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March 3, 2023

Ms. Luly Massaro, Clerk
Rhode Island Division of
Public Utilities and Carriers
89 Jefferson Boulevard
Warwick, RI 02888

RE: Docket D-23-04 – Narragansett Bay Commission Application For Borrowing Authority

Dear Ms. Massaro:


Enclosed please find an original and nine copies of the following:

1. The Narragansett Bay Commission's Response to the Rhode Island Division of Public Utilities and Carrier's Data Requests (Set One).

Also, please note that an electronic copy of this document has been provided to the service list.

Thank you for your attention to this matter.

Sincerely,


Joseph A. Keough, Jr.

cc: Docket D-23-04 Service List (via electronic mail)

Div 1-1 Please provide a list and a description of each of the "Bucklin Point Resiliency Projects" that 22% of the loan proceeds that will be spent on.

Response: See attachment Div 1-1 Bucklin Point Resiliency Project Details

Project Name

81000 BPWWTF UV Disinfection Improvements

81600 BPWWTF Improvements

81700 BPWWTF Operations & Maintenance Buildings

Prepared by: Michael Cook, David Bowen, P.E., and Richard Bernier P.E.

81000

BPWWTF UV Disinfection Improvements

Project Manager: David Bowen, P.E.
 Contractor(s): TBD

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

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	April-17	February-22	59 Months	N/A
Construction	March-22	October-25	43 Months	\$24,757
Total Project	April-17	October-25	102 Months	\$24,757



Photo: Bucklin Point UV Disinfection System

This project involves the evaluation and replacement of the current Ultraviolet (UV) Disinfection system at the Bucklin Point WWTF with newer, more efficient technology. It also includes the design and construction of a new building to contain the UV system. The current UV equipment is nearing the end of its useful life and high intensity lamps are expensive and less efficient than newer technologies.

CIP Window Summary

Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
\$ 2,035	\$ 10,591	\$ 8,968	\$ 3,052	\$ 111	\$ -	\$ -	\$ -	\$ 24,757

Projected Expenditures - Planning

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Construction

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ 349	\$ 111	\$ 120	\$ 35	\$ 5	\$ -	\$ -	\$ -	\$ 620
A/E Professional	140	240	263	45	-	-	-	-	688
Construction	1,547	10,200	8,550	847	106	-	-	-	21,250
Contingency	-	-	-	2,125	-	-	-	-	2,125
Other	-	40	35	-	-	-	-	-	75
Total	\$ 2,035	\$ 10,591	\$ 8,968	\$ 3,052	\$ 111	\$ -	\$ -	\$ -	\$ 24,757

Note: Cash Flow Basis in Thousands

Operating Budget Impacts

	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced Expense	-	-	298,498	447,747	447,747	447,747
Increased Expense	-	-	20,354	30,531	30,531	30,531
Net Impact on Operating Budget	\$ -	\$ -	\$ 278,144	\$ 417,216	\$ 417,216	\$ 417,216

81600

BPWWTF Improvements

Project Manager: David Bowen, P.E.
 Contractor(s): Biszko Building Systems, Inc.

Location: BPWWTF
 Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	June-19	June-24	60 Months	\$1,210
Construction	October-19	April-27	90 Months	11,812
Total Project	June-19	April-27	94 Months	\$13,022



Photo: 2,000 kWh Generator Installation

This project involves miscellaneous improvements and upgrades to the Bucklin Point WWTF including the repair or replacement of boilers, hydronic piping systems, and isolation gates. Other improvements include modifications to HVAC systems, inspection and repairs to sludge digester tanks and related system appurtenances, miscellaneous concrete repairs, installation of a redundant standby power system, electrical manhole dewatering sump pump systems, and other miscellaneous infrastructure needs.

CIP Window Summary

	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
	\$ 5,784	\$ 532	\$ 1,016	\$ 2,569	\$ 3,121	\$ -	\$ -	\$ -	\$ 13,022

Projected Expenditures - Planning

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ 127	\$ 77	\$ 9	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 212
Land	-	-	-	-	-	-	-	-	-
A/E Professional	520	379	-	-	-	-	-	-	899
Other	22	77	-	-	-	-	-	-	99
Total	\$ 669	\$ 532	\$ 9	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,210

Projected Expenditures - Construction

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ 28	\$ -	\$ 134	\$ 180	\$ 145	\$ -	\$ -	\$ -	\$ 486
A/E Professional	-	-	112	63	128	-	-	-	302
Construction	5,068	-	706	2,265	1,340	-	-	-	9,378
Contingency	-	-	-	45	1,509	-	-	-	1,554
Other	19	-	57	16	-	-	-	-	93
Total	\$ 5,115	\$ -	\$ 1,008	\$ 2,569	\$ 3,121	\$ -	\$ -	\$ -	\$ 11,812

Note: Cash Flow Basis in Thousands

Operating Budget Impacts

	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced Expense	-	-	-	-	-	-
Increased Expense	-	-	-	833	3,330	3,330
Net Impact on Operating Budget	\$ -	\$ -	\$ -	\$ 833	\$ 3,330	\$ 3,330

81700

BPWWTF Operations and Maintenance Buildings

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

Location: Bucklin Point WWTF
 Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	May-19	July-21	26 Months	N/A
Construction	October-20	July-24	44 Months	\$38,822
Total Project	May-19	July-24	62 Months	\$38,822



Photo: Operations and Maintenance Building

This project involves the design and construction of a new Operations Building and a Maintenance/Storage Building at the Bucklin Point campus. The Operations Building will contain additional office space, training and locker rooms, and the WWTF's SCADA Control Room which is necessary to maintain system reliability and efficient operations. The Maintenance/Storage Building(s) will improve the efficiency of plant maintenance services necessary to ensure the reliable operation and performance of critical infrastructure systems and address various storage needs at the BPWWTF.

CIP Window Summary

Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
\$ 32,991	\$ 5,656	\$ 175	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 38,822

Projected Expenditures - Planning

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land	-	-	-	-	-	-	-	-	-
A/E Professional		-	-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Construction

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ 998	\$ 195.9	\$ 5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,199
A/E Professional	1	0	-	-	-	-	-	-	1
Construction	31,917	2,937.4	170	-	-	-	-	-	35,024
Contingency	-	2,507.2	-	-	-	-	-	-	2,507
Other	76	15.0	-	-	-	-	-	-	91
Total	\$ 32,991	\$ 5,656	\$ 175	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 38,822

Note: Cash Flow Basis in Thousands

Operating Budget Impacts

	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced Expense	-	-	-	-	-	-
Increased Expense	-	70,715	70,715	70,715	70,715	70,715
Net Impact on Operating Budget	\$ -	\$ 70,715	\$ 70,715	\$ 70,715	\$ 70,715	\$ 70,715

Div 1-2 Please provide a list and a description of each of the "Field's Point Resiliency Projects" that the 1% of the loan proceeds will be spent on.

Response: See attachment Div 1-2 Field's Point Resiliency Project Details

Project Name

20400 FPWWTF Ernest Street Pump Station Improvements

20500 FPWWTF Maintenance & Storage Buildings

20600 NBC Solar Carport

71000 Lincoln Septage Receiving Station Replacement

Prepared by: Michael Cook, David Bowen, P.E., and Jim Kelly

20400

FPWWTF Ernest Street Pump Station Improvements

Project Manager: David Bowen, P.E.
 Contractor(s): TBD

Location: Field's Point WWTF
 Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	November-21	August-24	34 Months	N/A
Design	July-21	April-26	57 Months	\$4,525
Construction	March-23	September-27	54 Months	33,489
Total Project	July-21	September-27	75 Months	\$38,015



Photo: Ernest Street Pump Station

This project involves improvements and upgrades to the 200 MGD Ernest Street Pump Station related to the pumping station's critical, aging infrastructure systems including: large-diameter valves, gates and actuators; flow meters; centrifugal wastewater pumps; variable frequency drive (VFD) units; instrumentation and control (I&C) systems; influent screening systems; motor control centers (MCCs), IQ-1000 motor protectors and electrical power systems; and a 1,750 kVA standby power generator system.

CIP Window Summary

Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
\$ 1,172	\$ 4,078	\$ 7,708	\$ 14,268	\$ 10,789	\$ -	\$ -	\$ -	\$ 38,015

Projected Expenditures - Planning

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ 184	\$ 78	\$ 78	\$ 65	\$ -	\$ -	\$ -	\$ -	\$ 405
Land	-	-	-	-	-	-	-	-	-
A/E Professional	786	1,037	855	559	-	-	-	-	3,237
Other	117	70	-	697	-	-	-	-	884
Total	\$ 1,086	\$ 1,185	\$ 933	\$ 1,321	\$ -	\$ -	\$ -	\$ -	\$ 4,525

Projected Expenditures - Construction

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ 38	\$ 221	\$ 360	\$ 308	\$ 156	\$ -	\$ -	\$ -	\$ 1,082
A/E Professional	35	351	300	340	320	-	-	-	1,346
Construction	-	2,265	5,815	9,520	3,400	-	-	-	21,000
Contingency	-	-	-	2,759	6,893	-	-	-	9,652
Other	13	58	300	20	20	-	-	-	410
Total	\$ 86	\$ 2,894	\$ 6,775	\$ 12,947	\$ 10,789	\$ -	\$ -	\$ -	\$ 33,489

Note: Cash Flow Basis in Thousands

Operating Budget Impacts

	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced Expense	-	-	-	-	-	-
Increased Expense	-	-	-	-	-	-
Net Impact on Operating Budget	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

20500

FPWWTF Maintenance and Storage Buildings

Project Manager: David Bowen, P.E.
 Contractor(s): TBD

Location: Field's Point WWTF
 Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	February-22	January-24	23 Months	\$3,240
Construction	April-23	April-26	37 Months	24,039
Total Project	February-22	April-26	51 Months	\$27,279



Photo: Existing FPWWTF Maintenance Building

This project involves the planning, design and construction of a new Maintenance Building, an Interceptor Maintenance (IM) Storage Building and related support facilities at the Field's Point campus to support NBC's long-range planning goals to address resiliency and aging infrastructure concerns.

CIP Window Summary

	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Summary	\$ 2,546	\$ 813	\$ 10,884	\$ 13,037	\$ -	\$ -	\$ -	\$ -	\$ 27,279

Projected Expenditures - Planning

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ 211	\$ 71	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 282
Land	1,000	-	-	-	-	-	-	-	1,000
A/E Professional	1,153	418	-	-	-	-	-	-	1,570
Other	153	236	-	-	-	-	-	-	388
Total	\$ 2,516	\$ 724	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,240

Projected Expenditures - Construction

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ 30	\$ 69	\$ 320	\$ 135	\$ -	\$ -	\$ -	\$ -	\$ 553
A/E Professional	-	20	713	145	-	-	-	-	878
Construction	-	-	9,700	3,800	-	-	-	-	13,500
Contingency	-	-	-	8,907	-	-	-	-	8,907
Other	-	-	152	50	-	-	-	-	202
Total	\$ 30	\$ 89	\$ 10,884	\$ 13,037	\$ -	\$ -	\$ -	\$ -	\$ 24,039

Note: Cash Flow Basis in Thousands

Operating Budget Impacts

	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced Expense	-	-	-	-	-	-
Increased Expense	-	-	17,679	70,715	70,715	70,715
Net Impact on Operating Budget	\$ -	\$ -	\$ 17,679	\$ 70,715	\$ 70,715	\$ 70,715

20600

NBC Solar Carport

Project Manager: Jim Kelly
 Contractor(s): Various

Location: WQSB
 Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	March-23	May-23	2 Months	N/A
Construction	July-23	April-25	21 Months	\$1,270
Total Project	March-23	April-25	25 Months	\$1,270



Photo: Solar Carport

This project involves the design and installation of a solar carport on the Field's Point campus and will serve as an additional renewable energy source to help NBC achieve its goal of 100% renewable energy resources. The solar carport will also protect vehicles and staff from ice shed from the wind turbines. This project may be eligible for up to \$206,600 in grant funding through the Rhode Island Renewable Energy Fund (REF) Commercial-Scale Program.

CIP Window Summary

Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
\$ 43	\$ 1,228	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,270

Projected Expenditures - Planning

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Construction

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ 23	\$ 63	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 85
A/E Professional	20	65	-	-	-	-	-	-	85
Construction	-	1,000	-	-	-	-	-	-	1,000
Contingency	-	100	-	-	-	-	-	-	100
Other	-	-	-	-	-	-	-	-	-
Total	\$ 43	\$ 1,228	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,270

Note: Cash Flow Basis in Thousands

Operating Budget Impacts

	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Revenue	\$ 425	\$ 5,101	\$ 5,101	\$ 5,101	\$ 5,101	\$ 5,101
Reduced Expense	4,628	55,531	55,531	55,531	55,531	55,531
Increased Expense	249	2,990	2,990	2,990	2,990	2,990
Net Impact on Operating Budget	\$ (4,804)	\$ (57,642)	\$ (57,642)	\$ (57,642)	\$ (57,642)	\$ (57,642)

71000

Lincoln Septage Receiving Station Replacement

Project Manager: David Bowen, P.E.
 Contractor(s): TBD

Location: Lincoln, RI
 Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	February-22	December-23	22 Months	\$1,063
Construction	October-23	January-26	28 Months	7,573
Total Project	February-22	January-26	47 Months	\$8,636



Photo: Lincoln Septage Receiving Station

The Lincoln Septage Receiving Station has reached the end of its useful life and needs to be replaced. This project includes design and construction of a new septage receiving station equipped with a screening mechanism and sample collection capabilities. In addition, the new facility will contain an Odor Control System to mitigate and manage fugitive emissions and odors.

CIP Window Summary

Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
\$ 696	\$ 742	\$ 5,382	\$ 1,816	\$ -	\$ -	\$ -	\$ -	\$ 8,636

Projected Expenditures - Planning

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ 96	\$ 30	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 126
Land	-	-	-	-	-	-	-	-	-
A/E Professional	522	223	-	-	-	-	-	-	745
Other	78	114	-	-	-	-	-	-	192
Total	\$ 696	\$ 367	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,063

Projected Expenditures - Construction

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ 98	\$ 183	\$ 104	\$ -	\$ -	\$ -	\$ -	\$ 384
A/E Professional	-	43	221	62	-	-	-	-	325
Construction	-	200	4,150	650	-	-	-	-	5,000
Contingency	-	-	799	1,000	-	-	-	-	1,799
Other	-	35	30	-	-	-	-	-	65
Total	\$ -	\$ 376	\$ 5,382	\$ 1,816	\$ -	\$ -	\$ -	\$ -	\$ 7,573

Note: Cash Flow Basis in Thousands

Operating Budget Impacts

	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced Expense	-	-	8,333	20,000	20,000	20,000
Increased Expense	-	-	-	-	-	-
Net Impact on Operating Budget	\$ -	\$ -	\$ 8,333	\$ 20,000	\$ 20,000	\$ 20,000

Div 1-3 Please provide a list and a description of the each of the CSO Phase III A projects that 76% of the loan proceeds will be spent on.

Response: See attachment Div 1-3 CSO Phase III A Project Details

Project Name

- 30800 CSO Phase III A Facilities - Design & Construction Program Management
- 30801 CSO Phase III A Facilities - Pawtucket Tunnel & Pump Station
- 30802 CSO Phase III A Facilities - Tunnel Pump Station Fit-out
- 30803 CSO Phase III A Facilities - Outfall 205
- 30804 CSO Phase III A Facilities - Outfall 210, 213, 214
- 30805 CSO Phase III A Facilities - Outfall 217
- 30807 CSO Phase III A Facilities - Regulator Modifications
- 30809 CSO Phase III A - GSI Projects
- 30810 CSO Phase III A Facilities - BPWWTF Clarifiers & Flow Splitters

Prepared by: Michael Cook, Kathryn Kelly, P.E., and Richard Bernier, P.E.

30800

CSO Phase III A Facilities - Design and Construction Program Management

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

Location: Pawtucket, RI
 Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	January-20	June-29	114 Months	\$52,976
Construction	March-21	February-28	84 Months	54,958
Total Project	January-20	June-29	114 Months	\$107,934



Photo: Proposed alignment for the Pawtucket CSO Tunnel

This project includes the design of the CSO Phase III A Facilities along with construction management services for the Phase III A construction contracts. Design of the CSO Phase III B Facilities is also included in this project.

CIP Window Summary

Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
\$ 56,908	\$ 13,804	\$ 10,441	\$ 7,060	\$ 5,353	\$ 13,683	\$ 685	\$ -	\$ 107,934

Projected Expenditures - Planning

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ 4,796	\$ 665	\$ 241	\$ 240	\$ 240	\$ 180	\$ 114	\$ -	\$ 6,476
Land	8,732	-	-	-	768	-	-	-	9,500
A/E Professional	29,277	1,200	1,200	700	600	600	571	-	34,148
Other	616	2,070	60	60	45	-	-	-	2,851
Total	\$ 43,422	\$ 3,935	\$ 1,501	\$ 1,000	\$ 1,653	\$ 780	\$ 685	\$ -	\$ 52,976

Projected Expenditures - Construction

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	13,306	9,629	8,700	5,900	3,700	3,100	-	-	44,335
Construction	-	-	-	-	-	-	-	-	-
Contingency	-	-	-	-	-	9,803	-	-	9,803
Other	180	240	240	160	-	-	-	-	820
Total	\$ 13,486	\$ 9,869	\$ 8,940	\$ 6,060	\$ 3,700	\$ 12,903	\$ -	\$ -	\$ 54,958

Note: Cash Flow Basis in Thousands

Operating Budget Impacts

	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced Expense	-	-	-	-	-	-
Increased Expense	-	-	-	-	-	-
Net Impact on Operating Budget	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

30801

CSO Phase III A Facilities - Pawtucket Tunnel and Pump Station

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

Location: Pawtucket
 Project Priority: A

Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	N/A	N/A	N/A	N/A
Construction	December-20	March-25	51 Months	\$498,625
Total Project	December-20	March-25	51 Months	\$498,625



Photo: Pawtucket Tunnel Site

This project includes the construction of a 11,600 foot deep rock storage tunnel, launch and drop shafts, and adits. After construction of the tunnel, tunnel pump station, and associated near surface facilities, CSO flow which currently discharges to the Seekonk and Blackstone Rivers shall be diverted to the tunnel during storms smaller than or equal to a three-month design storm. The diverted CSO flow will be stored in the tunnel and will be pumped to the plant for full treatment when capacity becomes available.

CIP Window Summary

	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
	\$ 330,236	\$ 118,087	\$ 48,145	\$ 2,156	\$ -	\$ -	\$ -	\$ -	\$ 498,625

Projected Expenditures - Planning

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Construction

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ 1,506	\$ 1,050	\$ 870	\$ 20	\$ -	\$ -	\$ -	\$ -	\$ 3,446
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	320,776	111,977	40,338	2,136	-	-	-	-	475,228
Contingency	-	-	6,884	-	-	-	-	-	6,884
Other	7,954	5,060	53	-	-	-	-	-	13,067
Total	\$ 330,236	\$ 118,087	\$ 48,145	\$ 2,156	\$ -	\$ -	\$ -	\$ -	\$ 498,625

Note: Cash Flow Basis in Thousands

Operating Budget Impacts

	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced Expense	-	-	-	-	-	-
Increased Expense	-	-	-	-	-	-
Net Impact on Operating Budget	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

30802

CSO Phase III A Facilities - Tunnel Pump Station Fit-out

Project Manager: Kathryn Kelly, P.E.
 Contractor(s): TBD

Location: Pawtucket
 Project Priority: A

Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	N/A	N/A	N/A	N/A
Construction	January-24	February-27	37 Months	\$149,446
Total Project	January-24	February-27	37 Months	\$149,446

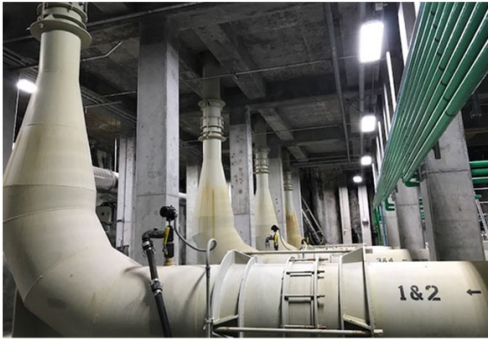


Photo: CSO Tunnel Pump Station

This project includes construction of the CSO Tunnel Pump Station (TPS). The TPS will be constructed in Pawtucket near the Bucklin Point Wastewater Treatment Facility. This project also includes the construction of a consolidation conduit to direct flow to the tunnel via Drop Shaft 218 from CSO OF 218. Wet weather flow will be diverted from OF 218 to new consolidation conduit that will ultimately direct flow to Drop Shaft 218.

CIP Window Summary

Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
\$ 27	\$ 12,310	\$ 63,285	\$ 52,810	\$ 21,014	\$ -	\$ -	\$ -	\$ 149,446

Projected Expenditures - Planning

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Construction

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ 27	\$ 560	\$ 685	\$ 610	\$ 311	\$ -	\$ -	\$ -	\$ 2,193
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	-	10,400	61,100	50,700	7,800	-	-	-	130,000
Contingency	-	-	-	-	12,005	-	-	-	12,005
Other	-	1,350	1,500	1,500	898	-	-	-	5,248
Total	\$ 27	\$ 12,310	\$ 63,285	\$ 52,810	\$ 21,014	\$ -	\$ -	\$ -	\$ 149,446

Note: Cash Flow Basis in Thousands

Operating Budget Impacts

	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced Expense	-	-	-	-	-	-
Increased Expense	-	-	-	1,103,635	1,965,591	1,965,591
Net Impact on Operating Budget	\$ -	\$ -	\$ -	\$ 1,103,635	\$ 1,965,591	\$ 1,965,591

30803

CSO Phase III A Facilities - OF 205

Project Manager: Kathryn Kelly, P.E.
 Contractor(s): TBD

Location: Pawtucket
 Project Priority: A

Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	N/A	N/A	N/A	N/A
Construction	March-23	December-24	21 Months	\$7,306
Total Project	March-23	December-24	21 Months	\$7,306



Photo: OF 205 Location

This project involves constructing near-surface facilities to direct flow from the existing CSO OF 205 pipe to a drop shaft for the CSO storage tunnel. Flow will be diverted from the CSO OF 205 pipe via a diversion structure. This flow will pass through a consolidation conduit and gate and screening structure which will screen the flow for large objects. From the gate and screening structure, the flow will pass into the drop shaft and then be directed to the tunnel through an adit. The drop shaft and adit will be constructed as part of another project.

CIP Window Summary

Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
\$ 777	\$ 5,213	\$ 1,315	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,306

Projected Expenditures - Planning

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Construction

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ 25	\$ 74	\$ 32	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 132
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	694	4,964	716	-	-	-	-	-	6,374
Contingency	-	-	500	-	-	-	-	-	500
Other	58	175	67	-	-	-	-	-	300
Total	\$ 777	\$ 5,213	\$ 1,315	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,306

Note: Cash Flow Basis in Thousands

Operating Budget Impacts

	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced Expense	-	-	-	-	-	-
Increased Expense	-	-	-	-	-	-
Net Impact on Operating Budget	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

30804

CSO Phase III A Facilities - OF 210, 213, 214

Project Manager: Kathryn Kelly, P.E.
 Contractor(s): TBD

Location: Pawtucket
 Project Priority: A

Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	N/A	N/A	N/A	N/A
Construction	January-24	December-25	24 Months	\$35,796
Total Project	January-24	December-25	24 Months	\$35,796



Photo: Outfall Locations

This project includes the construction of consolidation conduits to direct flow to the tunnel via Drop Shaft 213 from CSO OF 210, 211, 213, and 214. Wet weather flow will be diverted from the OF 210, 211, and 213 to a new 48-inch consolidation conduit that will direct flow to Drop Shaft 213. Wet weather flow will be directed from OF 214 through a new 48-inch consolidation conduit to a new 60-inch consolidation conduit.

CIP Window Summary

Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
\$ -	\$ 5,551	\$ 21,900	\$ 8,345	\$ -	\$ -	\$ -	\$ -	\$ 35,796

Projected Expenditures - Planning

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Construction

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ 159	\$ 317	\$ 158	\$ -	\$ -	\$ -	\$ -	\$ 634
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	-	5,100	21,000	3,900	-	-	-	-	30,000
Contingency	-	-	-	3,995	-	-	-	-	3,995
Other	-	292	583	292	-	-	-	-	1,167
Total	\$ -	\$ 5,551	\$ 21,900	\$ 8,345	\$ -	\$ -	\$ -	\$ -	\$ 35,796

Note: Cash Flow Basis in Thousands

Operating Budget Impacts

	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced Expense	-	-	-	-	-	-
Increased Expense	-	-	-	-	-	-
Net Impact on Operating Budget	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

30805

CSO Phase III A Facilities - OF 217

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

Location: Pawtucket
 Project Priority: A

Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	N/A	N/A	N/A	N/A
Construction	December-21	July-23	19 Months	\$16,226
Total Project	December-21	July-23	19 Months	\$16,226



Photo: OF 217

This project includes the construction of a consolidation conduit to direct flow to the tunnel via Drop Shaft 213 from CSO OF 217. Wet weather flow will be diverted from OF 217 to a new 48-inch consolidation conduit that will ultimately direct flow to Drop Shaft 213.

CIP Window Summary

Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
\$ 13,962.60	\$ 2,264	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 16,226

Projected Expenditures - Planning

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Construction

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ 298	\$ 30	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 328
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	13,440	234	-	-	-	-	-	-	13,673
Contingency	-	2,000	-	-	-	-	-	-	2,000
Other	225	-	-	-	-	-	-	-	225
Total	\$ 13,963	\$ 2,264	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 16,226

Note: Cash Flow Basis in Thousands

Operating Budget Impacts

	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced Expense	-	-	-	-	-	-
Increased Expense	-	-	-	-	-	-
Net Impact on Operating Budget	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

30807

CSO Phase III A Facilities - Regulator Modifications

Project Manager: Rich Bernier, P.E.
 Contractor(s): John Rocchio Corp.

Location: Pawtucket
 Project Priority: A

Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	N/A	N/A	N/A	N/A
Construction	April-21	August-23	27 Months	\$7,609
Total Project	April-21	August-23	27 Months	\$7,609



Photo: Outfall Locations

This project includes modifications at regulators for CSO OF 203, 204, 207, 208, 209, 212, 215, and 216. Modifications are required in order to direct flow to the tunnel through consolidation conduits constructed in other Phase III projects.

CIP Window Summary

Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
\$ 6,896	\$ 713	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,609

Projected Expenditures - Planning

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Construction

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ 503	\$ 85	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 588
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	3,393	628	-	-	-	-	-	-	4,020
Contingency	3,000	-	-	-	-	-	-	-	3,000
Other	-	-	-	-	-	-	-	-	-
Total	\$ 6,896	\$ 713	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,609

Note: Cash Flow Basis in Thousands

Operating Budget Impacts

	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced Expense	-	-	-	-	-	-
Increased Expense	-	-	-	-	-	-
Net Impact on Operating Budget	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

30809

CSO Phase III A - GSI Projects

Project Manager: Rich Bernier, P.E.
 Contractor(s): J. H. Lynch & Sons, Inc.

Location: Central Falls
 Project Priority: A

Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	N/A	N/A	N/A	N/A
Construction	November-19	April-23	41 Months	\$9,430
Total Project	November-19	April-23	41 Months	\$9,430



Photo: Example of Green Stormwater Infrastructure

This project entails the construction of green stormwater infrastructure (GSI) in the city of Central Falls. GSI will be constructed in the CSO OF 101 and OF 103 sewersheds and will include tree box filters, bio-retention basins, infiltration chambers, and other facilities to promote infiltration of stormwater runoff to the groundwater table.

CIP Window Summary

Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
\$ 8,775	\$ 656	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,430

Projected Expenditures - Planning

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Construction

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ 365	\$ 79	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 444
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	8,653	24	-	-	-	-	-	-	8,677
Contingency	500	500	-	-	-	-	-	-	1,000
Other	(743)	53	-	-	-	-	-	-	(691)
Total	\$ 8,775	\$ 656	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,430

Note: Cash Flow Basis in Thousands

Operating Budget Impacts

	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced Expense	-	-	-	-	-	-
Increased Expense	-	-	-	-	-	-
Net Impact on Operating Budget	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

30810

CSO Phase III A Facilities - BPWWTF Clarifiers and Flow Splitters

Project Manager: Kathryn Kelly, P.E.
 Contractor(s): TBD

Location: East Providence
 Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	N/A	N/A	N/A	N/A
Construction	July-22	October-25	40 Months	\$57,761
Total Project	July-22	October-25	40 Months	\$57,761



Photo: Existing Clarifiers at Bucklin Point

This project entails the construction of two new final clarifiers, modifications to the flow splitting operation, construction of a new RAS pump station for the new final clarifiers, and improvements to the RAS piping system and influent pump station.

CIP Window Summary

Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
\$ 3,849	\$ 26,105	\$ 20,593	\$ 6,966	\$ 248	\$ -	\$ -	\$ -	\$ 57,761

Projected Expenditures - Planning

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Construction

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ 161	\$ 731	\$ 244	\$ 30	\$ -	\$ -	\$ -	\$ -	\$ 1,167
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	3,609	23,800	19,950	1,977	248	-	-	-	49,584
Contingency	-	-	-	4,959	-	-	-	-	4,959
Other	79	1,574	399	-	-	-	-	-	2,052
Total	\$ 3,849	\$ 26,105	\$ 20,593	\$ 6,966	\$ 248	\$ -	\$ -	\$ -	\$ 57,761

Note: Cash Flow Basis in Thousands

Operating Budget Impacts

	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced Expense	-	-	-	-	-	-
Increased Expense	-	-	-	-	-	-
Net Impact on Operating Budget	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Div 1-4 Please provide a list and brief description of the “smaller projects” that the loan proceeds may be spent on, depending on actual cash withdrawals.

Response: See attachment Div 1-4 Small Project Details

<u>Project</u>	<u>Name</u>
24000	NBC Facility Electrical Improvements
20300	FPWWTF Improvements
40101	FPWWTF Electrical Improvements
40200	NBC System-wide Inflow Reduction
30610	NBC System-wide Regulator Modifications
70900	Omega Pump Station Improvements
72000	Reservoir Ave Pump Station Improvements

Prepared by: Michael Cook, and David Bowen, P.E.

