

RHODE ISLAND
DIVISION OF
PLANNING



State Guide Plan Update

WATER QUALITY 2035

RI Water Quality Management Plan

Public Comment and Hearing Report

July 2016

Department of Administration

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- prepare Guide Plan Elements for the State
- coordinate activities of the public and private sectors within the framework of the State Guide Plan
- assist municipal governments with planning, and
- advise the Governor and others on physical, social, and economic planning related topics.

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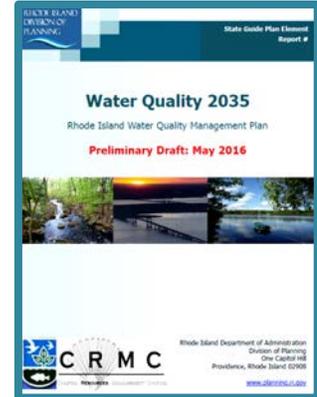
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This is a report on the two public hearings and comment period held by the Department of Administration Division of Planning (DOP) on behalf of the State Planning Council (SPC) to consider adoption of a new Element, *Water Quality 2035*, of the State Guide Plan. The report also reflects the input of the RI State Planning Council and Technical Committee (TC). Two public hearings were held to accept comments on the Draft State Guide Plan Element: *Water Quality 2035*, Rhode Island Water Quality Management Plan. This Report outlines the comments made by the SPC and TC, as well as the attendance at the hearings, and the public comments received. The written statements and comments submitted are included as well as recommendations for revisions to the Plan to respond to the comments submitted.



The Hearings were conducted in accordance with the State Planning Council Rules of Procedure and the Administrative Procedures Act. The public comment period ran from June 13, 2016 through Wednesday, July 20, 2016. Two public hearings were held as follows:

- Wednesday, July 13th, 2015 at 2:00 PM at the Department of Administration William E Powers Building Conference Room B, One Capitol Hill, Providence Rhode Island 02908
- Wednesday, July 13th, 2015 at 6:00 PM at the Department of Environmental Management (DEM), Room 300, 235 Promenade St, Providence Rhode Island 02908

Notice of the two public hearings and opportunity to comment on the draft plan were provided in English and Spanish notices posted on the Statewide Planning website thirty days in advance of the hearings dates, a direct mailing to the over 380 planning and transportation contacts in Statewide Planning's database, and an email notice to over a dozen stakeholder organizations. The hearings began with a 20 minute informational presentation followed by opportunity for public comment. All persons were invited to present their views on the draft document in person at the public hearings, through a representative, or by filing a written statement with the Secretary of the State Planning Council. Written statements could be mailed or e-mailed to Parag Agrawal, Associate Director, Division of Planning, One Capitol Hill, Providence, RI 02908, or submitted at a hearing.

These hearing locations were accessible to individuals with disabilities. Any individual with physical or sensory impairments requiring assistance for a reasonable accommodation or individuals requiring the services of a spoken language interpreter to participate in these hearings were also able to make requests for accommodation. There were no requests for accommodations or interpreters. In total, 7 people attended the two hearings, and 4 people gave spoken comments. Over the course of the public comment period, 6 people or organizations submitted written comments.

II. Summary of Comments, Responses, and Edits Made

The formal public comments concerning adoption of this draft State Guide Plan Element were generally supportive. There were seven people/organizations who submitted verbal and/or written comments. Most expressed support for the broad vision, goals and policy options, and all asked for an expeditious adoption of the Element. Most of the commenters were involved with the draft development in some way either by serving on the advisory council or were staff of an agency or stakeholder group which was consulted during the outreach process.

How the Comments are Organized

The public comments received have been summarized under the major topics heard and are followed by responses and recommended changes to the draft. The written comments received are included in the Appendix to this Report. There were a number of common comments which expressed concerns and opinions about major components of the draft. The major topics are identified by themes below and were;

- Economics of Water Quality
- Dams
 - Water Quality Effects
 - Renewable Energy Production
- Stormwater
 - Municipal Capacity
 - Major Investments in Stormwater & Infrastructure Planning
- Governance
 - Inter-state Coordination
 - CRMC's Coastal Watershed Responsibilities
 - Watershed Planning Timeline
- Onsite Wastewater Treatment Systems (OWTS)
- Climate Change,
- Aquatic Habitat Protection
- Target Audience
- Defining Wetlands
- Water Quality Improvement Status
- Stream Headwaters
- Coastal Waters
- Lake Management
- Enforcement
- Transportation

The format to address the major themes is as follows:

Theme Name
 What was Heard
 Response
 Changes to the Draft (where necessary)

This report captures what was heard under each of these major themes. The responses and changes to the draft summarize the recommendations of the Division of Planning that were formulated in consultation with the Department of Environmental Management and the Coastal Resources Management Council for plan revisions that address the summarized comments. Commenters also brought up a few technical concerns and offered minor suggestions related to updating facts in the draft.

Economics of Water Quality

What Was Heard – Several commenters stressed the importance of adopting a plan with a strong economic message on the value of water quality to the State. A RI State Legislator suggested that legislative colleagues do care about environmental issues related to water quality but the economic benefits of having clean water resonates better with their interests. Another commenter suggested that a focus on the asset of Narragansett Bay could open up greater economic potential as a result of improving water quality. There was also a comment stressing the connection between high quality water and tourism. A dissenting comment was an opinion that the Plan was too focused on economics and the Vision failed to adequately include the protection of aquatic habitat. This dissenting comment will be discussed below under the Aquatic Habitat Section.

Response - The Executive Summary and Part 1 explicitly state why clean water is important for RI including what the economic benefits of clean water are for the State. The connection between clean water and the economy is continually highlighted throughout the document. The reference source of some economic information was the DOP issue brief *Economics of Water Quality* available on the DOP webpage at: http://www.planning.ri.gov/documents/LU/water/WQMP_Issue%20Brief_economics_8.21.14.pdf

Changes to the Draft – On Pg. 1-2 an additional reference to the economic value of Narragansett Bay has been added.

Dams

Water Quality Effects

What Was Heard – Several comments were heard or received as to concerns for the physical effects of dams on water quality as they slow stream flows, impound waters, and change riverine ecosystems to lacustrine systems. One comment was heard that the Plan should have a proactive policy for inactive dams throughout the State.

Response – Dams are discussed in several sections of the Plan. Part 2 of the Plan mentions how dams contribute to water quality concerns (Pgs. 2-1, 2-16, 2-41). Part 6, Pollution Sources and Other Aquatic Stressors, Barriers to Stream Connectivity, including dams, is discussed on Pg. 6-44 as a subheading under the Aquatic Habitat Section. On Pg. 6-44 a policy for barriers to stream connectivity is presented. On Pg. 6-44 a policy for barriers to stream connectivity is presented and actions for this policy are included on Pg. 7-24 of the Implementation Matrix. Additionally, under State Law inactive dams are addressed by the existing Dam Safety Program of DEM.

Changes to the Draft – language was revised on Pg. 2-14.

Renewable Energy Production

What Was Heard – An individual suggested that the potential for renewable energy production through existing dams without impacting water quality should be cited in the Plan.

Response – Renewable energies are included as a topic and are briefly discussed as they relate to water quality. There are several current low-head hydro energy generating facilities in the State but according to State Guide Plan: *Energy 2035*, the further development of hydro-power is limited and estimated to be cost prohibitive due to a lack of sufficient hydro fall heights. Renewable energy options for the State are described in depth in *Energy 2035*. On Pg. 7-10 of this Plan, the idea of incorporating “energy efficiencies and use of sustainable energy sources in wastewater operations” is mentioned.

Changes to the Draft – Insert a cross reference to State Guide Plan: *Energy 2035* on Pg. 2-10 for clarity.

Stormwater

Municipal Capacity

What was heard – Concerns about the lack of municipal capacity and addressing regional approaches for stormwater management were shared ideas by several commenters and supplemented by written comments. It was suggested that cost sharing the responsibility between municipalities should be explored before stormwater reaches the “end of the pipe”. It was felt that reducing flows from impervious surfaces was a municipal responsibility and the lack of a coordinated regional approach for stormwater affects the Narragansett Bay Commission (NBC) and its rate-payers. One commenter suggested NBC have a larger role in the stormwater management provided sufficient authority to collect fees is provided.

Response – Part 3 contains a section on the crucial role municipalities play in water quality and stormwater management. Many municipalities implement stormwater management and on-site wastewater management programs. This Plan also notes other important opportunities for the State to work closely with municipal governments to strengthen the overall management of water quality. These include improving coordination and integration of infrastructure planning, public and on-site wastewater disposal, stormwater and floodplain management. On Pg. 6-15 of the Plan, there is discussion about the potential for regional stormwater utilities including current efforts to explore this approach among some of the municipalities served by the NBC regional wastewater system. On Pg. 7-14 of the Implementation Matrix, Action C of Stormwater Policy 6 states, “Establish regional stormwater management approaches where possible”. While recognizing the potential benefits of regional approaches, given the range of options available, it is not the purpose of the SGP to make specific recommendations on the detailed organization of regional approaches. Accordingly, concerns with how to structure financing within a stormwater utility district are best addressed during the detailed analysis typically undertaken in exploring such an approach. For those areas where stormwater management involves operation of combined sewer systems, the relevant wastewater utility would be expected to be involved in the process.

Changes to the Draft – Pg.6-11- add to 2nd to last bullet “and incentives for reducing impervious coverage.” Pg. 7-10 add to Wastewater Discharges to Surface Waters and Collection Systems (Sewers) Policy 8: *Continue to minimize untreated discharges from Combined Sewer Overflows (CSO)*. Municipalities as supporting parties under actions A and B.

Stormwater Best Management Practices

What Was Heard - One comment on LID expressed a preference for stormwater infiltration through above ground BMPs that provide other co-benefits rather than below ground structures.

Response: LID is discussed several times in the Plan on Pg. ES-4, Pg. 2-4, Pg.2-35, Pg. 3-8, Pg. 4-5, Pg. 6-11, LID techniques are further described in the referenced manual prepared by DEM and CRMC, *LID Low Impact Development Site Planning and Design Guidance Manual*. The manual, available on the DEM website, provides information on many different LID strategies such as site clearing, roadway and parking design, infiltration, and landscaping to manage stormwater. Also, the RI Stormwater Design and Installation Standards Manual establishes standards for infiltration but also provides flexibility to applicants with respect to the BMPs they can use to meet the standard. The Agencies recognize that many above-ground BMPs using “green infrastructure” techniques provide co-benefits to the area they serve by contributing to habitat, scenic, temperature control (cooling) or other values. However, given the range of conditions and cost considerations encountered in land development, the Agencies expect to retain the flexibility of current policy as reflected in the Manual.

Changes to the Draft – Add to Pg. 6-12 a new sub-bullet under the RI Stormwater Design and Installation Manual paragraph: “While the manual established stronger minimum standards for treating stormwater discharges, it also recognized that new and innovative technologies to achieve treatment are constantly emerging. The Manual provides a mechanism to integrate new technologies through a technical assessment protocol. In addition, as other new information develops, DEM and CRMC expect to make periodic updates to the Manual as appropriate to ensure water quality protection goals are adequately protective and to facilitate its implementation.”

