



NARRAGANSETT BAY COMMISSION CAPITAL IMPROVEMENT PROGRAM

FISCAL YEARS 2012-2016

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Capital Project Cost Summary

(Capital Projects with costs in Fiscal Years 2012-2016)

| Page Number | Project Number | Project Name | Fiscal Years 2012 - 2016 (In Thousands) | |
|--|----------------|--|--|----------------|
| <u>Wastewater Treatment Facility Improvements</u> | | | | |
| 27 | 10901C | FPWWTF - Nitrogen Removal Facilities - Construction | \$ | 31,663 |
| 28 | 11900D | Regulatory Compliance Building - Design | | 171 |
| 28 | 11900C | Regulatory Compliance Building - Construction | | 21,090 |
| 29 | 12000C | BPWWTF - Biogas Reuse - Construction | | 2,330 |
| 30 | 12100C | FPWWTF - Wind Turbine - Construction | | 14,430 |
| 32 | 12300C | NBC Fire Code Compliance | | 674 |
| 33 | 12400D | NBC IM Facilities - Design | | 554 |
| 33 | 12400C | NBC IM Facilities - Construction | | 6,052 |
| 34 | 80900C | BPWWTF - Nitrogen Removal Facilities - Construction | | 34,860 |
| | | Subtotal - Wastewater Treatment Facility Improvements | | 111,824 |
| <u>Infrastructure Management</u> | | | | |
| 37 | 1100000 | Site Specific Study | | 246 |
| 38 | 1140100 | River Model Development | | 107 |
| 39 | 30221D | Hydraulic Systems Modeling - Design | | 252 |
| 40 | 30438C | Interceptor Easements - Construction | | 83 |
| 41 | 30500D | NBC Interceptor Easements - Design | | 4,130 |
| 41 | 30500C | NBC Interceptor Easements - Construction | | 3,670 |
| 42 | 30501C | Interceptor Easements - NBC BVI Construction | | 730 |
| 43 | 30700 | NBC System-wide Facilities Planning | | 1,147 |
| | | Subtotal - Infrastructure Management | | 10,365 |
| <u>Phase II CSO Facilities</u> | | | | |
| 48 | 30301RS | Phase II CSO Facilities - Program & Construction Management | | 28,710 |
| 49 | 30302C | Phase II CSO Facilities - OF 106 | | 10,060 |
| 50 | 30303C | Phase II CSO Facilities - WCSOI | | 141,312 |
| 51 | 30404C | Phase II CSO Facilities - SCSOI | | 63,289 |
| 52 | 30305C | Phase II CSO Facilities - OF 027 | | 15,095 |
| 53 | 30306C | Phase II CSO Facilities - OF 037 | | 43,257 |
| | | Subtotal - Phase II CSO Facilities | | 301,723 |
| <u>Phase III CSO Facilities</u> | | | | |
| 54 | 30800D | Phase III CSO Facilities - Design | | 12,257 |
| | | Subtotal - Phase III CSO Facilities | | 12,257 |
| <u>Sewer System Improvements</u> | | | | |
| 59 | 70700C | Lincoln Septage Station - Lakeside Unit Replacement | | 130 |
| | | Subtotal - Sewer System Improvements | | 130 |
| <u>Floatables Control Facilities</u> | | | | |
| 63 | 30600C | Floatables Control Facilities - Construction | | 2,747 |
| | | Subtotal - Floatables Control Facilities | | 2,747 |
| <u>CSO Interceptor Inspection and Cleaning</u> | | | | |
| 67 | 30400M | Inspection & Cleaning of CSO Interceptors | | 2,500 |
| | | Subtotal - CSO Interceptor Inspection and Cleaning | | 2,500 |
| <u>CSO Interceptor Repair and Construction</u> | | | | |
| 68 | 30400C | Repair and Construction of CSO Interceptors | | 4,021 |
| 69 | 30421C | Louisquisset Pike Interceptor Replacement - Construction | | 2,382 |
| 70 | 30444D | Moshassuck Valley Interceptor - Design | | 285 |
| 70 | 30444C | Moshassuck Valley Interceptor - Construction | | 2,572 |
| 71 | 30453C | Improvements to NBC Interceptors FY 2009 | | 150 |
| | | Subtotal - CSO Interceptor Repair and Construction | | 9,410 |
| | | Total Capital Improvement Program | \$ | 450,956 |

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Capital Improvement Program (CIP)

The Capital Improvement Program

The Narragansett Bay Commission's CIP identifies programmed capital investments necessary to comply with current and future regulatory requirements, take advantage of technological advancements, and ensure the integrity of NBC's infrastructure. 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 the needs identified through NBC's asset management program. These capital improvements represent projects greater than \$250,000 and are for new facilities as well as the repair and replacement of existing infrastructure. The CIP is a planning document and in addition to the depiction of costs for fiscal year 2011, the CIP shows programmed expenditures for fiscal years 2012-2016.

Capital Improvement Program Overview

This year's CIP identifies a total of 46 projects totaling approximately \$507 million that are either in progress, to be initiated, or to be completed during the fiscal years of 2011-2016. Of that total, approximately \$56 million of the programmed expenditures are in FY 2011 and approximately \$451 million are to be spent over the five-year period of FY 2012-2016.

The following table summarizes the CIP expenditures by cost category. At \$135 million, fiscal year 2013 has the largest amount of programmed expenditures during the six-year period. The construction of the CSO Phase II Facilities accounts for approximately 68% of the total of these expenditures, while Wastewater Treatment Facility improvements account for 26%.

FY 2011-2016 CIP Costs by Category (In thousands)

| Cost Category | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Total FY 2012-2016 | Total Costs 2011-2016 |
|----------------------------|------------------|-------------------|-------------------|-------------------|------------------|------------------|--------------------|-----------------------|
| Administrative | \$ 2,294 | \$ 3,566 | \$ 4,156 | \$ 2,532 | \$ 1,626 | \$ 480 | \$ 12,360 | \$ 14,654 |
| Land | 6,681 | 530 | 600 | - | 500 | - | 1,630 | 8,311 |
| A/E Professional | 7,890 | 11,851 | 12,644 | 8,747 | 2,637 | 12,397 | 48,276 | 56,165 |
| Construction | 36,112 | 75,520 | 102,775 | 69,644 | 52,096 | 10,270 | 310,305 | 346,417 |
| Contingency | 272 | 2,216 | 4,324 | 18,596 | 19,478 | 274 | 44,888 | 45,160 |
| Other | 2,624 | 7,955 | 10,462 | 8,294 | 6,635 | 150 | 33,498 | 36,122 |
| Total Project Costs | \$ 55,872 | \$ 101,638 | \$ 134,961 | \$ 107,814 | \$ 82,972 | \$ 23,571 | \$ 450,956 | \$ 506,828 |

Capital Improvement Program Project Locations

The capital projects included in this CIP are categorized into one of eight areas depending on their scope and tasks to be completed. NBC maintains its commitment to program these capital expenditures in an efficient manner. Although 46 capital projects are identified in this year's CIP, the map on the following page outlines 27 project locations. The overall project locations are illustrated without overlapping due to the classification of phases. The map on the following page shows the various capital project locations as identified in the key below.

Legend Key Project Number Project Name

Wastewater Treatment Facility Improvements

| | | |
|---|--------|--------------------------------------|
| 1 | 10901 | FPWWTF - Nitrogen Removal Facilities |
| 2 | 11900 | Regulatory Compliance Building |
| 3 | 12000 | BPWWTF - Biogas Reuse |
| 4 | 12100 | FPWWTF - Wind Turbine |
| 5 | 12200C | FPWWTF - Flow Control Efficiencies |
| 6 | 12400 | NBC IM Facilities |
| 7 | 80900 | BPWWTF - Nitrogen Removal Facilities |

Infrastructure Management

| | | |
|----|---------|--------------------------------------|
| 8 | 1100000 | Site Specific Study |
| 8 | 1140100 | River Model Development |
| 9 | 30221 | Hydraulic Systems Modeling |
| 10 | 30438 | Interceptor Easements - Construction |
| 11 | 30501 | Interceptor Easements - NBC BVI |

Phase II CSO Facilities

| | | |
|----|--------|----------------------------------|
| 12 | 30302C | Phase II CSO Facilities - OF 106 |
| 13 | 30303C | Phase II CSO Facilities - WCSOI |
| 14 | 30404C | Phase II CSO Facilities - SCSOI |
| 15 | 30305C | Phase II CSO Facilities - OF 027 |
| 16 | 30306C | Phase II CSO Facilities - OF 037 |

Phase III CSO Facilities

| | | |
|----|-------|--------------------------|
| 17 | 30800 | Phase III CSO Facilities |
|----|-------|--------------------------|

Sewer System Improvements

| | | |
|----|--------|---|
| 18 | 70500 | Central Avenue Pump Station |
| 19 | 70600C | Omega Pump Station Rack Room |
| 20 | 70700C | Lincoln Septage Station - Lakeside Unit Replacement |

Floatables Control Facilities

| | | |
|----|-------|-------------------------------|
| 21 | 30600 | Floatables Control Facilities |
|----|-------|-------------------------------|

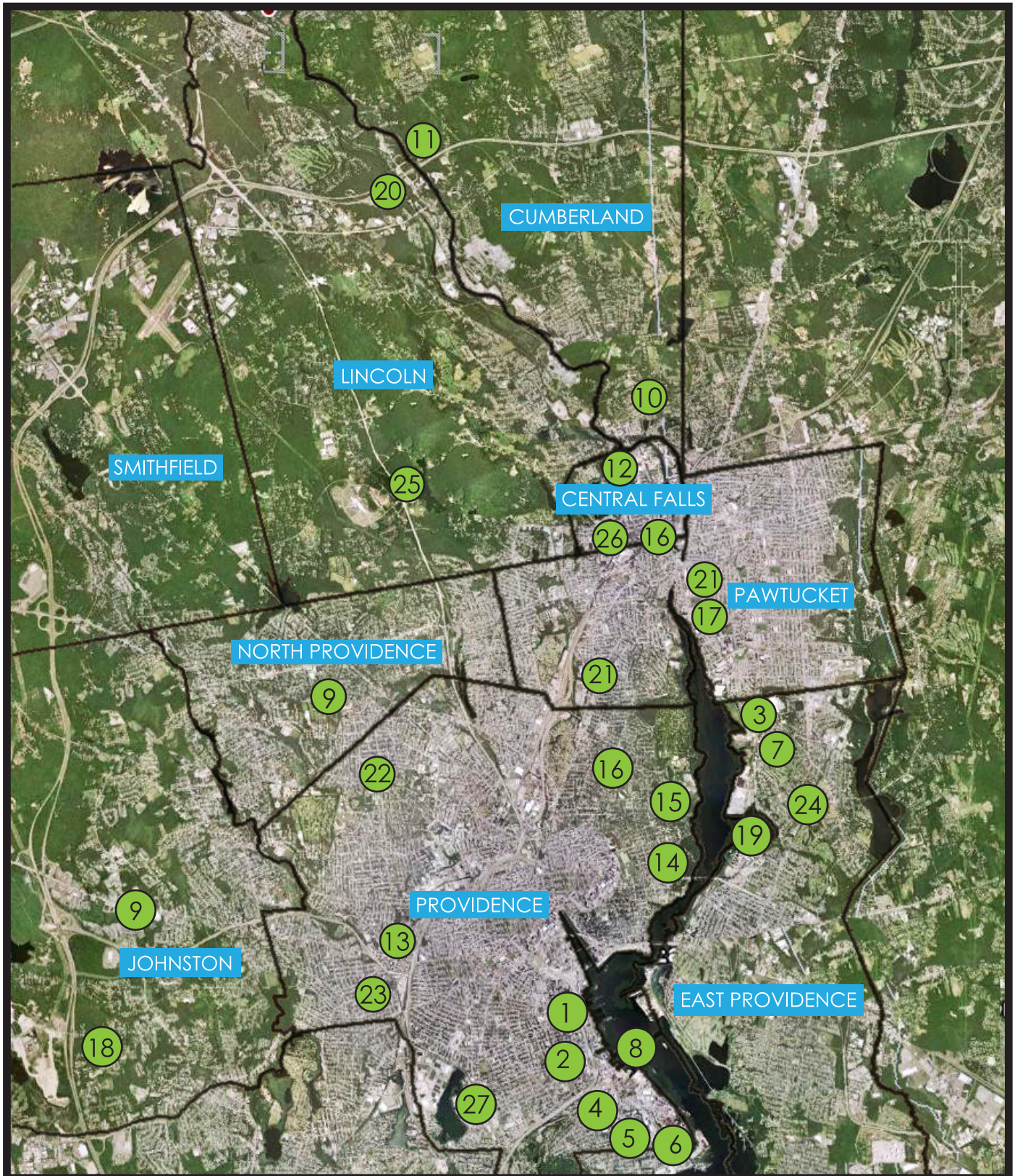
CSO Interceptor Inspection and Cleaning

| | | |
|----|--------|--|
| 22 | 30419M | Pleasant Valley Parkway Interceptor Inspection and Cleaning |
| 23 | 30430M | Woonasquatucket Interceptor along Route 10 Inspection & Cleaning |
| 24 | 30435M | East Providence Interceptor Inspection and Cleaning |

CSO Interceptor Repair and Construction

| | | |
|----|--------|---|
| 25 | 30421 | Louisquisset Pike Interceptor Replacement |
| 26 | 30444 | Moshassuck Valley Interceptor |
| 27 | 30453C | Improvements to NBC Interceptors FY 2009 |

CAPITAL IMPROVEMENT PROGRAM
PROJECT LOCATIONS



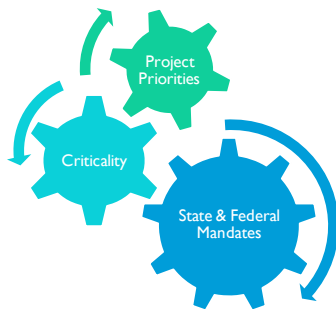
Capital Improvement Program Assumptions

The CIP is a planning document and NBC's project managers have limited information upon which to base their cost estimates prior to completion of design and receipt of bids. Accordingly, NBC has based the figures in this CIP on a number of financial assumptions as follows:

- Costs and cash flows are based on engineering estimates as well as bid amounts, once they become available.
- The CIP does not include the operating capital outlay expenses such as plant and equipment replacement required on an annual basis. These expenses are identified in NBC's annual operating budget and are outlined in the five-year Operating Capital Outlay Plan.
- Construction projects currently underway include a 10% contingency. The contingency for future construction projects is 12%, which reflects recent industry experience related to construction cost factors. The cost estimates for future design projects includes a 7% allowance for salary and fringe associated with project management, based on historical data.
- Financing costs and debt service associated with new debt for the CIP Program 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.

Capital Improvement Program Development

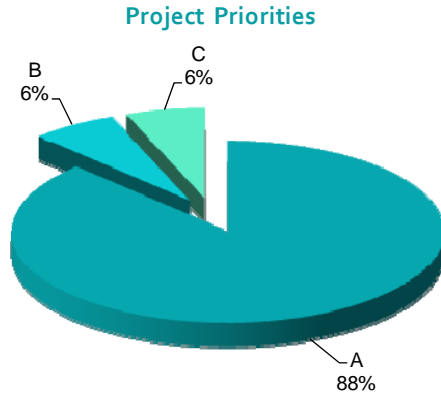
Over the years, NBC has developed a comprehensive capital improvement planning process that incorporates program priorities, the permitting process, construction management availability, seasonal considerations, scheduling and other factors. The CIP drives NBC's long-term financing requirements, and therefore the particulars of each project are an essential component of NBC's financial plan. NBC's capital expenditures are expected to remain high over the next five years. The funding levels are primarily due to investments required to meet state and federal mandates for CSO abatement and biological nutrient removal (BNR).



