician	1.0
Electrician	3.0	Operations Supervisor	5.0
Fleet Mechanic	1.0	Operator	11.0
Inventory Control Clerk	2.0	Process Monitor	8.0
Lead Electrician	1.0	Senior Electronics and Instrumentation Technician	1.0
Maintenance Manager	1.0	Senior Process Monitor	1.0
<b>54.0 FTEs</b>			

## FIELD'S POINT - Performance Data

### 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:

Minimize discharge parameters violations

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
TSS Violations	0	0	0	<2
BOD Violations	0	0	0	<2
Fecal Coliform Violations	0	0	0	<2

#### TARGET MEASURE:

Ensure residual chlorine complies with permit limit of 65 parts per billion

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Average Parts per Billion (ppb)	1.5	≤65	≤65	≤65

#### TARGET MEASURE:

Achieve total seasonal nitrogen permit limit of 5 mg/l

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
mg/l	3.96	<5	<5	<5

#### TARGET MEASURE:

Ensure effluent is treated as required by permit limits

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
TSS - mg/l	4.35	<4	<6	<30
Fecal Coliform - MPN/100ml	2.08	2.5	3	3
BOD - mg/l	3.99	4	6	<30

#### TARGET MEASURE:

Ensure treatment of wastewater and stormwater collected through the Tunnel Pump Station

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Gallons	1,108.29 MG	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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Preventative Maintenance Work Orders	89% (11,556)	90%	90%	90%
Corrective Maintenance Work Orders	11% (1,367)			
Total Staff Hours	88% (3,572)	80%	80%	80%

#### TARGET MEASURE:

Integrate Asset Management into Operating Capital Budget for treatment plants

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Budgeted Items	42			
New Needs	12	42	42	24
Completed Items	29			

**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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	1	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:**

Gallons of chemicals added to treatment process

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Hypochlorite	574,853	600,000	600,000	600,000
Sodium Bisulfite	222,424	219,000	219,000	219,000
Carbon Feed	13,506	27,300	27,300	27,300
Sodium Hydroxide	34,603	45,500	45,500	45,500

**TARGET MEASURE:**

Produce less than 25 dry tons of sludge per day

Unit of Measure	FY 2016 Actual	FY 2016 Actual	FY 2017 Goal	FY 2018 Goal
Quantity	Daily Average-21.2 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Hours	321.5	300	300	300

## **BUCKLIN POINT - The Program**

### **Mission and Overview:**

The Bucklin Point WWTF 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. Operations and Maintenance staff strive to optimize treatment efficiency so as to produce a high quality effluent that exceeds national secondary treatment standards.

### **Major Accomplishments FY 2017 by Key Code:**

- CB 1** Achieved the seasonal permit for total nitrogen (5 mg/l) in May 2016 through October 2016
- CB 2** Upgraded the hypochlorite lines
- CB 5** Repaired gas piping at Digester #2 in preparation for Contract 81400C
- CB 5** Resolved the hydraulic gates emergency closure mechanical issues
- CB 5** Inspected the Primary and Final clarifiers
- FM 8** Replaced the Bank "A" ultraviolet lamps for the disinfection processes
- FM 8** Completed the LED upgrade under the NBC Energy Efficiency Upgrades Contract 13100C
- S 5** Successfully implemented a succession plan for Operations and Maintenance

### **Top Priorities for FY 2018 and How They Relate to the Strategic Plan/Goals and by Key Code:**

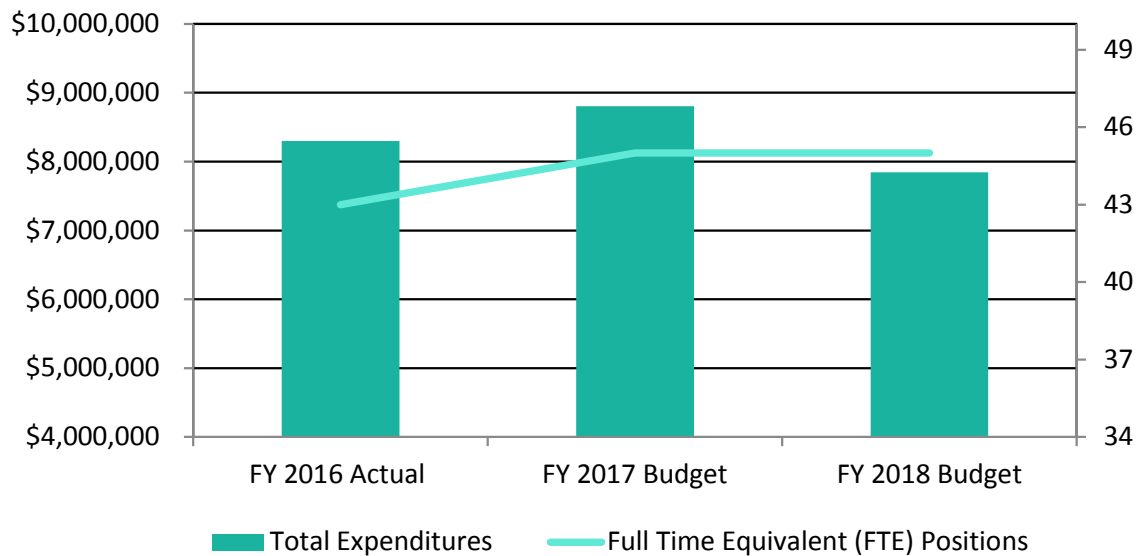
- CB 5** Optimize inventory control procedures, ensure proper inventory and improve preventive and corrective work order efficiency
- CB 5** Continue the electrical asset testing
- CB 5** Upgrade flame arrestor and critical explosion proof equipment and piping
- FM 8** Optimize treatment processes to produce high quality effluent
- FM 8** Replace all Bank B ultraviolet lamps for the UV disinfection processes as they near the end of their useful life

## BUCKLIN POINT - The Budget

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	\$ 3,960,815	\$ 4,419,560	\$ 4,511,363
Less Capital Reimbursements	-	-	-
<i>Net Personnel</i>	3,960,815	4,419,560	4,511,363
Operating Supplies/Expense	3,329,207	3,263,768	2,483,030
Professional Services	11,765	14,000	12,000
Operating Capital	998,367	1,108,500	840,000
Debt Service	-	-	-
<b>Total Expenditures</b>	<b>\$ 8,300,154</b>	<b>\$ 8,805,828</b>	<b>\$ 7,846,393</b>

<b>Expenditures by Funding Source</b>			
Revenue	\$ 7,301,787	\$ 7,697,328	\$ 7,006,393
Operating Capital Transfer	998,367	1,108,500	840,000
Grant	-	-	-
<b>Total Expenditures by Source</b>	<b>\$ 8,300,154</b>	<b>\$ 8,805,828</b>	<b>\$ 7,846,393</b>

### BUCKLIN POINT - Historical Data



<b>PROGRAM STAFFING (BUDGETED)</b>			
Operations Manager	1.0	Maintenance Manager	1.0
Asset Management Foreman	1.0	Maintenance Planner/Scheduler	1.0
Assistant Electronics and Instrumentation Technician	1.0	Maintenance Supervisor	1.0
Assistant Maintenance Planner/Scheduler	1.0	Mechanic	6.0
Assistant Operations Manager	1.0	Operations Foreman	1.0
Clerk	1.0	Operations Supervisor	4.0
Electronics and Instrumentation Technician	1.0	Operator	8.0
Electrical Foreman	1.0	Process Monitor	9.0
Electrician	2.0	Electronics and Instrumentation Technician	1.0
Heavy Equipment Operator	1.0	Utility Crew Foreman	1.0
Inventory Control Clerk	1.0		
<b>45.0 FTEs</b>			

## BUCKLIN POINT - Performance Data

### 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 Annual Dry Tons report is submitted to DEM by January 31st

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Due Date	3/3/2016	1/31/2016	1/31/2017	1/31/2018

#### TARGET MEASURE:

Minimize discharge parameters violations

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
TSS Violations	0	0	0	0
BOD Violations	0	0	0	0
Fecal Coliform Violations	1	0	0	0

#### TARGET MEASURE:

Achieve total seasonal nitrogen permit limit of 5 mg/l

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
mg/l	4.3	5.0	5.0	5.0

#### TARGET MEASURE:

Ensure effluent is treated as required by permit

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
TSS - mg/l	6.48	<10	<7.5	<30
Fecal Coliform - MPN/100mls	4.45	<10	<5	<5
BOD - mg/l	2.91	<10	<5	<30

### 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	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Quantity	20	20	20	20

#### TARGET MEASURE:

Perform no less than 90% of maintenance work orders

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Preventative Maintenance Work Orders	91.13% (6,917)	90%	90%	90%
Corrective Maintenance Work Orders	8.87% (827)			
Total Staff Hours	83% (2,812)	80%	80%	80%

#### TARGET MEASURE:

Integrate Asset Management into Operating Capital Budget for treatment plants

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Budgeted Items	43			
New Needs	15	43	40	35
Completed Items	35			

**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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	3 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:**

Gallons/Pounds of chemicals added to treatment process

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Carbon Feed Gallons	0	0	2,500	2,500
Powder Polymer Pounds	8,910	9,000	9,000	9,000
Liquid Polymer Gallons	35,544	40,000	40,000	40,000
Soda Ash Tons	0	30	30	30

**TARGET MEASURE:**

Produce less than 10 dry tons of sludge per day

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Quantity	Daily Average - 5.95 DT	<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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Hours	200	200	200	200



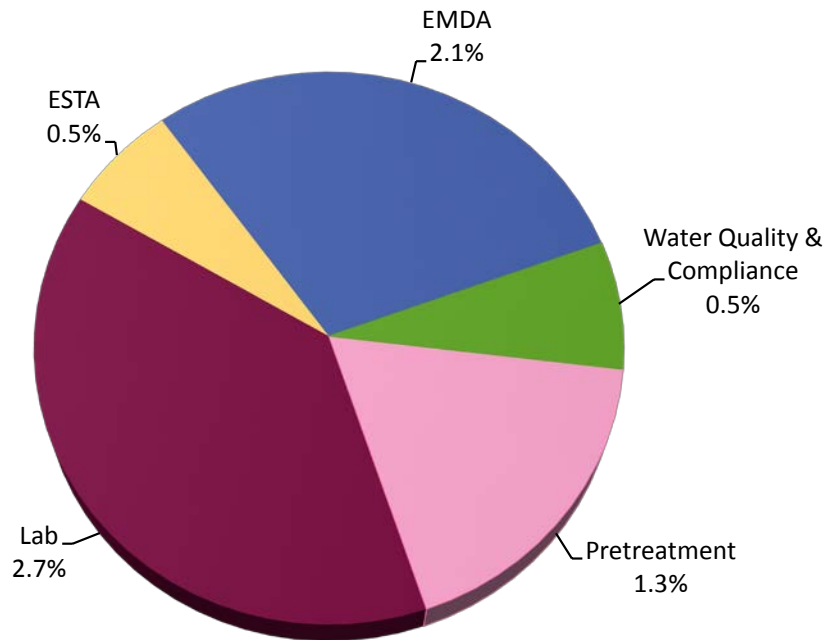
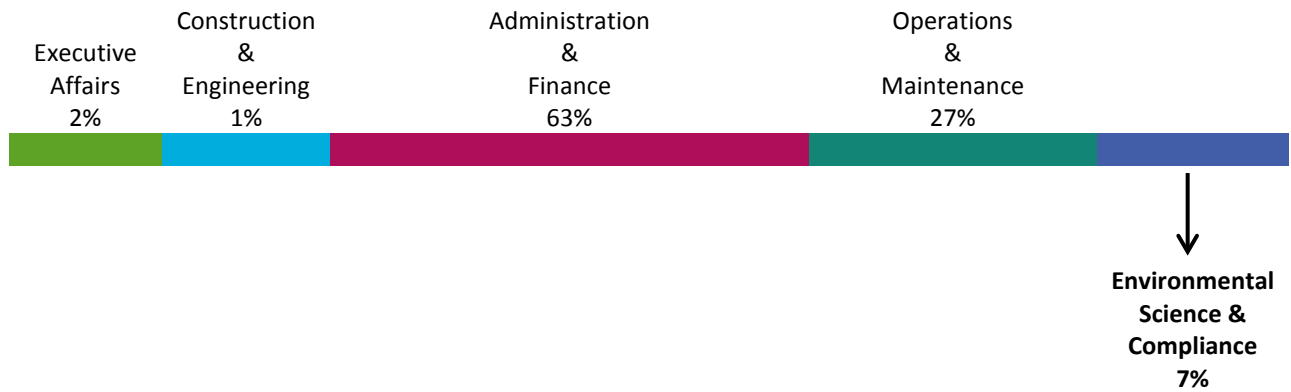


# ENVIRONMENTAL SCIENCE AND COMPLIANCE

## Division Summary



### NBC Division Budgets

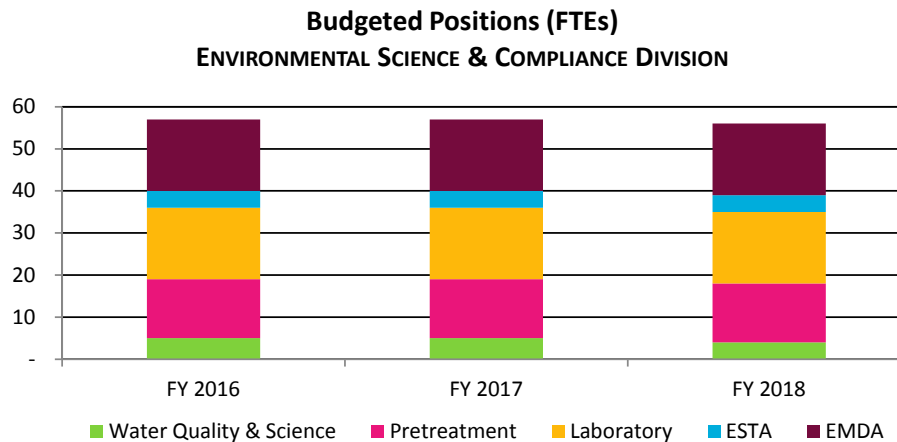


## ENVIRONMENTAL SCIENCE AND COMPLIANCE DIVISION - The Program

### Division Summary

#### Purpose and Overview:

The Environmental Science and Compliance Division is responsible for ensuring NBC compliance with all state and federal environmental and health and safety permits and regulations, evaluating new sustainability technologies and agency energy programs. The Division includes Water Quality and Compliance, Pretreatment, Environmental Monitoring & Data Analysis, Environmental Safety & Technical Assistance and the Laboratory. The Division provides technical support to the Operations and Maintenance Division and performs a variety of special studies.

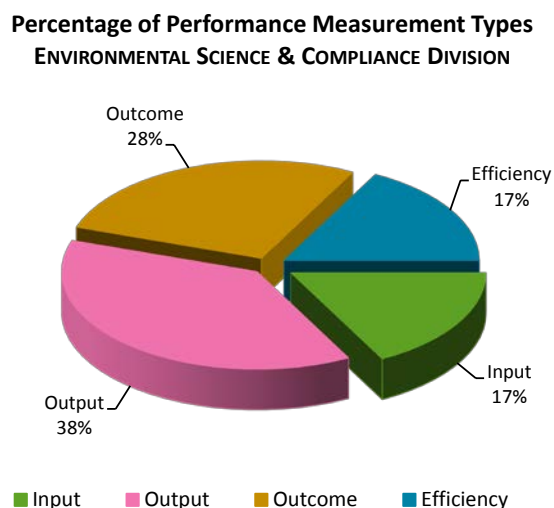


#### Significant Budget Modifications:

The FY 2018 Environmental Science and Compliance Division budget has increased by approximately 2.8% or \$177,008 from the FY 2017 budget. Personnel increased by \$116,120 or 2.3%. Operating supplies and expense and professional services expense have increased by \$67,610 over the prior year and include maintenance contracts for critical laboratory and monitoring equipment over the prior year. Operating Capital reflects a decrease of \$6,722 from the prior year.

#### 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.

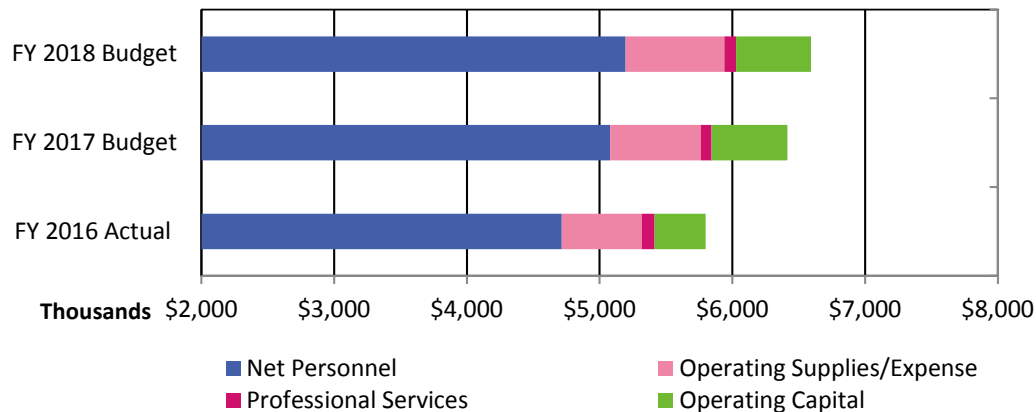


## ENVIRONMENTAL SCIENCE AND COMPLIANCE DIVISION - The Budget

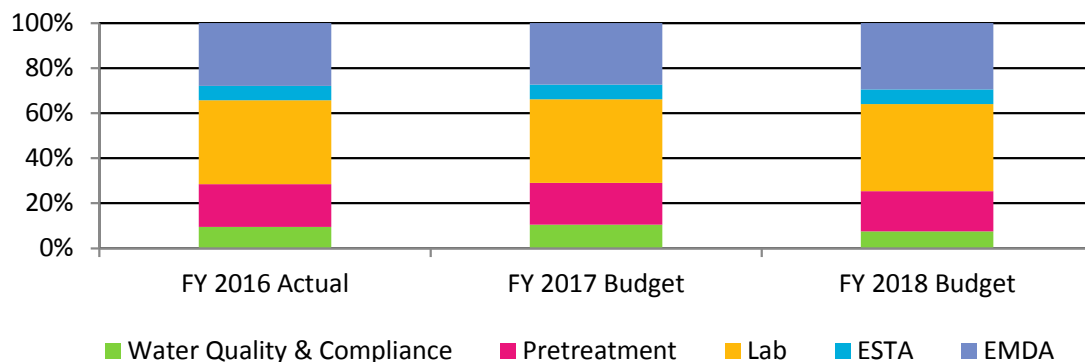
### Division Summary

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	\$ 4,719,411	\$ 5,081,831	\$ 5,197,950
Less Capital Reimbursements	(4,107)	(2,325)	(2,324)
<i>Net Personnel</i>	4,715,304	5,079,506	5,195,626
Operating Supplies/Expense	602,111	681,817	743,927
Professional Services	96,264	82,350	87,850
Operating Capital	384,972	570,000	563,278
Debt Service	-	-	-
<b>Total Expenditures</b>	<b>\$ 5,798,650</b>	<b>\$ 6,413,673</b>	<b>\$ 6,590,681</b>
<b>Expenditures by Funding Source</b>			
Revenue	\$ 5,413,678	\$ 5,843,673	\$ 6,027,403
Operating Capital Transfer	384,972	570,000	563,278
Grant	-	-	-
<b>Total Expenditures by Source</b>	<b>\$ 5,798,650</b>	<b>\$ 6,413,673</b>	<b>\$ 6,590,681</b>

### Division's Cost By Element



### Percent of Division's Budget By Section



## **WATER QUALITY AND COMPLIANCE - The Program**

### **Mission and Overview:**

The Water Quality and Compliance section is responsible for ensuring agency compliance with all EPA and DEM environmental permits and regulations, and negotiating RIPDES Permit issues with RIDEM. The section is responsible for the electronic submittal of all RIPDES and EPA documents, including the monthly Discharge Monitoring Report, and annual stormwater and biosolids reporting. The section provides oversight of other ES&RC sections to ensure that all projects, regulatory requirements and deadlines are met, and provides guidance regarding the enforcement of NBC Rules and Regulations. The section works closely with regulatory agencies and environmental stakeholders and conducts public outreach projects. The section is responsible for seeking grant and award opportunities for the agency, issuance and maintenance of NBC Policies and review and update of the NBC Strategic Plan.

