

Coastal Features



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CRMC to Implement Special Area Management Plan for Greenwich Bay

STATE HOUSE -State Representatives Peter T. Ginaitt (D-Dist. 33) and Eileen S. Naughton (D-Dist. 32) announced a \$250,000 federal grant that will fund the creation of a Special Area Management Plan (SAMP) for Greenwich Bay through the Coastal Resources Management Council (CRMC).

SAMPs are flexible management tools that take a comprehensive look at all aspects of resources, development, pressures, and uses of an area like Greenwich Bay, which is bordered by the City of Warwick, and the Town of East Greenwich. The Greenwich Bay SAMP will be created by the Rhode Island Sea Grant Program at the University of Rhode Island, with input from numerous local, state, and federal agencies and organizations concerned with the bay and its development.

"This money means a lot for the future of Greenwich Bay," said



Standing at the shore of Greenwich Bay, CRMC Chairman Michael Tikoian announces the \$250,000 grant award to create a SAMP for the bay. Chairman Tikoian is flanked by Rhode Island State Representatives Peter T. Ginaitt (l) and Eileen S. Naughton (r), while the Mayor of the City of Warwick, Scott Avedisian, listens in the background.

Representative Ginaitt, who represents part of Warwick and serves as chair of the Joint Committee on Environment and Energy. "This plan is long overdue, and in light of recent activities on the bay, it is clearer now more than ever that we need a complete and concise road-map for its future. I want to thank CRMC for working hard to get this funding as a way to secure a bright future for Greenwich Bay."

(see SAMP, page 2)

Jeff Willis Named CRMC Deputy Director



The CRMC is pleased to announce the promotion of Jeff Willis to the position of Deputy Director of the agency. Jeff began his tenure at CRMC as an intern in 1988, and was hired as a research associate the same year. His early projects included assisting in the development of the harbor management planning process and the Pawcatuck River Estuary Interstate Special Area Management Plan (SAMP).

(see Willis, page 2)

(Willis, from page one)

He assumed overall project management of the Pawcatuck River SAMP when he was promoted to the position of Marine Resource Specialist in 1990.

Jeff was sometimes (affectionately) referred to as “Dredge Willis” for his dedicated coordination of the CRMC’s role in the Providence River Dredging Maintenance Project. Jeff has also been the Policy Division Supervisor since 1994. Some notable accomplishments that he has overseen in that capacity include the development of the RI Coastal Nonpoint Pollution Control Program, significant revisions to both the Salt Pond Region and Narrow River SAMPs, and the development of the Coastal Habitat Restoration Initiative. In addition, Jeff has been responsible for developing the CRMC’s annual budget in his role as the Policy Supervisor. Jeff’s growing mastery of the substance and subtleties of the CRMC’s entire coastal resources management program was reflected by his promotion to Supervising Environmental Planner in 1998. The CRMC looks forward to benefitting from Jeff’s continued excellence as the new Deputy Director.



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(SAMP, from page one)

The CRMC secured the grant from the National Oceanic and Atmospheric Administration (NOAA).

Representatives Ginaitt and Nauhgtton said the creation of the plan will involve a partnership with a number of interested agencies and organizations, including CRMC, Rhode Island Sea Grant, the Department of Environmental Management, the City of Warwick, the Town of East Greenwich, the Natural Resource Conservation Service, the Warwick Sewer Authority, the Marine Trade Association, Save the Bay, and others.

“This plan is something that’s been needed for a very long time and I’m so glad to see that it’s finally going to happen,” said Representative Naughton, who represents part of Warwick and is Chairwoman of the Rhode Island Legislative Commission on Aquaculture. “There are so many different elements that have an impact on the bay, from non-point source pollution to recreational uses to development along its shores. This grant means that all the different aspects will be looked at as a whole rather than piecemeal each time a new issue arises.”

