

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, December 17, 2013
10:00 AM – 12:00 PM

Room 300
Department of Environmental Management
235 Promenade Street, Providence

Agenda

1. Agenda Overview - *Nancy Hess, DOP*
2. Feedback on Draft wastewater Goals, Policies and Actions from 11.26.13 – *DEM & ALL*
3. Subject Topics and Technical Presentations:
 - a. Stormwater in RI – *DEM*
 - i. Accomplishments, Ongoing efforts, Management Framework -

Guests: Eric Beck, Elizabeth Scott, Alisa Richardson – *DEM Office of Water Resources*, Scott Millar – *DEM Sustainable Watersheds*
 - ii. Draft Goals & Policies for Stormwater Management –*DEM & ALL*
4. Discussion & Feedback – *All - moderated by Sue Kiernan*
5. Looking ahead -
 - a. Next Meeting Date – January 28, 2014 - *Nancy Hess, DOP*
 - b. Committee Homework - *Ernie Panciera, DEM*
6. Adjourn 12:00 PM

DRAFT Strategies for Stormwater Management

Water Quality State Guide Plan Element

12/12/13

Goal: Stormwater is managed to protect and restore the state's water resources

Primary Issue Topics

- LID implementation
 - Maintenance/Asset Management; including upgrading and replacing as necessary
 - Existing Sources – retrofitting public and private systems
 - Funding and Local Capacity
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Policy: Ensure stormwater management is consistent with water quality goals.

Actions:

- Implement the requirements of the 2010 RI Stormwater Design and Installation Standards Manual and the updated Erosion and Sediment Control Handbook (2013/14) by means of the regulatory programs that have incorporated these standards. Programs include the DEM and CRMC Freshwater Wetlands Programs, CRMC Coastal Management Program, DEM Water Quality Certification Program, DEM Groundwater Discharge Program, and the DEM RI Pollutant Discharge Elimination Program.
- Evaluate and update the RI Stormwater Manual and the Erosion and Sediment Control Handbook as appropriate.
- Require self-certification of compliance with the construction site requirements issued by the stormwater permitting programs.
- Continue management of the DEM Industrial Activity Multi-Sector General Permit.

Policy: Use low impact design techniques and green infrastructure BMPs as the primary method of stormwater management to maintain and restore pre-development hydrology of the state's watersheds.

Actions:

- Evaluate and implement strategies to more fully implement LID in state and local programs.
- Provide training and education opportunities for design professionals (engineers, landscape architects, contractors) and municipal officials. Consider development of training/certification program.
- Municipalities adopt local ordinances to implement LID.

Policy: Protect high quality waters from degradation caused by stormwater by limiting effective impervious cover in these watersheds.

Actions:

- Identify water resources warranting further protection than currently in place under existing regulatory programs.
- Develop a strategy to protect these waters (e.g., increased emphasis on LID, more stringent standards).

Policy: Stormwater management at the local level is an essential service that must be integrated into all relevant aspects of local government, including planning, engineering and public works. Local governments must effectively manage, maintain and upgrade their stormwater systems to minimize adverse impacts to water resources.

Actions:

- Continue implementation of DEM MS4 General Permit Program; evaluate compliance and effectiveness.
- System operators adequately maintain their systems to increase longevity and maximize performance.
- Incorporate TMDL implementation actions into the Stormwater Management Plan and implement priority actions.
- Establish sustainable funding mechanisms.
- Establish regional stormwater management approaches where practical.
- Provide technical assistance and training to municipal governments for stormwater management.
- Prioritize drainage systems for retrofitting (coordinate with TMDLs).
- Strengthen/enforce requirements for retrofitting under TMDL implementation.

Policy: State agencies must effectively manage, maintain and upgrade their stormwater systems to minimize adverse impacts to water resources.

Actions:

- System operators adequately maintain their systems to increase longevity and maximize performance.
- Establish sustainable funding mechanisms.
- Incorporate green infrastructure into state funded projects.
- Prioritize drainage systems for retrofitting (coordinate with TMDLs).
- State agencies and quasi-state agencies demonstrate leadership in adopting effective and innovative stormwater management.

Policy: Ongoing training of public officials and private contractors is an important element to ensure proper stormwater management to protect and restore water resources.

Action:

- Establish an integrated and continual training program for stormwater management professionals that addresses LID, BMP design and installation, road salting and other aspects of stormwater management.

Policy: Support the development of dedicated funding mechanisms (e.g., “stormwater utility”) to manage local, regional and state stormwater programs.

Actions:

- Provide technical and financial assistance to local governments to establish the appropriate mechanisms.

Policy: Ensure that stormwater from significant areas of impervious cover on private properties is properly managed on-site.

Actions:

- Develop effective tools to encourage and incentivize management of stormwater from private property.
- Evaluate regulatory options for requiring management of stormwater from private property.

Policy: Ensure that approved BMPs available for stormwater management are effective in meeting water quality goals.

Actions:

- Evaluate the performance of approved stormwater BMPs, as necessary.
- Support the development of new technologies/BMPs for stormwater management.

Policy: Improving source reduction is an effective means to mitigate stormwater impacts.

Actions:

- Investigate strategies for source reduction (e.g., improve/increase street sweeping, prohibit coal tar based pavement sealants...)

Policy: Reduce the amount of road salt and sand applied to state and local roads.

Actions:

- DOT and towns adopt innovative road salting techniques and alternative products.
- Evaluate training and certification mechanisms for road salt/sand applicators.
- Establish minimal equipment standards for use by road salt/sand applicators.
- Identify areas that should be designated “no/reduced salt” zones.
- Ensure that all salt piles are covered (public and private).

