

# COASTAL MANAGEMENT NEWS

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The New York Coastal Program partnered with the New York City Department of Parks & Recreation to construct a portion of Harlem River Park, part of the Manhattan Waterfront Greenway. The project used an innovative design approach that incorporated durable, textured materials to absorb wave/wake energy and mitigate storm surge, staggered gabions seeded with oyster shells to foster habitat and enhance water quality, a kayak launch, and a constructed tide pool (pictured above at high tide). Credit: NYDOS

## New York Waterfront Plan Receives National Recognition

On April 16, 2012, the American Planning Association honored *Vision 2020: New York City's Comprehensive Waterfront Plan* with their highest honor for a comprehensive plan, the Daniel Burnham Award. Completed in 2011, *Vision 2020* provides a 10-year framework for the city's 520 miles of shoreline that aims to reconnect New Yorkers to the waterfront and waterways by increasing public access, expanding water transport, and enhancing economic opportunities. The plan was also recognized for its "Excellence on the Waterfront" in 2011 from the Waterfront Center.

The New York Coastal Management Program, within the New York Department of State, was an integral partner in the development of the *Vision 2020* plan with funding through its Environmental Protection Fund Local Waterfront Revitalization Program (EPF

LWRP). The Coastal Management Program also helped staff the advisory group overseeing plan development and provided essential expert knowledge and technical support throughout the process.

*Vision 2020*, which included strong stakeholder engagement, outlines eight goals to make water part of the everyday lives of New Yorkers:

- expanding public access,
- enlivening the waterfront,
- supporting the working waterfront,
- improving water quality,
- restoring the natural waterfront,
- improving government oversight,
- enhancing the city's waterways, and
- increasing climate resilience.

A companion *New York City Waterfront Action Agenda* identifies

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130 projects to be started over the next three years to implement the plan across all five of the city's boroughs.

With ninety percent of the state's population living in waterfront communities and significant economic activities occurring there as well, the Local Waterfront Revitalization Program (LWRP), as the *Vision 2020* plan illustrates, is an important component of the New York Coastal Management Program. The LWRP provides grants and staff support to local governments, counties, and regional planning agencies to develop and implement strategies and plans that guide local waterfront activity. The local plans, when incorporated into New York's federally-approved coastal management program, provide more detailed implementation of the state's coastal policies and ensure federal and state activities are consistent with the community's waterfront vision and goals. Currently over 300 communities, including the City of Rochester and the Village and Town of Clayton, are being helped to revitalize their waterfronts, energize their communities, promote economic development, recreational access, and the preservation and restoration of historic and natural resources.

The City of Rochester amended its LWRP to establish a framework to guide future land use, zoning, and funding

decisions to revitalize its port. Through its EPF LWRP grant program, the Coastal Management Program is helping to support the first phase of construction to implement this framework. The mixed-use redevelopment project includes a public marina and promenade as well as residential and/or commercial development opportunities to transform an underdeveloped public waterfront area into a year round recreationally-oriented resource.

The Village and Town of Clayton have been working collaboratively to advance their joint LWRP to enhance public access and redevelop an eight-acre brownfield site situated along the St. Lawrence River. EPF LWRP grants have supported planning, site remediation, and construction of a public riverwalk along the property shoreline.

New York City's *Vision 2020* plan is available online at [www.nyc.gov/html/dcp/html/cwp/index.shtml](http://www.nyc.gov/html/dcp/html/cwp/index.shtml). To learn more about the New York Coastal Management Program's Local Waterfront Revitalization Program visit [www.dos.ny.gov/communitieswaterfronts/WFRevitalization/LWRP.html](http://www.dos.ny.gov/communitieswaterfronts/WFRevitalization/LWRP.html) or contact Fred Landa at [fred.landa@dos.ny.gov](mailto:fred.landa@dos.ny.gov).

## CELCP Updates

### NOAA's Coastal and Estuarine Land Conservation Program

#### Recent Closings

The State of Florida, in partnership with the Rookery Bay National Estuarine Research Reserve, protected a five acre property on Keewaydin Island, a barrier island within the reserve. This beach front acquisition represents a vital habitat connection, and will help preserve a significant section of the island, providing undisturbed nesting grounds and habitat for many species, including the Atlantic loggerhead sea turtle, indigo snake, and gopher tortoise.