*Major Investments in Stormwater * & Infrastructure Planning*

What Was Heard – There was a suggestion to include a timeline of recent investments in stormwater planning, such as the Combined Sewer Overflow (CSO) project. Also that significant ongoing investments in wastewater facilities should be acknowledged in the Plan.

Response – Inclusion of a timeline was considered but not prioritized as essential in completing the Plan given the need to balance other competing workload within the Agencies. The discussion in Section 2 “Trends in Water Quality and Aquatic Habitat Conditions” is presented chronologically and provides a broad overview of the evolution of water quality management programs which was informative in developing the forward-looking recommended strategies and actions. The progression regarding upgrades to WWTFs is included and acknowledged beginning on page 2-23. Further investment in nutrient reductions is also discussed in both Section 2 and Section 6. The CSO project (and related work) is detailed in numerous places the plan on pgs. 2-25, 2-28-29, Pg. 4-4, Pgs. 6-4-7.

Changes to the Draft – Add to Pg. 6-3 in 2nd paragraph under water quality concerns the words in the last sentence after Are “further” and delete the word abate and replace with “continuing to abate”

Governance

Inter-state Coordination

What Was Heard – The importance of stressing inter-state cooperation when resolving concerns related to water quality was a comment.

Response – Part 5 provides a description of key planning activities that will support effective water quality management, including inter-state cooperation. It outlines watershed planning that occurs at inter-state, regional, watershed and sub-watershed levels. The Plan recognizes and describes the need for bi-state involvement in the management of Narragansett Bay and in other watersheds that are shared with MA and CT on Pg. 2-2. Watershed planning will be strengthened through development and implementation of 27 watershed action plans coordinated by the DEM with partners and stakeholders. The watershed plans are intended to provide value-added information for municipalities and watershed organizations, promote consistency among inter-state, state, local and watershed planning efforts and build public support for priority actions. Further, the importance of interstate and regional coordination is mentioned when describing several programs on Pgs. 3-11 and 3-12. Also, the Wastewater Discharges to Surface Waters and Collection Systems (Sewers) Policy 3: *Encourage and support efforts to achieve effective control of upstream wastewater discharges in MA which affect downstream water quality in RI* on Pg. 7-8 speaks to interstate water quality planning and mentions NBEP as a lead party.

Changes to the Draft – None Proposed.

CRMC's Coastal Watershed Responsibilities

What Was Heard – One commenter felt that the Plan should address CRMC's coastal water responsibilities.

Response – Page 3-5 describes CRMC's history, duties and jurisdiction.

Changes to the Draft – Add on Pg. 3-5 and under the “Coastal Ponds” section of Part 2 on Pg. 2-7, that CRMC has jurisdiction in coastal watersheds.

Watershed Planning Timeline

What Was Heard – An individual felt that the historical description of the NBEP was incorrect.

Response – The information on Pg. 2-25 is correct.

Changes to the Draft – Minor edits were made to Pg. 2-25 to clarify.

Onsite Wastewater Treatment Systems (OWTS)

What Was Heard – There was a comment from an individual about stressing the connection between ground water and surface water, and how OWTSs effect that water quality relationship.

Response – The Plan emphasizes the inter-connections among the components of all Rhode Island’s water resources in Section 2. Pg. 2-1. Also, the Plan contains significant descriptions, evaluations and recommendations for OWTS. Through the dozens of mentions of OWTSs, the issue of the ground water to surface water connection is especially apparent in section 6 (Pgs.6 -10, with the related policies on Pg. 6-10).

Changes to the Draft – None proposed.

Climate Change

What Was Heard – An individual stated that the Plan should highlight how climate change is being currently experienced rather than refer to it as a future event. Examples such as the floods of March 2010 and the effects of sea level rise particularly on coastal wetlands modeled by the SLAMM software were cited. Written comments on climate change expressed general satisfaction with the section on climate change on Pg. 6-1 and the effects of urbanization on impervious cover on Pg.2-29. The written comments supported the request for more clarity in the Plan that climate change is happening now and identifying the impacts of climate change on drinking water supplies.

Response – The Executive Summary, Parts 1, 2 and 4 of the Plan include climate change as one of the key points to be addressed. A separate appendix, Appendix D, Climate Change & Water Quality Management is included. Climate change is mentioned over 100 times in the Plan as it crosses all aspect of water quality, because it affects; aquatic habitat, hydrology, water treatment facilities, and sea level rise. Policy 7 on Pg. 6-15 deals with stormwater management as it relates to climate change. On Pg. 3-7, the RI Executive Climate Change Coordinating Council (EC4) is described. This Council is charged with incorporating consideration of climate change into the powers and duties of all state agencies. A concern for impacts to drinking water supplies is noted on Pg. 1-2 and is addressed in detail by another State Guide Plan 721, *RI Water 2030*.

Changes to the Draft - Pg. ES-2 –add to the end of the text box “flooded wetlands, impacts to cold water species, and increasing stormwater runoff.”

Pg. 1-2 –add to the drinking water paragraph, a reference to the *Safe Water RI* report from the correspondence and a cross reference to *RI Water 2030* for further information.

Pg. 2-9 –add to the text box “and already facing challenges from climate change.”

Pg. 2-9 –add after 1st sentence in second paragraph “The CRMP and the watershed organization, Save the Bay, have documented that salt marshes are already being impacted by sea level rise.”

Pg. 2-42- add the word “current” to the first sentence under the section for Impacts of Climate Change to Aquatic Habitats.

Pg. 6-1 –add to end of the climate change paragraph “as impacts from climate change are happening now.”

Pg. 6-6 -add “the impact of the spring flood of 2010 overtopped the Warwick WWTP” to end of paragraph. Pgs. 6-7 and 7-6 –add the word after process “considers climate change and”. Updated Pgs. D-1 to D-9, Appendix D, Climate Change and Water Quality Management, with all text changes and responses to comments related to climate change.

Aquatic Habitat Protection

What Was Heard – Generally most comments were supportive of the Vision, goals, policies and actions for protection for aquatic habits. An individual dissenting opinion was that the Plan was too focused on economics and the Vision failed to adequately emphasize the protection of aquatic habitat. See also a related discussion of the other opinions in the Economics of Water Quality Section. Other requests were made to augment language on anadromous fish restoration, highlight the links between fresh and marine waters, and the impacts from rising seas on coastal habitats.

Response – The Plan adopted a broad interpretation of water quality which embraces aquatic habitat. This is introduced in Part 1 on Pg. 1-4. The Plan reflects the importance of habitat throughout the document. “Habitat” is mentioned approximately 400 separate times in the Plan and the 2015 *RI State Wildlife Action Plan* by DEM is also cross-referenced. In the Executive Summary on Pg. ES-1, the “protection and restoration of aquatic habitat” is listed as a goal to implement the Vision.

Changes to the Draft – None proposed.

Target Audience

What Was Heard – A question arose concerning the intended audience for the Plan and role of the federal agencies who deal with the topic of water quality.

Response – Adoption as a State Guide Plan establishes this as the overarching set of goals and polices on water quality for the State. It is applicable to a statewide audience including but not limited to, the general public, DOP, other state agencies, federal agencies, municipalities, local and regional organizations, as well as the General Assembly and Executive Branch of State government. On Pg. ii, the *Abstract* states that the Plan “...serves to meet the need for both fresh and coastal water nonpoint source management programs as required by the United States Environmental Protection Agency and the National Oceanic and Atmospheric Administration.” The Plan’s advisory committee included representatives from the US Environmental Protection Agency (EPA) and US Natural Resource Conservation Service (NRCS). The overall water quality protection goals of those agencies were incorporated into the Plan. References to Federal policies and regulations can be found on Pgs. 4-4, 5-3, 6-5, among other references in the Plan. The Plan also names the EPA as a partner/support agency in implementation several policies and action steps on Pgs.7-7 through 7-12, 7-14, 7-15, 7-19 and 7-21. NRCS is listed as a partner/support agency in implementation on Pgs.7-12, 7-15, 7-16, 7-20 and 7-24.

Changes to the Draft – Change the abstract for clarity as follows: It serves to ~~meet the need for~~ **support** both ~~fresh~~ **the statewide** and coastal water nonpoint source management programs as required by the United States Environmental Protection Agency and the National Oceanic and Atmospheric Administration.

Defining Wetlands

What Was Heard - A commenter suggested that the Plan does not adequately define wetlands and that it should use existing legislation to give a proper definition/description.

Response – The term “wetlands” is used throughout the Plan as defined in the Rhode Island Freshwater Wetlands Act (RI Gen. Law Sections 2-18 et. seq.) In 2015, this law was amended in a manner that changed, with some exceptions for agricultural uses, the definition of freshwater by segregating the wetland resource (swamp, marsh, pond, etc.) from upland areas which will be referred to in the future as buffers and jurisdictional areas. For the purposes of the Plan, the general reference for freshwater wetlands is adequate. Also the Informational Presentation for each public hearing clearly stated that the Plan considered ongoing DEM work related to wetlands and buffers. See the Informational Presentation Section, slide 9 entitled “*Included Other Related Work: Recent Statutory & Programmatic Change*”.

Changes to the Draft – Add to Appendix B “Glossary”, a wetlands definition from the Rhode Island Freshwater Wetlands Act (RI Gen. Law Sections 2-18 et. seq.) with a note that “State Law defining freshwater wetlands was amended in 2015 affecting the definition of perimeter and riverbank wetlands and introducing the designation of buffers adjacent to freshwater wetlands. DEM and CRMC were in the process of developing revised regulations to address the changes at the time of publication of this document.”

Water Quality Improvement Status

What Was Heard - A commenter felt that the Plan needs a definitive statement as to whether or not water quality has been improved over time. It was suggested that an indication of water quality in terms of where we have been, where we are now and where we will be going should be added. It was suggested the document could be clearer if greater information were provided about water quality trends. Also, that measuring nitrogen alone is not a sufficient indicator of water quality and that the study of biological sentinels would be a good indicator. One commenter felt that the Plan failed to follow a management principle of basing management on sound science and that the Waste Water Facility Treatment (WWFT) operators would be unfairly targeted for additional nitrogen reduction above and beyond existing permits.

Response – Part 2 describes water quality and aquatic habitat conditions in Rhode Island. It highlights the hydrologic connectivity among components of our water resources: surface waters, groundwaters and wetlands, which points to the need for watershed-based approaches to managing water quality. The Plan recognizes that significant progress has been made through the statewide implementation of water pollution, water quality management and wetland protection programs over the last four decades. Rhode Island’s waters are cleaner as a result of programs that successfully curbed the discharge of sanitary waste and industrial (toxic) pollutants from specific sources due to implementation of federal and state programs including those mandated by the federal Clean Water Act. However, managing the more diffuse sources of pollution associated with human land uses, including the generation of stormwater runoff, continues to present significant challenges. In developing this Plan, the Agencies accessed and

incorporated readily available information on trends where possible. In many cases, the presentation of data is limited characterizations of recent or current conditions because the data required for reporting meaningful trends either does not exist or an analysis has not yet been completed. Policy 4 Action G on Pg. 7-3 calls for the establishment of “...sentinel networks to collect data on a long-term basis to detect and characterize environmental change”.