### **Major Accomplishments FY 2017 by Key Code:**

- CB 1** Submitted all Discharge Monitoring Reports to the EPA and RIDEM on time
- CB 1** Submitted the annual Stormwater Reports to RIDEM on time
- CF 1** Administered the NBC Earth Day River Cleanup Grant Program involving 20 non-profit organizations to support various river cleanups throughout the NBC service area

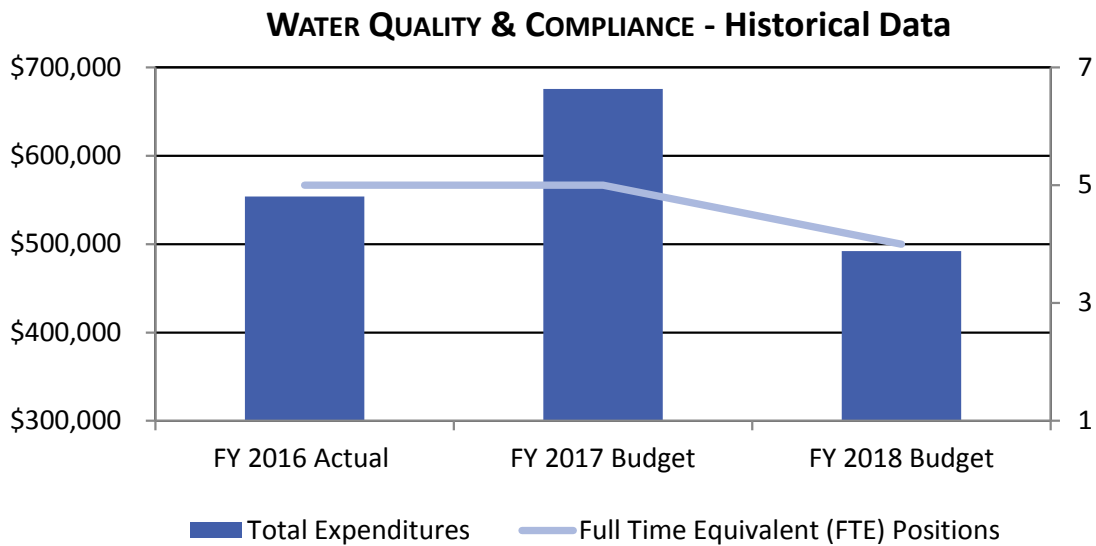
### **Top Priorities for FY 2018 and How They Relate to the Strategic Plan/Goals and by Key Code:**

- CB 1** Submit all Discharge Monitoring Reports to the EPA and DEM on time
- CB 1** Submit the annual Stormwater Reports to DEM on time
- CF 1** Continue the Grant Program for local organizations as part of the Chairman's River Restoration Initiative

## WATER QUALITY AND COMPLIANCE - The Budget

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	\$ 536,933	\$ 556,233	\$ 468,524
Less Capital Reimbursements	-	-	-
<i>Net Personnel</i>	536,933	556,233	468,524
Operating Supplies/Expense	12,223	14,125	13,625
Professional Services	4,813	10,000	10,000
Operating Capital	-	95,000	-
Debt Service	-	-	-
<b>Total Expenditures</b>	<b>\$ 553,969</b>	<b>\$ 675,358</b>	<b>\$ 492,149</b>

<b>Expenditures by Funding Source</b>			
Revenue	\$ 553,969	\$ 580,358	\$ 492,149
Operating Capital Transfer	-	95,000	-
Grant	-	-	-
<b>Total Expenditures by Source</b>	<b>\$ 553,969</b>	<b>\$ 675,358</b>	<b>\$ 492,149</b>



<b>PROGRAM STAFFING (BUDGETED)</b>			
Director of Environmental Science and Compliance	1.0	Environmental Scientist	1.0
Environmental Coordinator	1.0	Planning Manager	1.0
<b>4.0 FTEs</b>			

## WATER QUALITY AND COMPLIANCE - Performance Data

### 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:

Prepare annual stormwater inspection report for both WWTF's

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Field's Point Due Date	10/18/2015	12/30/2015	12/30/2016	12/30/2017
Bucklin Point Due Date	10/19/2015	12/30/2015	12/30/2016	12/30/2017

#### TARGET MEASURE:

Renewal of RIPDES stormwater permits per RIDEM requirements within 30 days of notice

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Timeframe	Renewal not required	Within 30 days	Within 30 days	Within 30 days

### 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:

Earth Day River Cleanup Event/Grant Program in NBC Service Area

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Event Date	4/22/2016	4/30/2016	4/30/2017	4/30/2018
Quantity - Grants	20	N/A	20	20
Total Grants	\$10,000	N/A	\$10,000	\$10,000

### STAFFING:

*Attract, develop and retain highly qualified employees.*

### 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Frequency	12	12	12	12

### 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 16 professional training hours

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Hours	32	16	16	16

**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

<u>Unit of Measure</u>	<u>FY 2016 Actual</u>	<u>FY 2016 Goal</u>	<u>FY 2017 Goal</u>	<u>FY 2018 Goal</u>
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:**

Educate the public and NBC stakeholders by giving presentations about the NBC and water quality improvements

<u>Unit of Measure</u>	<u>FY 2016 Actual</u>	<u>FY 2016 Goal</u>	<u>FY 2017 Goal</u>	<u>FY 2018 Goal</u>
Quantity	8 Presentations	4	4	4

**TARGET MEASURE:**

Annual review and update of Strategic Plan

<u>Unit of Measure</u>	<u>FY 2016 Actual</u>	<u>FY 2016 Goal</u>	<u>FY 2017 Goal</u>	<u>FY 2018 Goal</u>
Frequency	10/20/2016	1	1	1



## **PRETREATMENT - The Program**

### **Mission and Overview:**

The Pretreatment section is responsible for the federally mandated pretreatment program. The primary purpose of the pretreatment program is to protect the NBC wastewater treatment plants and the infrastructure from toxic chemicals that could disrupt and interfere with plant operations, as well as to protect the receiving waters, rivers and ultimately 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 the NBC districts and tracks toxic discharges through the sewer system to determine the source.

### **Major Accomplishments FY 2017 by Key Code:**

- CB 1** Issued 9 educational form letters to users
- CB 1** Inspected all Significant Industrial Users (SIU) multiple times within the 12 month period
- CB 1** Issued 1,938 Notices of Violation for each incident of non-compliance
- CB 1** Submitted the Pretreatment Annual Report to DEM by 3/15/17 as required by the RIPDES permit
- CB 1** All SIUs were continuously permitted in accordance with federal regulations
- C 5** Participated in 8 public presentations and workshops

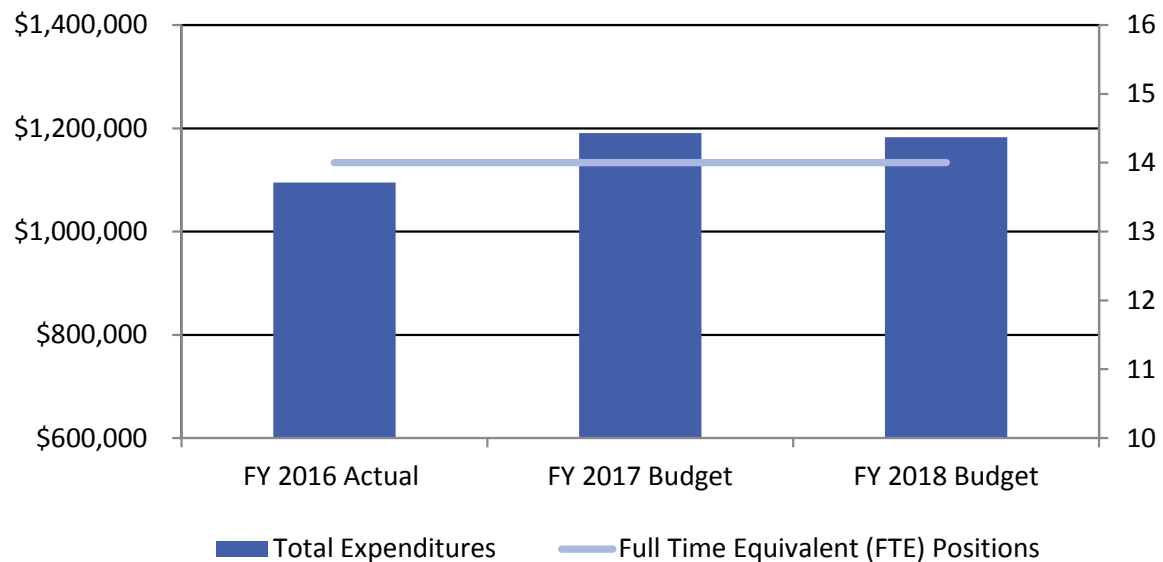
### **Top Priorities for FY 2018 and How They Relate to the Strategic Plan/Goals and by Key Code:**

- CB 1** Complete and submit the Pretreatment Annual Report by March 15<sup>th</sup> 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 the NBC

## PRETREATMENT - The Budget

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	\$ 1,040,607	\$ 1,122,685	\$ 1,144,213
Less Capital Reimbursements	-	-	-
<i>Net Personnel</i>	1,040,607	1,122,685	1,144,213
Operating Supplies/Expense	27,816	38,320	38,270
Professional Services	7,856	-	-
Operating Capital	19,222	30,000	-
Debt Service	-	-	-
<b>Total Expenditures</b>	<b>\$ 1,095,501</b>	<b>\$ 1,191,005</b>	<b>\$ 1,182,483</b>
<b>Expenditures by Funding Source</b>			
Revenue	\$ 1,076,279	\$ 1,161,005	\$ 1,182,483
Operating Capital Transfer	19,222	30,000	-
Grant	-	-	-
<b>Total Expenditures by Source</b>	<b>\$ 1,095,501</b>	<b>\$ 1,191,005</b>	<b>\$ 1,182,483</b>

## PRETREATMENT - Historical Data



<b>PROGRAM STAFFING (BUDGETED)</b>			
Pretreatment Manager	1.0	Pretreatment Technician	5.0
Pretreatment Clerk	3.0	Principal Pretreatment Engineer	1.0
Pretreatment Engineer	2.0	Senior Pretreatment Technician	1.0
Assistant Pretreatment Manager	1.0		
<b>14.0 FTEs</b>			

## PRETREATMENT - Performance Data

**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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Field's Point	10/18/2016	Annually	Annually	Annually
Bucklin Point	10/19/2016	Annually	Annually	Annually

#### TARGET MEASURE:

Conduct annual RIDEM mandated training for NBC staff

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	77 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	70 Inspections	100%	100%	100%

#### TARGET MEASURE:

Complete and submit Annual Pretreatment Report to DEM

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Completion date	3/14/2016	3/15/2016	3/15/2017	3/15/2018

#### TARGET MEASURE:

Issue Notices of Violations (NOVs) for 100% of incidents of non-compliance

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	1,938 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:

Present findings to the Citizen's Advisory Committee

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Presentation Date	4/20/2016	6/30/2016	6/30/2017	6/30/2018

#### TARGET MEASURE:

Compile and publish in the newspaper a list of companies in significant non-compliance

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Date	2/23/2016	2/28/2016	2/28/2017	2/28/2018

**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:**

Perform prompt reviews of user plan submittals

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	239 User Plan Submittals	100%	100%	100%

**TARGET MEASURE:**

Respond to 100% of reports of unusual influent, illegal dumping, spills and blockages

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	17 Reports	100%	100%	100%

**TARGET MEASURE:**

Process Wastewater Discharge Permit Applications promptly

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	388 Applications	100%	100%	100%

**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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Timeframe	22 Days	<30 Days	<30 Days	<30 Days

**TARGET MEASURE:**

Issue a minimum of 8 educational form letters

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Quantity	9 Letters	8	8	8

**TARGET MEASURE:**

Participate in a minimum of 3 public presentations/workshops

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Quantity	5 Presentations	3	3	3

**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:**

Complete pretreatment annual report and post on NBC's website

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Date	3/16/2016	4/15/2016	4/15/2017	4/15/2018

## LABORATORY - The Program

### Mission and Overview:

The Laboratory section is responsible for producing 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 USEPA. The Laboratory section performs all RIPDES required analyses for the Field's Point and Bucklin Point WWTFs, Pretreatment programs and monitoring activities, IM's fecal Best Management Practices of the urban rivers and receiving water evaluations of the upper Narragansett Bay.

### Major Accomplishments FY 2017 by Key Code:

- CB 1**    Obtained 100% accuracy for the lab's analytical proficiency on required testing for the RI State Licensing and EPAs DMR reporting
  
- CB 4**    Integrated all of the laboratory instruments into the new LIMS
  
- EP 4**    Provided quality analytical analyses for all NBC studies and samples to evaluate the impact of nutrients, enterococci, and fecal coliform on the Bay
  
- CF 1**    Staff participated in the NEWEA LIMS conference hosted at NBC, the 2016 STEMs workshop hosted at NBC, and the Woon Watershed Educational Program
  
- S 3**     Staff averaged 40 hours of chemistry and HAZWOP training

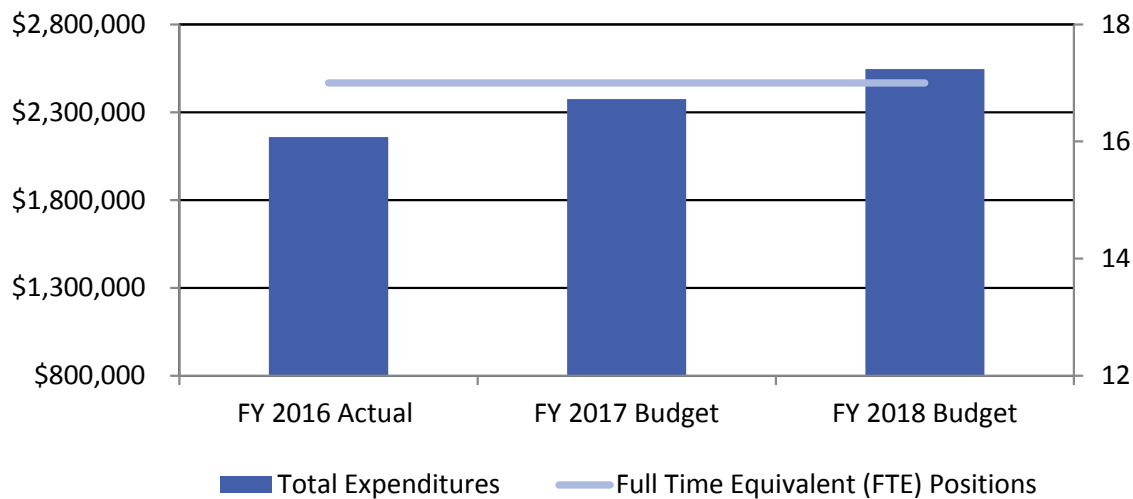
### Top Priorities for FY 2018 and How They Relate to the Strategic Plan/Goals and by Key Code:

- CB 1**    Meet the State and Federal requirements for Rhode Island State Licensing and EPA permit reporting
  
- CB 5**    Implement the new LIMS barcode scanning system
  
- EP 4**    Perform high quality analyses of samples to ensure proper operation of the NBC's wastewater treatment facilities
  
- EP 4**    Provide quality and expedient analytical service for all studies and samples collected to evaluate the impacts of nutrients and fecal coliform in NBC's effluent

## LABORATORY - The Budget

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	\$ 1,503,121	\$ 1,608,943	\$ 1,706,684
Less Capital Reimbursements	-	-	-
<i>Net Personnel</i>	1,503,121	1,608,943	1,706,684
Operating Supplies/Expense	401,805	430,007	496,717
Professional Services	50,107	41,850	41,850
Operating Capital	205,257	295,000	299,778
Debt Service	-	-	-
<b>Total Expenditures</b>	<b>\$ 2,160,290</b>	<b>\$ 2,375,800</b>	<b>\$ 2,545,029</b>
<b>Expenditures by Funding Source</b>			
Revenue	\$ 1,955,033	\$ 2,080,800	\$ 2,245,251
Operating Capital Transfer	205,257	295,000	299,778
Grant	-	-	-
<b>Total Expenditures by Source</b>	<b>\$ 2,160,290</b>	<b>\$ 2,375,800</b>	<b>\$ 2,545,029</b>

## LABORATORY - Historical Data



PROGRAM STAFFING (BUDGETED)			
Laboratory Manager	1.0	Quality Chemist	1.0
Assistant Laboratory Manager	1.0	Sample Compliance Coordinator	1.0
Biologist	1.0	Senior Environmental Chemist	1.0
Chemist	2.0	Senior Organic Chemist	1.0
Clerk	1.0	Technician	5.0
Environmental Chemist	2.0		
<b>17.0 FTEs</b>			

## LABORATORY - Performance Data

**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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	38 Calibrations	100%	100%	100%

#### TARGET MEASURE:

Complete EPA or RIDEM mandated analyses

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
SIUs	4,029 Tests	100%	100%	100%
Field's Point	24,947 Tests	100%	100%	100%
Bucklin Point	22,206 Tests	100%	100%	100%
Manholes	3,816 Tests	100%	100%	100%
Septage	1,113 Tests	100%	100%	100%

#### TARGET MEASURE:

Monthly audits of at least two laboratory procedures per month

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Quantity	24	24	24	24

#### TARGET MEASURE:

Prepare and submit the Department of Health certification renewal application

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Date submitted	12/1/2015	12/1/2015	12/1/2016	12/1/2017

### 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Nutrients	5,384 Tests	100%	100%	100%
Fecal Coliform	3,197 Tests	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 300 training hours

<b>Unit of Measure</b>	<b>FY 2016 Actual</b>	<b>FY 2016 Goal</b>	<b>FY 2017 Goal</b>	<b>FY 2018 Goal</b>
Hours	405	300	300	300



## ENVIRONMENTAL SAFETY & TECHNICAL ASSISTANCE - The Program

### Mission and Overview:

The Environmental Safety and Technical Assistance (ESTA) section provides environmental, health, safety and technical assistance to NBC staff, customers, environmental organizations and the general public. The ESTA section interacts with RIDEM, local emergency planning and response authorities, publicly owned treatment works and the EPA to assist in identifying and developing new and innovative ways to improve the environmental performance of NBC operations and to ensure the operations are performed in a safe, efficient and sustainable manner. The ESTA section provides pollution prevention, energy efficiency, conservation, environmental compliance, sustainability and health and safety assistance through research activities, written publications, workshops, on-site technical assistance and public outreach.