Sea Grant is expected to spend two to three years to develop the Greenwich Bay SAMP,

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Coastweeks 2002 Planning Begins

The Coastal Resources Management Council and Rhode Island Sea Grant have begun planning for Coastweeks 2002, the 21st annual nationwide “Celebration of the Coast.” Coastweeks in Rhode Island will be celebrated from September 4 through Columbus Day, October 14.

Coastweeks 2001 was the most ambitious ever in the state, with 38 sponsors participating. A similar level of participation is expected for Coastweeks 2002.

Past activities have included a day of trawling on board the URI Fisheries vessel Cap’n Bert, marine crafts for kids, displays at public libraries, coastal cleanups, discounted admissions to maritime themed museums, seafood cooking demonstrations with RI’s own Chef Terranova, seaside nature walks, lectures, and many others.

In order to have your organization’s activity included on the Coastweeks 2002 Calendar of Events, please contact Monica Allard-Cox at RI Sea Grant at allard@gso.uri.edu or (401) 874-6937. Also visit the RI Sea Grant website at <http://seagrant.gso.uri.edu>

South County Rivers Day 2002: June 15

Governor Almond has proclaimed the third Saturday in June as Rivers Day - a day for all Rhode Islanders to celebrate the many rivers that wind their way throughout the state. In response, the organizations that work to protect South County's rivers, ponds, and streams will sponsor a full day of community events for all ages on June 15. Presented by the Washington Trust Company, events and activities will be held throughout the Narrow River, Saugatucket, and Wood-Pawcatuck watersheds during the day. Except where noted, planned events are free of charge. There will be a river cleanup, a canoe trip, kayak races and a kayak raffle, exhibits of sea creatures, a chance to sign up for volunteer projects, and a block party featuring caldrons of fire in the river. The Saugatucket River Lights are sponsored this year by the South County Tourism Council. Events are scheduled so participants will be able to choose activities in more than one watershed during the day and then, in the evening, to come together for food and music on Wakefield's Main Street. In addition, admission to Casey Farm and the Gilbert Stuart Homestead will be free, with educational programs and tours for all Rivers Day visitors.

SCHEDULE OF EVENTS:

- | | |
|------------------|--|
| 9 a.m. – | 8-mile Canoe Trip on the Wood River
Put in at Hope Valley Fishing Access, Hopkinton (Pre-registration required: call 539-9017) |
| 10 a.m.-Noon – | Saugatucket River Cleanup
Meet at the Pedestrian Footbridge behind Fiddleheads Café, Wakefield |
| 10 a.m.-2 p.m. – | Rowing Clinic with URI Women's Varsity Rowing Team
Campanella Rowing Center, Walmsley Lane, North Kingstown |
| 11 a.m.-2 p.m. – | Bay to Breakers Paddle (free of charge), & six and nine-mile Kayak Races* (Bring your own kayak)
Narrow River Kayaks, Middlebridge Road, Narragansett |
| 11 a.m.-4 p.m. – | Gilbert Stuart Birthplace Educational Programs & Tours
Gilbert Stuart Road, North Kingstown |
| 11 a.m.-5 p.m. – | Casey Farm Tours
2325 Boston Neck Road, North Kingstown |
| 1-4 p.m. – | Sea Creatures Petting Tank, Storm Drain Marking Sign-Ups, & Kayak Raffle
Mettatuxet Beach, Narragansett |
| 6 -10 p.m. – | Block Party with Music by King Huey & Saugatucket River Lights
Main Street, Wakefield |

Planning for the fourth annual South County Watersheds Rivers Day was coordinated by the Narrow River Preservation Association (NRPA), the Saugatucket River Heritage Corridor Coalition (SRHCC), and the Wood-Pawcatuck Watershed Association (WPWA), with assistance from the Rhode Island Department of Environmental Management. The project is one of many ways these groups work together to build appreciation of and protection for all the waters of South County. Other Rivers Day sponsors include United Builders Supply, South Kingstown Parks and Recreation, Pizza Place, and Ocean Pharmacy.

*Note: \$15 entrance fee for 2 races, for refreshments and to benefit the NRPA. All other events are free of charge.