Pollution sources and other aquatic stressors are discussed in Part 6. Pathogens and nutrients are stated in the Plan as the two greatest contributors to water quality impairments. WWFT discharges have been identified as a major source of nutrient pollution to certain Rhode Island waters including upper Narragansett Bay. Credit is given to the last 15 years and the investment of \$275 million in upgrades in reducing loadings of both nitrogen and phosphorus at RI WWFTPs. The Plans says that preliminary indications of improvement at certain monitoring stations will need to be confirmed by multiple years of data collection due to the variability that occurs in conditions year to year. And although the plan says *‘it is not expected that the completed WWFT upgrades will fully restore degraded areas to compliance with state water quality standards. Rather it is expected that additional reductions in pollutant loadings would be required’* it also says *“Researchers and managers are continuing to collaborate on the development of new water quality models that may prove useful in evaluating the most appropriate course of future pollution control actions”*. In no manner does the Plan target WWFT plants. The commenter is misinterpreting the text which does not specifically target WWFTs. Other sources of nutrients to waters of RI, such as OWTS, stormwater, agriculture and lawn maintenance, are discussed in detail in part 6 and implementation strategies have been identified.

Both agencies do not agree with the suggestion that the Plan does not reflect sound science. The commenter referenced a single academic presentation and limited monitoring data in support of its contention. This information is not reflective of the body of scientific information available to the agencies. The Plan properly notes that implementation of the nutrient reduction strategy targeting RI WWFTs is nearing completion and that monitoring the response in terms of changes in water quality is a current focus. As noted above, multiple years of data will be needed to make a sound interpretation of the resulting changes. The SGP is not pre-judging the results but forecasting the need for continued management effort.

Changes to the Draft – Amend sentence on Pg. 6-3 in 2nd paragraph under water quality concerns as follows for clarity: Current areas of significant focus are **further** controlling nutrient pollution, **continuing to abate** the discharge of combined sewer overflows (CSO), ensuring proper operation and maintenance, exploring solutions to long-term financing needs addressing the vulnerability of WWTF to climate change.

Amend sentence on 6-4 to read: additional pollutant loadings would be required with consideration of both point and non-point sources of pollution.

Stream Headwaters

What Was Heard – Regarding Figure 11 on Pg. 3-16, an individual commenter felt that because the map does not show stream headwaters, it does not show the complete detail of conservation opportunities.

Response – The text on Pg. 3-15 that describes Figure 11 comes from the *RI State Wildlife Action Plan (SWAP)*. The SWAP describes state priorities for conserving key RI habitats including aquatic habitats. As noted in Part 2, it identifies key aquatic habitats, including stream headwaters, as priorities for conservation based in part on an analysis of species of greatest conservation need. It also notes that while conservation actions taken throughout the State can help fish and wildlife, focusing investments on priority landscapes can increase the likelihood of long-term success over larger areas, improve funding efficiency, and promote cooperative efforts over ownership boundaries. Part 3 of this Plan states that Conservation Opportunity Areas are concentrated in the more rural portions of the State, where many stream headwaters exist.

Changes to the Draft – None Proposed.

Coastal Waters

What Was Heard – A comment was received by an individual who felt that the “coastal waters” discussion on Pg. 2-6 should include the Pettasquamscutt Estuary as an example and highlight the links between freshwater and marine resources. A separate comment related to coastal waters was that an estimated 30% of extant Narragansett Bay saltmarshes lack buffers, which the commentator may have thought were required by law. This commentator asked if this was an increase or decrease from the amount in the 1970s and establishment of the CRMC.

Response – The Pettasquamscutt Estuary (Narrow River) is a component of the RI’s coastal waters. Technically, it is associated Narragansett Bay as designated by State Law. The text on Pg.2-8 mentions the “Narrow River” as an example of coastal water on which salt marshes are found. The Plan clearly describes the water cycle and identifies the link between freshwater and marine waters. CRMC’s response to the second comment is that while an estimated 30% of extant Narragansett Bay saltmarshes may have inadequate or non-existent buffer zones, buffers are not required by law. Buffers are required by the RICRMP regulations and only when some development trigger is introduced to require such. There is no baseline data on buffer zones for salt marsh buffers when the CRMC was created in the early 1970’s therefore CRMC cannot know if this 30% is an increase or decrease. Since 1983, buffers *in general* (not just adjacent to salt marshes but each coastal feature) were a regulatory requirement to development projects. In 1994, buffers took the more predictable form of distance/width v. the development’s lot size, which is used today.

Changes to the Draft – Add the Pettaquamscutt Estuary to clarify on Pgs. 2-6, 2-5, and 2-9.

Lake Management

What Was Heard – Two comments were heard. One was concern over the utility of the plan to address water quality of lakes, ponds and other impoundments by outlining possible solutions to address significant threats, including AIS and OWTS. The other comment asked that the plan acknowledge that DEM has regulations to prevent the spread of invasive aquatic plants.

Response – Lake Management is discussed in the plan several times. It is first discussed on Pg. ES-4 as a program which is severely constrained or threatened by a lack of capacity, including managing invasive species. The Plan acknowledges that DEM and CRMC carry out some activities but this topic is an area where program development is a primary need. Lake management is also discussed on Pg. 2-17, and Pgs. 5-8-5-9 where the plan states that stronger lake management is need in the State in agreement with the comment. Planning Policy 4 on Pg. 5-11 is to *build state and local capacity to address key gaps in planning that currently limit effective lake management and riparian buffer protection and restoration*. Pgs. 6-62 and 6-43 also discuss aquatic invasive species and lake management. Pg. 7-5 has several actions to address lake management.

Changes to the Draft – add on Pg. 5-8 in the middle of Lake Management Plans paragraph, after 3rd sentence add “Actions commonly reflected in a plan include but are not limited to strategies to control invasives plants, to reduce phosphorus and other pollutant loadings (promote proper maintenance of OWTs, upgrades of cesspools, fertilizer practices, stormwater BMPs), to protection of lake shoreline vegetation (riparian areas) and manage hydrology (dam operations). “
add on Pg. 6-10 and Pg. 7-12 to the end of OWTS Policy 5 “especially in riparian areas.”
Pg. 7-16 –add to end of Action A “especially about “zero P” products” Pg. 7-17- Implementation Table-add Action D –Develop and implement regulations governing the possession, transport and sale of aquatic invasive species.

Lead- DEM Support-CRMC, Save the Lakes Timeline- ST

Enforcement

What Was Heard – A comment was submitted that Dem lacks the funding to properly staff its water quality management obligations and enforce water quality laws and regulations.

Response - As a long-term planning document, the State Guide Plan reflects as a management principle on page 1-5 that *Compliance with applicable federal, state and local regulatory programs is necessary for water quality protection and restoration*. It is recognized that effective enforcement is necessary to achieve compliance. Both DEM and CRMC carry out established enforcement programs pursuant to their respective authorities. As a planning document, the SGP is not designed to assess specific staffing levels in programs. However, it is noted that the DOP Legislative Task Force Report on wetland setbacks that preceded the changes in the wetlands State law in 2015 acknowledged that the agencies would need additional resources to support implementation, including enforcement in the in the freshwater wetlands program.

Changes to the Draft – None proposed.

Transportation

What Was Heard – A comment was made that an Upper Narragansett Bay public ferry should seriously be considered.

Response – This SGP deals with water quality for the water resources of the State. Water quality is concerned with the physical, biological, and chemical integrity of water resources. It is not within the scope of this plan to set policy for water based transportation. Two other SGP Elements address the topic of water based transportation. One is SGP Element 651, *RI Water Bourne Transportation Plan*, which addresses potential for expanded and enhanced water borne passenger transportation and make recommendations for long-range development of water transportation services and facilities. The other is SGP Element, 611 *Transportation 2035*, which contains policies and actions concerning water transportation. *Transportation 2035* considers surface transportation systems for both people and freight, and connections to air and water travel. It includes passenger ferry services that receive federal funding.

Changes to the Draft – None proposed.

III. Edits Made as a Result of State Planning Council and Technical Committee Input

Comment- M. Walker, Technical Committee, asked about the source of the figures on pg. 1.3 related to the value of clean water to the industrial sector category.

Response - The figures were used from the Bay Rivers Waters Coordinating Team Systems Level Plan. Supporting figures were also referenced.

Changes to the Draft – add to Pg. 1-2, bottom paragraph Page 1-2 bottom paragraph: A review of the economic values of Narragansett (RI portion only) estimated ecosystem values of \$2.1 billion annually. Pgs. 1-2 and 1.3, add a footnote noting the citation sources.

IV. Public Hearing Proceedings

Hearing #1

Mr. Rhodes called the first hearing scheduled for 2:00 P.M. on 7/13/16 at the Rhode Island Department of Administration to order at 2:02 P.M.

Attendance - Seven persons attended the hearing, as well as staff from the Division of Planning and the RI Department of Environmental Management. RI State Representative Lauren Carson was the sole elected official who attended. Members of the public who attended the meeting included Dan Falcone, Elizabeth Scott, Tom Ardito, Seth Handy, Eugenia Marks and Veronica Berounsky.

Division of Planning Staff in attendance included Jared Rhodes, Chief of Statewide Planning, Nancy Hess, Supervising Land Use Planner, Paul Gonsalves, Senior Land Use Planner, and Cyrus Maden, Land Use Intern. RI Department of Environmental Management staff in attendance included Sue Kiernan, Deputy Chief and Ernie Panciera, Supervising Environmental Scientist.

Opening Statements - Mr. Rhodes explained that the draft of *Water Quality 2035*, the Rhode Island State Water Quality Plan, was accepted for public hearing by the State Planning Council on May 12, 2016. Notice of these hearings was mailed to the chief elected officials and planning officials of all municipalities in the State, and to more than 380 persons, agencies, and groups who have requested such notice. He further explained that this hearing was being held for the purpose of accepting public comment on the preliminary draft plan entitled "*Water Quality 2035*", to be adopted as an Element of the State Guide Plan. He also noted the Plan will replace the following existing State Guide Plans that had protection and restoration of water quality as primary purposes:

- #162 Rivers Policy and Classification Plan (2004)
- #711 Blackstone Region Water Resources Management Plan (1981)
- #715 Comprehensive Conservation and Management Plan for Narragansett Bay (1992)
- #731 Nonpoint Source Management Plan (1995)

Mr. Rhodes explained the hearing procedures. He stated that the hearing would be conducted in accordance with the Rules of Procedure adopted by the State Planning Council and the Administrative Procedures Act and that he would first call upon Nancy Hess, to provide a brief informational presentation (See Section IV: Informational Presentation) on the purpose and content of the Plan.

Public Comments - Mr. Rhodes opened the hearing for public comment. The following people spoke:

- 1) RI State Representative Lauren Carson, Newport, RI - Ms. Carson stated that she had no formal detailed comments on the plan, but a more general comment related to the branding of the plan. She stated that her colleagues at the State House do care about the environmental and ecological reasons for having a high quality of water, but the economic reasons tend to resonate more.
- 2) Mr. Tom Ardito, Aquidneck Island Planning Commission - Mr. Ardito spoke about the potential water quality effects of dams and other physical modifications to water flow. He suggested that

dams be mentioned on the list of “stressors”. He also commented on stormwater and how a regional approach to stormwater management will have many benefits.