### Major Accomplishments FY 2017 by Key Code:

- CB 4** Monitored and maintained osprey camera at Bucklin Point
- CB 4** Launched BayNet Training Central website to improve and simplify employee safety training records
- EP 2** Documented and tracked coal dust impacts on Field's Point operations
- EP 3** Coordinated an ongoing Greenhouse Gas Measurement Study at Field's Point with URI
- EP 3** Monitored and tracked wind turbine avian impact for RIDEM reporting and updated meter readings and utility bills for all NBC properties in Portfolio Manager
- EP 3** Reviewed and assessed RFQP responses for virtual net metered renewable energy
- FM 7** Investigated grant funding opportunities and alternative methods to help finance various energy improvement and efficiency projects
- CF 2** Offered timely and effective pollution prevention technical assistance to NBC's Industrial and Commercial customers
- CF 2** Conducted a Confined Space Emergency Rescue Drill at Field's Point with the Providence Fire Department, coordinated a full-day Emergency Response Seminar with EPA, participated in the RIWARN Tabletop Exercise at the Providence Water Treatment Plant and completed 10 Renewable Energy Assessments for water and wastewater facilities
- S 3** Conducted 23 NBC employee safety training sessions. Developed and implemented the NBC Safety Committee Policy, G-S-5, updated the NBC Employee Environmental Health and Safety Policy: G-S-2
- C 5** Initiated a Safety Awareness and Recognition Program. Developed the NBC Energy Management Report. Identified and educated NBC staff on potential new EPA regulatory requirements

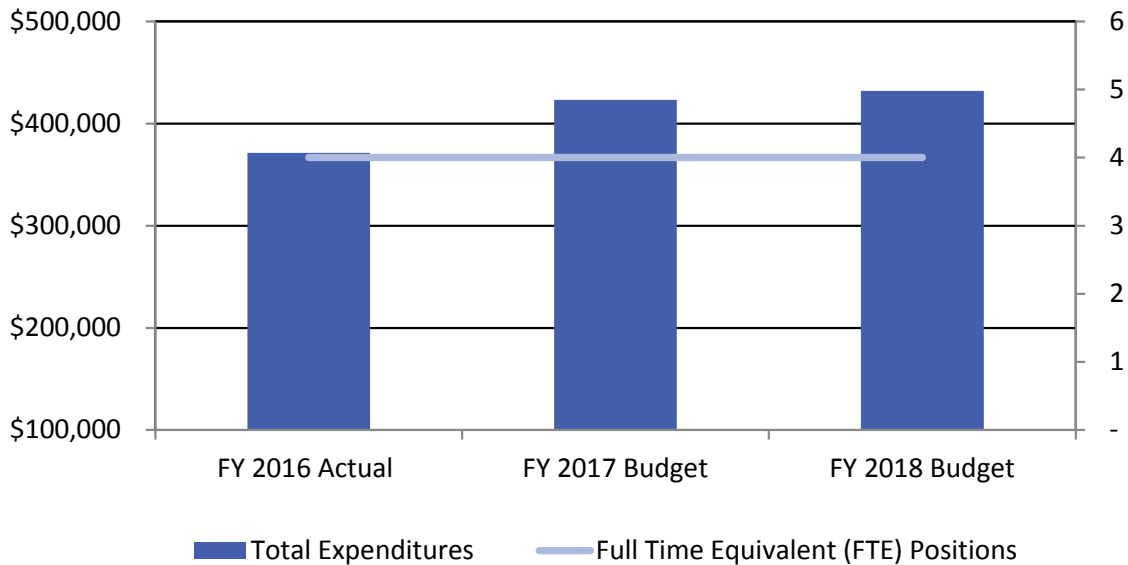
### Top Priorities for FY 2018 and How They Relate to the Strategic Plan/Goals and by Key Code:

- EP 3** Conduct energy efficiency assessments of NBC processes, conduct assessments of Food Processing Establishments and investigate feasibility of establishing residential grease collection program
- FM 7** Research and apply for new grant funding opportunities
- S 3** Conduct/Coordinate and track all OSHA required training sessions for NBC employees assuring full demonstrated compliance with all applicable OSHA requirements

## ENVIRONMENTAL SAFETY & TECHNICAL ASSISTANCE - The Budget

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	\$ 342,133	\$ 388,663	\$ 392,586
Less Capital Reimbursements	(4,107)	(2,325)	(2,324)
<i>Net Personnel</i>	338,026	386,338	390,262
Operating Supplies/Expense	33,858	36,815	41,815
Professional Services	-	-	-
Operating Capital	-	-	-
Debt Service	-	-	-
<b>Total Expenditures</b>	<b>\$ 371,884</b>	<b>\$ 423,153</b>	<b>\$ 432,077</b>
<b>Expenditures by Funding Source</b>			
Revenue	\$ 371,884	\$ 423,153	\$ 432,077
Operating Capital Transfer	-	-	-
Grant	-	-	-
<b>Total Expenditures by Source</b>	<b>\$ 371,884</b>	<b>\$ 423,153</b>	<b>\$ 432,077</b>

### ENVIRONMENTAL SAFETY & TECHNICAL ASSISTANCE - Historical Data



<b>PROGRAM STAFFING (BUDGETED)</b>			
Environmental Safety and Technical Assistance Manager	1.0	Environmental Sustainability Engineer	1.0
Environmental Compliance Technical Assistant	1.0	Safety Compliance Coordinator	1.0
<b>4.0 FTEs</b>			

## ENVIRONMENTAL SAFETY & TECHNICAL ASSISTANCE - Performance Data

**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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Completion Date - OSHA 300 logs	1/25/2016	1/24/2016	1/24/2017	1/30/2018
Completion Date - Tier II Reports	2/26/2016	2/21/2016	2/21/2017	2/25/2018

**TARGET MEASURE:**

Perform a minimum of 8 internal environmental health & safety audits

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Quantity	9 Audits	8	8	8

**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 energy assessments to increase use of renewable energy

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Assessments	4	3	3	3
% Renewable Energy Achieved	19%	16%	35%	75%

**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 grant funding • FM 7

**TARGET MEASURE:**

Submit grant applications

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Applications submitted	1	1	1	1
Amount received	\$4,910	\$13,200	\$13,200	\$13,200

**GOAL ACTION FOR ACHIEVEMENT BY KEY CODE:**

Evaluate savings opportunities and optimize NBC operations and processes • FM 8

**TARGET MEASURE:**

Monthly monitoring of NBC's energy use and production

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
kWh Produced	6,900,000	7,600,000	17,500,000	17,500,000
kWh Used	36,770,000	36,770,000	35,000,000	33,200,000

**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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	23 Site Visits	100%	100%	100%

**TARGET MEASURE:**

Conduct a minimum of 5 fats, oils and grease Best Management Practices Assessments

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Quantity	4 Assessments	5	5	5

**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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Classes	3	2	2	2
Employees Certified	46	100%	100%	100%

**TARGET MEASURE:**

Provide a minimum of 60 training hours

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Hours	60	60	60	60

**TARGET MEASURE:**

Ensure 100% of employees complete the OSHA required training

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Percentage	53 Training Sessions	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) to ensure support of NBC's mission • C 5

**TARGET MEASURE:**

Review 100% of NBC's annual environmental merit awards program applications and present a minimum of 2 external educational presentations

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Merit Awards	5	100%	100%	100%
Presentations	4	2	2	2

**TARGET MEASURE:**

Submit 4 technical papers/abstracts for publication and 8 articles for publication in the 'NBC Pipeline'

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Papers	4	4	4	4
Articles	14	8	8	8

## ENVIRONMENTAL MONITORING & DATA ANALYSIS - The Program

### Mission and Overview:

The Environmental Monitoring and Data Analysis (EMDA) section is responsible for water quality monitoring throughout NBC's service area, including the two wastewater treatment facilities, the collection system, permitted pretreatment customers in upper Narragansett Bay and its urban rivers. EMDA serves to protect the health of area residents, ensure the proper operation of the wastewater treatment plants and the quality of receiving water. EMDA conducts significant industrial user and manhole sampling to ensure compliance with discharge permits and conducts daily wastewater treatment facility sampling. This section provides routine analysis of the data obtained from monitoring projects in a timely manner to sections of the NBC, the Federal and State agencies and the public. EMDA 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.

### Major Accomplishments FY 2017 by Key Code:

- CB 1** Collected 31,465 (projected) 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 Bucklin Point and Field's Point Wastewater Treatment Facilities daily to ensure compliance with RIPDES permit requirements
- CF 3** Conducted monthly informational meetings with Operations, IM, Laboratory, Pretreatment, ESTA, Executive and Engineering staff to discuss environmental monitoring data, as well as plant data and operational issues
- CF 3** Presented the following:
  - A poster at the Benthic Ecology Meeting Society's Annual Conference held in Portland, Maine entitled: *"Measuring Water Quality Improvements in Narragansett Bay – What Can We Learn through Benthic Video Monitoring"*
  - Talks at the New England Estuarine Research Society entitled: *"Receiving Waters Monitoring Following WWTF Upgrades to Reduce Nitrogen Loading"* and *"Evaluation of Bay Bacteria after Phase I and II of the Narragansett Bay Commission's CSO Abatement Project"*
  - Two seasonal talks to the RI Environmental Monitoring Collaborative on Seasonal Monitoring Updates
  - A talk to members of the RI Commercial Fisheries Center entitled: *"NBC Water Quality Improvements and Monitoring Efforts"*

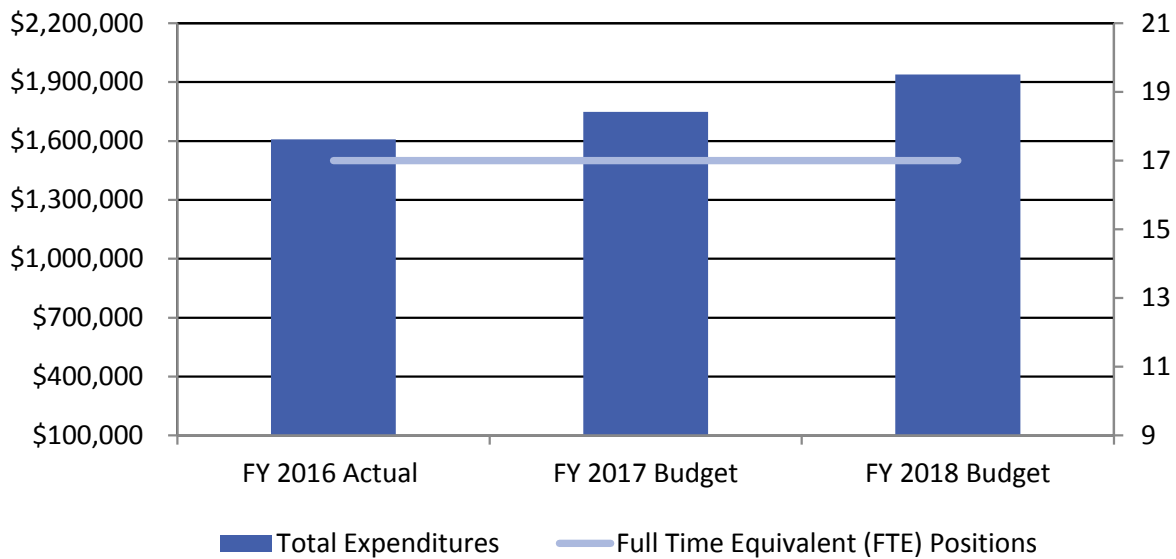
### Top Priorities for FY 2018 and How They Relate to the Strategic Plan/Goals and by Key Code:

- 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 twice to meet established Pretreatment goals
- CB 4** Integrate automated sample collection into LIMS
- EP 4** Provide quality and expedient sample collection services related to the CSO Phase II Facilities and BNR Projects that will enable the evaluation of their environmental impacts

## ENVIRONMENTAL MONITORING & DATA ANALYSIS - The Budget

	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
<b>Expenditures by Element of Expense</b>			
Personnel	\$ 1,296,617	\$ 1,405,307	\$ 1,485,943
Less Capital Reimbursements	-	-	-
<i>Net Personnel</i>	1,296,617	1,405,307	1,485,943
Operating Supplies/Expense	126,410	162,550	153,500
Professional Services	33,488	30,500	36,000
Operating Capital	160,493	150,000	263,500
Debt Service	-	-	-
<b>Total Expenditures</b>	<b>\$ 1,617,008</b>	<b>\$ 1,748,357</b>	<b>\$ 1,938,943</b>
<b>Expenditures by Funding Source</b>			
Revenue	\$ 1,456,515	\$ 1,598,357	\$ 1,675,443
Operating Capital Transfer	160,493	150,000	263,500
Grant	-	-	-
<b>Total Expenditures by Source</b>	<b>\$ 1,617,008</b>	<b>\$ 1,748,357</b>	<b>\$ 1,938,943</b>

## ENVIRONMENTAL MONITORING & DATA ANALYSIS - Historical Data



PROGRAM STAFFING (BUDGETED)			
Environmental Monitoring Manager	1.0	Environmental Monitor	8.0
Assistant Environmental Monitoring Manager	1.0	Environmental Scientist	2.0
Clerk	1.0	Monitoring Field Supervisor	3.0
Environmental Data Analyst	1.0		
	<b>17.0 FTEs</b>		

## ENVIRONMENTAL MONITORING & DATA ANALYSIS - Performance Data

**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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
SIUs	1,933 Samples	100%	100%	100%
WWTFs	19,688 Samples	100%	100%	100%
Manholes	940 Samples	100%	100%	100%
Septage	291 Samples	100%	100%	100%

#### TARGET MEASURE:

Prepare and submit RIPDES DMR Report by the 15<sup>th</sup> of each month

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Quantity	12	12	12	12

#### TARGET MEASURE:

Conduct annual Environmental Land Use Restriction (ELUR) inspections.

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Quantity	3 Inspections	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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
River	5,156 Samples	100%	100%	100%
Bay	3,253 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 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Date	4/27/2016	4/30/2016	4/30/2017	4/30/2018

#### TARGET MEASURE:

Annually deploy fixed site monitoring equipment at a minimum of 2 sites

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Quantity	2	2	2	2

#### TARGET MEASURE:

Determine impact of nutrient reductions on ecology through video monitoring a minimum of 4/year

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Frequency	11	4	4	4

**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:**

Conduct monthly data meetings to disseminate data and optimize operations

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Frequency	12	12	12	12

**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 250 training hours

Unit of Measure	FY 2016 Actual	FY 2016 Goal	FY 2017 Goal	FY 2018 Goal
Hours	623	250	250	250





**RESOLUTION 2017: 25**

**FISCAL YEAR 2018 OPERATING BUDGET**

1. The Board of Commissioners adopts this budget based upon the following schedule of projected revenue:

	<b>Revenue</b>
<b>Operating Revenue:</b>	
User Fees	\$ 97,058,926
Pretreatment Fees	1,100,000
Septage	325,000
Connection Permit Fees	<u>130,000</u>
<i>Sub-total Operating Revenue</i>	98,613,926
<b>Non-Operating Revenue:</b>	
Investment Income	120,000
Late Charges	900,000
Transfer from Operating Capital	5,310,678
Revenue Fund Balance	-
Miscellaneous	286,400
Renewable Energy Credits*	<u>371,885</u>
<i>Sub-total Non-Operating Revenue</i>	6,988,963
<b>Total Revenue</b>	<b>\$ 105,602,889</b>

2. The Board of Commissioners adopts this budget based upon the following schedule of projected expense.

	<b>Expense</b>
<b>O &amp; M Expense:</b>	
Personnel	\$ 25,264,376
Operating Supplies/Expense	15,308,168
Professional Services	<u>1,236,050</u>
<i>Sub-total Operating Expense</i>	41,808,594
<b>Debt Service:</b>	
Debt Service	46,786,894
Programmed New Debt	<u>-</u>
<i>Sub-total Debt Service</i>	46,786,894
<b>Debt Service Coverage</b>	11,696,723
<b>Operating Capital Outlays</b>	5,310,678
<b>Total Expense</b>	<b>\$ 105,602,889</b>

3. The number of full-time equivalent positions funded in this budget is 269. A list of the funded positions is included as part of this Resolution as Attachment 1.
4. The Finance Committee and the Executive Director shall at all times seek to ensure that total operating expense, including debt service and operating capital, do not exceed \$93,906,166 for the period July 1, 2017 to June 30, 2018.
5. 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.
6. The Executive Director shall administer this budget consistent with the Trust Indenture and all Supplemental Trust Indentures.
7. The Executive Director and Director of Administration and Finance are hereby authorized to finance FY 2018 Operating Capital and capital projects included in the NBC's 2019 - 2023 Capital Improvement Program from the Operating Capital Account of the Project Fund. The Director of Administration and Finance may authorize changes in Budgeted Operating Capital as long as the total expenditures do not exceed the total amount approved for Operating Capital. Any changes to the Budgeted Operating Capital in excess of \$50,000 shall also be approved by the Finance Committee.
8. 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.
9. For the period of July 1, 2017 to June 30, 2018:
  - a. The Executive Director shall provide a report to the Finance Committee of all purchase requisitions greater than \$10,000 for items included in this budget. The Executive Director will present all purchase requisitions greater than \$50,000 not included in the budget for approval by the Finance Committee.
  - b. 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. The Executive Director may post and fill vacancies of existing positions, modified positions or newly created positions included in this budget as well as changes as outlined in this item 9b.
  - c. The Finance Committee will review and approve the monthly financial statements, including the status of the budget versus expense, prior to presentation at the monthly Board Meeting.