Reprinted by permission of NRPA

CRMC Presents Block Island Erosion Rate Data at 'Shoreline Change Conference 2002'

CRMC Coastal Geologist Janet Freedman presented the results of her research on Block Island erosion rates during *Shoreline Change Conference 2002*, May 7-9, at the NOAA Coastal Services Center in Charleston, South Carolina. Freedman was among a select group of researchers that are tackling the complex issue of measuring erosion rates in the nation's coastal areas. Her project titled "*Bluff Erosion Rate in Complex Glacial Stratigraphy, Block Island, RI*," examined erosion on the island for the period 1939-1999.

Freedman said Block Island was formed as the result of the advance and retreat of the continental glaciers until about 20,000 years ago. The sediment comprising the island was deposited during two separate events and can be distinguished by color and composition. The lower sediment body consists primarily of compacted base till, or very fine grained lake deposits. The upper sediment is coarser grained and less compacted, making it more permeable than the underlying strata. The island stratigraphy is complex, resulting in a mix of permeable and poorly permeable deposits. Over-steepened bluffs rise more than 100 feet above northeastern and southern shores of the island. Bluff erosion is both chronic (grain flows) and catastrophic (debris flows and slumping due to oversaturation of permeable sediment).*

Freedman calculated bluff erosion rates by delineating the edge of the bluff for the years 1939, 1972 and 1999 on 1:12000 high resolution (300dpi) vertical aerial photographs. The photographs were geo-referenced with Geographic Transformer using the RIGIS 1997 1:5000 scale orthophotography as a reference map. An ArcView shape file was created by delineating features such as stonewalls and roads on the orthophotos. This