- 3) Eugenia Marks, Audubon Society of RI (Retired) and member of the Water Quality 2035 Advisory Committee – Ms. Marks started by commending the group for all the work put into developing the plan. She then stressed the importance of not only coordination between state agencies, but coordination across state lines, as it relates to water quality planning. She also spoke about the economic importance of improving migratory fish passages. She ended with a reminder to go forward with the understanding that surface water is impacted by groundwater.
- 4) Mr. Seth Handy, Principal Handy Law, LLC in Providence - Mr. Handy stressed the importance of an economic approach to water quality work while focusing on Narragansett Bay as one of the state’s greatest assets. He stated that the improving water quality can further open up the economic potential of the Bay and State. My Handy also suggested that potential energy production from our water assets should be further examined.
- 5) Dr. Veronica Berounsky, RI Rivers Council, Chair – Dr. Berounsky stated that she did not have verbal comments, but would be submitting written comments before the comment period ended.

Mr. Rhodes asked if anyone else wished to be recognized to speak on the Plan. No others wished to speak.

Adjournment- Mr. Rhodes thanked everyone for their comments. He stated that the Statewide Planning staff would document the comments received and provide them to the State Planning Council for its consideration in adopting a final version of the Plan. He indicated that written statements made relative to any aspect of the proposed Plan would be accepted until the close of business on Wednesday, July 20, 2016. He adjourned the hearing at 3:05 P.M.

Hearing #2

Mr. Rhodes called the second hearing scheduled at the Department of Environmental Management, Conference Room 300 on 07/13/15 to order at 6:12 P.M.

Attendance - Two persons attended the hearing. Among the members of the public in attendance who provided comments were Meg Kerr of the RI Audubon Society and Caroline Karp of Brown University.

Division of Planning Staff in attendance included Jared Rhodes, Chief of Statewide Planning, Nancy Hess, Supervising Land Use Planner and Paul Gonsalves, Senior Land Use Planner. Department of Environmental Management staff in attendance included Sue Kiernan, Deputy Chief and Ernie Panciera, Supervising Environmental Scientist.

Opening Statements - Mr. Rhodes explained that the draft of *Water Quality 2035*, the Rhode Island State Water Quality Plan, was accepted for public hearing by the State Planning Council on May 12, 2016. Notice of these hearings was mailed to the chief elected officials and planning officials of all municipalities in the State, and to more than 380 persons, agencies, and groups who have requested

such notice. He further explained that this hearing was being held for the purpose of accepting public comment on the preliminary draft plan entitled “*Water Quality 2035*”, to be adopted as an Element of the State Guide Plan. He also noted the Plan will replace the following existing State Guide Plans that had protection and restoration of water quality as primary purposes:

- #162 Rivers Policy and Classification Plan (2004)
- #711 Blackstone Region Water Resources Management Plan (1981)
- #715 Comprehensive Conservation and Management Plan for Narragansett Bay (1992)
- #731 Nonpoint Source Management Plan (1995)

Mr. Rhodes explained the hearing procedures. He stated that the hearing would be conducted in accordance with the Rules of Procedure adopted by the State Planning Council and the Administrative Procedures Act and that he would first call upon Ms. Nancy Hess, to provide a brief informational presentation (See Section IV: Informational Presentation) on the purpose and content of the Plan.

Public Comments – Mr. Rhodes opened the hearing for public comment. The following people spoke:

1. Meg Kerr, Audubon Society of RI - Ms. Kerr supported adoption of the Plan but thought the Plan should have more focus more on the existence of climate change in the present as opposed to the future. She felt that the Plan suggests that climate change “is coming”, while she believes that it already arrived. She gave the example of the RI floods of March 2010 where the Warwick WWTF was overtopped by the Pawtuxet River as an example of the current effects of climate change. She also stated that sea level rise has an effect on coastal wetlands in particular. She submitted written comments during the hearing to expand on her comments. (See Appendix for written comments.)

2. Caroline Karp, Brown University – Ms. Karp also supported adoption of the Plan but had several comments and opinions to offer. She began by stating that the plan focused too much on economics and not enough on the protection of aquatic life. She went on to suggest that CRMC’s coastal water quality responsibilities should be incorporated. Ms. Karp also said that Federal agencies should be referenced in greater detail. She felt that wetlands were not properly defined in the plan, as they should be defined according to current state legislation. Regarding p.2-25 of the plan, Ms. Karp suggested that a more inclusive timeline on water quality planning be included. Her next comment was that major investments in stormwater infrastructure should be included in the plan and whether or not state water quality has improved over the years. She suggested that nitrogen alone is not a full indicator on water quality and that additionally biological sentinels should be used in monitoring to gauge water quality. She continued with a question about how the coordination for the 27 watershed plans would take place. Ms. Karp finished with a suggestion to include the importance of stream headwaters when discussing opportunities for conservation areas. Written comments to expand on her hearing comments were submitted on July 20, 2016. (See Appendix for written comments.)

There were no other guests in attendance.

Adjournment - Mr. Rhodes thanked everyone for their comments. He stated that the Statewide Planning staff would document the comments received and provide them to the State Planning Council for its consideration in adopting a final version of the Plan. He indicated written statements made relative to any aspect of the proposed Plan would be accepted until the close of business on Wednesday, July 20, 2016. He adjourned the hearing at 7:15 P.M.

V. Informational Presentation

State Guide Plan Update *Water Quality 2035*



Department of Administration - Division of Planning
Public hearing
July 13, 2016



WHY? Clean Waters Support RI's Economy

Tourism & Recreation:

- ▶ 3 million beach visitors annually
- ▶ \$227 million in economic output by boaters
- ▶ Close to 78,000 fishing licenses sold annually:
 - + 38,000 saltwater
 - + 40,000 freshwater
 - + 300 fishing tournaments annually

Business:

- ▶ \$636 million in direct wages for 14,500 jobs in industries dependent on adequate supply of clean water (2008)

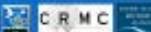
Commercial Fisheries:

- ▶ RI commercial fisheries = 4,958 jobs; \$150 million in total sales (2010)
- ▶ Aquaculture- 55 farms generating \$5.23 million in sales (2014)



Water Quality 2035

- ▶ **New** guide plan element that consolidates all policies and actions for water quality /aquatic habitat protection and restoration.
- ▶ Continues streamlining of State Guide Plan as it replaces:
 - #66 RI Rivers Policy and Classification Plan (2004)
 - #78 Backus Region Water Resources Management Plan (1998)
 - #708 CCMP for Narragansett Bay (1992)
 - #773 NPS Management Plan (1995)
- ▶ Replaces by reference DEM's RI Groundwater Protection Strategy & RI Wellhead Protection Program
- ▶ Meets nonpoint source management programs requirements for:
 - EPA - DBM
 - NOAA - CRMC



Scope of the Plan - Statewide



Coastal waters - Rivers - Streams - Lakes - Ponds - Groundwater - Wetlands




Alignment with other SGP Elements

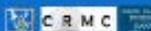
- ▶ Is not duplicative - cross-references and reinforces existing policies and actions for water resources in:
 - Land Use 2035
 - Water 2030
 - Transportation 2035
- ▶ Drew from and integrated other planning efforts:
 - Comprehensive Conservation Management Plan for Narragansett Bay (2012)
 - BRWCT Systems Level Plan (2008)
 - DBM Clean Water Needs Survey (2012)
 - DBM State Wetland Action Plan (2013)



Overall Water Quality Management

What's going on & what's been done...

- ▶ **40+** years of federal Clean Water Act
- ▶ Success in controlling most point (direct discharges) sources of pollution
- ▶ Understand non-point (diffuse) sources of pollution, especially stormwater runoff, better
- ▶ Have better measures of the cumulative effects of stressors on aquatic ecosystems through biological indicators
- ▶ Recognized need for adaptive management especially for changing climate and other emerging issues

For this Plan Since 2013

- Stakeholder Advisory Committee
 - 15 Meetings: 2013 – 2016
- Background research (2014/15)
 - Technical Paper
 - Issue Brief
- DEM Updated RI Nonpoint Source Management Plan (2014)



Advisory Committee

- State Agencies**
 - DEP – SWP & WWS
 - DEM – OWS & SWACT (Planning)
 - CRMC
 - DOI
 - DOT
- Environmental Interests**
 - Aviation Society of RI
 - Rivers Council
 - Narragansett Bay Estuary Program
 - Save the Bay
 - Watershed Councils: Wood Penick, Woonsocket, Narragansett, Narragansett Bay
- Municipalities & Others**
 - Narragansett Water Pollution Control Association
 - 8 Municipalities
 - Providence, Middlebury, 2 Kingston, West Greenwich, Westerly
- Academic** – URI – Cady Bell, CRITB Center & Coastal Institute
- Federal Agencies** – EPA & NOAA



Included Other Related Work: Recent Statutory & Programmatic Changes

- Amended Freshwater Wetlands Act (2015)
- Clean Water Finance Agency is now RI Infrastructure Bank
- Cespool Phase-Out Act
- Elimination of the Bays, Rivers and Watersheds Coordination Team
- New regional EPA Southeast New England Program



Outreach

- Rivers Council
- Environmental Monitoring Collaborative
- State Conservation Committee
- Narragansett Bay Estuary Program
- Watersheds Counts
- Rural Conservation & Development Council
- Narragansett Water Pollution Control Association (NWPCA)
 - NWPCA Legislative Day at State House
- RI Water Works Association
- RI Society of Environmental Professionals
- RI American Planning Association



Organization of the Element

- Introduction & Vision
- RI's Water Resources & Trends
- Water Quality Management Framework
- Water Quality Monitoring & Assessment
- Planning
- Pollution Sources and Other Stressors on Aquatic Habitat
- Implementation
- Appendices A - G
 - Rivers Council Classification System
 - Glossary
 - References
 - Climate Change
 - Outreach
 - DEP Certified Wastewater Treatment Plants
 - SWAP Habitat Assessments




Key Management Principles

- Watersheds are the appropriate unit for better management.
- Pollution should be prevented whenever possible.
- Management should be based on sound science and innovations.
- Monitoring is essential.
- New technologies should be adopted where beneficial.
- Informed citizenry and engaged stakeholders are key.
- Collaborative effort is needed across all governmental jurisdictions, and other organizations.

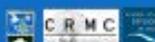



Part 1 Introduction & Vision

Rhode Island's water resources will support healthy aquatic ecosystems and meet the needs of current and future generations by protecting public health, supplying drinking water, providing bountiful recreational opportunities and supporting a vibrant economy.

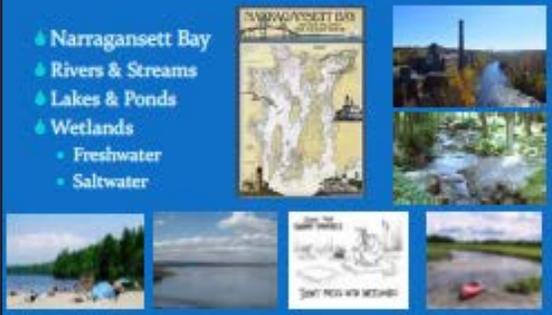
Two goals:

- Protect from/prevent pollution
- Restore degraded waters and aquatic habitats



Part 2 Water Resources & Trends

- Narragansett Bay
- Rivers & Streams
- Lakes & Ponds
- Wetlands
 - Freshwater
 - Saltwater



Part 3 Management Framework

- State government has the primary authority for managing water quality but responsibility is also shared among all levels of government, non-governmental organizations and individuals.
- Land use has major impact on water quality. Municipalities have the primary authority for managing land use.
- Water quality is most effectively managed on a watershed basis.
- Collaboration and local watershed organizations are important.
- Resource limitations justify prioritizing actions to protect and restore water resources within and among watersheds.