NBC's Project Managers begin the annual CIP process with the development of detailed justifications for each capital project including the project scope, the basis of the cost estimate, and the key factors impacting costs and schedules. The Project Managers also explain modifications from the prior year's CIP and the overall project timeline. A chart illustrating the detailed project scheduling can be found in the appendix at the end of this CIP document. A CIP Review

Committee reviews the proposed capital project expenditures. 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 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 an “A” ranking indicate the highest criticality. Approximately 88% of the projects identified in fiscal years 2011-2016 are prioritized with an “A” ranking. These projects are either mandated or currently under construction and represent approximately \$444 million. In addition, 6% or approximately \$33 million of projects are identified with a “B” ranking, which includes projects imperative to NBC’s ongoing operations. Finally, 6%, or nearly \$30 million of the capital expenditures,



are ranked as “C”, as projects which are important but not critical to ongoing operations. The following table outlines the programmed expenditures according to each one of the three priority ranking throughout fiscal years 2011 – 2016.

Estimated Costs by Project Priority (In thousands)

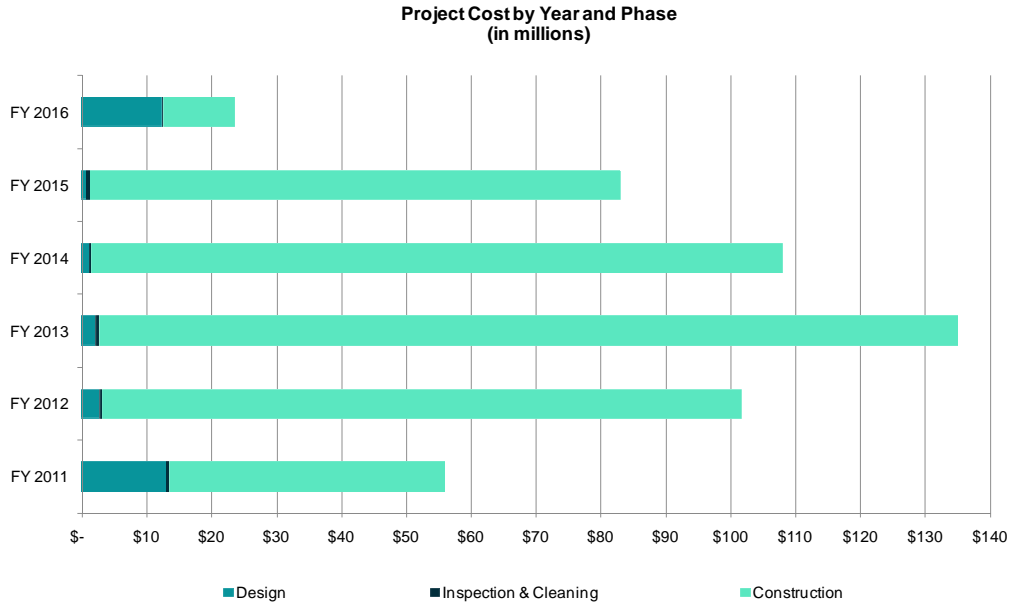
| Project Priority | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Total Costs 2011-2016 | Ranking Percentage |
|----------------------------|------------------|-------------------|-------------------|-------------------|------------------|------------------|-----------------------|--------------------|
| A | \$ 51,905 | \$ 71,506 | \$ 112,836 | \$ 105,448 | \$ 80,972 | \$ 21,571 | \$ 444,237 | 88% |
| B | 3,007 | 10,664 | 13,164 | 1,932 | 1,900 | 2,000 | 32,667 | 6% |
| C | 960 | 19,469 | 8,961 | 434 | 100 | - | 29,924 | 6% |
| Total Project Costs | \$ 55,872 | \$ 101,638 | \$ 134,961 | \$ 107,814 | \$ 82,972 | \$ 23,571 | \$ 506,828 | 100% |

Capital Expenditure by Phase

To facilitate project management, NBC’s large construction projects are delineated by phases, beginning with planning, followed by design, and finally construction. Planning consists of tasks such as feasibility studies and mapping. The design phase includes the intended technology as well as the development of all plans and specifications, acquisition of easements and permits. During the Construction phase, the facility improvements and infrastructure rehabilitation are constructed. The CIP also includes programmed capital projects which are not broken down into phases, since they deal with the routine inspection, cleaning, and repair of NBC’s miles of interceptors, or other one-time special studies.

The following graph illustrates the programmed capital expenditures according to the project phase. The construction phase has the largest amount of expenditures during FY 2011-2016, with approximately 93% or \$472 million of the total expenditures. Design is the second largest phase with \$32 million or 6% of the capital expenditures. Finally, the inspection and cleaning and planning phase expenditures are approximately 1%.

Expenditures by Project Phase

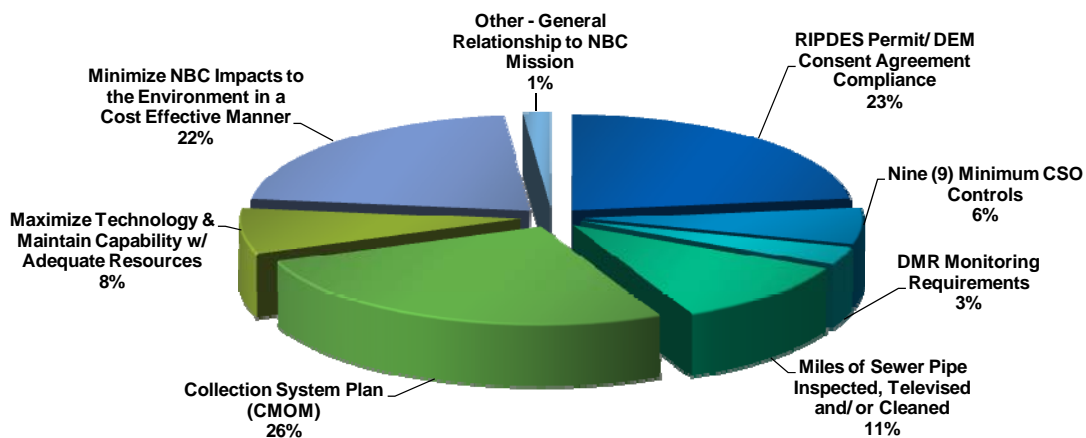


Capital Projects by Strategic Objective

As part of the CIP development process, Project Managers determine the specific strategic goal or goals that the project will address. Projects may be aligned with more than one objective as the project may be intended for multiple purposes.

Of the total number of CIP projects, 26% are related to the Collection System Plan Objective which relates to capacity management and operation and maintenance of NBC's collection and treatment system. In addition, 23% of the projects are aligned with the RIPDES Permit/DEM Consent Agreement Compliance Objective, which includes projects needed to meet regulatory requirements, and 22% of the projects are aligned to Minimize NBC's Impacts to the Environment in a Cost Effective Manner. The following chart illustrates the percentage of projects aligned with each Strategic Objective.

Number of Capital Projects by Strategic Objective



Capital Improvement Program Project Cost Allocation

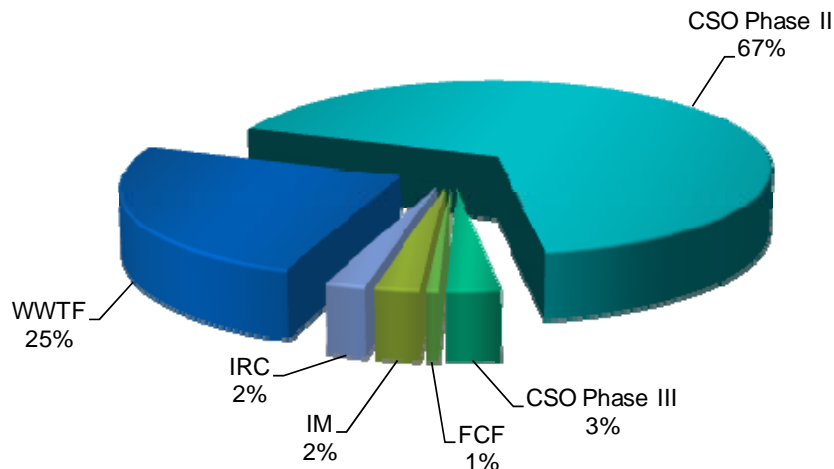
NBC classifies the capital expenditures by categorizing each capital project into one of eight functional areas, according to the scope and tasks involved within each capital project. The eight functional areas are described in the table below.

Allocation of Projects by Functional Area

| Functional Area | Definition |
|---|---|
| Wastewater Treatment Facility Improvements (WWTF) | Projects related to improvements at the NBC's Wastewater Treatment Facilities, including the Nitrogen Removal Facilities. |
| Infrastructure Management (IM) | Includes Water Quality Monitoring, System-wide Facilities Planning, and Interceptor Easements. |
| Combined Sewer Overflow Phase II (CSO Phase II) | Projects related to the CSO Abatement Phase II Facilities. |
| Combined Sewer Overflow Phase III (CSO Phase III) | Projects related to the CSO Abatement Phase III Facilities. |
| Sewer System Improvements (SSI) | Projects related to pump station improvements, and other sewer system related improvements. |
| Floatables Control Facilities (FCF) | Includes all CSO Floatables Control Facilities projects. |
| CSO Interceptor Inspection and Cleaning (IIC) | Includes projects related to interceptor inspection and cleaning. |
| CSO Interceptor Repair and Construction (IRC) | Includes projects related to interceptor repair and maintenance. |

The following graph shows the allocation of capital expenditures according to the functional area classification. Of the approximately \$451 million in capital expenditures scheduled over the five-year period of FY 2012-2016, \$302 million, or 67%, is for Phase II of the CSO Abatement Project. In addition, 25% or \$112 million is for Wastewater Treatment Facility Improvements, of which \$67 million will be spent on the nitrogen removal facilities at both Field's Point and Bucklin Point. Finally, 3% or \$12 million is allocated for Phase III of the CSO Abatement Project, for the same period.

CIP Costs by Functional Area



The following table shows a comparison of the capital expenditure costs by functional area on a year-to-year basis. The most significant change is due to the CIP's five-year window shift from year to year. The project with the largest percentage change from the prior year's CIP is the CSO Phase III Facilities, scheduled to begin in 2016. The programmed expenditures for the CSO Phase II Facilities are 18% or \$46 million higher than last year's CIP based on revised cost estimates completed during preliminary design.

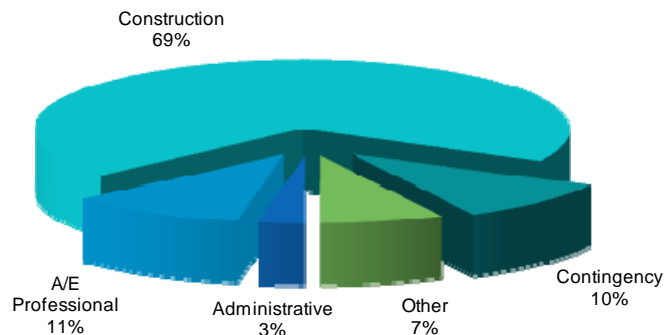
The remaining functional areas show decreases from the prior year CIP, reflecting the completion of several capital projects across the functional areas. Overall, there is a 4% increase in programmed expenditures for the current five-year period of FY 2012-2016 as compared to last year's five year CIP window.

Change by Functional Area (In thousands)

| Functional Area | Prior Year CIP (FY 2011-2015) | Current Year CIP (FY 2012-2016) | % Change |
|--|----------------------------------|------------------------------------|-----------|
| Wastewater Treatment Facility Improvements | \$ 131,839 | \$ 111,824 | -15% |
| Infrastructure Management | 10,554 | 10,365 | -2% |
| CSO Phase II Facilities | 255,901 | 301,723 | 18% |
| CSO Phase III Facilities | - | 12,257 | 100% |
| Sewer System Improvements | 558 | 130 | -77% |
| Floatables Control Facilities | 7,813 | 2,747 | -65% |
| CSO Interceptor Inspection and Cleaning | 10,000 | 2,500 | -75% |
| CSO Interceptor Repair and Construction | 15,000 | 9,410 | -37% |
| Total | \$ 431,665 | \$ 450,956 | 4% |

For planning purposes, the programmed expenditures within each project are classified into cost categories. Cost categories include the Administrative category, which includes NBC labor costs as well as police, legal, and advertising expenses. The Land category includes costs for easements, as well as land acquisition. The Architectural/Engineering (A/E) Professional cost category is comprised of the architectural and engineering services generally related to planning or design. The Construction cost category reflects contractor and 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 following chart, construction costs represent \$310 million, or approximately 69% of the total costs within the five-year period. Architectural and Engineering services represent approximately 11% or \$48 million of the costs during this same period.

CIP Costs by Type of Activity



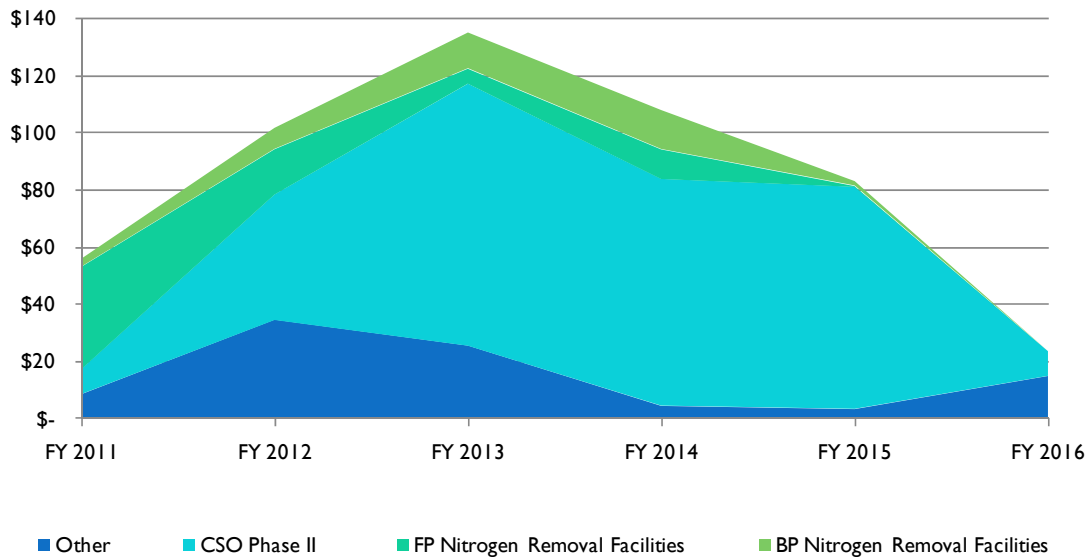
Significant Capital Improvement Projects

This year's CIP includes costs for three major initiatives: construction of the CSO Phase II Facilities, the nutrient removal facilities at the Field's Point WWTF and nutrient removal at the Bucklin Point Wastewater Treatment Facility. Costs for these three initiatives during the six-year period total \$416 million, or more than 80% of this year's CIP. Construction of the Field's Point nutrient removal facilities began in FY 2010. Construction of the CSO Phase II Facilities is scheduled to begin in FY 2011 and the Bucklin Point nutrient removal facilities in FY 2012. NBC's investment in its other infrastructure projects is anticipated to remain fairly level in the near future as part of NBC's commitment to maintain its facilities. The following table and graph show the programmed expenditures for NBC's major initiatives and other smaller projects included in this CIP over the next six years.

