



**Solicitation Information
June 3, 2013**

RFP # 7467392

TITLE: Engineering Consulting Services to Evaluate the Implications of Climate Change With Respect to Rhode Island Wastewater Collection and Treatment Infrastructure

SUBMISSION DEADLINE: July 2, 2013 at 11:00 AM (ET)

PRE-BID/PROPOSAL CONFERENCE: YES : June 18, 2013 Time: 11:00 AM
Mandatory: No
Location: Department of Administration, Division of Purchases, 2nd Floor, One Capitol Hill, Providence, RI 02908

Questions concerning this solicitation must be received by the Division of Purchases at gail.walsh@purchasing.ri.gov **no later than June 18, 2013 at 12 Midnight**. Questions should be submitted in a Microsoft Word attachment. Please reference the RFP# on all correspondence. Questions received, if any, will be posted on the Internet as an addendum to this solicitation. It is the responsibility of all interested parties to download this information.

SURETY REQUIRED: No

BOND REQUIRED: No

**Gail Walsh
Chief Buyer**

Vendors must register on-line at the State Purchasing Website at www.purchasing.ri.gov

NOTE TO VENDORS:

Offers received without the entire completed four-page RIVIP Generated Bidder Certification Form attached may result in disqualification.

THIS PAGE IS NOT A BIDDER CERTIFICATION FORM

SECTION 1 - INTRODUCTION

There is growing concern nationwide about the potential effects of climate change on existing wastewater collection and treatment infrastructure. The concerns relate to how increased storm and precipitation frequency and intensities, as well as sea-level rise and greater storm surge heights, will impact existing and planned wastewater infrastructure. The impacts may involve both the physical and operational aspects of wastewater systems. The major facilities associated with wastewater treatment systems, including the treatment facilities and larger pump stations, tend to be located in low-lying coastal and riverine waterways. It is important to evaluate the potential for impacts to wastewater infrastructure and operations in order to identify specific vulnerabilities that would benefit from the development of adaptation strategies. These strategies are expected to include both short and long-term actions that result in modifications of the infrastructure or its operations in order to improve its reliability under changing conditions.

Examples include but are not limited to: the evaluation and prioritization of vulnerable infrastructure and any resulting necessary upgrades or relocation (either as a result of normal use-life/attrition or for emergency needs); vulnerability evaluations of normal transportation/delivery routes that may be closed or altered due to road closures (permanent or temporary); design standards for standby power/fuel storage in light of more frequent storms; impacts to infrastructure citing/design considerations during routine 20-year Facilities Planning activities. A thorough evaluation of likely and potential impacts of climate change as currently understood will support efforts to develop and implement future adaptation strategies.

This project is a joint effort by the Rhode Island Bays, Rivers, and Watersheds Coordination Team (RI BRWCT) and the Rhode Island Department of Environmental Management, Office of Water Resources (RIDEM).

PLEASE NOTE:

Architectural and/or engineering services firms practicing in Rhode Island must be registered and possess a Certificate of Authorization in accordance with R. I. Gen. Laws § 5-1-1, et. seq. A copy of a Certificate of Authorization for the firm and current Rhode Island registration(s) for individuals who may perform project related work must be included with the proposal.

The Rhode Island Board of Design Professionals may be contacted as follows:

Board for Design Professionals
1511 Pontiac Avenue (Bldg 68-2)
Cranston, RI 02920
Tel: 401-462-9530
Fax: 401-462-9532
www.bdp.state.ri.us

The respondent's Proposal will be disqualified and removed from consideration if the Proposal fails to include the required current Rhode Island Certificate of Authorization for the firm and current Rhode Island registration(s).

INSTRUCTIONS AND NOTIFICATIONS TO OFFERORS:

