

National Coastal Management Program News

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New Beach Fill Rules Effective in North Carolina

A new set of rules designed to ensure the quality of sand used for beach nourishment projects in North Carolina took effect February 1, 2007. The rules, governing Technical Standards for Beach Fill Projects, require those projects to meet a new set of criteria for determining compatibility of the sand used to nourish North Carolina beaches.

The North Carolina Coastal Resources Commission (CRC) adopted the rules last November based on recommendations from the Coastal Resource Commission's Science Panel on Coastal Hazards, data analysis and review by the Division of Coastal Management and input from numerous stakeholder groups.

The new rules are a significant step forward in North Carolina's efforts to improve the quality of material used in beach nourishment projects and will greatly reduce the possibility of finding rocks, mud and other incompatible materials on nourished beaches along the coast.



*Beach fill project on Bogue Banks, NC.
Photo courtesy of Rudi Rudolph.*

Because North Carolina law prohibits "hard" oceanfront structures, such as seawalls and groins, beach fill has become a popular alternative for erosion control. Sediment for many large-scale beach fill projects is either a byproduct of navigation maintenance projects within inlets and the Atlantic Intracoastal Waterway, dredged from offshore deposits, or excavated and transported to the beach from upland locations. The sediment from these sites may be significantly different in character from the beach on which it is to be placed.

The CRC's previous rule, which stated only that sand used for beach nourishment must be compatible with existing grain size and type, was deemed vague, and the Commission's Science Panel on Coastal Hazards began working to develop new sediment criteria in 2002. The Science Panel provides the Commission with scientific data and recommendations pertaining to coastal topics.

The new rules provide an objective definition of sediment compatibility for beach fill projects, and outline specific protocols for sampling both the beach scheduled to receive nourishment and the proposed borrow site, in order to correctly characterize the material found there. These methods will help ensure that future beach fill projects will closely mimic the native characteristics of North Carolina's beaches.

For more information on the new sediment criteria rules visit the Division's website at www.nccoastalmanagement.net/sediment.htm or contact Jeff Warren at jeff.warren@ncmail.net.

CNMI's Marine Monitoring Team Celebrates 10 Years

In the summer of 1997, illegal land clearing resulted in extreme erosion of red volcanic clay above Lau Lau Bay, one of the prime scuba diving sites on the island of Saipan in the Commonwealth of the Northern Mariana Islands (CNMI). As no single local resource management agency had the capacity to assess the problem, the Division of Environmental Quality (DEQ) led the formation of an interagency marine monitoring team (MMT) with the assistance of the Coastal Resources Management Office (CRM) and the Division of Fish and Wildlife. Ten years later, the MMT continues to provide resource managers with data needed to make informed decisions about the marine environment.



Marine Monitoring Team member takes a video transect of a reef.

While full-time technical staff from CRM and DEQ lead the program, most of the personnel come from non coral-focused programs. CRM enforcement officers and members of DEQ's Nonpoint Source Pollution Branch, Safe Drinking Water Branch, Environmental Surveillance Laboratory, and Wastewater, Earthmoving & Erosion Control Branch all participate in the team's bi-weekly monitoring activities. Despite their diverse official duties, all have successfully completed marine survey training and scientific diving certifications.

The MMT's program has matured into a holistic program designed to gain a critical understanding of nearshore coral reef ecology. The MMT now annually surveys over 40 sites around the islands of Rota, Tinian, Agijuan and Saipan. These surveys provide the basis of a series of State of the Reef Reports for CNMI that have been published since 2000. The studies conducted by the MMT have contributed to technical reports and peer reviewed publications. An intensive marine habitat mapping effort in the 18 km long

Saipan lagoon is also nearing completion and will support decisions regarding the placement of marine protected areas and boost local capability to assess environmental change.

One of the outstanding aspects of the MMT's efforts is the direct applicability of the data gathered to local management issues. The MMT's surveys have documented a continued decline of coral communities at Lau Lau Bay, despite initial restoration efforts. This information was used to secure funding for a watershed restoration initiative. Though coral reef recovery is still a few years away, the ability to monitor change over the long-term is a critical tool for assessment of the eventual success of this project.

For additional information, contact John Starmer at john.starmer@crm.gov.mp. Visit cnmicoralreef.net/monitoring.htm to learn more about CNMI's Marine Monitoring Team, and www.crm.gov.mp/projects/laulau.asp to find out more about Lau Lau Bay restoration efforts.

