Rhode Island:
Coastal Resources Management Council
Department of Environmental Management
Division of Planning, Statewide Planning Program

RI State Guide Plan Update:
Water Quality Management Plan Advisory Committee Meeting

Tuesday, March 11, 2014
10:00 AM – 12:00 PM

Room 300
Department of Environmental Management
235 Promenade Street, Providence

Agenda

1. Agenda Overview

2. Feedback on Draft Goals & Policies for Agriculture

3. Subject Topics and Technical Presentations:

    a. Biological Functions of Stream Flow & Hydrology for Aquatic Habitat
        Guest Advisor: Alisa Richardson, DEM Office of Water Resources

    b. Aquatic Invasives
        i. Draft Goals & Policies for Aquatic Habitat

    c. Water Quality Management Framework
        i. Role of Watershed Plans
        ii. Roles of Watershed Councils
        iii. Assessing Gaps in Management Capacity

4. Discussion & Feedback – *All - moderated by Sue Kiernan*

5. Looking ahead -
    a. Next Meeting Date – March 25, 2014
    b. Committee Homework

6. Adjourn 12:00 PM

DISCUSSION QUESTIONS

LOCAL CAPACITY BUILDING

In addition to funding to support construction of BMPs, the State has found there are limitations in the capacity of local governments to implement needed water quality protection and restoration actions. Additionally, the capacity of other local organizations, including watershed organizations, is also limited. Specifically, the capacity in terms of available staffing and expertise to plan, initiate and oversee implementation of projects is often constrained.

How significant are the constraints?

Is lack of capacity equally distributed among cities and towns? Among watersheds?

What are the local obstacles to building capacity at the local level?

What role can regional solutions, such as shared services or other mechanisms, play in meeting local capacity needs?

Are there strategies that should be included in the Water Quality Management Element to address the need to build local capacity?

ROLE OF WATERSHED PLANS

The water quality management framework describes watershed plans as the mechanism by which to integrate water quality and aquatic habitat protection and restoration. DEM is interested in making sure newly developed plans serve a value-added role in watershed management.

How do we ensure watershed plans are useful to multiple stakeholders?

What aspects of watershed plans would your organization find most useful?

What information should be incorporated into the plans to make them relevant to you or others?

How do we ensure these plans are "living" documents? E.g. regularly updated and responsive to new science.

Framework Element	Key Gap in Capacity	Current Related Activities
Monitoring	Gaps in collection of needed data identified by RI Environmental Monitoring Collaborative Funding shortfalls to sustain certain existing monitoring programs	BRWCT has provided stopgap funding for streamflow monitoring, lobster surveys, USGS water quality monitoring RIEMC has advocated for additional funds – Enhanced collaboration/partnership
Assessment	Data management system limitations; e.g. DEM SWIMS Lack of capacity for data synthesis, in particular for trends analysis	DEM seeking contractor assistance; further investment in information technology is needed Database development projects: URI-WW, WRB, DEM NBEP planning investment in data synthesis via status and trends report development; forming science advisory committee
Planning – Protection Strategies	Limited capacity to develop watershed plans – state & local Uneven capacity among local entities to initiate needed planning; lack of funding Lake management planning including preventing the spread of invasive species (2012 Lakes Report)	2014 legislation – TBD DEM initiating development of watershed plans.
Planning – Restoration Strategies	Limited capacity at state level to plan and prioritize habitat restoration opportunities TMDL development limited by available resources (funding)	CRMC working with DEM & partners toward updated coastal habitat restoration strategy
Implementation	Lack of funding for feasibility, design and implementation of water quality and habitat restoration projects. Uneven capacity among local governments to implement effective stormwater management & on-site wastewater management programs. Lack of local capacity to manage projects; may include lack of expertise Enforcement.	Development of stormwater utility districts (SUDs) Investigation of shared services Training, tech transfer; e.g. stormwater mapping
Evaluation		Data gaps – See Monitoring & Assessment

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C. Relationship to Other State Guide Plan Elements

Prior to the development of this Plan, protection and restoration of water quality was the primary purpose of the following 3 elements of the State Guide Plan:

#162 Rivers Policy and Classification Plan (2004)
#715 Comprehensive Conservation and Management Plan for Narragansett Bay (1992)
#731 Nonpoint Source Management Plan (1995) which also incorporated by reference the RI Groundwater Protection Strategy, Rhode Island Wellhead Protection Program, Scituate Reservoir Management Plan and the CCMP.

SGP # Rescinded 2012 - see below -

During the past twenty years, state agencies have also produced additional statewide plans or strategies of relevance to water quality and aquatic habitat management including the RI Aquatic Invasive Species Management Plan and State Wildlife Action Plan among others. It is the intent of this Water Quality Management Plan to consolidate all relevant policies and actions targeting the protection and restoration of water quality and aquatic habitat identified in the three Elements above as well as other state plans into this one unifying document.