Policy: Stormwater management must adapt to climate change impacts.

Actions:

- Evaluate the impact on existing stormwater management systems of increased intensity of precipitation events, rising sea level and rising water tables.
- Evaluate stormwater management design standards to ensure that they incorporate new data on climate change in order to adequately protect water resources.

Terminology:

LID (from RI Stormwater Manual) – “Low impact development is a site planning and design strategy intended to maintain or replicate predevelopment hydrology through the use of site planning, source control, and small-scale practices integrated throughout the site to prevent, infiltrate and manage runoff as close to its source as possible.”

Green Infrastructure (GI) -- Utilizes infiltration, evapotranspiration, storage and reuse to either prevent runoff from occurring or treating it as close to the source as possible. These are the physical BMPs -- not just “green” (plant-based) BMPs (includes permeable pavement, subsurface infiltration systems).

Gray Infrastructure – stormwater collected and conveyed in closed systems to an off-site where it is discharged without treatment to surface waters.

In short: LID = planning principles; GI = the physical BMPs

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Tuesday, November 26, 2013

10:00 AM – 12:00 PM

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235 Promenade Street, Providence

Meeting Notes

Greetings and Introduction of Members

Committee Members in attendance were: Jane Austin (Save The Bay), Thomas Borden (NBEP), Janine Burke (NWPCA), Kathy Crawley (WRB), Rachel Calabro (RIRC) , Ames Colt (BRWCT), Eugenia Marks (RI Audubon), Vincent Murray (SK Planning Dept.), Jennifer Paquet (Town of West Greenwich), Margharita Pryor (EPA), Marilyn Shellman (Town of Westerly), June Swallow (RIDOH), Judith Swift (URI). DEM/CRMC/Statewide Planning staff in attendance included: Sue Kiernan, Erinie Panciera, Angelo Liberti and Jay Manning of RIDEM, Jeff Willis of CRMC and Paul Gonsalves of Statewide Planning. Guest speaker in attendance included Michael Larocque of RICMFA.

Introduction and Agenda Overview

Sue Kiernan started the meeting with a brief overview of the agenda, including key subject areas and contributions from several speakers.

Feedback on OWTS

A significant piece of feedback dealing with OWTS was a suggestion to emphasize the distinction between innovative systems.

Public Wastewater Treatment Facilities in RI

Sue led the discussion with some back ground information on impaired waters in the Bay (see Map handout). About 32.5 percent of Narragansett Bay is considered impaired. Wastewater treatment facilities are the single largest source of nitrogen in the Bay. Some areas closed to shellfishing are for safety reasons, while other areas are closed due to shoreline activities such-as marinas. Approximately 24% of bay waters are closed to shellfishing. In general, sufficient controls exist to manage wastewater, paid for through the RI Clean Water Finance Agency. Funding sources are mainly through user fees and through utilizing the State Revolving Fund Program. The role of municipalities in wastewater treatment varies. In some cases the municipal role is planning and coordination, while some municipalities are operators.

Through a clean water needs survey, a need was shown for a 50% reduction of impairing substances from treatment plants. It can be achieved in part by continued monitoring, among other mitigation measures. Angelo went on to describe some of the monitoring activities currently at 6 of the municipal treatment plants. The goal is to reduce phosphorus through a pre-treatment program. Also, the wildlife habit effects of wastewater discharge were addressed.

A set of discussion questions was then distributed to the group (see handout). The first question was that of WTF plans and the frequency of their updates. Some Towns may be reluctant to invest heavily in WTFs if they feel that new/expanded sewers may be coming. Facility plans that do exist are usually 20 year plans that estimate future flow and take proposed new sewers into account. Currently 15 out of 19 facilities have plans, with 3 in development. The plans are reviewed by RIDEM's office of Water Resources. Mr. Rhodes then offered a complimentary compliance review by Statewide Planning for any future plans. The group generally agreed that any facility plan should be consistent with the applicable Comprehensive Plan(s), OWT plans and WWSMP(s). Several members of the group supported the idea of municipalities having just one "wastewater" plan to capture goals and policies of both OWTs and WTFs.

The topic of regionalization is seen as an important option in WTF planning. NBC was given as an example where regionalization works well. More information on wastewater regionalization can be found in Water 2030.

Although uncommon, there is a mechanism to implement private wastewater treatment systems for large private developments. There was brief discussion of one sophisticated project in particular that was approved, but never fully

established do other problems that the developer faced. Generally, the development of private systems has not been widely promoted.

“Operations and Maintenance” was the next topic of discussion. Several agreed that an asset management approach to maintaining wastewater infrastructure would work best, as coordination between some public works projects are is not always achieved.

When addressing pollution issues, the idea of sludge and re-use was brought up, but as of now, the economics in RI are just not conducive to this approach. As the regulations stand as of now, most re-use proposals would in fact fall under the jurisdiction of the state building and plumbing codes. Water reuse under appropriate circumstances should be addressed, such as the system in Florida where lawns and other secondary uses are on a different system. It was noted that this SGP element could possibly set the stage for integration of water re-use systems.

The topic of total Maximum Daily Loads (TMDL) was discussed as it related to coastal areas, where many of the septic issues exist. It was suggested that the group could benefit from a map showing wastewater problem areas. This map could work in conjunction with the Urban Service Boundary (USB) of Land Use 2025. If sewerage areas change, the State Planning Council could amend the USB in the future.

Regarding the issue of financing, the Clean Water Finance Agency is seen as the only viable option currently. The agency though, is in need of more funding. The most pressing need is in the next 3 years, at about \$30 million.

Next Meeting Date

The group agreed upon a date of December 17th for the next meeting. The topic will be stormwater.