- This is an RFP, not an Invitation for Bid. Responses will be evaluated on the basis of the relative technical merits of the proposal as provided herein, in addition to cost.
- Potential offerors are advised to review all sections of this Request carefully and to follow instructions completely, as failure to make a complete submission as described elsewhere herein may result in rejection of the proposal.
- Alternative approaches and/or methodologies to accomplish the desired or intended results of this procurement are solicited. However, proposals that depart from or materially alter the terms, requirements, or scope of work defined by this Request will be rejected as being non-responsive.
- All costs associated with developing or submitting a proposal in response to this Request, or to provide oral or written clarification of its content should be borne by the offeror. The State assumes no responsibility for these costs.
- Proposals are considered to be irrevocable for a period of not less than sixty (60) days following the opening date, and may not be withdrawn, except with the express written permission of the State Purchasing Agent.
- All pricing submitted will be considered to be firm and fixed unless otherwise indicated herein.
- Proposals misdirected to other State locations or those not present in the Division of Purchases at the time of opening for any cause will be determined to be late and will not be considered. The “Official” time clock is located in the reception area of the Division of Purchases, Department of Administration, One Capitol Hill, Providence, RI.
- In accordance with Title 7, Chapter 1.1 of the General Laws of Rhode Island, no foreign corporation without a Rhode Island business address, shall have the right to transact business in the State until it shall have procured a Certificate of Authority to do so from the Rhode Island Secretary of State (401) 222-3040. *This is a requirement only of the selected bidder(s).*
- Proposals should include the offeror’s FEIN or Social Security number as evidenced by a W9, downloadable from the Division of Purchases website at www.purchasing.ri.gov.
- Bidders are advised that all materials submitted to the State for consideration in response to this Request for Proposals will be considered to be public records, as defined in RIGL Title 38, Chapter 2, and will be released for inspection immediately upon request, once an award is made.

- It is intended that an award pursuant to this Request will be made to a prime Contractor who will assume responsibility for all aspects of the work. Joint venture and cooperative proposals will not be considered, but subcontracts are permitted, provided that their use is clearly indicated in the offeror's proposal and the proposed subcontractor(s) are identified in the proposal.
- The State of Rhode Island has a goal of ten percent (10%) participation by Minority Business Enterprises (MBE) in all State procurements. Subcontractors included in any proposal must be certified by the State MBE Administrator as an MBE in Rhode Island. For further information, contact the State MBE Administrator at (401) 574-8253, e-mail charles.newton@doa.ri.gov or visit the MBE website <http://www.mbe.ri.gov>.
- The purchase of services under an award made pursuant to this Request will be contingent on the availability of funds from the Rhode Island Bays, Rivers, and Watersheds Coordination Team.
- Equal Employment Opportunity (RIGL 28-5.1) § 28-5.1-1 Declaration of policy. – (a) Equal opportunity and affirmative action toward its achievement is the policy of all units of Rhode Island State government, including all public and quasi-public agencies, commissions, boards and authorities, and in the classified, unclassified, and non-classified services of State employment. This policy applies in all areas where the State dollar is spent: in employment, public service, grants and financial assistance, and in state licensing and regulation. For further information, contact the Rhode Island Equal Employment Opportunity Office at (401) 222-3090 or e-mail Raymond.lambert@hr.ri.gov.
- Interested parties are instructed to peruse the Division of Purchases website on a regular basis, as additional information relating to this solicitation may be released in the form of an addendum to the RFP.

SECTION 2 - BACKGROUND AND PURPOSE

INTRODUCTION: Certain climate change related occurrences — such as, sea level rise, temperature rise, changes to groundwater characteristics, changes in precipitation and changes to storm surge levels/events — are known to impact a community's natural, social, and economic systems. Such occurrences include sudden and extended storm-event flooding, storm surges, and changes in river hydrology and coastal hydrodynamics.

Identification and characterization of potential impacts is an essential step with respect to planning appropriate adaptation measures. Some needed actions may be able to be taken without significant disruption to existing operations; e.g. identification of alternate traffic routes and portable emergency power needs, long-term planning activities, flood-preparation procedures, etc. Other actions, such as relocation of key infrastructure, will require additional planning. The established process for wastewater facility planning utilizes at minimum a twenty-year horizon

reflecting the inherent long-term nature of infrastructure and the time involved in planning and executing major modifications to such infrastructure. Rhode Island wastewater system operators have been exposed to limited information about the potential for climate change impacts and communities will be expected to integrate climate change considerations into future facility planning, although no firm DEM expectations are yet in place. This project is intended to provide information to facilitate operator and community education and future planning.

ADDITIONAL REQUEST SPECIFICS: The Rhode Island Bays, Rivers, and Watersheds Coordination Team (RI BRWCT) and the Rhode Island Department of Environmental Management, Office of Water Resources (RIDEM), are requesting proposals for technical services to conduct an assessment of the potential effects of climate change on Rhode Island wastewater collection and treatment infrastructure, including the potential for flooding of critical facilities. The project is intended to build off other work being done in Rhode Island related to climate change adaptation including that of the Rhode Island Climate Change Commission.