Water quality is addressed in several other existing state guide plan elements described below. The goals, policies, and actions in these other elements of the State Guide Plan have been reviewed to ensure consistency with the content of the Water Quality Management Plan.

- "Rhode Island Water 2030" (Element 721), adopted by the State Planning Council in 2012, is a Plan to ensure that the state has enough drinking water to meet its future needs. The relationship between Water 2030 and this Water Quality Management Plan is clear – adequate drinking water supplies depend on high quality water. Whereas this Water Quality Management Plan will address the protection and restoration of all waters, including drinking water resources, the plan will not address issues of drinking water supply management that are covered in Water 2030 -- how we get the water, how we use it and the relationship of its use on the economy and the environment.

- "Land Use 2025: State Land Use Policies and Plan" (Element 121) adopted in 2006 is Rhode Island's plan for development and conservation in the 21st century. The impact of what happens or does not happen on the landscape is felt in the downstream waters. The development goals, policies and strategies outlined in Land Use 2025 will impact local land use decisions, which in turn will potentially impact the state's water resources. Land Use 2025 recognizes the importance of water resources to the health and welfare of the state. It makes recommendations to protect water quality, to maintain the water and wastewater infrastructure and to implement a holistic planning approach at the watershed level. (See also Section xx)

> "Smart Growth" blueprint

- "Transportation 2030" (Element 611) adopted in 2012, provides a long-range framework, goals, policies, and recommendations for the movement of both goods and people. It encompasses the highway system, public transit, transportation system management, bicycle travel, pedestrian, intermodal, and regional transportation needs. The plan acknowledges the impact of our transportation network on water resources via stormwater and includes goals for managing stormwater to minimize these impacts.

- "Ocean State Outdoors: Rhode Island's Comprehensive Outdoor Recreation Plan" (Element 152) adopted in 2009 sets policies and actions for providing priority recreation needs while protecting the state's resources. Specific policies are identified to protect water resources.

- "A Greener Path: Greenspace and Greenways for Rhode Island's Future" (Element 155) adopted in 1994 sets policies and program initiatives to create a system of state and local greenspaces and greenways, including natural corridors, trails, and bikeways. Identifies areas that have multiple values as open space including water resources.

III. Water Quality Management Framework

A. Management Framework

Rhode Island's water quality management framework is a systems management approach purposefully designed to address water resource protection and restoration in a more holistic manner. It incorporates the use of the watershed approach and utilizes watersheds as the appropriate hydrologic unit for water quality management. This approach aims to integrate management activities related to water quality and aquatic habitats within a watershed. The framework provides a process for government and other stakeholders to prioritize problems and work collaboratively to optimize results in terms of both environmental outcomes and the other societal benefits associated with improved water quality and habitat. It

The Environmental Protection Agency has described the benefits of taking a watershed approach this way: Operating and coordinating programs on a watershed basis makes good sense for environmental, financial, social, and administrative reasons. For examples, by jointly reviewing the results of assessment efforts for drinking water protection, pollution control, fish and wildlife habitat protection and other aquatic resource protection programs, managers from all levels of government can better understand the cumulative impacts of various human activities and determine the most critical problems within each watershed. Using this information to set priorities for action allows public and private managers from all levels to allocate limited financial and human resources to address the most critical needs. Establishing environmental indicators helps guide activities toward solving those high priority problems and measuring success

in making real world improvements rather than simply fulfilling programmatic requirements. (EPA)

Using sound science as its foundation, the water quality management framework consists of a five step process -- Monitor, Assess, Plan, Protect/Restore, and Evaluate.

1) Monitor the quality and condition of water resources.
2) Based on an assessment of available data, characterize the condition of the water resource and identify stressors or causes of degradation;
3) Develop a a plan or strategies to restore and protect water resource conditions to achieve specified goals;
4) Implement the strategies to protect and restore water quality and aquatic habitat;
5) Evaluate results and cycle through the process again using information to adapt management in light of new information.

This framework can be used to support statewide water resource programs as well as management applied at varying watershed scales. At the state level, the framework recognizes the on-going need for statewide assessments of water quality and habitat condition to provide information that drives the refinement and adaptation of state protection and restoration programs. It incorporates the federally required continuous planning process used by the Department of Environmental Management in its state water quality management program. At the watershed scale, the framework identifies watershed plans as the coordinating mechanism to strategically align water resource protection and restoration activities among all involved stakeholders. Through the watershed plans, the framework will provide greater focus on the water resources, improve assessment of the cumulative impacts of multiple stressors, place emphasis on priority problems and integrate protection and restoration actions to enhance progress toward goals for clean water and productive aquatic habitats. .