Expenditures by Major Initiative
(In thousands)

| Project | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Total Costs FY 2011 - 2016 | Percentage of Six-Year Costs |
|--------------------------------|-----------------|-------------------|-------------------|-------------------|-----------------|------------------|----------------------------|------------------------------|
| CSO Phase II Facilities | \$ 8,812 | \$ 43,999 | \$ 91,810 | \$ 79,419 | \$77,835 | \$ 8,660 | \$ 310,535 | 61% |
| FP Nitrogen Removal Facilities | 35,805 | 15,824 | 5,205 | 10,357 | 278 | - | 67,469 | 13% |
| BP Nitrogen Removal Facilities | 2,720 | 7,332 | 12,474 | 13,555 | 1,500 | - | 37,580 | 7% |
| Other | 8,534 | 34,484 | 25,473 | 4,483 | 3,359 | 14,911 | 91,244 | 18% |
| Total | \$55,872 | \$ 101,638 | \$ 134,961 | \$ 107,814 | \$82,972 | \$ 23,571 | \$ 506,828 | 100% |

Expenditures by Major Initiative
(Millions of \$)



Project 303: CSO Phase II Facilities

The CSO Phase II Facilities are the second phase of the three phase federally mandated CSO Abatement Program. NBC completed the preliminary design plans for CSO Phase II and submitted the plans to the Rhode Island Department of Environmental Management (RIDEM), in accordance with the schedule in the Consent Agreement between NBC and RIDEM. The plans were conditionally approved by RIDEM in December 2009.

Currently, final design of the CSO Phase II Facilities is approximately 90% complete. The estimated cost for Phase II construction is approximately \$307 million, or 67% of the total costs included in the five-year window of FY 2012-2016. This year's CIP reflects and assigns separate capital project numbers for the six components of the Phase II Facilities based upon the task and the corresponding estimated costs.

| Project # | Project Description | Estimated Cost (In thousands) |
|--|---|--|
| Phase II CSO Facilities - Construction Project Assignment: | | |
| 30301RS | Phase II CSO Facilities - Program and Construction Management | \$ 30,315 |
| 30302C | Phase II CSO Facilities - 106 Wetlands Treatment Facility | 10,197 |
| 30303C | Phase II CSO Facilities - Woonasquatucket CSO Interceptor | 141,312 |
| 30304C | Phase II CSO Facilities - Seekonk CSO Interceptor | 65,839 |
| 30305C | Phase II CSO Facilities - 027 Sewer Separation | 15,892 |
| 30306C | Phase II CSO Facilities - 037 Sewer Separation | 43,884 |
| Total Phase II Facilities - Construction | | <u>\$ 307,439</u> |

Phase II involves the construction of two interceptors in the Field's Point Service Area. The first is to be located along the Seekonk River (Project 30304C) and the second is to be located along the Woonasquatucket River (Project 30303C). These two interceptors will eliminate the discharge from approximately ten outfalls (OFs) for most storms. These flows will then be conveyed to the CSO Tunnel constructed in Phase I.

The length of the Woonasquatucket Interceptor is 19,150 feet and the length of the Seekonk Interceptor is approximately 8,000 feet. Phase II also includes two sewer separation projects



in the Hillside area of Providence which will separate the sanitary flow from the storm water flow. A wetlands treatment facility will also be constructed in Central Falls consisting of a storage tank and created wetlands. For small storms or 1 month storms, all the combined sewer flow will be stored in the tank until after the storm when it will be discharged to the interceptor. For storms greater than the 1 month storm, treatment will be provided by the wetland.

Above: A photograph of OF 106 located near Higginson Avenue in Central Falls, where the wetlands treatment facility will be constructed.

Project 308: 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. This phase includes the construction of a tunnel in Pawtucket along the Seekonk and Blackstone Rivers (shown right), totaling approximately 13,000 feet in length. This tunnel will store flows from three CSO Interceptors totaling approximately 14,500 feet in length, and two sewer separation projects. Flows from this tunnel will be conveyed to NBC's Bucklin Point WWTF for treatment. Total pre-design cost estimates are \$603 million for the CSO Phase III Facilities and are included in this year's CIP. The CSO Phase III Facilities represent approximately 3% or \$12 million for design in the five-year period of FY 2012-2016.



Nitrogen Removal at Field's Point and Bucklin Point

In accordance with terms of the Consent Agreement between NBC and RIDEM, NBC is required to attain a seasonal total nitrogen limit of 5 mg/l from May to October at both facilities. NBC issued the Notice to Proceed for nitrogen removal construction services at Field's Point on September 28, 2009. The draft Facilities Plan Amendment for nitrogen removal at Bucklin Point was conditionally approved by RIDEM on November 10, 2009.

Field's Point

The construction cost estimate for the Field's Point nitrogen removal facilities and related upgrades (Project 109), is \$72 million, which is \$20 million less than the amount carried in last year's CIP. The cost differential is the direct result of a lower construction bid than estimated. In addition to the low bid, this project qualified for \$57 million in financing through the Federal American Recovery and Reinvestment Act (ARRA). The ARRA program, administered through the Rhode Island Clean Water Finance Agency, includes a "principal forgiveness" component of approximately 15% or approximately \$8.5 million in addition to the traditional interest rate subsidy.



Throughout the construction period, significant structural and mechanical changes will be made to the plant, without disruption to the 24 hour day to day operations. As part of this project, the existing aeration basins will be modified to accommodate an Integrated Fixed Film Activated Sludge (IFAS) process. In order to support the IFAS process, and achieve the mandated nitrification / denitrification limits, it will be necessary to install and furnish a variety of wastewater treatment equipment, process piping, electrical components and controls.

The existing blower building will be modified to accommodate turbo blowers that will provide the necessary aeration for the nitrogen removal process. Work is also being performed on site to relocate the electrical concrete encased duct bank (photo shown to the left) as well as the preliminary excavation work throughout the area for the new operations building. This building will house the computer control systems for the BNR Facilities, wastewater operations at Field's Point, the Tunnel Pump Station, and the Ernest Street Pumping Station.



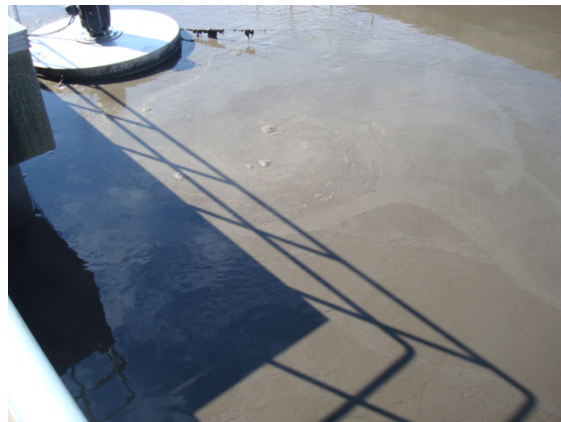
A new screenings facility will eliminate the fine solids from the flow prior to entering the aeration tanks. The screw lift pumps will be replaced and new piping installed to improve the distribution of the return activated sludge (RAS), before entering the aeration tanks. Tanks and pumps will also be installed for the chemical addition of carbon and alkalinity, need for the BNR process.

Finally, upgrades will be made to the current electrical service in order to provide the additional power needed for BNR and a new backup generator will be connected to ensure a constant power supply.

Bucklin Point

NBC's facilities at Bucklin Point were designed to achieve a total nitrogen level of 8mg/l, but subsequent to the completion of construction for these facilities, RIDEM established a seasonal total nitrogen limit of 5 mg/l. Currently, NBC is working on the design for the new and upgraded facilities (Project 809). The final design plans and specifications are required to be submitted to RIDEM by December 31, 2010. Current pre-design construction estimates are \$35 million.

This project will upgrade the existing BNR processes at Bucklin Point. The current two stage aeration tanks (shown right) will be reconfigured to a four stage process with one additional anoxic zone and one additional aerobic zone. A number of existing process operations will be upgraded and a new chemical addition system for supplemental carbon will be constructed.



Other Capital Projects

Green Technologies

A renewable energy source may be considered a green technology or “green” if it does not produce greenhouse gasses or otherwise adversely impact the environment or compromise the ability for future generations to meet their energy needs. NBC currently has three projects that meet these criteria.



NBC's Wind Turbine energy project at Field's Point (Project 121) will convert wind energy into electricity using up to three turbines. This project is expected to generate clean sustainable energy for use on-site for wastewater treatment operations. In addition to reducing greenhouse gas emissions, the wind turbines will help stabilize energy related operating costs. The project is expected to cost approximately \$14.9 million.

At Bucklin Point, NBC uses a process called anaerobic digestion to treat and stabilize biosolids from the wastewater treatment process. Here the biosolids are placed in large heated tanks and



Above: A secondary digester at Bucklin Point

allowed to biologically decompose in the absence of oxygen, generating a methane rich biogas byproduct suitable for energy recovery. NBC currently uses about 50% of this biogas in an on-site heat exchanger to supply heat to the anaerobic digestion tanks. The remaining biogas is flared as waste. Using a combined heat and power system NBC will burn all the biogas in an engine, such as the one shown below, to generate both electricity and heat energy for use within the wastewater treatment facility. This process will reduce NBC's dependency on fossil fuel generated electricity and will reduce NBC's carbon foot print through the efficient use of this readily available renewable fuel. Estimated construction costs (Project 120) are approximately \$2.4 million.



Finally, four variable frequency drives (VFDs) will be installed at the Ernest Street Pump Station to control the rate of the flow entering the Field's Point WWTF (Project 122) from the Ernest Street Pump Station and the Tunnel Pump Station, maximizing energy efficiency. In addition, to these flow control efficiencies, a generator at the ESPS will be connected to Field's Point to provide additional power for treatment should a power outage occur. The generator will ensure that NBC can run the equipment and processes required to treat incoming flow and will also supplement the electricity supply for the tunnel pump station should the electrical demand become greater than the supply. The system is projected to cost approximately \$1.7 million.

Capital Improvement Program Changes

Completed Projects

This CIP includes projects that demonstrate NBC's continued commitment to annually clean and inspect NBC's interceptors. Through this initiative, NBC is able to program its maintenance expenditures in an efficient manner. These projects allow NBC to protect its infrastructure, maximize flow capacity, and provide for the health and safety of the public. In this year's CIP, NBC allocates \$1.5 million annually to interceptor construction and repairs and \$500 thousand annually to interceptor inspection and cleaning. As improvement projects are identified through the inspection process they are funded from the annual allocation.



Of the twelve projects completed last year, the majority of the expenditures were a result of the final payment releases for the CSO Phase I Facilities. Both the Infrastructure Management and Interceptor Repair and Construction functional areas accounted for approximately 10% of the completed projects. Also noteworthy is the completion of NBC's Asset Management Program, which provides NBC with the pertinent data to manage its infrastructure and assist in the planning of capital expenditures. The following table summarizes the completed projects and their total costs.

| <u>Completed Project #</u> | <u>Completed Project Description</u> | <u>Total Costs (In thousands)</u> | |
|--|---|-----------------------------------|----------------|
| <u>Wastewater Treatment Facility Improvements</u> | | | |
| 11700BP | BP Code Upgrades, NBC Disaster Recovery and FP Security | \$ | 2,892 |
| 80900P | BPWWTF - Nitrogen Removal Facilities - Planning | | 260 |
| Subtotal - Wastewater Treatment Facility Improvements | | | 3,152 |
| <u>Infrastructure Management</u> | | | |
| 11500D | Asset Management | \$ | 2,359 |
| 3022100 | CSO Flow and Water Quality Monitoring | | 2,491 |
| 30438D | Interceptor Easements - Design | | 775 |
| Subtotal - Infrastructure Management | | | 5,625 |
| <u>Phase I CSO Facilities</u> | | | |
| 30203RS | Phase I CSO Facilities - Program and Construction Management | \$ | 36,220 |
| 30214C | Phase I CSO Facilities - Tunnel Pump Station Fitout and Startup | | 58,595 |
| CSO Admin | CSO Construction Staff/Police Detail/Legal Costs | | 4,898 |
| Subtotal - Phase I CSO Facilities | | | 99,713 |
| <u>Sewer System Improvement</u> | | | |
| 70500D | Central Avenue Pump Station - Design | \$ | 174 |
| Subtotal - Sewer System Improvement | | | 174 |
| <u>CSO Interceptor Inspection and Cleaning</u> | | | |
| 30433M | Woonasquatucket Interceptor Inspection and Cleaning | \$ | 67 |
| Subtotal - CSO Interceptor Inspection and Cleaning | | | 67 |
| <u>CSO Interceptor Repair and Construction</u> | | | |
| 30417C | India Street Siphon Gate House Replacement | \$ | 975 |
| 30451C | Improvements to NBC Interceptors FY 2008 | | 2,097 |
| 30452C | Improvements to NBC Interceptors FY 2009 | | 2,693 |
| Subtotal - CSO Interceptor Repair and Construction | | | 5,765 |
| <u>Total Completed Projects</u> | | \$ | 114,496 |

Right: A portion of the recently lined sanitary and CSO interceptor near Sumter Street in South Providence completed under Project 30452C.



New Projects

The FY 2012-2016 CIP identifies nine new projects. Approximately 55% of these new projects are to meet state and federal regulatory requirements. These requirements range from fire code changes to federally mandated programs such as the CSO Phase III Facilities. This year's CIP reflects the identification of two new interceptor easement projects. Funds were reallocated to these projects from the interceptor easement placeholder. The final new project is the addition of a design phase to complete the sewer system model. The projects and estimated costs are outlined in the following table.

| <u>Project #</u> | <u>Project Description</u> | <u>Estimated Cost (In thousands)</u> |
|---------------------------|--|--|
| New Projects: | | |
| 12300C | NBC Fire Code Compliance | \$ 1,225 |
| 12400D | NBC IM Facilities - Design | 557 |
| 12400C | NBC IM Facilities - Construction | 6,052 |
| 30221D | Hydraulic Systems Modeling - Design | 252 |
| 30501D | Interceptor Easements - NBC BVI Design | 631 |
| 30501C | Interceptor Easements - NBC BVI Construction | 730 |
| 30453C | Improvements to NBC Interceptors FY 2010 | 702 |
| 30800D | Phase III CSO Facilities - Design | 37,012 |
| 30800C | Phase III CSO Facilities - Construction | 565,950 |
| Total New Projects | | \$ 613,111 |

Capital Improvement Program Funding

NBC recognizes the importance of programming capital expenditures in the context of overall financial management. NBC is committed to obtaining the lowest cost of financing in order to minimize ratepayer impact, while ensuring compliance with regulatory constraints. NBC is authorized to issue debt to finance its CIP and uses a Long-Term Financial Model to identify capital funding needs and sources and to project debt issuance.

NBC maximizes its borrowing from the Rhode Island Clean Water Finance Agency (RICWFA) to the extent that there are loans available. The RICWFA, through the State Revolving Fund Program (SRF) provides interest rate subsidies on loans for eligible projects. Other factors that must be considered include:

- NBC is regulated by the Rhode Island Public Utilities Commission (PUC) and the PUC has restricted the use of the prior year debt service coverage allowance to fund only operating capital and capital projects, as well as the Reserve for Revenue Stability Fund.

- NBC must take into consideration arbitrage expenditure requirements to avoid financial penalties.
- There are restrictions on the types of expenditures that may be financed through SRF. For example, land may not be financed through SRF, and only projects that have been approved by RIDEM and are reachable on the RIDEM's project priority list are eligible for SRF funding.
- NBC must also expend and manage its resources in accordance with NBC's Trust Indenture and Thirteen Supplemental Indentures.

Impact of the CIP on the Operating Budget

The primary impact of the CIP on the Operating Budget is the payment of the debt service in the form of principal and interest. The debt service and user fee projections associated with financing this CIP are identified in the Long-Term Debt Overview section of the Operating Budget.

Although the CIP's primary impact on the Operating Budget is debt service, certain capital improvements will also directly impact operating costs. These expenditures relate to the operation of the completed capital improvements and will be incorporated into the operating budget. In this CIP, NBC engineers have identified four capital projects that will impact NBC's operating budget once they become operational, beginning in FY 2013. The following table illustrates a representation of the percentage impact in FY 2016 based on the current year's draft operating budget.