- d. This budget shall include a 5% 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 preclude NBC from meeting its coverage requirements.
10. The Director of Administration & Finance may make adjustments between line items within categories, adjustments between categories and adjustments between cost centers. The Executive Director shall notify the Finance Committee on a monthly basis of all such adjustments.

**ADOPTED ON:** \_\_\_\_\_

**SIGNED:** \_\_\_\_\_



SECTION	TITLE	FTE's	UNION/NON-UNION
21	DIRECTOR OF EXECUTIVE AFFAIRS	1	NON-UNION
21	ENVIRONMENTAL EDUCATION COORDINATOR	1	NON-UNION
21	EXECUTIVE ASSISTANT	1	NON-UNION
21	EXECUTIVE DIRECTOR	1	NON-UNION
21	GOVERNMENT AFFAIRS MANAGER	1	NON-UNION
21	LABOR AND EMPLOYEE RELATIONS MANAGER	1	NON-UNION
21	PUBLIC AFFAIRS MANAGER	1	NON-UNION
21	PUBLIC AFFAIRS SPECIALIST	1	NON-UNION
		<u>8</u>	
22	CONSTRUCTION MANAGER	1	NON-UNION
22	CONSTRUCTION OFFICE COORDINATOR	1	NON-UNION
22	CSO CONSTRUCTION MANAGER	1	NON-UNION
22	DIRECTOR OF CONSTRUCTION AND ENGINEERING	1	NON-UNION
22	ENGINEERING CONSTRUCTION COORDINATOR	1	NON-UNION
22	MECHANICAL INSPECTOR	1	NON-UNION
22	RESIDENT REPRESENTATIVE	3	NON-UNION
22	SENIOR CONSTRUCTION COORDINATOR	1	NON-UNION
		<u>10</u>	
25	ENGINEERING MANAGER	1	NON-UNION
25	ENVIRONMENTAL ENGINEER	1	NON-UNION
25	FACILITIES ENGINEER	1	NON-UNION
25	PERMITS COORDINATOR	1	NON-UNION
25	PRINCIPAL ENVIRONMENTAL ENGINEER	2	NON-UNION
		<u>6</u>	
23	HUMAN RESOURCES CLERK	1	UNION
23	HUMAN RESOURCES MANAGER	1	NON-UNION
23	HUMAN RESOURCES REPRESENTATIVE/BENEFITS COORDINATOR	1	NON-UNION
23	SENIOR HUMAN RESOURCES REPRESENTATIVE	1	NON-UNION
		<u>4</u>	
24	CHIEF LEGAL COUNSEL	1	NON-UNION
24	EXECUTIVE PARALEGAL	1	NON-UNION
24	EXECUTIVE PARALEGAL II	1	NON-UNION
24	LEGAL COUNSEL	2	NON-UNION
		<u>5</u>	
31	ADMINISTRATIVE ASSISTANT	1	NON-UNION
31	COMPLIANCE ANALYST	1	NON-UNION
31	DIRECTOR OF ADMINISTRATION AND FINANCE	1	NON-UNION
31	FINANCIAL ANALYST	1	NON-UNION
31	RATE ANALYST	1	NON-UNION
31	SENIOR BUDGET ANALYST	1	NON-UNION
		<u>6</u>	

SECTION	TITLE	FTE's	UNION/NON-UNION
32	ACCOUNTING MANAGER	1	NON-UNION
32	CAPITAL ACCOUNTING ASSISTANT	1	NON-UNION
32	CAPITAL PRINCIPAL ACCOUNTANT	1	NON-UNION
32	FISCAL CLERK	1	UNION
32	PAYROLL ADMINISTRATOR	1	NON-UNION
32	PAYROLL SUPERVISOR	1	NON-UNION
32	PRINCIPAL ACCOUNTANT	1	NON-UNION
32	SENIOR FISCAL CLERK	1	UNION
32	STAFF ACCOUNTANT	2	NON-UNION
		<u>10</u>	
33	COMPUTER TRAINING SUPPORT SPECIALIST	1	NON-UNION
33	INFORMATION TECHNOLOGY MANAGER	1	NON-UNION
33	JUNIOR NETWORKS & COMMUNICATION ADMINISTRATOR	1	NON-UNION
33	SENIOR NETWORK AND COMMUNICATIONS ADMINISTRATOR	1	NON-UNION
33	PC/PHONE SUPPORT/SYSTEMS ADMINISTRATOR SPECIALIST	1	NON-UNION
33	SENIOR .NET DEVELOPER	1	NON-UNION
33	SENIOR APPLICATIONS SYSTEM SUPERVISOR	1	NON-UNION
33	SENIOR DATABASE ADMINISTRATOR	1	NON-UNION
33	SENIOR DATABASE AND LINUX ADMINISTRATOR	1	NON-UNION
33	SENIOR SYSTEMS ADMINISTRATOR	1	NON-UNION
33	SENIOR SYSTEMS DEVELOPMENT PROGRAMMER	1	NON-UNION
33	SYSTEMS DESIGN PROGRAMMER	1	NON-UNION
		<u>12</u>	
34	ASSISTANT BILLING SUPERVISOR	1	NON-UNION
34	ASSISTANT COLLECTIONS SUPERVISOR	1	NON-UNION
34	BILLING SUPERVISOR	1	NON-UNION
34	COLLECTIONS ANALYST	1	NON-UNION
34	COLLECTIONS SUPERVISOR	1	NON-UNION
34	CUSTOMER SERVICE REPRESENTATIVE - FISCAL CLERK	2	UNION
34	CUSTOMER RESEARCH SUPERVISOR	1	NON-UNION
34	CUSTOMER SERVICE ANALYST	2	NON-UNION
34	CUSTOMER SERVICE MANAGER	1	NON-UNION
34	CUSTOMER SERVICE REPRESENTATIVE	8	UNION
34	CUSTOMER SERVICE SUPPORT SUPERVISOR	1	UNION
34	FIELD INVESTIGATOR	3	UNION
34	FISCAL CLERK - CUSTOMER SERVICE	1	UNION
34	SENIOR FISCAL CLERK	1	UNION
		<u>25</u>	
36	OFFICE ADMINISTRATOR	1	NON-UNION
36	PURCHASING COORDINATOR	1	NON-UNION
36	PURCHASING MANAGER	1	NON-UNION
		<u>3</u>	

SECTION	TITLE	FTE's	UNION/NON-UNION
43	ASSISTANT INTERCEPTOR MAINTENANCE MANAGER	1	NON-UNION
43	CLERK	1	UNION
43	ENVIRONMENTAL ENGINEER	1	NON-UNION
43	INTERCEPTOR MAINTENANCE INSPECTOR	1	NON-UNION
43	INTERCEPTOR MAINTENANCE MANAGER	1	NON-UNION
43	INTERCEPTOR MAINTENANCE SENIOR SUPERVISOR	1	NON-UNION
43	INSTRUMENTATION ENGINEER	1	NON-UNION
43	OPERATOR	10	UNION
43	SENIOR TECHNICAL ASSISTANT	1	NON-UNION
		<u>18</u>	
44	ASSET MANAGEMENT ADMINISTRATOR	1	NON-UNION
44	ASSISTANT CONTROL SYSTEM ADMINISTRATOR	1	NON-UNION
44	CONTROL SYSTEMS ADMINISTRATOR	1	NON-UNION
44	CONTROL SYSTEMS ASSOCIATE	1	NON-UNION
44	DIRECTOR OF OPERATIONS AND MAINTENANCE	1	NON-UNION
44	OPERATIONS AND MAINTENANCE FISCAL COORDINATOR	1	NON-UNION
44	OPERATIONS AND MAINTENANCE INSURANCE COORDINATOR	1	NON-UNION
		<u>7</u>	
46	ASSISTANT OPERATIONS MANAGER	1	NON-UNION
46	CLERK	1	UNION
46	ELECTRONICS AND INSTRUMENTATION TECHNICIAN	2	UNION
46	ELECTRICIAN	3	UNION
46	FLEET MECHANIC	1	UNION
46	INVENTORY CONTROL CLERK	2	UNION
46	LEAD ELECTRICIAN	1	UNION
46	MAINTENANCE MANAGER	1	NON-UNION
46	MAINTENANCE SUPERVISOR	2	NON-UNION
46	MECHANIC	11	UNION
46	OPERATIONS AND MAINTENANCE COORDINATOR	1	NON-UNION
46	OPERATIONS AND MAINTENANCE TECHNICIAN	1	NON-UNION
46	OPERATIONS MANAGER	1	NON-UNION
46	OPERATIONS SUPERVISOR	5	NON-UNION
46	OPERATOR	11	UNION
46	PROCESS MONITOR	8	UNION
46	SENIOR ELECTRONICS AND INSTRUMENTATION TECHNICIAN	1	UNION
46	SENIOR PROCESS MONITOR	1	UNION
		<u>54</u>	
47	ASSET MANAGEMENT FOREMAN	1	UNION
47	ASSISTANT ELECTRONICS AND INSTRUMENTATION TECHNICIAN	1	UNION
47	ASSISTANT OPERATIONS MANAGER	1	NON-UNION
47	ASSISTANT MAINTENANCE PLANNER/SCHEDULER	1	UNION
47	CLERK	1	UNION
47	ELECTRONICS AND INSTRUMENTATION TECHNICIAN	1	UNION



SECTION	TITLE	FTE's	UNION/NON-UNION
47	ELECTRICAL FOREMAN	1	UNION
47	ELECTRICIAN	2	UNION
47	HEAVY EQUIPMENT OPERATOR	1	UNION
47	INVENTORY CONTROL CLERK	1	UNION
47	MAINTENANCE MANAGER	1	NON-UNION
47	MAINTENANCE PLANNER/SCHEDULER	1	UNION
47	MAINTENANCE SUPERVISOR	1	NON-UNION
47	MECHANIC	6	UNION
47	OPERATIONS FOREMAN	1	UNION
47	OPERATIONS MANAGER	1	NON-UNION
47	OPERATIONS SUPERVISOR	4	NON-UNION
47	OPERATOR	8	UNION
47	PROCESS MONITOR	9	UNION
47	SENIOR ELECTRONICS AND INSTRUMENTATION TECHNICIAN	1	UNION
47	UTILITY CREW FOREMAN	1	UNION
		<u>45</u>	
51	DIRECTOR OF ENVIRONMENTAL SCIENCE AND COMPLIANCE	1	NON-UNION
51	ENVIRONMENTAL COORDINATOR	1	NON-UNION
51	ENVIRONMENTAL SCIENTIST	1	NON-UNION
51	PLANNING MANAGER	1	NON-UNION
		<u>4</u>	
52	ASSISTANT PRETREATMENT MANAGER	1	NON-UNION
52	PRETREATMENT CLERK	3	UNION
52	PRETREATMENT ENGINEER	2	NON-UNION
52	PRETREATMENT MANAGER	1	NON-UNION
52	PRETREATMENT TECHNICIAN	5	NON-UNION
52	PRINCIPAL PRETREATMENT ENGINEER	1	NON-UNION
52	SENIOR PRETREATMENT TECHNICIAN	1	NON-UNION
		<u>14</u>	
53	ASSISTANT LABORATORY MANAGER	1	NON-UNION
53	BIOLOGIST	1	UNION
53	CHEMIST	2	UNION
53	CLERK	1	UNION
53	ENVIRONMENTAL CHEMIST	2	NON-UNION
53	LABORATORY MANAGER	1	NON-UNION
53	SAMPLE COMPLIANCE COORDINATOR	1	NON-UNION
53	QUALITY CHEMIST	1	NON-UNION
53	SENIOR ENVIRONMENTAL CHEMIST	1	NON-UNION
53	SENIOR ORGANIC CHEMIST	1	NON-UNION
53	TECHNICIAN	5	UNION
		<u>17</u>	

<b>SECTION</b>	<b>TITLE</b>	<b>FTE's</b>	<b>UNION/NON-UNION</b>
54	ENVIRONMENTAL COMPLIANCE TECHNICAL ASSISTANT	1	NON-UNION
54	ENVIRONMENTAL SAFETY & TECHNICAL ASSISTANCE MANAGER	1	NON-UNION
54	ENVIRONMENTAL SUSTAINABILITY ENGINEER	1	NON-UNION
54	SAFETY COMPLIANCE COORDINATOR	1	NON-UNION
		<u>4</u>	
55	ASSISTANT ENVIRONMENTAL MONITORING MANAGER	1	NON-UNION
55	CLERK	1	UNION
55	ENVIRONMENTAL DATA ANALYST	1	NON-UNION
55	ENVIRONMENTAL MONITOR	8	UNION
55	ENVIRONMENTAL MONITORING MANAGER	1	NON-UNION
55	ENVIRONMENTAL SCIENTIST	2	NON-UNION
55	MONITORING FIELD SUPERVISOR	3	NON-UNION
		<u>17</u>	
	TOTAL FTEs	<u>269</u>	

## Budgeted Benefits Comparison

The FY 2018 budget reflects an increase in health insurance premiums in the High Deductible Health Plan (HDHP) of 12.1% with partial employer funding of a Health Savings Account (HSA) or Health Reimbursement Arrangement (HRA). The average budgeted co-pay is 20%. Dental insurance premiums remain unchanged from FY 2017 and vision insurance premiums increased by 11.3%. The table below shows the budgeted family health, dental and vision premiums.

Expense Category	FY 2014	FY 2015*	FY 2016*	FY 2017*	FY 2018*
Health Family (net of co-pay)	\$17,673	\$13,156	\$ 13,576	\$ 15,342	\$ 17,202
Dental Family	1,228	1,335	1,435	1,515	1,510
Vision Family	195	195	195	195	217
<b>Total</b>	<b>\$19,096</b>	<b>\$ 14,686</b>	<b>\$ 15,206</b>	<b>\$ 17,052</b>	<b>\$ 18,929</b>

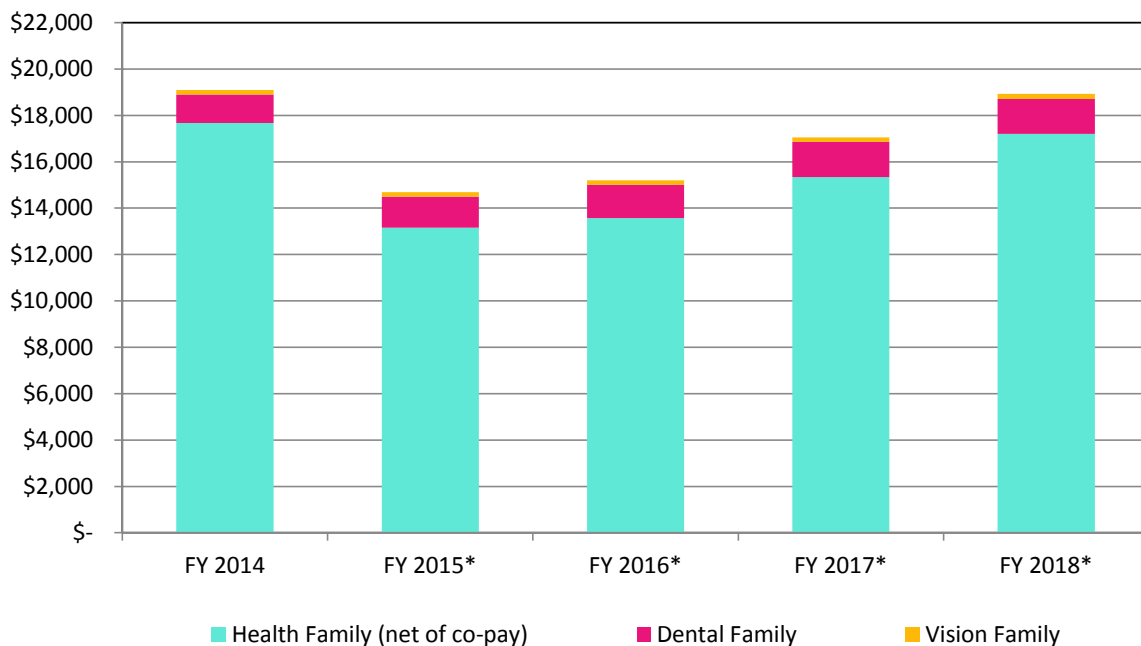
\*Does not include \$3,600 NBC HSA Contribution/Employee

### Other Benefits:

State Retirement (Union)	24.33%	24.33%	24.64%	26.34%	26.34%
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)	7.80%	6.75%	6.75%	5.97%	5.97%

\*\*FICA is 6.2% on wages up to \$118,500

### Budgeted Benefits

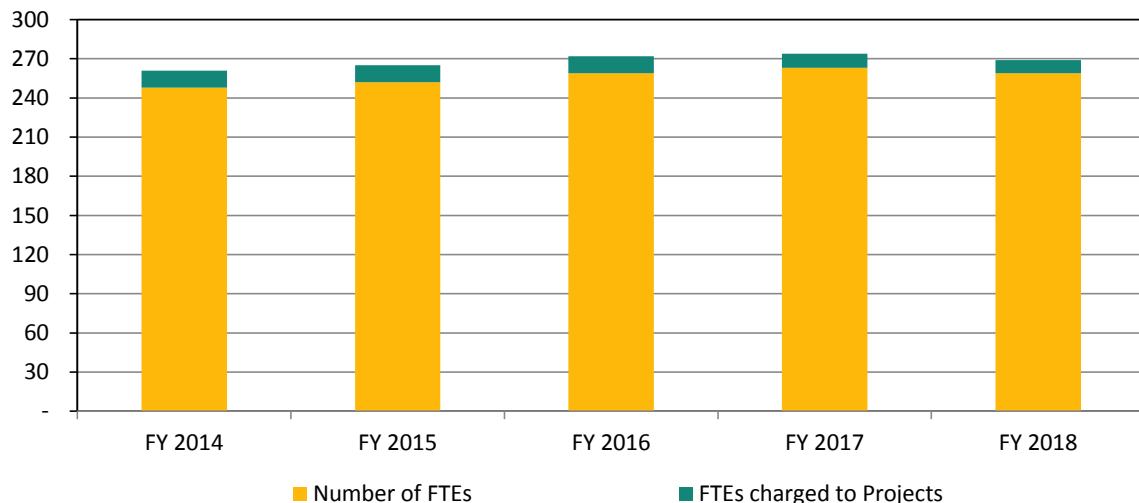


## Budgeted Positions Comparison

The total number of FTEs funded in FY 2018 is 267.0 positions, which is five less than the prior year. NBC's FY 2018 budget reflects implementation of a reorganization. A new cost center was created and the personnel and support costs associated with the Engineering functions were transferred to this new section. A number of changes to Division and Section names were also implemented to reflect the primary responsibilities as they have been assigned. The other significant organizational change is the reallocation of four positions responsible for the process control and asset management functions to the newly named Operations & Maintenance Services section. One additional non-union position is funded in the finance section and one less union position is funded in the Purchasing section. On a year-to-year basis, there are 6.0 fewer union FTEs and 1.0 additional non-union FTE.