24000

NBC Facility Electrical Improvements

Project Manager: David Bowen, P.E.
 Contractor(s): N/A

Location: NBC Service Area
 Project Priority: B

Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	November-21	August-24	34 Months	\$569
Design	N/A	N/A	N/A	N/A
Construction	N/A	N/A	N/A	N/A
Total Project	November-21	August-24	34 Months	\$569



Photo: Field's Point Electrical Facility

This project involves the evaluation of NBC's existing electrical equipment and facilities. Upon completion of the evaluation, improvements will be performed as necessary to ensure reliable and continuous operation of facilities throughout NBC's service area.

CIP Window Summary

Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
\$ 14	\$ 540	\$ 15	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 569

Projected Expenditures - Planning

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ 14	\$ 84	\$ 10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 107
A/E Professional	-	276	5	-	-	-	-	-	281
Other	-	181	-	-	-	-	-	-	181
Total	\$ 14	\$ 540	\$ 15	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 569

Projected Expenditures - Design

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Land	-	-	-	-	-	-	-	-	-
A/E Professional				-	-	-	-	-	-
Other				-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Construction

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-	-	-
Contingency	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Note: Cash Flow Basis in Thousands

Operating Budget Impacts

	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced Expense	-	-	-	-	-	-
Increased Expense	-	-	-	-	-	-
Net Impact on Operating Budget	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

20300

FPWWTF Improvements

Project Manager: David Bowen, P.E.
 Contractor(s): TBD

Location: Field's Point WWTF
 Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	March-21	March-24	36 Months	\$3,151
Construction	March-24	July-27	41 Months	22,555
Total Project	March-21	July-27	77 Months	\$25,706



Photo: Primary Sludge Pump Station

Improvements to the FPWWTF include replacement of the Pepcon unit at the Gravity Thickener Building; evaluation and design of miscellaneous improvements to the WWTF's Disinfection and Dechlorination systems; a new transformer and replacement of the automatic strainer system. Other improvements include the design and construction of three Variable Frequency Drives; an OSHA safety required handrail installation at the Blower/Screw Lift Building and the Primary Sludge Pump Station; replacement of the HVAC unit at the Gravity Thickener Pump Station, modifications to the retaining wall systems, and other improvements.

CIP Window Summary

Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
\$ 2,994	\$ 1,684	\$ 2,739	\$ 6,188	\$ 12,075	\$ 27	\$ -	\$ -	\$ 25,706

Projected Expenditures - Planning

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ 210	\$ 59	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 268
Land	-	-	-	-	-	-	-	-	-
A/E Professional	1,265	1,083	-	-	-	-	-	-	2,348
Other	65	470	-	-	-	-	-	-	535
Total	\$ 1,539	\$ 1,611	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,151

Projected Expenditures - Construction

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ 20	\$ 43	\$ 264	\$ 360	\$ 303	\$ 7	\$ -	\$ -	\$ 995
A/E Professional	-	30	308	285	565	21	-	-	1,209
Construction	1,434	-	2,125	5,500	6,146	-	-	-	15,205
Contingency	-	-	-	-	5,062	-	-	-	5,062
Other	-	-	43	43	-	-	-	-	85
Total	\$ 1,454	\$ 73	\$ 2,739	\$ 6,188	\$ 12,075	\$ 27	\$ -	\$ -	\$ 22,555

Note: Cash Flow Basis in Thousands

Operating Budget Impacts

	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced Expense	-	-	-	-	75,000	75,000
Increased Expense	-	-	-	-	-	-
Net Impact on Operating Budget	\$ -	\$ -	\$ -	\$ -	\$ (75,000)	\$ (75,000)

40101

FPWWTF Electrical Improvements

Project Manager: David Bowen, P.E.
 Contractor(s): Various

Location: Providence, RI
 Project Priority: A

Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	May-23	December-24	20 Months	\$1,161
Construction	January-25	May-28	41 Months	8,523
Total Project	May-23	May-28	61 Months	\$9,684



Photo: Field's Point Screw and Blower Generator

This project involves the evaluation and installation of standby power capabilities for critical facilities at the Field's Point WWTF in order to maintain uninterrupted operation of treatment processes.

CIP Window Summary

Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
\$ 9	\$ 551	\$ 658	\$ 1,757	\$ 1,833	\$ 4,877	\$ -	\$ -	\$ 9,684

Projected Expenditures - Planning

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ 9	\$ 86	\$ 50	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 144
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	420	310	-	-	-	-	-	730
Other	-	45	242	-	-	-	-	-	287
Total	\$ 9	\$ 551	\$ 602	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,161

Projected Expenditures - Construction

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ 35	\$ 122	\$ 78	\$ 122	\$ -	\$ -	\$ 356
A/E Professional	-	-	22	175	130	109	-	-	435
Construction	-	-	-	1,430	1,575	3,295	-	-	6,300
Contingency	-	-	-	-	-	1,347	-	-	1,347
Other	-	-	-	30	50	5	-	-	85
Total	\$ -	\$ -	\$ 56	\$ 1,757	\$ 1,833	\$ 4,877	\$ -	\$ -	\$ 8,523

Note: Cash Flow Basis in Thousands

Operating Budget Impacts

	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced Expense	-	-	-	-	-	-
Increased Expense	-	1,943	3,330	3,330	3,330	3,330
Net Impact on Operating Budget	\$ -	\$ 1,943	\$ 3,330	\$ 3,330	\$ 3,330	\$ 3,330

40200

NBC System-wide Inflow Reduction

Project Manager: David Bowen, P.E.
 Contractor(s): N/A

Location: NBC Service Area
 Project Priority: D

Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	October-22	August-25	34 Months	\$705
Construction	March-24	November-25	20 Months	875
Total Project	March-24	November-25	20 Months	\$1,580



Photo: Downspouts at NBC's Corporate Office Building

This project involves the development and implementation of an inflow reduction program to remove stormwater from sanitary sewers in the NBC's service area. This project is imperative to prevent surcharging of sewers that could cause illegal sanitary sewer overflows during wet weather events.

CIP Window Summary

Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
\$ -	\$ 240	\$ 706	\$ 538	\$ 96	\$ -	\$ -	\$ -	\$ 1,580

Projected Expenditures - Planning

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ 49	\$ 68	\$ 60	\$ 9	\$ -	\$ -	\$ -	\$ 186
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	120	126	131	10	-	-	-	386
Other	-	-	33	24	77	-	-	-	133
Total	\$ -	\$ 169	\$ 226	\$ 214	\$ 96	\$ -	\$ -	\$ -	\$ 705

Projected Expenditures - Construction

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ 58	\$ 87	\$ 36	\$ -	\$ -	\$ -	\$ -	\$ 180
A/E Professional	-	14	66	28	-	-	-	-	107
Construction	-	-	298	108	-	-	-	-	405
Contingency	-	-	-	123	-	-	-	-	123
Other	-	-	30	30	-	-	-	-	60
Total	\$ -	\$ 72	\$ 480	\$ 324	\$ -	\$ -	\$ -	\$ -	\$ 875

Note: Cash Flow Basis in Thousands

Operating Budget Impacts

	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced Expense	-	-	-	-	-	-
Increased Expense	-	-	-	-	-	-
Net Impact on Operating Budget	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

30610

NBC System-wide Regulator Modifications

Project Manager: David Bowen, P.E.
 Contractor(s): TBD

Location: Fields Point WWTF
 Project Priority: A

Total Project Duration/Cost

Project Phase	Start Date	Completion Date	Project Duration	Cost (in Thousands)
Planning	N/A	N/A	N/A	N/A
Design	February-22	September-23	19 Months	\$979
Construction	September-23	September-25	24 Months	3,230
Total Project	February-22	September-25	43 Months	\$4,209



Photo: OF 056 Regulator on Vandewater Street

This project involves the design and construction of various regulator structure modifications to address known hydraulic capacity limitations within the NBC collection system. Regulator structure and gravity piping system modifications are needed to eliminate surcharging at Pitman Street, Silver Spring, Vandewater, and other miscellaneous locations throughout the century old combined sewer system.

CIP Window Summary

Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
\$ 803	\$ 676	\$ 1,683	\$ 1,047	\$ -	\$ -	\$ -	\$ -	\$ 4,209

Projected Expenditures - Planning

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ 111	\$ 15	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 126
Land	75	-	-	-	-	-	-	-	75
A/E Professional	537	45	-	-	-	-	-	-	582
Other	80	116	-	-	-	-	-	-	196
Total	\$ 803	\$ 176	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 979

Projected Expenditures - Construction

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ 95	\$ 214	\$ 39	\$ -	\$ -	\$ -	\$ -	\$ 348
A/E Professional	-	40	83	8	-	-	-	-	130
Construction	-	350	1,350	300	-	-	-	-	2,000
Contingency	-	-	-	700	-	-	-	-	700
Other	-	15	37	-	-	-	-	-	52
Total	\$ -	\$ 500	\$ 1,683	\$ 1,047	\$ -	\$ -	\$ -	\$ -	\$ 3,230

Note: Cash Flow Basis in Thousands

Operating Budget Impacts

	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced Expense	-	-	-	-	-	-
Increased Expense	-	-	-	-	-	-
Net Impact on Operating Budget	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

70900

Omega Pump Station Improvements

Project Manager: David Bowen, P.E.
 Contractor(s): TBD

Location: Omega Pump Station, East Providence, RI
 Project Priority: B

Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	November-18	October-24	71 Months	\$926
Construction	November-24	July-27	33 Months	7,832
Total Project	November-18	July-27	104 Months	\$8,758



Photo: Omega Pump Station

This project involves the evaluation, design and replacement of pumps, piping and valves at the Omega Pump Station, which was originally constructed in the 1950's. New screening and grit technology will shred and reduce the size of coarse solid materials of the wastewater and facilitate transport to the wastewater treatment facility. Additionally, new technology will provide for the upgrade of the pump station to improve reliability of the motor control center and streamline operations.

CIP Window Summary

Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
\$ 10	\$ 535	\$ 691	\$ 1,960	\$ 5,557	\$ 7	\$ -	\$ -	\$ 8,758

Projected Expenditures - Planning

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ 10	\$ 90	\$ 41	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 140
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	385	245	-	-	-	-	-	630
Other	-	60	96	-	-	-	-	-	156
Total	\$ 10	\$ 535	\$ 382	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 926

Projected Expenditures - Construction

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ 56	\$ 150	\$ 175	\$ 7	\$ -	\$ -	\$ 387
A/E Professional	-	-	39	135	115	-	-	-	288
Construction	-	-	200	1,650	3,400	-	-	-	5,250
Contingency	-	-	-	-	1,838	-	-	-	1,838
Other	-	-	15	25	30	-	-	-	70
Total	\$ -	\$ -	\$ 309	\$ 1,960	\$ 5,557	\$ 7	\$ -	\$ -	\$ 7,832

Note: Cash Flow Basis in Thousands

Operating Budget Impacts

	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced Expense	-	-	-	-	-	-
Increased Expense	-	-	-	-	-	-
Net Impact on Operating Budget	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

72000

Reservoir Avenue Pump Station Improvements

Project Manager: David Bowen, P.E.
 Contractor(s): TBD

Location: Reservoir Avenue Pump Station, Providence
 Project Priority: B

Total Project Duration/Cost

<u>Project Phase</u>	<u>Start Date</u>	<u>Completion Date</u>	<u>Project Duration</u>	<u>Cost (in Thousands)</u>
Planning	N/A	N/A	N/A	N/A
Design	February-24	June-25	16 Months	\$923
Construction	November-24	July-27	33 Months	7,832
Total Project	February-24	July-27	42 Months	\$8,755



Photo: Reservoir Avenue Pump Station

This project involves the evaluation, design and upgrade of NBC's Reservoir Avenue Pump Station located at 360 Reservoir Avenue Providence Rhode Island. The Reservoir Avenue Pump Station conveys sewage to a gravity conduit in Rutherglen Avenue then to the Field's Point Wastewater Treatment Facility. The pump station was built in 1931, with the most recent comprehensive upgrade to the facility in the early 1990s. Facility upgrades are needed to ensure continued reliability of this aging infrastructure. The facility was listed on the National Register of Historic Places.

CIP Window Summary	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
	\$ -	\$ 37	\$ 1,196	\$ 1,960	\$ 5,557	\$ 7	\$ -	\$ -	\$ 8,755

Projected Expenditures - Planning

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
A/E Professional	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projected Expenditures - Design

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ 37	\$ 101	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 137
Land	-	-	-	-	-	-	-	-	-
A/E Professional	-	-	630	-	-	-	-	-	630
Other	-	-	156	-	-	-	-	-	156
Total	\$ -	\$ 37	\$ 887	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 923

Projected Expenditures - Construction

Cost Category	Pre FY 24	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29	Post FY 29	Total
Administrative	\$ -	\$ -	\$ 56	\$ 150	\$ 175	\$ 7	\$ -	\$ -	\$ 387
A/E Professional	-	-	39	135	115	-	-	-	288
Construction	-	-	200	1,650	3,400	-	-	-	5,250
Contingency	-	-	-	-	1,838	-	-	-	1,838
Other	-	-	15	25	30	-	-	-	70
Total	\$ -	\$ -	\$ 309	\$ 1,960	\$ 5,557	\$ 7	\$ -	\$ -	\$ 7,832

Note: Cash Flow Basis in Thousands

Operating Budget Impacts

	FY 24	FY 25	FY 26	FY 27	FY 28	FY 29
Revenue	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reduced Expense	-	-	-	-	-	-
Increased Expense	-	-	-	-	-	-
Net Impact on Operating Budget	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Div 1-5 Kindly explain the difference between the numbers in the column “SRF 23” on KG-1 and the numbers in the “Debt Service” column on SM-1.

Response: The figures in the column “SRF 23” on KG-1 include the RIIB service fees. See schedule below with net debt service prepared by PFM that tie into the “SRF 23” column.

Jan 31, 2023 11:07 am Prepared by PFM Financial Advisors LLC

NET DEBT SERVICE

**Proposed RIIB SRF Loan
Narragansett Bay Commission
Current Market Rates + .50%
33% Subsidy
Dated April 27, 2023**

<i>Period Ending</i>	<i>Principal</i>	<i>Coupon</i>	<i>Interest</i>	<i>Total Debt Service</i>	<i>RIIB Fee</i>	<i>Net Debt Service</i>
06/30/2024			2,670,705.21	2,670,705.21	245,129.13	2,915,834.34
06/30/2025			3,162,677.22	3,162,677.22	290,284.50	3,452,961.72
06/30/2026			3,162,677.22	3,162,677.22	290,284.50	3,452,961.72
06/30/2027			3,162,677.22	3,162,677.22	290,284.50	3,452,961.72
06/30/2028			3,162,677.22	3,162,677.22	290,284.50	3,452,961.72
06/30/2029	866,500	2.3785%	3,152,372.37	4,018,872.37	288,984.75	4,307,857.12
06/30/2030	1,000,000	2.4120%	3,130,007.52	4,130,007.52	286,185.00	4,416,192.52
06/30/2031	1,000,000	2.4321%	3,105,787.02	4,105,787.02	283,185.00	4,388,972.02
06/30/2032			3,093,626.52	3,093,626.52	281,685.00	3,375,311.52
06/30/2033	2,000,000	2.4589%	3,069,037.52	5,069,037.52	278,685.00	5,347,722.52
06/30/2034	4,000,000	2.4790%	2,994,868.52	6,994,868.52	269,685.00	7,264,553.52
06/30/2035	2,000,000	2.8609%	2,916,679.52	4,916,679.52	260,685.00	5,177,364.52
06/30/2036	8,985,000	2.9413%	2,755,932.61	11,740,932.61	244,207.50	11,985,140.11
06/30/2037	8,255,000	3.0485%	2,497,967.87	10,752,967.87	218,347.50	10,971,315.37
06/30/2038	11,200,000	3.1423%	2,196,172.24	13,396,172.24	189,165.00	13,585,337.24
06/30/2039	11,485,000	3.2093%	1,835,909.38	13,320,909.38	155,137.50	13,476,046.88
06/30/2040			1,651,615.32	1,651,615.32	137,910.00	1,789,525.32
06/30/2041			1,651,615.32	1,651,615.32	137,910.00	1,789,525.32
06/30/2042			1,651,615.32	1,651,615.32	137,910.00	1,789,525.32
06/30/2043			1,651,615.32	1,651,615.32	137,910.00	1,789,525.32
06/30/2044			1,651,615.32	1,651,615.32	137,910.00	1,789,525.32
06/30/2045			1,651,615.32	1,651,615.32	137,910.00	1,789,525.32
06/30/2046			1,651,615.32	1,651,615.32	137,910.00	1,789,525.32
06/30/2047	12,130,000	3.5510%	1,436,247.17	13,566,247.17	119,715.00	13,685,962.17
06/30/2048	12,625,000	3.5778%	995,030.40	13,620,030.40	82,582.50	13,702,612.90
06/30/2049	13,140,000	3.6180%	531,479.18	13,671,479.18	43,935.00	13,715,414.18
06/30/2050	8,075,000	3.6381%	146,888.29	8,221,888.29	12,112.50	8,234,000.79
	96,761,500		60,740,727.46	157,502,227.46	5,385,934.38	162,888,161.84

Prepared by: Karen Giebink and Steve Maceroni

Div 1-6 According to KG-1, the Debt Service Coverage drops below 1.25 in 2032. Assuming the Company did not receive the necessary rate relief to maintain a 1.25% coverage ratio, what are the implications falling below the coverage requirements? Please explain.

Response:

The rate covenants are set forth in Section 603 of the Trust Indenture. The rate covenants require the NBC to take all actions within its power to establish and maintain Rates and Charges at levels sufficient so that total Net Revenues in each Fiscal Year during which Bonds are Outstanding, shall equal at least one hundred twenty-five percent (125%) of the Debt Service Requirement during such Fiscal Year with respect to all Bonds Outstanding, other than Agency Bonds, as of the first day of such Fiscal Year and one hundred thirty-five percent (135%) of the Required Debt Service Fund Deposits for Agency Bonds (based on debt service net of any interest rate subsidy) for such Fiscal Year.

Failure of NBC to meet these coverage requirements shall not be considered an Event of Default under the Indenture so long as NBC has complied or is diligently proceeding to comply with the requirements of 603(3) which requires NBC to cure the deficiency by all steps as permitted by law and as are necessary to cure or avoid the deficiency, including but not limited to making an emergency request to the Public Utilities Commission to raise its Rates and Charges **AND** 603(4) which requires the NBC, within 180 days of the close of the fiscal year, to provide a certification to the Trustee that the rate covenants were satisfied, or if not, of the corrective steps that will be taken to ensure the NBC's Rates and Charges will be sufficient to comply with the rate covenants in the current fiscal year.

If NBC does not comply with 603(3) and 603(4), section 701(iv) of the Trust Indenture would apply. Accordingly, NBC must notify the Trustee of its failure to comply and take corrective action within 30 days to avoid default. Failure of NBC to take corrective action is an Event of Default under the Trust Indenture. At this point, all principal and accrued interest would immediately become due and payable. An Event of Default would also trigger a number of other actions. Thus, NBC will seek the appropriate rate relief before 2032 to prevent default.

Prepared by: Karen Giebink and Karen Grande

DOCKET D-23-04
The Narragansett Bay Commission's Response
To the Division of Public Utilities and Carriers
Data Requests
Set 1

Div 1-7 Kindly provide a Debt Service Coverage Schedule assuming the requested rate increases in Dkt. 22-45-WW are granted.

Response: See below

Fiscal Year	Allowance for Debt Service	Current Debt Service	Debt Service Coverage	SRF 23	Total Debt Service	Debt Service Coverage
2023	\$ 62,642,390	\$ 40,966,265	1.53	\$ -	\$ 40,966,265	1.53
2024	59,337,675	43,554,340	1.36	2,915,834	46,470,174	1.28
2025	68,073,366	42,942,893	1.59	3,452,962	46,395,855	1.47
2026	71,176,635	43,025,508	1.65	3,452,962	46,478,470	1.53
2027	73,289,013	42,436,910	1.73	3,452,962	45,889,872	1.60
2028	79,066,012	42,212,310	1.87	3,452,962	45,665,271	1.73
2029	79,066,012	42,110,283	1.88	4,307,857	46,418,140	1.70
2030	79,066,012	45,098,242	1.75	4,416,193	49,514,435	1.60
2031	79,066,012	45,096,196	1.75	4,388,972	49,485,168	1.60
2032	79,066,012	49,401,585	1.60	3,375,312	52,776,896	1.50
2033	79,066,012	47,192,363	1.68	5,347,723	52,540,086	1.50
2034	79,066,012	45,075,989	1.75	7,264,554	52,340,543	1.51
2035	79,066,012	46,828,180	1.69	5,177,365	52,005,545	1.52
2036	79,066,012	35,404,758	2.23	11,985,140	47,389,898	1.67
2037	79,066,012	35,408,033	2.23	10,971,315	46,379,348	1.70
2038	79,066,012	35,200,437	2.25	13,585,337	48,785,774	1.62
2039	79,066,012	34,736,574	2.28	13,476,047	48,212,621	1.64
2040	79,066,012	59,116,727	1.34	1,789,525	60,906,253	1.30
2041	79,066,012	57,851,922	1.37	1,789,525	59,641,447	1.33
2042	79,066,012	60,557,827	1.31	1,789,525	62,347,352	1.27
2043	79,066,012	59,395,990	1.33	1,789,525	61,185,516	1.29
2044	79,066,012	61,750,046	1.28	1,789,525	63,539,571	1.24
2045	79,066,012	60,726,996	1.30	1,789,525	62,516,521	1.26
2046	79,066,012	63,717,172	1.24	1,789,525	65,506,697	1.21
2047	79,066,012	13,668,653	5.78	13,685,962	27,354,615	2.89
2048	79,066,012	7,194,253	10.99	13,702,613	20,896,866	3.78
2049	79,066,012	7,181,065	11.01	13,715,414	20,896,480	3.78
2050	79,066,012	10,986,078	7.20	8,234,001	19,220,078	4.11
2051	79,066,012	26,316,933	3.00	-	26,316,933	3.00
2052	79,066,012	27,768,800	2.85	-	27,768,800	2.85
2053	79,066,012	27,666,085	2.86	-	27,666,085	2.86
2054	79,066,012	27,535,709	2.87	-	27,535,709	2.87
2055	79,066,012	27,442,404	2.88	-	27,442,404	2.88
2056	79,066,012	27,321,093	2.89	-	27,321,093	2.89
2057	79,066,012	27,193,582	2.91	-	27,193,582	2.91
2058	79,066,012	27,081,335	2.92	-	27,081,335	2.92
2059	79,066,012	26,962,676	2.93	-	26,962,676	2.93
2060	79,066,012	13,379,629	5.91	-	13,379,629	5.91
2061	79,066,012	3,569,780	22.15	-	3,569,780	22.15
2062	79,066,012	\$ 3,527,964	22.41	\$ -	\$ 3,527,964	22.41

Prepared by: Karen Giebink

Div 1-8 Please provide the S & P Global and Kroll credit rating reports for NBC for the last 3 years.

Response: Please see attachments:

Div 1-8 2020.02.14 S&P Rating Report
Div 1-8 2020.10.02 S&P Rating Report
Div 1-8 2020.10.05 Kroll Rating Report
Div 1-8 2021.10.05 Kroll Surveillance Report
Div 1-8 2022.05.31 S&P Rating Report
Div 1-8 2022.10.03 Kroll Surveillance Report

Prepared by: Karen Giebink

RatingsDirect®

Summary:

Narragansett Bay Commission, Rhode Island; Water/Sewer

Primary Credit Analyst:

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Table Of Contents

Rationale

Outlook

Summary:**Narragansett Bay Commission, Rhode Island;
Water/Sewer****Credit Profile**

US\$129.43 mil wastewtr sys rfdg rev bnds ser 2020A due 09/01/2043

Long Term Rating

AA-/Stable

New

Narragansett Bay Comm swr

Long Term Rating

AA-/Stable

Affirmed

Rationale

S&P Global Ratings assigned its 'AA-' underlying rating to the Narragansett Bay Commission (NBC), R.I.'s series 2020 A wastewater system refunding revenue bonds and affirmed its 'AA-' underlying rating on NBC's outstanding parity debt, based on our view of the commission's very strong enterprise and financial risk profiles. The outlook is stable.

The enterprise risk profile for the underlying rating reflects our view of the system's:

- Service area participation in the broad and diverse Providence-Warwick metropolitan statistical area (MSA);
- Rates that we generally view as affordable when benchmarking against Providence County's median household effective buying income (MHHEBI) and poverty rates; and
- Operational management practices and policies that we view as good.

The financial risk profile for the underlying rating reflects our view of the system's:

- Financial metrics that include all-in debt service coverage (DSC) of at least 1.2x and a days' cash equivalent of around 160-195 days' cash over the last four fiscal years;
- High leverage, at a 54% debt-to-capitalization ratio at the end of fiscal 2019, a signed 2019 WIFIA loan of \$268.7 million that will be drawn down starting in 2021, and additional debt plans in the coming years; and
- Financial management practices and policies that we view as strong.

NBC's 2020 issuance will be used as a taxable refunding of existing debt, and it has approval to refinance 2013A, 2013C, 2014, and 2015 issuances. Debt service on 2020 bonds are payable from the net revenues of the commission, which are on parity with revenue bonds outstanding, Rhode Island Infrastructure Bank (RIIB) loans, and the 2019 WIFIA loan. The rate covenant on the bonds is 1.25x annual debt service on all parity bonds and the WIFIA loan, and 1.35x on outstanding RIIB loans.

Enterprise risk

NBC was established in 1980 and serves 10 communities with a total of approximately 360,000 residents and 7,800 businesses in northeastern Rhode Island, primarily Providence and Pawtucket. The commission does not have any

taxing authority; it derives revenues from user charges.

The commission's 10 leading customers consist primarily of colleges, universities, hospitals, and cities, and this list has remained stable in recent years. These top 10 represent just 8.4% of operating revenues in fiscal 2019, which we consider a diverse customer base.

We benchmark our analysis of market position, which is an input to the enterprise risk profile, to both MHHEBI and the county poverty rate. MHHEBI for Providence County is 90% of the national average. Monthly-equivalent water and sewer rates are \$50.26 for 800 cubic feet of usage, which is our standard benchmark for monthly consumption, or only 1.3% of MHHEBI when annualized. When considering that the county's poverty rate is close to 18%, our view of the market position is somewhat more negative compared to a situation where a utility has both lower nominal rates combined with a lower poverty rate. That said, our rating reflects our understanding that the service base extends well beyond the city of Providence, which is likely to lead to greater rate affordability than conservative assumptions used in our analysis.

Rate increases for both general rate base increases as well as compliance rate increases to comply with debt covenants both require Rhode Island Public Utilities Commission (PUC) approval. The most recent rate increase of 5.88% went into effect July 1, 2019. The increase included an adjustment to the rate base to provide additional revenues to support operations and maintenance expense. The commission reports that the average residential rate for its customers is still competitive with those of other residential systems in the state. A long history of credit-supportive rate decisions by the PUC, an independent state-level body, supports the current rating. NBC management indicates that it communicates with the PUC on a regular basis and also informs it of planned rate increases for future fiscal years. We would expect the commission to continue its regular communications with the PUC to seek timely rate approvals, especially given NBC's large capital improvement plan (CIP).

We consider the operational management policies and practices of the utility to be good, including the existence of generally strong internal controls and asset management policies. The commission owns and operates two treatment plants, which treat roughly 70% of the state's sewerage and serve more than one-third of its population. Field's Point has a dry-weather capacity of 65 million gallons per day (mgd) and a wet-weather capacity of 200 mgd. Bucklin Point is the second-largest wastewater treatment facility in Rhode Island, and with a dry weather capacity of 46 mgd and wet-weather capacity of 116 mgd. Systemwide average daily flow of 65 mgd is well below capacity. The utility is currently in design for Phase IIIA of a consent decree with the Federal EPA and Rhode Island Department of Environmental Management (RIDEM) to reduce combined sewer overflows (CSOs); final project costs will be better known over the course of the next year. Phase IIIA involves construction a 30-foot internal diameter deep rock tunnel in Pawtucket and 12 other construction projects. The commission will award the design build contract for the tunnel at the end of the calendar year in 2020. Pursuant to the consent agreement, the phase III CSO program should end by 2041.

The commission has a fully mapped GIS system and an asset management program that has been in place since the mid- 2000s. All new assets are built to be resilient to a 100-year flood event, plus three feet, and submitted a resiliency plan to RIDEM in November 2019. The utility reviews its cybersecurity policies every other year, has regular data backups, and is conducting employee training.

Financial risk

The commission's financial performance is very strong, in our opinion. For audited years 2016-2019, all-in debt service was at least 1.2x. Also, the commission had unrestricted cash of \$21.3 million in 2019, equal to 189 days' operating expenses. Liquidity has not dropped below 157 days' operating expenses since 2015. Management does not expect a substantial change in financial results, although in the long run, further rate increases will be needed to support the costs of the CIP.

The commission's CIP is large, at \$629 million over the eight years from 2020 through 2027. The majority of this amount--\$548 million, or 87%--is for Phase IIIA of the CSO program. The commission signed a loan agreement with the Federal EPA for a WIFIA loan of \$268.7 million in 2019. In addition to the WIFIA loan, we understand management plans to issue a revenue debt and state revolving fund loan (SRF) of approximately \$220 million, apply for an additional \$15 million in WIFIA loans, and use \$48.4 million of the restricted funds to pay for the five-year CIP. We view NBC as being highly leveraged, with a debt-to-capitalization ratio of 54% without counting the 2020 WIFIA loan, which will not be drawn until future years. About 55% (\$318 million) of the commission's \$580 million of debt outstanding (as of June 30, 2019) is low-interest state revolving fund debt. In addition, its proportionate share of the net pension liability for the Employee's Retirement System of Rhode Island is underfunded at 52%, which we believe could further pressure fixed costs in time.

Also supporting the commission's financial risk profile is our financial management assessment of strong, indicating that, in our view, financial practices are well embedded and likely sustainable. Examples include the existence of long-term capital planning, formal investment and debt policies, and monthly review of budget performance by the commission.

Outlook

The stable outlook on the underlying rating reflects our expectation that the financial performance should continue in a fashion consistent with historical trends, given a good history of credit-supportive rate decisions by the PUC.

Downside scenario

If, for some reason, future rates do not generate sufficient revenues to help maintain this consistent financial performance and support the large CIP, we could lower the rating.

Upside scenario

If NBC's financial performance becomes significantly stronger compared to historical trends, and we believe that these trends are sustainable, then the rating could improve. However, given the need for continued PUC support and ongoing debt and capital needs, we believe the likelihood for upward rating movement is likely to be well after the two-year outlook period.