The purpose of the assessment is to employ existing data and reports (especially existing reports that are specific to Rhode Island and the Northeast (see Attachment A for a listing)) to summarize the current state of anthropogenic climate change science as researched by international, national, and state entities—academic and government—and then use this information to characterize potential impacts on Rhode Island’s wastewater collection and treatment infrastructure. Wastewater infrastructure within the scope of this project should include: (i) the nineteen major wastewater treatment facilities (see Attachment B for treatment facility listing); (ii) vulnerable wastewater collection systems that service these nineteen treatment facilities, including any major wastewater collection pumping stations or wastewater collection lines that may be prone to flooding or storm surge; and (iii) the Narragansett Bay Commission’s Combined Sewer Overflow tunnel system.

The assessment should evaluate and answer important questions about:

- *Sustainability*, (the capacity to endure),
- *Vulnerability*, (the extent to which climate change may damage or harm a system),
- *Sensitivity*, (the degree to which a system will respond to climate change), and
- *Adaptability*, (the degree to which adjustments are possible in practices processes or structures).

The RI BRWCT and RIDEM stipulate that the project will begin with a compilation of existing technical information relevant to climate change in Rhode Island. This work should be primarily an effort to compile, synthesize, and summarize research or work conducted by others while avoiding being duplicative of other efforts to document climate change in RI; e.g. the 2012 Progress Report of the Rhode Island Climate Change Commission. In addition, the project will involve the use of predictive tools, e.g. computer models to project potential impacts of climate change on wastewater infrastructure under one or more scenarios. The project also will involve site visits to those Rhode Island wastewater systems that are characterized as having

vulnerabilities to climate change. As needed, the site inspections will allow for the collection of additional site-specific information needed to accurately characterize potential impacts and to specify recommended mitigation actions.

SECTION 3 - SCOPE OF WORK

The scope of work involves the following tasks and deliverables. The project results will be compiled in a final project report.

Task 1. Assessing climate change science and potential for climate change impacts

The vendor will compile, summarize, and use the current state of climate change science as researched by academic and governmental international, national, and state entities to detail the specific impacts to WWTFs in Rhode Island (See Attachment A for resources). This task should build off prior efforts, such as those of the RI Climate Change Commission. The vendor will identify the major climate change related issues that are or may affect wastewater infrastructure and compile information related to those. These issues include but are not limited to: inundation, increased riverine flooding, sea level rise, coastal storm surge, and rising groundwater levels. Information to support assessment of these issues in the state should be compiled and evaluated using records, data and projections related to how the local climate/weather has been changing. The assessment must build of climate change projections for 10-year, 20-year, 50-year, and 100-year time frames. The project should consider alternative arrays of projections that are generally comparable and achieve the same purpose of reflecting change over a long period.

Deliverable: Summary will be included in final report with supporting documentation; e.g. calculations, maps.

Task 2. Preliminary Assessment of Potential Impacts of Wastewater Infrastructure

The vendor will use information gathered in Task 1 in combination with other information including but not limited to data collected from site inspections, staff interviews, available data from previous storm/surge/etc. events, and any appropriate technical analyses or modeling necessary to study and make a preliminary assessment of the potential impacts of climate-related changes on the subject wastewater infrastructure. This task is intended to identify the universe of potentially impacted infrastructure while acknowledging that further characterization of the impact may be needed. For example, RIDEM expects this task will include an analysis of which important infrastructure is projected to be inundated due to rising sea level under the varying time scales identified above. Respondents should detail in their proposals the approach taken to identifying and assessing the infrastructure likely to be affected by climate change. The use of existing models or newly developed or adapted models should be specified as appropriate. As needed, this work must include site inspections of at least some, if not all, wastewater systems. Site inspections should be prioritized based on the potential for impacts.

The vendor will summarize the findings from Task 1 and 2 in a memorandum and attach maps that clearly delineate infrastructure boundaries and major treatment/mechanical/structural systems. This should be overlaid with threat information (storm surge estimates, flood level estimates, etc.) A draft memorandum, with supporting documentation, e.g. maps, will be prepared for review and comment by RIDEM and other member agencies of the RI BRWCT. Work will proceed to Task 3 contingent on the approval of the final memorandum.

Deliverable: Draft and final memorandum with maps. Information will be incorporated as appropriate in final project report.