Part 4 Water Quality Management and Assessment

Aquatic habitats are of high importance to state, regional and federal fish and wildlife conservation

- 80% of habitats that were prioritized as key habitats for species of greatest conservation need (SGCN) were aquatic habitats
- 89% of SGCN were mammals, reptiles, amphibians, birds and fish that rely on or utilize aquatic habitats



Part 5 Planning

27 Watershed Based Plans

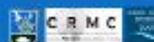
- Mechanism to Integrate planning for actions within a watershed.
- Foster collaboration and alignment of resources to optimize results.
- Plans required by EPA for expenditures of certain Clean Water Act implementation funds.



Part 6 Pollution Sources and Other Stressors on Aquatic Habitat

24 Pollution Sources

- Wastewater Treatment Facilities
- OWTS
- Stormwater
- Soil Silt & Sand Application
- Discharges to Groundwater (non OWTS)
- Agriculture
- Landfill Mismanagement
- Pesticide Application
- Boating & Marinas
- Hazardous Material & Petroleum Product Spills
- Underground Storage Tanks for Hazardous Materials
- Above Ground Storage Tanks for Hazardous Materials
- Waste Management - Solid Waste & Hazardous Materials
- Contaminated Site Clean-up (including USTs)
- Demolition and Debris Material
- Water Pools
- Land Applications of Nutrient Inputs
- Surface Mining
- Sludges
- Atmospheric Deposition
- Marine & Stream Debris
- Apparatus
- Net Waste
- Contaminants of Emerging Concern



Challenges & Discussion Points

Sustainable Infrastructure Financing

Wastewater

- 2015 RIDEM Priority Project List - \$1.464 billion
- \$1.44 billion in wastewater projects,
- \$4.424 million for on-site wastewater programs
- RI receives +/- \$9-30 million/yr from EPA to capitalize CWSRF
- Infrastructure Bank facing potential shortfalls in needed funding for Clean Water SRF program.



Challenges & Discussion Points

Sustainable Infrastructure Financing

Stormwater

- Not as well characterized as wastewater but estimated to be in the hundreds of millions
- Local capacity (staff expertise & financing) to implement water quality actions
- Need for interface between State and small local groups

Climate Change

- Changing precipitation patterns – implications for infrastructure
- Sea-level rise impacts on coastal habitats
- Warming waters driving ecological changes



Challenges & Discussion Points

Data/information Gaps

- Sustaining existing monitoring efforts
- Fill priority gaps

Capacity to Manage and Synthesize Data

- Need the right tools: water quality model for Narragansett Bay
- Information technology (IT) systems: need to adapt to changes at federal level

State Program Capacity Gaps



Major Challenge: Municipal Capacity

Limited resources or expertise constrains local implementation of:

- Stormwater management activities
- Broader adoption of "green infrastructure" approaches
- Water quality restoration projects
- Wastewater facility planning updates
- Local on-site wastewater programs
- Low impact development (LID)




Part 7 Implementation

Major Findings and Recommendations

Collaborating & integrating planning activities

EPA watershed approach for implementation across governmental levels.

Stay the course of existing protection and prevention programs but address capacity levels

Adequate legal authority to protect water quality in RI but it is important to adequately staff water quality protection programs.

There are constrained programs which lack of capacity or no programs for:

- monitoring
- lake management
- aquatic habitat restoration
- climate change



Part 7

Major Findings and Recommendations

Sustainable Infrastructure Financing is needed

Infrastructure Bank faces potential shortfalls in needed funding for Clean Water SRF and stormwater programs.

Assist municipalities with delegated responsibilities:

- stormwater management
- broader adoption of "green infrastructure"
- water quality restoration projects
- wastewater facility planning updates
- on-site wastewater programs, and
- implementing low impact development (LID)

Specific actions for addressing 24 various aquatic habitat stressors and pollution sources



Part 7 Actions

IMPLEMENTATION MATRIX - POLICIES and ACTIONS

	YEAR	ISSUES	TIME
Part 4 - Water Quality Monitoring and Assessment Actions			
<p>Water Monitoring Policies:</p> <p>Monitoring Policy 1: Water resource management should include monitoring as an essential component.</p> <p>Monitoring Policy 2: Water resource management programs should include the practice, data that is water-quality management.</p> <p>Monitoring Policy 3: Monitoring data should be accessible to users for decision-making at all levels.</p> <p>Monitoring Policy 4: Water monitoring is essential to assessing effects through coordination.</p> <p>Monitoring Policy 5: Water monitoring programs will report data collection strategies relating to climate change, aquatic resources and other issues.</p>			
1. Complete development of comprehensive water quality monitoring program, available data and continue to strengthen capabilities of monitoring activities through data sharing.	2016	CRMC, DEP, DPH	10
2. Consideration of the 14 Water Monitoring Strategy and Technical Guidance Policy Strategy, incorporate appropriate monitoring.	2016	CRMC, DEP, DPH	10
3. Consideration of monitoring changes for additional monitoring parameters to assess impacts of climate change.	2016	CRMC, DEP, DPH	10
4. Continue to monitor high-priority water quality issues with 2015 data quality plan. Review data plan to assess ongoing and identification of Green infrastructure.	2016	CRMC, DEP, DPH	10
5. Secure additional resources to support implementation of regional data monitoring program. Formal discussion to support existing data collection efforts, e.g., grants.	2016	CRMC, DEP, DPH	10
6. Further plan to ensure that monitoring efforts through collaboration and data integration, while monitoring to address water quality issues but not necessarily in isolation of conditions that present public health threats (contaminants, etc.).	2016	CRMC, DEP, DPH	10
7. Explore opportunities to collect data for a long-term data to assess and describe environmental change associated with climate change and other environmental issues.	2016	CRMC, DEP, DPH	10

Comments by July 20, 2016 to:

Parag Agrawal, Associate Director
 Department of Administration
 Division of Planning
 One Capitol Hill
 Providence, Rhode Island 02908




VI. Copy of Public Notices

RHODE ISLAND STATE PLANNING COUNCIL

NOTICE OF PUBLIC HEARINGS

In accordance with the General Laws, Section 42-11-10 and Chapter 42-35, the State Planning Council has under consideration adoption of a draft plan entitled "*Water Quality 2035*", an Element of the State Guide Plan. This draft Water Quality Management Plan focuses on the need for careful management of the water resources of the State. It sets long-range goals and policies for the protection and restoration of water quality and aquatic habitats. The Draft highlights current and emerging challenges to achieving our clean water goals. It recognizes that maintaining acceptable quality and quantities of water while balancing the needs of natural systems with human activity and development can be complex. Opportunities to improve and adapt management in response to this challenge are included.

Notice is hereby given that two public hearings will be held on the adoption of this Plan at which time the opportunity shall be given to all persons interested to be heard upon the matter. The Plan will update and replace the following existing State Guide Plans that had protection and restoration of water quality as primary purposes:

- #162 Rivers Policy and Classification Plan (2004)
- #711 Blackstone Region Water Resources Management Plan (1981)
- #715 Comprehensive Conservation and Management Plan for Narragansett Bay (1992)
- #731 Nonpoint Source Management Plan (1995)

The date, time and locations of the hearings are:

Wednesday July 13, 2016

2:00 PM

Conference Room B, 2nd Floor
Department of Administration
One Capitol Hill
Providence, Rhode Island

Wednesday July 13, 2016

6:00 PM

Room 300, 3rd Floor
Department of Environmental
Management
235 Promenade Street
Providence, Rhode Island

Each hearing will begin with a brief informational presentation about the draft plan followed by the opportunity for public comment. Written statements relative to any aspect of the proposed Plan, including alternative approaches, overlap, or potential economic impact, can be submitted in writing prior to, at the time of the hearing, or mailed by July 20, 2016 to: Parag Agrawal, Associate Director, Division of Planning, One Capitol Hill, Providence, Rhode Island 02908.

The draft plan may be viewed at Statewide Planning's website at: <http://www.planning.ri.gov/>. A copy of the draft plan is also available for review during business hours (8:30 AM to 4:30 PM) at the Department of Administration, Division of Planning, One Capitol Hill, 3rd Floor, Providence, Rhode Island (401-222-7901).

This meeting place is accessible to individuals with disabilities. Any individual requiring a reasonable accommodation in order to participate in this meeting should contact Thomas Mannock at 222-6395 (voice) or #711 (R.I. Relay) at least five (5) business days prior to the meeting. Any individual requiring the services of an interpreter to participate in this meeting should contact Michael Moan at 222-1236 (voice) at least five business days prior to the meeting.

Parag Agrawal, AICP
Secretary

Estado de Rhode Island y Plantaciones de Providence
 Departamento de Administración de Rhode Island
 División de Planificación, Programa de Planificación Estatal
 Consejo de Planificación Estatal

AVISO DE AUDIENCIAS PÚBLICAS

Con base en las Leyes Generales, sección 42-11-10(e) y capítulo 42-35, el Consejo de Planificación Estatal está considerando la aprobación del anteproyecto *Water Quality 2035* para gestión de calidad del agua, como elemento del Plan Guía Estatal. Este anteproyecto se centra en la necesidad de administrar cuidadosamente los recursos hídricos del Estado. Establece políticas y metas de largo alcance para la protección y restitución de la calidad del agua y los hábitats acuáticos. Además, pone de relieve los retos actuales y emergentes para la realización de nuestras metas de agua limpia. El anteproyecto reconoce que mantener una calidad y cantidad de agua adecuadas creando a la vez un equilibrio entre las necesidades de sistemas naturales y la actividad y desarrollo humanos es una labor compleja. Se incluyen oportunidades para mejorar y adaptar la gestión ante ese reto.

Por este medio se avisa que habrá dos audiencias públicas sobre la aprobación de este plan, durante las cuales las personas interesadas podrán exponer sus dudas y opiniones respecto al tema. El plan actualizará y sustituirá los siguientes planes guía estatales, cuyos objetivos principales eran proteger y restituir la calidad del agua:

- Núm. 162 *Rivers Policy and Classification Plan* (2004)
- Núm. 711 *Blackstone Region Water Resources Management Plan* (1981)
- Núm. 715 *Comprehensive Conservation and Management Plan for Narragansett Bay* (1992)
- Núm. 731 *Nonpoint Source Management Plan* (1995)

Fechas, horas y lugares de las audiencias:

Miércoles 13 de julio de 2016
2:00 p.m.

Sala de conferencias B, 2do. piso
 Department of Administration
 One Capitol Hill
 Providence, Rhode Island

Miércoles 13 de julio de 2016
6:00 p.m.

Habitación 300, 3er. Piso
 Department of Environmental Management
 235 Promenade Street
 Providence, Rhode Island

Las audiencias comenzarán con una breve presentación informativa sobre el anteproyecto, seguida de comentarios del público asistente. Se pueden presentar comentarios por escrito sobre cualquier aspecto del anteproyecto (por ej., propuestas alternativas, traslape o impacto económico potencial) antes o al momento de las audiencias, o se pueden enviar por correo postal a más tardar el 20 de julio de 2016 a: Parag Agrawal, Associate Director, Division of Planning, One Capitol Hill, Providence, Rhode Island 02908.