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.standardandpoors.com for further information. Complete ratings information is available to subscribers of RatingsDirect at www.capitaliq.com. All ratings affected by this rating action can be found on S&P Global Ratings' public website at www.standardandpoors.com. Use the Ratings search box located in the left column.

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Narragansett Bay Commission, Rhode Island

Issuer: Narragansett Bay Commission

Affirmed	Rating	Outlook
Combined Sewer Overflow (CSO) Phase III Facilities WIFIA Loan	AA	Stable

Methodology:

U.S. Municipal Water and Sewer Revenue Bond Rating Methodology

Analytical Contacts:

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Rating Summary: The Narragansett Bay Commission (NBC) provides wastewater treatment and collection service to the greater Providence metropolitan area. It is a public corporation incorporated in 1980 pursuant to state statute and provides services to over 360,000 residents and about 7,700 commercial users.

NBC owns and operates the two largest wastewater treatment facilities in the state, Field’s Point and Bucklin Point, as well as a substantial wastewater transmission network.

To comply with a consent decree with the Rhode Island Department of Environmental Management (RIDEM), NBC is in the third and final phase of a Combined Sewer Overflow (CSO) Abatement Program. Each phase involves the construction of CSO capture and storage system. CSO’s are stored and then subsequently treated over time when system capacity is able to accommodate the flow. Phases I and II, completed in 2008 and 2014, respectively, are CSO capture, transport and storage systems that feed into the Field’s Point Treatment Facility. Phase III will feed into the Bucklin Point Treatment Facility. Phase III has four components, Phases IIIA-IIID, with Phase IIIA the largest component. NBC reports significant water quality improvements in the Narragansett Bay to date from Phases I and II with beach

closures reduced by 85% and improved shell-fishing conditions. Further environmental improvements are expected upon completion of Phase IIIA when up to 95% of the CSO within the Bucklin Point service area will be treated.

NBC entered into a \$268.7 million WIFIA Loan to partially finance Phase IIIA. KBRA understands that the FY 2021-2027 capital improvement program has increased to approximately \$908 million. NBC expects to enter into an additional WIFIA loan of about \$192 million to finance much of the increase in the capital plan. The balance of the capital costs will largely be financed with revenue bonds and SRF loans. The largest component of the CIP is the CSO Phase IIIA project, construction is expected to be completed in December 2026.

The financial operations of NBC are well positioned to accommodate the capital and borrowing plan. Capital funding has received support by PAYGO and timely rate adjustment actions and this pattern is expected to continue. Debt service costs are forecast to increase from \$46.6 million (2019) to a projected peak of \$60.4 million, which reflects all planned borrowing in the CIP. User fees increases are expected to be reasonable. Debt financing will be incurred in a measured pattern over the construction period.

FY 2020 unaudited results indicate both revenues and expenditures are underbudget. A rate increase took effect July 1, 2019 and FY 2020 user fees were budgeted at \$104.6 million. Actual unaudited user fee results (\$101.2 million) show residential revenue increased 6.1% YOY, but user fees for commercial and industrial customers increased just 1.3%, reflecting the impact of COVID-19. Unaudited results show YOY declines in electricity expenses and chemical expenses contributing to the overall 1.7% decline in operating expenditures. FY 2020 unaudited debt service coverage was 1.4x.

The demographics of the service are generally good. Wealth levels are below state averages within the defined geography of NBC reflecting its older manufacturing and urban base. However, the service area represents an important economic area, including the city of Providence, the largest city in Rhode Island and the state capitol. As such it has been benefitting from the more favorable economic growth the state has experienced in recent years. Employment growth has nearly equaled the overall U.S. experience since 2012 and the unemployment rate is now slightly less than the U.S.

NBC’s rates are regulated by the Rhode Island Public Utility Commission (PUC). KBRA’s rating and outlook reflect the expectation that rate setting will continue to be constructive and respect the rate covenant provisions.

The Stable Outlook reflects the historically demonstrated record of strong financial management and willingness and ability to increase rates.

Key Credit Considerations

KBRA continues to monitor the direct and indirect impacts of the COVID-19 virus. Click [here](#) to access KBRA's ongoing research on the topic.

The rating was affirmed because of the following key credit considerations:

Credit Positives

- Experienced management team that has a good background completing capital projects.
- Favorable history of rate setting and financial management.
- Comprehensive capital planning process.

Credit Challenges

- Rate increases are subject to the review of the Rhode Island Public Utilities Commission. However, NBC has proactively kept the PUC informed of capital projects and rate requirements and the history of rate review and approval has been constructive.
- Debt levels are above average.

Rating Sensitivities

- | | |
|---|---|
| ▪ Transitioning to an environment where future capital needs are more moderate. | + |
| ▪ Improving wealth levels within the service area. | + |
| ▪ Less favorable rate review environment. | - |

ESG Considerations

When relevant to credit, ESG factors are incorporated into the credit analysis in the same manner as all other credit-relevant factors. Among the ESG factors that have impact on this rating analysis are:

- Discussions in RD 1 reflect Governance Factors. KBRA considered system management and policy practices, budgetary planning and control, as well as long-term planning.
- Discussions in RD 4 and RD 6 reflect Environmental Factors, including capital plans to meet environmental compliance requirements.
- Discussions in RD 3 reflect Social Factors. KBRA has examined the District's trends in population, income levels, poverty, and employment trends and the potential impact of the COVID-19 pandemic.

More information on ESG Considerations for the Public Finance sector can be found [here](#).

Narragansett Bay Commission

Key Ratios

Service Area Population, 2019	541,946
Change in Population 2010-2019	1.7%
Service Area Income per Capita	32, 134
Service Area Income per Capita % of State	91.8%
Debt Service Coverage, 2019	1.3x
NBC Modeled Rate Increases	
Average Annual Increases, 2021-2031	1.95%
<hr/>	
Debt Service, 2019	\$ 46,576
Projected Debt Service, 2033*	\$ 60,376
% Chg. From 2019 Debt Service	29.6%

*Includes projected issuances through 2027.

Rating Determinants (RD)	
1. Management	AA+
2. Legal Mechanics and Security Provisions	AA+
3. Service Area and Economy	AA-
4. System Characteristics	AA
5. Financial Metrics	AA-
6. Debt Structure and Capital Plan Requirements	A+

RD 1: Management

The Rhode Island General Assembly in 1980 established by statute the commission to correct and minimize pollution discharges into the Narragansett Upper Bay. On January 1, 1992, the former Blackstone Valley District Commission was merged into NBC, expanding the service area.

NBC is governed by a nineteen-member Board of Commissioners (Board) appointed for three-year terms. Ten public members are appointed by the Governor, two by the Mayor of the City of Providence, one each by the Mayors of the Towns of North Providence, Johnston and Cumberland, one each by the Mayors of the Cities of East Providence, Central Falls and Pawtucket and one by the Town Administrator of Lincoln. The Board’s Chairperson, Vice-Chairperson, and Treasurer are elected annually by the Board. The Board-appointed Executive Director, who also serves as Secretary to the Board, administers, manages and directs the affairs and business of NBC subject to the policies, control and direction of the Board.

Laurie Horridge, Executive Director appointed in January 2019. Ms. Horridge first joined NBC in 1992 as Chief of Enforcement, and later served as General Counsel and Director of Executive Affairs and Director of Administration.

Rate Setting Authority and Process

NBC’s rates are regulated by the Rhode Island Public Utilities Commission (PUC). Two types of applications for rate relief are available to NBC. The first is a general rate relief application. The second is a debt service compliance filing for rate relief related to debt service (DS) and debt service coverage (DSC). The latter type involves a simpler process.

Usually a general rate case takes approximately 9 months, while the review process for debt service rate relief takes approximately 90 days. Once authorized by NBC’s Board of Commissioners, rate applications are prepared by NBC staff and filed with the PUC. Copies are also served to the Rhode Island Division of Public Utilities and Carriers (DPUC) and the Rhode Island Attorney General’s Office. Notification of rate applications are provided in billing inserts and posted publicly on the PUC’s website. As part of the budget process, which begins in July and August (in the prior fiscal year), if it is determined that user charges must be adjusted, after the Board approval, the rate application will be submitted to the PUC on or about September 30 in order to ensure new rates are in effect by the following July 1 (start of the fiscal year).

A general rate relief application includes pre-filed testimony and schedules from NBC employees, outside experts, etc. the Commission must respond to data requests from the PUC and DPUC. A written Report and Order is issued which notes the effective date of the new rates.

A rate relief for DS and DSC is generally more expeditious as the scope is limited.

The most recent rate increases were 2.98%, effective January 1, 2019, and 5.05% effective July 1, 2019.¹

Managerial Experience

The Commission’s senior leadership team has considerable experience and have worked together for an extended period. While Ms. Horridge was just appointed Executive Director of NBC in January 2019, she has been with NBC for 28 years. Karen Giebink, CFO, has been with NBC for 31 years. In addition, all the respective directors of Administration, Construction & Engineering, Operations & Maintenance, and Environmental Science & Compliance have been with NBC for at least 26 years. Gregory Waugh, the construction manager, and David Bowen, the engineering manager, were brought on in 2018, however, both have over 30 years of experience. Kathryn Kelly, the CSO Program Manager, has been at NBC for 20 years.

¹ Source: 2019 Continuing Disclosure.

Capital Plan Management

NBC is required to have a Fiscal Sustainability Plan (FSP) in order to borrow funds through the Rhode Island Infrastructure Bank (RIIB). The FSP must comply with the Water Resources Reform and Development Plan Act under the Federal Water Pollution Control Act. Under the FSP, the Asset Management Program, Capital Improvement Program (CIP), Annual Operating Budget and Operating Capital Program are integrated.

The Asset Management Program identifies short-term capital needs and provides inputs for the development of a long-term (five year) asset replacement program which are incorporated into NBC’s operating Capital Program. The CIP identifies investments necessary to comply with current and future regulatory requirements, as well as other improvements to increase efficiency and maintain system integrity. The components of the FSP are shown in Figure 1.

Figure 1



NBC is under a consent decree to implement a federally mandated CSO program. Phases I and II of the project were completed in 2008 and 2014, respectively. NBC reports they have contributed to significant water quality improvement in Narragansett Bay and urban rivers, decreasing bathing closures by 85% and expanding shell fishing. Upon completion of Phase III, approximately 95% of the annual CSO volume will receive treatment. NBC’s Consent Agreement was renegotiated and signed in January 2019. As a result of this revaluation, Phase III was divided into four phases (A-D) to be completed by 2041.

Environmental Compliance

NBC is regulated by the Rhode Island Department of Environmental Management (RIDEM) and the U.S. Environmental Protection Agency (USEPA) to ensure compliance with the Federal Clean Air and Clean Water Acts. New Rhode Island Pollutant Discharge Elimination System (RIPDES) permits were issued for each of NBC’s wastewater treatment plants in 2017. The new permits include more stringent effluent limitations and monitoring requirements and require various studies and evaluations to be undertaken by NBC. NBC appealed several permit requirements and the final Consent Agreement was signed in January 2019, resolving all challenged permit issues. NBC is also under a Consent Agreement with RIDEM to implement a federally mandated Combined Sewer Overflow (CSO) Program that will address the Field’s Point and Bucklin Point service areas.

Financial Management Policies and Procedures

NBC’s revenue policies ensure net revenue is equal to at least 125% of annual debt service in accordance with the rate covenants as set forth in the Trust Indenture securing NBC’s revenue bonds. NBC will update and modify the Strategic Plan as needed, to accurately reflect priorities and goals and its long-term financial model, in order to assess the impacts of current and future operating and capital requirements.

Debt Policy

In accordance with Rhode Island General Law (RIGL) 39-3-15, the Division of Public Utilities and Carriers must approve NBC’s issuance of long-term debt. However, there are no statutory limits on debt issuances. NBC maintains a long-term financing model which is used as a basis for determining debt issuance needs. NBC’s lowest cost capital financing traditionally has been through subsidized SRF loans from the RIIB. NBC will use SRF funds to the extent they are available and may issue short- or long-term debt in fixed or variable rate modes to finance its capital program.

RD 2: Legal Mechanics and Security Provisions

Debt service on NBC’s bonds are payable from net system revenues, which are on parity with outstanding revenue bonds and Rhode Island Infrastructure Bank (RIIB) loans. The legal mechanics and security provisions provide a strong level of bondholder/WIFIA loan lender protection.

Rate Covenant

The Commission shall fix, charge, and collect rates, fees and charges for the wastewater system at levels sufficient so that total net revenues during each fiscal year are equal to at least 125% of annual debt service with respect to all outstanding revenue bonds (including WIFIA loan) and 135% of annual debt service when RIIB loans are included.

Additional Bonds Test

The additional bonds test requires estimated annual net revenues for the three fiscal years following issuance of bonds to be 1.25x the debt service requirement for revenues bond and 1.35x the debt service requirement for all RIIB loans.

Required Reserves

There is no reserve requirement for the WIFIA Loan. There is a debt service reserve requirement for NBC’s outstanding revenue bonds that is set on a series basis, as provided in each supplemental indenture. Generally, the debt service reserve is the lesser 10% of original principal amount, 125% average annual debt service, maximum annual debt service (MADS), or the maximum amount permitted by federal tax law without requiring yield restriction.

Flow of Funds

Per the Master Indenture, all revenues are deposited into the Revenue Fund as promptly as practicable. On the third day prior to the last business day of each month, available revenues in the Revenue Fund are transferred per the flow of funds. After payment of operating expenses through the Operation and Maintenance Fund, net revenues are applied to accounts in the Debt Service Fund. Debt service deposits are 1/6th of interest and 1/12th of principal. Generally, in practice, after meeting the Indenture’s debt service coverage requirement, excess amounts in the Debt Service Fund’s Stabilization Account are transferred to various accounts in the Project Fund in subsequent months to pay for capital projects and operating capital.

Bankruptcy Assessment

KBRA has consulted outside counsel and the following represents our understanding of the material bankruptcy issues. To be a debtor under the municipal bankruptcy provisions of the U.S. Bankruptcy Code (Chapter 9), a local governmental entity must, among other things, qualify under the definition of “municipality” in the Bankruptcy Code, and must also be specifically authorized to file a bankruptcy petition by the state in which it is located. The Commission is a public corporation of the State of Rhode Island performing a traditional government function, with a distinct legal existence from the State (and not constituting a department of State government), and thus is a “municipality” as defined under the Bankruptcy Code. As to specific authorization, Rhode Island has several layers of potential supervision for fiscally challenged cities, towns, and fire districts, the implementation of which may ultimately lead to the appointment of a Receiver to act for the public entity. Rhode Island state law specifically authorizes such a Receiver to file a Chapter 9 petition for the relevant city, town or fire district. It is unclear, however, whether the Commission is subject to these supervisory procedures. In any case, regardless of whether the latter are applicable to the Commission, if the Commission were to become financially distressed the State could enact specific legislation permitting it to commence a Chapter 9 case.

RD 3: Service Area and Economy

NBC services in ten Rhode Island communities in the metropolitan Providence and Blackstone Valley areas. These communities include: Providence, North Providence, Johnston, Pawtucket, Central Falls, Cumberland, Lincoln, the northern portion of East Providence, and small sections of Cranston and Smithfield. Of the eight major communities served by NBC, Providence, Pawtucket, Cumberland and North Providence account for approximately 79% of customer accounts. Approximately 91% of customer accounts are residential. Total customer accounts have increased 6.7% since FY 2001 and have historically been 90% residential.

Demographics and Economic Characteristics

The populations of the ten cities and towns which comprise NBC’s service area total approximately 540,400 which represents just over 50% of the state’s population. The Service Area’s population has grown at a rate which exceeds the State since 2010. As defined below, NBC’s service area’s per capita income represents approximately 92% of the state although poverty levels remain elevated.

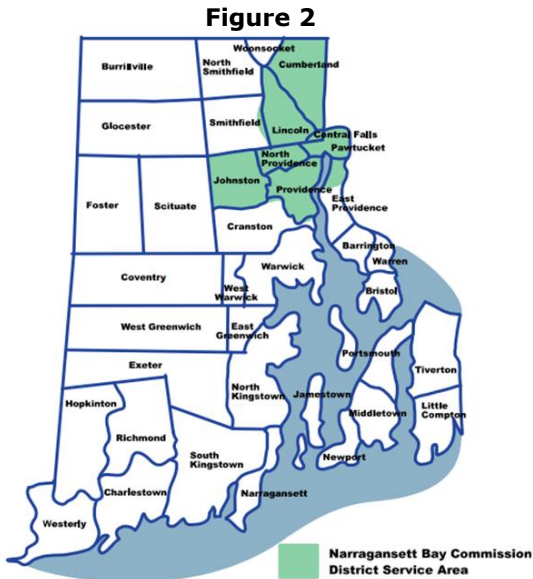
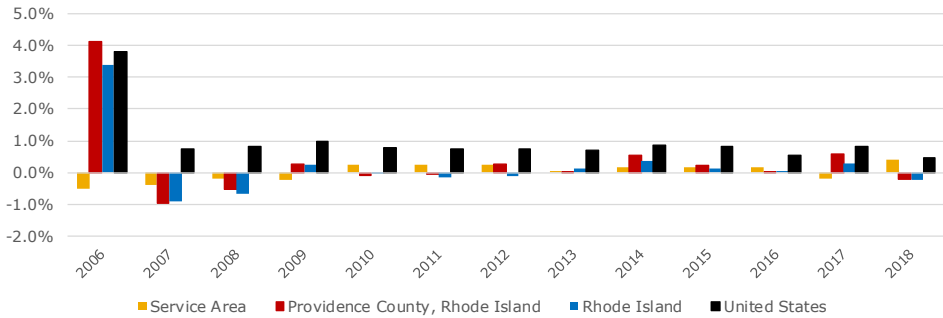


Figure 3

% Change in Population

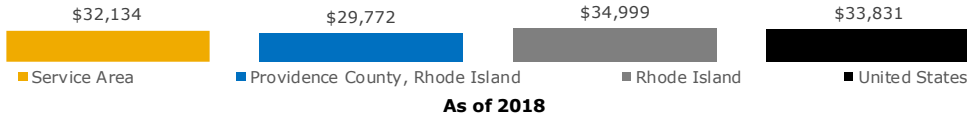


	2010	2018	% Δ 2010 to 2018
Service Area ¹	533,800	540,381	1.2%
Providence County, RI	627,070	636,084	1.4%
Rhode Island	1,052,886	1,057,315	0.4%
United States	309,349,689	327,167,439	5.8%

¹ Service area is comprised of Providence, North Providence, Johnston, Pawtucket, Central Falls, Cumberland, Lincoln, East Providence, Cranston, and Smithfield.
Source: U.S Census

Figure 4

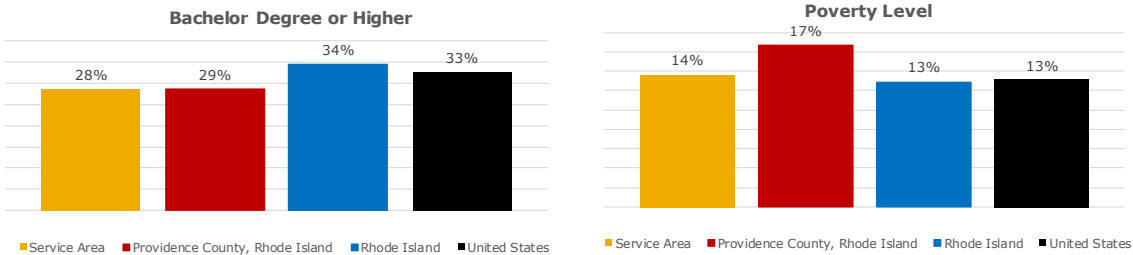
Per Capita Income



	2010	2018	% Δ 2010 to 2018	Comparison
Service Area ¹	\$26,907	\$32,134	19.4%	-
Providence County, RI	\$24,178	\$29,772	23.1%	107.9% of County
Rhode Island	\$27,667	\$34,999	26.5%	91.8% of State
United States	\$26,059	\$33,831	29.8%	95.0% of U.S.

¹Service area is comprised of Providence, North Providence, Johnston, Pawtucket, Central Falls, Cumberland, Lincoln, East Providence, Cranston, and Smithfield.
Source: U.S. Census

Figure 5



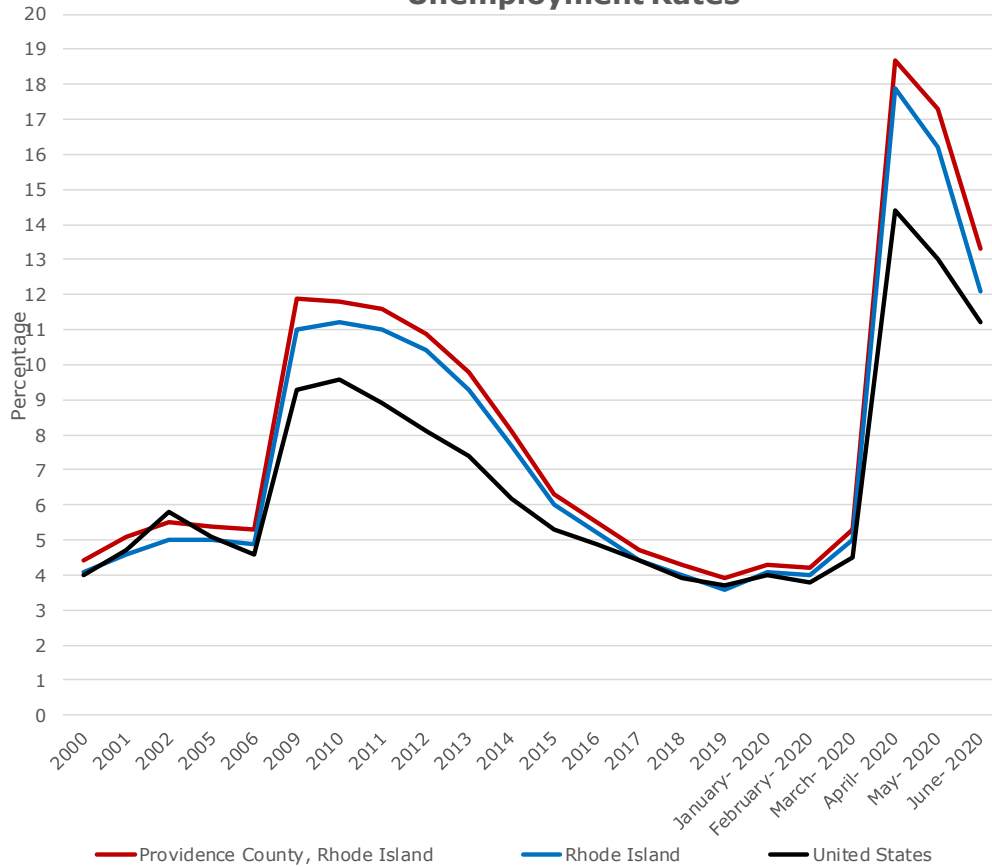
	As of 2018	Point Δ 2010 to 2018	As of 2018	Point Δ 2010 to 2018
Service Area ¹	28%	2.1	14%	1.6
Providence County, RI	29%	3.2	17%	-0.9
Memphis, TN-MS-AR	34%	0.0	13%	0.0
Rhode Island	33%	4.2	13%	-1.1
United States		4.4		-2.2

¹ Service area is comprised of Providence, North Providence, Johnston, Pawtucket, Central Falls, Cumberland, Lincoln, East Providence, Cranston, and Smithfield.
Source: U.S Census
Bachelor degree or higher defined as "% of population over 25 with Bachelor's degree or higher".
Poverty level defined as "portion of population living below the poverty line".

Unemployment and Employment

Unemployment, as represented by Providence County, has historically exceeded the state’s average. Since 2017, the County’s unemployment rate, as well as the State’s, have exceeded prior cyclical lows (Figure 6). However, like elsewhere across the U.S., the unemployment rate spike in April as a result of the COVID-19 pandemic and various stay at home orders. Recovery has been sharp since April, however, still trails the state. While trending down, the unemployment rate in June was 13.3%, which exceeds the Great Recession peak. Employment growth was strong through 2019 but has since contracted.

Figure 6
Unemployment Rates



	Providence County, RI	Rhode Island	United States
June 2020	13.3	12.1	11.2
May 2020	17.3	16.2	13.0
Great Recession Peak	11.9	11.2	9.6
Point Δ Since Great Recession Peak	1.4	0.9	1.6

Source: U.S Bureau of Labor Statistics

Employment has shifted from the manufacturing sector towards more professional services sectors. Employment growth has been realized in the professional and business services, financial activities, education and health services, and leisure and hospitality sectors. Employment remains diverse with just the education and health services sector representing more than 20% of employment.

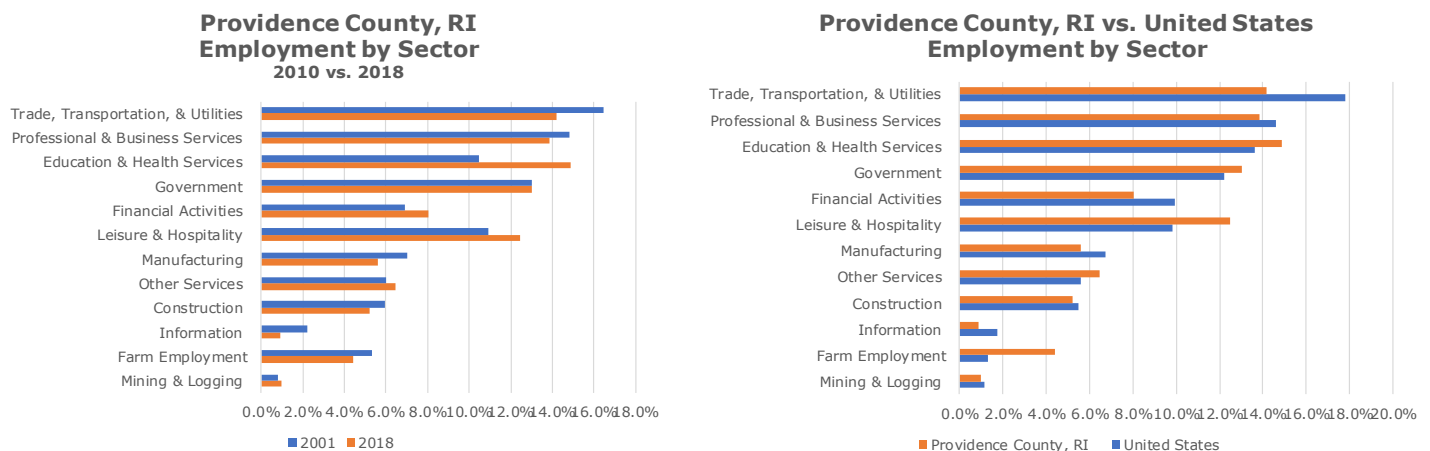
Figure 7

Total Employment (Not Seasonally Adjusted) (In Thousands)						
	Providence County, Rhode Island	% Δ	Rhode Island	% Δ	United States	% Δ
2000	296		521		136,891	
2001	295	-0.4%	519	-0.4%	136,933	0.0%
2002	297	0.7%	523	0.7%	136,485	-0.3%
2003	302	1.6%	531	1.5%	137,736	0.9%
2004	302	-0.1%	530	-0.1%	139,252	1.1%
2005	306	1.4%	537	1.4%	141,730	1.8%
2006	310	1.5%	544	1.3%	144,427	1.9%
2007	310	-0.2%	543	-0.2%	146,047	1.1%
2008	300	-3.1%	526	-3.2%	145,362	-0.5%
2009	288	-4.0%	505	-4.0%	139,877	-3.8%
2010	290	0.7%	503	-0.3%	139,064	-0.6%
2011	288	-0.7%	498	-1.0%	139,869	0.6%
2012	290	0.6%	500	0.4%	142,469	1.9%
2013	293	1.0%	505	1.0%	143,929	1.0%
2014	299	1.9%	514	1.7%	146,305	1.7%
2015	303	1.6%	521	1.5%	148,834	1.7%
2016	305	0.7%	524	0.6%	151,436	1.7%
2017	309	1.1%	529	0.8%	153,337	1.3%
2018	311	0.7%	532	0.7%	155,761	1.6%
2019	313	0.6%	536	0.6%	157,538	1.1%
Δ 2010 to 2019		7.8%		6.5%		13.3%
Δ Since Trough		8.6%		7.5%		13.3%
June- 2020	284	-9.3%	486	-9.3%	142,811	-9.3%

Source: U.S Bureau of Labor Statistics

Bold = trough during the Great Recession (2008-2012)

Figure 8



Source: Bureau of Economic Analysis

Historical Rates and Affordability

NBC has been granted multiple rate adjustments since 2005 (see Figure 9). Three of the last four rate increases have been for debt service and debt service coverage compliance. NBC’s last rate increase was for operations and maintenance expense and a rate base adjustment. Even with future anticipated rate increases, KBRA expects wastewater rates to remain affordable as compared to other systems in the state. The FY 2021 budget does not contemplate a FY 2021 rate increase.

Figure 9

Historical Rate Increases			
Effective Date	Revenue Increase (%)	User Fee Increase (%) ⁽¹⁾	Average Annual Residential Fee (150 gpd)
1-Jul-05	12.05	12.76	NA
1-Jul-06	3.85	4.06	NA
1-Jul-07	9.50	9.99	NA
1-Jul-07	3.78 ⁽²⁾	4.01	NA
1-Jul-08	10.67 ⁽³⁾	11.24	NA
1-Jul-09	10.29 ⁽⁴⁾	10.73	NA
1-Jul-10	2.17	2.25	NA
1-Jul-11	3.21	3.33	NA
1-Jul-12	2.17	2.25	\$375
1-Jan-13	7.09	7.35	\$403
1-Jul-13	9.32 ⁽⁵⁾	9.67	\$442
19-Sep-14	3.83 ⁽⁶⁾	3.97	\$459
1-Jul-15	2.29	2.40	\$470
1-Jul-16	1.48	1.53	\$477
1-Jan-19	2.88	2.98	\$491
1-Jul-19	6.17	5.05	\$516

⁽¹⁾ Increases vary by customer class. Values shown are aggregated across all classes.

⁽²⁾ 16% for rate base adjustment for decline in consumption.

⁽³⁾ 51% for rate base adjustment for decline in consumption.

⁽⁴⁾ 73% for rate base adjustment for decline in consumption.

⁽⁵⁾ 30% for rate base adjustment.