Task 3. Refined Assessment of Climate Change Impacts on Wastewater Infrastructure

Following the preliminary assessment, further work will be necessary to refine the characterization of climate change impacts on wastewater systems. This task will involve the additional work needed to better quantify or characterize the impacts. It may involve additional site inspections, consultation with system operators, verification of site specific information, new model runs, among other sub-tasks. The purpose of this task is to collect sufficient information and conduct further analyses in order to refine the assessment of climate change impacts and support identification of specific adaptation measures. This task will also generate a summary that includes other visual information (graphs, etc.) necessary to convey the findings to a variety of audiences. This summary will also include written information that provides narrative overviews and necessary details related to climate change threats on subject infrastructure.

Deliverable: Refined analysis with supporting documentation which will be included in the final report.

Task 4. Development of Recommendations for Adaptive Strategies

Based on the findings from the prior tasks, the vendor will develop proposed recommendations for adaptation strategies. These should include adaptation recommendations related to the following: (1) statewide policy recommendations applicable to all wastewater systems; e.g. areas of policy related to future facility planning studies; 2) site-specific recommendations (prioritized by infrastructure importance and level of vulnerability) for physical or operational measures that can be incorporated into existing wastewater systems and (3) site-specific recommendations for operational changes in a wastewater system. The recommendations should be documented in the final report.

Deliverable: General and site-specific adaptation recommendations documented in the final report.

Task 5. Final Project Report.

The vendor will summarize all project work in a draft final report. The report shall include, but not be limited to: a description of the project approach, a summary of information compiled on climate change (Task 1), documentation of the work performed to produce preliminary and refined analyses of impacts to wastewater infrastructure (Task 2 & 3), discussion of the findings

from Task 3, documentation of field inspections, calculations and computer model analyses as applicable, discussion of general and site specific recommendations for adaptive measures or other future work (Task 4).

This draft final report will be reviewed by the DEM for a determination that the vendor met the intent of the submission. The vendor will be responsible for necessary revisions to the report. Discussions with DEM during the development of the initial “draft final” report may assist the vendor in meeting the DEM’s expectations for a final product.

Five copies of the final report in hardcopy as well as an electronic version of the report shall be provided. In addition, subject to software licensing requirements, where this contract results in the development or generation of software applications or work-products, including but not limited to, spreadsheets and populated models, RIDEM will require an electronic copy of such be provided with the final report as to be specified in the contract resulting from this solicitation.

Deliverable: Project report (draft and, after review, final.)

Task 6. Outreach/educational resources

Deliverable: Based on the project results, the vendor will develop and provide outreach materials, such as a simplified summary fact sheet, that are customized for each community to assist wastewater staff to better communicate with local decision makers, finance officials, the media, the general public, and ratepayers.

SECTION 4 – PROPOSAL SUBMISSION

Questions concerning this solicitation may be e-mailed to the Division of Purchases at gail.walsh@purchasing.ri.gov no later than the date and time indicated on page one of this solicitation. Please reference RFP # on all correspondence. Questions should be submitted in a Microsoft Word attachment.

Answers to questions received, if any, will be posted on the Internet as an addendum to this solicitation. It is the responsibility of all interested parties to download this information. If technical assistance is required to download, call the Help Desk at (401) 222-3766 or lynda.moore@doit.ri.gov.

Offerors are encouraged to submit written questions to the Division of Purchases. No other contact with State parties will be permitted. Interested offerors may submit proposals to provide the services covered by this Request on or before the date and time listed on the cover page of this solicitation. Responses received after this date and time, as registered by the official time clock in the reception area of the Division of Purchases will not be considered.

Responses (an original plus three copies) should be mailed or hand-delivered in a sealed envelope marked “RFP # 7467392 “Engineering Consulting Services - Implications of Climate Change for Rhode Island Wastewater Collection and Treatment Infrastructure Study” to:

RI Dept. of Administration
Division of Purchases, 2nd Floor
One Capitol Hill
Providence, RI 02908-5855

NOTE: Proposals received after the above-referenced due date and time will not be considered. Proposals misdirected to other State locations or those not presented to the Division of Purchases by the scheduled due date and time will be determined to be late and will not be considered. Proposals faxed, or emailed, to the Division of Purchases will not be considered. The official time clock is in the reception area of the Division of Purchases.