The Kelleys Island Park District Recreation Board in Ohio acquired 18.5 acres of red cedar forest habitat on Kelleys Island, the largest American island in Lake Erie. The property, located adjacent to a state park and a nature reserve, contributes to the creation of a larger, interconnected system of protected land that will comprise one third of Kelleys Island. This project was supported through EPA's supplemental Great Lakes Restoration Initiative funding awarded to CELCP.



*The 18.5 acre acquisition on Kelleys Island in Lake Erie helps protect red cedar forest habitat and create an interconnected system of protected lands on the island. Credit: Andy McDowell, Western Reserve Land Conservancy*

## Balanced Approach to Public Access and Habitat Protection in California

The California Coastal Commission (Commission) approved a coastal development permit for a Marin County oceanfront campground in July 2011. The decision, the culmination of many years of negotiation with the county and property owner, provides for significant low-cost public coastal access and recreation while protecting sensitive and unique dune and wetland habitats.

Lawson's Landing, a 75-acre family-owned campground, sits at the mouth of Tomales Bay, across from Point Reyes National Seashore. At peak occupancy, it provided space for up to 1,000 RVs, 200 day-use vehicles, and 233 permanent travel trailers.

Although the campground was unpermitted until recently, Lawson's Landing has provided important low-cost oceanfront camping and recreational opportunities to the public since the 1960s.

Lawson's Landing also lies within the Tomales Dune Complex and encompasses sensitive and rare habitats, including coastal foredunes, dune scrub, and dune-slack wetlands and

uplands. The dune system supports rare plants and animals, including the federally threatened California red-legged frog and western snowy plover. Over the years, unregulated grading, wetland draining, and camping activities, as well as primitive sewage disposal, have placed increased pressure on the ecosystem and adjoining bay.

Recognizing the importance of the campground for public access and the need to bring the activities at the site into compliance with the state's Coastal Act and the Marin County Local Coastal Program, Commission staff began working closely with the county and the property owners in the 1990s to identify a solution that would maintain camping access and protect sensitive habitats. Over the past 20 years, the group discussed over ten different permitting plans. In 2006, the Commission issued a Consent Cease and Desist Order to the property

owners for the unpermitted activities and the Commission's 2011 approval of a coastal development permit for the site concluded years of work to find a balanced solution.

The Lawson's Landing coastal development permit allows the campground to meet current and future visitor demands at this critical access site along the California coast through approximately 400 RV and tent spaces and 250 day-use parking spaces, as well as boat mooring, launching, and support facilities. In addition, the permit requires over 200 unpermitted residential travel trailers to be removed and replaced with additional visitor-serving RV and tent camping spaces,

maximizing public access and recreational use of this important oceanfront land.

In addition to protecting the most important wetland and dune areas, the Commission conditioned the permit to maximize protection of the surrounding coastal habitat. The permit provides for restoring wetland and dune habitat outside the approved camping areas, protecting important frog ponds and

movement corridors, providing buffers around sensitive habitats, managing invasive species, controlling stormwater, and improving existing dune trails to minimize impacts from human use. The permit also includes the property owner's proposal to place 465 acres of adjacent dune and wetland habitat under a permanent conservation easement.

Thanks to strong coordination with the property owner and the county, the Commission's final permit for Lawson's Landing was able to strike an important balance between protection of low-cost oceanfront recreational facilities and environmentally sensitive coastal resources and habitat—two important objectives of the California Coastal Act and the National Coastal Zone Management Program. For more information, contact Laurel Kellner at [laurel.kellner@coastal.ca.gov](mailto:laurel.kellner@coastal.ca.gov).



*The Lawson's Landing campground (background) strikes an important balance between protection of low-cost oceanfront recreational facilities and environmentally sensitive coastal resources and habitat. Credit: EDAW*

## Delaware Incorporates Dike Restoration into Sea Level Rise Planning

As early as the 1660s, Delaware communities were taking action, erecting dikes, to protect their lands from Delaware River floodwaters. In New Castle, Delaware, some of these earthen structures remain today, but nature, competing uses, and inadequate maintenance have taken their toll and diminished their effectiveness. In addition, population growth and associated development and the threat of rising seas call for a higher level of protection.