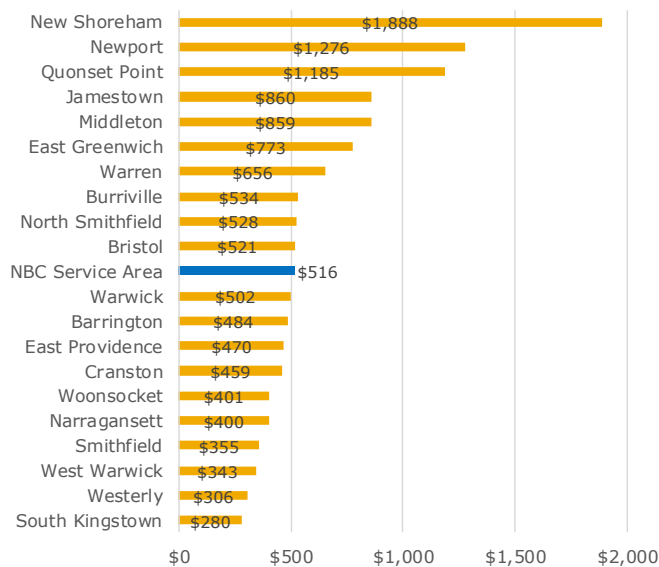
⁽⁶⁾ 55% for rate base adjustment.

Source: Narragansett Bay Commission.

In the State’s annual Rhode Island sewer rate survey, the average annual residential charge of \$516 places NBC’s rate as the median out of the 21 cities report. The highest was New Shoreham, RI at \$1,888 and the lowest was South Kingston, RI at \$280. The State average rate was \$647. NBC’s average rate trended up from \$477 from a year prior.

Figure 10

2019 Annual Rhode Island Residential Sewer Charges



Note: Annual Residential Sewer Charges are based on 73.2 hcf (150GPD). The State average was \$647.

Source: NBC FY 2021 Budget

Throughout FY 2019, the residential rate was a fixed charge of \$225.32 plus \$3.636 per HCF. In addition to the January 1, 2019 rate compliance increase, as a result of the Commission’s October 2018 rate application the residential fixed charge increased to \$237.41 plus \$3.810 HCF, effective July 1, 2019. As indicated in the rating filing, the effective July 1, 2019 rate would increase the bill of the average residential customer by \$24.83 (from \$491.48 per year to \$516.30). With projected rate increases to support the future borrowing needs of the project, NBC projects the average bill will reach approximately \$586 by 2026. A number of factors could alter the projection, including CIP scope changes, interest rates, health care costs and new regulatory requirements.

Median household income of Providence County and Rhode has essentially kept pace with the national level. Since 2010, it has grown at an average annual rate of 2.6% compared with 2.7% for the U.S. across the same period. The average residential sewer bill, effective July 1, 2019, would account for less than 1% of the state’s median household income, which KBRA views as affordable.

Figure 11

Median Household Income						
Year	Providence County, RI	CAGR	Rhode Island	CAGR	United States	CAGR
2018	\$56,461	2.6%	\$64,340	2.6%	\$61,937	2.7%
2010	\$45,915		\$52,254		\$50,046	

Source: U.S. Census Bureau

RD 4: System Characteristics

The System consists of two treatment plants, which are the largest wastewater treatment facilities in the state (Field’s Point is the largest followed by Bucklin Point). The system includes 7 pump stations and 110 miles of interceptors.

Figure 12

NBC Treatment Facilities		
	Field’s Point	Bucklin Point
Avg daily treatment, mgd	53.2	23.9
Wet weather capacity, mgd	200	116
Number of pump stations	4	3
Number of active CSOs	35	26
Miles of interceptor	80	30

Source: NBC 2019 CAFR

Customer Base and User Fees

In FY 2019, the Commission’s customer base was comprised of approximately 77,000 residential accounts and 7,700 commercial/industrial accounts.

NBC’s user fees represent substantially all operating revenue. NBC’s user fee structure classifies users as residential, commercial, or industrial. Residential structures up to and including six dwelling units are classified as residential customers as are all residential condominiums regardless of the number of dwelling units. Commercial and industrial users, or non-residential accounts, include residential structures containing more than six dwelling units, commercial, mixed-use and industrial properties.

NBC’s customers are billed a flat fee and a consumption-based fee. For the consumption-based fees, NBC receives a water meter reading for substantially all customers from each of the water supply boards within the service area, and then calculates a sewer charge for each customer based upon this water meter reading. Substantially all customers receive a sewer bill from NBC and make payments directly to NBC.

For residential customers, flat fees are charged based upon the number of dwelling units. Non-residential customers are charged flat fees based upon meter size. While residential accounts make up over 90% of total accounts, they account for nearly 58% of total user fee revenue; with commercial and industrial accounts comprising the balance.

Customer Concentration

The system’s largest customers are largely institutions of higher education, municipal customers, and healthcare providers, thereby limiting exposure to economic volatility. Moreover, the top ten customers account for less the 9% of the revenue base, which KBRA views as low.

Figure 13

NBC Principal Customers FY 2019	
Customer	% total billing
Providence Housing Authority	1.72
RI Hospital	1.54
Brown University	1.37
City of Providence	0.86
RI Resource Recovery	0.76
City of Pawtucket	0.69
Providence School Department	0.46
Providence College	0.44
Johnson and Wales University	0.42
Rhode Island College	0.39

Source: 2019 Continuing Disclosure

Performance Measures

NBC is substantially in compliance with RIPDES permit limits regarding discharge quality. The RIPDES permit sets forth daily and monthly limits for both levels.

System Condition

The Commission has been investing in capital assets in recent years and operates under a consent decree. Net fixed assets stood at just over \$1 billion at year end 2019, up 8.3% since 2014.

Capacity and Usage Constraints

Completion of the CSO projects Phases I, II, and III are designed to address much of NBC’s CSO capacity limitations.

RD 5: Financial Metrics

Debt service coverage has been above the minimum requirements of the rate covenant.

Debt Service Coverage

Historically, with the support of rate increases, debt service coverage has remained above the 1.25x rate covenant. Coverage has averaged nearly 1.40x since 2010.

FY 2019

FY 2019 audited financial results show continued stable operations.

User fees are NBC’s primary source of revenues, representing approximately 95.5% of total revenues. FY 2019 user fees were \$96.4 million which is \$605,765 higher than the prior year. The majority of the user fee revenue growth is the result of a rate increase effective January 1, 2019.

In FY 2019, nonuser fee operating revenues increased by \$403,497 primarily as the result of an increase in late charge penalties due to higher accounts receivable. Nonoperating revenues increased by \$602,313 or 57.2%, largely due to higher investment earnings.

Non-operating expenses decreased as the result of the \$5.0 million payment to the State in FY 2018 that was not required in FY 2019. Under the WIFIA loan agreement entered into in 2019, no system revenues or assets may be transferred or applied for purposes other than ownership, operation or maintenance of the System, except with the consent of USEPA.

FY 2020 Unaudited Results

FY 2020 unaudited results indicate both revenues and expenditures are underbudget. A rate increase took effect July 1, 2019 and budgeted FY 2020 user fees were \$104.6 million. Actual unaudited user fees are \$101.2 million, with residential revenue a 6.1% YOY increase, but user fees for commercial and industrial customers increased just 1.3%, reflecting the impact of COVID-19.

NBC does not expect the revenue weakening to have a significant finish on the budget because expenses are under budget as well. Unaudited results show YOY spending declines in electricity expenses and chemical expenses contributing to the overall 1.7% decline in operating expenditures.

The PUC extended a moratorium on water shutoffs through July 17, 2020, although as of May 31, accounts receivable was only minimally above the prior year level. The Finance Department is pursuing the installation of customer service payment options to enhance safety and facilitate payment.

FY 2021 Budget

NBC's operating budget is \$104.6 million, a -2.3% decline (\$2.4 million) over the prior year. The FY 2021 budget reflects no rate changes and a -0.3% decline in the number of residential dwelling units. Budgeted user fee revenue is approximately 2.6% lower than FY 2020 budget as a result of the projected impact of COVID-19. The budget reflects step increases as well as a 2.5% contractual COLA. The pension costs for the state plan participants increased to 28.57% of payroll (up from 26.39%).

System Liquidity

The Commission has demonstrated a history of maintaining sufficient liquidity. Unrestricted cash and cash equivalents totaled approximately \$21 million at FYE 2019. NBC's days cash on hand has increased from 134 in FY 2014 to 189 in FY 2019.

Figure 14

Statement of Net Position

\$ in thousands

	2019	2018	2017	2016	2015
Cash	\$ 21,257	\$ 23,736	\$ 16,811	\$ 16,967	\$ 16,000
Accounts Receivable	21,107	14,256	13,823	14,637	15,350
Due from RIIB	38,727	16,409	42,258	52,112	6,713
Prepaid expenses	1,136	569	1,241	1,506	1,433
Total current assets	82,227	54,969	74,134	85,222	39,496
Restricted cash	59,036	62,770	71,732	84,500	74,974
Net capital assets	1,025,606	1,009,027	988,409	965,858	952,447
Other assets	1,223	184	-	-	-
Total assets	1,168,092	1,126,951	1,134,275	1,135,579	1,066,916
Deferred outflows	7,081	8,477	5,070	5,286	5,559
Payables and accrued expenses	6,857	13,820	13,195	15,414	14,147
Current portion of loans and leases payable	34,704	28,802	27,530	25,783	25,427
Total current liabilities	41,561	42,622	40,725	41,197	39,574
Long term accrued expenses	7,140	6,656	2,780	2,991	2,978
Net pension liability	18,671	19,377	19,566	20,952	20,418
Long term loans, leases and debt	579,679	565,579	594,381	621,910	583,452
Total non-current liabilities	605,490	591,612	616,727	645,853	606,848
Total liabilities	647,051	634,234	657,452	687,051	646,422
Total deferred inflows	2,677	3,077	590	1,030	2,344
Net position	\$ 525,446	\$ 498,118	\$ 481,303	\$ 452,784	\$ 423,709

Source: Narragansett Bay Commission

Revenue / Expense Management

As with wastewater systems generally, user fees are NBC's primary source of revenue, representing over 95% of total revenues in FY 2019. The 2014 to 2019 CAGR in total revenues is 1.9%, which compares favorably to the operating expense (net depreciation) CAGR of 1.0%.

NBC notes that revenues have increased to support debt service and coverage covenants with NBC's expanding capital programs.

Figure 15

Statement of Revenues & Expenses									
\$ in thousands									
	2019	% chg.	2018	% chg.	2017	% chg.	2016	% chg.	2015
Operating revenues	\$ 99,346	1.0%	\$ 98,336	-1.3%	\$ 99,656	0.7%	\$ 99,005	4.2%	\$ 95,016
Non-operating revenues	<u>1,656</u>	57.1%	<u>1,054</u>	72.0%	<u>613</u>	91.0%	<u>321</u>	84.0%	<u>174</u>
Total revenues	101,002	1.6%	99,390	-0.9%	100,269	0.9%	99,326	4.3%	95,190
Personnel services	23,845	3.0%	23,157	1.9%	22,720	-0.8%	22,904	9.3%	20,947
Deperciation	16,401	1.9%	16,091	3.2%	15,594	10.7%	14,091	8.5%	12,984
O&M	8,025	6.3%	7,548	4.6%	7,220	-4.8%	7,582	9.4%	6,931
Other operating expenses	9,075	3.2%	8,795	7.2%	8,208	7.6%	7,628	-17.9%	9,295
Non-operating expenses	<u>17,327</u>	-24.7%	<u>23,018</u>	27.8%	<u>18,009</u>	-3.0%	<u>18,558</u>	7.9%	<u>17,196</u>
Total expenses	74,674	-5.0%	78,609	9.6%	71,750	1.4%	70,763	5.1%	67,352
Net Income, net of depreciation	\$ 42,729	15.9%	\$ 36,872	-16.4%	\$ 44,112	3.4%	\$ 42,654	4.5%	\$ 40,822
Gross Revenues	101,002		99,390		100,269		99,326		95,190
Operating Expenses (excl. dep.)	40,945		39,500		38,148		38,114		37,172
Net Revenues available for DS	60,057		59,890		62,121		61,212		58,018
Debt Service	46,576		45,524		43,683		43,019		40,217
Debt Service Coverage	1.3x		1.3x		1.4x		1.4x		1.4x

Source: Narragansett Bay Commission

Employee Cost & Labor Pressure

Union employees participate in a cost-sharing multiple employer defined benefit pension plan, the Employees' Retirement System Plan (ERS), administered by the Employees' Retirement System of the State of Rhode Island (ERSRI). For those hired after June 30, 2012, the benefit accrual rate is 1% per year with a maximum benefit accrual of 40%. Cost of living adjustments (COLA) are provided but are currently suspended until the collective plans reach a funded status of 80%. Until the plans reach an 80% funded status, interim COLAs are provided at four-year intervals. Per NBC's FY 2019 CAFR, the fiduciary net position of the ERS plan is equal to 52.5%.

The funding policy, as set forth in the General Laws, Section 36-10-2, provides for actuarially determined periodic contributions. In FY 2019, NBC contributed 100% of the required contribution. The FY 2019 actuarially required contribution as a % of covered payroll was a high 25.75%. At June 30, 2019, NBC reported a modest liability of \$18.7 million for its proportionate share of the net pension liability related to its participation in ERSRI. The discount rate used to measure the total pension liability was 7.0%.

Certain union employees participate in a defined contribution plan. NBC contributes 5% of salary to a non-union defined contribution plan. NBC maintains a defined benefit plan for nonunion employees; the plan is fully funded.

Figure 16

Pension and OPEB Contributions, FY 2019	
	2019
OPEB contribution	362,589
ERS contribution	1,561,290
Defined contribution, union	52,593
Defined contribution, nonunion	506,143
Non union defined benefit	<u>1,008,665</u>
	3,491,280

Source: Financial Audit, 2019

Union employees participate in a cost-sharing multiple-employer defined benefit other post-employment benefits (OPEB) plan included within the Rhode Island State Employees' and Electing Teachers OPEB System which generally provides healthcare coverage to pre-Medicare eligible retirees or Medicare supplemental coverage for members who are Medicare eligible. Dental and vision coverage may be purchased by these groups with no state subsidy. At June 30, 2019, NBC reported a liability of \$4.2 million for its proportionate share of the plan's net OPEB liability. The discount rate used to calculate the liability was 6%.

Collection Levels and Trends

Residential consumption has been declining.

Trends in Accounts Receivable

Late charges historically represent around 1.0% of user fees. Collection activities through the water shut-off program were suspended from May 2018 through January 2019 due to the implementation of the new Customer Service Application. As a result of the suspended collection activity as well as the conversion to the weekly billing cycles from a single monthly billing, NBC accounts receivable (net of allowance) increased to \$16.2 million in FY 2019 from \$9.2 million in FY 2018. At 2019 FYE, accounts receivable represents just over 20% of total revenues.

RD 6: Debt Structure and Capital Plan Requirements

As of June 30, 2019, NBC has approximately \$608.5 million in debt outstanding, consisting entirely of outstanding SRF loans and revenue bonds.

Figure 17

Narragansett Bay Commission Debt Outstanding, June 30, 2019	
Type	Amount (000s)
RIIB Loans	346,974
Bonds	261,553
Total	608,527

Source: FY 2019 Audit Report

In FY 2020, NBC received a \$268.7 million WIFIA loan which is expected to be drawn upon each year through 2024. A second WIFIA loan application is expected to fund approximately \$192 million of programmed improvements. Debt levels are above average, but the amortization structure provides capacity for additional planned borrowing.

Capital Improvement Plan

NBC annually updates its multiyear CIP. The FY 2021 – 2027 CIP totals \$908 million; Figure 18 shows the components of NBC's capital program.

The most significant component of the CIP is the federally mandated Combined Sewer Overflow Abatement Program, or CSO Phase III A Facilities. Expenditures on this project are expected to significantly increase as construction begins in FY 2022. Phase III A of the project includes design and construction of a deep rock tunnel in Pawtucket approximately 11,700 feet in length along the Seekonk and Blackstone Rivers, a pump station to convey flow to the Bucklin Point WWTF, drop shafts and consolidation conduits. Additionally, the project includes the design of several initiatives which will be completed in Phase III B, C and D.

NBC has completed two similar stormwater storage tunnels that feed into the Fields Point treatment facility.

Figure 18

Programmed Capital Improvements (\$ thousands)								
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	Total FY 2021-2027
CSO Phase III A Facilities	\$ 70,190	\$ 146,625	\$ 221,143	\$ 195,124	\$ 122,138	\$ 25,977	\$ 8,336	\$ 789,533
Bucklin Point	10,231	39,074	14,961	123	-	-	-	64,389
Other CIP	11,366	10,458	16,335	8,602	2,500	2,500	2,500	54,261
Total CIP	\$ 91,787	\$ 196,157	\$ 252,439	\$ 203,849	\$ 124,638	\$ 28,477	\$ 10,836	\$ 908,183

The largest funding source for the CIP is WIFIA loans, followed by revenue bonds of approximately \$235 million and state revolving loan funds of \$62 million.

Variable Rate Debt

As of FY 2019, NBC had approximately \$56.5 million in variable rate debt outstanding (2008 Series A, maturing in 2034), or less than 9% of total debt outstanding. In January 2020, NBC converted these bonds to a fixed rate of 2.29%.

Leverage Ratio

System leverage ratios are high as evidenced by the Commission's debt-to-plant ratio of nearly 60% in FY 2019.

Debt Service Requirement

NBC produces a detailed capital planning document that projects debt service costs associated with its multiyear capital program. Projected debt service increases gradually from approximately \$46.6 million in 2019 to \$60.4 million in 2033. This equates to a compound annual growth rate for debt service of 1.9% through 2033.

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Summary:

Narragansett Bay Commission, Rhode Island; Water/Sewer

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Summary:**Narragansett Bay Commission, Rhode Island;
Water/Sewer**

Credit Profile		
US\$198.0 mil wastewtr rev bnds (2020 Wifia Loan) ser 2020 B dtd 08/04/2020 due 09/01/2043		
<i>Long Term Rating</i>	AA-/Stable	New
Narragansett Bay Comm swr		
<i>Long Term Rating</i>	AA-/Stable	Affirmed

Rating Action

S&P Global Ratings assigned its 'AA-' underlying rating to the Narragansett Bay Commission (NBC), R.I.'s 2020 Water Infrastructure Finance and Innovation Act (WIFIA) loan and affirmed its 'AA-' underlying rating on NBC's outstanding parity debt and the 2019 WIFIA loan, which will have its rate reset. The outlook is stable.

NBC's 2020 WIFIA loan will be used to fund 49% of the commission's \$389 million in mainly CSO Phase III projects. Debt service on 2020 loans are payable from the net revenues of the commission, which are on parity with revenue bonds outstanding, Rhode Island Infrastructure Bank (RIIB) loans, and the 2019 WIFIA loan. The rate covenant on the bonds is 1.25x annual debt service on all parity bonds and the WIFIA loan, and 1.35x on outstanding RIIB loans.

Credit overview

As NBC transitions into a significant capital-intensive program to deal with CSO Phase III-related projects, it remains paramount for rating maintenance that management remain vigilant with regard to getting rates approved by the Rhode Island Public Utilities Commission (PUC) as debt service levels will increase from about \$45 million per year to over \$55 million by fiscal 2025 and level out around \$60 million in 2034.

S&P Global Ratings acknowledges a high degree of uncertainty related to the effects of COVID-19, including the rate of spread and peak of the outbreak. We believe measures to contain COVID-19 have pushed the economy into a deep down turn, which this area has yet to show signs of any meaningful recovery. Although we consider the sewer system's financial flexibility could likely be affected by reduced economic activity in the region depending on the length of the downturn, in our view, this risk is somewhat mitigated by the system's strong liquidity position, which we believe provides sufficient cushion for short-term disruptions. While we continue to monitor events related to COVID-19, we do not currently anticipate it affecting the system's ability to maintain budgetary balance and make debt service payments. For more information, see "All U.S. Public Finance Sector Outlooks Are Now Negative" (published April 1, 2020, on RatingsDirect) and "The U.S. Economy Reboots, With Obstacles Ahead" (published Sept. 24, 2020).

The rating reflects our views of NBC's very strong enterprise and financial risk profiles.

The enterprise risk profile for the underlying rating reflects our view of the system's:

- Service area participation in the broad and diverse Providence-Warwick metropolitan statistical area (MSA);
- Rates that we generally view as affordable when benchmarking against Providence County's median household effective buying income (MHHEBI) and poverty rates; and
- Operational management practices and policies that we view as good.

The financial risk profile for the underlying rating reflects our view of the system's:

- Financial metrics that include all-in debt service coverage (DSC) of at least 1.2x and a days' cash equivalent of around 160-205 days' cash over the last four fiscal years;
- High leverage, at a 67.5% debt-to-capitalization ratio at the end of fiscal 2020, a signed 2019 WIFIA loan of \$268.7 million that will be drawn down starting in 2021, the 2020 WIFIA loan and about \$300 million in additional revenue bond and \$54.8 million in RIIB debt plans in the coming years; and
- Financial management practices and policies that we view as strong.

The stable outlook on the underlying rating reflects our expectation that the financial performance should continue in a fashion consistent with historical trends, given a sound history of credit-supportive rate decisions by the PUC.

Environmental, social, and governance factors

Overall, we believe that management has mitigated most of the system's environmental, social, and governance (ESG)-related risk by adopting, adhering to, and adjusting its operating and financial policies and procedures. We view most of the district's other ESG risk factors as being on par with those of other similarly rated sewer utilities. There are some factors, which have increased risk as compared to other utilities. NBC's social risk, while elevated due to increased pressures on the service area economy because of higher public health and safety risks related to COVID-19, will directly increase the system's overall social risks factors. Management continues to try and lower its social risk beyond COVID-19 by exploring a ratepayer assistance program. Environmental risk is also elevated as the system is under a consent decree, although management has completed the planning and is beginning the construction of the Phase III projects with expected completion in 2027. Lastly, governance risk factors are higher than similar sewer systems in that NBC must get rate approval from an outside entity, the PUC. This risk is somewhat mitigated as the commission has had a sound history of obtaining PUC rate approval.

Stable Outlook

Downside scenario

Should future rates not generate sufficient revenues to help maintain the consistent financial performance and support the large capital improvement plan (CIP), we could lower the rating.

Upside scenario

If NBC's financial performance becomes significantly stronger compared to historical trends, and we believe that these trends are sustainable, then the rating could improve. However, given the need for continued PUC support and ongoing debt and capital needs, we believe the likelihood for upward rating movement is likely to be well after the two-year outlook period.

Credit Opinion

Enterprise risk

NBC was established in 1980 and serves 10 communities with a total of approximately 360,000 residents and 7,800 businesses in northeastern Rhode Island, primarily Providence and Pawtucket. The commission does not have any taxing authority; it derives revenues from user charges.

The commission's 10 leading customers consist primarily of colleges, universities, hospitals, and cities, and this list has remained stable in recent years. These top 10 represent just 8.25% of operating revenues in fiscal 2020, which we consider a diverse customer base.

We benchmark our analysis of market position, which is an input to the enterprise risk profile, to both MHHEBI and the county poverty rate. MHHEBI for Providence County is 89% of the national average. Monthly-equivalent water and sewer rates are \$50.26 for 800 cubic feet of usage, which is our standard benchmark for monthly consumption, or only 1.28% of MHHEBI when annualized. When considering that the county's poverty rate is close to 15%, our view of the market position is somewhat more negative compared to a situation where a utility has both lower nominal rates combined with a lower poverty rate. That said, our rating reflects our understanding that the service base extends well beyond the city of Providence, which is likely to lead to greater rate affordability than conservative assumptions used in our analysis.

Rate increases for both general rate base increases as well as compliance rate increases to comply with debt covenants both require Rhode Island PUC approval. The most recent rate increase of 5.88% went into effect July 1, 2019. It included an adjustment to the rate base to provide additional revenues to support operations and maintenance expense. The commission reports that the average residential rate for its customers is still competitive with those of other residential systems in the state. A long history of credit-supportive rate decisions by the PUC, an independent state-level body, supports the current rating. NBC management indicates that it communicates with the PUC on a regular basis and also informs it of planned rate increases for future fiscal years. We would expect the commission to continue its regular communications with the PUC to seek timely rate approvals, especially given NBC's large CIP. The next planned increase is expected in fiscal 2023.

We consider the operational management policies and practices of the utility to be good, including the existence of generally strong internal controls and asset management policies. The commission owns and operates two treatment plants, which treat roughly 70% of the state's sewerage and serve more than one-third of its population. Field's Point has a dry-weather capacity of 65 million gallons per day (mgd) and a wet-weather capacity of 200 mgd. Bucklin Point is the second-largest wastewater treatment facility in Rhode Island, with a dry-weather capacity of 46 mgd and wet-weather capacity of 116 mgd. Systemwide average daily flow of 65 mgd is well below capacity. The utility is currently in design for Phase IIIA of a consent decree with the Federal EPA and Rhode Island Department of Environmental Management (RIDEM) to reduce combined sewer overflows (CSOs); final project costs will be better known over the course of the next year. Phase IIIA involves construction a 30-foot internal diameter deep rock tunnel in Pawtucket and 12 other construction projects. The commission will award the design build contract for the tunnel at the end of the calendar year in 2020. Pursuant to the consent agreement, the phase III CSO program should end by

2041.

The commission has a fully mapped GIS system and an asset management program that has been in place since the mid-2000s. All new assets are built to be resilient to a 100-year flood event, plus three feet, and submitted a resiliency plan to RIDEM in November 2019. The utility reviews its cybersecurity policies every other year, has regular data backups, and is conducting employee training.

Financial risk

The commission's financial performance is very strong, in our opinion. For audited years 2016-2020, all-in debt service was at least 1.2x. Management is expecting coverage levels of around 1.3x in fiscal 2021; expectations for revenue growth are very conservative as are the expenditure estimates. Also, the commission had unrestricted cash of \$22.8 million in 2020, equal to 205 days' operating expenses. Liquidity has not dropped below 157 days' operating expenses since 2015. Management does not expect a substantial change in financial results, although in the long run, further rate increases will be needed to support the costs of the CIP.

The commission's CIP is large, at \$921 million over the six years from 2021 through 2026. The majority of this amount--\$548 million, or 87%--is for Phase IIIA of the CSO program. The commission signed a loan agreement with the Federal EPA for a WIFIA loan of \$268.7 million in 2019. An additionally 2020 WIFIA loan of 190 million will also be signed soon. In addition to the WIFIA loans, we understand management plans to issue a revenue debt and state revolving fund (SRF) loan of approximately \$354 million, and use \$48.4 million of the restricted funds to pay for the five-year CIP. We view NBC as being highly leveraged, with a debt-to-capitalization ratio of 67.5% when counting the 2020 WIFIA loan, which will not be drawn until future years. In addition, its proportionate share of the net pension liability for the Employees' Retirement System of Rhode Island is underfunded at 52%, which we believe could further pressure fixed costs in time.

Also supporting the commission's financial risk profile is our financial management assessment of strong, indicating that, in our view, financial practices are well embedded and likely sustainable. Examples include the existence of long-term capital planning, formal investment and debt policies, and monthly review of budget performance by the commission.

Related Research

- Through The ESG Lens 2.0: A Deeper Dive Into U.S. Public Finance Credit Factors, April 28, 2020

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Narragansett Bay Commission

Issuer: Narragansett Bay Commission		
Assigned	Ratings	Outlook
Bucklin Point Resiliency Improvements Project WIFIA Loan	AA	Stable
Affirmed	Ratings	Outlook
Combined Sewer Overflow (CSO) Phase III Facilities WIFIA Loan	AA	Stable

Rating Summary: The Narragansett Bay Commission (NBC) provides wastewater treatment and collection service to the greater Providence metropolitan area. It is a public corporation incorporated in 1980 pursuant to state statute and provides services to over 360,000 residents and about 7,700 commercial users.

NBC owns and operates the two largest wastewater treatment facilities in the state: Field’s Point and Bucklin Point, as well as a substantial wastewater transmission network.

To comply with a consent decree with the Rhode Island Department of Environmental Management (RIDEM), NBC is in the third and final phase of a Combined Sewer Overflow (CSO) Abatement Program. Each phase involves the construction of a CSO capture and storage system. CSO’s are stored and then subsequently treated when system capacity is able to accommodate the flow. Phases I and II, completed in 2008 and 2014, respectively, are CSO capture, transport and storage systems that feed into the Field’s Point Treatment Facility. Phase III will feed into the Bucklin Point Treatment Facility. Phase III has four components, Phases IIIA-IIID, with Phase IIIA the largest component and most complex. NBC reports significant water quality improvements in the Narragansett Bay to date from Phases I and II with beach closures reduced by 85% and improved shell-fishing conditions. Further environmental improvements are expected upon completion of Phase IIIA when up to 95% of the CSO within the Bucklin Point service area will be treated.

Methodology:

- [U.S. Municipal Water and Sewer Revenue Bond Rating Methodology](#)

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KBRA’s rating assignment applies to the \$190.6 million Bucklin Point Resiliency Improvements Project WIFIA Loan (WIFIA II). The Bucklin Point Project consists of two elements: (i) Element A (Bucklin Point Facilities) and Element B (CSO Phase III Overflow Project in Bucklin Point service area). The WIFIA loan amount represents 49% of the total project capital costs of \$389 million. The balance of the project capital costs will be funded by NBC revenue bonds (\$138 million) and SRF loans (\$34 million) to be issued in FY 2022 through FY 2027 (through FY 2025 for the SRF loans) and pay-go over the construction period. Construction is expected to be substantially completed in FY 2027. Phases B, C, and D are expected to commence in FY 2027, FY 2032, and FY 2037, respectively.

The financial operations of NBC are well positioned to accommodate the comprehensive capital and borrowing plan. Capital funding has received support by PAYGO and timely rate adjustment actions and it is KBRA’s expectation that this pattern will continue. Debt service costs are forecast to increase from \$46.6 million (2019) to a projected peak of \$60.4 million (in 2033), which reflects all planned borrowing in the CIP. User fee increases are expected to be reasonable. Debt financing will be incurred in a measured pattern over the construction period.

FY 2020 unaudited results indicate both revenues and expenditures are underbudget. A rate increase took effect July 1, 2019 and FY 2020 user fees were budgeted at \$104.6 million. Actual unaudited user fee results (\$101.2 million) show residential revenue increased 6.1% YOY, but user fees for commercial and industrial customers increased just 1.3%, reflecting the impact of COVID-19. Unaudited results show YOY declines in electricity expenses and chemical expenses contributing to the overall 1.7% decline in operating expenditures. FY 2020 unaudited debt service coverage was 1.4x.

