Coastal Features

INFORMATION ABOUT THE RHODE ISLAND COASTAL RESOURCES MANAGEMENT PROGRAM

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Council Chair Sandra Thornton-Whitehouse Departs

After six years, almost four of which were served as Chairperson, Sandra Thornton Whitehouse has left the Coastal Resources Management Council. In accordance with the Council's enabling legislation, members are appointed for three-year terms and can only serve for two consecutive terms. Dr. Whitehouse was appointed by Governor Sundlun in December of 1990.

Holding a Ph.D from the University of Rhode Island, Graduate School of Oceanography, Dr. Whitehouse was a highly qualified and universally respected Council member. As Council Chair, Dr. Whitehouse provided leadership on a number of significant policy and programmatic issues during her tenure. Highlights of these include: the development of coastal buffer zone regulations; revisions to the Council's barrier beach regulations; revisions to the Salt Ponds and Narrow River special area management plans, including a major study on cumulative and secondary impacts; and, the development of Rhode Island's Coastal Nonpoint Pollution Control Program. Dr. Whitehouse also oversaw the highly successful dock registration and marina certification programs.

Dr. Whitehouse was also able to provide leadership and expertise in the state's efforts to address its long-standing dredging problems. Among her many achievements specific to dredging, Dr. Whitehouse: sat on the Governor's Commission on Dredging and chaired its Technical Committee; oversaw the implementation of the Marine Infrastructure Maintenance Act, including the establishment of its technical advisory committee and the identification of potential in-water disposal sites; and provided much of the necessary foundation for the development of a long-term dredged material disposal plan for the state. Through her diligence, a number of long-standing conflicts and issues related to dredging that had prevented the state from moving forward in its efforts to address this growing problem have either been resolved or a process for their resolution has been developed.

While Council Chair. Dr, Whitehouse consistently emphasized the importance of integrating science into the management process. As both a scientist and a manager, Dr. Whitehouse demonstrated that successful policy development and management decisions are dependent not only on the support of politically-involved stakeholders but also the cooperation and participation of the scientific community. Particularly on dredging issues, Dr. Whitehouse recognized the need to communicate scientific research and data to the public in order to promote a better understanding of policy decisions.

Dr. Whitehouse's even-handed and pragmatic approach to her duties as Council Chair will be missed by staff and applicants alike. We wish her luck with her future endeavors and hope, for the state's benefit, that she will remain active in coastal management issues. Governor Almond has appointed Michael Tikoian to replace Dr. Whitehouse as Council Chair. Mr. Tikoian is the CRMC's inland community representative and a partner with Piccerelli Gilstein & Co., a Providence accounting firm.

Inside This Issue

Coastweeks '97

For the tenth consecutive year, Rhode Island participated in the international COASTWEEKS celebration from September 20th to October 12th. Kicking off the three-week celebration of coastal issues and resources was the annual Get the Drift and Bag It coastal clean up and beach litter survey, once again organized by the Audubon Society of Rhode Island.

Among the many other COASTWEEKS activities were the ninth annual Taste of Rhode Island, a "Hawk Walk" on Napatree Point, a "Walking Weekend" in South County, and numerous lectures and exhibits.

The Coastal Resources Management Council, which serves as the state coordinator of COASTWEEKS, wishes to thank all those who helped make COASTWEEKS a success in Rhode Island. In particular, the Council thanks Rhode Island Sea Grant which designed, edited and produced the COASTWEEKS calendar, Jim Underwood for his planning efforts, and all of the sponsors of COASTWEEKS '97 events.

A tour of URI's mesocosm facility

Among the variety of COASTWEEKS '97 events was an introduction to and tour of the mesocosm facility at the University of Rhode Island Graduate School of Oceanography. This facility, which has been in operation for eight years, is funded through Rhode Island Sea Grant and the National Oceanic and Atmospheric Administration. Mesocosm facility researcher Steve Granger provided an overview of the experiments being conducted at the facility and their relevance and application to the real world of Rhode Island's salt pond region.

The facility, which utilizes a series of ten mesocosm (meaning "little world") tanks, represents "a compromise between beakers and bays" by allowing scientists to simulate and manipulate the highly complex salt pond ecosystem. Through the mesocosm facility, scientists have recreated ten miniature salt pond ecosystems, each including all of the various components such as eel grass, phytoplankton, and shell fish. Experiments have primarily focused on the impacts of nutrients, in particular nitrogen and phosphorous. Scientists have sought to discover what types of impacts these nutrients, both together and separately, can have on the system as a whole as well as its individual components.