El anteproyecto puede verse en el sitio web de Planificación Estatal: <http://www.planning.ri.gov/>

También puede verse durante horas hábiles (de 8:30 a.m. a 4:30 p.m.) en la siguiente dirección: Department of Administration, Division of Planning, One Capitol Hill, 3rd Floor, Providence, Rhode Island (tel. 401-222-7901).

Los lugares de las audiencias son de fácil acceso para personas con discapacidad. Aquellas personas que requieran facilidades adicionales dentro de lo razonable para poder participar en las audiencias, deben comunicarse con Thomas Mannock al 222-6395 (de voz) o al 711 (R.I. Relay) con por lo menos cinco (5) días hábiles de anticipación a la audiencia. Las personas que necesiten servicios de intérprete para participar en las audiencias, deben comunicarse con Michael Moan al 222-1236 (de voz) con por lo menos cinco (5) días hábiles de anticipación a la audiencia.

Appendix
Written Comments



Photo: Wyoming Pond, Richmond, DEM



Over 100 Years of Education, Conservation & Advocacy

Audubon Society of Rhode Island

Comments from Meg Kerr on Water Quality 2035 July 13, 2016

Thank you for the opportunity to comment on the May 2016 draft of Water Quality 2035. The Audubon Society of Rhode Island has appreciated being part of the team working on this plan. Reading over the plan as a whole, we thank you for including climate change, but suggest that additional information could be included throughout the report.

Our detailed comments are organized below by section. Many of our comments identify ways the plan could provide more detailed information on the impacts of climate change on the state's water resources.

Executive Summary: Page ES – 2: Climate box. Recommend changing the wording as follows, “Rhode Island’s water resources are already impacted by the world’s changing climate. Impacts include sea level rise drowning coastal salt marshes and impacting coastal groundwater resources, warming water temperatures affecting cold water species. Changes in precipitation patterns including increasingly intense rain events are already creating flooding and water quality impacts. All these effects will accelerate in the years to come.”

Section 1 – Introduction and Vision:

Page 1-1: sentence 1. “In Rhode Island we are fortunate to have abundant water resources..”

Page 1-2: Drinking Water

These statements should reflect the findings of the Health Department’s July 2013 report, “SafeWater RI” (which used low and now outdated sea level rise estimates) and shows the estimated risk of water supplies to climate change. The table on page 15 lists the state’s 34 water supplies and lists the following as critically vulnerable: Bristol County Water Authority, Jamestown Water Division, Newport Water Division, North Kingstown Water Department, Providence Water Supply Board, South Kingstown Water District – Middlebridge, South Kingstown Water District, Stone Bridge Fire District and Water Department, United Water Rhode Island. The report summary on page 23 identifies 20 water utilities that could be at risk from sea rise, and says that 3 are currently at risk. This reality should be reflected in Water Quality 2035.

Section 2 – Rhode Island’s Water Resources & Trends

Page 2 – 9. Salt Marshes. Rhode Island has completed modeling of sea rise impacts on salt marshes, SLAMM (Sea Level Affecting Marshes Model). The impacts are already being felt and marshes throughout the state are drowning in place. Although these impacts are mentioned on pg. 2-42, this earlier section could also acknowledge the challenges already facing salt marshes.

Page 2-11. Rivers and streams. Last bullet, “Most rivers have been altered by dams”. Rhode Island has about 600 dams (your report say 668 on page 2-32).

I am not sure, but I think Buckeye Brook is one of the few un-dammed rivers in the state. The report should say a bit more about dams and the impacts that dams have on water quality (slow flows, impound waters, change riverine ecosystems to lacustrine ecosystems, etc.)

Page 2-14. Last sentence, “anadromous fish restoration...”. The state has invested in fish restoration projects on most of the major rivers. All the projects resulted from local – state partnerships with local watershed organizations or fishing organizations or both playing an important role. It would be nice to mention this.

Page 2-25. Major Investment in Pollution Control – Wastewater Treatment Plants. RI DEM is conducting a study to examine the vulnerability of wastewater infrastructure to sea rise and flooding from climate change. Wastewater treatment plants are generally located at the mouth of rivers or on the bay, with little elevation protecting them from sea rise. Warwick’s WWTP was an example of what future storms will bring.

Page 2-29. Urbanization, Impervious Cover and Stormwater Runoff. The impacts nicely described in the current text are already exacerbated by the intense storms caused by climate change. These storms will continue to grow, increasing the impacts on urban water quality.

Page 2 – 32. Habitat Protection and Restoration. This section should reference the impacts on coastal habitats from rising seas.

Page 2-42. This section is good. But many of the impacts that are referred to in the future tense are already happening. Save The Bay, TNC, CRMC have documented the number of salt marshes that are already impacted by rising seas and marsh subsidence. There are also impacts on riverine flooding and stormwater pollution that are not mentioned in the section.

Part 4. Water Quality Monitoring and Assessment

Page 4-10. Type last paragraph. I think you mean Table 5. Or the table is numbered incorrectly on the following page.

Part 6. Pollution Sources and other Aquatic Habitat Stressors

Page 6-1. Good section on climate change. The changes are not all in the future. Rhode Island is already seeing impacts on salt marshes and changes in extreme precipitation and riverine flooding patterns have also been documented.

Page 6-6. Wastewater discharges and climate change. You might mention the floods of March 2010 when the Warwick WWTP was overtopped, raw waste flowed into the community and into the bay. Measures are being taken to make the Warwick plant more resilient, but it is exemplary of the challenges ahead.

Page 6-7. Policies. Is planning with climate changes in mind implied? Could it be stated – perhaps in the first policy, “Policy 1: Ensure that the planning, design, and construction of wastewater systems will protect public health and water quality and that the facility planning process guides

the expansion and use of public wastewater systems with consideration of expected climate change impacts on sea rise and precipitation patterns.”

Page 6-11. Stormwater – Key points. I agree with all the points. But would edit this bullet as follows:

“The major obstacle to abating stormwater pollution is the lack of a reliable source of funding and incentives for reducing impervious cover and retrofitting stormwater structures in the built environment”. Urban areas are the biggest source of stormwater runoff and we do not have incentives to retrofit these areas. Even with funding, owners of buildings need some incentive to install green infrastructure or other stormwater mitigation strategies.

Page 6-14. General comment on LID. DEM (Alisa Richardson) has told us that often developers choose subsurface infiltration when an above ground rain garden or other green infrastructure installation would also work. The above ground GI provides additional co-benefits (cooling, quality of life, carbon sequestration) that the community does not get from the sub-surface LID installations. Perhaps this plan can recommend above ground installations when ever possible (Check with Alisa to make sure she agrees. If she does, she can provide appropriate language).

Page 6-15. Policies – can one policy specify above ground GI whenever possible (see comment above)?

Page 6-21. Pesticides. Key point –

“No permits are necessary for pesticide applications (farm or home), except for application of pesticides directly into the aquatic environment.”

This is not correct. RI has bans on some pesticides. And some are restricted use.

Page 6-23. Hazardous materials. RI has a lot of hazardous materials stored in harms way when you consider climate change. The tank farms along Allens Ave in Providence for example. Some mention of planning for and protecting these chemicals should be included.

Page 6-27 Solid and Hazardous Waste and 6-36 Marine and Riverine Debris. These two sections should be combined or connected. Marine and Riverine Debris is solid waste that was not handled properly.

Thank you for the development of this plan. We are available to assist with its completion.

Meg Kerr
Senior Director of Policy

Comments on Water Quality 2035

From Veronica M. Berounsky, Chair, RI Rivers Council

July 20, 2016

First, thank you for all your hard work (on the part of many people and organizations) for putting together this comprehensive and educational document. It is appreciated and useful to have in one place so much information and data related to the quality of RI's waters. The goals and vision for the report are well stated and get right to the important points. Also the document is well laid out and easy to read.

I have reviewed the whole document, but have concentrated on the sections that refer to watersheds, rivers and streams, and the RI Rivers Council.

Stormwater is a very important issue. It appears to be covered well here. I think we need to keep in mind the importance of not just water, bacteria and nutrients that enter our streams and rivers with stormwater, but also pesticides and other chemicals. There are sections in the report on these parameters but we perhaps need more education and outreach and particularly monitoring of these parameters since the public is just starting to be aware of them.

The link between our freshwater and marine waters is important not just for fish and eels (see page 38) that migrate but also as sources of nutrients and bacteria and other biological and chemical parameters. On page 56 there is a discussion of "coastal waters" but it does not include the Pettaquamscutt Estuary (Narrow River). Although this estuary is small, it is comparable the coastal ponds that are mentioned. There may be other small estuaries that should also be mentioned.

Please get back to me if you would like further clarification of any of these point.

Thank you!

Save the Lakes
61 Wood Road
Chepachet, RI 02814

July 8, 2016

Parag Agrawal
Associate Director
Division of Planning
One Capitol Hill
Providence, Rhode Island 02908

Dear Mr. Agrawal:

Re: Water Quality 2035
Rhode Island Water Quality Management Plan

Save The Lakes, as the only statewide non-government organization dedicated to the preservation and protection of Rhode Island's lakes, ponds and fresh water resources, is pleased to provide comments on the state's ambitious Water Quality 2035, Management Plan.

Save The Lakes (STL) is managed entirely by volunteers and is a 501(c) 3 qualified non-profit organization. We provide a forum for education, discussion and action on lake-related issues; we advocate for better fresh water management policies at the local, state and federal levels. STL appreciates acknowledgement by Water Quality 2035 as a non-government organization active in water quality and watershed management.

STL commends the collaborative work by the Department of Environmental Management (DEM), Coastal Resources Management Council and Department of Administration, Division of Planning to develop this far-sighted plan. In general, Water Quality 2035 provides the general understanding of issues and logically addresses problems. It sets reasonable goals and priorities, and meets its stated intention to make it easier for users, on all levels, to understand water quality topics and properly address them as appropriate within their respective authorities.

While the state-wide plan logically presents a 30,000 foot view of the issues and potential management options, the plan would be more useful if it provided a better

bridge to more local-scale implementation of the recommendations. The utility of the plan to address water quality of lakes, ponds, impoundments and other freshwaters could be improved by outlining possible solutions to address the most significant threats, specifically: invasive species, phosphorus pollution from onsite wastewater treatment systems (OWTSs) and lawn fertilizers, and stormwater. The Plan could focus these efforts at the scale of lakeshore, riparian areas and the general non-urban, upland areas of the state.