Seafloor Mapping Cooperative in Massachusetts

The Massachusetts Office of Coastal Zone Management (CZM) and United States Geological Survey (USGS) Woods Hole Science Center initiated the Seafloor Mapping Cooperative in 2003 to address the need for acquiring datasets on the spatial distribution of benthic resources to help resource management. The goal of the cooperative is to comprehensively map the seafloor in Massachusetts. The program is a successful partnership, funded by a combination of state, federal (USGS and National Oceanic and Atmospheric Administration), and private sector contributions, while effectively leveraging expertise and technology within state and federal agencies.

Seafloor mapping provides an unparalleled view of the underwater world that help scientists understand the ocean environment, assists regulators to manage coastal and ocean resources, and inspires a greater appreciation of the diversity of estuarine and marine habitat and life. The seafloor is mapped by collecting and interpreting complex data sets. Sonar—or acoustic—systems, such as swath bathymetry, sub-bottom profiling, and sidescan sonar, are used to map the physical structure of the seafloor. The sonar data are groundtruthed using underwater imagery and benthic grabs. The acoustic and groundtruthed data are combined in a GIS (geographic information system) to facilitate data interpretation, map production, and data distribution.

From 2003-2006, 897 km² (346 mi²) of seafloor were mapped, with an additional 300 km² (116 mi²) planned in 2007. Maps and geospatial data are available for the North Shore (Gloucester to Nahant), Boston Harbor and eastern Cape Cod, and are being prepared for Ipswich Bay (Cape Ann to Salisbury), the South Shore, and western Cape Cod Bay (Hull to Sagamore). Mapping in Massachusetts waters seamlessly meshes with existing seafloor charts from western Massachusetts Bay, Stellwagen Bank, and Jeffreys Ledge.

These mapping efforts reveal the complexity of the seafloor landscape and are a large step toward a greater understanding of seafloor habitats. Furthermore, seafloor maps are widely used by collaborators and stakeholders and are facilitating better management of ocean resources.

Maps are used to identify habitats and shipwrecks, guide scientific research and monitoring, track distribution of invasive species, mark navigation routes and potential hazards, site seafloor construction projects, and design dredging and dredged material disposal plans. In addition to publishing maps and data depicting the distribution of bottom types and water depths, outreach material is being produced and mapping workshops are being organized to raise awareness and promote stewardship for the ocean environment. For additional information, online technical reports and to view completed maps, visit the project website at woodshole.er.usgs.gov/project-pages/coastal_mass/, or contact Anthony Wilbur at tony.wilbur@state.ma.us.

Significant Land Acquisition Agreement in Puerto Rico

The Puerto Rico Department of Natural and Environmental Resources (DNER) entered into a land acquisition agreement in early March that will protect a large area of land on the northeast coast. This land has high natural and ecological values and is adjacent to the largest mangrove lagoon in Puerto Rico: the Piñones Natural Reserve. The land previously had been slated for a large development which had received approval over a decade ago, and would have included the largest hotel development in Puerto Rico. Governor Anibal Acevedo-Vila announced that the Puerto Rico Government will buy part of the land from the developer who has agreed to abandon its construction plans.

DNER continues to promote the acquisition of lands under the Land Stewardship Program, Natural Heritage Program, and the High Ecological Value Trust, and recently submitted its first proposal to the Coastal and Estuarine Land Protection program. Other conservation partners such as the Puerto Rico Conservation Trust, the U.S. Fish and Wildlife Service, and the U.S. Department of Agriculture also acquire lands for protection. A project by Governor Anibal Acevedo-Vila called “Heritage 100,000” aims to acquire over 100,000 acres over the next 10 years.



The Piñones area of Puerto Rico.

During the past two years, over 10,000 acres of important ecological lands have been already acquired and designated for protection in Puerto Rico. For more information, contact Ernesto Diaz, ediaz@drna.gobierno.pr.

Wisconsin CMP Immerses Reporters in Great Lakes Environmental Issues

In July 2006, the Institutes for Journalism and Natural Resources, a non-profit group based in Madison, Wisconsin, held their fifth-annual Great Waters Institute; a nine-day, field-based program that immerses reporters and editors in pressing Great Lakes environmental issues.



Reporters are educated about Great Lakes issues along Lake Michigan.