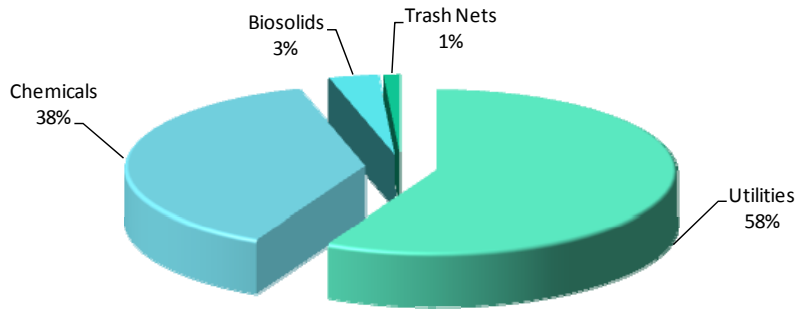
CIP Impact on Operations & Maintenance (O&M) Budget (In thousands)

| CIP Project Name | FY 2016 | Percentage of Impact on Projected O&M Budget* |
|------------------------------------|-----------------|---|
| FPWWTF Nitrogen Removal Facilities | \$ 1,848 | 5.06% |
| Floatables Control Facilities | 24 | 0.07% |
| BPWWTF Nitrogen Removal Facilities | 258 | 0.71% |
| CSO Phase II Facilities | 163 | 0.45% |
| Total | \$ 2,293 | 6.28% |

* Based on FY 2011 Draft Operating Budget

These annual expenses are related to utilities, chemicals, biosolids disposal, and trash nets. The graph on the following page shows the percentage of the impacts related to the operational costs over the five-year period of FY 2012-2016. The majority or 58%, of the impact is related to utility costs for Nitrogen Removal Facilities at both wastewater treatment facilities and for the CSO Phase II Facilities. In addition, increased chemical usage at the wastewater treatment facilities will account for approximately 38% of the cost increase. Biosolids disposal will increase as a result of the additional flows from the CSO Phase II Facilities and represents 3% of the impact. Finally, the impact of the trash nets for the Floatables Control Facilities accounts for 1% of the annual operational impact.

CIP Impact by Element of Operating Expense (In thousands)



The annual operational costs for the Field's Point Nitrogen Removal Project will have the highest annual operating impact of the four projects. The following table provides additional detail related to the operational costs of the CIP projects.

CIP Impact on Operating Budget (In thousands)

| Project Name | Expenditure Type | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 |
|---|------------------|-------------|---------------|-----------------|-----------------|-----------------|
| FPWWTF Nitrogen Removal Facilities* | Utilities | \$ - | \$ 330 | \$ 1,000 | \$ 1,050 | \$ 1,103 |
| | Chemicals | - | 220 | 676 | 710 | 745 |
| | Subtotal | - | 550 | 1,676 | 1,760 | 1,848 |
| | | | | | | |
| BPWWTF Nitrogen Removal Facilities | Utilities | \$ - | \$ - | \$ - | \$ 130 | \$ 134 |
| | Chemicals | - | - | - | 120 | 124 |
| | Subtotal | - | - | - | 250 | 258 |
| | | | | | | |
| CSO Phase II Facilities | Utilities | \$ - | \$ - | \$ 38 | \$ 65 | \$ 68 |
| | Biosolids | - | - | 45 | 90 | 95 |
| | Subtotal | - | - | 83 | 155 | 163 |
| | | | | | | |
| Floatable Control Facilities | Trash Nets | \$ - | \$ 10 | \$ 21 | \$ 22 | \$ 24 |
| | Subtotal | - | 10 | 21 | 22 | 24 |
| | | | | | | |
| Total Impact on Operating Budget | | \$ - | \$ 560 | \$ 1,780 | \$ 2,187 | \$ 2,293 |

* FP Nitrogen impact in FY 2013 represents costs for 4 months, as this is the first year of operation.

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Capital Project Cost Summary

Capital Project Cost Summary

| Project Number | Project Name | Project Priority | Pre-Fiscal Year 2011 | Fiscal Year 2011 | Fiscal Years 2012 - 2016 | Post-Fiscal Year 2016 | Total Estimated Project Cost |
|--|---|------------------|----------------------|------------------|--------------------------|-----------------------|------------------------------|
| Wastewater Treatment Facility Improvements | | | | | | | |
| 10901D | FPWWTF - Nitrogen Removal Facilities - Design | A | \$ 4,884 | \$ 1,922 | \$ - | \$ - | \$ 6,806 |
| 10901C | FPWWTF - Nitrogen Removal Facilities - Construction | A | 6,242 | 33,884 | 31,663 | - | 71,789 |
| 11900D | Regulatory Compliance Building - Design | B | 1,166 | 770 | 171 | - | 2,106 |
| 11900C | Regulatory Compliance Building - Construction | B | - | 22 | 21,090 | - | 21,112 |
| 12000D | BPWWTF - Biogas Reuse - Design | C | 10 | 180 | - | - | 190 |
| 12000C | BPWWTF - Biogas Reuse - Construction | C | - | 33 | 2,330 | - | 2,363 |
| 12100C | FPWWTF - Wind Turbine - Construction | C | 17 | 465 | 14,430 | - | 14,912 |
| 12200C | FPWWTF - Flow Control Efficiencies | A | 294 | 1,446 | - | - | 1,740 |
| 12300C | NBC Fire Code Compliance | A | - | 551 | 674 | - | 1,225 |
| 12400D | New IM Facilities - Design | C | - | 3 | 554 | - | 557 |
| 12400C | New IM Facilities - Construction | C | - | - | 6,052 | - | 6,052 |
| 80900D | BPWWTF - Nitrogen Removal Facilities - Design | A | 730 | 2,720 | - | - | 3,450 |
| 80900C | BPWWTF - Nitrogen Removal Facilities - Construction | A | - | - | 34,860 | - | 34,860 |
| Subtotal - Wastewater Treatment Facility Improvements | | | \$ 13,342 | \$ 41,996 | \$ 111,824 | \$ - | \$ 167,162 |
| Infrastructure Management | | | | | | | |
| 1100000 | Site Specific Study | A | \$ 211 | \$ - | \$ 246 | \$ - | \$ 457 |
| 1140100 | River Model Development | C | 230 | 41 | 107 | - | 378 |
| 30221D | Hydraulic Systems Modeling - Design | C | - | - | 252 | - | 252 |
| 30438D | Interceptor Easements - Design | A | 644 | 131 | - | - | 775 |
| 30438C | Interceptor Easements - Construction | A | - | 529 | 83 | - | 612 |
| 30500D | NBC Interceptor Easements - Design | B | 1 | 133 | 4,130 | - | 4,264 |
| 30500C | NBC Interceptor Easements - Construction | B | - | - | 3,670 | - | 3,670 |
| 30501D | Interceptor Easements - NBC BVI Design | A | 67 | 565 | - | - | 631 |
| 30501C | Interceptor Easements - NBC BVI Construction | A | - | - | 730 | - | 730 |
| 30700 | NBC System-wide Facilities Planning | B | - | 245 | 1,147 | - | 1,392 |
| Subtotal - Infrastructure Management | | | \$ 1,153 | \$ 1,644 | \$ 10,365 | \$ - | \$ 13,162 |
| Phase II CSO Facilities | | | | | | | |
| Phase II CSO Facilities - Design | | | | | | | |
| 30301D | Phase II CSO Facilities - Design | A | \$ 13,395 | \$ 5,646 | \$ - | \$ - | \$ 19,041 |
| Subtotal - Phase II CSO Facilities - Design | | | \$ 13,395 | \$ 5,646 | \$ - | \$ - | \$ 19,041 |
| Phase II CSO Facilities - Construction | | | | | | | |
| 30301RS | Phase II CSO Facilities - Program & Construction Management | A | \$ - | \$ 1,605 | \$ 28,710 | \$ - | \$ 30,315 |
| 30302C | Phase II CSO Facilities - OF 106 | A | - | 137 | 10,060 | - | 10,197 |
| 30303C | Phase II CSO Facilities - WCSOI | A | - | - | 141,312 | - | 141,312 |
| 30304C | Phase II CSO Facilities - SCSOI | A | - | - | 63,289 | 2,550 | 65,839 |
| 30305C | Phase II CSO Facilities - OF 027 | A | - | 797 | 15,095 | - | 15,892 |
| 30306C | Phase II CSO Facilities - OF 037 | A | - | 627 | 43,257 | - | 43,884 |
| Subtotal - Phase II CSO Facilities - Construction | | | \$ - | \$ 3,166 | \$ 301,723 | \$ 2,550 | \$ 307,439 |
| Phase III CSO Facilities | | | | | | | |
| 30800D | Phase III CSO Facilities - Design | A | \$ - | \$ - | \$ 12,257 | \$ 24,755 | \$ 37,012 |
| 30800C | Phase III CSO Facilities - Construction | A | - | - | - | 565,950 | 565,950 |
| Subtotal - Phase III CSO Facilities | | | \$ - | \$ - | \$ 12,257 | \$ 590,705 | \$ 602,962 |

Capital Project Cost Summary

| Project Number | Project Name | Project Priority | Pre-Fiscal Year 2011 | Fiscal Year 2011 | Fiscal Years 2012 - 2016 | Post-Fiscal Year 2016 | Total Estimated Project Cost |
|---|--|------------------|----------------------|------------------|--------------------------|-----------------------|------------------------------|
| <u>Sewer System Improvements</u> | | | | | | | |
| 70500C | Central Avenue Pump Station - Construction | A | \$ 734 | \$ 120 | \$ - | \$ - | \$ 854 |
| 70600C | Omega Pump Station Rack Room - Construction | B | 4 | 124 | - | - | 128 |
| 70700C | Lincoln Septage Station - Lakeside Unit Replacement | A | 43 | 439 | 130 | - | 612 |
| Subtotal - Sewer System Improvements | | | \$ 781 | \$ 683 | \$ 130 | \$ - | \$ 1,594 |
| <u>Floatables Control Facilities</u> | | | | | | | |
| 30600D | Floatables Control Facilities - Design | A | \$ 78 | \$ 656 | \$ - | \$ - | \$ 733 |
| 30600C | Floatables Control Facilities - Construction | A | - | 27 | 2,747 | - | 2,774 |
| Subtotal - Floatables Control Facilities | | | \$ 78 | \$ 683 | \$ 2,747 | \$ - | \$ 3,507 |
| <u>CSO Interceptor Inspection and Cleaning</u> | | | | | | | |
| 30400M | Inspection & Cleaning of CSO Interceptors | B | \$ 341 | \$ - | \$ 2,500 | \$ 500 | \$ 3,341 |
| 30419M | Pleasant Valley Parkway Interceptor Inspection and Cleaning | B | 103 | 179 | - | - | 282 |
| 30430M | Woonasquatucket Interceptor along Route 10 Inspection and Cleaning | B | - | 310 | - | - | 310 |
| 30435M | East Providence Interceptor Inspection and Cleaning | B | - | 165 | - | - | 165 |
| Subtotal - CSO Interceptor Inspection and Cleaning | | | \$ 444 | \$ 654 | \$ 2,500 | \$ 500 | \$ 4,098 |
| <u>CSO Interceptor Repair and Construction</u> | | | | | | | |
| 30400C | Repair and Construction of CSO Interceptors | B | \$ - | \$ 628 | \$ 4,021 | \$ 1,500 | \$ 6,149 |
| 30421C | Louisquissett Pike Interceptor Replacement- Construction | C | - | - | 2,382 | - | 2,382 |
| 30444D | Moshassuck Valley Interceptor - Design | C | - | 238 | 285 | - | 523 |
| 30444C | Moshassuck Valley Interceptor - Construction | C | - | - | 2,572 | - | 2,572 |
| 30453C | Improvements to NBC Interceptors FY 2010 | A | 17 | 535 | 150 | - | 702 |
| Subtotal - CSO Interceptor Repair and Construction | | | \$ 17 | \$ 1,400 | \$ 9,410 | \$ 1,500 | \$ 12,328 |
| Total Capital Improvement Program | | | \$ 29,209 | \$ 55,872 | \$ 450,956 | \$ 595,255 | \$ 1,131,292 |

Note: Cash Flow Basis in Thousands

| Category | Project Priority |
|----------|---|
| A | Mandated, emergency, or under construction, etc. |
| B | Not mandated but project is imperative to ongoing operation of facilities |
| C | Project is important but not critical to ongoing operations |

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Wastewater Treatment Facility Improvements

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10901 FPWWTF - Nitrogen Removal Facilities

The RIPDES permit for Field's Point requires a nitrogen limit of 5mg/l, from May to October. This project will modify the existing aeration basins to accommodate an Integrated Fixed Film Media process. The construction cost estimate has been revised from last year's CIP based on the bid received. The estimate for the increase in utility, chemical and maintenance costs associated with the operation of the new nitrogen removal facilities is approximately \$1.7 million for the first full year of operation. The subsequent years have a projected 5% increase in operating costs.



Photo: Aerial view of the FPWWTF

Project Overview:

Location: Field's Point WWTF (Providence, RI)
Contractor(s): SEA Consultants, Daniel O'Connell's Sons
Project Manager: Rich Bernier, P.E.
Project Priority: A

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Project Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|-------------------|---------------------|
| Planning | April-01 | May-07 | 75 Months | \$872 |
| Design | February-07 | July-10 | 42 Months | 6,806 |
| Construction | March-09 | March-15 | 73 Months | 71,789 |
| Total Project | April-01 | March-15 | 170 Months | \$79,466 |

Projected Expenditures - 10901P

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|---------------|
| Administrative | \$ 392 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 392 |
| A/E Professional | 413 | - | - | - | - | - | - | - | 413 |
| Other | 67 | - | - | - | - | - | - | - | 67 |
| Total Project Costs | \$ 872 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 872 |

Projected Expenditures - 10901D

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-----------------|-----------------|-------------|-------------|-------------|-------------|-------------|--------------|-----------------|
| Administrative | \$ 414 | \$ 34 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 448 |
| Land | 20 | 1,881 | - | - | - | - | - | - | 1,900 |
| A/E Professional | 4,396 | - | - | - | - | - | - | - | 4,396 |
| Other | 55 | 7 | - | - | - | - | - | - | 62 |
| Total Project Costs | \$ 4,884 | \$ 1,922 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 6,806 |

Projected Expenditures - 10901C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-----------------|------------------|------------------|-----------------|------------------|---------------|-------------|--------------|------------------|
| Administrative | \$ 501 | \$ 658 | \$ 622 | \$ 575 | \$ 270 | \$ 2 | \$ - | \$ - | \$ 2,627 |
| Land | 1 | 2 | - | - | - | - | - | - | 3 |
| A/E Professional | 1,016 | 1,025 | 926 | 666 | 567 | - | - | - | 4,200 |
| Construction | 4,697 | 31,750 | 14,230 | 3,930 | 520 | 276 | - | - | 55,403 |
| Contingency | - | - | - | - | 9,000 | - | - | - | 9,000 |
| Other | 27 | 450 | 46 | 34 | - | - | - | - | 557 |
| Total Project Costs | \$ 6,242 | \$ 33,884 | \$ 15,824 | \$ 5,205 | \$ 10,357 | \$ 278 | \$ - | \$ - | \$ 71,789 |

Note: Cash Flow Basis in Thousands

11900 NBC Regulatory Compliance Building and Related Upgrades

This project will plan, design, and construct a Regulatory Compliance Building, which will house the Pretreatment, EMDA, and Laboratory sections of the NBC. This building will unify NBC's efforts for environmental sampling and related analysis. The building will be located on Service Road in Providence. This project also includes related site demolition, site access and security.