The demographics of the service area remain adequate. Wealth levels are below state averages within the defined geography of NBC reflecting its older manufacturing and urban base. However, the service area represents an important economic area, including the city of Providence, the largest city in Rhode Island and the state capitol. As such it has benefited from the more favorable economic growth the state has experienced in recent years. Recent, pre-pandemic historical employment growth has been robust.

NBC’s rates are regulated by the Rhode Island Public Utility Commission (PUC). KBRA’s rating and outlook reflect the expectation that rate setting will continue to be constructive and respect the rate covenant provisions.

The Stable Outlook reflects the historically demonstrated record of strong financial management and willingness and ability to increase rates.

Key Credit Considerations

KBRA continues to monitor the direct and indirect impacts of the COVID-19 virus. Click [here](#) to access KBRA’s ongoing research on the topic.

The rating was assigned because of the following key credit considerations:

Credit Positives

- Experienced management team that has a good background completing capital projects.
- Favorable history of rate setting and financial management.
- Comprehensive capital planning process.

Credit Challenges

- Rate increases are subject to the review of the Rhode Island Public Utilities Commission. However, NBC has proactively kept the PUC informed of capital projects and rate requirements and the history of rate review and approval has been constructive.
- Debt levels are above average.

Rating Sensitivities

▪ Transitioning to an environment where future capital needs are more moderate.	+
▪ Improving wealth levels within the service area.	
▪ Less favorable rate review environment.	-

ESG Considerations

When relevant to credit, ESG factors are incorporated into the credit analysis in the same manner as all other credit-relevant factors. Among the ESG factors that have impact on this rating analysis are:

- Discussions in RD 1 reflect Governance Factors. KBRA considered system management and policy practices, budgetary planning and control, as well as long-term planning.
- Discussions in RD 4 and RD 6 reflect Environmental Factors, including capital plans to meet environmental compliance requirements.
- Discussions in RD 3 reflect Social Factors. KBRA has examined the District’s trends in population, income levels, poverty, and employment trends and the potential impact of the COVID-19 pandemic.

More information on ESG Considerations for the Public Finance sector can be found [here](#).

Narragansett Bay Commission	
Key Ratios	
Service Area Population, 2019	541,946
Change in Population 2010-2019	1.7%
Service Area Income per Capita	32, 134
Service Area Income per Capita % of State	91.8%
Debt Service Coverage, 2019	1.3x
NBC Modeled Rate Increases	
Average Annual Increases, 2021-2031	1.95%
<hr/>	
Debt Service, 2019	\$ 46,576
Projected Debt Service, 2033*	\$ 60,376
% Chg. From 2019 Debt Service	29.6%

*Includes projected issuances through 2027.

Rating Determinants (RD)	
1. Management	AA+
2. Legal Mechanics & Security Provisions	AA+
3. Service Area & Economy	AA-
4. System Characteristics	AA
5. Financial Metrics	AA-
6. Debt Structure & Capital Plan Requirements	A+

RD 1: Management

The Rhode Island General Assembly in 1980 established by statute the commission to correct and minimize pollution discharges into the Narragansett Upper Bay. On January 1, 1992, the former Blackstone Valley District Commission was merged into NBC, expanding the service area.

NBC is governed by a nineteen-member Board of Commissioners (Board) appointed for three-year terms. Ten public members are appointed by the Governor, two by the Mayor of the City of Providence, one each by the Mayors of the Towns of North Providence, Johnston and Cumberland, one each by the Mayors of the Cities of East Providence, Central Falls and Pawtucket and one by the Town Administrator of Lincoln. The Board’s Chairperson, Vice-Chairperson, and Treasurer are elected annually by the Board. The Board-appointed Executive Director, who also serves as Secretary to the Board, administers, manages and directs the affairs and business of NBC subject to the policies, control and direction of the Board.

Laurie Horridge, Executive Director, was appointed in January 2019. Ms. Horridge first joined NBC in 1992 as Chief of Enforcement, and later served as General Counsel and Director of Executive Affairs and Director of Administration.

Rate Setting Authority and Process

NBC’s rates are regulated by the Rhode Island Public Utilities Commission (PUC). Two types of applications for rate relief are available to NBC. The first is a general rate relief application. The second is a debt service compliance filing for rate relief related to debt service (DS) and debt service coverage (DSC). The latter type involves a simpler process.

Usually a general rate case takes approximately 9 months, while the review process for debt service rate relief takes approximately 90 days. Once authorized by NBC’s Board of Commissioners, rate applications are prepared by NBC staff and filed with the PUC. Copies are also served to the Rhode Island Division of Public Utilities and Carriers (DPUC) and the Rhode Island Attorney General’s Office. Notification of rate applications are provided in billing inserts and posted publicly on the PUC’s website. As part of the budget process, which begins in July and August (in the prior fiscal year), if it is determined that user charges must be adjusted, after the Board approval, the rate application will be submitted to the PUC on or about September 30 in order to ensure new rates are in effect by the following July 1 (start of the fiscal year).

A general rate relief application includes pre-filed testimony and schedules from NBC employees, outside experts, etc. The Commission must respond to data requests from the PUC and DPUC. A written Report and Order is issued which notes the effective date of the new rates.

Rate relief for DS and DSC is generally more expeditious as the scope is limited.

The most recent rate increases were 2.98%, effective January 1, 2019, and 5.05% effective July 1, 2019.

Managerial Experience

The Commission’s senior leadership team has considerable experience and have worked together for an extended period. While Ms. Horridge was recently appointed Executive Director of NBC in January 2019, she has been with NBC for 28 years. Karen Giebink, CFO, has been with NBC for 31 years. In addition, all the respective directors of Administration, Construction & Engineering, Operations & Maintenance, and Environmental Science & Compliance have been with NBC for at least 26 years. Gregory Waugh, the construction manager, and David Bowen, the engineering manager, were brought on in 2018, however, both have over 30 years of experience. Kathryn Kelly, the CSO Program Manager, has been at NBC for 20 years.

Capital Plan Management

NBC is required to have a Fiscal Sustainability Plan (FSP) in order to borrow funds through the Rhode Island Infrastructure Bank (RIIB). The FSP must comply with the Water Resources Reform and Development Plan Act under the Federal Water Pollution Control Act. Under the FSP, the Asset Management Program, Capital Improvement Program (CIP), Annual Operating Budget and Operating Capital Program are integrated.

The Asset Management Program identifies short-term capital needs and provides inputs for the development of a long-term (five year) asset replacement program which are incorporated into NBC’s operating Capital Program. The CIP identifies investments necessary to comply with current and future regulatory requirements, as well as other improvements to increase efficiency and maintain system integrity. The components of the FSP are shown in Figure 1.

Figure 1



NBC is under a consent decree to implement a federally mandated CSO program. Phases I and II of the project were completed in 2008 and 2014, respectively. NBC reports they have contributed to significant water quality improvement in Narragansett Bay and urban rivers, decreasing bathing closures by 85% and expanding shell fishing. Upon completion of Phase III, approximately 95% of the annual CSO volume will receive treatment. NBC’s Consent Agreement was renegotiated and signed in January 2019. As a result of this revaluation, Phase III was divided into four phases (A-D) to be completed by 2041.

Project (WIFIA II)

The Bucklin Point Resiliency Improvements Project is comprised of two elements: Element A (Bucklin Point Facilities) and Element B (CSO Phase III Overflow Project in Bucklin Point service area). Element A provides upgrades to the Bucklin Point Facilities to improve operational efficiency and reliability, and address aging infrastructure. Specifically, upgrades include a new ultraviolet disinfection system, a new standby power generator system, and a new operations building. Element B includes infrastructure associated with the CSO Phase III A Overflow Project, including additional revised costs associated with the Pawtucket Tunnel & Pump Station. It includes the design and construction of a 11,700 foot long deep rock tunnel to store combined sewer overflows.

2019 WIFIA I

The \$268.7 million WIFIA I loan closed on August 27, 2019. KBRA rates the WIFIA I loan AA, Stable Outlook. Since it has not drawn on the proceeds of the WIFIA 1 loan, NBC is taking advantage of a permissible one-time interest rate reset opportunity.

Environmental Compliance

NBC is regulated by the Rhode Island Department of Environmental Management (RIDEM) and the U.S. Environmental Protection Agency (USEPA) to ensure compliance with the Federal Clean Air and Clean Water Acts. New Rhode Island Pollutant Discharge Elimination System (RIPDES) permits were issued for each of NBC’s wastewater treatment plants in 2017. The new permits include more stringent effluent limitations and monitoring requirements and require various studies and evaluations to be undertaken by NBC. NBC appealed several permit requirements and the final Consent Agreement was signed in January 2019, resolving all challenged permit issues. NBC is also under a Consent Agreement with RIDEM to implement a federally mandated Combined Sewer Overflow (CSO) Program that will address the Field’s Point and Bucklin Point service areas.

Financial Management Policies and Procedures

NBC’s revenue policies ensure net revenue is equal to at least 125% of annual debt service in accordance with the rate covenants as set forth in the Trust Indenture securing NBC’s revenue bonds. NBC will update and modify the Strategic Plan as needed, to accurately reflect priorities and goals and its long-term financial model, in order to assess the impacts of current and future operating and capital requirements.

Debt Policy

In accordance with Rhode Island General Law (RIGL) 39-3-15, the Division of Public Utilities and Carriers must approve NBC's issuance of long-term debt. However, there are no statutory limits on debt issuances. NBC maintains a long-term financing model which is used as a basis for determining debt issuance needs. NBC's lowest cost capital financing traditionally has been through subsidized SRF loans from the RIIB. NBC will use SRF funds to the extent they are available and may issue short- or long-term debt in fixed or variable rate modes to finance its capital program.

RD 2: Legal Mechanics & Security Provisions

Debt service on NBC's WIFIA loans are payable from net system revenues. The loans are on parity with outstanding revenue bonds and Rhode Island Infrastructure Bank (RIIB) loans. The legal mechanics and security provisions provide a strong level of bondholder/WIFIA loan lender protection.

Rate Covenant

The Commission shall fix, charge, and collect rates, fees and charges for the wastewater system at levels sufficient so that total net revenues during each fiscal year are equal to at least 125% of annual debt service with respect to all outstanding revenue bonds (including WIFIA loan) and 135% of annual debt service when RIIB loans are included.

Additional Bonds Test

The additional bonds test requires estimated annual net revenues for the three fiscal years following issuance of bonds to be 1.25x the debt service requirement for revenue bonds and 1.35x the debt service requirement for all RIIB loans.

Required Reserves

There is no reserve requirement for the WIFIA Loan. There is a debt service reserve requirement for NBC's outstanding revenue bonds that is set on a series basis, as provided in each supplemental indenture. Generally, the debt service reserve is the lesser 10% of original principal amount, 125% average annual debt service, maximum annual debt service (MADS), or the maximum amount permitted by federal tax law without requiring yield restriction.

Flow of Funds

Per the Master Indenture, all revenues are deposited into the Revenue Fund as promptly as practicable. On the third day prior to the last business day of each month, available revenues in the Revenue Fund are transferred per the flow of funds. After payment of operating expenses through the Operation and Maintenance Fund, net revenues are applied to accounts in the Debt Service Fund. Debt service deposits are 1/6th of interest and 1/12th of principal. Generally, in practice, after meeting the Indenture's debt service coverage requirement, excess amounts in the Debt Service Fund's Stabilization Account are transferred to various accounts in the Project Fund in subsequent months to pay for capital projects and operating capital.

Bankruptcy Assessment

KBRA has consulted outside counsel and the following represents our understanding of the material bankruptcy issues. To be a debtor under the municipal bankruptcy provisions of the U.S. Bankruptcy Code (Chapter 9), a local governmental entity must, among other things, qualify under the definition of "municipality" in the Bankruptcy Code, and must also be specifically authorized to file a bankruptcy petition by the state in which it is located. The Commission is a public corporation of the State of Rhode Island performing a traditional government function, with a distinct legal existence from the State (and not constituting a department of State government), and thus is a "municipality" as defined under the Bankruptcy Code. As to specific authorization, Rhode Island has several layers of potential supervision for fiscally challenged cities, towns, and fire districts, the implementation of which may ultimately lead to the appointment of a Receiver to act for the public entity. Rhode Island state law specifically authorizes such a Receiver to file a Chapter 9 petition for the relevant city, town or fire district. It is unclear, however, whether the Commission is subject to these supervisory procedures. In any case, regardless of whether the latter are applicable to the Commission, if the Commission were to become financially distressed the State could enact specific legislation permitting it to commence a Chapter 9 case.

Chapter 9 provides for post-petition recognition of (i) a security interest represented by a pledge of specific special tax revenues or of enterprise revenues (referred to as a lien on "special revenues") and also (ii) a statutory lien (one imposed by statute) on revenues pledged for government obligations. Such special revenues and statutory liens should both continue to apply to pledged revenues acquired by a local government entity during a Chapter 9 case, and survive the conclusion of the Chapter 9 proceeding. However, other consensual pledges and liens arising by indenture, resolution or similar document, except to the extent they cover proceeds of collateral pledged prior to bankruptcy, are generally all cut off by Section 552 of the Bankruptcy Code as of the petition date.

KBRA has consulted outside counsel, and is advised that, while Rhode Island law provides for a statutory lien in connection with pledges of *ad valorem* taxes levied by cities, towns and districts, there is no statutory lien imposed on the Commission Revenues pledged to pay the Loan.

Pledged Revenues as Special Revenues under the Bankruptcy Code

Because the pledged Revenues are generated by the Commission’s wastewater system (the “System”), and the Loan has been issued to finance the Project that is a part of the System, KBRA understands that the pledged Revenues should qualify as “special revenues” as that term is defined in Chapter 9 of the Bankruptcy Code.

There are separate bankruptcy protections for revenue-supported debt that falls within those special revenues definitions. Assuming there is no shortfall of funds to make debt service, and further assuming that the Loan is in fact secured by a pledge of special revenues as so defined, it is KBRA’s understanding that, if the Commission were to file for protection under Chapter 9, it would generally be expected that such filing should have little to no effect on the payment of the Loan during the bankruptcy case.

That stated, there are several additional issues that arise. If the Commission were to become a debtor in a proceeding under Chapter 9 of the Bankruptcy Code, the bankruptcy court could possibly decide that (i) post-bankruptcy revenue debt obligation payments by the Commission are merely optional and not mandatory under the special revenues provisions of the Bankruptcy Code and/or (ii) the automatic stay exception for special revenues in those provisions does not apply (including to possible enforcement action by the WIFIA Lender or the Trustee) or is limited to amounts then on hand with the Trustee or the Commission. If the Commission were to refuse to make Loan payments voluntarily and the bankruptcy court were to interpret the Bankruptcy Code in that (or a similar) fashion, the parties to the proceedings may be prohibited for an unpredictable amount of time from taking any action to collect any amount from the Commission, or from enforcing any obligation of the Commission, without the bankruptcy court’s permission. However, it is KBRA’s understanding that such a ruling would be contrary to historical experience in Chapter 9, and the clear intent of Congress regarding the continued payment of government revenue debt obligations post-bankruptcy, as expressed in the legislative history for the special revenues amendments to Chapter 9 and as interpreted in properly-reasoned existing (albeit limited) case precedent under Chapter 9.

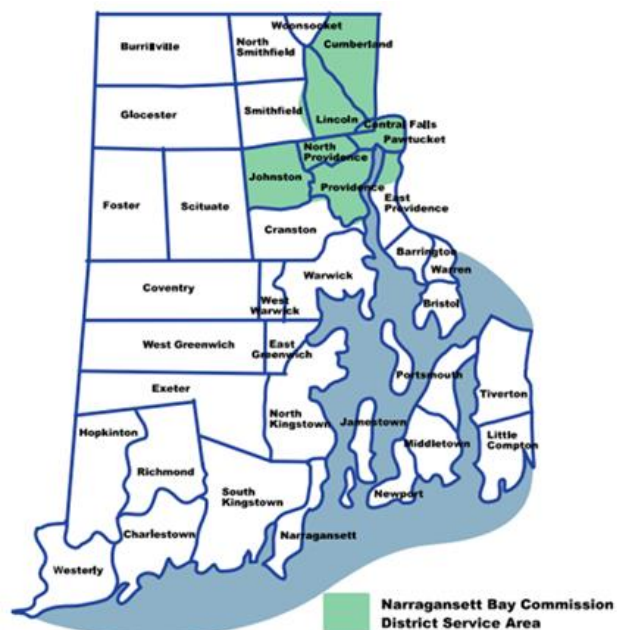
It is also KBRA’s understanding that, assuming the pledged Revenues are in fact determined to be “special revenues,” the Bankruptcy Code provides that, to keep revenue-generating government assets operating, special revenues can be applied to necessary operating expenses of the project or system ahead of all other obligations – including payments to holders of revenue debt obligations. This rule applies regardless of contrary provisions of the transaction documents, if such governing documents do not adequately provide for payment of necessary operating expenses. In determining necessary operating expenses for the System, in a Chapter 9 case the bankruptcy court thus may not be limited by the provisions governing the flow of funds or that define Operation and Maintenance expenses, in the Indenture or other Loan issuance documents

One other issues bears mention. While there is no case law from which to make a definitive judgment, it is possible that, in the context of confirming a plan of adjustment in a Chapter 9 case where the plan has not received the requisite consent of the WIFIA Lender, a bankruptcy court may confirm a plan that adjusts the timing of payments on the Loan or the interest rate or other terms of the Loan, provided that (i) the WIFIA Lender retain its lien on the special revenues and (ii) the payment stream has a present value equal to the value of the special revenues subject to the lien.

RD 3: Service Area & Economy

NBC services ten Rhode Island communities in the metropolitan Providence and Blackstone Valley areas. These communities include: Providence, North Providence, Johnston, Pawtucket, Central Falls, Cumberland, Lincoln, the northern portion of East Providence, and small sections of Cranston and Smithfield. Of the eight major communities served by NBC, Providence, Pawtucket, Cumberland and North Providence account for approximately 79% of customer accounts. Approximately 91% of customer

Figure 2



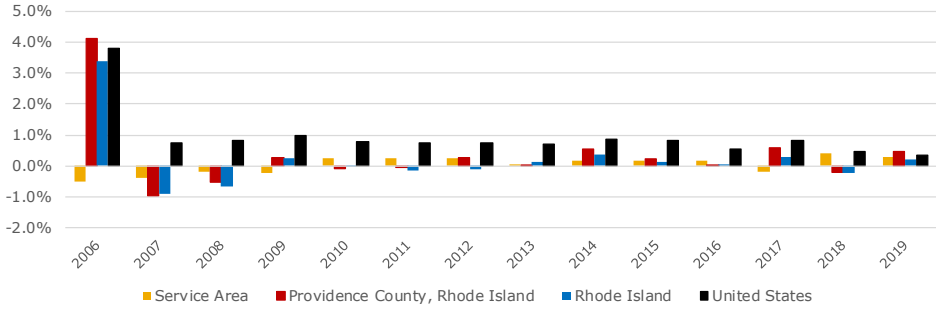
accounts are residential. Total customer accounts have increased 6.7% since FY 2001 and have historically been 90% residential.

Demographics and Economic Characteristics

The populations of the ten cities and towns which comprise NBC’s service area total approximately 542,000 which represents just over 50% of the state’s population. Population growth in the Service Area exceeds the overall State growth. As defined below, NBC’s service area’s per capita income represents approximately 92% of the state and poverty levels remain elevated.

Figure 3

% Change in Population

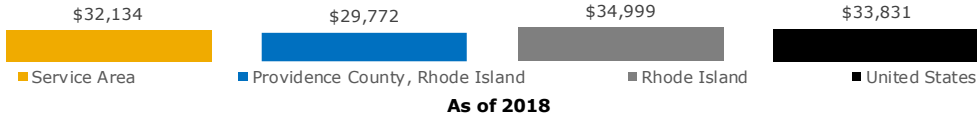


	2010	2019	Δ 2010 to 2019
Service Area ¹	533,800	541,946	1.5%
Providence County, Rhode Island	627,070	638,931	1.9%
Rhode Island	1,052,886	1,059,361	0.6%
United States	309,349,689	328,239,523	6.1%

¹ Service area is comprised of Providence, North Providence, Johnston, Pawtucket, Central Falls, Cumberland, Lincoln, East Providence, Cranston, and Smithfield.
Source: U.S Census

Figure 4

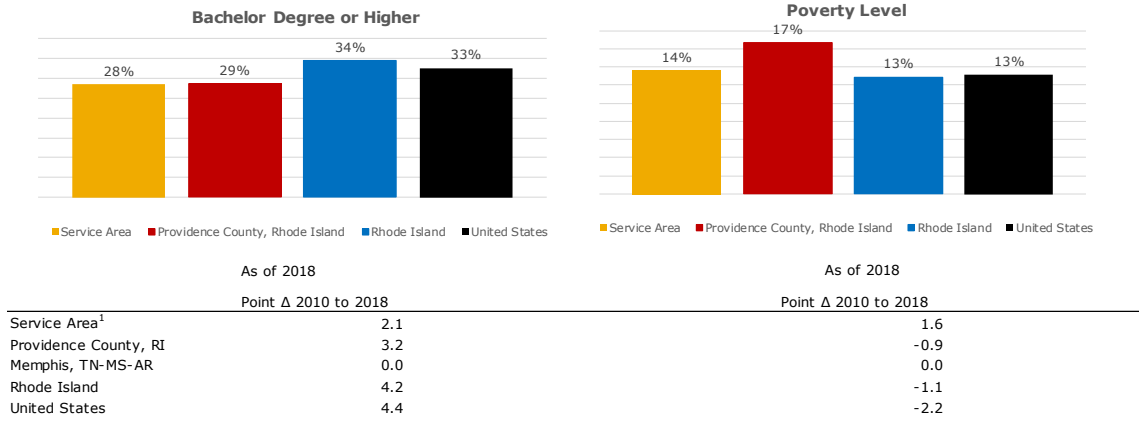
Per Capita Income



	2010	2018	% Δ 2010 to 2018	Comparison
Service Area¹	\$26,907	\$32,134	19.4%	-
Providence County, RI	\$24,178	\$29,772	23.1%	107.9% of County
Rhode Island	\$27,667	\$34,999	26.5%	91.8% of State
United States	\$26,059	\$33,831	29.8%	95.0% of U.S.

¹ Service area is comprised of Providence, North Providence, Johnston, Pawtucket, Central Falls, Cumberland, Lincoln, East Providence, Cranston, and Smithfield.
Source: U.S. Census

Figure 5



¹ Service area is comprised of Providence, North Providence, Johnston, Pawtucket, Central Falls, Cumberland, Lincoln, East Providence, Cranston, and Smithfield.

Source: U.S Census

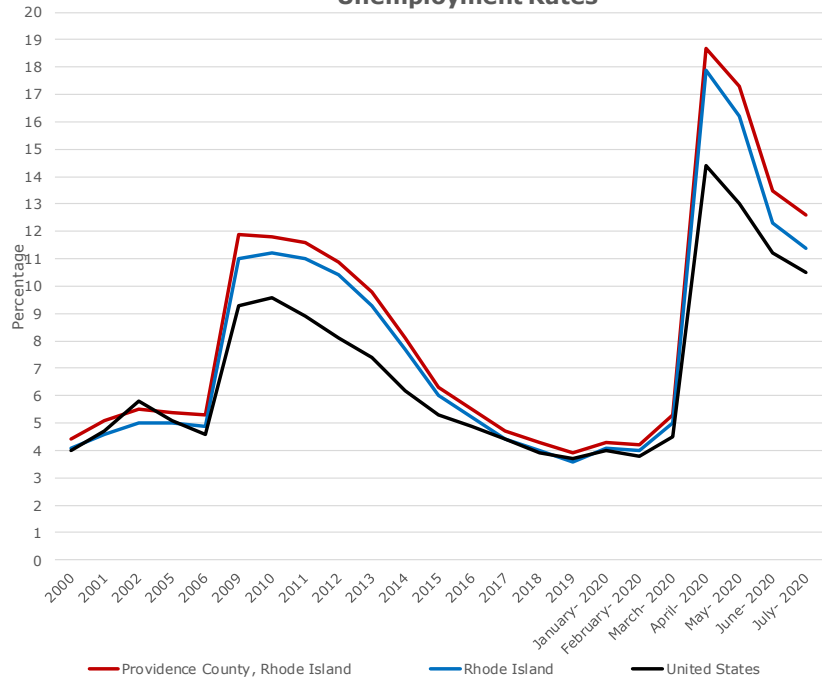
Bachelor degree or higher defined as "% of population over 25 with Bachelor's degree or higher".

Poverty level defined as "portion of population living below the poverty line".

Unemployment and Employment

Unemployment, as represented by Providence County, has historically exceeded the state’s average. Since 2017, the County’s unemployment rate, as well as the state’s, have exceeded prior cyclical lows (Figure 6). However, like elsewhere across the U.S., the unemployment rate spiked in April as a result of the COVID-19 pandemic and various stay at home orders. Recovery has been sharp since the April peak, however it still trails the state. While trending down, the unemployment rate in July was 12.6%, which exceeds the unemployment rate at the peak of the Great Recession. Employment growth was strong through 2019 but has since contracted.

Figure 6
Unemployment Rates



	Providence County, Rhode Island	Rhode Island	United States
July 2020	12.6	11.4	10.5
June 2020	13.5	12.3	11.2
Great Recession Peak	11.9	11.2	9.6
Point Δ Since Great Recession Peak	0.7	0.2	0.9

Source: U.S Bureau of Labor Statistics

Employment has shifted from the manufacturing sector towards more professional services sectors. Employment growth has been realized in the professional and business services, financial activities, education and health services, and leisure and hospitality sectors. Employment remains diverse with only the education and health services sector representing more than 20% of employment.

Figure 7

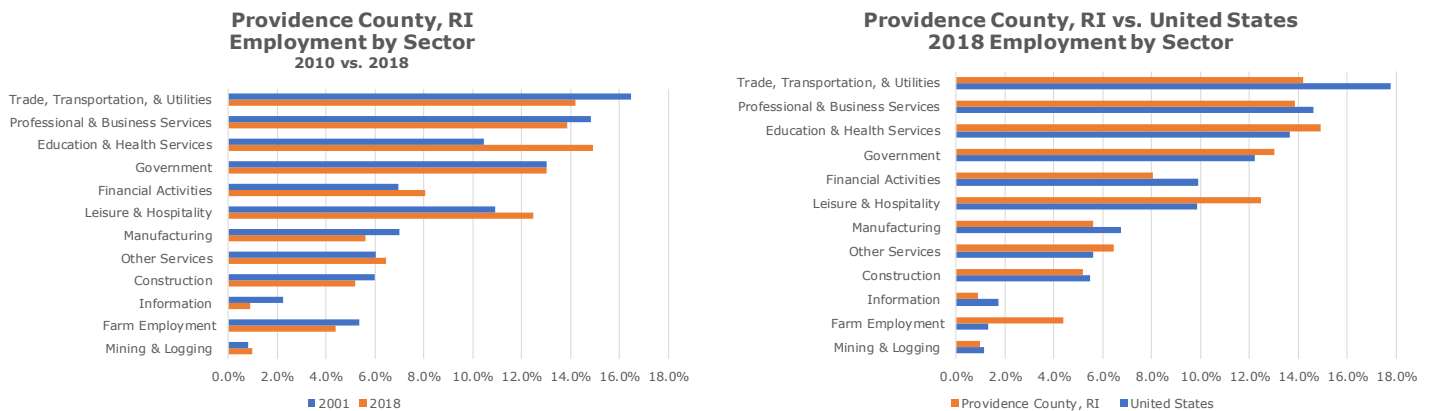
**Total Employment
(Not Seasonally Adjusted) (In Thousands)**

	Providence County, Rhode Island	% Δ	Rhode Island	% Δ	United States	% Δ
2000	296		521		136,891	
2001	295	-0.4%	519	-0.4%	136,933	0.0%
2002	297	0.7%	523	0.7%	136,485	-0.3%
2003	302	1.6%	531	1.5%	137,736	0.9%
2004	302	-0.1%	530	-0.1%	139,252	1.1%
2005	306	1.4%	537	1.4%	141,730	1.8%
2006	310	1.5%	544	1.3%	144,427	1.9%
2007	310	-0.2%	543	-0.2%	146,047	1.1%
2008	300	-3.1%	526	-3.2%	145,362	-0.5%
2009	288	-4.0%	505	-4.0%	139,877	-3.8%
2010	290	0.7%	503	-0.3%	139,064	-0.6%
2011	288	-0.7%	498	-1.0%	139,869	0.6%
2012	290	0.6%	500	0.4%	142,469	1.9%
2013	293	1.0%	505	1.0%	143,929	1.0%
2014	299	1.9%	514	1.7%	146,305	1.7%
2015	303	1.6%	521	1.5%	148,834	1.7%
2016	305	0.7%	524	0.6%	151,436	1.7%
2017	309	1.1%	529	0.8%	153,337	1.3%
2018	311	0.7%	532	0.7%	155,761	1.6%
2019	313	0.6%	536	0.6%	157,538	1.1%
Δ 2010 to 2019		7.8%		6.5%		13.3%
Δ Since Trough		8.6%		7.5%		13.3%
July- 2020	292	-6.8%	500	-6.7%	144,492	-8.3%

Source: U.S Bureau of Labor Statistics

Bold = trough during the Great Recession (2008-2012)

Figure 8



Source: Bureau of Economic Analysis

Historical Rates and Affordability

NBC has been granted multiple rate adjustments since 2005. Three of the last four rate increases have been for debt service and debt service coverage compliance. NBC’s last rate increase was for operations and maintenance expense and a rate base adjustment. Even with future anticipated rate increases, KBRA expects wastewater rates to remain affordable as compared to other systems in the state. The FY 2021 budget does not contemplate a FY 2021 rate increase.