For the last two years, The Wisconsin Coastal Management Program has helped fund the Great Waters Institute (GWI), welcoming journalists from *The Wisconsin State Journal*, *The Washington Post*, *The Associated Press*, and others to Wisconsin’s coastal zone for an up-close and personal Great Lakes experience. During the course of the GWI, reporters learn about current Great Lakes environmental issues from industry, academia, state/local government, and non-profit experts.

Topics covered this year included: management and research efforts to control the invasive *Cladophora* algae; coal-fired power plants; dairy farming and combined animal feeding operations in the coastal zone; and many others. In addition to publication in daily newspapers, these Great Lakes-related stories are broadcast to thousands of people nationally through the Great Lakes Information Network, an informational email service. For more information, please contact Mike Friis at michael.friis@wisconsin.gov.

New Hampshire Grant Program Goes to the Dogs

The New Hampshire Coastal Program at the Department of Environmental Services (DES) and the DES Watershed Assistance Program have teamed up to help improve area water quality with a new grant program, how-to manual and workshop to address dog waste.

The Scoop the Poop Campaign began when the University of New Hampshire and DES researchers found elevated bacteria levels at several sites in the Great Bay Coastal Watershed, including the Garrison Road neighborhood in Dover, during a 2004 microbial source tracking study. The bacteria were linked to dog waste through a forensic technique called ribotyping. To help address the problem, the New Hampshire Coastal Program and Watershed Assistance Program partnered with the town of Dover to launch an outreach program in 2005 that included a planning committee, logo design contest and storm drain stenciling events in the Garrison Road area. This outreach program was so successful that it went citywide in late 2005 and generated interest among neighboring towns, especially those where science supported the need for management.



Winning logo from Garrison Road neighborhood Pet Waste Outreach Program, Dover, NH.

With more folks interested in doing their own pet waste outreach projects, the Coastal Program and Watershed Assistance continued their partnership and established new grant program, published a guidance manual, and hosted a training workshop. The how-to manual, “The Inside Scoop: How to Conduct a Pet Waste Outreach Campaign,” provides a step by step guide to developing a successful program, as well as suggested outreach activities, resources and

examples. In February, ten people attended a project development workshop on how to use the manual to develop a pet waste outreach campaign.

In addition to the how-to manual and training workshop, the partnership is also using Environmental Protection Agency Nonpoint Source Pollution Program funds to award \$50,000 in pet waste outreach grants to state agencies, local governments and nonprofit organizations.

For more information contact Sally Soule at ssoule@des.state.nh.us or visit www.des.nh.gov/Coastal/scoopthepoop.htm.

Virginia CZM Program Assists International Oyster Researchers

Omar of the Reef, official mascot of the Virginia Coastal Zone Management (CZM) Program's oyster restoration and gardening efforts, traveled to Chiba Prefecture, Japan to assist with outreach at the U.S.-Japan Oyster Reef Symposium on April 8, 2007. The collaborative symposium, organized by Japanese researcher Urara Takashima, brought together oyster experts from the two countries, including Dr. Mark Luckenbach from the Virginia Institute of Marine Science, to focus on the ecological value of natural oyster reef habitat. Research on oysters in Japan has historically focused on commercial oyster aquaculture. Funding for the U.S.-Japan Oyster Reef Symposium was furnished by the Nature Conservation Society of Japan.



Omar (and Seacil the Seahorse) with a group of campers.

Urara Takashima visited Virginia last spring to learn more about the state's oyster reef restoration efforts and gardening practices after discovering wild oysters in Tokyo Bay. The partnership between Virginia and Ms. Takashima began with an e-mail to the Virginia Coastal Zone Management Program for more information about oyster reef habitat. The program responded with oyster educational materials, including images of Omar. Ms. Takashima shared these materials in her efforts to educate Japanese citizens about the value of oyster reef habitat. At the behest of school children, who thought Omar needed a Japanese friend, she created "Kaki-hime," or "princess oyster." A Japanese translation of Virginia's oyster gardening manual is also being distributed.

The Virginia CZM Program has invested significant coordinative effort and funding to help protect and restore the Chesapeake Bay's native oyster populations. For example, between 2001 and 2003 Virginia CZM invested over \$1.5 million in the Virginia Oyster Heritage Program, a public-private partnership initiated by the Program. This partnership constructed over 80 sanctuary reefs and 1,000 acres of harvest area in Virginia's coastal waters. To learn more about the Program's recent oyster restoration efforts go to the Virginia Seaside Heritage Program at www.deq.state.va.us/coastal/vshp/homepage.html. For more information, please contact Virginia Witmer at vgwitmer@deq.virginia.gov.