Results of experiments conducted at this facility have had practical applications in the revisions of the CRMC's Salt Pond Special Area Management Plan by providing critical data on the effects of nutrients on the salt pond ecosystem. Based on the results of this and similar research projects, the Council is seeking to further minimize the introduction of nitrogen into the ponds through revised land use classifications and additional denitrification requirements (see page 6).

Coastal features

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This issue of *Coastal Features* was edited by Laura Miguel. To comment on any article or to make address changes, write the CRMC at the Oliver Stedman Government Center, 4808 Tower Hill Road, Wakefield, RI 02879 or contact us on-line at ricrmc@riconnect.com.

Northeast region coastal program managers meet to discuss essential fish habitat

Essential fish habitat was the topic of the October 15-17 Northeast Regional Coastal Program Managers meeting in Wells, Maine. Council staff attended and participated with staff from NOAA's Office of Oceans and Coastal Resource Management, representatives from the National Marine Fisheries Service (NMFS), the New England Fisheries Management Council, the Atlantic States Marine Fisheries Commission and program managers from other coastal states in the northeast. The purpose of this federal/state interaction was to develop a mechanism whereby NMFS will be able to make recommendations to the states about actions which might threaten essential fish habitats.

The Sustainable Fisheries Act of 1996 added a new mandate for NMFS and the regional fishery management councils to address "essential fish habitat" for all managed species and fisheries. Essential fish habitat was defined by the legislation to be "those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity." Each fishery management council must amend their fishery management plans to: identify and describe the essential fish habitat for each managed species; identify the fishing and non-fishing related threats and impacts to that habitat; and, develop management and conservation alternatives for the conservation and enhancement of essential fish habitat. As part of the amendments, NMFS is required to provide recommendations regarding state and federal agency actions that could adversely affect essential fish habitat. States are not obligated to follow these recommendations, but NMFS is encouraging states to coordinate their actions with NMFS to facilitate the early identification of potential adverse effects on essential fish habitat. NMFS is still finalizing the regulations which will guide the fishery management councils through the essential fish habitat designation and implementation phases.

Many coastal states have been working to identify and protect fish habitat and other wildlife habitat through coastal zone management programs. The NMFS regulations for essential fish habitat will bolster the scientific and technical foundation for regulating activities that occur in and around critical habitat areas for managed fisheries. These habitats often are found in areas like coastal ponds which provide valuable spawning and foraging habitat.

Protecting our coastal habitats in Rhode Island is important to a sustainable ecosystem and economy. Rhode Island's coastline and Narragansett Bay support both recreational and commercial fisheries for finfish and shellfish. In 1991, more than 170,000 anglers spent more than $70 million fishing in Rhode Island. This activity supported 2,160 jobs with $40 million in earnings, and generated almost $5 million in state sales tax. In 1995, the dockside value of commercial fish and shellfish landings in Rhode Island was more than $68 million. In addition to NMFS, the Coastal Resources Management Council is working together with the Department of Environmental Management, the Narragansett Bay Program, the Narragansett Bay Estuarine Research Reserve and the University of Rhode Island to further coordinate protection of our coastal habitats for fishery and wildlife resources.

Chafee unveils estuary restoration bill

On September 22nd, Senator John Chafee held a press conference at the Edgewood Yacht Club in Cranston to unveil the Estuary Habitat Restoration Partnership Act, legislation the Senator will introduce to help rebuild the country's vital estuary habitats.

In his remarks, Senator Chafee noted that more than 75 percent of commercial fish and shellfish harvested in the United States depends on estuaries at some point in their life cycle, that estuaries are home to numerous endangered and threatened species, and that many of the nation's migratory birds are dependent upon estuaries. Senator Chafee cautioned that with the growing pressures of development and population density in the nation's coastal areas, threats to water quality and habitat continue to increase in estuarine areas. Senator Chafee identified decreased fresh water flows and increases in nonpoint sources of pollution as threats of particular concern.