Implementation of this framework and development of watershed plans requires active public engagement and stakeholder involvement. While the state may have a lead role in monitoring and assessing water resources, the participation of all entities most affected by management decisions is needed throughout the planning, implementation and evaluation steps in the process. This includes all levels of government (federal, state, local), quasi-governmental agencies, watershed councils and other non-governmental organizations, interested business and individuals. For watershed plans, effective public engagement ensures environmental objectives are well integrated with related economic, social and cultural goals which in turn builds support for implementation of needed actions. Challenges at each step in implementing this approach will be discussed in later sections along with proposed strategies.

B. Overarching Policies

The policies below set the framework for water quality management in RI. Each one applies broadly to and is reflected in the planning and implementation sections discussed later in more detail.

Water Quality Management Policies/Principles

- Protection and restoration are equally important to achieving RI's goals for water quality.
- Water pollution should be prevented whenever possible as it is a more cost-effective strategy than source control and restoration.
- Watersheds are the appropriate unit for managing water quality and water resources.
- Water quality management is based on sound science and integrates new information, including information on changing climate conditions, into policies and decision-making.
- New technologies are adopted for use in water pollution management where beneficial.
- Monitoring is an essential component of water quality management that yields information necessary for effective management.
- Indicators of environmental conditions and performance, as well as analytical tools, are used to evaluate and report on progress toward water quality goals and objectives.
- Limited resources at all levels require and justify efforts to prioritize protection and restoration efforts.
- Through meaningful public engagement, interested stakeholders are involved in the planning and implementation of programs for water resource protection and restoration.
- Through public outreach, Rhode Island citizens are informed and aware of water quality management priorities and support efforts to prevent and abate water pollution problems.
- A collaborative effort is necessary across all governmental jurisdictions, agencies and programs to ensure success in protecting and restoring RI's water resources.

Roles and Responsibilities

- All levels of government (federal, state, local), non-governmental organizations (NGOs) including watershed organizations, private entities and individuals share in the responsibility and duty to protect and restore RI's water resources.

- State and quasi-state facilities demonstrate leadership in adopting effective water quality management practices.

- The State has the primary responsibility to monitor Rhode Island's natural environment and assess the resulting data to generate information that fosters broader understanding of the conditions of our water resources.

- The State develops and maintains the capacity to respond to new issues (e.g., emerging contaminants) impacting water quality or water quality management in a responsible, scientifically defensible and timely manner.

- Compliance with applicable federal, state and local regulatory programs is necessary for water quality protection and restoration.

- The State and other partners provide technical assistance/training to practitioners and local governments to facilitate implementation of water quality management strategies.

- The Federal and State governments continue to provide financial assistance to manage water quality and abate water pollution.

- Local government capacity is increased to advance implementation of strategies to improve water quality and to integrate wastewater and stormwater planning and management in municipal operations.

- Implementation of management at a regional scale is pursued where demonstrated to be most effective.

Designated watershed councils →

- An active watershed organization exists in each major RI watershed and serves to engage citizens in activities to protect and restore their watershed.

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- Each of RI citizens contributes to improving water quality by being aware of our water resources and taking steps (often simple) to protect and restore these resources.

Env. Stewardship / public education

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RI State Guide Plan Update:
Water Quality Management Plan Advisory Committee Meeting

Tuesday, February 25, 2014

10:00 AM – 12:00 PM

Room 300
Department of Environmental Management
235 Promenade Street, Providence

Meeting Notes

Committee Members in attendance were: Eric Boettger (NRCS), Thomas Borden (NBEP), Kathy Crawley (WRB), Rachel Calabro (RIRC), Ames Colt (BRWCT), David Everett (Providence), Peter Healey (RIDOT), Vincent Murray (SK Planning Dept.), Jennifer Paquet (Town of West Greenwich), Marilyn Shellman (Town of Westerly), June Swallow (RIDOH), Nicole Rohr (URI). DEM/CRMC/Statewide Planning staff in attendance included: Sue Kiernan, Ernie Panciera, and Elizabeth Scott of RIDEM, Jeff Willis of CRMC and Nancy Hess and Paul Gonsalves of Statewide Planning. Guests included Jim Boyd and Caitlin Chaffee of CRMC, Chris Modisette and Gary Casabona of NRCS.

Agenda Overview and Comments on 12/17/13 Meeting Notes

Sue Kiernan started the meeting with a brief overview of the agenda, including a call for comments on the meeting notes from 1/28/14.