Before specifically commenting on the suggested improvements to the plan, STL notes the specific items of the plan of which it concurs and supports as most important to the protection and restoration of lakes:

- *Unlike the other types of waters, DEM has found the largest cause of impairment in lakes and ponds to be invasive species. Excessive growth of invasive plants are known to be problematic in lakes that otherwise exhibit good water quality.*
- *Fifty four lakes and ponds, or 23% of those tracked by DEM, are categorized as having habitat impaired by aquatic invasive species. However, invasives are more widespread having been found in 89 of 1148 lakes which constitute 57 % of the total lake acreage in RI. This suggests the problems associated with invasives are likely to grow worse without additional management intervention.*
- *An effective management approach to aquatic invasive species includes measures to prevent the introduction of new species, to rapidly respond to new infestations and to undertake the long-term management techniques to control existing infestations. Rhode Island lacks an organized lake management program needed to effectively prevent establishment and spread of aquatic invasive plant species in freshwaters.*
- *Rhode Island also needs to continue to develop improved tools for assessing water quality and aquatic habitat conditions. These include biological indicators which offer a more effective means of assessing water quality with respect to ecological health, (and) ... nutrient water quality criteria as a refinement of the existing narrative criteria.*
- *Full adoption of low impact development (LID) approaches to the design of new and re-development is needed to achieve protection and restoration of water quality and improvement in aquatic habitats. The State should expand technical assistance and training to meet the needs of municipalities charged with local implementation of many of the actions included.*
- ***It is federal policy and a management principle of this Plan that pollution should be prevented at its source whenever feasible.*** *However, given the extent of water quality and habitat degradation and limited resources, it's a strategic necessity to set priorities in order to optimize progress. Prioritization occurs for different purposes at statewide, watershed and subwatershed scales. Priorities in watershed planning areas with less than 10% impervious cover and few surface water impairments will be pollution prevention and protection. These areas may support some of RI's cleanest waters and highest quality aquatic habitat, although there may also be scattered waterbodies that may also need targeted restoration.*

- *Given resource limitations, **collaboration and partnerships among those working on water quality and aquatic habitat management, are essential to enhancing progress.** The sheer number of entities actively involved dictates greater effort be invested in sustaining effective communication and coordination among the parties.*

Key Recommendations for Lakes

STL recommends that The Water Quality 2035 plan should better address issues relevant to lakes by:

1. **DEM promulgation of regulations authorized by recent legislation (20-1-16) to prevent the spread of invasive aquatic plants.** As the Plan notes, Pollution source management is built on 3 primary elements: Educate – Regulate – Enforce. STL has undertaken the voluntary GREAT boaters public education program which has collected data showing a quarter of boats surveyed contained invasive species. This demonstrates the need to move to the next elements to effect source management. STL understands that DEM is preparing the regulatory documents which should include authorization of inspection of boats and trailers, requirements to check, clean/dry and decontaminate, and enforcement provisions. Water Quality 2035 should note these regulations in the implementation matrix.
2. **Targeting lakeshore areas for OWTSS improvements.** Recent legislation did not target cesspools along lakeshores (as were those near the coast or drinking water reservoirs) other than at property sale. Given lot size limitations and generally high ground water conditions of lakeside properties, OWTSS face severe challenges in effectively removing phosphorus. Priority should be given for funding to town planning and OWTSS upgrades in lakeshore areas, including the feasibility of systems to address multiple properties.
3. **Updated pollution prevention for phosphorus free products.** Although the plan notes that RI has no state law to address fertilizer use but many states, including five in the New England/New York region have enacted state laws to minimize pollution from the overuse and misuse of fertilizer on turf grass, it surmises that laws regarding turf management are difficult to enforce, therefore, strategies for managing fertilizer and pesticide use on turf are focused on education and training. Instead the plan should recognize the effect of surrounding state laws limiting phosphorus content on the marketplace. Major manufacturers have removed phosphorus from most lawn care products as a cursory trip to a local big box and small retail stores have confirmed. DEM should survey RI lawn fertilizer sales data to confirm that "zero P" products are widely available and work with URI Cooperative Extension Program and other

associations to adjust public information materials, training and education accordingly. Watershed modeling predicts (and some actual monitoring shows) reduction of up to 20 percent of the P loads from residential areas. Nearby state laws have had a similar effect on phosphorus content in household automatic dishwashing detergents, which could reduce P loads to OWTs by 10 percent.

4. **Work with local governments to specifically address stormwater effects on lakes.** The Plan notes that most lakes are impoundments. STL notes that this increases their susceptibility to highly productive sedimentation which, in turn, exacerbates the impact of invasive plants. Given the rural setting of most lakes (and their watersheds), most local town governments are not subject to MS4 Phase II requirements. Lake watersheds should be targeted for oversight of ongoing construction permits and 319 funding for green infrastructure and riparian protection.

Sincerely,

for

Judy Colaluca

President and Co-founder

Ron Entringer

Ron Entringer

Board Member

122 Blaisdell Ave.
Pawtucket, RI 02860

20 July 2016

Mr. Jared Rhodes
Chief, Statewide Planning Program
Department of Administration
One Capitol Hill
Providence, RI 02908

SUBJECT: COMMENTS ON THE PRELIMINARY DRAFT OF *WATER QUALITY 2035*:
Rhode Island Water Quality Management Plan

Dear Mr. Rhodes and Members of the Technical and Advisory Committees:

I am writing as a former Director of the Narragansett Bay Estuary Program (1982-87), which oversaw completion of the original *Comprehensive Conservation and Management Plan for Narragansett Bay* in 1992 (SGP #715). I briefly summarize the comments I gave at the Public Hearing on Weds July 13, 2016 on the Draft State Guide Plan Element, *Water Quality 2035*.

My overarching comments are as follows:

1. It makes a lot of sense to consolidate and combine those Guide Plan elements, including the *Comprehensive Conservation and Management Plan for Narragansett Bay*, that address multi-level governance and management of State water supply, water quality, *aquatic resources, aquatic ecosystems and water-dependent species*. (Emphasis added since the italicized elements were not included on the first slide of the public presentation of the draft Plan, noting that a wide variety of federal and State laws and plans address protection of aquatic ecosystems etc.)

In my opinion, the *Water Quality 2035* Vision statement should be amended as follows to explicitly address the importance of protecting aquatic ecosystems and associated species:

RI's water resources will support healthy aquatic ecosystems, aquatic life and water-dependent species and meet the needs of current and future generations by protecting public health, supplying high quality drinking water, protecting the integrity and diversity of aquatic ecosystems, providing bountiful recreation opportunities and supporting a vibrant economy.

2. *Water Quality 2035* is likely to be a wonderful contribution to comprehensive planning in Rhode Island, especially to the extent it is administered by the Division of Planning, the Statewide Planning Program and their partner agencies with the goals of:

- Coordinating State and local land use, economic, transportation and natural resource planning;
- Acting as the umbrella agency for the Water Resources Board; and
- Facilitating intergovernmental review for consistency with the State Guide Plan,

as described at <http://www.planning.ri.gov/statewideplanning/complanning/>.

Given the Division of Planning's mandate and the goals of the Comprehensive Planning process, the various plans adopted by the Water Resources Board, Coastal Resources Management Council and the Commerce RI (Economic Development Council) that affect water supply, water quality, public health, aquatic ecosystems and associated species should also be addressed in *Water Quality 2035*.

3. State Guide Plan elements provide a centrally important planning repository and benchmark for the State. Therefore,

- It would be really helpful to have a detailed and accurate timeline of key Federal, State, regional and local planning efforts related to protection of water supply, water quality, aquatic habitats. It would be helpful for the same reason to be able to see the associated State and local financial investments.

For instance, it would be really useful from a public policy and economic perspective to know that RI planners engaged in watershed planning beginning in the 1970s and that two major accomplishments of that effort were establishment of a Statewide Planning Program and use of the §208 plan to establish water quality goals.

- It would be really useful to have a clear description of accomplishments or “successes” since the earlier Comprehensive Plans were adopted. The Narragansett Bay Commission’s removal of heavy metals at NBC (1980s-2013) is one example, although this graph probably requires explanation since the metals industry largely vanished over this timeframe.

Other accomplishments might include the NBC’s CSO planning effort, which resulted in completion of Phase I in 2008 at a cost of \$467M and completion of Phase II in 2014 at a cost of \$xM; whether the State achieved its goal of a 50% reduction in seasonal N discharges from WWTFs (and at what cost);N/39 cities and towns have up-to date and approved Local Comprehensive Plans that address protection of water supply aquifers and wetlands, and climate-related effects on water resources and land use... N cesspools (N% of estimated total) have been replaced with ISDSs or linked to sewer systems.

4. Given my comment in #3, above, I think that the Draft Water Quality 2015 plan does NOT come to grips with a central water quality and water-related problem, to wit, RI’s population has been relatively constant at ~1M people since the late 1970s. However, “... *despite decades of statewide and regional planning [and major expenditures on wastewater treatment and some of most protective wetlands laws in the U.S.], a significant portion of our surface water resources do not yet meet water quality criteria due to pollution and other stressors (p2-35).*”

It would be really helpful to be clear about where the major problems continue to exist, e.g.,

- Only ≥N% of the State’s rivers, lakes, wetlands and coastal waters are assessed annually for water quality problems that might affect public health or integrity of aquatic ecosystems and associated species;
- p.32: an estimated 30% of extant Narr Bay saltmarshes lack buffers, which are required by law(?) . Is this an in-/decrease from 1970s and establishment of the CRMC?
- P. 36: 36% of Bay waters considered impaired? Is this an in-/decrease, ie.e., have TMDLs produced wq improvements?
- p. 43: wetlands now cover 12.8% of RI land area. Is this an in-/decrease from 1970s Wetland Protection Act?
- Have phytoplankton (or macroalgae) blooms decreased since expenditure on de-nitrification at WWTFs? If not, what happens next?
- Only N/39 cities and towns have up-to date, approved Local Comprehensive Plans that address protection of water supply aquifers and wetlands, climate-related sea level rise and enforce the State Building Code in high hazard flood areas;
- N species of species found in RI are classified as rare, threatened and/or endangered and at risk from hydrologic changes, climate change and/or land development.

5. There are places where the history is factually incorrect. This is important since a 20-year plan that replaces a number of underlying plans needs to start from an accurate baseline (favorably quoting D.Robadue, CRC). One example is at p. 2-25, which omits the §208 Plan; misstates the date that the Narragansett Bay Estuary Program started; attributes completion of the State Non-point Plan to CRMC,

instead of recognizing joint effort with RIDEM and the NRCS among other agencies; omission of CSO Phase I etc. (Maybe a timeline for each section would work?)

6. I think more thought needs to be given to the relationship between new/existing Watershed and River Councils since both tend to focus on the stem of river or coastal waterbody, not the associated land area that drains to and affects the waterbody. In addition, the Rivers Councils have the authority to intervene in local planning decisions to advocate on behalf of “their” rivers. This authority should be extended to “watershed Councils” and they should be encouraged to use it.

In sum, *Water Quality 2035* represents a great idea and a great step forward. However I think it will not adequately meet the State’s need for comprehensive thinking about or planning coordination of State and local efforts re. the future of the State’s water supplies, water quality of its fresh and marine waters or aquatic ecosystems without further editing.

With very best regards,

Caroline A Karp, esq.



Memorandum

From: Seth Handy

To: RI Division of Planning, RI Department of Environmental Management

Date: July 20, 2016

Regarding: Comments on Water Quality 2035

Thank you for the opportunity to comment. I write to supplement the comments I presented at your public hearing on July 13. I grew up in Rhode Island, have a family living in Providence and have spent just about all of my professional life here. I am an energy and environmental lawyer based in Providence. Before law school, I worked as a policy analyst for Science Application International Corporation, contracting for USEPA on waste management and water quality issues including the implementation of EPA's (then) new storm water program. I am a Commissioner at the Narragansett Bay Commission, was formerly on the Capital Center Commission, have been heavily involved with energy planning and policy issues in RI, and have served on many boards including a long term with the Conservation Law Foundation as a RI Advisor and trustee.