PROPOSAL CONTENTS

Proposals shall include the following:

- A completed and signed four-page R.I.V.I.P generated bidder certification cover sheet downloaded from the RI Division of Purchases Internet home page at www.purchasing.ri.gov.
- A completed and signed W-9 downloaded from the RI Division of Purchases Internet home page at www.purchasing.ri.gov. **Please include with original proposal only.**
- A separate Technical Proposal describing the qualifications and background of the applicant and experience with and for similar projects, and all information described earlier in this solicitation. The Technical Proposal is limited to Twenty Five (25) pages (this excludes any appendices). As appropriate, resumes of key staff that will provide services covered by this request.
- **A separate, signed and sealed** Cost Proposal, in two-parts, reflecting the hourly rate, or other fee structure, proposed to complete all of the requirements of this project.

TECHNICAL PROPOSAL

The Technical Proposal shall contain the following sections:

➤ Executive Summary

The Executive Summary is intended to highlight the contents of the Technical Proposal and to provide State evaluators with a broad understanding of the offeror's technical approach and ability, including prior experience with similar projects.

➤ Offeror's Organization and Staffing

This section shall include identification of all staff and/or subcontractors proposed as members of the project team, their duties, responsibilities, and concentrations of effort, brief resumes/curricula vitae, and statements of prior experience and qualifications. Include a description of the business background and financial position of your organization, demonstrating stability and effective management and administrative performance.

➤ Work Plan/Approach

This section shall describe the offeror's understanding of the State's requirements, including the results intended and desired, the approach and or methodology to be employed, and a work plan for accomplishing the results proposed. Each task should be clearly identified and discussed.

➤ Previous Experience

This section shall include a comprehensive listing of similar projects undertaken and/or similar clients served, including a brief description of each item.

COST PROPOSAL

The Cost Proposal of both (1) a financial budget summary that lists the total cost for each task and the proposal as a whole and (2) a budget narrative that provides a detailed description of the projected budget for each task and major sub-task. The cost proposal should reflect the cost to provide services projected for each year (12 month period) of the project and presented in tables. Note: This project is not expected to exceed 12 months. Each task should correspond to a deliverable identified in the work plan provided by the vendor as part of the proposal package.

- ❖ Cost proposal prices submitted will be considered **firm and fixed**.
- ❖ Cost proposal must include estimated level of effort (hours assigned to specific personnel) and hourly rates.
- ❖ Cost proposal should include all other costs for performing the tasks (subcontracts, supplies, equipment, mileage, etc.)

Note: Failure to fully disclose annual costs could result in disqualification.

SECTION 5 - EVALUATION AND SELECTION

The State will establish a Technical Review Committee that will evaluate and score combined Technical/Cost proposals received utilizing the following criteria resulting in a final ranking and recommendations selection:

SELECTION CRITERIA:

(10 Points) – Overall quality and responsiveness of the proposal.

(25 Point) – Relevant work experience of organization including familiarity with Rhode Island river and stream conditions. Vendor capacity, capability and qualifications.

(10 Points) – Relevant work experience and qualifications of personnel assigned to the project.

(5 Points) – Demonstration of managerial approach that will result in the successful and timely completion of the project, including adequate coordination with DEM.

(20 Points) – Adequate description of each task, including cost per task, and timing and allocation of staff effort is included, reasonable and acceptable. Technical approach to project is acceptable.

(30 points) – Lowest responsive cost proposal will be divided by the bidder's costs proposal. The resulting quotient is then multiplied by 15 to calculate the number of points awarded.

Proposals must score a minimum of 55 out of 70 points during the technical review to warrant further evaluation for cost considerations. Proposals meeting that requirement will be evaluated for cost and assigned a maximum of 30 points in that category, bringing the potential maximum score to 100 points. Applicants may be required to submit additional written information or be asked to make an oral presentation before the Technical Review Committee to clarify statements made in their proposal. The Department of Environmental Management reserves the right not to fund any proposal(s).

Upon final selection approval, all respondents will be notified by the State, via a posting on the Division of Purchases website, that a final selection has been made.

At any point during the review process, any proposal found to be substantially non-responsive will be dropped from further consideration.

The State reserves the right to make an award or multiple awards or to reject any or all proposals based on what it considers to be in its best interest.

Attachment A:

Resources (Partial listing. Vendor may use others as well.)