Photo: An architect's rendering of the Regulatory Compliance Building

Project Overview:

Location: Service Road (Providence, RI)
 Contractor(s): CDM (preliminary design)
 Project Manager: Mark Thomas, P.E.
 Project Priority: B

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | September-08 | June-09 | 9 Months | \$323 |
| Design | September-10 | July-11 | 10 Months | 2,106 |
| Construction | May-11 | March-14 | 34 Months | 21,112 |
| Total Project | September-08 | March-14 | 67 Months | \$23,542 |

Projected Expenditures - 11900P

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|---------------|
| Administrative | \$ 132 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 132 |
| A/E Professional | 191 | - | - | - | - | - | - | - | 191 |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ 323 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 323 |

Projected Expenditures - 11900D

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-----------------|---------------|---------------|-------------|-------------|-------------|-------------|--------------|-----------------|
| Administrative | \$ 11 | \$ 101 | \$ 11 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 123 |
| Land | 1,155 | 19 | - | - | - | - | - | - | 1,173 |
| A/E Professional | - | 640 | 160 | - | - | - | - | - | 800 |
| Other | - | 10 | - | - | - | - | - | - | 10 |
| Total Project Costs | \$ 1,166 | \$ 770 | \$ 171 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 2,106 |

Projected Expenditures - 11900C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|--------------|-----------------|------------------|--------------|-------------|-------------|--------------|------------------|
| Administrative | \$ - | \$ 22 | \$ 420 | \$ 199 | \$ 1 | \$ - | \$ - | \$ - | \$ 642 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | 150 | 150 | - | - | - | - | 300 |
| Construction | - | - | 8,300 | 9,610 | 90 | - | - | - | 18,000 |
| Contingency | - | - | - | 2,160 | - | - | - | - | 2,160 |
| Other | - | - | 10 | - | - | - | - | - | 10 |
| Total Project Costs | \$ - | \$ 22 | \$ 8,880 | \$ 12,119 | \$ 91 | \$ - | \$ - | \$ - | \$ 21,112 |

Note: Cash Flow Basis in Thousands

12000 BPWWTF Biogas Reuse

NBC is investigating the feasibility of using biogas generated within the biosolids anaerobic digestion tanks at the Bucklin Point WWTF to generate electricity, using a reciprocating engine or microturbine. Preliminary studies anticipate that this system could produce



Photo: A Caterpillar reciprocating engine

Project Overview:

Location: Bucklin Point WWTF (East Providence, RI)
 Contractor(s): N/A
 Project Manager: Kathryn Kelly, P.E.
 Project Priority: C

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | June-07 | December-09 | 31 Months | \$46 |
| Design | April-10 | January-11 | 10 Months | 190 |
| Construction | February-11 | January-13 | 24 Months | 2,363 |
| Total Project | June-07 | January-13 | 69 Months | \$2,599 |

Projected Expenditures - 12000P

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|
| Administrative | \$ 22 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 22 |
| A/E Professional | 23 | - | - | - | - | - | - | - | 23 |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ 46 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 46 |

Projected Expenditures - 12000D

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|--------------|---------------|-------------|-------------|-------------|-------------|-------------|--------------|---------------|
| Administrative | \$ 2 | \$ 28 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 30 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | 130 | - | - | - | - | - | - | 130 |
| Other | 7 | 23 | - | - | - | - | - | - | 30 |
| Total Project Costs | \$ 10 | \$ 180 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 190 |

Projected Expenditures - 12000C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|--------------|-----------------|---------------|-------------|-------------|-------------|--------------|-----------------|
| Administrative | \$ - | \$ 11 | \$ 35 | \$ 2 | \$ - | \$ - | \$ - | \$ - | \$ 48 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | 12 | 38 | - | - | - | - | - | 50 |
| Construction | - | - | 1,900 | 100 | - | - | - | - | 2,000 |
| Contingency | - | - | 240 | - | - | - | - | - | 240 |
| Other | - | 10 | 15 | - | - | - | - | - | 25 |
| Total Project Costs | \$ - | \$ 33 | \$ 2,228 | \$ 102 | \$ - | \$ - | \$ - | \$ - | \$ 2,363 |

Note: Cash Flow Basis in Thousands

12100 FPWWTF Wind Turbine

NBC has investigated the feasibility of converting wind energy into electricity using three Mega-Watt (MW) Class Wind Turbines at the Field's Point WWTF. Preliminary studies indicated that the turbine would result in decreased electricity costs. Currently NBC is determining the scale and number of turbines. Once this information is evaluated, NBC will be able to estimate the electricity savings. The design phase has been incorporated into the construction phase, since the wind turbines will be pre-built and then assembled on site.



Photo: A rendering of the wind turbines from across Narragansett Bay

Project Overview:

Location: Field's Point WWTF (Providence, RI)
 Contractor(s): N/A
 Project Manager: Rich Bernier, P.E.
 Project Priority: C

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | December-06 | December-09 | 38 Months | \$41 |
| Design | N/A | N/A | N/A | N/A |
| Construction | October-10 | November-12 | 25 Months | 14,912 |
| Total Project | December-06 | November-12 | 72 Months | \$14,953 |

Projected Expenditures - 12100P

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|
| Administrative | \$ 25 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 25 |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | 15 | - | - | - | - | - | - | - | 15 |
| Total Project Costs | \$ 41 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 41 |

Projected Expenditures - Design

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - 12100C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|--------------|---------------|------------------|---------------|-------------|-------------|-------------|--------------|------------------|
| Administrative | \$ 17 | \$ 85 | \$ 50 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 152 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Construction | - | 180 | 12,670 | 150 | - | - | - | - | 13,000 |
| Contingency | - | - | 1,560 | - | - | - | - | - | 1,560 |
| Other | - | 200 | - | - | - | - | - | - | 200 |
| Total Project Costs | \$ 17 | \$ 465 | \$ 14,280 | \$ 150 | \$ - | \$ - | \$ - | \$ - | \$ 14,912 |

Note: Cash Flow Basis in Thousands

12200C FPWWTF Flow Control Efficiency

This project will add four Variable Frequency Drives (VFD) to existing constant speed pumps at the Ernest Street Pump Station. These VFDs will control the rate of flow entering the Field's Point WWTF and therefore maximize energy efficiency. This project will connect the existing Ernest Street Pump Station generator to the FPWWTF, in order to provide the treatment power capabilities during power outages, ensuring NBC maintains the necessary processes to treat the incoming flow.



Photo: A schematic of a variable frequency drive unit

Project Overview:

Location: Providence, RI
 Contractor(s): E.W. Audet
 Project Manager: Rich Bernier, P.E.
 Project Priority: A

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | N/A | N/A | N/A | N/A |
| Design | N/A | N/A | N/A | N/A |
| Construction | June-09 | May-11 | 24 Months | \$1,740 |
| Total Project | June-09 | May-11 | 24 Months | \$1,740 |

Projected Expenditures - Planning

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - Design

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - 12200C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|---------------|-----------------|-------------|-------------|-------------|-------------|-------------|--------------|-----------------|
| Administrative | \$ 23 | \$ 31 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 54 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Construction | 68 | 1,415 | - | - | - | - | - | - | 1,484 |
| Contingency | 180 | - | - | - | - | - | - | - | 180 |
| Other | 22 | - | - | - | - | - | - | - | 22 |
| Total Project Costs | \$ 294 | \$ 1,446 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 1,740 |

Note: Cash Flow Basis in Thousands

12300C NBC Fire Code Compliance

Recent inspections by the State Fire Marshal to determine compliance with the new state fire code have identified some deficiencies at several NBC owned buildings. This project is for improvements necessary to correct the deficiencies.



Photo: An existing fire alarm panel from one of NBC's buildings

Project Overview:

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

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | N/A | N/A | N/A | N/A |
| Design | N/A | N/A | N/A | N/A |
| Construction | September-10 | October-11 | N/A | \$1,225 |
| Total Project | September-10 | October-11 | 13 Months | \$1,225 |

Projected Expenditures - Planning

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - Design

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - 12300C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|---------------|---------------|-------------|-------------|-------------|-------------|--------------|-----------------|
| Administrative | \$ - | \$ 31 | \$ 24 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 55 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Construction | - | 500 | 500 | - | - | - | - | - | 1,000 |
| Contingency | - | - | 120 | - | - | - | - | - | 120 |
| Other | - | 20 | 30 | - | - | - | - | - | 50 |
| Total Project Costs | \$ - | \$ 551 | \$ 674 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 1,225 |

Note: Cash Flow Basis in Thousands

12400 New IM Facilities

Design and construction of new facilities will be needed when the IM responsibilities are increased. The facilities will include administrative areas and garage areas with a storage yard.

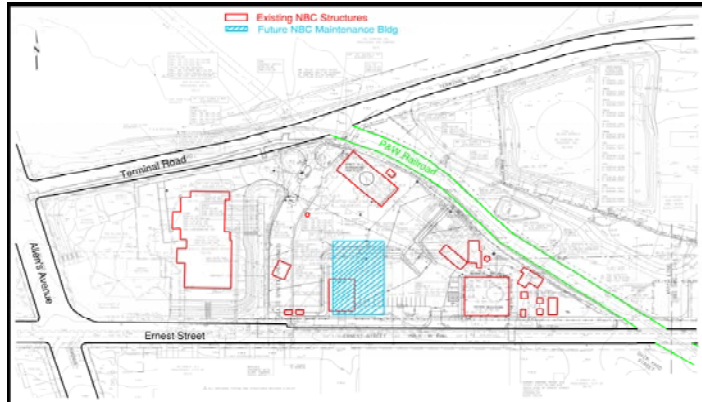


Photo: Proposed Site for the new IM Facilities

Project Overview:

Location: Providence, RI
 Contractor(s): N/A
 Project Manager: Rich Bernier, P.E.
 Project Priority: C

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | N/A | N/A | N/A | N/A |
| Design | January-11 | November-12 | 22 Months | \$557 |
| Construction | November-12 | February-14 | 15 Months | 6,052 |
| Total Project | August-12 | February-14 | 18 Months | \$6,609 |

Projected Expenditures - Planning

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - 12400D

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|---------------|---------------|-------------|-------------|-------------|--------------|---------------|
| Administrative | \$ - | \$ 3 | \$ 21 | \$ 13 | \$ - | \$ - | \$ - | \$ - | \$ 37 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | 350 | 150 | - | - | - | - | 500 |
| Other | - | - | - | 20 | - | - | - | - | 20 |
| Total Project Costs | \$ - | \$ 3 | \$ 371 | \$ 183 | \$ - | \$ - | \$ - | \$ - | \$ 557 |

Projected Expenditures - 12400C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|---------------|-----------------|--------------|-------------|-------------|--------------|-----------------|
| Administrative | \$ - | \$ - | \$ 87 | \$ 260 | \$ 5 | \$ - | \$ - | \$ - | \$ 352 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | 15 | 35 | - | - | - | - | 50 |
| Construction | - | - | 600 | 4,350 | 50 | - | - | - | 5,000 |
| Contingency | - | - | - | 600 | - | - | - | - | 600 |
| Other | - | - | - | 50 | - | - | - | - | 50 |
| Total Project Costs | \$ - | \$ - | \$ 702 | \$ 5,295 | \$ 55 | \$ - | \$ - | \$ - | \$ 6,052 |

Note: Cash Flow Basis in Thousands

80900 BPWWTF Nitrogen Removal Facilities

NBC's facilities at Bucklin Point were designed to achieve a nitrogen level of 8mg/l, but subsequent to the completion of construction, RIDEM established a permit nitrogen limit of 5 mg/l. NBC's Draft Facilities Plan Amendment recommended upgrading the existing Biological Nutrient Removal (BNR) process to achieve the new nitrogen limit. It also recommended other improvements for unit operations. This project is for the planning, design, and construction of these facilities.



Photo: Aerial view of the BPWWTF

Project Overview:

Location: Bucklin Point WWTF (East Providence, RI)
 Contractor(s): Camp Dresser & McKee
 Project Manager: Terry Cote, P.E.
 Project Priority: A

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | July-07 | September-09 | 26 Months | \$260 |
| Design | April-10 | January-11 | 9 Months | 3,450 |
| Construction | March-11 | March-15 | 50 Months | 34,860 |
| Total Project | July-07 | March-15 | 94 Months | \$38,569 |

Projected Expenditures - 80900P

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|---------------|
| Administrative | \$ 57 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 57 |
| A/E Professional | 203 | - | - | - | - | - | - | - | 203 |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ 260 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 260 |

Projected Expenditures - 80900D

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|---------------|-----------------|-------------|-------------|-------------|-------------|-------------|--------------|-----------------|
| Administrative | \$ 59 | \$ 141 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 200 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | 364 | 2,486 | - | - | - | - | - | - | 2,850 |
| Other | 307 | 93 | - | - | - | - | - | - | 400 |
| Total Project Costs | \$ 730 | \$ 2,720 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 3,450 |

Projected Expenditures - 80900C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-----------------|------------------|------------------|-----------------|-------------|--------------|------------------|
| Administrative | \$ - | \$ - | \$ 248 | \$ 330 | \$ 347 | \$ - | \$ - | \$ - | \$ 924 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | 84 | 144 | 108 | - | - | - | 336 |
| Construction | - | - | 7,000 | 12,000 | 9,500 | 1,500 | - | - | 30,000 |
| Contingency | - | - | - | - | 3,600 | - | - | - | 3,600 |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ 7,332 | \$ 12,474 | \$ 13,555 | \$ 1,500 | \$ - | \$ - | \$ 34,860 |

Note: Cash Flow Basis in Thousands

Infrastructure Management

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1100000 Site Specific Study

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.



Photo: The RV Monitor, NBC's sampling vessel

Project Overview:

Location: Field's Point WWTF (Providence, RI)
 Contractor(s): N/A
 Project Manager: John Motta
 Project Priority: A

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|-------------------|---------------------|
| Planning | N/A | N/A | N/A | N/A |
| Design | November-01 | June-12 | 130 Months | \$457 |
| Construction | N/A | N/A | N/A | N/A |
| Total Project | November-01 | June-12 | 130 Months | \$457 |

Projected Expenditures - Planning

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - 1100000

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|---------------|-------------|---------------|-------------|-------------|-------------|-------------|--------------|---------------|
| Administrative | \$ 16 | \$ - | \$ 234 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 250 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | 163 | - | 6 | - | - | - | - | - | 169 |
| Other | 33 | - | 5 | - | - | - | - | - | 38 |
| Total Project Costs | \$ 211 | \$ - | \$ 246 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 457 |

Projected Expenditures - Construction

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Construction | - | - | - | - | - | - | - | - | - |
| Contingency | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Note: Cash Flow Basis in Thousands

1140100 River Model Development

NBC has partnered with the University of Rhode Island (URI) Graduate School of Oceanography (GSO) to develop a Regional Ocean Management System (ROMS) model of circulation and transport within the Providence and Seekonk Rivers and Upper Narragansett Bay. The first phase of the model development is nearly complete. The second phase will run the model under varying conditions and loadings to determine the impact of nitrogen loads on the receiving waters. This analysis will assist in determining the Total Maximum Daily Load (TMDL) for nitrogen that can be discharged from NBC's two wastewater treatment facilities without violating water quality standards.