Program	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Executive Affairs	8	8	8	8	8
Construction	13	13	11	11	10
Engineering	-	-	-	-	6
Human Resources	4	4	4	4	4
Legal	5	5	5	5	5
Finance	5	5	5	5	6
Accounting	10	10	10	10	10
Information Technology	12	12	12	12	12
Customer Service	24	24	25	25	25
Purchasing	4	4	4	4	3
Interceptor Maintenance	20	20	20	20	18
Operations & Maintenance Services	9	9	9	9	7
Field's Point	57	59	59	59	54
Bucklin Point	34	35	43	45	45
Water Quality & Compliance	5	5	5	5	4
Pretreatment	14	14	14	14	14
Laboratory	16	17	17	17	17
ESTA	4	4	4	4	4
EMDA	17	17	17	17	17
<b>Total</b>	<b>261</b>	<b>265</b>	<b>272</b>	<b>274</b>	<b>269</b>

### Budgeted Positions (FTEs)



# FY 2018 Operating Capital

Section	Budget Account	Allocation	Asset Type	Asset Title	Approved Budget
<b>EXECUTIVE AFFAIRS</b>					
Executive	16600	18-021-001	Replacement	Replace V362	\$ 40,000
				<i>Subtotal Executive</i>	40,000
				<b><i>Subtotal Executive Affairs</i></b>	<b>40,000</b>
<b>CONSTRUCTION &amp; ENGINEERING</b>					
Construction	16600	18-022-001	Replacement	Replace V479	30,000
				<i>Subtotal Construction Services</i>	30,000
Engineering	16600	18-025-001	Replacement	Vehicle V434	30,000
				<i>Subtotal Engineering</i>	30,000
				<b><i>Subtotal Construction &amp; Engineering</i></b>	<b>60,000</b>
<b>ADMINISTRATION &amp; FINANCE</b>					
Finance	16620	18-031-001	New	NBC User Fee Aid Cost Recovery Study	250,000
Finance	16580	18-031-002	Rehabilitation	Office Reconfiguration	100,000
				<i>Subtotal Finance</i>	350,000
Human Resources	16580	18-023-001	Rehabilitation	Office Reconfiguration	50,000
				<i>Subtotal Human Resources</i>	50,000
Accounting	16580	18-032-001	Rehabilitation	Office Reconfiguration	75,000
				<i>Subtotal Accounting</i>	75,000
Information Technology	16583	18-033-001	New	Customer Service Application	900,000
Information Technology	16600	18-033-002	Replacement	SAN replacement	230,000
Information Technology	16600	18-033-003	Replacement	Backup Solution Replacement	200,000
Information Technology	16583	18-033-004	New	Laboratory Information Management System (LIMS) Application	190,000
Information Technology	16600	18-033-005	Replacement	Annual PC Refresh Program Replacement	75,000
Information Technology	16583	18-033-006	New	Security Assessment	75,000
Information Technology	16600	18-033-007	Replacement	Edge Switch Upgrades	75,000
Information Technology	16583	18-033-008	New	Software Licensing Updates	40,000
Information Technology	16583	18-033-009	New	Oracle ERP/Database Enhancements	40,000
Information Technology	16585	18-033-010	New	Computer Room Enhancements	25,000
Information Technology	16583	18-033-011	New	Project Tracking Software	25,000
Information Technology	16583	18-033-012	New	Hansen Upgrades	20,000
Information Technology	16585	18-033-013	New	Conference Room Updates	15,000
Information Technology	16583	18-033-014	New	Antivirus Upgrades	10,000
				<i>Subtotal Information Technology</i>	1,920,000
Customer Service	16600	18-034-001	Replacement	Vehicle V385	25,000
Customer Service	16580	18-034-002	Rehabilitation	Office Furniture and Equipment	5,000
				<i>Subtotal Customer Service</i>	30,000
General Administration	16610	18-080-001	New	Key Scan Entry and Security Cameras	100,000
General Administration	16580	18-080-002	Rehabilitation	Office reconfiguration	50,000
General Administration	16520	18-080-003	Replacement	HVAC component replacement	23,000
General Administration	16600	18-080-004	New	Phone system upgrade	17,000
				<i>Subtotal General Administration</i>	190,000
				<b><i>Subtotal Administration &amp; Finance</i></b>	<b>2,615,000</b>

Section	Budget Account	Allocation	Asset Type	Asset Title	Approved Budget
<b>OPERATIONS AND MAINTENANCE</b>					
Interceptor Maintenance	16600	18-043-001	Replacement	Vehicle V411	110,000
Interceptor Maintenance	16600	18-043-002	Replacement	Flow Meters	50,000
Interceptor Maintenance	16600	18-043-003	Replacement	Vehicle V412	35,000
Interceptor Maintenance	16600	18-043-004	Replacement	Office Copier/Fax/Scanner	30,000
Interceptor Maintenance	16600	18-043-005	Replacement	Fencing	10,000
Interceptor Maintenance	16510	18-043-006	New	Backhoe	9,000
<i>Subtotal Interceptor Maintenance</i>					244,000
Operations & Maintenance Services	16583	18-044-001	New	Wireless Network	60,000
Operations & Maintenance Services	16583	18-044-002	New	Software & Licenses	55,000
Operations & Maintenance Services	16585	18-044-003	New	PLC Upgrade	50,000
Operations & Maintenance Services	16585	18-044-004	New	Computer System Upgrade	30,000
<i>Subtotal Operations &amp; Maintenance Services</i>					195,000
Field's Point	16600	18-046-001	Replacement	Pumps	135,000
Field's Point	16600	18-046-002	Replacement	Vehicle V475	125,000
Field's Point	16520	18-046-003	New	Bobcat w/Attachments	75,000
Field's Point	16600	18-046-004	Replacement	Vehicle V448	60,000
Field's Point	16520	18-046-005	New	IFAS Tank Flight Mixer	45,000
Field's Point	16600	18-046-006	Replacement	Tunnel Cameras and Server	40,000
Field's Point	16600	18-046-007	Replacement	RAS Pump	35,000
Field's Point	16520	18-046-008	New	Turbine Network and Control Room Switches	30,000
Field's Point	16600	18-046-009	Replacement	Under Flow Valve Actuators	30,000
Field's Point	16600	18-046-010	Replacement	Vehicle V477	30,000
Field's Point	16520	18-046-011	New	Conox Boxes	28,000
Field's Point	16600	18-046-012	Replacement	Flow Measurement	25,000
Field's Point	16600	18-046-013	Replacement	Scum Pump	18,000
Field's Point	16600	18-046-014	Replacement	Vehicle E0015	17,000
Field's Point	16600	18-046-015	Replacement	Vehicle E0020	17,000
Field's Point	16600	18-046-016	Replacement	Vehicle E0026	17,000
Field's Point	16600	18-046-017	Replacement	Copy Machine	10,400
Field's Point	16600	18-046-018	Replacement	Copy Machine	8,000
Field's Point	16600	18-046-019	Replacement	Replace O&M Copy Machine	8,000
<i>Subtotal Field's Point</i>					753,400
Bucklin Point	16510	18-047-001	New	Forklift	80,000
Bucklin Point	16600	18-047-002	Replacement	Bar Rack	70,000
Bucklin Point	16600	18-047-003	Replacement	VFD Effluent Pumps	70,000
Bucklin Point	16600	18-047-004	Replacement	Thickener Waste Pump	55,000
Bucklin Point	16600	18-047-005	Replacement	Screw Pump	50,000
Bucklin Point	16600	18-047-006	Replacement	Booster Pump	38,000
Bucklin Point	16600	18-047-007	Rehabilitation	Screenings Grinder	35,000
Bucklin Point	16520	18-047-008	New	Storage Trailers	30,000
Bucklin Point	16520	18-047-009	Rehabilitation	UV Hydraulic Power System	25,000
Bucklin Point	16600	18-047-010	Replacement	Gas Pressure Valves & Piping	25,000
Bucklin Point	16600	18-047-011	Replacement	Vehicle V486	25,000
Bucklin Point	16520	18-047-012	New	Genie Lift	25,000
Bucklin Point	16600	18-047-013	Rehabilitation	Phone Lines	25,000
Bucklin Point	16600	18-047-014	Replacement	Sludge Recirculation Pump	22,000
Bucklin Point	16600	18-047-015	Replacement	Grit Pump	20,000
Bucklin Point	16600	18-047-016	Replacement	Grit Pump	20,000
Bucklin Point	16600	18-047-017	Replacement	Sludge Pump	20,000
Bucklin Point	16600	18-047-018	Replacement	Hypo Pump	20,000
Bucklin Point	16600	18-047-019	Replacement	Vehicle E0010	17,000
Bucklin Point	16600	18-047-020	Replacement	Vehicle E0017	17,000
Bucklin Point	16600	18-047-021	Replacement	Vehicle E0049	17,000
Bucklin Point	16600	18-047-022	Replacement	VFD Aeration Recycle Pumps	16,000
Bucklin Point	16520	18-047-023	New	Cameras	15,000
Bucklin Point	16520	18-047-024	New	Cameras	15,000
Bucklin Point	16600	18-047-025	Replacement	Vehicle V399	15,000
Bucklin Point	16520	18-047-026	New	Remote Control Slope Cutter	15,000

Section	Budget Account	Allocation	Asset Type	Asset Title	Approved Budget
Bucklin Point	16520	18-047-027	Replacement	Gate Controller	10,000
Bucklin Point	16600	18-047-028	Replacement	Scum Pump	10,000
Bucklin Point	16600	18-047-029	Replacement	Scum Pump	10,000
Bucklin Point	16600	18-047-030	Replacement	Centrate Pump	10,000
Bucklin Point	16600	18-047-031	Replacement	Bisulfite Pump	6,000
Bucklin Point	16600	18-047-032	Replacement	Bisulfite Pump	6,000
Bucklin Point	16600	18-047-033	New	Bobcat Welder	6,000
<i>Subtotal Bucklin Point</i>					840,000
<b><i>Subtotal Operations &amp; Maintenance</i></b>					<b>2,032,400</b>
<b>ENVIRONMENTAL SCIENCE &amp; COMPLIANCE</b>					
Laboratory	16600	18-053-001	Replacement	ICP-IND	131,201
Laboratory	16600	18-053-002	Replacement	Cyanide Analyzer	68,155
Laboratory	16600	18-053-003	Replacement	Oil and Grease Analyzer	51,150
Laboratory	16600	18-053-004	Replacement	Biological Media Dispenser	49,272
<i>Subtotal Laboratory</i>					299,778
EMDA	16600	18-055-001	Replacement	Phillipsdale DCP, Sondes & Assoc. Equip.	65,000
EMDA	16520	18-055-002	Replacement	Fixed Site Sondes & Equipment	50,000
EMDA	16600	18-055-003	New	Swipe Card Readers	50,000
EMDA	16600	18-055-004	Replacement	Vehicle V432	34,000
EMDA	16600	18-055-005	Replacement	Fixed Site Probes, Handheld Meter, Solutions/Equipment	30,000
EMDA	16600	18-055-006	Replacement	Refrigerated Autosamplers	19,500
EMDA	16600	18-055-007	Replacement	Caribe Boat	15,000
<i>Subtotal EMDA</i>					263,500
<b><i>Subtotal Environmental Science &amp; Compliance</i></b>					<b>563,278</b>
<b>Total Operating Capital FY 2018</b>					<b>\$ 5,310,678</b>

# Five-Year Operating Capital

Asset Type	Asset Title	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Total Cost
<b>EXECUTIVE AFFAIRS</b>							
<b>Executive</b>							
Replacement	Vehicle V362	\$ 40,000	\$ -	\$ -	\$ -	\$ -	40,000
	<i>Subtotal Executive</i>	40,000	-	-	-	-	40,000
<b>CONSTRUCTION &amp; ENGINEERING</b>							
<b>Construction</b>							
Replacement	Vehicle V479	30,000	30,000	-	-	-	60,000
	<i>Subtotal Construction Services</i>	30,000	30,000	-	-	-	60,000
<b>Engineering</b>							
Replacement	Vehicle V434	30,000	-	-	-	-	30,000
Replacement	GPS Rover	-	-	-	-	25,000	25,000
Replacement	Total Station Survey Equipment	-	-	-	-	13,000	13,000
	<i>Subtotal Engineering</i>	30,000	-	-	-	38,000	68,000
<b>ADMINISTRATION &amp; FINANCE</b>							
<b>Finance</b>							
Rehabilitation	Office Reconfiguration	100,000	-	-	-	-	100,000
New	CSO Phase III Rate Study	250,000	-	-	-	-	250,000
	<i>Subtotal Finance</i>	350,000	-	-	-	-	350,000
<b>Human Resources</b>							
Rehabilitation	Office Reconfiguration	50,000	-	-	-	-	50,000
	<i>Subtotal Human Resources</i>	50,000	-	-	-	-	50,000
<b>Accounting</b>							
Rehabilitation	Office Reconfiguration	75,000	-	-	-	-	75,000
	<i>Subtotal Accounting</i>	75,000	-	-	-	-	75,000
<b>Information Technology</b>							
New	Customer Service Application	900,000	300,000	25,000	-	25,000	1,250,000
Replacement	SAN replacement	230,000	-	-	-	-	230,000
Replacement	Backup Solution Replacement	200,000	-	-	-	-	200,000
New	Laboratory Information Management System (LIMS) Application	190,000	-	50,000	-	50,000	290,000
Replacement	Annual PC Refresh Program Replacement	75,000	75,000	75,000	75,000	75,000	375,000
New	Security Assessment	75,000	-	75,000	-	75,000	225,000
Replacement	Edge Switch Upgrades	75,000	-	50,000	-	50,000	175,000
New	Software Licensing Updates	40,000	40,000	40,000	40,000	40,000	200,000
New	Oracle ERP/Database Enhancements	40,000	-	-	-	-	40,000
New	Computer Room Enhancements	25,000	25,000	25,000	25,000	25,000	125,000
New	Project Tracking Software	25,000	-	25,000	-	25,000	75,000
New	Hansen Upgrades	20,000	-	20,000	-	20,000	60,000
New	Conference Room Updates	15,000	15,000	15,000	15,000	15,000	75,000
New	Antivirus Upgrades	10,000	10,000	10,000	10,000	10,000	50,000
Replacement	Network Core Replacement	-	150,000	-	-	-	150,000
New	Microsoft Office 2016 Upgrade	-	125,000	-	-	-	125,000
Replacement	Disaster Recovery Infrastructure Replacement	-	75,000	-	90,000	-	165,000
New	Microsoft Exchange Upgrade	-	50,000	-	-	-	50,000
Replacement	Replace large form scanner/printer	-	-	35,000	-	-	35,000
	<i>Subtotal Information Technology</i>	1,920,000	865,000	445,000	255,000	410,000	3,895,000
<b>Customer Service</b>							
Rehabilitation	Office Furniture/Equipment	5,000	5,000	5,000	5,000	5,000	25,000
Replacement	Vehicle V385	25,000	-	-	-	-	25,000
Replacement	Vehicle V377	-	25,000	-	-	-	25,000
Replacement	Vehicle V404	-	-	25,000	-	-	25,000
Replacement	Vehicle V403	-	-	-	25,000	-	25,000
Replacement	Vehicle	-	-	-	-	25,000	25,000
	<i>Subtotal Customer Service</i>	30,000	30,000	30,000	30,000	30,000	150,000
<b>General Administration</b>							
New	Key Scan Entry and Security Cameras	100,000	-	-	-	-	100,000
Rehabilitation	Office reconfiguration	50,000	-	-	-	-	50,000
Replacement	HVAC component replacement	17,000	18,000	19,000	20,000	21,000	95,000
New	Phone system upgrade	23,000	-	-	-	-	23,000
Replacement	Copier replacement	-	10,000	-	10,000	-	20,000
	<i>Subtotal General Administration</i>	190,000	28,000	19,000	30,000	21,000	288,000