“Hotspot” of accelerated sea-level rise on the Atlantic coast of North America:

<http://www.nature.com/nclimate/journal/v2/n12/full/nclimate1597.html>

Modeling sea level rise impacts on storm surges along the US coasts:

<http://iopscience.iop.org/1748-9326/7/1/014032/article>

Tidally adjusted estimates of topographic vulnerability to sea level rise and flooding in the contiguous United States:

<http://iopscience.iop.org/1748-9326/7/1/014033>

University of Colorado Sea Level Research Group webpage: <http://sealevel.colorado.edu/>

United Nations Intergovernmental Panel on Climate Change:

<http://www.ipcc.ch/>

Center for International Climate and Environmental Research - Oslo:

http://www.cicero.uio.no/home/index_e.aspx

US EPA's Climate Indicators Graphics and data on 26 climate indicators:

<http://www.epa.gov/climatechange/science/indicators/>

NOAA Climate Change Main Page:

<http://coastalmanagement.noaa.gov/climate.html>

United States Global Climate Change Research Program:

<http://www.globalchange.gov/>

American Metropolitan Water Agencies/Climate change information:

<http://www.amwa.net/cs/climatechange>

Rhode Island Climate Change Commission Enabling:

<http://webserver.rilin.state.ri.us/PublicLaws/law10/law10119.htm>

RI Climate Change Commission November 2012 Report

<http://www.rilin.state.ri.us/Reports/Climate%20Change%20Commission%20Prog%20Report%20Final%2011%2015%2012%20final%202.pdf>

CRMC Climate Page:

<http://www.crmc.ri.gov/climatechange.html>

Rhode Island Sea Grant Web Page:

<http://seagrant.gso.uri.edu/climate/>

Attachment B:

Wastewater Treatment Facilities and Contacts.

<http://www.dem.ri.gov/programs/benviron/water/permits/wtf/potwops.htm>

WASTEWATER TREATMENT FACILITY/SUPT.	POPULATION CENSUS 2000	ESTIMATED POPULATION SERVED BY SEWERS	DESIGN FLOW (MGD)	AVERAGE DAILY FLOW (MGD)	MAJOR TREATMENT SYSTEMS	RECEIVING WATERS
Town of Bristol Jose DaSilva, Superintendent Bristol WWTF 2 Plant Street Bristol, RI 02809 TEL: 253-8877 FAX: 253-2910	22,469	16,900	3.8	2.8	RBC's Chlorination Dechlorination	Bristol Harbor
Town of Burrillville John E. Martin, III Burrillville WWTF PO Box 71 Harrisville, RI 02830 TEL: 568-9463 FAX: 568-9464	15,796	8,000	1.5	0.7	Activated sludge Chlorination Phosphorous reduction Dechlorination	Clear River
City of Cranston (Veolia Water) Dan Gorka Water Pollution Control Facility 140 Pettaconsett Ave. Cranston, RI 02920 TEL: 467-7210 FAX: 781-5260	79,269	77,000	19.0	13.2	Activated sludge BNR Chlorination Dechlorination Sludge Incineration	Pawtuxet River

Town of East Greenwich Mike Pacillo East Greenwich Town Hall PO Box 111 East Greenwich, RI 02818 TEL: 886-8619 FAX: 886-8652	12,948	2,500	1.24	0.8	RBC's BAF/Nutrient Removal UV Disinfection	Greenwich Cove
City of East Providence <i>serves:</i> East Providence Barrington David Gaipo E. Providence WWTF Crest Ave. Riverside, RI 02915 TEL: 433-6363 FAX: 433-4059	48,688 16,819	<u>47,935</u> 39,000 8,835	10.4	6.7	Activated sludge Chlorination Dechlorination	Providence River
Town of Jamestown Douglas Ouellette Jamestown Sewer Division 44 Southwest Ave. Jamestown, RI 02835 TEL: 423-7295 FAX: 423-7229	5,622	1,720	0.75	0.4	Extended Aeration Chlorination	Dutch Island Harbor/ Narragansett Bay East Passage

<p>Narragansett Bay Comm. Bucklin Point (United Water) <i>serves:</i> Central Falls Cumberland East Providence Lincoln Pawtucket Smithfield Brent Herring NBC-Bucklin Point WWTF 102 Campbell Ave. East Providence, RI 02914 TEL: 434-6350 FAX: 438-5229</p>	<p>18,928 31,840 48,688 20,898 72,958 20,613</p>	<p><u>119,809</u> 17,637 11,093 8,852 9,433 72,644 150</p>	<p>46.0</p>	<p>23.1</p>	<p>Activated sludge BNR UV Disinfection</p>	<p>Seekonk River</p>
<p>Narragansett Bay Comm. Fields Point <i>serves:</i> Johnston North Providence Providence Carmin Goneconte NBC-Fields Point 2 Ernest St. Providence, RI 02905 TEL: 461-8848 FAX: 461-0170</p>	<p>28,195 32,411 173,618</p>	<p><u>208,743</u> 15,925 32,090 160,728</p>	<p>65.0</p>	<p>45.5</p>	<p>Activated sludge Chlorination Dechlorination</p>	<p>Providence River</p>