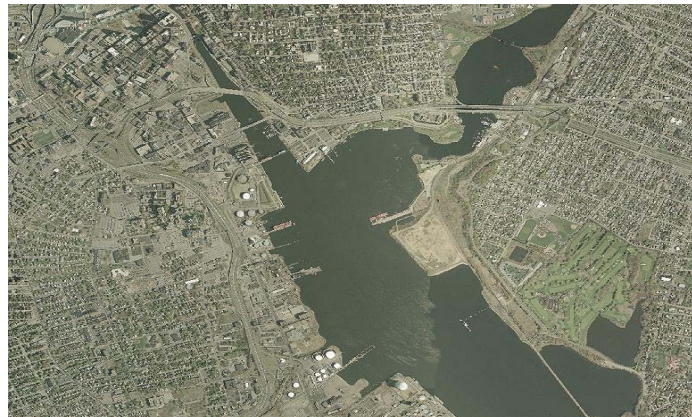


Photo: The Providence River, the northernmost part of Narragansett Bay

Project Overview:

Location: Field's Point WWTF (Providence, RI)
 Contractor(s): University of RI, Graduate School of Oceanography
 Project Manager: Tom Brueckner, P.E.
 Project Priority: C

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | N/A | N/A | N/A | N/A |
| Design | March-05 | July-11 | 77 Months | \$378 |
| Construction | N/A | N/A | N/A | N/A |
| Total Project | March-05 | July-11 | 77 Months | \$378 |

Projected Expenditures - Planning

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - 1140100

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|---------------|--------------|---------------|-------------|-------------|-------------|-------------|--------------|---------------|
| Administrative | \$ 25 | \$ 14 | \$ 2 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 41 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | 167 | 2 | - | - | - | - | - | - | 170 |
| Other | 38 | 24 | 106 | - | - | - | - | - | 167 |
| Total Project Costs | \$ 230 | \$ 41 | \$ 107 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 378 |

Projected Expenditures - Construction

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Construction | - | - | - | - | - | - | - | - | - |
| Contingency | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Note: Cash Flow Basis in Thousands

30221 Hydraulic Systems Modeling

This project involves the updating of a sewer system model that will allow NBC to determine the impact of future development and other changes to the sewer system flows. This information can then be used to determine where there is insufficient capacity, in accordance with the CMOM requirements established by the EPA.

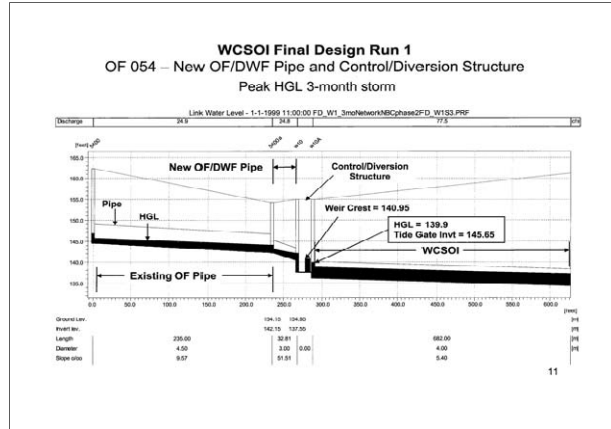


Photo: A graphic depicting the output from the WCSOI model

Project Overview:

Location: Narragansett Bay Commission Service Area
 Contractor(s): N/A
 Project Manager: Kathryn Kelly, P.E.
 Project Priority: C

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | June-06 | December-11 | 68 Months | \$75 |
| Design | July-10 | March-12 | 21 Months | 252 |
| Construction | N/A | N/A | N/A | N/A |
| Total Project | June-06 | March-12 | 71 Months | \$327 |

Projected Expenditures - 30221P

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|
| Administrative | \$ 13 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 13 |
| A/E Professional | 59 | - | - | - | - | - | - | - | 59 |
| Other | 2 | - | - | - | - | - | - | - | 2 |
| Total Project Costs | \$ 75 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 75 |

Projected Expenditures - 30221D

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|---------------|---------------|-------------|-------------|-------------|--------------|---------------|
| Administrative | \$ - | \$ - | \$ 28 | \$ 24 | \$ - | \$ - | \$ - | \$ - | \$ 52 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | 82 | 118 | - | - | - | - | 200 |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ 110 | \$ 142 | \$ - | \$ - | \$ - | \$ - | \$ 252 |

Projected Expenditures - Construction

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Construction | - | - | - | - | - | - | - | - | - |
| Contingency | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Note: Cash Flow Basis in Thousands

30438 Interceptor Easements

Much of the NBC sewer system in Cumberland is located in easements that cross private property. NBC is presently evaluating these easements, as to whether the access to the easements is sufficient for access and maintenance. This project is for an evaluation of the Abbott Valley Interceptor easements. Upon completion of the evaluation, the easements will be cleared and access provided as necessary under the construction phase of this project.

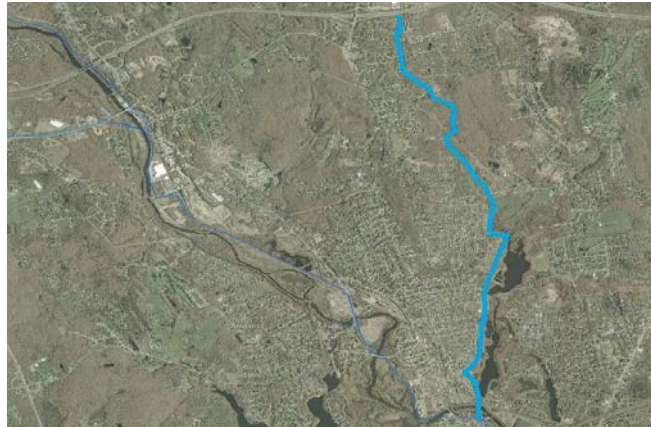


Photo: Cumberland sewer system easement locations

Project Overview:

Location: Cumberland, RI
 Contractor(s): VHB
 Project Manager: Thomas Brueckner, P.E.
 Project Priority: A

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | N/A | N/A | N/A | N/A |
| Design | October-05 | August-10 | 59 Months | \$775 |
| Construction | July-10 | July-12 | 24 Months | 612 |
| Total Project | October-05 | July-12 | 82 Months | \$1,387 |

Projected Expenditures - Planning

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - 30438D

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|---------------|---------------|-------------|-------------|-------------|-------------|-------------|--------------|---------------|
| Administrative | \$ 167 | \$ 41 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 208 |
| Land | 78 | 75 | - | - | - | - | - | - | 153 |
| A/E Professional | 396 | 12 | - | - | - | - | - | - | 409 |
| Other | 2 | 3 | - | - | - | - | - | - | 5 |
| Total Project Costs | \$ 644 | \$ 131 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 775 |

Projected Expenditures - 30438C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|---------------|--------------|--------------|-------------|-------------|-------------|--------------|---------------|
| Administrative | \$ - | \$ 29 | \$ 3 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 32 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Construction | - | 420 | 55 | 25 | - | - | - | - | 500 |
| Contingency | - | 60 | - | - | - | - | - | - | 60 |
| Other | - | 20 | - | - | - | - | - | - | 20 |
| Total Project Costs | \$ - | \$ 529 | \$ 58 | \$ 25 | \$ - | \$ - | \$ - | \$ - | \$ 612 |

Note: Cash Flow Basis in Thousands

30500 NBC Interceptor Easements

Many of NBC's interceptors are located in overland areas that run through private property. It is difficult to access these easements due to the terrain and vegetative growth. Many areas have become overgrown and the sewer is difficult to locate. The easements will be located through field survey and then cleared sufficiently to provide access for maintenance crews and equipment. Project 30500 will continue NBC's efforts to locate the interceptors and easements in each of the communities within the NBC service area. As the field surveys begin for the remaining cities and towns, each will be given a unique project number and draw funding from Project 30500.

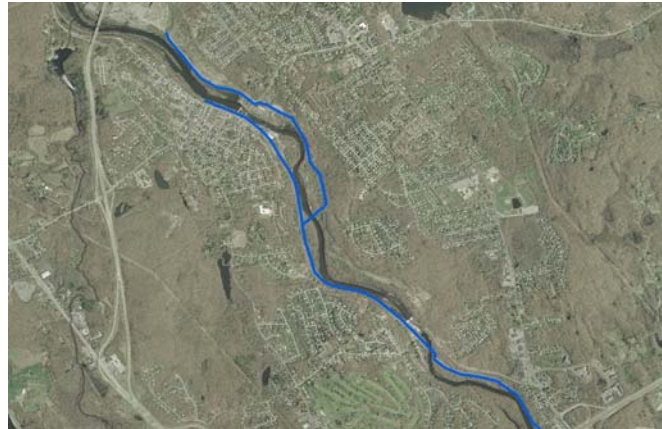


Photo: Blackstone Valley Interceptor in Lincoln

Project Overview:

Location: Narragansett Bay Commission Service Area
 Contractor(s): N/A
 Project Manager: Tom Brueckner, P.E.
 Project Priority: B

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | N/A | N/A | N/A | N/A |
| Design | January-12 | September-14 | 33 Months | \$4,264 |
| Construction | June-12 | December-15 | 43 Months | 3,670 |
| Total Project | January-12 | December-15 | 48 Months | \$7,934 |

Projected Expenditures - Planning

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - 30500D

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|---------------|-----------------|-----------------|---------------|---------------|-------------|--------------|-----------------|
| Administrative | \$ 1 | \$ 13 | \$ 91 | \$ 94 | \$ 57 | \$ 39 | \$ - | \$ - | \$ 295 |
| Land | - | - | 500 | 600 | - | 500 | - | - | 1,600 |
| A/E Professional | - | 120 | 600 | 660 | 733 | 237 | - | - | 2,350 |
| Other | - | - | 6 | 6 | - | 7 | - | - | 19 |
| Total Project Costs | \$ 1 | \$ 133 | \$ 1,197 | \$ 1,360 | \$ 790 | \$ 783 | \$ - | \$ - | \$ 4,264 |

Projected Expenditures - 30500C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|---------------|---------------|-----------------|---------------|---------------|--------------|-----------------|
| Administrative | \$ - | \$ - | \$ 37 | \$ 32 | \$ 63 | \$ 36 | \$ 30 | \$ - | \$ 198 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Construction | - | - | 510 | 510 | 1,040 | 520 | 520 | - | 3,100 |
| Contingency | - | - | - | 124 | 124 | - | 124 | - | 372 |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ 547 | \$ 666 | \$ 1,227 | \$ 556 | \$ 674 | \$ - | \$ 3,670 |

Note: Cash Flow Basis in Thousands

30501 Interceptor Easements - NBC BVI

Many of NBC's interceptors are located in overland areas that run through private property. It is difficult to access these easements due to the terrain and vegetative growth. Many areas have become overgrown and the sewer is difficult to locate. The easements will be located through field survey and then cleared sufficiently to provide access for maintenance crews and equipment. Project 30501 is to locate manholes and easements on the Blackstone Valley Interceptor in Lincoln and Cumberland. Upon completion of this work, the easement will be cleared to allow access for maintenance of the sewer.



Photo: Newly installed barway gate for access to the BVI Easements

Project Overview:

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

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|-------------------|---------------------|
| Planning | N/A | N/A | N/A | N/A |
| Design | July-09 | March-11 | 20 Months | \$631 |
| Construction | May-11 | June-12 | 13 Months | 730 |
| Total Project | July-07 | November-15 | 102 Months | \$1,361 |

Projected Expenditures - Planning

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - 30501D

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|--------------|---------------|-------------|-------------|-------------|-------------|-------------|--------------|---------------|
| Administrative | \$ 18 | \$ 122 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 139 |
| Land | - | 247 | - | - | - | - | - | - | 247 |
| A/E Professional | 28 | 56 | - | - | - | - | - | - | 84 |
| Other | 21 | 141 | - | - | - | - | - | - | 162 |
| Total Project Costs | \$ 67 | \$ 565 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 631 |

Projected Expenditures - 30501C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|---------------|--------------|-------------|-------------|-------------|--------------|---------------|
| Administrative | \$ - | \$ - | \$ 38 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 38 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Construction | - | - | 530 | 70 | - | - | - | - | 600 |
| Contingency | - | - | 72 | - | - | - | - | - | 72 |
| Other | - | - | 20 | - | - | - | - | - | 20 |
| Total Project Costs | \$ - | \$ - | \$ 660 | \$ 70 | \$ - | \$ - | \$ - | \$ - | \$ 730 |

Note: Cash Flow Basis in Thousands

30700 NBC System-wide Facilities Planning

NBC's interceptor sewers convey flow from local sewers in the district's eight cities and towns to the two NBC wastewater treatment facilities. Project 30700 will continue NBC's studies to determine if there is adequate capacity for the next twenty years and if there is any excessive infiltration/inflow (I/I) in NBC's interceptors. As the evaluations begin for the remaining cities and towns, each will be given a unique project number and draw funding from Project 30700.

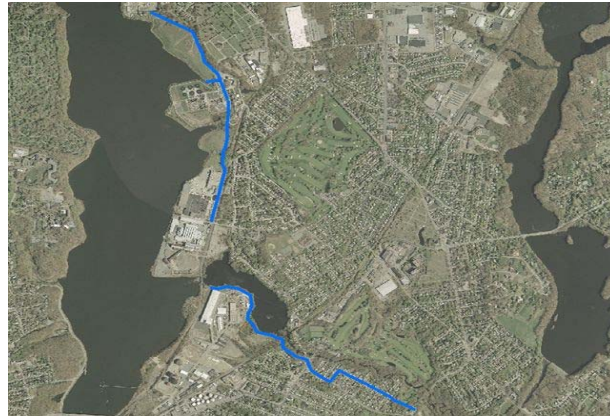


Photo: Proposed area for the East Providence capacity analysis

Project Overview:

Location: Narragansett Bay Commission Service Area
 Contractor(s): N/A
 Project Manager: Tom Brueckner, P.E.
 Project Priority: B

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | N/A | N/A | N/A | N/A |
| Design | December-10 | September-13 | 34 Months | \$1,392 |
| Construction | N/A | N/A | N/A | N/A |
| Total Project | June-10 | February-13 | 33 Months | \$1,392 |

Projected Expenditures - Planning

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - 30700

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|---------------|---------------|---------------|---------------|-------------|-------------|--------------|-----------------|
| Administrative | \$ - | \$ 45 | \$ 53 | \$ 75 | \$ 20 | \$ - | \$ - | \$ - | \$ 192 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | 200 | 400 | 400 | 200 | - | - | - | 1,200 |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ 245 | \$ 453 | \$ 475 | \$ 220 | \$ - | \$ - | \$ - | \$ 1,392 |

Projected Expenditures - Construction

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Construction | - | - | - | - | - | - | - | - | - |
| Contingency | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Note: Cash Flow Basis in Thousands

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CSO Phase II and CSO Phase III Facilities

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30301D CSO Phase II Facilities

CSO Phase II is the second phase of NBC's CSO Abatement Program. It consists of the construction of two interceptors to convey flows from combined sewer overflows in Providence along the Seekonk and Woonasquatucket Rivers to the Main Tunnel constructed in Phase I. The proposed length of the Woonasquatucket Interceptor is 19,150 feet and the Seekonk Interceptor will be approximately 8,000 feet. Phase II also includes two sewer separation projects in Providence, and a constructed wetlands treatment facility in Central Falls. Total cost estimates for CSO Phase II are updated in this year's CIP based on the construction cost estimates prepared by the design engineers, upon completion of preliminary design.

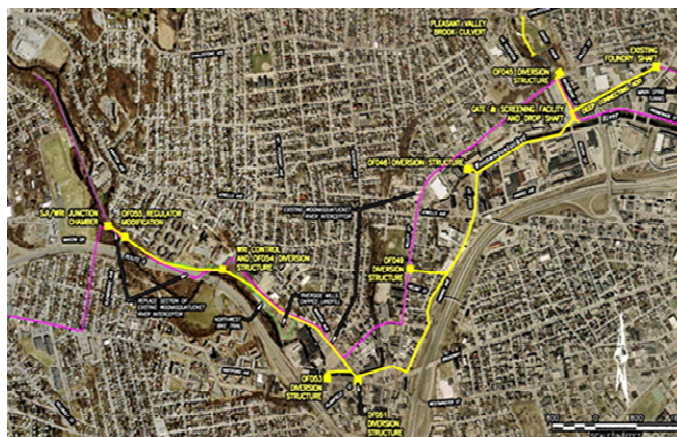


Photo: Proposed Woonasquatucket CSO Interceptor alignment

Project Overview:

Location: N/A
 Contractor(s): Louis Berger Group
 Project Manager: Tom Brueckner, P.E.
 Project Priority: A

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | N/A | N/A | N/A | N/A |
| Design | January-07 | December-10 | 48 Months | \$19,041 |
| Construction | N/A | N/A | N/A | N/A |
| Total Project | January-07 | December-10 | 48 Months | \$19,041 |

Projected Expenditures - Planning

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - 30301D

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|------------------|-----------------|-------------|-------------|-------------|-------------|-------------|--------------|------------------|
| Administrative | \$ 536 | \$ 274 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 810 |
| Land | 3,303 | 4,108 | - | - | - | - | - | - | 7,411 |
| A/E Professional | 9,521 | 1,264 | - | - | - | - | - | - | 10,785 |
| Other | 35 | - | - | - | - | - | - | - | 35 |
| Total Project Costs | \$ 13,395 | \$ 5,646 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 19,041 |

Projected Expenditures - Construction

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Construction | - | - | - | - | - | - | - | - | - |
| Contingency | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Note: Cash Flow Basis in Thousands

30301RS Phase II CSO Facilities Program & Construction Management

Project 30301RS provides Program and Construction Management of the Phase II CSO Phase Facilities construction program, which consists of five construction projects. This project is currently underway and will continue until Phase II of the CSO Program is complete.