Asset Type	Asset Title	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Total Cost
<b>OPERATIONS AND MAINTENANCE</b>							
<b>Interceptor Maintenance</b>							
Replacement	Vehicle V412	110,000	-	-	-	-	110,000
Replacement	Flow Meters	50,000	25,000	25,000	25,000	25,000	150,000
Replacement	Vehicle V411	35,000	-	-	-	-	35,000
Replacement	Fencing	30,000	-	-	-	-	30,000
Replacement	Office Copier/Fax/Scanner	10,000	-	-	-	-	10,000
New	Backhoe	9,000	-	-	-	-	9,000
Replacement	HVAC Upgrade	-	20,000	-	-	-	20,000
Replacement	Vehicle V455	-	-	70,000	-	-	70,000
Replacement	Vehicle V355	-	-	-	35,000	-	35,000
Replacement	Vehicle V387	-	-	-	35,000	-	35,000
Replacement	Vehicle V367	-	-	-	25,000	-	25,000
Replacement	Vehicle V375	-	-	-	-	140,000	140,000
Replacement	Vehicle E0007	-	-	-	-	50,000	50,000
<i>Subtotal Interceptor Maintenance</i>		<u>244,000</u>	<u>45,000</u>	<u>95,000</u>	<u>120,000</u>	<u>215,000</u>	<u>719,000</u>
<b>Operations &amp; Maintenance Services</b>							
New	Software & Licenses	55,000	16,000	70,000	-	-	141,000
New	PLC Upgrade	50,000	-	-	-	-	50,000
New	Computer System Upgrade	30,000	84,000	20,000	-	-	134,000
New	Wireless Network	60,000	60,000	-	-	-	120,000
<i>Subtotal Interceptor Maintenance</i>		<u>195,000</u>	<u>160,000</u>	<u>90,000</u>	<u>-</u>	<u>-</u>	<u>445,000</u>
<b>Field's Point</b>							
Replacement	Pumps	135,000	-	-	-	-	135,000
Replacement	Vehicle V475	125,000	-	-	-	-	125,000
New	Bobcat w/Attachments	75,000	-	-	-	-	75,000
Replacement	Vehicle V448	60,000	-	-	-	-	60,000
New	IFAS Tank Flight Mixer	45,000	-	-	-	-	45,000
Replacement	Tunnel Cameras and Server	40,000	-	-	-	-	40,000
Replacement	RAS Pump	35,000	-	-	-	-	35,000
New	Turbine Network and Control Room Switches	30,000	-	-	-	-	30,000
Replacement	Under Flow Valve Actuators	30,000	-	-	-	-	30,000
Replacement	Vehicle V477	30,000	-	-	-	-	30,000
New	Conox Boxes	28,000	-	-	-	-	28,000
Replacement	Flow Measurement	25,000	-	-	-	-	25,000
Replacement	Scum Pump	18,000	-	-	-	-	18,000
Replacement	Vehicle E0015	17,000	-	-	-	-	17,000
Replacement	Vehicle E0020	17,000	-	-	-	-	17,000
Replacement	Vehicle E0026	17,000	-	-	-	-	17,000
Replacement	Copy Machine	10,400	-	-	-	-	10,400
Replacement	Copy Machine	8,000	-	-	-	-	8,000
Replacement	Replace O&M Copy Machine	8,000	-	-	-	-	8,000
Replacement	Sewage Pump Cartridge	-	160,000	-	-	-	160,000
Replacement	Vehicle E0009	-	75,000	-	30,000	-	105,000
Replacement	Metering Pumps	-	54,000	-	-	-	54,000
Replacement	Effluent Cylinders	-	52,000	54,000	-	-	106,000
Replacement	Vehicle V438	-	50,000	-	-	-	50,000
Replacement	Vehicle V447	-	40,000	-	-	-	40,000
Replacement	RAS Pump	-	35,000	-	-	-	35,000
Replacement	RAS Pump	-	35,000	-	-	-	35,000
Replacement	Vehicle V379	-	35,000	-	-	-	35,000
Replacement	Vehicle V446	-	35,000	-	-	-	35,000
Replacement	Vehicle V406	-	32,000	-	-	-	32,000
Replacement	Vehicle V405	-	28,000	-	-	-	28,000
Replacement	Grit Aeration Blowers	-	25,000	-	28,000	-	53,000
Replacement	Grit Pump w/Motor	-	25,000	-	-	-	25,000
Replacement	Hypo Pump & Motor	-	25,000	-	-	-	25,000
Replacement	Vehicle V442	-	25,000	-	-	-	25,000
Replacement	Vehicle V465	-	25,000	-	-	-	25,000
Replacement	Vehicle V487	-	25,000	-	-	-	25,000
Replacement	Underflow Valve Actuator	-	20,000	-	-	-	20,000
Replacement	Sludge Pump	-	19,000	-	-	-	19,000
Replacement	Vehicle E0040	-	18,000	-	14,000	-	32,000
Replacement	Vehicle E0028	-	18,000	-	-	-	18,000
Replacement	Dewatering Pump	-	16,000	-	-	-	16,000
Replacement	VFD Was Pump	-	7,000	-	-	-	7,000
Replacement	Sewage Pump Cartridge	-	-	160,000	-	-	160,000
Replacement	Sewage Pump Cartridge	-	-	150,000	-	-	150,000

Asset Type	Asset Title	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Total Cost
Replacement	Sewage Pump Cartridge	-	-	150,000	-	-	150,000
Replacement	Butterfly Valve	-	-	90,000	-	-	90,000
Replacement	Grit Tank Gearbox & Clutch Assemblies	-	-	75,000	-	-	75,000
Replacement	Tank Turntable Assembly	-	-	75,000	-	-	75,000
Replacement	Plunger Sewage Pump	-	-	50,000	-	-	50,000
Replacement	Return Sludge Pump	-	-	27,500	-	-	27,500
Replacement	Vehicle V495	-	-	23,000	-	-	23,000
Replacement	Sludge Pump	-	-	22,000	-	-	22,000
Replacement	Nitrate Probe	-	-	16,000	-	-	16,000
Replacement	Vehicle E0004	-	-	14,000	-	-	14,000
Replacement	Wasting Pump	-	-	13,000	-	-	13,000
Replacement	Sodium Bisulfite Analyzer	-	-	12,000	-	-	12,000
Replacement	VFD Plant Water Pump	-	-	12,000	-	-	12,000
Replacement	Vehicle V396	-	-	10,000	-	-	10,000
Replacement	VFD Grit Pump	-	-	8,000	-	-	8,000
Replacement	TSS Meter	-	-	8,000	-	-	8,000
Replacement	PH Probe	-	-	8,000	-	-	8,000
New	VFD Blowers	-	-	8,000	-	-	8,000
Replacement	Vehicle V384	-	-	7,000	-	-	7,000
Replacement	VFD RAS & RAS/Dewatering Pump	-	-	6,000	-	-	6,000
Replacement	Sewage Pump Cartridge	-	-	-	165,000	-	165,000
Replacement	Sewage Pump Motor	-	-	-	165,000	-	165,000
Replacement	Sewage Pump Motor	-	-	-	125,000	-	125,000
Replacement	Tank Turntable Assembly	-	-	-	75,000	-	75,000
Replacement	Sewage Pump Motor	-	-	-	50,000	-	50,000
Replacement	Sodium Bisulfite Tank	-	-	-	35,000	-	35,000
Replacement	Vehicle V375	-	-	-	35,000	-	35,000
Replacement	Uninterrupted Power Supply	-	-	-	30,000	-	30,000
Replacement	Return Sludge Pump	-	-	-	30,000	-	30,000
New	Flow Meters	-	-	-	25,000	-	25,000
Replacement	Vehicle E0024	-	-	-	25,000	-	25,000
Replacement	VFD Grit Pump	-	-	-	24,000	-	24,000
Replacement	Final Tank Underflow Valve Actuator	-	-	-	22,000	-	22,000
Replacement	Metering Pump	-	-	-	20,000	-	20,000
Replacement	Wasting Pump	-	-	-	15,000	-	15,000
Rehabilitation	Hypo Storage Tank	-	-	-	12,000	-	12,000
Replacement	Grit Influent Ammonia Meter	-	-	-	10,000	-	10,000
Replacement	Vehicle E0025	-	-	-	10,000	-	10,000
Rehabilitation	Rake Drum Motor	-	-	-	6,000	-	6,000
Rehabilitation	Clam Shell Motor	-	-	-	6,000	-	6,000
Rehabilitation	Trolley Motor	-	-	-	6,000	-	6,000
Replacement	Sewage Pump	-	-	-	-	250,000	250,000
Replacement	Hydroflo Screen	-	-	-	-	200,000	200,000
Replacement	Tank Turntable Assembly	-	-	-	-	80,000	80,000
Replacement	Process Control Unit	-	-	-	-	60,000	60,000
Rehabilitation	GT Domes	-	-	-	-	50,000	50,000
Rehabilitation	Tunnel Crane	-	-	-	-	50,000	50,000
Replacement	Sodium Bisulfite Tank	-	-	-	-	35,000	35,000
Replacement	Server Cabinet	-	-	-	-	30,000	30,000
Replacement	Flow Meters	-	-	-	-	25,000	25,000
Replacement	Ammonia Probe	-	-	-	-	20,000	20,000
Replacement	Vehicle E0069	-	-	-	-	20,000	20,000
Replacement	Vehicle E0070	-	-	-	-	20,000	20,000
Replacement	M&V Chamber Pump & Motor	-	-	-	-	19,000	19,000
Replacement	Crane Monitor Panel	-	-	-	-	10,000	10,000
Rehabilitation	Bridge Crane Drive Unit	-	-	-	-	6,000	6,000
Rehabilitation	Bridge Crane Trolley Drive Unit	-	-	-	-	6,000	6,000
Rehabilitation	Bridge Crane Drum Hoist	-	-	-	-	6,000	6,000
<i>Subtotal Field's Point</i>		753,400	879,000	998,500	963,000	887,000	4,480,900
<b>Bucklin Point</b>							
New	Forklift	80,000	-	-	-	-	80,000
Replacement	Bar Rack	70,000	-	-	-	-	70,000
Replacement	VFD Effluent Pumps	70,000	-	-	-	-	70,000
Replacement	Thickener Waste Pump	55,000	-	-	-	-	55,000
Replacement	Screw Pump	50,000	-	-	-	-	50,000
Replacement	Booster Pump	38,000	-	-	-	-	38,000
Rehabilitation	Screenings Grinder	35,000	-	-	25,000	-	60,000
New	Storage Trailers	30,000	-	-	-	-	30,000
Rehabilitation	UV Hydraulic Power System	25,000	-	-	-	-	25,000

Asset Type	Asset Title	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Total Cost
Replacement	Gas Pressure Valves & Piping	25,000	-	-	-	-	25,000
Replacement	Vehicle V486	25,000	-	-	-	-	25,000
New	Genie Lift	25,000	-	-	-	-	25,000
Rehabilitation	Phone Lines	25,000	-	-	-	-	25,000
Replacement	Sludge Recirculation Pump	22,000	-	-	-	-	22,000
Replacement	Grit Pump	20,000	-	-	-	-	20,000
Replacement	Grit Pump	20,000	-	-	-	-	20,000
Replacement	Sludge Pump	20,000	-	-	-	-	20,000
Replacement	Hypo Pump	20,000	-	-	-	-	20,000
Replacement	Vehicle E0010	17,000	-	-	-	-	17,000
Replacement	Vehicle E0017	17,000	-	-	-	-	17,000
Replacement	Vehicle E0049	17,000	-	-	-	-	17,000
Replacement	VFD Aeration Recycle Pumps	16,000	-	-	-	-	16,000
New	Cameras	15,000	-	-	-	-	15,000
New	Cameras	15,000	-	-	-	-	15,000
Replacement	Vehicle V399	15,000	-	-	-	-	15,000
New	Remote Control Slope Cutter	15,000	-	-	-	-	15,000
Replacement	Gate Controller	10,000	-	-	-	-	10,000
Replacement	Scum Pump	10,000	-	-	-	-	10,000
Replacement	Scum Pump	10,000	-	-	-	-	10,000
Replacement	Centrate Pump	10,000	-	-	-	-	10,000
Replacement	Bisulfite Pump	6,000	-	-	-	-	6,000
Replacement	Bisulfite Pump	6,000	-	-	-	-	6,000
New	Bobcat Welder	6,000	-	-	-	-	6,000
Rehabilitation	Primary Digester	-	200,000	-	-	-	200,000
Replacement	Hypo Piping & Valves	-	120,000	-	-	-	120,000
Replacement	Bar Rack	-	75,000	-	-	-	75,000
Replacement	Pumps	-	40,000	-	-	-	40,000
Replacement	Air Handling Unit	-	40,000	-	-	-	40,000
Replacement	Dewatering Pump	-	35,000	-	-	-	35,000
Replacement	Vehicle V390	-	32,000	-	-	-	32,000
Replacement	Grit Pump	-	22,000	-	-	-	22,000
Replacement	Dewatering Pump	-	18,000	-	-	-	18,000
Replacement	Vehicle E0057	-	18,000	-	-	-	18,000
Replacement	Vehicle E0058	-	18,000	-	-	-	18,000
Replacement	Hoist	-	15,000	-	-	-	15,000
Replacement	EIM Limitorque Actuators & Gear Operator	-	12,000	-	-	-	12,000
Replacement	Vehicle E0100A	-	10,000	-	-	-	10,000
Replacement	Vehicle E0101A	-	8,000	-	-	-	8,000
Replacement	Vehicle V382	-	8,000	-	-	-	8,000
Rehabilitation	Primary Digester	-	-	200,000	-	-	200,000
Replacement	Bar Rack	-	-	75,000	-	-	75,000
Rehabilitation	Effluent Pump	-	-	60,000	-	-	60,000
Replacement	Vehicle V382	-	-	40,000	-	-	40,000
Replacement	Dewatering Pump	-	-	35,000	-	-	35,000
Replacement	Collector Tank	-	-	32,000	-	-	32,000
Replacement	Vehicle V444	-	-	32,000	-	-	32,000
Replacement	Effluent Booster Pump	-	-	30,000	-	-	30,000
Replacement	Air Handling Unit	-	-	30,000	-	-	30,000
Replacement	Air Handling Unit	-	-	30,000	-	-	30,000
Replacement	Sludge Pump	-	-	27,000	-	-	27,000
Replacement	Flushing Water Pump	-	-	26,000	-	-	26,000
Replacement	Hoist	-	-	25,000	-	-	25,000
Replacement	Grit Pump	-	-	22,000	-	-	22,000
Replacement	Dewatering Pump	-	-	20,000	-	-	20,000
Replacement	Battery Replacement Generator	-	-	20,000	-	-	20,000
Replacement	Bar Screen	-	-	20,000	-	-	20,000
Replacement	Pump	-	-	20,000	-	-	20,000
Replacement	Pump	-	-	20,000	-	-	20,000
Replacement	Vehicle E0054	-	-	18,000	-	-	18,000
Replacement	Vehicle E0055	-	-	18,000	-	-	18,000
Replacement	Sump Pumps	-	-	15,000	-	-	15,000
Rehabilitation	Centrifugal Blower Cartridge	-	-	15,000	-	-	15,000
Replacement	Sludge Flow Meter	-	-	15,000	-	-	15,000
Replacement	Bubbler System Flow Meter	-	-	12,000	-	-	12,000
Replacement	Flow Meters, Bubbler, Gas Detection	-	-	12,000	-	-	12,000
Replacement	Vehicle V356	-	-	8,000	-	-	8,000
Replacement	Meter	-	-	6,000	-	-	6,000
Replacement	Meter	-	-	6,000	-	-	6,000
Rehabilitation	Primary Digester	-	-	-	200,000	-	200,000

Asset Type	Asset Title	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Total Cost
Replacement	Primary Clarifier Turn Table Collector	-	-	-	80,000	-	80,000
Rehabilitation	Effluent Pump	-	-	-	60,000	-	60,000
Rehabilitation	Screening & Conveyor System	-	-	-	50,000	-	50,000
Replacement	Grit Collector Tank	-	-	-	40,000	-	40,000
Rehabilitation	Screenings Conveyor	-	-	-	40,000	-	40,000
Replacement	Vehicle V418	-	-	-	40,000	-	40,000
Replacement	Vehicle V356	-	-	-	35,000	-	35,000
Replacement	Collector Tank	-	-	-	32,000	-	32,000
Replacement	Effluent Booster Pump	-	-	-	30,000	-	30,000
Replacement	Scum Pump Grinder Muffin Monster & Mix.	-	-	-	30,000	-	30,000
Replacement	Vehicle V378	-	-	-	28,000	-	28,000
Replacement	Sludge Pump	-	-	-	27,000	-	27,000
Replacement	Grit And Screening Equipment	-	-	-	25,000	-	25,000
Replacement	Dewatering Pump	-	-	-	22,000	-	22,000
Rehabilitation	Grit Classifier Tank	-	-	-	20,000	-	20,000
Replacement	Vehicle E0060	-	-	-	19,000	-	19,000
Replacement	Vehicle E0061	-	-	-	19,000	-	19,000
Replacement	Vehicle E0062	-	-	-	19,000	-	19,000
Replacement	Vehicle E0039	-	-	-	18,000	-	18,000
Replacement	Vehicle V406A	-	-	-	12,000	-	12,000
Replacement	Vehicle E0063	-	-	-	9,000	-	9,000
Replacement	Vehicle E0064	-	-	-	9,000	-	9,000
Replacement	Vehicle E0065	-	-	-	9,000	-	9,000
Replacement	Vehicle V455	-	-	-	8,000	-	8,000
Replacement	Collector Tank	-	-	-	-	35,000	35,000
Replacement	Flushing Water Pump	-	-	-	-	26,000	26,000
Replacement	Hypo Pump	-	-	-	-	25,000	25,000
Rehabilitation	Grit Conveyor	-	-	-	-	20,000	20,000
Replacement	Vehicle E0066A	-	-	-	-	19,000	19,000
Replacement	Vehicle E0067A	-	-	-	-	19,000	19,000
Replacement	Vehicle E0068A	-	-	-	-	19,000	19,000
Replacement	Dewatering Pump	-	-	-	-	17,000	17,000
Rehabilitation	Level Conveyor	-	-	-	-	15,000	15,000
Replacement	Vehicle V368	-	-	-	-	14,000	14,000
Replacement	Vehicle V368	-	-	-	-	12,000	12,000
Rehabilitation	Grit Cross Conveyor	-	-	-	-	10,000	10,000
Rehabilitation	Class Tank Conveyor	-	-	-	-	10,000	10,000
Rehabilitation	Class Tank	-	-	-	-	10,000	10,000
Replacement	Vehicle V368	-	-	-	-	10,000	10,000
Replacement	Copier	-	-	-	-	9,000	9,000
<i>Subtotal Bucklin Point</i>		840,000	671,000	889,000	906,000	270,000	3,576,000
<b>ENVIRONMENTAL SCIENCE &amp; COMPLIANCE</b>							
<b>Pretreatment</b>							
Replacement	Vehicle V423	-	30,000	-	-	-	30,000
Replacement	Vehicle V386	-	-	-	30,000	-	30,000
<i>Subtotal Pretreatment</i>		-	30,000	-	30,000	-	60,000
<b>Laboratory</b>							
Replacement	ICP-IND	131,201	-	-	-	-	131,201
Replacement	Cyanide Analyzer	68,155	-	-	-	-	68,155
Replacement	Oil and Grease Analyzer	51,150	-	-	-	-	51,150
Replacement	Biological Media Dispenser	49,272	-	-	-	-	49,272
Replacement	Fresh Water Nutrient Analyzer	-	65,000	-	-	-	65,000
Replacement	Mercury Analyzer	-	60,000	-	-	-	60,000
Replacement	Autoclave	-	90,000	-	-	-	90,000
Replacement	TOC Analyzer	-	45,000	-	-	-	45,000
Replacement	ICP-Trace	-	-	80,000	-	-	80,000
Replacement	BOD Skalar Analyzer	-	-	70,000	-	-	70,000
Replacement	Autotitration System	-	-	40,000	-	-	40,000
Replacement	Autoclave	-	-	90,000	-	-	90,000
Replacement	ICP-MS	-	-	-	180,000	-	180,000
Replacement	Incubators	-	-	-	24,000	-	24,000
Replacement	TKN Digestion Block	-	-	-	6,000	-	6,000
Replacement	Water Purification Systems	-	-	-	70,000	-	70,000
Replacement	GC-MS	-	-	-	-	160,000	160,000
Replacement	Salt Water Nutrient Analyzer	-	-	-	-	65,000	65,000
Replacement	Temperature Monitoring System	-	-	-	-	30,000	30,000
Replacement	Enterococci Sealers	-	-	-	-	6,000	6,000
Replacement	Water Purification Systems	-	-	-	-	70,000	70,000
<i>Subtotal Laboratory</i>		299,778	260,000	280,000	280,000	331,000	1,450,778