<p>Town of Narragansett Scarborough Facility Doug Nettleton Narragansett Town Hall 25 Fifth Ave., P.O. Box 777 Narragansett, RI 02882 TEL: 782-0682 FAX: 782-0681</p>	16,361				Oxidation Ditch Chlorination Dechlorination	RI Sound
<p>City of Newport (United Water) <i>serves:</i> Middletown Newport U.S. Navy Base Stephen Cushing Newport WWTF 250 J.T. Connell Highway Newport, RI 02840 TEL: 845-2000 FAX: 845-2014</p>	17, 334 26,475	<u>38,385</u> 7,435 20,950 10,000	10.7	8.4	Activated sludge Chlorination Dechlorination	Narragansett Bay East Passage
<p>New Shoreham Chris Blane (Interim) New Shoreham Sewer Commission PO Box 220 New Shoreham, RI 02807 TEL: 466-3231 FAX: 466-3237</p>	1,010	750-winter 8,500-summer	0.3	0.1	Extended aeration BNR Chlorination Dechlorination	RI Sound

Quonset Point RI Dept. of Economic Development Dennis Colberg Quonset Development Corporation 95 Cripe Street North Kingstown, RI 02852 TEL: 294-6342 FAX: 295-7430		6,000	1.78	0.492	RBC's Chlorination	Narragansett Bay West Passage
Town of Smithfield (Veolia Water) Karen Goffe PO Box 17249 Smithfield, RI 02917 TEL: 231-1506 FAX: 231-7089	20,613	13,000	3.5	1.4	Activated sludge BNR Tertiary Treatment Chlorination Dechlorination	Woonasquatucket River
South Kingstown Regional WWTF <i>serves:</i> Narragansett South Kingstown University of RI Kathy Perez South Kingstown Town Hall 180 High St. Wakefield, RI 02879 TEL: 788-9771 FAX: 789-3070	16,361 27,921	<u>25,396</u> 8,982 9,771 6,643	5.0	2.4	Activated sludge Chlorination Dechlorination	RI Sound
Town of Warren (United Water) David Komiega 427 Water St. Warren, RI 02885 TEL: 245-8326 FAX: 245-8713	11,360	8,000	2.01	1.8	Activated sludge Chlorination Dechlorination	Warren River

City of Warwick Patrick Doyle Warwick Sewer Authority 125 Arthur W. Devine Boulevard Warwick, RI 02886 TEL: 739-4949 FAX: 739-1414	85,808	28,000	5.0	3.4	Activated Sludge BNR Chlorination Dechlorination	Pawtuxet River
Town of Westerly (United Water) Scott Duerr P.O. Box 2924 Westerly, RI 02894 TEL: 596-2847 FAX: 348-9504	22,966	10,000	3.3	2.5	Activated Sludge BNR Chlorination Dechlorination	Pawcatuck River
Town of West Warwick <i>serves (portions of):</i> Coventry Cranston East Greenwich Warwick West Greenwich Bernie Bishop, Acting Superintendent West Warwick Regional WWTF 1 Pontiac Ave. West Warwick, RI 02893 TEL: 822-9228 FAX: 823-3620	33,668 88,808 29,581	<u>30,000</u> 804 1,282 28,272	7.9	5.2	Activated Sludge BAF/Nutrient Removal UV Disinfection	Pawtuxet River

City of Woonsocket (CH2MHILL) <i>serves:</i> North Smithfield Woonsocket Blackstone, MA Kevin Dahl P.E. Woonsocket WWTF 11 Cumberland Hill Rd. (rear) Woonsocket, RI 02895 TEL: 762-5050 FAX: 762-5143	10,618 43,224 8,804	<u>52,200</u> 2,700 48,000 1,500	16.0	9.3	Activated Sludge BNR, Tertiary Treatment Chlorination Dechlorination	Blackstone River
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