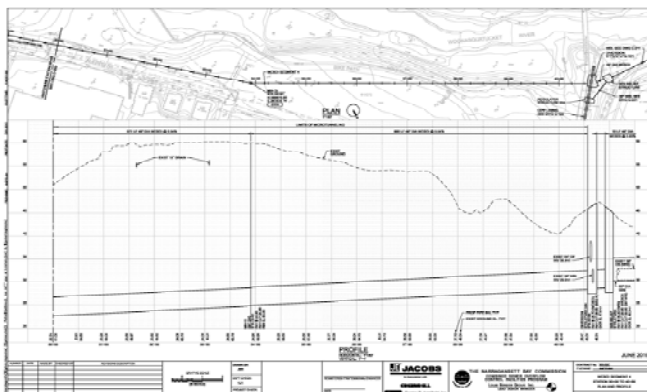


Photo: Plans of the proposed CSO Phase II WCSO alignment

Project Overview:

Location: N/A
 Contractor(s): Louis Berger Group
 Project Manager: Rich Bernier, P.E.
 Project Priority: A

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | N/A | N/A | N/A | N/A |
| Design | N/A | N/A | N/A | N/A |
| Construction | September-10 | September-15 | 60 Months | \$30,315 |
| Total Project | September-10 | September-15 | 60 Months | \$30,315 |

Projected Expenditures - Planning

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - Design

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - 30301RS

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-----------------|-----------------|------------------|-----------------|-----------------|---------------|--------------|------------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | 1,605 | 8,650 | 10,130 | 7,130 | 2,400 | 400 | - | 30,315 |
| Construction | - | - | - | - | - | - | - | - | - |
| Contingency | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ 1,605 | \$ 8,650 | \$ 10,130 | \$ 7,130 | \$ 2,400 | \$ 400 | \$ - | \$ 30,315 |

Note: Cash Flow Basis in Thousands

30302C Phase II CSO Facilities OF 106

CSO Phase II is the second phase of NBC's CSO Abatement Program. It consists of the construction of two interceptors to convey flows from combined sewer overflows along the Woonasquatucket and Seekonk Rivers to the Main Tunnel constructed in Phase I, two sewer separation projects in Providence, and a constructed wetlands treatment facility in Central Falls. This project (30302C) is the construction of the wetlands facility to treat the combined sewer overflow from OF 106 in Central Falls.

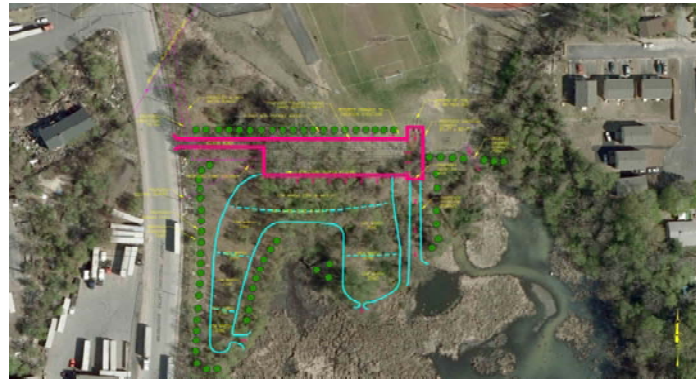


Photo: Proposed Wetlands Facility in Central Falls

Project Overview:

Location: Central Falls, RI
 Contractor(s): Louis Berger Group
 Project Manager: Rich Bernier, P.E.
 Project Priority: A

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | N/A | N/A | N/A | N/A |
| Design | N/A | N/A | N/A | N/A |
| Construction | December-10 | April-14 | 41 Months | \$10,197 |
| Total Project | December-10 | April-14 | 41 Months | \$10,197 |

Projected Expenditures - Planning

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - Design

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - 30302C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|---------------|-----------------|-----------------|---------------|-------------|-------------|--------------|------------------|
| Administrative | \$ - | \$ 17 | \$ 60 | \$ 80 | \$ - | \$ - | \$ - | \$ - | \$ 157 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Construction | - | - | 3,840 | 3,760 | 400 | - | - | - | 8,000 |
| Contingency | - | - | - | 960 | - | - | - | - | 960 |
| Other | - | 120 | 480 | 480 | - | - | - | - | 1,080 |
| Total Project Costs | \$ - | \$ 137 | \$ 4,380 | \$ 5,280 | \$ 400 | \$ - | \$ - | \$ - | \$ 10,197 |

Note: Cash Flow Basis in Thousands

30303C Phase II CSO Facilities - WCSOI

CSO Phase II is the second phase of NBC's CSO Abatement Program. It consists of the construction of two interceptors to convey flows from combined sewer overflows in Providence along the Seekonk and Woonasquatucket Rivers to the Main Tunnel constructed in Phase I, two sewer separation projects in Providence and a constructed wetlands treatment facility in Central Falls. This project (30303C) is the construction of the 19,200 foot long Woonasquatucket CSO Interceptor (WCSOI) along the Woonasquatucket River.



Photo: Proposed Woonasquatucket CSO Interceptor alignment

Project Overview:

Location: Providence, RI
Contractor(s): Louis Berger Group
Project Manager: Rich Bernier, P.E.
Project Priority: A

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | N/A | N/A | N/A | N/A |
| Design | N/A | N/A | N/A | N/A |
| Construction | July-11 | March-16 | 57 Months | \$141,312 |
| Total Project | July-11 | March-16 | 57 Months | \$141,312 |

Projected Expenditures - Planning

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - Design

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - 30303C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|------------------|------------------|------------------|------------------|-----------------|--------------|-------------------|
| Administrative | \$ - | \$ - | \$ 347 | \$ 720 | \$ 796 | \$ 669 | \$ - | \$ - | \$ 2,532 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Construction | - | - | 9,700 | 32,400 | 32,700 | 29,700 | 5,500 | - | 110,000 |
| Contingency | - | - | - | - | - | 13,200 | - | - | 13,200 |
| Other | - | - | 2,280 | 4,560 | 4,560 | 4,180 | - | - | 15,580 |
| Total Project Costs | \$ - | \$ - | \$ 12,327 | \$ 37,680 | \$ 38,056 | \$ 47,749 | \$ 5,500 | \$ - | \$ 141,312 |

Note: Cash Flow Basis in Thousands

30304C Phase II CSO Facilities - SCSOI

CSO Phase II is the second phase of NBC's CSO Abatement Program. It consists of the construction of two interceptors to convey flows from combined sewer overflows in Providence along the Seekonk and Woonasquatucket Rivers to the Main Tunnel constructed in Phase I, two sewer separation projects in Providence and a constructed wetlands facility in Central Falls. This project (30304C) is the construction of the 8000 foot long Seekonk CSO Interceptor (SCSOI) along the Seekonk River.



Photo: Proposed Seekonk CSO Interceptor alignment

Project Overview:

Location: Providence, RI
 Contractor(s): Louis Berger Group
 Project Manager: Tom Brueckner, P.E.
 Project Priority: A

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | N/A | N/A | N/A | N/A |
| Design | N/A | N/A | N/A | N/A |
| Construction | December-11 | July-16 | 56 Months | \$65,839 |
| Total Project | December-11 | July-16 | 56 Months | \$65,839 |

Projected Expenditures - Planning

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - Design

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - 30304C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|--------------|------------------|------------------|------------------|-----------------|-----------------|------------------|
| Administrative | \$ - | \$ - | \$ 52 | \$ 425 | \$ 486 | \$ 656 | \$ - | \$ - | \$ 1,619 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Construction | - | - | - | 12,820 | 16,560 | 16,310 | 2,760 | 2,550 | 51,000 |
| Contingency | - | - | - | - | - | 6,120 | - | - | 6,120 |
| Other | - | - | - | 2,400 | 2,400 | 2,300 | - | - | 7,100 |
| Total Project Costs | \$ - | \$ - | \$ 52 | \$ 15,645 | \$ 19,446 | \$ 25,386 | \$ 2,760 | \$ 2,550 | \$ 65,839 |

Note: Cash Flow Basis in Thousands

30305C Phase II CSO Facilities - OF 027

CSO Phase II is the second phase of NBC's CSO Abatement Program. It consists of the construction of two interceptors to convey flows from combined sewer overflows in Providence along the Seekonk and Woonasquatucket Rivers to the Main Tunnel constructed in Phase I, two sewer separation projects in Providence, and a constructed wetlands treatment facility in Central Falls. This project (303.05C) is the separation of combined sewers in the Hope St./Blackstone Boulevard area on the East Side of Providence.



Photo: Proposed OF 027 Sewer Separation

Project Overview:

Location: Providence, RI
 Contractor(s): Louis Berger Group
 Project Manager: Rich Bernier, P.E.
 Project Priority: A

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | N/A | N/A | N/A | N/A |
| Design | N/A | N/A | N/A | N/A |
| Construction | January-11 | July-14 | 43 Months | \$15,892 |
| Total Project | January-11 | July-14 | 43 Months | \$15,892 |

Projected Expenditures - Planning

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - Design

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - 30305C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|---------------|-----------------|-----------------|-----------------|---------------|-------------|--------------|------------------|
| Administrative | \$ - | \$ 47 | \$ 340 | \$ 380 | \$ 5 | \$ - | \$ - | \$ - | \$ 772 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Construction | - | - | 4,750 | 5,500 | 400 | 600 | - | - | 11,250 |
| Contingency | - | - | - | - | 1,440 | - | - | - | 1,440 |
| Other | - | 750 | 770 | 840 | 70 | - | - | - | 2,430 |
| Total Project Costs | \$ - | \$ 797 | \$ 5,860 | \$ 6,720 | \$ 1,915 | \$ 600 | \$ - | \$ - | \$ 15,892 |

Note: Cash Flow Basis in Thousands

30306C Phase II CSO Facilities - OF 037

CSO Phase II is the second phase of NBC's CSO Abatement Program. It consists of the construction of two interceptors to convey flows from combined sewer overflows in Providence along the Seekonk and Woonasquatucket Rivers to the Main Tunnel constructed in Phase I, two sewer separation projects in Providence and a constructed wetlands facility in Central Falls. This project (30306C) is the separation of combined sewers in the Hope St./North Main St. area of the East Side of Providence.

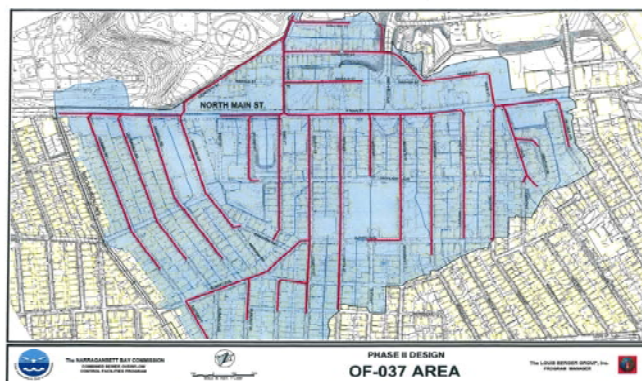


Photo: Proposed OF 037 Sewer Separation

Project Overview:

Location: Providence, RI
 Contractor(s): Louis Berger Group
 Project Manager: Rich Bernier, P.E.
 Project Priority: A

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | N/A | N/A | N/A | N/A |
| Design | N/A | N/A | N/A | N/A |
| Construction | February-11 | January-15 | 48 Months | \$43,884 |
| Total Project | February-11 | January-15 | 48 Months | \$43,884 |

Projected Expenditures - Planning

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - Design

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - 30306C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|---------------|------------------|------------------|------------------|-----------------|-------------|--------------|------------------|
| Administrative | \$ - | \$ 27 | \$ 330 | \$ 535 | \$ 272 | \$ - | \$ - | \$ - | \$ 1,164 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Construction | - | - | 8,400 | 13,900 | 7,000 | 1,700 | - | - | 31,000 |
| Contingency | - | - | - | - | 4,080 | - | - | - | 4,080 |
| Other | - | 600 | 4,000 | 1,920 | 1,120 | - | - | - | 7,640 |
| Total Project Costs | \$ - | \$ 627 | \$ 12,730 | \$ 16,355 | \$ 12,472 | \$ 1,700 | \$ - | \$ - | \$ 43,884 |

Note: Cash Flow Basis in Thousands

30800 CSO Phase III Facilities

CSO Phase III is the third phase of NBC's CSO Abatement Program. This phase includes the construction of a tunnel in Pawtucket totaling approximately 13,000 feet in length. Phase III also includes three CSO Interceptors totaling approximately 14,500 feet in length, and two sewer separation projects. Total pre-design cost



Photo: Proposed alignment for the Pawtucket CSO Tunnel

Project Overview:

Location: Pawtucket, RI; Central Falls, RI
 Contractor(s): N/A
 Project Manager: Tom Brueckner, P.E.
 Project Priority: A

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | N/A | N/A | N/A | N/A |
| Design | June-15 | August-17 | 27 Months | \$37,012 |
| Construction | August-17 | August-22 | 61 Months | 565,950 |
| Total Project | June-15 | August-22 | 88 Months | \$602,962 |

Projected Expenditures - Planning

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - 30800D

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|--------------|------------------|------------------|------------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 20 | \$ 240 | \$ 692 | \$ 952 |
| Land | - | - | - | - | - | - | - | 4,000 | 4,000 |
| A/E Professional | - | - | - | - | - | - | 11,997 | 20,003 | 32,000 |
| Other | - | - | - | - | - | - | - | 60 | 60 |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 20 | \$ 12,237 | \$ 24,755 | \$ 37,012 |

Projected Expenditures - 30800C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------------|-------------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 6,000 | \$ 6,000 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | 56,000 | 56,000 |
| Construction | - | - | - | - | - | - | - | 400,000 | 400,000 |
| Contingency | - | - | - | - | - | - | - | 48,000 | 48,000 |
| Other | - | - | - | - | - | - | - | 55,950 | 55,950 |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 565,950 | \$ 565,950 |

Note: Cash Flow Basis in Thousands

Sewer System Improvements

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70500 Central Avenue Pump Station

Project 70500 involves installation of a new force main to redirect flow from the Central Avenue Pump Station to the Atwood Avenue interceptor, which is closer to the station. The Atwood Avenue interceptor did not have sufficient capacity to handle flows from the pump station when the pump station was first built, but, because of an upgrade to the Atwood Avenue interceptor it is now able to accommodate the pump station flows. The pumps will also be replaced to match the new force main design.