Figure 9

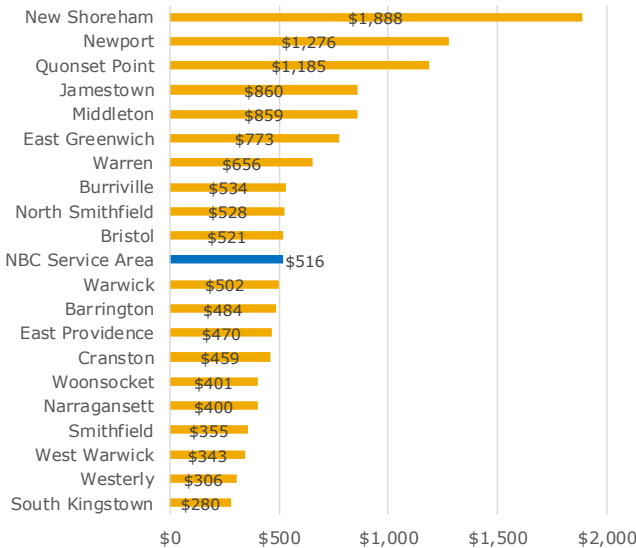
Rate History				
Effective Date	7/1/2015	7/14/2016	1/1/2019	7/1/2019
Type of Filing	Compliance	Compliance	Compliance	General
Purpose	Debt	Debt	Debt	O&M/Rate Base
Revenue Increase	2.29%	1.48%	2.88%	5.88%
User Rate Increase	2.37%	1.53%	2.98%	5.05%
Average Annual Residential Fee (150gpd)	\$470	\$477	\$491	\$516

Source: Narragansett Bay Commission

In the State’s annual Rhode Island sewer rate survey, the average annual residential charge of \$516 places NBC’s rate as the median out of the 21 cities in the report. The State average rate was \$647. NBC’s average rate trended up from \$477 from a year prior.

Figure 10

2019 Annual Rhode Island Residential Sewer Charges



Note: Annual Residential Sewer Charges are based on 73.2 hcf (150GPD). The State average was \$647.
Source: NBC FY 2021 Budget

Throughout FY 2019, the residential rate was a fixed charge of \$225.32 plus \$3.636 per HCF. In addition to the January 1, 2019 rate compliance increase, as a result of the Commission’s October 2018 rate application the residential fixed charge increased to \$237.41 plus \$3.810 HCF, effective July 1, 2019. As indicated in the rating filing, the effective July 1, 2019 rate would increase the bill of the average residential customer by \$24.83 (from \$491.48 per year to \$516.30). With projected rate increases to support the future borrowing needs of the project, NBC projects the average bill will reach approximately \$586 by 2026. A number of factors could alter the projection, including CIP scope changes, interest rates, health care costs and new regulatory requirements.

Median household income of Providence County and Rhode has outpaced the U.S. The average residential sewer bill, effective July 1, 2019, would account for less than 1% of the state’s median household income, which KBRA views as affordable.

Figure 11

Median Household Income						
Year	Providence County, RI	CAGR	Rhode Island	CAGR	United States	CAGR
2019	\$62,994	3.6%	\$71,169	3.5%	\$65,712	3.1%
2010	\$45,915		\$52,254		\$50,046	

Source: U.S. Census Bureau

RD 4: System Characteristics

The System consists of two treatment plants, which are the largest wastewater treatment facilities in the state (Field’s Point is the largest followed by Bucklin Point). The system includes 7 pump stations and 110 miles of interceptors.

Figure 12

NBC Treatment Facilities		
	Field’s Point	Bucklin Point
Avg daily treatment, mgd	53.2	23.9
Wet weather capacity, mgd	200	116
Number of pump stations	4	3
Number of active CSOs	35	26
Miles of interceptor	80	30

Source: NBC 2019 CAFR

Customer Base and User Fees

In FY 2019, the Commission’s customer base was comprised of approximately 77,000 residential accounts and 7,700 commercial/industrial accounts.

NBC’s user fees represent substantially all operating revenue. NBC’s user fee structure classifies users as residential, commercial, or industrial. Residential structures up to and including six dwelling units are classified as residential customers as are all residential condominiums regardless of the number of dwelling units. Commercial and industrial users, or non-residential accounts, include residential structures containing more than six dwelling units, commercial, mixed-use and industrial properties.

NBC’s customers are billed a flat fee and a consumption-based fee. For the consumption-based fees, NBC receives a water meter reading for substantially all customers from each of the water supply boards within the service area, and then calculates a sewer charge for each customer based upon this water meter reading. Substantially all customers receive a sewer bill from NBC and make payments directly to NBC.

For residential customers, flat fees are charged based upon the number of dwelling units. Non-residential customers are charged flat fees based upon meter size. While residential accounts make up over 90% of total accounts, they account for nearly 58% of total user fee revenue; with commercial and industrial accounts comprising the balance.

Customer Concentration

The system’s largest customers are largely institutions of higher education, municipal customers, and healthcare providers, thereby limiting exposure to economic volatility. Moreover, FY 2020 top ten customers account for less the 9% of the revenue base, which KBRA views as low.

Figure 13

NBC Principal Customers FY 2020	
Customer	% total billing
Providence Housing Authority	1.68
Rhode Island Hospital	1.60
Brown University	1.28
Rhode Island Resource Recovery	0.73
City of Providence	0.71
City of Pawtucket	0.67
Providence College	0.42
Providence School Department	0.41
State of Rhode Island	0.38
Johnson & Wales University	0.37
Total	8.25

Source: Narragansett Bay Commission

Performance Measures

NBC is substantially in compliance with RIPDES permit limits regarding discharge quality. The RIPDES permit sets forth daily and monthly limits for both levels.

System Condition

The Commission has been investing in capital assets in recent years and operates under a consent decree. Net fixed assets stood at just over \$1 billion at year end 2019, up 8.3% since 2014.

Capacity and Usage Constraints

Completion of the CSO projects Phases I, II, and III are designed to address much of NBC's CSO capacity limitations.

RD 5: Financial Metrics

Debt service coverage has been above the minimum requirements of the rate covenant.

Debt Service Coverage

Historically, with the support of rate increases, debt service coverage has remained above the 1.25x rate covenant. Coverage has averaged nearly 1.40x since 2010.

FY 2019

FY 2019 audited financial results show continued stable operations.

User fees are NBC's primary source of revenues, representing approximately 95.5% of total revenues. FY 2019 user fees were \$96.4 million which is \$605,765 higher than the prior year. The majority of the user fee revenue growth is the result of a rate increase effective January 1, 2019.

In FY 2019, nonuser fee operating revenues increased by \$403,497 primarily as the result of an increase in late charge penalties due to higher accounts receivable. Nonoperating revenues increased by \$602,313 or 57.2%, largely due to higher investment earnings.

Non-operating expenses decreased as the result of the \$5.0 million payment to the State in FY 2018 that was not required in FY 2019. Under the WIFIA loan agreements, no system revenues or assets may be transferred or applied for purposes other than ownership, operation or maintenance of the System, except with the consent of USEPA.

FY 2020 Unaudited Results

FY 2020 unaudited results indicate both revenues and expenditures are under budget. A rate increase took effect July 1, 2019 and budgeted FY 2020 user fees were \$104.6 million. Actual unaudited user fees are \$101.4 million. Residential user fees increased 7.5% year over year while commercial user growth was a moderate 2.8% year over year. Industrial user fees declined 7.4% year over year reflecting the impact of COVID-19 and the various work/stay at home orders. However, industrial user fees represent less than 3% of total user fees.

The revenue weakening did not have a significant impact of FY 2020 overall results because expenditures were also favorably under budget. Cost control measures in response to COVID included unfilled positions which lowered personnel expenses. Additional O&M expenses were favorable to budget. During FY 2020, NBC realized \$3.1 million in debt service savings due to refundings across its bond and RIIB debt portfolios in combination with the conversion of variable rate bonds to fixed rate. Unaudited results indicate a modest improvement in unaudited net position.

The PUC extended a moratorium on water shutoffs through July 17, 2020, although as of May 31, accounts receivable were only minimally above the prior year level. The Finance Department is pursuing the installation of customer service payment options to enhance safety and facilitate payment.

FY 2021 Budget and YTD Results

NBC's operating budget is \$104.6 million, a -2.3% decline (\$2.4 million) over the prior year. The FY 2021 budget reflects no rate changes and a -0.04% decline in the number of residential dwelling units. Budgeted user fee revenue is approximately 2.6% lower than FY 2020 budget as a result of the projected impact of COVID-19. The budget reflects step increases as well as a 2.5% contractual COLA. The pension costs for the state plan participants increased to 28.57% of payroll (up from 26.39%). The FY 2021 budget includes allocations for \$375,000 for interest on RAN's, if needed. Budgeted debt service coverage is 1.30x.

Residential user fee revenue has trended favorably post-COVID. March through August 2020 residential user fee revenue was 15%, or \$3 million, higher than the same period 2019. However, commercial was 14% lower (\$0.9 million) and industrial was 39% lower (\$0.5 million). NBC calculated Days User Fees Outstanding has returned to pre-pandemic levels as of August 2020.

System Liquidity

The Commission has demonstrated a history of maintaining sufficient liquidity. Unrestricted cash and cash equivalents totaled approximately \$21 million at FYE 2019. NBC's days cash on hand has increased from 134 in FY 2014 to 189 in FY 2019.

Figure 14

Statement of Net Position
\$ in thousands

	2019	2018	2017	2016	2015	2014
Cash	\$ 21,257	\$ 23,736	\$ 16,811	\$ 16,967	\$ 16,000	\$ 13,897
Accounts Receivable	21,107	14,256	13,823	14,637	15,350	15,067
Due from RIIB	38,727	16,409	42,258	52,112	6,713	43,978
Prepaid expenses	1,136	569	1,241	1,506	1,433	1,061
Total current assets	82,227	54,969	74,134	85,222	39,496	74,003
Restricted cash	59,036	62,770	71,732	84,500	74,974	66,880
Net capital assets	1,025,606	1,009,027	988,409	965,858	952,447	931,851
Other assets	1,223	184	-	-	-	213
Total assets	1,168,092	1,126,951	1,134,275	1,135,579	1,066,916	1,072,947
Deferred outflows	7,081	8,477	5,070	5,286	5,559	488
Payables and accrued expenses	6,857	13,820	13,195	15,414	14,147	24,060
Current portion of loans and leases payable	34,704	28,802	27,530	25,783	25,427	23,221
Total current liabilities	41,561	42,622	40,725	41,197	39,574	47,281
Long term accrued expenses	7,140	6,656	2,780	2,991	2,978	2,796
Net pension liability	18,671	19,377	19,566	20,952	20,418	-
Long term loans, leases and debt	579,679	565,579	594,381	621,910	583,452	607,302
Total non-current liabilities	605,490	591,612	616,727	645,853	606,848	610,099
Total liabilities	647,051	634,234	657,452	687,051	646,422	657,380
Total deferred inflows	2,677	3,077	590	1,030	2,344	272
Net position	\$ 525,446	\$ 498,118	\$ 481,303	\$ 452,784	\$ 423,709	\$ 415,784

Source: Narragansett Bay Commission

Revenue / Expense Management

As with wastewater systems generally, user fees are NBC's primary source of revenue, representing over 95% of total revenues in FY 2019. The 2014 to 2019 CAGR in total revenues is 1.9%, which compares favorably to the operating expense (net depreciation) CAGR of 1.0%.

NBC notes that revenues have increased to support debt service and coverage covenants with NBC's expanding capital programs.

Figure 15

Statement of Revenues & Expenses											
\$ in thousands											
	2019	% chg.	2018	% chg.	2017	% chg.	2016	% chg.	2015	% chg.	2014
Operating revenues	\$ 99,346	1.0%	\$ 98,336	-1.3%	\$ 99,656	0.7%	\$ 99,005	4.2%	\$ 95,016	3.1%	\$ 92,148
Non-operating revenues	1,656	57.1%	1,054	72.0%	613	91.0%	321	84.0%	174	-7.0%	188
Total revenues	101,002	1.6%	99,390	-0.9%	100,269	0.9%	99,326	4.3%	95,190	3.1%	92,336
Personnel services	23,845	3.0%	23,157	1.9%	22,720	-0.8%	22,904	9.3%	20,947	-0.7%	21,091
Depreciation	16,401	1.9%	16,091	3.2%	15,594	10.7%	14,091	8.5%	12,984	9.9%	11,812
O&M	8,025	6.3%	7,548	4.6%	7,220	-4.8%	7,582	9.4%	6,931	-2.1%	7,081
Other operating expenses	9,075	3.2%	8,795	7.2%	8,208	7.6%	7,628	-17.9%	9,295	-5.1%	9,794
Non-operating expenses	17,327	-24.7%	23,018	27.8%	18,009	-3.0%	18,558	7.9%	17,196	-2.2%	17,576
Total expenses	74,674	-5.0%	78,609	9.6%	71,750	1.4%	70,763	5.1%	67,352	0.0%	67,354
Net Income, net of depreciation	\$ 42,729	15.9%	\$ 36,872	-16.4%	\$ 44,112	3.4%	\$ 42,654	4.5%	\$ 40,822	10.9%	\$ 36,793
Gross Revenues	101,002		99,390		100,269		99,326		95,190		92,336
Operating Expenses (excl. dep.)	40,945		39,500		38,148		38,114		37,172		37,966
Net Revenues available for DS	60,057		59,890		62,121		61,212		58,018		54,370
Debt Service	46,576		45,524		43,683		43,019		40,217		39,984
Debt Service Coverage	1.29x		1.32x		1.42x		1.42x		1.44x		1.36x

Source: Narragansett Bay Commission

Employee Cost & Labor Pressure

Union employees participate in a cost-sharing multiple employer defined benefit pension plan, the Employees' Retirement System Plan (ERS), administered by the Employees' Retirement System of the State of Rhode Island (ERSRI). For those hired after June 30, 2012, the benefit accrual rate is 1% per year with a maximum benefit accrual of 40%. Cost of living adjustments (COLA) are provided but are currently suspended until the collective plans reach a funded status of 80%. Until the plans reach an 80% funded status, interim COLAs are provided at four-year intervals. Per NBC's FY 2019 CAFR, the fiduciary net position of the ERS plan is equal to 52.5%.

The funding policy, as set forth in the General Laws, Section 36-10-2, provides for actuarially determined periodic contributions. In FY 2019, NBC contributed 100% of the required contribution. The FY 2019 actuarially required contribution as a percent of covered payroll was a high 25.75%. At June 30, 2019, NBC reported a modest liability of \$18.7 million for its proportionate share of the net pension liability related to its participation in ERSRI. The discount rate used to measure the total pension liability was 7.0%.

Certain union employees participate in a defined contribution plan. NBC contributes 5% of salary to a non-union defined contribution plan. NBC maintains a defined benefit plan for nonunion employees; the plan is fully funded.

Figure 16

Pension and OPEB Contributions, FY 2019	
	2019
OPEB contribution	362,589
ERS contribution	1,561,290
Defined contribution, union	52,593
Defined contribution, nonunion	506,143
Non union defined benefit	<u>1,008,665</u>
	3,491,280

Source: Financial Audit, 2019

Union employees participate in a cost-sharing multiple-employer defined benefit other post-employment benefits (OPEB) plan included within the Rhode Island State Employees’ and Electing Teachers OPEB System which generally provides healthcare coverage to pre-Medicare eligible retirees or Medicare supplemental coverage for members who are Medicare eligible. Dental and vision coverage may be purchased by these groups with no state subsidy. At June 30, 2019, NBC reported a liability of \$4.2 million for its proportionate share of the plan’s net OPEB liability. The discount rate used to calculate the liability was 6%.

Collection Levels and Trends

Residential consumption has been declining.

Trends in Accounts Receivable

Late charges historically represent around 1.0% of user fees. Collection activities through the water shut-off program were suspended from May 2018 through January 2019 due to the implementation of the new Customer Service Application. As a result of the suspended collection activity as well as the conversion to the weekly billing cycles from a single monthly billing, NBC accounts receivable (net of allowance) increased to \$16.2 million in FY 2019 from \$9.2 million in FY 2018. At 2019 FYE, accounts receivable represents just over 20% of total revenues. Days User Fee Outstanding, as presented by NBC, increased to 59 days in May 2020 but has since returned to 48 days, which is on par with historical averages.

RD 6: Debt Structure & Capital Plan Requirements

As of June 30, 2020, NBC has approximately \$612.3 million in debt outstanding, consisting entirely of outstanding SRF loans and revenue bonds.

NBC closed on the \$268.7 million WIFIA I loan in FY 2020 and it is expected to be drawn upon in FY 2022 through FY 2024. NBC will receive the anticipated \$190.6 million WIFIA II loan in FY 2021 and will draw on this loan in FY 2021 and FY 2022. Debt levels are above average, but the amortization structure provides capacity for additional planned borrowing to meet capital needs. Additionally, interest is capitalized through FY 2032 in each WIFIA loan. Principal amortization for WIFIA II begins in FY 2046 and FY 2039 for WIFIA I.

Figure 17

Narragansett Bay Commission	
Pro Forma Debt Outstanding, June 30, 2020	
Type	Amount (000s)
RIIB Loans	\$ 346,974
Bonds	265,340
Total	<u>\$ 612,314</u>

Source: NBC Wastewater System Refunding Revenue Bonds, 2020 Series A OS

Capital Improvement Plan

NBC annually updates its multiyear CIP. The FY 2021 – 2027 CIP totals \$908 million.

The most significant component of the CIP is the federally mandated Combined Sewer Overflow Abatement Program, or CSO Phase III A Facilities. Expenditures on this project are expected to significantly increase as construction begins in FY 2022. Phase III A of the project includes design and construction of a deep rock tunnel in Pawtucket approximately

11,700 feet in length along the Seekonk and Blackstone Rivers, a pump station to convey flow to the Bucklin Point WWTF, drop shafts and consolidation conduits. Additionally, the project includes the design of several initiatives which will be completed in Phase III B, C and D.

NBC has completed two similar stormwater storage tunnels that feed into the Fields Point treatment facility.

Figure 18

Programmed Capital Improvements (\$ thousands)								Total FY
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	2021-2027
CSO Phase III A Facilities	\$ 70,190	\$ 146,625	\$ 221,143	\$ 195,124	\$ 122,138	\$ 25,977	\$ 8,336	\$ 789,533
Bucklin Point	10,231	39,074	14,961	123	-	-	-	64,389
Other CIP	11,366	10,458	16,335	8,602	2,500	2,500	2,500	54,261
Total CIP	\$ 91,787	\$ 196,157	\$ 252,439	\$ 203,849	\$ 124,638	\$ 28,477	\$ 10,836	\$ 908,183

Source: NBC WIFIA Model

The largest funding source for the CIP is WIFIA loans (\$460 million), followed by revenue bonds of approximately \$300 million, PAYGO of \$87 million, and state revolving loan funds of \$62 million.

For WIFIA II, the project budget is shown below. The project borrowing assumes future rate increases through FY 2033 to support the non-WIFIA project debt. Timely and adequate rate adjustments need to be utilized to implement NBC's capital and financing plan. The initial WIFIA II application was revised from \$40 million to \$190 million to incorporate higher project costs and risks related to the Element B deep rock tunnel associated with Bucklin Point. The CSO Phase III A Facilities include project contingencies of approximately 5% to 15%.

Figure 19

Project Budget		
Sources of Funds	Amount (\$ 000s)	
WIFIA Loan	190,634	49%
NBC Revenue Bonds	138,023	35%
SRF	33,967	9%
Paygo Cash	26,415	7%
Total Sources of Funds	389,039	100%
Uses of Funds		
Element A:		
Design	1,176	0%
Construction	60,265	15%
Construction Management	2,948	1%
Previously Incurred Costs	26,136	7%
Element B:		
Design	54,873	14%
Construction	200,142	51%
Construction Management	9,869	3%
Financing Costs	33,638	9%
Total Uses of Funds	389,049	100%
Total Eligible Project Costs	389,049	100%
Total Project Costs	389,049	100%

Source: WIFIA Loan Agreement

Variable Rate Debt

As of FY 2019, NBC had approximately \$56.5 million in variable rate debt outstanding (2008 Series A, maturing in 2034), or less than 9% of total debt outstanding. In January 2020, NBC converted these bonds to a fixed rate of 2.29%.

Leverage Ratio

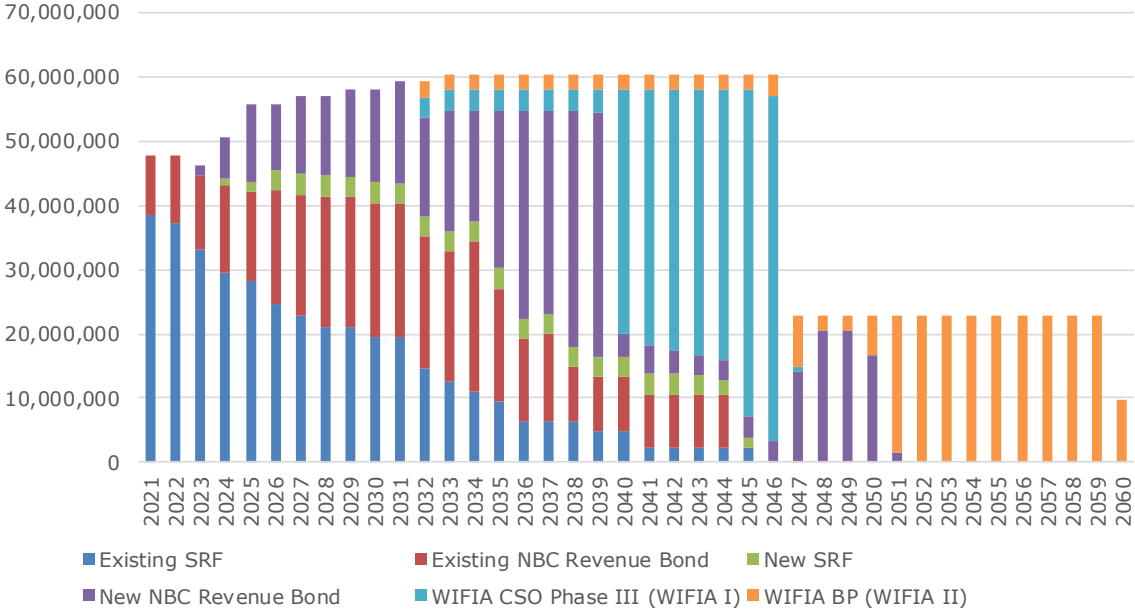
System leverage ratios are high as evidenced by the Commission's debt-to-plant ratio of nearly 60% in FY 2019.

Debt Service Requirement

As of FY 2020, NBC has approximately \$612 million of debt outstanding, consisting of entirely of SRF loans and revenue bonds. The WIFIA I loan has yet to be drawn on. Projected debt service increases gradually from \$44.7 million in FY 2020 to \$60.4 million in FY 2033 (MADS). This equates to an average annual growth rate for debt service of 2.2% through 2033.

Figure 20

Existed and Projected Project Debt Service



Source: NBC WIFIA Model

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Narragansett Bay Commission

Issuer: Narragansett Bay Commission		
Affirmed	Rating	Outlook
Bucklin Point Resiliency Improvements WIFIA Loan	AA	Stable
Combined Sewer Overflow (CSO) Phase III Facilities WIFIA Loan	AA	Stable

Methodology:

- [U.S. Municipal Retail Utility Revenue Bond Rating Methodology](#)
- [ESG Global Rating Methodology](#)

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Phase IIIA the largest component and most complex. NBC reports significant water quality improvements in the Narragansett Bay to date from Phases I and II with beach closures reduced by 85% and improved shell-fishing conditions. Further environmental improvements are expected upon completion of Phase IIIA when up to 95% of the CSO within the Bucklin Point service area will be treated.

The financial operations of NBC are well positioned to accommodate the comprehensive capital and borrowing plan. Capital funding has received support by PAYGO and timely rate adjustment actions and it is KBRA's expectation that this pattern will continue. Debt service costs are forecast to increase from \$46.1 million in FY 2020 to a projected peak of about \$69 million in FY 2037, which reflects all planned borrowing required to finance the CSO Phase III A Facilities and Bucklin Point Resiliency Improvements. User fee increases are expected to be reasonable. Debt financing will be incurred in a measured pattern over the construction period.

Operating performance was strong in FY 2020 which supported an increase in combined obligation debt service coverage to 1.45x, up from 1.29x in FY 2019. Operating revenues increased 3.9% YoY to \$104.9 million benefitting from a 5.05% rate increase which became effective July 1, 2019. The benefit of the increase was offset in part by a mild increase in accounts receivable per the State Public Utilities Commission's imposition of a freeze on service shut-offs for non-payment between March 16, 2020 and July 17, 2020 in response to the pandemic. Expenditures declined 2.1% YoY to \$40.1 million, reflecting modest declines in O&M and contractual services associated with lower purchased power prices and lower biosolids disposal expenses. Net revenues available for debt service increased 8.0% YoY to \$64.8 million. Debt service requirements additionally declined 4.1% YoY to \$44.7 million but are projected to generally escalate through FY 2037.

The demographics of the service area remain adequate. Wealth levels are below state averages within the defined geography of NBC reflecting its older manufacturing and urban base. However, the service area represents an important economic area, including the city of Providence, the largest city in Rhode Island and the state capitol. The service area has benefited from the more favorable economic growth the state has experienced in recent years.

The Stable Outlook reflects the historically demonstrated record of strong financial management and willingness and ability to increase rates. The Commission's rates are regulated by the Rhode Island Public Utility Commission (PUC) and KBRA's rating assessment reflects the expectation that rates will be adjusted as forecast to support operations and the ongoing capital program while continuing to satisfy the 1.25x rate covenant.

Rating Summary: The Narragansett Bay Commission (NBC) provides wastewater treatment and collection service to the greater Providence metropolitan area. It is a public corporation incorporated in 1980 pursuant to state statute and provides services to over 360,000 residents and about 7,700 commercial users.

NBC owns and operates the two largest wastewater treatment facilities in the state: Field's Point and Bucklin Point, as well as a substantial wastewater transmission network.

To comply with a consent decree with the Rhode Island Department of Environmental Management (RIDEM), NBC is in the third and final phase of a Combined Sewer Overflow (CSO) Abatement Program. Each phase involves the construction of a CSO capture and storage system. CSO's are stored and then subsequently treated when system capacity is able to accommodate the flow. Phases I and II, completed in 2008 and 2014, respectively, are CSO capture, transport and storage systems that feed into the Field's Point Treatment Facility. Phase III will feed into the Bucklin Point Treatment Facility. Phase III has four components, Phases IIIA-IIID, with

Key Credit Considerations

KBRA continues to monitor the direct and indirect impacts of the COVID-19 virus. Click [here](#) to access KBRA's ongoing research on the topic.

The rating was affirmed because of the following key credit considerations:

Credit Positives

- Experienced management team that has a good background completing capital projects.
- Favorable history of rate setting and financial management.
- Comprehensive capital planning process.

Credit Challenges

- Rate increases are subject to the review of the Rhode Island Public Utilities Commission. However, NBC has proactively kept the PUC informed of capital projects and rate requirements and the history of rate review and approval has been constructive.
- Debt levels are above average.

Rating Sensitivities

▪ Transitioning to an environment where future capital needs are more moderate.	+
▪ Improving wealth levels within the service area.	
▪ Less favorable rate review environment.	-

Key Ratios

Key Ratios	
Service Area Population (2020)	563,928
<i>Growth 2010 to 2020</i>	<i>5.8%</i>
Service Area Income Per Capita (2019)	32,788
<i>as a % of State Income Per Capita</i>	<i>91%</i>
Debt Service Coverage	
FY 2018	1.32x
FY 2019	1.29x
FY 2020	1.45x
Commission Modeled Rate Increases	
Average Annual Increase FY 2021 to FY2031	1.95%
Debt Service Requirements	
FY 2020	\$44.7 million
Existing MADS (FY 2046)	\$61.3 million
Projected MADS w/Additional Borrowing for CSO Phase III A Facilities and Bucklin Point Resiliency Improvements (FY 2036)	~\$69.0 million

Rating Determinants (RD)

1. Management, Governance, Regulatory Framework	AA+
2. Legal Mechanics and Security Provisions	AA+
3. Service Area and Demand	AA
4. Operations and Capital	AA-
5. Financial Profile and Debt	AA-

Bankruptcy Assessment

KBRA's bankruptcy assessment for this credit can be found on page 5 of the [report](#) dated October 5, 2021.

ESG Management**Environmental Factors**

The Commission is under a Consent Decree with the Rhode Island Department of Environmental management to implement a federally mandated combined sewage overflow (CSO) abatement program. The first phase addressed 40% of the CSO volume and has been in service since November 2008. The second phase facilities were completed in December 2014 and planning for third phase facilities is underway. The current schedule contemplates completion of all phases of the CSO abatement program in 2041. Approximately 98% of annual CSO volume will receive treatment when all the phases are complete.

The Commission engaged an engineering firm to prepare a Resiliency Plan and identify short and long-term actions required to ensure continuous operation and protect collection system and wastewater treatment facility infrastructure. The Commission evaluated its assets in accordance with Rhode Island Department of Environmental Management (RIDEM) guidance, using Federal Emergency Management Agency 100-year flood elevations plus three feet. The draft report identified minor modifications to two localized areas at the Commission's Field's Point Wastewater Treatment Facilities and is under review by RIDEM.

**Social Factors**

As part of the Commission's public outreach program, 42 tours of treatment facilities and 120 watershed education lessons were given through the Commission's Watershed Explorers program. Through this program, more than 780 students from 15 schools in the Commission's service area received monthly lessons and learned about the health of each school's watershed. In addition, the Commission sponsored and participated in the Hack for Global Good program, which engages motivated high school students to assess and address real, global environmental challenges.

**Governance Factors**

The Commission is regulated by RIDEM and the U.S. Environmental Protection Agency to ensure compliance with State and Federal Clean Air and Clean Water Acts. The Commission has been issued Rhode Island Pollutant Discharge Elimination permits for each of its wastewater treatment facilities.

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Narragansett Bay Commission

Issuer: Narragansett Bay Commission		
Affirmed	Ratings	Outlook
Combined Sewer Overflow (CSO) Phase III Facilities WIFIA Loan	AA	Stable
Bucklin Point Resiliency Improvements WIFIA Loan	AA	Stable

Rating Summary: The Narragansett Bay Commission (NBC) provides wastewater treatment and collection service to the greater Providence metropolitan area. It is a public corporation incorporated in 1980 pursuant to state statute and provides services to over 360,000 residents and about 7,700 commercial users.

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Methodology

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Phase III will feed into the Bucklin Point Treatment Facility. Phase III has four components, Phases IIIA-IIID, with Phase IIIA the largest component and most complex. NBC reports significant water quality improvements in the Narragansett Bay to date from Phases I and II with beach closures reduced by 85% and improved shell-fishing conditions. Further environmental improvements are expected upon completion of Phase IIIA when up to 95% of the CSO within the Bucklin Point service area will be treated.