Feedback on Road Salt Paper

Next was a call for comments on the Road Salt paper. There were several follow-up questions from the group on the Road Salt paper including a question related to monitoring in streams. The concern revolved around the issue of ongoing monitoring specifically. DEM monitoring of chloride levels does not exactly coincide with the times at which levels may be the highest. Ernie stated that in the

bigger picture, the identification of gaps is a part of what the WQMP will attempt to do. It was then suggested that instead of stating how much DOT spends on average for winter road and highway maintenance, it might be a good idea to state that the amount in funding will be variable, depending on how intense the winter is. It was suggested that variable impacts from climate change might also affect annual spending.

Summary of Resource Based Priorities

Sue gave a very brief synopsis of the ranking results. The idea of "prevention" received the top ranking, specifically dealing with drinking water protection. This will be discussed further at the March meeting.

Draft Goals and Policies for Agriculture

Ernie kicked off the next topic for discussion. He started with a mention of a recent Providence Journal top story about the growth of agriculture in the State. Rhode Island seems to be one of only a handful of states where agriculture is actually expanding. The definition of a farm though, may not be universal. Between the state and the federal government, there are three ways to define a farm. RI General Laws define a farm as being one where at least $10,000 was earned as gross income in each of the preceding 4 years. Ernie continued with some background info on the history of monitoring in agriculture. In the early 2000's, elevated levels of nitrates were detected around turf farms for example. Many of the issues have been addressed since then. Farmers are encouraged to adopt a conservation plan. The Water Efficiency Act of ~~2010~~ 2009 was mentioned as an example where an agricultural conservation plan is beneficial. Nancy added that the agricultural community became increasingly concerned with water use.

Having a conservation plan though, was seen as just a first step. Currently, there is little to no follow up after plans are done. More resources are needed to help implement these plans. Discussion ensued on whether to reuire such plans if the State buy development rights from farmers and how to enage BMPs. There are no state regulations which target pollution from farms. According to Chris Modisette, there is also a federal farm protection program where a conservation plan is needed in order to qualify for federal dollars. Gary Casabona added that the participants in the federal program must meet state requirements, or they would lose eligibility and benefits. Jared asked approximately what percent of farms take part in the program. The estimate was about 15% for small farms and about 30% for large farms.

Ernie moved on to the topic of pesticide used, where the general rules are more concise. “The label is the law” is a term commonly used in pesticides meaning that pesticides may not be used in a way that is inconsistent with their labeled use. In the 1980’s there were some issues with a particular pesticide used for potato crops, but there are not many problems showing up today. June stated that DOH is very concerned with finding evidence of pesticides in drinking water. There have been cases where pesticides did show up, but attention is usually brought to the matter immediately and it clears up. Sue also pointed out that certain chemicals used to combat mosquitoes may have an effect on aquatic species such as lobster.

The discussion shifted to wildlife and water fowl. Sue started by saying any waterfowl management techniques in particular, must be approved by the property manager/owner. There are not a lot of opetion which are easy to do. Gary then went on to discuss several methods/programs for waterfowl management including “Geese Peace”, which is a PETA and Humane Society endorsed method. He stated that NRCS does not offer assistance for monitoring, but does provide support in habitat management. Sue pointed out that when dealing with water fowl issues, we need collective participation, or we will just be moving the problem around. Vin said that the WQMP should acknowledge the issue because it is mentioned in several TMDLs.

Aquatic Habitat and Restoration:

Coastal Wetlands (CRMC)

Jim Boyd of CRMC started a presentation which looked at several issues in coastal wetlands, including wetland inundation from climate change. Several of the slides in the presentation showed maps of sea-level rise (SLR) scenarios of 3 and 5 feet. CRMC has developed several goals related to the SLR threat including the development of marsh mitigation modeling, identification of existing vulnerable wetlands, identification of impacted upland parcels and the development of new CRMC coastal strategies.

Caitlin Chaffee of CRMC began to discuss SLR in more detail and the threat of salt marsh “die back”. This concept deals with rapid change sin plant community composition as accretion rates are not keeping pace with SLR. From 1996 to 2012, there has been a 59% loss of high marsh. Several management adaptation strategies exist. For one, the practice of creek and “runnel” excavation can be beneficial. This is and other small scale alterations of mash hydrology though, are just seen as attempts to buy more time.

Several groups are diligently working to research and document the problem

of salt marsh preservation and restoration. A RI Salt Marsh Working group works with EPA, Save the Bay and other entities. On April 16th at Save the Bay, there will be a workshop focused on the most current research on this topic.

Sue mentioned that we will discuss the other aquatic habitat issues; fish passage, dam removal and stream flow at the next meeting.

Next Meeting Date

The group agreed upon a date of March 11th for the next meeting. Also, another March meeting will be held on the 25th.