Photo: The Central Avenue Pump Station

Project Overview:

Location: Providence, RI
 Contractor(s): Pare Engineering, John Rocchio
 Project Manager: Rich Bernier, P.E.
 Project Priority: A

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | January-07 | June-08 | 17 Months | \$45 |
| Design | June-08 | July-09 | 13 Months | 174 |
| Construction | May-09 | January-10 | 9 Months | 854 |
| Total Project | January-07 | January-10 | 37 Months | \$1,073 |

Projected Expenditures - 70500P

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|
| Administrative | \$ 12 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 12 |
| A/E Professional | 33 | - | - | - | - | - | - | - | 33 |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ 45 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 45 |

Projected Expenditures - 70500D

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|---------------|
| Administrative | \$ 24 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 24 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | 140 | - | - | - | - | - | - | - | 140 |
| Other | 10 | - | - | - | - | - | - | - | 10 |
| Total Project Costs | \$ 174 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 174 |

Projected Expenditures - 70500C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|---------------|---------------|-------------|-------------|-------------|-------------|-------------|--------------|---------------|
| Administrative | \$ 131 | \$ 16 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 147 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | 24 | - | - | - | - | - | - | - | 24 |
| Construction | 578 | 28 | - | - | - | - | - | - | 606 |
| Contingency | - | 77 | - | - | - | - | - | - | 77 |
| Other | 1 | - | - | - | - | - | - | - | 1 |
| Total Project Costs | \$ 734 | \$ 120 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 854 |

Note: Cash Flow Basis in Thousands

70600C Omega Pump Station Rack Room - Construction

The Omega Pump Station Rack Room provides screening facilities for the Omega Pump Station, which is located in the Bucklin Point service area. The self-cleaning screen has reached the end of its useful life and must be replaced. Further, the electrical, heating, and ventilation systems must be replaced, and fire code updates along with minor structural repairs need to be made to the building. Project 70600C will facilitate these improvements.



Photo: Bar screen in the Omega rack room

Project Overview:

Location: East Providence, RI
 Contractor(s): Beta Engineering
 Project Manager: Tom Brueckner, P.E.
 Project Priority: B

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|-----------------|---------------------|
| Planning | N/A | N/A | N/A | N/A |
| Design | N/A | N/A | N/A | N/A |
| Construction | March-10 | December-10 | 9 Months | \$128 |
| Total Project | March-10 | December-10 | 9 Months | \$128 |

Projected Expenditures - Planning

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - Design

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - 70600C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|---------------|-------------|-------------|-------------|-------------|-------------|--------------|---------------|
| Administrative | \$ 4 | \$ 10 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 14 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Construction | - | 100 | - | - | - | - | - | - | 100 |
| Contingency | - | 12 | - | - | - | - | - | - | 12 |
| Other | - | 2 | - | - | - | - | - | - | 2 |
| Total Project Costs | \$ 4 | \$ 124 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 128 |

Note: Cash Flow Basis in Thousands

70700C Lincoln Septage Station - Lakeside Unit Replacement

The grit removal unit at the Lincoln Septage Station removes stone and sand from septage before it is discharged to the Bucklin Point sewer system. Removal of the grit at the septage station prevents buildup of grit in the downstream sewer, which could become a maintenance problem. The existing unit has reached the end of its useful life and needs to be replaced. This project involves the purchase and installation of the new unit.



Photo: Lakeside Grit Removal Unit

Project Overview:

Location: Lincoln, RI
 Contractor(s): Hart Engineering
 Project Manager: Rich Bernier, P.E.
 Project Priority: A

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | N/A | N/A | N/A | N/A |
| Design | N/A | N/A | N/A | N/A |
| Construction | March-09 | July-10 | 15 Months | \$612 |
| Total Project | March-09 | July-10 | 15 Months | \$612 |

Projected Expenditures - Planning

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - Design

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - 70700C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|--------------|---------------|---------------|-------------|-------------|-------------|-------------|--------------|---------------|
| Administrative | \$ 33 | \$ 18 | \$ 1 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 52 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Construction | - | 351 | 5 | - | - | - | - | - | 356 |
| Contingency | - | 60 | 124 | - | - | - | - | - | 184 |
| Other | 10 | 10 | - | - | - | - | - | - | 20 |
| Total Project Costs | \$ 43 | \$ 439 | \$ 130 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 612 |

Note: Cash Flow Basis in Thousands

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Floatables Control Facilities

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30600 Floatables Control Facilities

As part of the nine minimum controls required under EPA's CSO Control Policy, floatables control is to be provided at the Phase III CSO overflows. NBC will conduct an evaluation and then design floatables control for the three largest Phase III overflows; OF 205, OF 219 and OF 220. NBC will provide trash racks for the remaining Phase III overflows. This project is for design and construction of these facilities.



Photo: Floatables Control Facilities at Bucklin Brook

Project Overview:

Location: Pawtucket, RI; Central Falls, RI
 Contractor(s): Louis Berger Group
 Project Manager: Kathryn Kelly, P.E.
 Project Priority: A

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | N/A | N/A | N/A | N/A |
| Design | September-09 | June-11 | 21 Months | \$733 |
| Construction | June-11 | October-13 | 28 Months | 2,774 |
| Total Project | September-09 | October-13 | 50 Months | \$3,507 |

Projected Expenditures - Planning

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - 30600D

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|--------------|---------------|-------------|-------------|-------------|-------------|-------------|--------------|---------------|
| Administrative | \$ 36 | \$ 138 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 173 |
| Land | - | 350 | - | - | - | - | - | - | 350 |
| A/E Professional | 42 | 127 | - | - | - | - | - | - | 169 |
| Other | - | 41 | - | - | - | - | - | - | 41 |
| Total Project Costs | \$ 78 | \$ 656 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 733 |

Projected Expenditures - 30600C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|--------------|-----------------|-----------------|---------------|-------------|-------------|--------------|-----------------|
| Administrative | \$ - | \$ 15 | \$ 150 | \$ 88 | \$ - | \$ - | \$ - | \$ - | \$ 252 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | 13 | 150 | 88 | - | - | - | - | 250 |
| Construction | - | - | 1,030 | 870 | 100 | - | - | - | 2,000 |
| Contingency | - | - | - | 240 | - | - | - | - | 240 |
| Other | - | - | 20 | 12 | - | - | - | - | 32 |
| Total Project Costs | \$ - | \$ 27 | \$ 1,350 | \$ 1,297 | \$ 100 | \$ - | \$ - | \$ - | \$ 2,774 |

Note: Cash Flow Basis in Thousands

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Interceptor Inspection and Cleaning and Interceptor Repair and Construction

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Projects 304 M Summary CSO Interceptor and Cleaning Projects

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 from the TV inspections, they will be given a unique project number and draw funding from the funds available in Project 30400M.



Photo: Heavy rock debris removed from sewer off Manton Ave

Project Overview:

Location: Narragansett Bay Commission Service Area
 Contractor(s): Various
 Project Manager: Meg Goulet, P.E.
 Project Priority: B

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|----------------|---------------------|
| Planning | N/A | N/A | N/A | N/A |
| Design | N/A | N/A | N/A | N/A |
| Maintenance | July-09 | Ongoing | Ongoing | \$4,098 |
| Total Project | July-09 | Ongoing | Ongoing | \$4,098 |

Projected Expenditures - Planning

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - Design

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - Projects 304 M Summary

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------------|
| Administrative | \$ 120 | \$ 124 | \$ 135 | \$ 135 | \$ 135 | \$ 135 | \$ 135 | \$ 135 | \$ 1,052 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Maintenance | 223 | 440 | 240 | 240 | 240 | 240 | 240 | 240 | 2,103 |
| Contingency | - | - | - | - | - | - | - | - | - |
| Other | 100 | 90 | 125 | 125 | 125 | 125 | 125 | 125 | 943 |
| Total Project Costs | \$ 444 | \$ 654 | \$ 500 | \$ 500 | \$ 500 | \$ 500 | \$ 500 | \$ 500 | \$ 4,098 |

Note: Cash Flow Basis in Thousands

30400C Repair and Construction Of CSO Interceptors

Project 30400C estimates the unknown costs of interceptor repair and construction resulting from NBC's inspection and cleaning projects and emergency situations. Interceptor repair 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.



Photo: Removal of abandoned pipe at Atwells Ave. and Valley Street

Project Overview:

Location: Narragansett Bay Commission Service Area
 Contractor(s): Various
 Project Manager: Rich Bernier, P.E.
 Project Priority: B

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Project Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | N/A | N/A | N/A | N/A |
| Design | N/A | N/A | N/A | N/A |
| Construction | July-01 | Ongoing | Ongoing | \$6,149 |
| Total Project | July-01 | Ongoing | Ongoing | \$6,149 |

Projected Expenditures - Planning

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - Design

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - 30400C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|---------------|-------------|-------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Administrative | \$ - | \$ 31 | \$ - | \$ - | \$ 56 | \$ 69 | \$ 75 | \$ 75 | \$ 306 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Construction | - | 523 | - | - | 934 | 1,150 | 1,250 | 1,250 | 5,107 |
| Contingency | - | 63 | - | - | 112 | 158 | 150 | 150 | 633 |
| Other | - | 10 | - | - | 19 | 23 | 25 | 25 | 102 |
| Total Project Costs | \$ - | \$ 628 | \$ - | \$ - | \$ 1,121 | \$ 1,400 | \$ 1,500 | \$ 1,500 | \$ 6,149 |

Note: Cash Flow Basis in Thousands

30421 Louisquisset Pike Interceptor Replacement

The Facilities Plan for project 30421 identified wet weather capacity problems with the Louisquisset Interceptor and recommended that the southern half of the interceptor in Lincoln be replaced with a larger pipe

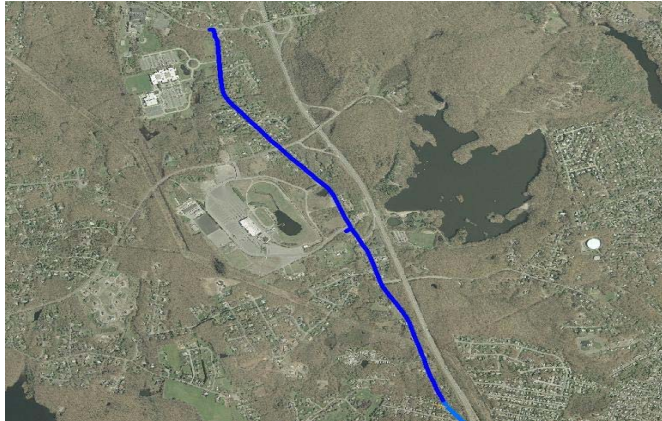


Photo: Proposed portion of Lincoln interceptor replacement

Project Overview:

to accommodate present and projected flows.

Location: Lincoln, RI
 Contractor(s): Beta Engineering
 Project Manager: Terry Cote, P.E.
 Project Priority: C

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Project Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | N/A | N/A | N/A | N/A |
| Design | May-07 | July-09 | 26 Months | \$206 |
| Construction | August-11 | September-12 | 13 Months | 2,382 |
| Total Project | May-07 | September-12 | 65 Months | \$2,588 |

Projected Expenditures - Planning

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - 30421D

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|---------------|
| Administrative | \$ 40 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 40 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | 155 | - | - | - | - | - | - | - | 155 |
| Other | 11 | - | - | - | - | - | - | - | 11 |
| Total Project Costs | \$ 206 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 206 |

Projected Expenditures - 30421C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-----------------|-----------------|-------------|-------------|-------------|--------------|-----------------|
| Administrative | \$ - | \$ - | \$ 71 | \$ 21 | \$ - | \$ - | \$ - | \$ - | \$ 92 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | 38 | 12 | - | - | - | - | 50 |
| Construction | - | - | 1,250 | 750 | - | - | - | - | 2,000 |
| Contingency | - | - | - | 240 | - | - | - | - | 240 |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ 1,359 | \$ 1,023 | \$ - | \$ - | \$ - | \$ - | \$ 2,382 |

Note: Cash Flow Basis in Thousands

30444 Moshassuck Valley Interceptor

Recent inspection of 2,600 feet of the Moshassuck Valley Interceptor from Higginson Street in Central Falls to Lockbridge Street in Providence revealed that this line has sunk from its original grade at numerous points, by as much as 2.5 feet. This settling is causing maintenance problems, and accumulation of grease and may result in structural problems as well. This project would replace this line in the public right of way.



Photo: Portion of the sinking Moshassuck Valley Interceptor

Project Overview:

Location: Providence, RI
 Contractor(s): N/A
 Project Manager: Tom Brueckner, P.E.
 Project Priority: C

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Project Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | May-06 | October-06 | 6 Months | \$22 |
| Design | September-10 | March-12 | 18 Months | 523 |
| Construction | March-12 | June-13 | 15 Months | 2,572 |
| Total Project | May-06 | June-13 | 86 Months | \$3,117 |

Projected Expenditures - 30444P

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|
| Administrative | \$ 2 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 2 |
| A/E Professional | 20 | - | - | - | - | - | - | - | 20 |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ 22 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 22 |

Projected Expenditures - 30444D

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|---------------|---------------|-------------|-------------|-------------|-------------|--------------|---------------|
| Administrative | \$ - | \$ 40 | \$ 51 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 91 |
| Land | - | - | 30 | - | - | - | - | - | 30 |
| A/E Professional | - | 198 | 202 | - | - | - | - | - | 400 |
| Other | - | - | 2 | - | - | - | - | - | 2 |
| Total Project Costs | \$ - | \$ 238 | \$ 285 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 523 |

Projected Expenditures - 30444C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|--------------|-----------------|---------------|---------------|-------------|--------------|-----------------|
| Administrative | \$ - | \$ - | \$ 22 | \$ 170 | \$ 20 | \$ - | \$ - | \$ - | \$ 212 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | 91 | 9 | - | - | - | 100 |
| Construction | - | - | - | 1,790 | 110 | 100 | - | - | 2,000 |
| Contingency | - | - | - | - | 240 | - | - | - | 240 |
| Other | - | - | 5 | 15 | - | - | - | - | 20 |
| Total Project Costs | \$ - | \$ - | \$ 27 | \$ 2,066 | \$ 379 | \$ 100 | \$ - | \$ - | \$ 2,572 |

Note: Cash Flow Basis in Thousands

30453C

Improvements to NBC Interceptors FY 2010

Project 304.53C will replace approximately 35 lf of 6" clay pipe with 6" PVC pipe at the intersection of Melrose and Sumter Streets in Providence; installation of approximately 1500 lf of CIPP lining in Hartford Ave Johnston along with manhole rehabilitation of 12 manholes; installation of a new manhole and reconfiguring existing sewers into the new manhole.



Photo: Clay Interceptor in need of replacement

Project Overview:

Location: Providence, RI
 Contractor(s): R.P. Iannuccillo & Sons
 Project Manager: Mark Thomas, P.E.
 Project Priority: A

Total Project Duration/Cost

| Project Phase | Actual/Projected Start Date | Actual/Projected Completion Date | Project Duration | Cost (in Thousands) |
|----------------------|-----------------------------|----------------------------------|------------------|---------------------|
| Planning | N/A | N/A | N/A | N/A |
| Design | N/A | N/A | N/A | N/A |
| Construction | August-09 | April-12 | 33 Months | \$702 |
| Total Project | August-09 | April-12 | 33 Months | \$702 |

Projected Expenditures - Planning

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - Design

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|
| Administrative | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Other | - | - | - | - | - | - | - | - | - |
| Total Project Costs | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

Projected Expenditures - 30453C

| Cost Category | Pre-FY 2011 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Post-FY 2016 | Total |
|----------------------------|--------------|---------------|---------------|-------------|-------------|-------------|-------------|--------------|---------------|
| Administrative | \$ 17 | \$ 130 | \$ 5 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 152 |
| Land | - | - | - | - | - | - | - | - | - |
| A/E Professional | - | - | - | - | - | - | - | - | - |
| Construction | - | 405 | 10 | - | - | - | - | - | 415 |
| Contingency | - | - | 100 | - | - | - | - | - | 100 |
| Other | - | - | 35 | - | - | - | - | - | 35 |
| Total Project Costs | \$ 17 | \$ 535 | \$ 150 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 702 |

Note: Cash Flow Basis in Thousands

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Appendix