The financial operations of NBC are well positioned to accommodate the comprehensive capital and borrowing plan. Capital funding has received support by PAYGO and timely rate adjustment actions and it is KBRA's expectation that this pattern will continue. Debt service costs are forecast to increase from \$44.7 million in FY 2021 to a projected peak of about \$61 million in FY 2046, which reflects all planned borrowing required to finance the CSO Phase III A Facilities and Bucklin Point Resiliency Improvements. User fee increases are expected to be reasonable. Debt financing will be incurred in a measured pattern over the construction period.

Operating performance was strong in FY 2021 which supported combined obligation debt service coverage of 1.46x, which was very comparable to FY 2020 of 1.45x. FY 2020 debt service coverage was up from 1.29x in FY 2019. Operating revenues increased 0.8% YoY to \$104.5 million. Expenditures declined 3.4%% YoY from \$74.8 million in 2020 to \$72.2 million in 2021. Net revenues available for debt service increased modestly to \$105.5 million. Debt service requirements are projected to generally escalate through FY 2037.

The demographics of the service area remain adequate. Wealth levels are below state averages within the defined geography of NBC reflecting its older manufacturing and urban base. However, the service area represents an important economic area, including the city of Providence, the largest city in Rhode Island and the state capitol. The service area has benefited from the more favorable economic growth the state has experienced in recent years.

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Key Credit Considerations

The rating was affirmed because of the following key credit considerations:

Credit Positives

- Experienced management team that has a good background completing capital projects.
- Favorable history of rate setting and financial management.
- Comprehensive capital planning process.

Credit Challenges

- Rate increases are subject to the review of the Rhode Island Public Utilities Commission. However, NBC has proactively kept the PUC informed of capital projects and rate requirements and the history of rate review and approval has been constructive.
- Debt levels are above average.

Rating Sensitivities

- | | |
|---|---|
| ▪ Transitioning to an environment where future capital needs are more moderate. | + |
| ▪ Less favorable rate review environment. | - |

Key Ratios

Service Area Population (2020)	563,928
<i>Growth 2010 to 2020</i>	<i>5.8%</i>
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<i>as a % of State Income Per Capita</i>	<i>91%</i>
Debt Service Coverage	
FY 2018	1.32x
FY 2019	1.29x
FY 2020	1.45x
Projected Rate Increases	
FY 2023	5.50%
FY 2025	5.50%
FY 2026	1.89%
FY 2027	3.56%
Debt Service Requirements	
FY 2020	\$44.7 million
Existing MADS (FY 2046)	\$61.3 million
Projected MADS w/Additional Borrowing for CSO Phase III A Facilities and Bucklin Point Resiliency Improvements (FY 2036)	~\$69.0 million

Rating Determinants (RD)

1. Management, Governance, Regulatory Framework	AA+
2. Legal Mechanics and Security Provisions	AA+
3. Service Area and Demand	AA
4. Operations and Capital	AA-
5. Financial Profile and Debt	AA-

RD 1: Management, Governance and Regulatory Framework

The Rhode Island General Assembly in 1980 established by statute the commission to correct and minimize pollution discharges into the Narragansett Upper Bay. On January 1, 1992, the former Blackstone Valley District Commission was merged into NBC, expanding the service area.

NBC is governed by a nineteen-member Board of Commissioners (Board) appointed for three-year terms. Ten public members are appointed by the Governor, two by the Mayor of the City of Providence, one each by the Mayors of the Towns of North Providence, Johnston and Cumberland, one each by the Mayors of the Cities of East Providence, Central Falls and Pawtucket and one by the Town Administrator of Lincoln. The Board's Chairperson, Vice-Chairperson, and Treasurer are elected annually by the Board. The Board-appointed Executive Director, who also serves as Secretary to the Board, administers, manages and directs the affairs and business of NBC subject to the policies, control and direction of the Board.

Rate Setting Authority and Process

NBC's rates are regulated by the Rhode Island Public Utilities Commission (PUC). Two types of applications for rate relief are available to NBC. The first is a general rate relief application. The second is a debt service compliance filing for rate relief related to debt service (DS) and debt service coverage (DSC). The latter type involves a simpler process.

A general rate relief application includes pre-filed testimony and schedules from NBC employees, outside experts, etc. The Commission must respond to data requests from the PUC and DPUC. A written Report and Order is issued which notes the effective date of the new rates.

Rate relief for DS and DSC is generally more expeditious as the scope is limited.

Managerial Experience

The Commission's senior leadership team has considerable experience and have worked together for an extended period. Laurie Horridge was appointed Executive Director of NBC in January 2019. She has been with NBC for 28 years. Karen Giebink, CFO, has been with NBC for 31 years.

RD 2: Legal Mechanics & Security Provisions

Debt service on NBC's WIFIA loans are payable from net system revenues. The loans are on parity with outstanding revenue bonds and Rhode Island Infrastructure Bank (RIIB) loans. The legal mechanics and security provisions provide a strong level of bondholder/WIFIA loan lender protection.

Rate Covenant

The Commission shall fix, charge, and collect rates, fees and charges for the wastewater system at levels sufficient so that total net revenues during each fiscal year are equal to at least 125% of annual debt service with respect to all outstanding revenue bonds (including WIFIA loan) and 135% of annual debt service when RIIB loans are included.

Additional Bonds Test

The additional bonds test requires estimated annual net revenues for the three fiscal years following issuance of bonds to be 1.25x the debt service requirement for revenue bonds and 1.35x the debt service requirement for all RIIB loans.

Required Reserves

There is no reserve requirement for the WIFIA Loan. There is a debt service reserve requirement for NBC's outstanding revenue bonds that is set on a series basis, as provided in each supplemental indenture. Generally, the debt service reserve is the lesser 10% of original principal amount, 125% average annual debt service, maximum annual debt service (MADS), or the maximum amount permitted by federal tax law without requiring yield restriction.

Flow of Funds

Per the Master Indenture, all revenues are deposited into the Revenue Fund as promptly as practicable. On the third day prior to the last business day of each month, available revenues in the Revenue Fund are transferred per the flow of funds. After payment of operating expenses through the Operation and Maintenance Fund, net revenues are applied to accounts in the Debt Service Fund. Debt service deposits are 1/6th of interest and 1/12th of principal. Generally, in practice, after meeting the Indenture’s debt service coverage requirement, excess amounts in the Debt Service Fund’s Stabilization Account are transferred to various accounts in the Project Fund in subsequent months to pay for capital projects and operating capital.

Bankruptcy Assessment

KBRA’s bankruptcy assessment for this credit can be found in the [report](#) dated October 5, 2020.

RD 3: Service Area and Demand

NBC services ten Rhode Island communities in the metropolitan Providence and Blackstone Valley areas. These communities include: Providence, North Providence, Johnston, Pawtucket, Central Falls, Cumberland, Lincoln, the northern portion of East Providence, and small sections of Cranston and Smithfield. Of the eight major communities served by NBC, Providence (39%), Pawtucket (20%), Cumberland (9%) and North Providence (11%) account for approximately 79% of customer accounts. Approximately 91% of customer accounts are residential. Total customer accounts have increased 7% since FY 2001 and have historically been 90% residential.

Rate Structure

NBC has been granted multiple rate adjustments since 2005. Three of the last four rate increases have been for debt service and debt service coverage compliance. NBC’s last rate increase was for operations and maintenance expense and a rate base adjustment. Even with future anticipated rate increases, KBRA expects wastewater rates to remain affordable as compared to other systems in the state. The FY 2021 budget did not have a rate increase. The next projected rate increase is 5.5% in FY 2023, followed by rate increases of 5.5% in FY 2025, 1.89% in FY 2026, and 3.56% in FY 2027 according to the FY 2022 Budget.

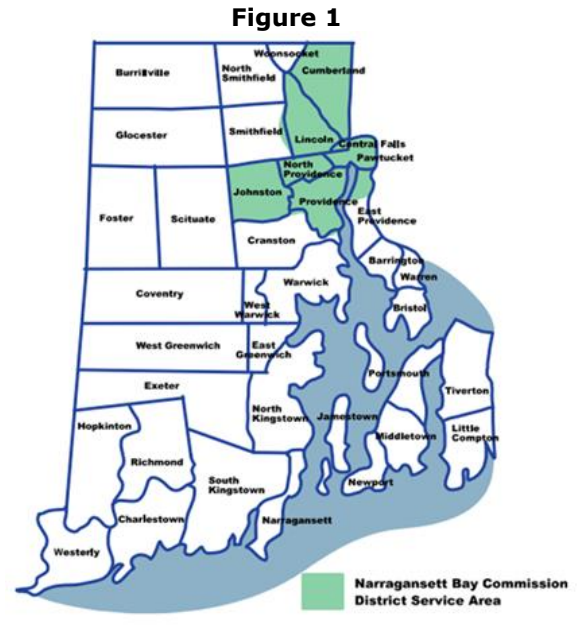


Figure 2

Rate History				
Effective Date	7/1/2015	7/14/2016	1/1/2019	7/1/2019
Type of Filing	Compliance	Compliance	Compliance	General
Purpose	Debt	Debt	Debt	O&M/Rate Base
Revenue Increase	2.29%	1.48%	2.88%	5.88%
User Rate Increase	2.37%	1.53%	2.98%	5.05%
Average Annual Residential Fee (150gpd)	\$470	\$477	\$491	\$516

Source: Narragansett Bay Commission

Customer Concentration

The system’s largest customers are largely institutions of higher education, municipal customers, and healthcare providers, thereby limiting exposure to economic volatility. Moreover, FY 2021 top ten customers account for less the 9% of the revenue base, which KBRA views as low.

Demographic and Economic Characteristics

The population of NBC’s service area approximates 564,000 which represents over 51% of Rhode Island’s population. Service area population growth exceeds the state. Per capita income of the service area represents approximately 91% of the state. Providence’s unemployment rate has historically trended above the state average. While the unemployment rate has recovered from its 2020 peak, it remains elevated from its post-recessionary low in 2019.

Figure 3

NBC Principal Customers FY 2021	
Customer	% total billing
Rhode Island Hospital	1.76
Providence Housing Authority	1.67
Brown University	1.11
City of Providence	0.66
City of Pawtucket	0.65
Rhode Island Resource Recovery	0.65
Providence College	0.43
Johnson & Wales University	0.42
Providence School Department	0.36
Fairfield Residential	0.36
Total	8.10

Source: Narragansett Bay Commission 2021 ACFR

Figure 4

Unemployment Rates



Source: U.S Bureau of Labor Statistics

RD 4: Operations and Capital

The System consists of two treatment plants, which are the largest wastewater treatment facilities in the state (Field’s Point is the largest followed by Bucklin Point). The system includes 7 pump stations and 110 miles of interceptors.

Figure 5

NBC Treatment Facilities		
	Field's Point	Bucklin Point
Avg daily treatment, mgd	40	18
Wet weather capacity, mgd	200	116
Number of pump stations	5	3
Number of active CSOs	35	26
Miles of interceptor	80	30

Source: NBC 2021 ACFR

Customer Base and User Fees

The Commission’s customer base was comprised of approximately 77,400 residential accounts and 7,700 commercial/industrial accounts.

NBC’s user fees represent substantially all operating revenue. NBC’s user fee structure classifies users as residential, commercial, or industrial. Residential structures up to and including six dwelling units are classified as residential customers as are all residential condominiums regardless of the number of dwelling units. Commercial and industrial users, or non-residential accounts, include residential structures containing more than six dwelling units, commercial, mixed-use and industrial properties.

NBC’s customers are billed a flat fee and a consumption-based fee. For the consumption-based fees, NBC receives a water meter reading for substantially all customers from each of the water supply boards within the service area, and then calculates a sewer charge for each customer based upon this water meter reading. Substantially all customers receive a sewer bill from NBC and make payments directly to NBC.

For residential customers, flat fees are charged based upon the number of dwelling units. Non-residential customers are charged flat fees based upon meter size. While residential accounts make up over 90% of total accounts, they account for approximately 60% of total user fee revenue in FY 2021; with commercial and industrial accounts comprising the balance.

Customer Concentration

The system's largest customers are largely institutions of higher education, municipal customers, and healthcare providers, thereby limiting exposure to economic volatility. Moreover, FY 2021 top ten customers account for less than 9% of the revenue base, which KBRA views as low.

System Condition

The Commission has been investing in capital assets in recent years and operates under a consent decree. Net fixed assets stood at just over \$1.1 billion at year end 2021, up 14.6% since 2017.

Capacity and Usage Constraints

Completion of the CSO projects Phases I, II, and III are designed to address much of NBC's CSO capacity limitations.

RD 5: Financial Profile and Debt

Balance Sheet

The amount of debt outstanding has been increasing as the Commission has borrowed to implement its capital plan. Debt outstanding has increased from \$594 million to \$971 million from 2017 to 2021, or 63%. Net capital assets have also increased, as noted, from \$988 million in 2017 to \$1.1 billion in 2021 or 14.6%. In addition, the net position has grown from \$481 million in 2017 to \$590 million, or 22%.

The Restricted cash items on the balance sheet reflect amounts required to be restricted under the trust indenture including the operations and maintenance fund cash accounts of \$22.1 million, or 146 days cash on hand.

Figure 6

Statement of Net Position					
\$ in thousands					
	2021	2020	2019	2018	2017
Cash	\$ -	\$ -	\$ 21,257	\$ 23,736	\$ 16,811
Accounts Receivable	20,636	20,467	21,107	14,256	13,823
Due from RIIB	-	6,917	38,727	16,409	42,258
Due from WIFIA	403,158	268,711			
Prepaid expenses	406	529	1,136	569	1,241
Total current assets	<u>424,187</u>	<u>296,624</u>	<u>82,227</u>	<u>54,969</u>	<u>74,134</u>
Restricted cash	77,987	78,839	59,036	62,770	71,732
Net capital assets	1,132,899	1,055,958	1,025,606	1,009,027	988,409
Other assets	6,797	1,515	1,223	184	-
Total assets	1,641,871	1,432,935	1,168,092	1,126,951	1,134,275
Deferred outflows	9,955	10,448	7,081	8,477	5,070
Payables and accrued expenses	30,717	7,025	6,857	13,820	13,195
Current portion of loans and leases payable	28,170	34,504	34,704	28,802	27,530
Total current liabilities	<u>58,887</u>	<u>41,530</u>	<u>41,561</u>	<u>42,622</u>	<u>40,725</u>
Long term accrued expenses	6,127	7,027	7,140	6,656	2,780
Net pension liability	17,701	18,732	18,671	19,377	19,566
Long term loans, leases and debt	971,722	816,171	579,679	565,579	594,381
Total non-current liabilities	<u>995,550</u>	<u>841,929</u>	<u>605,490</u>	<u>591,612</u>	<u>616,727</u>
Total liabilities	1,054,437	883,459	647,051	634,234	657,452
Total deferred inflows	7,123	2,322	2,677	3,077	590
Net position	\$ 590,266	\$ 557,602	\$ 525,446	\$ 498,118	\$ 481,303

Source: Narragansett Bay Commission

Financial operations

Operating performance was strong in FY 2021 which supported combined obligation debt service coverage of 1.46x, which was very comparable to FY 2020 of 1.45x. FY 2020 debt service coverage was up from 1.29x in FY 2019. Operating revenues increased 0.8% YoY to \$104.5 million. Expenditures declined 3.4%% YoY from \$74.8 million in 2020 to \$72.2 million in 2021. Net revenues available for debt service increased modestly to \$105.5 million.

Figure 7

Statement of Revenues & Expenses									
\$ in thousands									
	2021	% chg	2020	% chg	2019	% chg.	2018	% chg.	2017
Operating revenues	\$ 104,582	0.8%	\$ 103,783	4.5%	\$ 99,346	1.0%	\$ 98,336	-1.3%	\$ 99,656
Non-operating revenues	956	-16.9%	1,150	-30.6%	1,656	57.1%	1,054	72.0%	613
Total revenues	105,538	0.6%	104,933	3.9%	101,002	1.6%	99,390	-0.9%	100,269
Personnel services	23,194	-2.9%	23,878	0.1%	23,845	3.0%	23,157	1.9%	22,720
Depreciation	17,094	2.9%	16,612	1.3%	16,401	1.9%	16,091	3.2%	15,594
O&M	8,184	7.6%	7,609	-5.2%	8,025	6.3%	7,548	4.6%	7,220
Other operating expenses	9,044	5.0%	8,613	-5.1%	9,075	3.2%	8,795	7.2%	8,208
Non-operating expenses	14,736	-18.4%	18,063	4.2%	17,327	-24.7%	23,018	27.8%	18,009
Total expenses	72,252	-3.4%	74,774	0.1%	74,674	-5.0%	78,609	9.6%	71,750
Operating Income	\$ 47,067	0.6%	\$ 46,771	9.5%	\$ 42,729	15.9%	\$ 36,872	-16.4%	\$ 44,112
Gross Revenues	105,538		104,933		101,002		99,390		100,269
Operating Expenses (excl. dep.)	40,422		40,100		40,945		39,500		38,148
Net Revenues available for DS	65,116		64,833		60,057		59,890		62,121
Debt Service	44,683		44,683		46,576		45,524		43,683
Debt Service Coverage	1.46x		1.45x		1.29x		1.32x		1.42x

Source: Narragansett Bay Commission

ESG Management

Environmental Factors

The Commission is under a Consent Decree with the Rhode Island Department of Environmental management to implement a federally mandated combined sewage overflow (CSO) abatement program. The first phase addressed 40% of the CSO volume and has been in service since November 2008. The second phase facilities were completed in December 2014 and planning for third phase facilities is underway. The current schedule contemplates completion of all phases of the CSO abatement program in 2041. Approximately 98% of annual CSO volume will receive treatment when all the phases are complete.

The Commission engaged an engineering firm to prepare a Resiliency Plan and identify short and long-term actions required to ensure continuous operation and protect collection system and wastewater treatment facility infrastructure. The Commission evaluated its assets in accordance with Rhode Island Department of Environmental Management (RIDEM) guidance, using Federal Emergency Management Agency 100-year flood elevations plus three feet.

Social Factors

As part of the Commission's public outreach program, 42 tours of treatment facilities and 120 watershed education lessons were given through the Commission's Watershed Explorers program. Through this program, more than 780 students from 15 schools in the Commission's service area received monthly lessons and learned about the health of each school's watershed. In addition, the Commission sponsored and participated in the Hack for Global Good program, which engages motivated high school students to assess and address real, global environmental challenges.

Governance Factors

The Commission is regulated by RIDEM and the U.S. Environmental Protection Agency to ensure compliance with State and Federal Clean Air and Clean Water Acts. The Commission has been issued Rhode Island Pollutant Discharge Elimination permits for each of its wastewater treatment facilities.

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Summary:**Narragansett Bay Commission, Rhode Island;
Water/Sewer****Credit Profile**

US\$55.5 mil WIFIA loan ser 2022A due 03/02/2052

Long Term Rating

AA-/Stable

New

Narragansett Bay Comm swr

Long Term Rating

AA-/Stable

Affirmed

Rating Action

S&P Global Ratings assigned its 'AA-' underlying rating to the Narragansett Bay Commission (NBC), R.I.'s 2022 Water Infrastructure Finance and Innovation Act (WIFIA) loan and affirmed its 'AA-' underlying rating on NBC's outstanding parity debt and the 2019 and 2020 WIFIA loans. The outlook is stable.

NBC's 2022 WIFIA III loan will be used to fund 49% of the commission's \$113 million Field's Point Resiliency Improvements. Debt service on 2022 loans is payable from the net revenues of the commission, which are on parity with revenue bonds outstanding, Rhode Island Infrastructure Bank (RIIB) loans, and the 2019 and 2020 WIFIA I and II loans. The rate covenant on the bonds is 1.25x annual debt service on all parity bonds and the WIFIA loan, and 1.35x on RIIB loans outstanding.

Credit overview

As NBC transitions to a significant capital-intensive program to deal with CSO (Combined Sewer Overflow) Phase III A-related projects, it remains paramount for rating maintenance that management remain vigilant with regard to getting rates approved by the Rhode Island Public Utilities Commission (PUC) as debt service levels will increase from about \$45 million per year to over \$55 million by fiscal 2025 and level out around \$60 million in 2034.

The rating reflects our views of NBC's credit strengths as:

- Service area participation in the broad and diverse Providence-Warwick metropolitan statistical area (MSA);
- Rates that we generally view as affordable when benchmarking against Providence County's median household effective buying income (MHHEBI) and poverty rates;
- Operational management practices and policies that we view as good;
- Financial metrics that include all-in debt service coverage (DSC) of at least 1.2x and a days' cash equivalent of around 160-205 days' cash over the last four fiscal years; and
- Financial management practices and policies that we view as strong.

Challenges for the credit remain, as mentioned above:

- The system's high leverage, at a 62.9% debt-to-capitalization ratio at the end of fiscal 2021; WIFIA loans I, II, and III are expected to have drawdowns totaling about \$223 million with RIIB debt plans of \$361 million in the coming years; and
- The successful maintenance of its currently good relationship with Rhodes Island PUC to get rate increase approved in the future to meet the rising debt service requirements.

The stable outlook on the underlying rating reflects our expectation that the financial performance should continue in a fashion consistent with historical trends, given a sound history of credit-supportive rate decisions by the PUC.

Environmental, social, and governance

Overall, we believe that management has mitigated most of the system's environmental, social, and governance (ESG)-related risk by adopting, adhering to, and adjusting its operating and financial policies and procedures. We view most of the district's other ESG risk factors as being on par with those of other similarly rated sewer utilities. Environmental risk is also elevated as the system is under a consent decree, although management has completed the planning and is beginning the construction of the Phase III A projects with expected completion in 2027. Lastly, governance risk factors are higher than similar sewer systems in that NBC must get rate approval from an outside entity, the PUC. This risk is somewhat mitigated as the commission has had a sound history of obtaining PUC rate approval.

Stable Outlook

Downside scenario

Should future rates not generate sufficient revenues to help maintain the consistent financial performance and support the large capital improvement plan (CIP), we could lower the rating.

Upside scenario

If NBC's financial performance becomes significantly stronger compared to historical trends, and we believe that these trends are sustainable, then the rating could improve. However, given the need for continued PUC support and ongoing debt and capital needs, we believe the likelihood for upward rating movement is probably well after the two-year outlook period.

Credit Opinion

Enterprise risk

NBC was established in 1980 and serves 10 communities with a total of approximately 360,000 residents and 7,800 businesses in northeastern Rhode Island, primarily Providence and Pawtucket. The commission does not have any taxing authority; it derives revenues from user charges.

The commission's 10 leading customers consist primarily of colleges, universities, hospitals, and cities, and this list has remained stable in recent years. These top-10 represent just 8.57% of operating revenues in fiscal 2021, which we consider a diverse customer base.

We benchmark our analysis of market position, which is an input to the enterprise risk profile, to both MHHEBI and the county poverty rate. MHHEBI for Providence County is 90% of the national average. Monthly-equivalent water and sewer rates are \$50.55 for 800 cubic feet of usage, which is our standard benchmark for monthly consumption, or only 1.22% of MHHEBI when annualized. When considering that the county's poverty rate is close to 12%, our view of the market position is somewhat more negative compared to a situation where a utility has both lower nominal rates combined with a lower poverty rate. That said, our rating reflects our understanding that the service base extends well beyond the city of Providence, which is likely to lead to greater rate affordability than conservative assumptions used in our analysis.

Rate increases for both general rate base increases as well as compliance rate increases to comply with debt covenants both require Rhode Island PUC approval. The most recent full rate increase of 5.88% went into effect July 1, 2019. Recently the PUC approved a 0.56% increase for the recovery of electronic payment transaction fees. NBC reports that the average residential rate for its customers is still competitive with those of other residential systems in the state. A long history of credit-supportive rate decisions by the PUC, an independent state-level body, supports the current rating. NBC management indicates that it communicates with the PUC on a regular basis and also informs it of planned rate increases for future fiscal years. We would expect the commission to continue its regular communications with the PUC to seek timely rate approvals, especially given NBC's large CIP. The next planned increase is expected in fiscal 2023.

We consider the operational management policies and practices of the utility good, including the existence of generally strong internal controls and asset management policies. The commission owns and operates two treatment plants, which treat roughly 70% of the state's sewerage and serve more than one-third of its population. Systemwide average daily flow of 65 mgd is well below capacity. The utility is currently beginning construction on many of the CSO Phase III A projects as described in a consent decree with the Federal EPA and Rhode Island Department of Environmental Management (RIDEM) to reduce CSOs; final project costs of Phase III A, B, C, and D will be slightly over \$1 billion, with the Phase III A project totaling \$812 million through 2027, while Phase III B, C, and D, which are expected to total \$276 million, will not begin for some time. Phase III A involves construction a 30-foot internal diameter deep rock tunnel extending over 11,600 feet in Pawtucket and 12 other construction projects. Pursuant to the consent agreement, the phase III CSO program should end by 2041.

The commission has a fully mapped GIS system and an asset management program that has been in place since the mid-2000s. All new assets are built to be resilient to a 100-year flood event plus three feet, and submitted a resiliency plan to RIDEM in November 2019. The utility reviews its cybersecurity policies every other year, has regular data backups, and is conducting ongoing employee training.

Financial risk

The commission's financial performance is very strong, in our opinion. For audited years 2016-2020, all-in debt service was at least 1.2x. Management was expecting coverage levels of around 1.3x in fiscal 2021; expectations for revenue growth are very conservative as are the expenditure estimates. Actual fiscal 2021 coverage was 1.49x. Also, the commission had unrestricted cash of \$13.2 million in 2021, equal to 120 days' operating expenses. Management does not expect a substantial change in financial results, although in the long run, further rate increases will be needed to support the costs of the CIP.

The commission's CIP is large, at \$821 million over the six years from 2021 through 2026. The majority of this amount--\$548 million, or 87%--is for Phase IIIA of the CSO program. The commission signed a loan agreement with the Federal EPA for a WIFIA loan of \$268.7 million in 2019. An additional 2020 WIFIA loan of \$190 million was also signed. Now NBC expects to enter a third WIFIA loan of \$55 million. In addition to the WIFIA loans, we understand management plans to issue a revenue debt and state revolving fund loan of approximately \$362 million to pay for the five-year CIP. We view NBC as being highly leveraged, with a debt-to-capitalization ratio of 62% when counting the 2020 WIFIA loan, which will not be drawn until future years. In addition, its proportionate share of the net pension liability for the Employees' Retirement System of Rhode Island is underfunded at 52%, which we believe could further pressure fixed costs in time.

Also supporting the commission's financial risk profile is our financial management assessment of strong, indicating that, in our view, financial practices are well embedded and likely sustainable. Examples include the existence of long-term capital planning, formal investment and debt policies, and a monthly review of budget performance.

Related Research

- Through The ESG Lens 3.0: The Intersection Of ESG Credit Factors And U.S. Public Finance Credit Factors, March 2, 2022

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Narragansett Bay Commission

Issuer: Narragansett Bay Commission

Affirmed	Ratings	Outlook
Combined Sewer Overflow (CSO) Phase III Facilities WIFIA Loan	AA	Stable
Bucklin Point Resiliency Improvements WIFIA Loan	AA	Stable

Methodology

- [U.S. Municipal Retail Utility Revenue Bond Rating Methodology](#)
- [ESG Global Rating Methodology](#)

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Rating Summary: KBRA affirms the ratings on two of the Narragansett Bay Commission’s (NBC, or the Commission) WIFIA loans outstanding with the U.S. Environmental Protection Agency (USEPA) in the aggregate amount of \$461.3 million as of June 30, 2022. The rating affirmation reflects the WIFIA loans’ solid security provisions, and the strong likelihood that NBC will achieve rate relief from the Rhode Island Public Utilities Commission for debt service associated with critical, federal and state mandated environmental projects. The WIFIA loans are on parity with approximately \$258 million revenue bonds of NBC, \$297.5 million Rhode Island Infrastructure Bank (RIIB) state revolving fund loans and a third WIFIA loan of \$55.9 million issued in August 2022 (FY 2023).

NBC, a public corporation incorporated in 1980 pursuant to state statute, provides wastewater treatment and collection service to approximately 77,600 residential accounts and about 7,640 commercial and industrial users in the greater Providence metropolitan area. NBC owns and operates Rhode Island’s two largest wastewater treatment facilities: Field’s Point and Bucklin Point, as well as a substantial wastewater transmission network.

To comply with a federal mandate and a consent decree with the Rhode Island Department of Environmental Management (RIDEM), NBC is presently in the third and final phase of a Combined Sewer Overflow (CSO) Abatement Program. Phases I and II, completed in 2008 and 2014, respectively, include CSO capture, transport and storage systems that feed into the Field’s Point Treatment Facility.

The Phase III project, also referred to as the RestoredWaters RI initiative, is estimated to cost \$821.7 million, excluding costs incurred prior to July 1, 2020. It includes four sub-phases, of which Phase IIIA, the \$488.6 million Pawtucket Tunnel project, is the largest and most complex. Design and construction of all four sub-phases of Phase III are expected to be completed by 2041. NBC reports significant water quality improvements in the Narragansett Bay to date from Phases I and II, with beach closures reduced by 85% and improved shell-fishing conditions. Further environmental improvements are expected upon completion of Phase IIIA in 2027, when up to 95% of the CSO within the Bucklin Point service area will be treated.

As of June 30, 2022, the Combined Sewer Overflow (CSO) Phase III Facilities WIFIA loan originally issued in August 2019 was outstanding in the amount of \$270.5 million. The interest rate on this loan was reset to 1.42% in October 2020. The Bucklin Point Resiliency Improvements WIFIA Loan issued in 2020 at a rate of 1.60% was outstanding in the amount of \$190.8 million. WIFIA loan repayment will begin in FY 2032, with the CSO Phase III Facilities WIFIA loan scheduled to be fully amortized in FY 2047, and the Bucklin Point WIFIA loan fully amortized by FY 2060. The loans are structured such that interest is incurred as funds are drawn but payments do not commence until five years after substantial completion. The interest so capitalized is then added to the outstanding principal. WIFIA loan debt service is payable from net system revenues.