- 1) **Undervaluing Narragansett Bay:** Narragansett Bay is among our State's greatest assets, if not absolutely the greatest. Nevertheless, we have not fully valued it since our recovery from the American industrial revolution when many communities like ours turned our back on our waters. To me, the single most important element of ensuring the protection and enhancement of RI's water quality is understanding and appreciating the value of our water assets and treating them accordingly (in effect, orienting towards the water again). We are starting to get back to that with such important developments as the conversion of our industrial railroad beds to public recreational waterfront areas, like India Point Park, the Blackstone Valley bike path and the East Bay Bike Path. So much of this new appreciation of the water comes out of the great successes we've had at enhancing the water quality over the last 50 years - and we should all take great pride in that. We should also make the most of all we've put into that effort not only because that was the purpose of our investments but also because we take better care of the assets we treasure and because of the huge economic opportunity. We are now well poised to take much greater advantage of the untapped opportunity to realize the full value of our waters as assets. Look at what the river relocation project did for peoples' appreciation of the Providence River and our capital city. It is time for a similar mobilization for all of Narragansett Bay. We need to reorient people to our waters however we can best make that happen. I have long advocated for comprehensive transportation planning for RI that seriously considers the opportunity in upper bay public ferry transit. Even if such service might not be financially independent from the outset (and I'm not resigned to that conclusion, especially given the opportunity for RI boat manufacturers to capitalize on highly efficient electric engines), the economics would be supported by huge new waterfront economies that would transform our

citizenry's relationship to our shorelines. That is only one of many opportunities to reinvigorate RI's relationship to its great water assets that, I submit, should be considered strongly in any state plan on water quality.

- 2) Narragansett Bay Commission & the storm water burden: While I cannot speak for the Commission, as a Commissioner, I'm proud of the work done by NBC to improve wastewater treatment and its evident impact on water quality. As a ratepayer and a Commissioner I'm also concerned about the burden NBC has faced and faces to manage storm water. The cost of the first two phases of separating our wastewater and storm water systems was staggering and the magnitude and cost of phase three is expected to exceed the first two phases. Many of our ratepayers simply cannot afford the debt service that results from these investments. It's not clear to me whether any of this investment in major infrastructure projects (eg, massive tunnels designed to collect and hold stormwater flow until it can be treated) could have been avoided if the regulated community had complied with the storm water mandates, NBC is clearly forced to address the challenge of combined sewer overflows at the "end of the pipe" in significant part because other regulated entities (especially municipalities) have not met (nor have municipalities been funded to meet) their obligations. Moreover, as an agency that was formed to treat wastewater, NBC is not able to recover rates for treatment of storm water. So, the impact of this shift in the compliance burden is that NBC ratepayers get whacked with much higher rates while large commercial entities with large parking lots and small water and sewer bills largely avoid the economic burden. I do not speak for the Commission, but it is clear to me (as a ratepayer and a Commissioner) that we need a better and more equitable approach to storm water management. I, for one, think it's appropriate for NBC to strongly consider taking on a more active role in storm water management (given its management history and evident expertise) as long as they do so under a regime that authorizes them to collect rates to fund their management obligations. The alternative is that NBC will continue to face the storm water management obligation at the end of the pipe without the benefit of funding from some of the most significant sources of storm water runoff.
- 3) Comprehensive planning: It is important not to take a one-dimensional look at water quality issues based on a small, local perspective. One example is on dam management. It's critically important for RI to take advantage of its own energy resources, including the opportunity that lies in hydropower. When I was involved in evaluating and planning the restoration of dams on the Blackstone River for power generation, our team (which included CLF) planned comprehensively to understand whether and how hydropower could best coexist with water quality (eg, flow) and fish passage. There was understandable resistance to dam restoration from local water quality advocates who (to their credit) had worked long and hard to provide for water quality in the Blackstone River and believed that the Blackstone had been of sufficient service to industrial interests and had now earned its retirement. I understand and appreciate that sentiment. It is deeply rooted in a troublesome history of neglect and passionate commitment to improved waters we

enjoy today. But, no single focus is paramount in the best comprehensive planning. The interest in water quality cannot be blind to also important interests in air quality and economic sustainability.

It's also my understanding (from diligence regarding the Blackstone dams) that many of RI's dams are in very poor condition and are flood safety hazards and that DEM is challenged by the burden of monitoring and maintaining them. The prospect of energy conversion comes with an opportunity for private investment to ensure proper repair, maintenance and safety.

- 4) Enforcement: I share the concern, raised by Save the Bay and others, that DEM lacks the funding to properly staff its water quality management obligation and enforce our water quality laws and regulations. That is a significant impediment to improved water quality that ought to be addressed in any complete plan for water quality.

The Narragansett Bay Commission
One Service Road
Providence, Rhode Island 02905

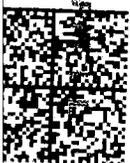
The Narragansett Bay Commission
One Service Road
Providence, Rhode Island 02905

401 • 461 • 8848
401 • 461 • 6540 FAX
TTY (RI RELAY OPERATOR) 711

<http://www.narrabay.com>



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Vincent J. Mesolella
Chairman

Raymond J. Marshall, P.E.
Executive Director

July 20, 2016

Ms. Nancy Hess
RI Division of Planning
One Capitol Hill
3rd Floor
Providence, RI 02908

RE: Comments on Water Quality 2035 Draft

Dear Ms. Hess:

Thank you for the opportunity to review and comment on the preliminary draft Water Quality 2035 document, the Rhode Island Water Quality Management Plan (WQMP). The Narragansett Bay Commission (NBC) has several areas of concern, which we would like to bring to your attention for consideration.

First, the NBC requests the WQMP honor the management principle stated in Section 1, page 5: Water quality management is based on sound science and regularly integrates new information, including improved scientific knowledge...

The NBC believes that the draft WQMP does not adequately frame the nutrient pollution issue in light of *new information or improved scientific knowledge*. Specifically, in Section 6, page 4, the following statement regarding controlling nutrient pollution from wastewater facilities contradicts the principle stated above, referring to technical evaluations (MERL studies) that are no longer representative of the best available scientific knowledge:

Based on prior technical evaluations, it is not expected that the completed WWTP upgrades will fully restore degraded areas...it is expected that additional reductions in pollutant loadings would be required.

The statement above suggests a foregone conclusion that additional nitrogen reductions for wastewater treatment facilities will be necessary. This is unacceptable and conflicts with the principle that management decisions be based on sound science. In the case of the Narragansett Bay Commission, millions of dollars have been spent to reduce nitrogen discharges and

Rec'd Aug. 1, 2016
After close of comm
period on July 29, 2016

by approximately 80% since the Greenwich Bay fish kill and oftentimes approach Best Available Technology seasonal levels of treatment. Our evaluations indicate that further nitrogen reductions by NBC will have little if any improvement on water quality in the upper Bay and will come at great expense. In addition, the NBC nutrient monitoring locations in the upper Bay are meeting or approaching the Dissolved Inorganic Nitrogen (DIN) levels of <0.01 mg/L recommended by the EPA National Coastal Condition Report for a good estuary, levels that promote good dissolved oxygen levels and eel grass growth. Evaluations by URI GSO indicate that nitrogen discharges to the upper Bay have been reduced to the levels observed approximately 150 years ago, quite a remarkable achievement considering most all of the nitrogen reductions are the result of large expenditures by WWTFs.

Dr. Candace Oviatt, lead author of the MERL studies referenced by prior technical evaluations, noted in a recent talk ("The Goldlocks Decision", March 2016, GSO Friends of Oceanography) that nitrogen levels in the Bay are down significantly, water clarity is now essentially the same in the upper and lower bay, hypoxia was decreased in a dry summer, the winter-spring diatom bloom has been reduced, and fish trawl biomass appears to have been affected. Rainfall and associated stratification now seem to be the major drivers for poor water quality in the upper Bay. Dr. Oviatt indicated in her presentation that we may have already achieved the "just right" nutrient loading levels, hence the title of the presentation, "The Goldlocks Decision". Clearly the statement cannot be made at this time that additional nitrogen reductions from WWTFs will be necessary. The NBC requests that parties retain an open mind as evaluations continue to gather sound scientific knowledge and leave such references to outdated information (MERL) out of long-term planning documents like the WQMP. Instead, the WQMP should reflect that resources must be allocated to identify and mitigate other previously unaddressed sources of nutrient pollution.

Similarly, in Section 6, page 3, the description of Wastewater Discharges as a pollution source fails to adequately present the substantial efforts completed and ongoing to reduce nitrogen and pathogen loading from wastewater treatment facilities.

...not all water quality concerns have been addressed. Current areas of significant focus are controlling nutrient pollution, abating the discharge of combined sewer overflows (CSO...

The phrasing of the section above suggests that these areas of focus have not been addressed at all. Even adding qualifiers to state these areas as "*further* controlling nutrient pollution" or "*continuing* to abate the discharge of CSOs" would more accurately frame the status of these focus areas. In addition, the bulleted challenge statement that "WWTFs continue to be a major source of nutrient pollution in RI waters" should be clarified to put this source in context of the other sources in the watershed, which have not been addressed to the degree WWTF sources have or even addressed at all. Wastewater treatment facilities clean and purify our wastewater to levels acceptable for discharge to our beautiful receiving waters of the state. The WWTFs have made a substantial effort and realized significant gains to reduce the levels of pollutants discharged and are truly water resource facilities responsible for the clean-up of our rivers and

bay. It's time that wastewater treatment facilities be acknowledged for the work they have done to restore our rivers and bay and for other sources to do their part before WWTFs and their ratepayers are asked to shoulder more of this burden.

It follows that the NBC's second concern involves the way the WQMP presents NBC's responsibilities for stormwater mitigation and control. Reducing the occurrence and volume of combined sewer overflows is both a wastewater and stormwater issue – while the WQMP does state stormwater management is the responsibility of multiple parties, only NBC and Newport are listed as the lead responsible parties for under Wastewater Discharge Policy 8, Actions A and B, in Section 7. At the very least, the lead on these actions should also include DEM and the municipalities. Under normal operation, water quality issues only arise from CSOs when stormwater during a rain event overwhelms the capacity. As in the stormwater-specific sections of the WQMP, reducing these flows from impervious surfaces is the responsibility of the municipalities and businesses that own those surfaces, and the burden and cost should not be placed solely on the WWTFs simply for owning the end of the pipe. The MS4 regulations need to be addressed throughout the municipalities to reduce, capture and treat all stormwater flows, including in drainage areas that eventually flow to a CSO.

Lastly, the NBC believes it has been an enthusiastic and substantial partner in monitoring efforts, sharing of data, participation in planning efforts and stakeholder groups, and securing funding for research into water quality solutions in the Narragansett Bay Watershed. The program activities listed for our organization in Section 3, page 6 are woefully inadequate in describing the role we have played and continue to play as a partner in these efforts. The NBC would appreciate a more substantial description of our proactive efforts to improve water quality above and beyond of our mandated requirements as a wastewater treatment organization, and recognition for our commitment to the environmental and public health of the State of Rhode Island.

We appreciate the opportunity to comment on this document, which will no doubt impact our future operations and reputation as a partner in water quality protection and restoration in RI for many years. Please feel free to contact me at 461-8848, extension 470 should you have any questions regarding these comments.

Sincerely,



Thomas P. Uva
Director of Planning, Policy & Regulation

Cc: Jared Rhodes