The bill seeks to create strong and lasting partnerships between public and private sectors, and among all levels of government. It builds on existing federal, state, and local restoration plans, programs and studies, and encourages the development of monitoring and maintenance capabilities. The bill is supported by a wide variety of organizations representing environmental, tourism, fishing, and regulatory interests. Restoration efforts supported under the bill would allow for community-driven approaches to the unique needs of individual estuaries.

Rhode Island's coastal non-pollutio

Moving Beyond the Clean Water Act

This fall marked two major milestones in the restoration and protection of Rhode Island's coastal waters. The first of these was the 25th anniversary of the enactment of the Clean Water Act, and the second was federal approval of Rhode Island's Coastal Nonpoint Pollution Control Program (CNP).

During its 25 years of implementation in Rhode Island, the Clean Water Act has been responsible for significant progress in the clean up and control of water pollution associated with point sources. Point sources of pollution are those that involve the discharge of pollutants from a distinct source, such as a pipe. Prior to its enactment, Rhode Island's waters, like many of those throughout the country, were commonly used as receptacles for toxins and other by-products of manufacturing and urban development. With the enactment of the Clean Water Act, Congress stopped this virtually uncontrolled pollution of our nation's waters principally by imposing effluent and treatment standards on point sources of pollution, particularly those associated with industrial and sewage discharges.

Yet, in spite of the significant progress made under the Clean Water Act, too many of Rhode Island's waters are still threatened or impacted by pollution. Combined sewer overflow problems remain a concern. Of equal, if not greater, concern due to its insidious nature is the problem of nonpoint source pollution. Nonpoint source pollution is water pollution caused by runoff from rain or melting snow. As it moves, the runoff picks up pollutants such as nutrients, heavy metals, hydrocarbons and pathogens which eventually make their way, either through groundwater or surface water, into coastal waters.

While the CRMC has long sought to prevent and minimize nonpoint source pollution through policies requiring proper erosion and sediment control and storm water management, it was only recently that the federal government responded to this problem through a regulatory approach. Until Congress enacted Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA), efforts to control nonpoint source pollution on the federal level had focused on plan development, demonstration projects and voluntary participation in source reduction programs. Section 6217, administered jointly by the EPA and the NOAA, provided a regulatory framework for the prevention and control of nonpoint source pollution in the nation's coastal waters. This ambitious program required coastal states participating in the federal coastal zone management program to develop CNPs that address specific land use activities associated with nonpoint source impacts or face severe funding penalties. To make the best use of existing resources, programs were required to bring together the state's water quality and coastal management agencies.

In early 1993, when specific guidance materials and program requirements were finalized by EPA and NOAA, the CRMC, the RIDEM and the Division of Planning initiated Rhode Island's CNP development process. While the task initially seemed an impossible one, the support and assistance of innumerable state and local agencies, environmental groups, industry representatives and interested citizens led to the development of an achievable approach to meeting the federal programmatic requirements. This comprehensive program was submitted for approval in July of 1995. This fall, Rhode Island was one of four coastal states to be the first to receive from NOAA and EPA final approval of its proposed CNP.

Over the next few years, the CRMC will be amending the Rhode Island Coastal Resources Management Program to reflect the specific language contained in EPA and NOAA's approval guidance. In addition, the Council has already adopted innovative regulations to meet programmatic requirements and facilitate compliance by the regulated community. For example, by allowing certain upland activities to be undertaken without prior CRMC approval, regulations that encourage marina owners to prepare and implement operations and maintenance plans should result in a high level of voluntary compliance with programmatic requirements.

Rhode Island has much to be proud of with respect to the last 25 years of implementing the CWA and bringing point sources of pollution under control. Now, with the approval of Rhode Island's CNP, the state is entering a new phase in its efforts to protect and restore coastal waters. The Council, through implementation of those parts of the CNP under its jurisdiction, as well as through the use of other planning tools such as its Special Area Management Plans, looks forward to improved water quality and better nonpoint source pollution control. However, it is only with the support and cooperation of other state agencies, the municipalities, environmental groups, industries and, most importantly, each citizen of the state, that we will successfully meet this new challenge of controlling nonpoint source pollution in Rhode Island's coastal waters.