The strong rate covenant provisions of the Trust Indenture require net revenues sufficient to provide 1.25x annual debt service with respect to all outstanding revenue bonds and the WIFIA loans, and 1.35x annual debt service when RIIB loans are included. The additional bonds test requires estimated annual net revenues for the three fiscal years following the issuance of bonds to equal at least 1.25x the debt service requirement for revenue bonds and 1.35x the debt service requirement, inclusive of RIIB loans. There is no debt service reserve requirement for the WIFIA loan. A MADS funded debt service reserve requirement is assigned to NBC’s outstanding revenue bonds on a series-by-series basis, as provided by supplemental indenture. Deposits to debt service funds are made on a 1/6th of interest and 1/12th of principal basis. In practice, after meeting the Indenture’s debt service coverage requirement, excess amounts in the Debt Service Fund’s Stabilization Account are transferred to various accounts in the Project Fund in subsequent months to pay for capital projects and operating capital. Non-system uses require EPA approval, per the WIFIA loan agreement.

KBRA anticipates that capital funding will continue to be supported through PAYGO and timely rate adjustment actions. As a regulated utility, NBC’s rates are set by the Rhode Island Public Utility Commission (PUC). NBC has proactively informed the PUC of necessary capital projects and rate requirements, and the PUC’s history of rate review and approval has been constructive. Pursuant to a PUC-approved a debt service coverage compliance filing mechanism, NBC can seek

rate relief solely for debt service and debt service coverage, permitting an expedited rate relief process that enhances capital funding flexibility. FY 2022 (unaudited) debt service coverage improved to 1.80x from 1.49x in FY 2021. Aggregate annual debt service is forecast to increase to \$41.2 million in FY 2023 (13.4% of the FY 2023 expense budget), and coverage is forecast to decline to a still satisfactory 1.35x. Annual debt service is expected to increase to approximately \$63 million in FY 2046, reflecting all planned borrowing required to finance the CSO Phase III Facilities and Bucklin Point Resiliency Improvements.

User fees, which accounted for 98% of NBC's FY 2021 revenues, have grown at a solid compound annual growth rate (CAGR) of 2.4% since 2018, mainly to support debt service associated with the capital program. NBC implemented a 0.56% rate increase on May 1, 2022. An additional rate increase of 6.5% is planned in FY 2024, and 6.0% increases are planned in FY 2026 and FY 2028.

NBC serves ten Rhode Island communities in the metropolitan Providence and Blackstone Valley areas. The City of Providence is the state capital and the largest city in Rhode Island. Demographics of the service area remain adequate. Wealth levels are below state averages within the defined geography of NBC, reflecting the area's older manufacturing and urban base.

On July 3, 2022, NBC experienced a ransomware attack that impacted certain computers and systems. While wastewater treatment and sewer system operations were not impacted, the data security incident involved certain customer information. To restore the affected systems, NBC made a payment of \$250,000. In response to the incident, NBC has initiated increased cyber security procedures/protocols, and is migrating many major operational systems to the cloud.

The Stable Outlook reflects KBRA's expectation that the Commission will adjust rates as forecast to support operations and its ongoing capital program, while continuing to satisfy the 1.25x rate covenant of the Trust Indenture.

Key Credit Considerations

The rating was affirmed because of the following key credit considerations:

Credit Positives

- Comprehensive 10-year strategic and capital planning process, and long-term financial management plan.
- Favorable history of rate setting and management of large-scale CIP by experienced leadership team.

Credit Challenges

- The funding of ongoing O&M and capital expenditures needed to comply with pollution discharge permits and the associated Consent Agreement has the potential to pressure rates, which remain currently affordable.
- Economic conditions, including inflation and higher borrowing costs could negatively impact the Commission's capital plan. The ratio of long-term debt to net fixed assets is very high.

Rating Sensitivities

- | | |
|---|---|
| Continued on time and on-budget progress towards completion of the RestoredWaters RI initiative while maintaining rate affordability. | + |
| A less favorable rate review environment. | - |

Key Facts	
Service Area Population (2021)	394,667
Service Area Income Per Capita (2021)	32,581
as a % of State Income Per Capita	87%
Debt Service Coverage	
FY 2018	1.32x
FY 2019	1.29x
FY 2020	1.45x
FY 2021	1.49x
Projected Rate Increases	
FY 2024	6.5%
FY 2026	6.0%
FY 2028	6.0%
Debt Service Requirements	
FY 2023	\$40.97 million
Existing MADS (FY 2046)	\$63.06 million
Projected MADS w/Additional Borrowing for CSO Phase III A Facilities and Bucklin Point Resiliency Improvements (FY 2046)	~\$69.0 million

Rating Determinants (RD)

1. Management, Governance, Regulatory Framework	AA+
2. Legal Mechanics and Security Provisions	AA+
3. Service Area and Demand	AA
4. Operations and Capital	AA-
5. Financial Profile and Debt	AA-

The following discussion updates ESG Management, RD 3: Service Area and Demand, RD 4: Operations and Capital, and RD 5: Financial Profile and Debt. A more detailed review of each of the abovementioned rating determinants can be found in KBRA's [report](#) dated October 5, 2021.

ESG Management

KBRA typically analyzes Environmental, Social, and Governance (ESG) factors through the lens of how issuers plan for and manage relevant ESG risks and opportunities. More information on KBRA's approach to ESG risk management in public finance ratings can be found [here](#). Over the medium-term, public finance issuers will likely need to prioritize ESG risk management and disclosure with the likelihood of expansions in ESG-related regulation and rising investor focus on ESG issues.

Environmental Factors

NBC's mission includes improving water quality through investment in capital improvements, effective operation of its wastewater treatment and collections system, and water quality monitoring efforts. The Commission is under a Consent Decree with the Rhode Island Department of Environmental management to implement a federally mandated combined sewage overflow (CSO) abatement program. The current schedule contemplates completion of all phases of the CSO abatement program by 2041. Approximately 98% of annual CSO volume will receive treatment when all the phases are complete. NBC's Environmental Performance Strategic Plan directs capital resources towards identifying, quantifying and minimizing NBC's environmental impact. Through an environmental monitoring program, NBC performs daily sampling of water quality to ensure proper operation of wastewater treatment plants and compliance with the RIPDES discharge permit.

NBC is required to have an established Fiscal Sustainability Plan that complies with Federal Water Pollution Control Act regulations in order to borrow state revolving funds through RIIB. The Fiscal Sustainability Plan guides the development of NBC's asset management program, CIP, operating capital program and annual operating budget.

The Commission engaged an engineering firm to prepare a Resiliency Plan and identify short and long-term actions required to ensure continuous operation and protect collection system and wastewater treatment facility infrastructure. The Commission evaluated its assets in accordance with RIDEM guidance, using Federal Emergency Management Agency 100-year flood elevations plus three feet. The draft report identified minor modifications to two localized areas at the Commission's Field's Point Wastewater Treatment Facilities and is under review by RIDEM.

The FY 2023 Budget includes investments in energy efficiency and sustainability. Approximately 29.4 million kWh (83% of FY 2023 budgeted electricity usage) will be derived from on-site sustainable resources, including wind turbine and biogas, and net metering credits for off-site sustainable production, including wind turbines and a "green" PPA. NPC has also budgeted for the design and construction of a solar carport adjacent to Field's Point, which is expected to generate REC revenue and savings.

Social Factors

The Commission's public outreach focuses on educating area students about water quality science and the environment. Efforts include the Commission's Watershed Explorers program, which provides treatment facility tours and monthly watershed education lessons on a live and virtual basis.

Governance Factors

A data security incident involving unauthorized access to certain computer systems in NBC's network occurred on July 3, 2022. Affected files contained personal information of current and former NBC employee health plan members. Computers and systems associated with the wastewater treatment plants were not impacted by the incident. To restore the affected systems, NBC made a ransomware payment of \$250,000. Upon identifying the incident, NBC immediately secured the systems involved, commenced an investigation and notified law enforcement. Enhancements to NBC's

existing cybersecurity efforts, made in consultation with numerous cyber professionals, include multi-factor authentication, 24-hour monitoring of all computers using an outside vendor and upgraded firewalls, elimination of virtual desktop infrastructure, and cloud migration of major operation systems. NBC has engaged an information security firm to assist in the implementation of additional procedures to harden cyber security and conduct penetration tests and has engaged third party remote IT services to perform after-hour software updates.

RD 3 Update: Service Area and Demand

NBC serves ten Rhode Island communities in the metropolitan Providence and Blackstone Valley areas. These communities include: Providence, North Providence, Johnston, Pawtucket, Central Falls, Cumberland, Lincoln, the northern portion of East Providence, and small sections of Cranston and Smithfield. Of the eight major communities served by NBC, Providence (39%), Pawtucket (20%), Cumberland (9%) and North Providence (11%) account for approximately 79% of customer accounts. Approximately 91% of customer accounts are residential. Total customer accounts have increased 7.6% since FY 2001.

NBC has been granted multiple rate adjustments since 2005. Three of the last five rate increases have been for debt service and debt service coverage compliance. NBC’s most recent rate increase in May 2022 included operations and maintenance expense adjustments. Despite the extensive capital improvements undertaken to date, NBC’s 2021 average annual residential user rate of \$516 was below the state average of \$679.

NBC’s FY 2021 rates were the 11th highest of 22 sewer systems in the state. In KBRA’s view, residential rates are likely to remain affordable despite the significant additional debt and PAYGO resources needed to fund the capital program.

Figure 1

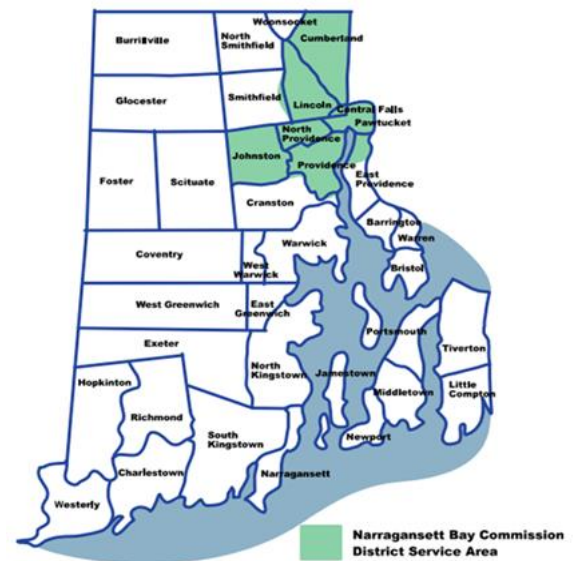


Figure 2

Rate History					
Effective Date	7/1/2015	7/14/2016	1/1/2019	7/1/2019	5/1/2022
Type of Filing	Compliance	Compliance	Compliance	General	General
Purpose	Debt	Debt	Debt	O&M/Rate Base	O&M
Revenue Increase	2.29%	1.48%	2.88%	5.88%	0.55%
User Rate Increase	2.37%	1.53%	2.98%	5.05%	0.56%
Average Annual Residential Fee (150 gpd)	\$470	\$477	\$491	\$516	\$519

Source: Narragansett Bay Commission

Because the system’s largest customers are institutions of higher education, municipal customers, and healthcare providers, exposure to economic volatility is somewhat mitigated in KBRA’s view. The customer mix is well diversified, with the ten largest customers accounting for slightly over 8% of the revenue base.

NBC’s service area population of approximately 394,667 represents approximately 36% of the state’s population. The rate of population growth in the service area over the last 10 years exceeds that of the state but lags the U.S. average. Per capita income of the service area represents approximately 87% of the state average. The service area’s average unemployment rate of 3.1% as of May 2022 evidences a strong recovery from the pandemic-era unemployment peak in 2020 but remains elevated from its post-recessionary low in 2019 and is higher than the state average of 2.7%. Unemployment in the City of Providence has historically trended above the state average, possibly due to the large presence of students attending institutions of higher learning in the city.

Figure 3

NBC Principal Customers FY 2021	
Customer	% total billing
Rhode Island Hospital	1.76
Providence Housing Authority	1.67
Brown University	1.11
City of Providence	0.66
City of Pawtucket	0.65
Rhode Island Resource Recovery	0.65
Providence College	0.43
Johnson & Wales University	0.42
Providence School Department	0.36
Fairfield Residential	0.36
Total	8.10

Source: Narragansett Bay Commission 2021 ACFR

RD 4: Operations and Capital

To comply with a federal mandate and a consent decree with the Rhode Island Department of Environmental Management (RIDEM), NBC is presently in the third and final phase of a Combined Sewer Overflow (CSO) Abatement Program. The program involves construction of infrastructure to temporarily capture and store CSOs until their flows can be accommodated by NBC's wastewater treatment system. Phases I and II, completed in 2008 and 2014, respectively, include CSO capture, transport and storage systems that feed into the Field's Point Treatment Facility.

The Phase III project, also referred to as the RestoredWaters RI initiative, is estimated to cost \$821.7 million excluding costs incurred prior to July 1, 2020. Phase III includes four sub-phases with Phase IIIA, the \$488.6 million Pawtucket Tunnel project, being the largest and most complex. The 30-foot diameter, 2.2 mile-long deep rock tunnel under Pawtucket and Central Falls feeds into the Bucklin Point Treatment Facility. The Phase IIIA project is designed to significantly reduce CSO volumes in the Bucklin Point service areas and eliminate overflows from a one in three-month storm (1.6 inches of rain in six hours). NBC broke ground on the Pawtucket Tunnel in June 2021.

NBC's FY 2023 capital budget of \$223.6 million reflects a 23.7% YoY increase in spending. While WIFIA Loan funding contributes a combined 82% of FY 2023 capital funding, PAYGO capital, comprised of the Restricted Account and the Grants and Project Reimbursements Account, totals \$26.8 million, up 323% year over year. FY 2023 capital expenditures primarily include programmed Phase IIIA capital expenditures. Of the eleven construction contracts associated with the Phase IIIA facilities, three are complete, with the remainder in the design or construction phase. The Phase IIIA project is scheduled to be operational by 2027. The FY 2023-2028 CIP totals \$781.9 million, 72% of which is related to the Phase III project. Design and construction of all four sub-phases of Phase III are expected to be completed by 2041.

RD 5: Financial Profile and Debt

Commission leverage, measured as the ratio of long-term debt to fixed assets net of depreciation is very high, at 85.8% in FY 2021.

Audited FY 2021 Financial Operations

Outstanding long-term debt increased from \$594 million in 2017 to \$972 million in 2021, reflecting borrowing to fund the CSO Abatement Program. Over the 2017 through 2021 period, net capital assets grew 14.6%, from \$988 million to \$1.1 billion, while NBC's net position grew by 22%, from \$481 million in 2017 to \$590 million, or 22%.

Cash items on the balance sheet reflect amounts required to be restricted under the trust indenture in the revenue fund and O&M fund accounts, plus the operating reserve for revenue stability. At fiscal year-end 2021, these amounts provided ample liquidity equivalent to 240 days cash on hand, up from 192 days in FY 2020.

Figure 4

Statement of Net Position					
\$ in thousands					
	2021	2020	2019	2018	2017
Cash	\$ -	\$ -	\$ 21,257	\$ 23,736	\$ 16,811
Accounts Receivable	20,636	20,467	21,107	14,256	13,823
Due from RIIB	-	6,917	38,727	16,409	42,258
Due from WIFIA	403,158	268,711			
Prepaid expenses	406	529	1,136	569	1,241
Total current assets	424,187	296,624	82,227	54,969	74,134
Restricted cash	77,987	78,839	59,036	62,770	71,732
Net capital assets	1,132,899	1,055,958	1,025,606	1,009,027	988,409
Other assets	6,797	1,515	1,223	184	-
Total assets	1,641,871	1,432,935	1,168,092	1,126,951	1,134,275
Deferred outflows	9,955	10,448	7,081	8,477	5,070
Payables and accrued expenses	30,717	7,025	6,857	13,820	13,195
Current portion of loans and leases payable	28,170	34,504	34,704	28,802	27,530
Total current liabilities	58,887	41,530	41,561	42,622	40,725
Long term accrued expenses	6,127	7,027	7,140	6,656	2,780
Net pension liability	17,701	18,732	18,671	19,377	19,566
Long term loans, leases and debt	971,722	816,171	579,679	565,579	594,381
Total non-current liabilities	995,550	841,929	605,490	591,612	616,727
Total liabilities	1,054,437	883,459	647,051	634,234	657,452
Total deferred inflows	7,123	2,322	2,677	3,077	590
Net position	\$ 590,266	\$ 557,602	\$ 525,446	\$ 498,118	\$ 481,303

Source: Narragansett Bay Commission

Stable FY 2021 operating performance supported combined obligation debt service coverage of 1.49x. Both operating revenues and operating expenditures (net of depreciation) were effectively flat to FY 2020. The 70.9% decline in non-operating revenues was primarily due to lower investment earnings. O&M costs increased 7.6% due to an increase in biogas expense, repairs, maintenance/service agreements and electricity. The 18.4% decline in non-operating expenses was due to a net reduction in bond and note fees and interest expense savings. Debt service declined by 2.9% in FY 2021, driving the slight improvement in YoY coverage. NBC did not have capital contributions in FY 2021.

Unaudited FY 2022 Results

Stable operations continued in FY 2022, with unaudited user fee revenue flat to the prior year. Unaudited expenses declined 7.0% YoY, and depreciation/amortization expense increased by 30.0%, resulting in a 15.6% increase in net revenues available for debt service, and an improvement in debt service coverage to 1.80x.

Figure 5

Statement of Revenues & Expenses											
\$ in thousands											
	2022	% chg	2021	% chg	2020	% chg	2019	% chg.	2018	% chg.	2017
	(Unaudited)										
Operating revenues	\$ 104,775	0.2%	\$ 104,582	0.8%	\$ 103,783	4.5%	\$ 99,346	1.0%	\$ 98,336	-1.3%	\$ 99,656
Non-operating revenues		-100.0%	334	-70.9%	1,150	-30.6%	1,656	57.1%	1,054	72.0%	613
Total revenues	104,775	-0.1%	104,916	0.0%	104,933	3.9%	101,002	1.6%	99,390	-0.9%	100,269
Personnel services	25,948	11.9%	23,194	-2.9%	23,878	0.1%	23,845	3.0%	23,157	1.9%	22,720
Depreciation	22,223	30.0%	17,094	2.9%	16,612	1.3%	16,401	1.9%	16,091	3.2%	15,594
O&M	1,743	-78.7%	8,184	7.6%	7,609	-5.2%	8,025	6.3%	7,548	4.6%	7,220
Other operating expenses	2,509	-72.3%	9,044	5.0%	8,613	-5.1%	9,075	3.2%	8,795	7.2%	8,208
Non-operating expenses	14,747	0.1%	14,736	-18.4%	18,063	4.2%	17,327	-24.7%	23,018	27.8%	18,009
Total expenses	67,170	-7.0%	72,252	-3.4%	74,774	0.1%	74,674	-5.0%	78,609	9.6%	71,750
Operating Income	\$ 59,829	20.2%	\$ 49,758	6.4%	\$ 46,771	9.5%	\$ 42,729	15.9%	\$ 36,872	-16.4%	\$ 44,112
Gross Revenues	104,775	-0.1%	104,916	0.0%	104,933	3.9%	101,002	1.6%	99,390	-0.9%	100,269
Operating Expenses (excl. dep.)	30,200	-25.3%	40,422	0.8%	40,100	-2.1%	40,945	3.7%	39,500	3.5%	38,148
Net Revenues available for DS	74,575	15.6%	64,494	-0.5%	64,833	8.0%	60,057	0.3%	59,890	-3.6%	62,121
Debt Service	41,468	-4.4%	43,382	-2.9%	44,683	-4.1%	46,576	2.3%	45,524	4.2%	43,683
Debt Service Coverage	1.80x		1.49x		1.45x		1.29x		1.32x		1.42x

Source: Narragansett Bay Commission

FY 2023 Budget

The FY 2023 operating budget reflects a \$2.1 million (2%) YoY increase. A 2% budgeted increase in revenues is anticipated due to the return of customer demand to pre-pandemic levels and an across-the-board 0.56% sewer user rate increase. Debt service coverage is projected to decline to 1.35x in FY 2023.

Bankruptcy Assessment

KBRA has consulted outside counsel and the following represents our understanding of the material bankruptcy issues. To be a debtor under the municipal bankruptcy provisions of the U.S. Bankruptcy Code (Chapter 9), a local governmental entity must, among other things, qualify under the definition of "municipality" in the Bankruptcy Code, and must also be specifically authorized to file a bankruptcy petition by the state in which it is located. The Commission is a public corporation of the State of Rhode Island performing a traditional government function, with a distinct legal existence from the State (and not constituting a department of State government), and thus is a "municipality" as defined under the Bankruptcy Code. As to specific authorization, Rhode Island has several layers of potential supervision for fiscally challenged cities, towns, and fire districts, the implementation of which may ultimately lead to the appointment of a Receiver to act for the public entity. Rhode Island state law specifically authorizes such a Receiver to file a Chapter 9 petition for the relevant city, town or fire district. It is unclear, however, whether the Commission is subject to these supervisory procedures. In any case, regardless of whether the latter are applicable to the Commission, if the Commission were to become financially distressed, the State could enact specific legislation permitting it to commence a Chapter 9 case.

Chapter 9 provides for post-petition recognition of (i) a security interest represented by a pledge of specific special tax revenues or of enterprise revenues (referred to as a lien on "special revenues") and also (ii) a statutory lien (one imposed by statute) on revenues pledged for government obligations. Such special revenues and statutory liens should both continue to apply to pledged revenues acquired by a local government entity during a Chapter 9 case and survive the conclusion of the Chapter 9 proceeding. However, other consensual pledges and liens arising by indenture, resolution or similar document, except to the extent they cover proceeds of collateral pledged prior to bankruptcy, are generally all cut off by Section 552 of the Bankruptcy Code as of the petition date.

KBRA has consulted outside counsel, and is advised that, while Rhode Island law provides for a statutory lien in connection with pledges of *ad valorem* taxes levied by cities, towns and districts, there is no statutory lien imposed on the Commission Revenues pledged to pay the WIFIA Loans.

Pledged Revenues as Special Revenues under the Bankruptcy Code

Because the pledged Revenues are generated by the Commission's wastewater system (the "System"), and the Loans have been issued to finance the Project that is a part of the System, KBRA understands that the pledged Revenues should qualify as "special revenues" as that term is defined in Chapter 9 of the Bankruptcy Code.

There are separate bankruptcy protections for revenue-supported debt that falls within those special revenues definitions. Assuming there is no shortfall of funds to make debt service, and further assuming that the Loans are in fact secured by a pledge of special revenues as so defined, it is KBRA's understanding that, if the Commission were to file for protection under Chapter 9, it would generally be expected that such filing should have little to no effect on the payment of the Loans during the bankruptcy case.

That stated, there are several additional issues that arise. If the Commission were to become a debtor in a proceeding under Chapter 9 of the Bankruptcy Code, the bankruptcy court could possibly decide that (i) post-bankruptcy revenue debt obligation payments by the Commission are merely optional and not mandatory under the special revenues provisions of the Bankruptcy Code and/or (ii) the automatic stay exception for special revenues in those provisions does not apply (including to possible enforcement action by the WIFIA Lender or the Trustee) or is limited to amounts then on hand with the Trustee or the Commission. If the Commission were to refuse to make Loan payments voluntarily and the bankruptcy court were to interpret the Bankruptcy Code in that (or a similar) fashion, the parties to the proceedings may be prohibited for an unpredictable amount of time from taking any action to collect any amount from the Commission, or from enforcing any obligation of the Commission, without the bankruptcy court's permission. However, it is KBRA's understanding that such a ruling would be contrary to historical experience in Chapter 9, and the clear intent of Congress regarding the continued payment of government revenue debt obligations post-bankruptcy, as expressed in the legislative history for the special revenues amendments to Chapter 9 and as interpreted in properly-reasoned existing (albeit limited) case precedent under Chapter 9.

It is also KBRA's understanding that, assuming the pledged Revenues are in fact determined to be "special revenues," the Bankruptcy Code provides that, to keep revenue-generating government assets operating, special revenues can be applied to necessary operating expenses of the project or system ahead of all other obligations – including payments to holders of revenue debt obligations. This rule applies regardless of contrary provisions of the transaction documents, if such governing documents do not adequately provide for payment of necessary operating expenses. In determining necessary operating expenses for the System, in a Chapter 9 case the bankruptcy court thus may not be limited by the provisions governing the flow of funds or that define Operation and Maintenance expenses, in the Indenture or other Loan issuance documents

One other issue bears mention. While there is no case law from which to make a definitive judgment, it is possible that, in the context of confirming a plan of adjustment in a Chapter 9 case where the plan has not received the requisite consent of the WIFIA Lender, a bankruptcy court may confirm a plan that adjusts the timing of payments on the Loan or the interest rate or other terms of the Loan, provided that (i) the WIFIA Lender retain its lien on the special revenues and (ii) the payment stream has a present value equal to the value of the special revenues subject to the lien.

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Div 1-9 Is NBC rated by other rating agencies? If so kindly identify the rating agenc(ies) and please provide the credit rating report of each agency identified for NBC for the last 3 years.

Response: NBC is not rated by any other rating agencies.

Prepared by: Karen Giebink

Div 1-10 Does KG-1 / SM-1 take into account the \$1,050,000 in affordability-based forgiveness and \$2,188,500 in RI Clean Water State Revolving Fund's Green Project Reserve program loan forgiveness? Please explain.

Response: Yes. The principal forgiveness is captured in SM-1, that shows total principal repayment of \$96,761,500 on a loan of \$100,000,000.

Total Loan Amount (Principal)	\$ 100,000,000
Less:	
Affordability Forgiveness	(1,050,000)
Green Project Forgiveness	<u>(2,188,500)</u>
Net Principal	\$ 96,761,500

Prepared by: Steve Maceroni and Karen Giebink

Div 1-11 Please provide pro forma Statement of Net Position (unaudited) assuming the application is granted.

Response: Please see attachment Div 1-11 Pro Forma Statement of Net Position (Unaudited).

Prepared by: Leah Foster

NARRAGANSETT BAY COMMISSION
Pro Forma Statement of Net Position (Unaudited)

	Net Position January 31, 2023	Entry for RIIB Loan	Proforma Net Position
ASSETS			
CURRENT ASSETS			
Accounts receivable sewer use (net of allowance)	\$ 11,620,777	\$ -	\$ 11,620,777
Accounts receivable sewer use unbilled	6,648,855	-	6,648,855
Accounts receivable WIFIA	254,055,708	-	254,055,708
Accounts receivable SRF #23	-	98,850,000	98,850,000
Receivables, other	155,942	-	155,942
Prepaid expense	266,307	-	266,307
Total Current Assets	<u>272,747,590</u>	<u>98,850,000</u>	<u>371,597,590</u>
NON-CURRENT ASSETS			
Restricted Assets			
Cash and cash equivalents, restricted	78,675,008	-	78,675,008
Total Restricted Assets	<u>78,675,008</u>	<u>-</u>	<u>78,675,008</u>
Capital Assets			
Land	2,754,407	-	2,754,407
Plant and equipment	112,534,846	-	112,534,846
Capital projects completed	1,006,104,559	-	1,006,104,559
Leased land	2,344,137	-	2,344,137
Construction in progress	549,023,359	-	549,023,359
	<u>1,672,761,309</u>	<u>-</u>	<u>1,672,761,309</u>
Less accumulated depreciation	(305,845,091)	-	(305,845,091)
Less accumulated amortization	(185,578)	-	(185,578)
Total Net Capital Assets	<u>1,366,730,640</u>	<u>-</u>	<u>1,366,730,640</u>
Other assets			
Net pension asset - Non-Union Defined Benefit Plan	2,183,820	-	2,183,820
Total Non-current Assets	<u>1,447,589,468</u>	<u>-</u>	<u>1,447,589,468</u>
TOTAL ASSETS	<u>1,720,337,057</u>	<u>98,850,000</u>	<u>1,819,187,057</u>
DEFERRED OUTFLOWS OF RESOURCES			
Loss on refunding of debt, net	4,885,850	-	4,885,850
Pension related outflows, net	6,575,386	-	6,575,386
OPEB related outflows, net	636,732	-	636,732
Asset retirement obligation, net	414,375	-	414,375
TOTAL DEFERRED OUTFLOWS OF RESOURCES	<u>\$ 12,512,343</u>	<u>\$ -</u>	<u>\$ 12,512,343</u>

NARRAGANSETT BAY COMMISSION
Pro Forma Statement of Net Position (Unaudited)

	Net Position January 31, 2023	Entry for RIIB Loan	Proforma Net Position
LIABILITIES			
CURRENT LIABILITIES			
Accounts and contracts payable	\$ 16,687,959	\$ -	\$ 16,687,959
Accrued interest payable	5,103,718	-	5,103,718
Accrued expenses	933,717	-	933,717
Total Current Liabilities	<u>22,725,393</u>	<u>-</u>	<u>22,725,393</u>
NON-CURRENT LIABILITIES			
Net pension liability - ERSRI Pension Plan	14,631,376	-	14,631,376
Net OPEB liability	1,912,937	-	1,912,937
Other accrued expenses	3,555,591	-	3,555,591
Loans payable	273,866,533	96,761,500	370,628,033
Loan payable, WIFIA	518,693,004	-	518,693,004
Revenue bond	253,007,712	-	253,007,712
Lease Liability	2,177,701	-	2,177,701
Asset retirement obligation	450,000	-	450,000
Total Non-current Liabilities	<u>1,068,294,853</u>	<u>96,761,500</u>	<u>1,165,056,353</u>
TOTAL LIABILITIES	<u>1,091,020,247</u>	<u>96,761,500</u>	<u>1,187,781,747</u>
DEFERRED INFLOWS OF RESOURCES			
Gain on refunding debt, net	2,413,293	-	2,413,293
Pension related inflows, net	4,330,800	-	4,330,800
OPEB related inflows, net	1,732,034	-	1,732,034
TOTAL DEFERRED INFLOWS OF RESOURCES	<u>8,476,127</u>	<u>-</u>	<u>8,476,127</u>
NET POSITION			
Net Investment in capital assets	558,840,135	-	558,840,135
Restricted - environmental enforcement	56,701	-	56,701
Restricted - bond covenants	49,681,620	-	49,681,620
Restricted - debt service reserve	2,989,316	-	2,989,316
Restricted - operating reserve for revenue stability	4,540,159	-	4,540,159
Restricted - operating capital	12,588,253	-	12,588,253
Unrestricted	4,656,842	-	4,656,842
TOTAL NET POSITION	<u>\$ 633,353,026</u>	<u>\$ -</u>	<u>\$ 633,353,026</u>

CERTIFICATION

I hereby certify that on March 3, 2023, I sent a copy of the within to all parties set forth on the attached Service List by electronic mail and copies to Luly Massaro, Division Clerk, by electronic mail and regular mail.

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