Asset Type	Asset Title	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	Total Cost
<b>EMDA</b>							
Replacement	Phillipsdale DCP, Sondes & Assoc. Equip.	65,000	-	-	-	-	65,000
Replacement	Fixed Site Probes, Handheld Meter, Solutions/Equipment	30,000	32,000	32,000	32,000	20,000	146,000
Replacement	Fixed Site Sondes & Equipment	50,000	50,000	50,000	52,000	26,000	228,000
Replacement	Vehicle V432	34,000	-	-	-	-	34,000
Replacement	Refrigerated Autosamplers	19,500	-	-	-	-	19,500
New	Swipe Card Readers	50,000	-	-	-	-	50,000
Replacement	Caribe Boat	15,000	-	-	-	-	15,000
Replacement	Vehicle V383	-	34,000	-	-	-	34,000
Replacement	Refrigerated Autosamplers	-	13,000	-	14,000	-	27,000
Replacement	Refrigerated Autosamplers	-	-	19,500	-	-	19,500
Replacement	Vehicle V369	-	-	-	34,000	-	34,000
Replacement	Vehicle V365	-	-	-	-	34,000	34,000
Replacement	Refrigerated Autosamplers	-	-	19,500	-	20,500	40,000
<i>Subtotal EMDA</i>		<u>263,500</u>	<u>129,000</u>	<u>121,000</u>	<u>132,000</u>	<u>100,500</u>	<u>746,000</u>
<b>Total</b>		<b>\$ 5,310,678</b>	<b>\$ 3,127,000</b>	<b>\$ 2,967,500</b>	<b>\$ 2,746,000</b>	<b>\$ 2,302,500</b>	<b>\$ 16,453,678</b>

## Fund - Organization Matrix

Division / Section	Revenue Fund	Operation & Maintenance Fund	Project Fund	Debt Service Fund	Renewal & Replacement Reserve Fund	Debt Service Reserve Fund	Operation & Maintenance Reserve Fund	Redemption Fund	Insurance Reserve Fund	Operating Reserve for Revenue Stability Fund	Rebate Fund	Unrestricted Fund	TOTAL
<b>Executive Affairs:</b>													
Executive	\$ -	\$ 1,373,188	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,413,188
Legal		475,418											475,418
<b>Subtotal</b>		<b>1,848,606</b>	<b>40,000</b>										<b>1,888,606</b>
<b>Construction &amp; Engineering:</b>													
Construction Services		197,635	30,000										227,635
Engineering		400,000	30,000										430,000
<b>Subtotal</b>		<b>597,634</b>	<b>60,000</b>										<b>657,634</b>
<b>Administration &amp; Finance:</b>													
Human Resources		496,090	50,000										546,090
Finance		1,146,491	350,000										1,496,491
Accounting		804,219	75,000										879,219
IT		1,945,496	1,920,000										3,865,496
Customer Service		2,616,211	30,000										2,646,211
Purchasing		266,235											266,235
Administration		2,829,606	190,000	46,786,894									49,806,500
<b>Subtotal</b>		<b>10,104,348</b>	<b>2,615,000</b>	<b>46,786,894</b>									<b>59,506,242</b>
<b>Operations &amp; Maintenance:</b>													
IM		2,839,201	244,000										3,083,201
Operations & Maintenance Services		1,105,810	195,000										1,300,810
Fields Point		12,279,198	753,400										13,032,598
Bucklin Point		7,006,393	840,000										7,846,393
<b>Subtotal</b>		<b>23,230,602</b>	<b>2,032,400</b>										<b>25,263,002</b>
<b>Environmental Science &amp; Compliance:</b>													
Water Quality & Compliance		492,149											492,149
Pretreatment		1,182,483											1,182,483
Lab		2,245,251	299,778										2,545,029
ESTA		432,077											432,077
EMDA		1,675,443	263,500										1,938,943
<b>Subtotal</b>		<b>6,027,403</b>	<b>563,278</b>										<b>6,590,681</b>
<b>Non-Departmental</b>													
Direct CIP Funding			20,995,000										20,995,000
Debt Service Coverage				11,696,723									11,696,723
<b>Subtotal</b>			<b>20,995,000</b>	<b>11,696,723</b>									<b>32,691,723</b>
<b>TOTAL</b>	<b>\$ -</b>	<b>\$ 41,808,594</b>	<b>\$ 26,305,678</b>	<b>\$ 58,483,617</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 126,597,889</b>

# Narragansett Bay Commission

## Acronyms Glossary

### **ACA – Affordable Care Act**

Commonly referred to as **Obamacare**, is landmark health insurance legislation passed by the 111<sup>th</sup> United States Congress in March 2010.

### **AFL-CIO – American Federation of Labor-Congress of Industrial Organizations**

### **AFSCME – American Federation of State, County & Municipal Employees**

### **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 guideline 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.

### **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.

**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 salary of union employees 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.

**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.

**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**

The ability of a government to sustain its current spending, tax and other policies in the long run without threatening government solvency or defaulting on some of its liabilities or promised expenditures.

**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.

**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 US 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 with key features that support 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.

**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.

**MRI – Moshassuck River Interceptor****MW – Megawatt**

A megawatt is a unit of measure of electricity and one MW is equal to one million ( $10^6$ ) watts.

**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.

**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.

**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.

**PUC - Public Utilities Commission**

In accordance with RIGL, this state agency regulates certain public utilities in the State of Rhode Island, including the NBC.

**QDRO – Qualified Domestic Relations Order**

A QDRO is a judgment, decree or order for a retirement plan to pay child support, alimony or marital property rights to a spouse, former spouse, child or other dependent of a participant.

**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).

**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**

An American stock market index based on the market capitalizations of 500 large companies having common stock listed on the NYSE or NASDAQ.

### **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**

A written procedure that promotes uniformity in operations, SOP provides individuals with the information necessary to perform a task properly and facilitates consistency in the quality and integrity of end result.

### **SRF - State Revolving Fund**

The Rhode Island Infrastructure Bank program which offers low cost financing to eligible qualified borrowers.

### **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.

**WED – Wind Energy Development**

Wind turbines that convert wind energy into electricity.

**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.

**Annual Budget** - An estimate of expenses 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** – Computerized management program used to ensure the proper maintenance, repair and replacement of NBC's assets.

**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.

**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 (Operating)** – A financial operating plan of all expected revenue and expenses 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 Expenses** - Expenses for contractor or other expenses related to the Capital Improvement Program (CIP) projects.

**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 expenses 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 the 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 of net revenue to debt service.

**Deionized Water Purification System** - Removes any impurities in the water, forming pure water (H<sub>2</sub>O).

**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.

**Expenses** – Payments 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.

**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 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.

**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.

**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.

**Line-Item Budget** - A format of budgeting which organizes expenses 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 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 Budget** - See Budget (Operating)

**Operating Capital Expenditure** - An expense in excess of \$5000 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 Plan** - A detailed plan of proposed operating capital expenditures.

**Operating Reserve for Revenue Stability Fund** - Reserve Fund established at a level of \$4,500,000 to support Operations & Maintenance expenses 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 expenses 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.

**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.

**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 and used to pay expenses.

**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** - Charges 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.

**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.



# FY 2018 Operating Budget Detail

ACCT. NUMBER	BUDGET ACCOUNT	FY 2017 BUDGET	FY 2018 PROPOSED	CHANGE FROM FY 2017	EXECUTIVE AFFAIRS			CONSTRUCTION & ENGINEERING			ADMINISTRATION & FINANCE				GEN. ADM. CC 80	
					EXECUTIVE CC 21	LEGAL CC 24	CONSTRUCTION CC 22	ENGINEERING CC 25	HR CC 23	FINANCE CC 31	ACCT. CC 32	IT CC 33	CUST. SVC. CC 34	PURCH. CC 36		
52100	UNION - REGULAR	\$ 6,627,630	\$ 6,549,604	\$ (78,026)	-	-	-	\$ 46,480	\$ -	\$ 90,258	\$ -	\$ 655,996	\$ -	\$ 56,000		
52150	UNION OVERTIME	500,400	542,400	42,000	-	-	-	-	-	-	-	5,000	-	-		
52300	NON-UNION REGULAR	10,171,015	10,326,643	155,628	850,876	332,162	900,584	233,006	477,579	506,147	975,616	612,681	204,482	50,000		
52350	NON-UNION OVERTIME	107,900	141,400	33,500	-	-	20,000	-	-	100	-	2,000	-	-		
52400	NON-UNION LIMITED	30,600	33,200	2,600	1,000	-	5,000	-	-	-	-	-	-	-		
52800	UNION PENSION	1,730,968	1,710,415	(20,553)	-	-	-	12,243	-	23,774	-	172,789	-	-		
52810	FICA	1,333,971	1,345,884	11,913	65,169	25,410	70,807	21,381	36,535	45,633	74,635	97,589	15,643	8,109		
52820	UNEMPLOYMENT	40,000	30,000	(10,000)	-	-	-	-	-	-	-	-	-	30,000		
52920	NON-UNION PENSION	1,327,890	1,246,806	(81,084)	85,088	33,216	92,058	23,301	47,758	50,625	97,562	61,468	20,448	205,000		
52940	UNION RETIREMENT HEALTH	392,326	387,668	(4,658)	-	-	-	2,775	-	5,388	-	39,163	-	-		
52950	HEALTH INSURANCE	4,062,213	4,207,952	145,739	144,201	55,900	187,704	72,101	65,880	136,494	174,003	348,688	19,491	14,000		
52970	DENTAL INSURANCE	350,269	336,920	(13,349)	10,102	6,561	13,854	5,051	7,557	12,133	17,863	30,159	2,552	-		
52980	VISION INSURANCE	47,306	50,293	2,987	1,504	969	2,027	752	1,132	1,822	2,577	4,485	419	-		
52990	DISABILITY INSURANCE	43,059	44,500	1,441	-	-	-	-	-	-	-	-	-	44,500		
53690	WORK. COMP. - OLD CLAIMS	10,000	5,000	(5,000)	-	-	-	-	-	-	-	-	-	5,000		
<b>TOTAL PERSONNEL</b>					26,775,547	26,958,685	183,138	1,157,940	454,218	1,292,034	670,306	872,374	1,342,256	2,030,018	263,035	412,609
59000	SALARY REIMBURSEMENT	(1,000,010)	(1,093,103)	(93,093)	(39,162)	(5,500)	(720,467)	-	-	(75,000)	-	-	-	-	-	
59001	FRINGE REIMBURSEMENT	(550,006)	(601,206)	(51,199)	(21,539)	(3,025)	(396,257)	-	-	(41,250)	-	-	-	-	-	
<b>NET PERSONNEL SERVICES</b>					25,225,531	25,264,376	38,845	1,097,238	445,693	1,75,310	359,575	756,124	1,342,256	2,030,018	263,035	412,609
<b>OPERATING SUPPLIES/EXPENSE</b>																
52610	MEDICAL SVCS.	14,390	14,390	-	-	-	125	-	-	-	-	-	-	-	-	
53210	POSTAGE	427,303	407,068	(20,235)	-	-	-	-	-	-	-	382,068	-	25,000		
53240	DUES & SUBSCRIPTIONS	65,100	57,700	(7,400)	30,000	7,000	400	3,500	3,800	1,000	500	500	700	300		
53250	FREIGHT	49,610	44,050	(5,560)	600	200	200	400	250	100	500	200	100	11,000		
53310	PRINTING & BINDING	154,810	154,810	(7,890)	8,500	100	100	50	4,000	60	128,000	700	3,000	3,000		
53320	ADVERTISING	18,100	18,175	75	2,500	1,500	2,000	-	2,500	-	2,500	-	100	2,575		
53330	RENTAL- EQUIPMENT	45,000	35,800	(9,200)	8,800	-	-	-	-	-	-	-	-	6,000		
53340	RENTAL- CLOTHING	33,800	32,000	(1,800)	-	-	-	-	-	-	-	-	-	-		
53350	RENTAL-OUTSIDE PROPERTY	342,950	305,134	(37,816)	5,000	-	600	3,000	-	-	-	-	-	296,934		
53360	MISCELLANEOUS EXPENSE	3,600	3,600	-	-	-	-	-	-	-	-	-	-	-		
53370	PUBLIC OUTREACH ED.	26,000	35,000	9,000	35,000	-	-	100	300	100	500	-	100	-		
53410	LOCAL TRAVEL	5,400	5,550	150	500	350	100	100	300	100	500	-	-	-		
53420	LONG DISTANCE TRAVEL	97,700	116,100	18,400	35,000	10,800	1,500	5,000	10,000	30,000	-	-	-	-		
53470	BLDG. & GRND. MAINT.	275,175	208,700	(66,475)	-	-	-	-	-	-	-	-	-	-		
53480	BIOSOLIDS DISPOSAL	4,557,811	4,517,020	(40,791)	-	-	-	-	-	-	-	-	-	79,500		
53490	SCREENING & GRIT DISPOSAL	136,000	195,210	59,210	-	-	-	-	-	-	-	-	-	-		
53510	VEHICLE FUEL & MAINTENANCE	224,600	188,900	(35,700)	3,000	-	6,500	2,000	-	-	-	7,000	-	-		
53610	REPAIRS BLDG, STRUCT, EQUIP.	835,669	793,865	(41,804)	250	-	-	1,000	100	-	315	-	-	40,000		
53620	REPAIR-HIGHWAY & WALKS	20,000	15,000	(5,000)	-	-	-	-	-	-	-	-	-	5,000		
53630	MAINTENANCE CONTRACTS	1,041,191	1,207,100	165,909	-	-	-	19,125	-	-	413,025	-	100	10,000		
53635	MAINT. CONTRACTS - OFFICE EQUIP.	118,723	143,627	24,904	100	75	-	200	100	75	22,000	-	100	62,000		
53640	SERVICE AGREEMENTS	234,997	410,089	175,092	-	-	-	-	-	-	-	-	-	-		
53650	HIGHWAY & LANDSCAPE	24,500	15,500	(9,000)	-	-	-	-	-	-	-	-	-	-		
53660	INSURANCE	613,133	661,149	48,016	-	-	-	-	-	-	-	-	-	661,149		
53680	WORK. COMP. INSURANCE	422,035	460,000	37,965	-	-	-	-	-	-	-	-	-	460,000		
53900	CENTRAL PHONE SVCS.	5,000	4,000	(1,000)	-	-	-	-	-	-	-	-	-	4,000		
54000	TELEPHONE	187,820	181,020	(6,800)	1,500	-	4,000	2,400	-	-	60,000	8,000	400	25,000		
54020	FUELOIL #2 - DIESEL	23,000	20,000	(3,000)	-	-	-	-	-	-	-	-	-	-		
54060	FUEL-GAS	365,655	346,180	(19,475)	-	-	-	-	-	-	-	-	-	65,144		