NOAA and EPA Issue Final Approval of State's Coastal Nonpoint Program

Rhode Island's Coastal Nonpoint Program (CNP), developed in accordance with requirements contained in section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA), was jointly approved by NOAA and EPA this past September. Through the Interagency Nonpoint Source Advisory Committee and its technical subcommittees, the CNP was developed by the CRMC, the RIDEM and the Division of Planning and submitted to NOAA and EPA in July of 1995.

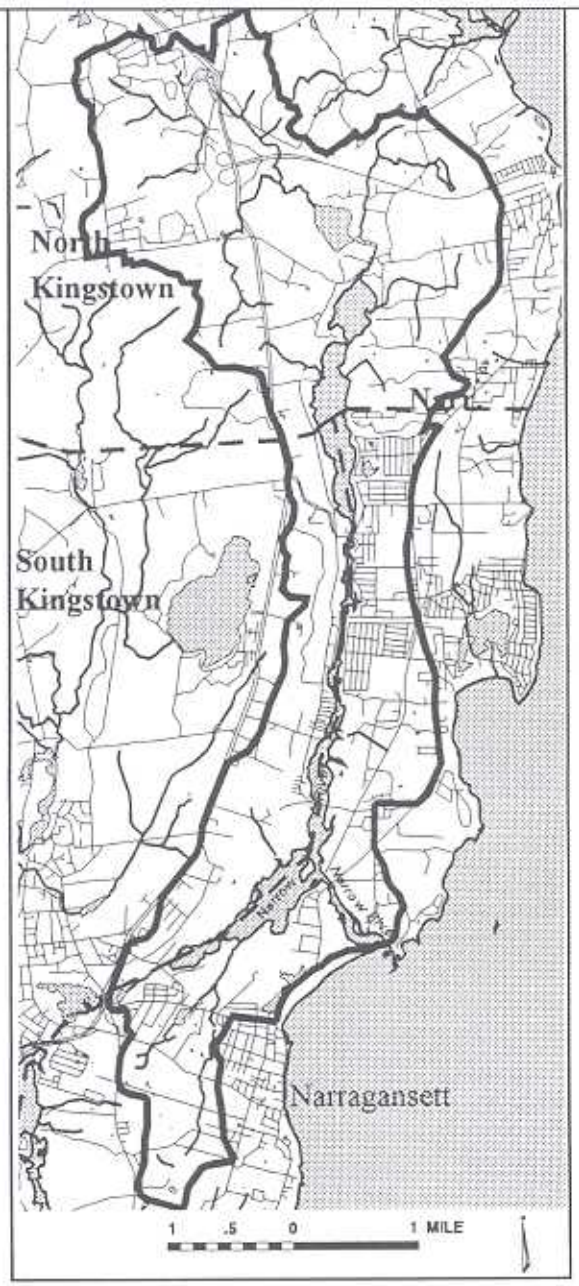
Under section 6217, coastal states were required to develop CNPs which address five specific land use activities identified as sources of nonpoint pollution in our nation's coastal waters. These activities are: agriculture; forestry; urban development (including sources such as septic systems, roadways and stormwater runoff); marinas and recreational boating; and hydromodifications. CNPs must also address the preservation and restoration of wetlands and riparian areas and promote the use of vegetative treatment systems. Every state with a federally approved coastal management program was required under section 6217 to develop a strategy for the implementation of specific management measures in each of these areas or face funding penalties to both the state's coastal management program and the nonpoint pollution control programs developed under section 319 of the Clean Water Act. Strategies had to include a reliance upon enforceable policies and mechanisms, such as laws and regulations, rather than approaches which relied upon voluntary programs and compliance.

Because the program requirements were developed based on national water quality data and concerns, states had the opportunity to exclude certain sources or measures when it could be shown that the source either did not exist in the state, or that it could not reasonably be expected to present significant threats to coastal resources or human health. Due to their minimal impact on the state's coastal waters, Rhode Island's CNP proposed exclusions from management measures related to forestry and agricultural activities. NOAA and EPA agreed with this assessment, except for management measures for confined animal facilities and nutrient management as it applies to animal waste, which, under the terms of program approval, are required to be implemented within three years.

In addition to the conditions for approval related to agriculture, approval of Rhode Island's CNP contained conditions for management measures on construction site chemical control, inspection of existing on-site sewage disposal systems, and protection of nitrogen-limited surface waters. The state must also develop a process for identifying opportunities and, where appropriate, implement practices to: improve surface water quality and habitat related to hydromodifications (generally, construction of new and maintenance of existing channels and dams); and protect existing wetlands and riparian areas that are not being actively altered, but which serve a significant nonpoint source abatement function. As a final condition, the state must develop a monitoring plan that will allow it to assess over time the extent to which implementation of management measures is reducing pollutant loads and improving water quality.