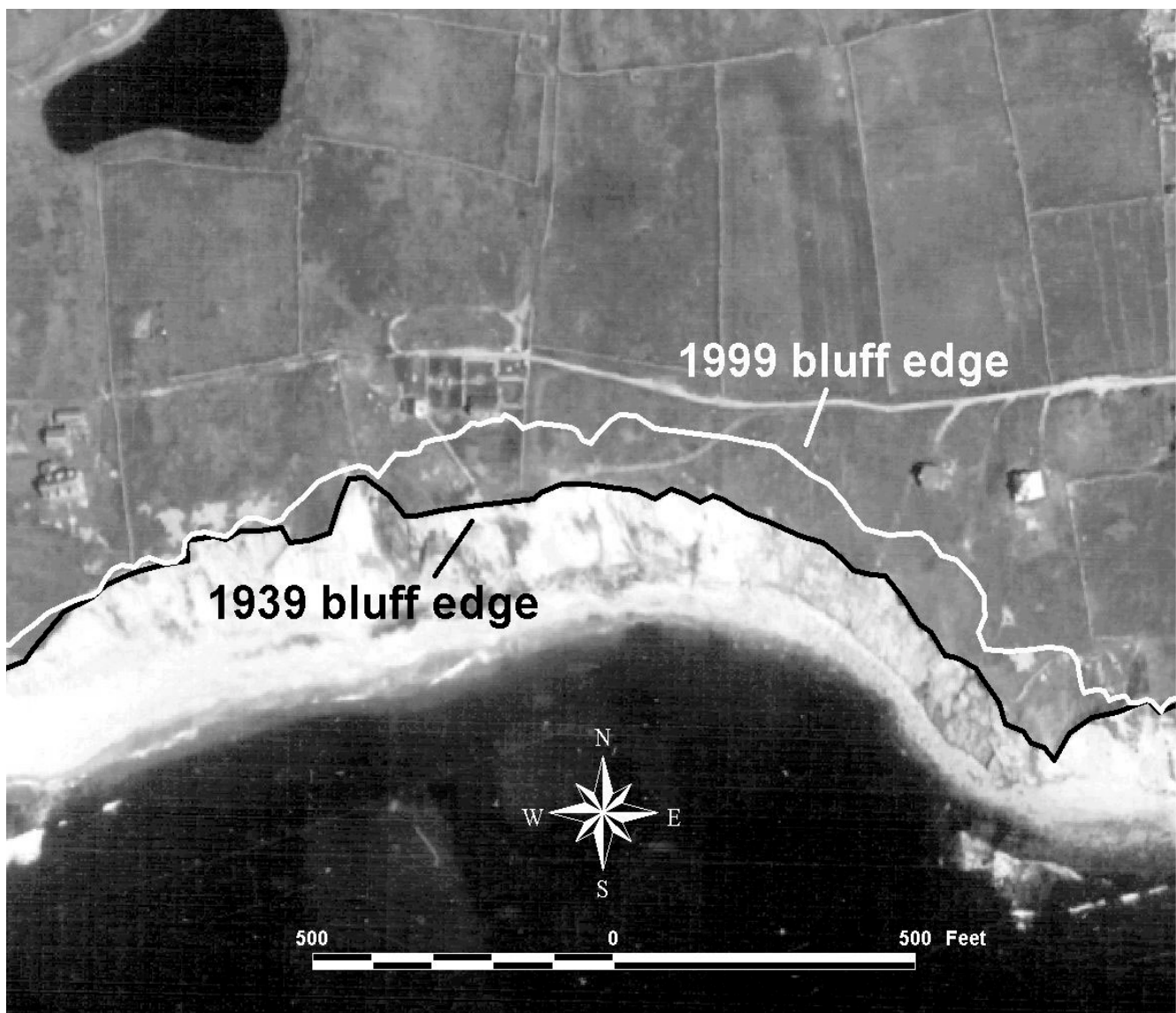
Block Island: Southeast Bluff

(Photo courtesy Dr. Jon Boothroyd)

shape file was used to check the accuracy of the transformations. Erosion rate polygons were created from the bluff edges delineated from the 1939 and 1999 aerial photographs. The volume and length of each polygon was measured to calculate average annual erosion rates. The preliminary results showed bluff erosion rates for Block Island to be relatively low (0.6 feet per year average). Preliminary data for rates between 1972 and 1999 were similar to 1939 to 1999 erosion rates suggesting that there are forcing mechanisms controlling erosion rates along critically eroding sections of shoreline. Wave climate can explain the rapid erosion in some sections, like the northeasterly facing shoreline on the north bluff that receives the brunt of wave energy during nor'easters. In other sections, stratigraphy may play an important role.

For management purposes, the Coastal Resources Management Council currently bases shoreline erosion setbacks on the average annual erosion rate with a minimum setback of fifty. While Freedman said that this approach works well in homogenous stratigraphic environments such as coastal barrier beaches, in areas with complex stratigraphy such as Block Island, setback modifications may be necessary. In such cases, maximum retreat values may be a more significant measure than averages.

** See Coastal Features Volume 9, Issue 3 for a story on the April 10, 2001 catastrophic erosion event at Block Island's Mohegan Bluffs.*



(Photo courtesy of RIGIS)

1939 Vertical Aerial Photograph of Block Island's Southern Bluffs showing 1939 and 1999 bluff edges.

CRMC Releases 2001 Annual Aquaculture Report

The CRMC's annual report on the status of the aquaculture industry in Rhode Island was recently completed and is available to the public. Persons interested in acquiring a copy of the report may do so by contacting the CRMC. The report notes that a significant boost for aquaculture occurred during 2001 when a \$1.5 million grant was secured through the efforts of Senator Jack Reed to fund the Rhode Island Aquaculture Initiative. The grant will be used to directly support the aquaculture industry in the state by providing seed money for new aquaculture enterprises, and to assist existing aquaculturists to diversify their operations. Existing initiatives such as the Roger Williams University shellfish restoration project, the CRMC working group will also receive support through the grant. Two university extension positions - one shellfish and one finfish - will also be funded via the grant. Finally, a series of large grants will be made available to support research with direct application to the RI aquaculture industry. The following list from the report is a summary of the state's aquaculture industry during the year 2001:

- The farm gate value of Rhode Island raised aquaculture products decreased 4.7% due to the economic slow down;
- This is the first decrease in the past six years;
- The number of farms in Rhode Island decreased by 38%;
- The total acreage under cultivation in Rhode Island increased 72% to 51.5 acres;
- Aquaculture related industries in Rhode Island had gross revenue of \$3.9 million dollars during the calendar year 2001, a 26% increase over the previous year;
- The RI CRMC received a \$1.5 million grant for the "Rhode Island Aquaculture Initiative" to be used toward aquaculture planning and advancement;
- The two universities conducting aquaculture related research in Rhode Island brought in \$1.5 million dollars from outside sources during the year 2001.
- These two universities served 14 private companies in Rhode Island during the year;
- Aquaculture directly supported 65 full time employees and 11 part time employees during 2001;
- The total contribution of aquaculture to the economic bottom line of the State of Rhode Island was \$5.4 million. This figure does not include the \$1.5 million Rhode Island Aquaculture grant or the \$1.7 million tuition paid by aquaculture students at URI;
- CRMC initiates aquatic Bio-Security Board to protect Rhode Island's cultured and indigenous species;
- Regulatory agencies charged with responsibility for aquaculture continued to make progress in streamlining the permitting process;
- Regulatory agencies continued to involve stakeholders in the planning and regulation of aquaculture during the year 2001;
- Rewriting of fishery and aquaculture regulations will put Rhode Island at the forefront for rational regulations.

CRMC Hires Coastal Policy Analyst

Megan Higgins, who joined the CRMC staff on May 6 is a familiar face at the agency. Megan worked as a policy intern with the CRMC last summer and contributed legal expertise to numerous projects including mooring management and dredging. A 2001 graduate of the Roger Williams University School of Law, Megan recently passed both the Rhode Island and Massachusetts Bar exams. In addition, she holds a Master of Arts in Marine Affairs from the University of Rhode Island and Bachelor of Science in Environmental Studies from the University of Vermont. Megan will initially oversee the CRMC's Coastal Habitat Restoration program and public rights-of-way issues.

Habitat Restoration Portal: Coming Soon to a Computer Near You

The Rhode Island Habitat Restoration Portal is a web-based coastal habitat restoration plan and information system for Rhode Island. The Habitat Restoration Portal is the result of a partnership between RI Coastal Resources Management Council, the RI Department of Environmental Management Narragansett Bay Estuary Program and Save The Bay, Inc. in conjunction with the Rhode Island Habitat Restoration Team. The project is funded through the National Oceanic and Atmospheric Administration Landscape Characterization Program at the Coastal Services Center and the University of Rhode Island Environmental Data Center.

The purpose of the Habitat Restoration Portal is to provide data and information about habitat restoration in Rhode Island to the public, federal and state agencies, and nonprofit groups. The primary focus is on seagrass, riverine (fish runs), and salt marsh habitats. Examples of data and information include: descriptions of flora and fauna commonly found in Rhode Island's coastal habitats; information on restoration permitting; interactive mapping; information on potential sources of funding; restoration decision support models; GIS coverages; and query tools. The objective is to create an information system that can be used to apply for grants, select potential projects, educate the public, and assist the state to develop a foundation for making decisions about funding projects.

Habitat restoration is necessary for a variety of reasons. Habitat restoration is being used to reintroduce locally extirpated rare plant species and to create habitat for threatened and endangered wildlife. The restoration of wetlands and riparian areas is helping to reverse long-term trends in habitat-loss, which have occurred over the last century. Numerous small and large-scale projects are underway to restore the natural hydrology, soils, and vegetation to habitats around Rhode Island.

The Restoration Team anticipates that the Portal will be completed in early September. Stay tuned for the website address, as comments from internet viewers will be helpful in updating the site and, ultimately, in restoring much of Rhode Island's habitat.





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and where possible restore, the coastal resources
of the state for this and succeeding generations”***

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