New Castle's shoreline is already vulnerable to coastal flooding. Numerous homes and structures flood during 100-year and 500-year rainfall events as well as lesser storms. In the future, higher sea levels combined with storm surge may result in damage to areas not previously at risk, threatening additional structures as well as important infrastructure, such as roads, railroads, electric transmission lines, high pressure gas lines, and fiber optic cables.

Recognizing the importance of the dikes to the city's resilience to climate change, the Delaware Coastal Program supported the City of New Castle Dike Maintenance and Emergency Planning project. The project included physical and risk assessments (including inundation mapping), emergency action plans, operation and maintenance plans, and recommendations on how to improve long-term flood protection for each of the city's four dikes.

Based on the project results, the New Castle Dike Management Advisory Committee concluded that the best course of action is to raise and repair several of the dikes to correct deficiencies and provide a higher level of protection. The New Castle City Council and staff from



*Undercutting of the Gambacorta Marsh Dike in New Castle, Delaware, as shown here is just one of the problems faced by dikes in Delaware's coastal zone. Credit: DNREC*

numerous programs in the state's Department of Natural Resources and Environmental Control (DNREC) collaborated with the Coastal Program to pursue funding for this work through the state legislature. As a result, the legislature allocated \$3 million in Delaware's fiscal year 2012 bond bill to repair dikes in and around the city of New Castle.

While the \$3 million is not expected to cover the costs of all needed repairs, it is a significant step forward and should prove as useful leverage as DNREC and the New Castle Conservation District continue to seek additional funds. The initial \$3 million will be used to expand the scope of the original project to include a dike in New Castle County and to plan for, design, and construct improvements as prioritized by the DNREC, the conservation district, and the New Castle Dike Committee (for the city-owned dikes) and that meet eligibility requirements for the U.S. Army Corps of Engineers' Levee Safety Program.

Recently, the state has begun questioning the feasibility of repairing and maintaining one of the original four dikes, which protects a road, but no homes or other structures. The road is routinely flooded and must be elevated even if the dike is repaired and maintained. As such, it has been suggested that funds may be better spent investing in the road rather than the dike, initiating a policy discussion that has been described as a "poster child" for long-term planning for adaptation to sea level rise and coastal inundation.

To read the original project report "Dike Maintenance and Emergency Planning Report for the City of New Castle Flood Control Dikes," visit [www.dnrec.delaware.gov/coastal/Pages/CityofNewCastle.aspx](http://www.dnrec.delaware.gov/coastal/Pages/CityofNewCastle.aspx). To learn more, contact David Carter at [david.carter@state.de.us](mailto:david.carter@state.de.us).



*The City of New Castle's Dike Maintenance and Emergency Planning project concluded that one fifth of the land protected by the Broad Marsh Dike would be flooded during a 100-year flood event. Credit: DNREC*

## Texas Shell Recycling Program a Success

Oyster reefs are a big business in Texas. In 2010, the state's commercial oyster harvest, valued at \$19.1 million, ranked second among all states according to NOAA's annual commercial landing statistics. That does not include the value the reefs provide to other fishing industries—providing critical habitat for many commercially and recreationally important species—or other benefits such as protecting shorelines from erosion and filtering and cleaning coastal waters.

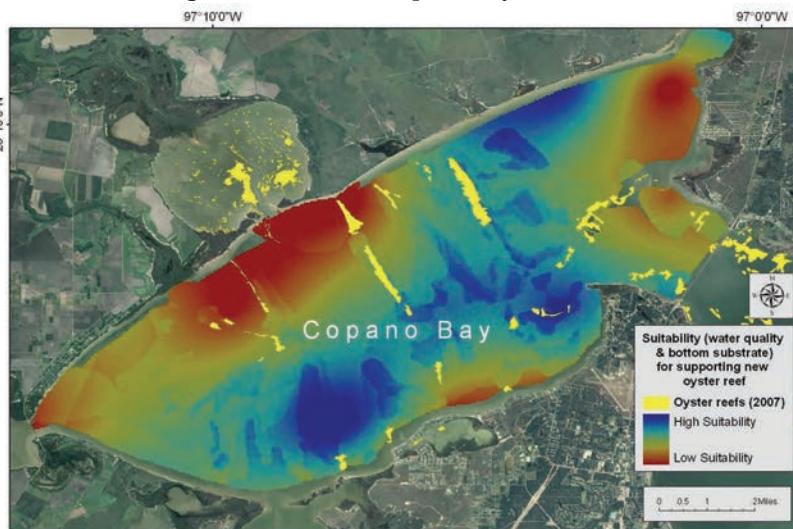
Although 2.8 million pounds of oysters were harvested from Texas waters in 2008, there was no mechanism to return the shucked shells to the water to maintain the reefs. The shells were simply discarded into the trash. Baby oysters, or spat, require hard substrates, preferably oyster shell, to settle and grow into harvestable oysters. Throwing oyster shell into landfills disrupts the natural reef regeneration process. The Texas Coastal Management Program, within the Texas General Land Office, provided funding to launch a new oyster shell recycling program to reclaim the shell, restore Texas oyster reefs, and maintain continued oyster production.