Since Rhode Island's CNP was submitted in July of 1995, section 6217 has withstood significant criticism and a number of threats in Congress. These have focused primarily on the ambitious timeframe for program implementation, the difficulty in meeting the requirement for enforceable policies and mechanisms, and the lack of adequate funds for program development and implementation. Currently, NOAA and EPA are considering administrative changes to allow greater flexibility in program implementation. While these changes may effect Rhode Island's CNP in the long term, both the state and NOAA and EPA are moving forward in program implementation.

Revisions to Narrow River and Salt Ponds



Narrow River Watershed

RIGIS, 1995

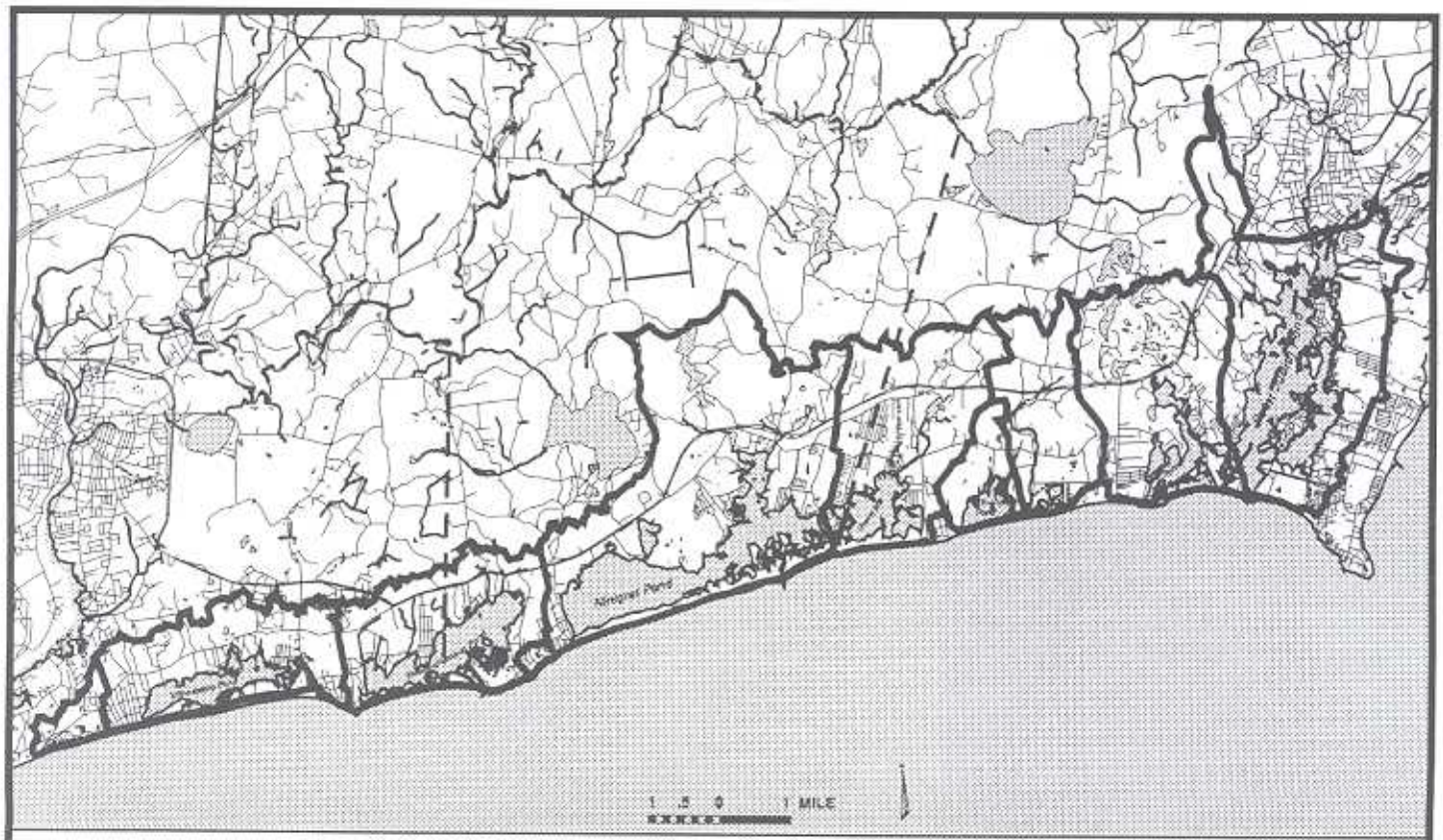
Over the past three years, the Council has been working on revisions to two of its Special Area Management Plans (SAMPs); the Narrow River SAMP and the Salt Pond Region SAMP. The revisions are based on new information provided by the Coastal Resources Center at URI, Rhode Island Sea Grant, URI Department of Geology, the Rhode Island Historic Preservation Commission and the RI Department of Environmental Management. In partnership with the effected municipalities, the CRMC originally developed and adopted the Salt Ponds SAMP in 1984, and the Narrow River SAMP in 1986. The Salt Ponds SAMP region falls within the Towns of Charlestown, South Kingstown and Narragansett, and the Narrow River SAMP region falls within the Towns of Narragansett, South Kingstown and North Kingstown. Since their adoption, numerous amendments, including the addition in 1988 of the Town of Westerly into the Salt Pond SAMP, have been made to both plans.