# FY 2018 Operating Budget Detail

ACCT. BUDGET NUMBER	ACCOUNT	FY 2017 BUDGET	FY 2018 PROPOSED	CHANGE FROM FY 2017	EXECUTIVE AFFAIRS			CONSTRUCTION & ENGINEERING			ADMINISTRATION & FINANCE				GEN. ADM. CC 80
					EXECUTIVE CC 21	LEGAL 24	CONSTRUCTION CC 22	ENGINEERING 25	HR CC 23	FINANCE CC 31	ACCT. CC 32	IT CC 33	CUST. SVC. CC 34	PURCH. CC 36	
54090	ELECTRICITY	2,524,778	2,474,806	(49,972)	-	-	-	-	-	-	-	-	-	-	245,896
54110	WATER	70,155	67,500	(2,655)	-	-	-	-	-	-	-	-	-	-	5,500
54200	CLOTHING	42,100	42,600	500	2,000	-	-	2,000	300	-	-	-	2,100	-	-
54332	CHLORINE/HYPOCHLORITE	341,221	345,505	4,284	-	-	-	-	-	-	-	-	-	-	-
54333	CARBON FEED	82,493	50,586	(31,907)	-	-	-	-	-	-	-	-	-	-	-
54335	POLYMER	66,410	90,060	23,650	-	-	-	-	-	-	-	-	-	-	-
54336	SODIUM HYDROXIDE	47,664	54,717	7,053	-	-	-	-	-	-	-	-	-	-	-
54337	SODIUM BISULFITE	245,487	245,692	205	-	-	-	-	-	-	-	-	-	-	-
54338	SODA ASH	13,464	12,210	(1,254)	-	-	-	-	-	-	-	-	-	-	-
54339	UV DISINFECTION	150,000	175,000	25,000	-	-	-	-	-	-	-	-	-	-	-
54340	LAB SUPPLIES	357,738	360,670	2,932	-	-	-	-	-	-	-	-	-	-	-
54370	SUPPLIES BUILDING & MAINT.	443,550	449,310	5,760	100	-	500	500	500	60	300	50	50	-	10,000
54410	EDUCATIONAL SUPP. & EXP.	93,050	83,950	(9,100)	7,500	2,400	500	1,500	1,500	2,500	12,000	1,500	100	100	10,000
54420	COMPUTER SUPPLIES	82,250	82,150	(100)	500	150	1,000	200	-	200	60,000	-	100	100	5,000
54430	OTHER OP. SUPPLIES & EXP.	21,950	11,950	(10,000)	500	-	-	-	-	-	1,500	-	-	-	3,000
54440	SAFETY EQUIPMENT	55,450	51,850	(3,600)	100	-	200	-	-	-	-	-	1,000	-	1,000
54500	OFFICE EXPENSE	110,825	112,875	2,050	25,000	650	2,600	3,000	-	4,200	6,000	-	4,000	800	15,000
57913	LEASE INTEREST EXPENSE	15,000	-	(15,000)	-	-	-	-	-	-	-	-	-	-	-
<b>TOTAL OPERATING SUPPLIES/EXPENSE</b>		15,140,547	15,308,168	167,621	166,450	23,225	22,325	36,925	-	30,050	10,095	603,240	539,793	3,200	2,051,997
<b>PROFESSIONAL SERVICES</b>															
52600	REGULATORY EXPENSE	447,850	457,850	10,000	-	-	-	-	-	440,000	-	-	-	-	-
52650	SECURITY SERVICES	44,300	43,200	(1,100)	2,500	-	-	-	-	-	-	-	9,900	-	5,000
52660	LEGAL SERVICES	196,000	196,000	-	50,000	5,000	-	-	-	20,000	-	-	1,000	-	120,000
52670	MGMT/AUDIT SERVICES	295,000	293,000	(2,000)	50,000	-	-	-	38,000	20,000	35,000	-	-	-	150,000
52680	CLERICAL SERVICES	33,000	41,000	8,000	6,500	1,500	-	-	-	-	3,000	-	10,000	-	10,000
52690	OTHER SERVICES	221,000	205,000	(16,000)	500	-	-	3,500	-	-	-	-	25,500	-	80,000
<b>TOTAL PROFESSIONAL SERVICES</b>		1,237,150	1,236,050	(1,100)	109,500	6,500	-	3,500	-	480,000	38,000	-	46,400	-	365,000
<b>TOTAL OPERATIONS &amp; MAINTENANCE</b>		41,603,228	41,808,594	205,366	1,373,188	475,418	197,635	400,000	-	1,146,491	804,219	1,945,496	2,616,211	266,235	2,829,606
<b>OPERATING CAPITAL</b>															
16510	AUTOMOTIVE EQUIP.	211,000	89,000	(122,000)	-	-	-	-	-	-	-	-	-	-	-
16520	BLDG. & PLANT EQUIP.	359,000	386,000	27,000	-	-	-	-	-	-	-	-	-	-	23,000
16570	LABORATORY EQUIP.	35,000	-	(35,000)	-	-	-	-	-	-	-	-	-	-	-
16580	OFFICE FURN&EQUIP.	425,000	280,000	(145,000)	-	-	-	-	-	100,000	75,000	-	5,000	-	50,000
16583	COMPUTER SOFTWARE	970,000	1,405,000	435,000	-	-	-	-	50,000	-	-	1,300,000	-	-	-
16585	COMPUTER HARDWARE	90,000	130,000	40,000	-	-	-	-	-	-	-	40,000	-	-	-
16590	OTHER EQUIPMENT	81,000	-	(81,000)	-	-	-	-	-	-	-	-	-	-	-
16600	REPLACEMENT RESERVE	2,913,500	2,670,678	(242,822)	40,000	-	30,000	30,000	-	-	-	580,000	25,000	-	17,000
16610	BUILDING & OTHER STRUCT.	145,000	100,000	(45,000)	-	-	-	-	-	250,000	-	-	-	-	100,000
16620	CAPITAL PROJECT STUDIES	250,000	250,000	-	-	-	-	-	-	250,000	-	-	-	-	-
<b>TOTAL OPERATING CAPITAL</b>		5,479,500	5,310,678	(168,822)	40,000	-	30,000	30,000	-	350,000	75,000	1,920,000	30,000	-	190,000
<b>DEBT SERVICE</b>															
PROGRAMMED NEW DEBT															
PRINCIPAL		25,783,150	27,529,555	1,746,405	-	-	-	-	-	-	-	-	-	-	-
INTEREST		19,354,472	19,257,339	(97,133)	-	-	-	-	-	-	-	-	-	-	27,529,555
<b>TOTAL DEBT SERVICE</b>		45,137,622	46,786,894	1,649,272	-	-	-	-	-	-	-	-	-	-	19,257,339
<b>TOTAL</b>		\$ 92,220,350	\$ 99,906,166	\$ 1,685,816	\$ 1,413,188	\$ 475,418	\$ 227,635	\$ 430,000	\$ 546,090	\$ 1,496,491	\$ 879,219	\$ 3,865,496	\$ 2,646,211	\$ 266,235	\$ 49,806,500
					\$1,888,606		\$657,634					\$59,506,242			
					EXECUTIVE AFFAIRS			CONSTRUCTION AND ENGINEERING			ADMINISTRATION & FINANCE				



# FY 2018 Operating Budget Detail

ACCT. NUMBER	BUDGET ACCOUNT	FY 2017 BUDGET	FY 2018 PROPOSED	CHANGE FROM FY 2017	OPERATIONS & MAINTENANCE				ENVIRONMENTAL SCIENCE & COMPLIANCE							
					IM CC 43	OPER. MAINT. SERV. CC 44	FIELDS PT. CC 46	BUCK. PT. CC 47	WATER QUAL. COMPL. CC 51	LAB CC 53	ESTA CC 54	EMDA CC 55				
52100	UNION - REGULAR	\$ 6,627,630	\$ 6,549,604	\$(78,026)	\$ 511,707	\$ -	\$ 2,172,146	\$ 2,012,945	\$ -	\$ 129,280	\$ 466,142	\$ -	\$ 408,650			
52150	UNION OVERTIME	500,400	542,400	42,000	35,000	-	200,000	225,000	-	400	40,000	-	37,000			
52300	NON-UNION REGULAR	10,171,015	10,326,643	155,628	487,244	602,135	795,546	523,551	338,983	619,089	565,665	266,473	504,377			
52350	NON-UNION OVERTIME	107,900	141,400	33,500	10,000	-	50,000	50,000	200	600	4,000	1,000	3,500			
52400	NON-UNION LIMITED	30,600	33,200	2,600	3,600	5,000	-	-	5,000	2,000	6,000	-	5,600			
52800	UNION PENSION	1,730,968	1,710,415	(20,553)	134,784	-	572,143	530,210	-	34,052	122,782	-	107,638			
52810	FICA	1,333,971	1,345,884	11,913	80,138	46,446	246,153	215,079	26,330	57,480	82,758	20,462	73,373			
52820	UNEMPLOYMENT	40,000	30,000	(10,000)	-	-	-	-	-	-	-	-	-			
52920	NON-UNION PENSION	1,327,890	1,246,806	(81,084)	49,724	60,214	84,555	57,355	33,918	61,969	56,967	26,747	50,788			
52940	UNION RETIREMENT HEALTH	392,326	387,668	(4,658)	30,549	-	129,677	120,173	-	7,718	27,829	-	24,396			
52950	HEALTH INSURANCE	4,062,213	4,207,952	145,739	294,502	135,706	845,052	715,953	59,395	214,589	309,602	72,101	246,787			
52970	DENTAL INSURANCE	350,269	336,920	(13,349)	24,534	10,570	68,644	52,922	4,062	14,795	21,714	5,051	20,725			
52980	VISION INSURANCE	47,306	50,293	2,987	3,546	1,519	10,217	8,175	636	2,241	3,225	752	3,109			
52990	DISABILITY INSURANCE	43,059	44,500	1,441	-	-	-	-	-	-	-	-	-			
53690	WORK. COMP. - OLD CLAIMS	10,000	5,000	(5,000)	-	-	-	-	-	-	-	-	-			
<b>TOTAL PERSONNEL</b>					26,775,547	26,958,685	183,138	1,665,328	861,590	5,174,133	4,511,363	468,524	1,144,213	1,706,684	392,586	1,485,943
59000	SALARY REIMBURSEMENT	(1,000,010)	(1,093,103)	(93,093)	(20,000)	(31,002)	(17,051)	-	-	-	-	-	-	(1,500)	-	-
59001	FRINGE REIMBURSEMENT	(550,006)	(601,206)	(51,199)	(11,000)	(17,051)	-	-	-	-	-	-	-	(824)	-	-
<b>NET PERSONNEL SERVICES</b>					25,225,531	25,264,376	38,845	1,634,328	813,537	5,174,133	4,511,363	468,524	1,144,213	1,706,684	390,262	1,485,943
<b>OPERATING SUPPLIES/EXPENSE</b>																
52610	MEDICAL SVCS.	14,390	14,390	-	-	-	-	-	-	-	-	-	-	-	4,265	-
53210	POSTAGE	427,303	407,068	(20,235)	-	-	-	-	-	-	-	-	-	-	-	-
53240	DUES & SUBSCRIPTIONS	65,100	57,700	(7,400)	1,000	500	3,500	1,000	650	450	600	1,500	300			
53250	FREIGHT	49,610	44,050	(5,560)	2,000	-	10,000	8,000	200	400	7,000	100	2,500			
53310	PRINTING & BINDING	162,700	154,810	(7,890)	150	150	500	1,000	100	4,450	-	1,000	3,000			
53320	ADVERTISING	18,100	18,175	75	500	-	2,000	1,000	-	1,000	-	-	-			
53330	RENTAL-EQUIPMENT	45,000	35,800	(9,200)	1,500	-	6,000	13,500	-	-	-	-	-			
53340	RENTAL-CLOTHING	33,800	32,000	(1,800)	2,000	-	15,000	15,000	-	-	-	-	-			
53350	RENTAL-OUTSIDE PROPERTY	342,950	305,134	(37,816)	-	-	-	-	700	-	-	-	2,500			
53360	MISCELLANEOUS EXPENSE	3,600	3,600	-	-	-	-	-	-	-	-	-	-			
53370	PUBLIC OUTREACH ED.	26,000	35,000	9,000	-	-	-	-	-	-	-	-	-			
53410	LOCAL TRAVEL	5,400	5,550	150	400	250	200	250	500	50	400	750	400			
53420	LONG DISTANCE TRAVEL	97,700	116,100	18,400	4,000	-	4,000	1,000	3,000	2,000	4,500	2,500	2,800			
53470	BLDG. & GRND. MAINT.	275,175	208,700	(66,475)	7,500	-	46,000	34,000	-	200	41,500	-	-			
53480	BIOSOLIDS DISPOSAL	4,557,811	4,517,020	(40,791)	-	-	3,552,222	964,798	-	-	-	-	-			
53490	SCREENING & GRIT DISPOSAL	136,000	195,210	59,210	40,000	1,800	45,000	30,000	-	8,000	-	1,600	19,000			
53510	VEHICLE FUEL & MAINTENANCE	224,600	188,900	(35,700)	65,000	1,800	45,000	30,000	-	-	-	-	-			
53610	REPAIRS BLDG. STRUCT.EQUIP.	835,669	793,865	(41,804)	30,000	-	472,000	210,000	-	200	20,000	-	20,000			
53620	REPAIR-HIGHWAY & WALKS	20,000	15,000	(5,000)	10,000	-	-	-	-	-	-	-	-			
53630	MAINTENANCE CONTRACTS	1,041,191	1,207,100	165,909	37,800	266,543	289,557	37,297	-	-	-	-	3,200			
53635	MAINT. CONTRACTS - OFFICE EQUIP.	118,723	143,627	24,904	6,050	-	39,563	20,495	-	1,000	7,094	-	1,400			
53660	SERVICE AGREEMENTS	234,997	410,089	175,092	15,400	19,980	116,520	236,189	-	-	-	-	-			
53650	HIGHWAY & LANDSCAPE	24,500	15,500	(9,000)	6,000	-	3,500	6,000	-	-	-	-	-			
53660	INSURANCE	613,133	661,149	48,016	-	-	-	-	-	-	-	-	-			
53680	WORK. COMP. INSURANCE	422,035	460,000	37,965	-	-	-	-	-	-	-	-	-			
53900	CENTRAL PHONE SVCS.	5,000	4,000	(1,000)	-	-	-	-	-	-	-	-	-			
54000	TELEPHONE	187,820	181,020	(6,800)	35,000	1,300	18,000	7,500	700	7,220	1,300	800	7,900			
54020	FUEL OIL #2 - DIESEL	23,000	20,000	(3,000)	-	-	15,000	5,000	-	-	-	-	-			
54060	FUEL-GAS	365,655	346,180	(19,475)	19,747	-	156,448	104,842	-	-	-	-	-			

# FY 2018 Operating Budget Detail

ACCT. BUDGET NUMBER	ACCOUNT	FY 2017 BUDGET	FY 2018 PROPOSED	CHANGE FROM FY 2017	IM CC 43	OPERATIONS & MAINTENANCE			BUCK. PT. CC 47	ENVIRONMENTAL SCIENCE & COMPLIANCE									
						OPER. MAINT. SERV. CC 44	FIELDS PT. CC 46	CC 45		WATER QUAL. COMPL. CC 51	PT CC 52	LAB CC 53	ESTA CC 54	EMDA CC 55					
54090	ELECTRICITY	2,524,778	2,474,806	(49,972)	163,063	-	-	1,265,670	800,177	-	-	-	-	-	-	-	-		
54110	WATER	70,155	67,500	(2,655)	3,000	-	-	21,000	22,000	-	-	-	-	-	16,000	-	-		
54200	CLOTHING	42,100	42,600	500	6,000	-	-	8,000	10,000	300	1,500	3,900	500	6,000	-	-	-		
54332	CHLORINE/HYPOCHLORITE	341,221	345,505	4,284	-	-	-	325,251	20,254	-	-	-	-	-	-	-	-		
54333	CARBON FEED	82,493	50,586	(31,907)	-	-	-	46,437	4,149	-	-	-	-	-	-	-	-		
54335	POLYMER	66,410	90,060	23,650	-	-	-	-	90,060	-	-	-	-	-	-	-	-		
54336	SODIUM HYDROXIDE	47,664	54,717	7,053	-	-	-	54,717	-	-	-	-	-	-	-	-	-		
54337	SODIUM BISULFITE	245,487	245,692	205	-	-	-	219,924	25,767	-	-	-	-	-	-	-	-		
54338	SODA ASH	13,464	12,210	(1,254)	-	-	-	-	12,210	-	-	-	-	-	-	-	-		
54339	UV DISINFECTION	150,000	175,000	25,000	-	-	-	-	175,000	-	-	-	-	-	-	-	-		
54340	LAB SUPPLIES	357,738	360,670	2,932	-	-	-	24,000	15,000	-	-	250,120	500	68,500	-	-	-		
54370	SUPPLIES BUILDING & MAINT.	443,550	449,310	5,760	76,000	250	1,000	190,000	160,000	100	500	550	7,400	3,000	-	-	-		
54410	EDUCATIONAL SUPP. & EXP.	93,050	83,950	(9,100)	6,500	1,000	-	4,500	4,000	1,800	2,500	6,900	8,500	3,500	-	-	-		
54420	COMPUTER SUPPLIES	82,250	82,150	(100)	1,000	-	-	6,000	5,000	50	1,200	500	850	400	-	-	-		
54430	OTHER OP. SUPPLIES & EXP.	21,950	11,950	(10,000)	2,000	-	-	1,000	1,500	2,200	50	-	-	200	-	-	-		
54440	SAFETY EQUIPMENT	55,450	51,850	(3,600)	5,500	-	-	15,000	13,000	100	1,000	2,450	5,500	7,000	-	-	-		
54500	OFFICE EXPENSE	110,825	112,875	2,050	5,000	500	-	15,000	9,000	3,225	4,000	3,350	3,550	4,400	-	-	-		
57913	LEASE INTEREST EXPENSE	15,000	-	(15,000)	-	-	-	-	-	-	-	-	-	-	-	-	-		
<b>TOTAL OPERATING SUPPLIES/EXPENSE</b>					15,140,547	15,308,168	167,621	7,090,565	3,120,143	13,625	38,270	496,717	41,815	153,500	-	-	-		
<b>PROFESSIONAL SERVICES</b>																			
52600	REGULATORY EXPENSE	447,850	457,850	10,000	300	-	-	8,000	9,000	-	-	550	-	-	-	-	-		
52650	SECURITY SERVICES	44,300	43,200	(1,100)	15,000	-	-	6,500	3,000	-	-	1,300	-	-	-	-	-		
52660	LEGAL SERVICES	196,000	196,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
52670	MGMT/AUDIT SERVICES	295,000	293,000	(2,000)	-	-	-	-	-	-	-	-	-	-	-	-	-		
52680	CLERICAL SERVICES	33,000	41,000	8,000	8,000	-	-	-	-	10,000	-	-	-	-	-	-	-		
52690	OTHER SERVICES	221,000	205,000	(16,000)	500	-	-	-	-	-	-	40,000	-	36,000	-	-	-		
<b>TOTAL PROFESSIONAL SERVICES</b>					1,237,150	1,236,050	(1,100)	14,500	12,000	10,000	-	41,850	-	36,000	-	-	-		
<b>TOTAL OPERATIONS &amp; MAINTENANCE</b>					41,603,228	41,808,594	205,366	1,105,810	12,279,198	492,149	1,182,483	2,245,251	432,077	1,675,443	-	-	-	-	
<b>OPERATING CAPITAL</b>																			
16510	AUTOMOTIVE EQUIP.	211,000	89,000	(122,000)	9,000	-	-	-	80,000	-	-	-	-	-	-	-	-		
16520	BLDG. & PLANT EQUIP.	359,000	386,000	27,000	-	-	-	178,000	135,000	-	-	-	-	50,000	-	-	-		
16570	LABORATORY EQUIP.	35,000	-	(35,000)	-	-	-	-	-	-	-	-	-	-	-	-	-		
16580	OFFICE FURN&EQUIP.	425,000	280,000	(145,000)	-	-	-	-	-	-	-	-	-	-	-	-	-		
16583	COMPUTER SOFTWARE	970,000	1,405,000	435,000	-	105,000	-	-	-	-	-	-	-	-	-	-	-		
16585	COMPUTER HARDWARE	90,000	130,000	40,000	-	90,000	-	-	-	-	-	-	-	-	-	-	-		
16590	OTHER EQUIPMENT	81,000	-	(81,000)	-	-	-	-	-	-	-	-	-	-	-	-	-		
16600	REPLACEMENT RESERVE	2,913,500	2,670,678	(242,822)	235,000	-	-	575,400	625,000	-	-	299,778	-	213,500	-	-	-		
16610	BUILDING & OTHER STRUCT.	145,000	100,000	(45,000)	-	-	-	-	-	-	-	-	-	-	-	-	-		
16620	CAPITAL PROJECT STUDIES	250,000	250,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
<b>TOTAL OPERATING CAPITAL</b>					5,479,500	5,310,678	(168,822)	195,000	753,400	840,000	-	299,778	-	263,500	-	-	-		
<b>DEBT SERVICE</b>																			
PROGRAMMED NEW DEBT					-	-	-	-	-	-	-	-	-	-	-	-	-	-	
PRINCIPAL					25,783,150	27,529,555	1,746,405	-	-	-	-	-	-	-	-	-	-	-	
INTEREST					19,354,472	19,257,339	(97,133)	-	-	-	-	-	-	-	-	-	-	-	
<b>TOTAL DEBT SERVICE</b>					45,137,622	46,786,894	1,649,272	-	-	-	-	-	-	-	-	-	-	-	
<b>TOTAL</b>					\$ 92,220,350	\$ 99,906,166	\$ 1,685,816	\$ 1,300,810	\$ 13,032,598	\$ 8,483,506	\$ 492,149	\$ 1,182,483	\$ 2,545,029	\$ 432,077	\$ 1,338,943	\$ -	\$ -	\$ -	\$ -
								\$25,263,002		\$6,580,681									