2007 Program Managers' Meeting Highlights

NOAA's Office of Ocean and Coastal Resource Management hosted the annual Program Managers' Meeting in Washington D.C. from March 7-9, 2007. The meeting brought together over 200 federal and state employees from Coastal Zone Management Programs, National Estuarine Research Reserves, National Marine Sanctuary Programs, the National Marine Protected Area Center, and other NOAA offices.

This year's meeting focused on the visioning effort for the next 30 years of coastal management, marine protected area planning and management, climate change impacts on coastal communities, the role of local partnerships in coastal management, and alternative energy facilities. The programmatic day for the Coastal Management Program included updates from the Louisiana, Rhode Island, Virginia, North Carolina and Connecticut Coastal Management Programs and working sessions on performance measures, the Coastal and Estuarine Land Conservation Program, federal consistency and program changes, and grants management. The programmatic day concluded with regional break-outs to discuss the new NOAA Regional Collaboration initiative and other regionally-specific topics.

Presentations from the Program Managers' Meeting sessions are available online at coastalmanagement.noaa.gov/pmm/.

– Spotlight on NOAA Resources –

Office of Habitat Conservation: Cooperative Habitat Protection Partnerships

--Promoting local strategies to protect coastal, riverine and marine fish habitat.

Cooperative Habitat Protection Partnerships, or "CHPPs," is a new initiative within NOAA Fisheries' Office of Habitat Conservation that emphasizes the important role that protection plays in conserving habitats for harvested, endangered, threatened and other living marine species. Traditionally, habitat protection in NOAA Fisheries has focused on the agency's regulatory mandate to review permits and provide conservation recommendations. Although this is an important service, regulatory authority alone is not sufficient to meet habitat protection goals.

In an effort to encourage communities to proactively protect habitat, NOAA Fisheries and its regional partners developed CHPPs as a voluntary, community-based, initiative. CHPPs helps local communities protect their riverine, coastal and marine habitats through technical assistance and funding. Therefore, CHPPs' preservation efforts complement the habitat restoration work supported through NOAA's Restoration Center, allowing NOAA Fisheries to offer comprehensive, community-based, conservation assistance starting with damage prevention and extending to the protection of restoration investments. In addition, community-based programs,

which involve local citizens and community groups, help to create an informed public to serve as stewards of these valued resources.

CHPPs is a *fish focused* endeavor—the program focuses on protecting habitat that is important to fishery resources. While the primary focus for CHPPs is to ensure the health and viability of NOAA’s public trust species, secondary benefits can include improved water quality, and flood and erosion control.

Currently CHPPs has several small demonstration projects on-going, including: surveying and developing GIS layers characterizing fish habitat to contribute to a watershed plan in Anchorage, Alaska; working with fishermen to collect habitat monitoring data in Nantucket Sound; and offering a hands-on experience to students to grow and plant shellfish in a marine protected area within Great Bay, Long Island. Many of these projects also include education and outreach components, often developed in conjunction with local environmental education groups. In the future, CHPPs would also like to become more involved in creating or enhancing fish-friendly shorelines in urban estuaries.

Although CHPPs is not yet accepting applications for competitive grant funding, it will continue to work on small demonstration projects in the near term while further developing the overall program concept. CHPPs staff are also available to provide technical assistance to state and local organizations working on fish habitat protection projects.

CHPPs is interested in exploring partnerships with other agencies and groups, including state coastal management programs, to work on projects that benefit fish habitat and/or raise the profile of fish habitat in conservation planning and programs through community-based work. For more information on NOAA Fisheries’ Cooperative Habitat Protection Partnerships, visit <http://www.nmfs.noaa.gov/habitat/CHPP/> or contact Kathi Rodrigues at Kathi.Rodrigues@noaa.gov to discuss potential partnership opportunities.

Newsletter contact:
Allison Castellan
Coastal Programs Division, NOAA
1305 East West Highway, N/ORM3
Silver Spring, MD 20910
301.713.3155 ext. 125
allison.castellan@noaa.gov



The quarterly *Coastal Management Program Newsletter* was developed in response to state requests for assistance in improved communication/ lesson-sharing among the state and territory coastal management programs. Please let us know about interesting things going on in your coastal zone you would like to share with others. If you have any projects that you would like to highlight, please send a brief description to [Allison Castellan](mailto:Allison.Castellan). The submission deadline for the next newsletter is July 1, 2007.