The revisions to each of these SAMPs has allowed the Council to evaluate their effectiveness in protecting coastal resources in these critical areas, and where necessary, make changes to correct deficiencies, account for land use changes and trends, and better ensure the protection of these areas for future generations. Supported by NOAA's competitve Projects of Special Merit grant program (section 309 of the Coastal Zone Management Act), the revisions incorporate new research on cumulative impacts and nutrient loading, new geologic processes data, recent changes in state land use laws, and updated mapping technologies. A process for coordination of review between developers, local officials and other regulatory bodies consistent with the Land Development and Subdivision Review Enabling Act of 1992 has also been incorporated. To facilitate their use, the SAMPs have been reformatted so that regulatory requirements are clearly laid out in the final chapter of each SAMP.

A major issue addressed in the research and revisions is that of nitrogen loading. Nitrogen from individual sewage disposal systems, fertilizers, and animal wastes is transported to the salt ponds and Narrow River through groundwater and storm water. High concentrations of nitrogen are considered a public health hazard and can cause serious illness in infants. In addition, sustained additions of nitrogen to coastal waters can cause excessive growth in seaweeds and phytoplankton. This results in a loss of eel grass which provides critical habitat for a number of commercially and recreationally valuable fin and shellfish species.

The most significant changes to both of these plans are to the land use classification system, which controls development densities, and new requirements for denitrification systems based on the results of the cumulative impacts and nutrient loading study. In accordance with the proposed changes, the

special area management plans near completion



Salt Pond Region

Surface Watershed Boundary

RIGIS, 1995

maximum density for development in areas classified as Lands of Critical Concern will be amended from one residential unit per two acres to one residential unit per three acres. The Council is also proposing to require denitrification systems for new development in areas identified as Developed Beyond Carrying Capacity, and for new development and improvements to existing systems (or replacement) on lots in areas classified as Lands of Critical Concern and Self-Sustaining Lands which are smaller than the mandated minimum lot size.

This fall, the CRMC held three public workshops on the revised SAMPs; one in Charlestown on October 23, one in Narragansett on October 27, and one in Westerly on November 3. Based on public input received at these workshops, appropriate changes will be made to the drafts. Council staff is also meeting with planners and user groups to explain the proposed changes and solicit input. The draft revised SAMPs will then again be reviewed by the Council's Planning and Procedures Subcommittee. Provided there are no significant problems, final drafts of the SAMPs should be ready for a formal public review before the end of November.

Copies of the draft revised Salt Ponds and Narrow River SAMPs are available for review at the CRMC's Wakefield office located at the Stedman Government Center, 4808 Tower Hill Rd. Copies are also available at the town planning offices of the towns within which the SAMP area lies. Accordingly, copies of the Salt Pond SAMP are available for review in Westerly, Charlestown South Kingstown and Narragansett, and copies of the Narrow River SAMP are available in Narragansett, North Kingstown and South Kingstown.

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