The Harte Research Institute for Gulf of Mexico Studies at Texas A&M-Corpus Christi partnered with the Port of Corpus Christi and Waterstreet Seafood to develop the shell recycling program. Modeled after several shell recycling programs along the East Coast, the Shell Bank, launched in November 2009, began collecting discarded shell from area restaurants and seafood wholesalers. The shells are then transported to the Port of Corpus Christi where they are stockpiled and sun-dried for at least six months to quarantine and remove any disease before they are used for oyster reef restoration projects.

Not only does the Shell Bank help restore reefs, but it saves restaurants and seafood wholesalers money too. Businesses that are charged for trash removal based on weight no longer have to pay to dispose of heavy shucked shells in the landfill. For example, the Waterstreet Oyster Restaurant typically produces 60-70 tons of shucked oyster shells each year so participating in the Shell Bank results in significant cost-savings. Area restaurants will also benefit from the reef restoration activities that will enable continued harvesting of local oysters.

As part of developing the Shell Bank, the Texas Coastal Management Program supported the Harte Research Institute to conduct an economic analysis of the shell recycling program. Using data from the program's first year, they projected the recycling program, even with its start-up costs, would cost about \$150,000 less compared to traditional commercial trash disposal over a five-year period.

The Texas Coastal Management Program also helped fund a study to determine what sites would be most appropriate for oyster restoration based on water quality, presence of oyster disease, and overall health of the reef. In addition, the program supported a robust education and outreach effort to promote the new shell recycling program which included a new website, educational video, brochure, and community outreach. The Shell Bank was also featured in several radio spots and local television news segments to increase publicity.



*A reef suitability study helped to determine the best areas to restore oyster reefs based on water quality, presence of oyster disease, and overall reef health. Credit: Jennifer Pollack, HRI/TAMCCU*

The hard work to initially develop the shell recycling program has paid off. The program had reclaimed over 170,000 pounds of oysters by October 2011. By Summer 2011, the program had amassed enough shell for its first restoration project. Funded through the NOAA-Gulf of Mexico Foundation Community-based Restoration Partnership grant and equipped with knowledge from the reef restoration study, the Harte Research Institute was able to restore nearly four acres of reef habitat using recycled shell and crushed concrete in Copano Bay, far surpassing the program's initial goal to replace one acre of oyster habitat.

The program is conducting community reef restoration projects this spring to increase community awareness, create an invested constituency for preserving natural resources, promote oyster reef restoration, and provide educational opportunities for volunteers. They have already exceeded their original goal of filling at least 800 shell bags, the essential building blocks for a reef restoration. By early May, volunteers had returned over 1,250 bags of reclaimed oyster shell to the water.

For additional information about the oyster shell recycling program visit [www.oysterrecycling.org/](http://www.oysterrecycling.org/) or contact Sean Hilbe at [sean.hilbe@glo.texas.gov](mailto:sean.hilbe@glo.texas.gov).

## National CZM Program Tackles Important Coastal Issues in FY 2011

NOAA's Office of Ocean and Coastal Resource Management (OCRM) invested over \$65 million in federal funds during fiscal year (FY) 2011 to help 34 coastal and Great Lakes states and territories implement their federally approved coastal management programs. This funding leveraged more than \$53 million in matching state and local funds to tackle critical coastal issues and further the goals of the National Coastal Zone Management (CZM) Program, a voluntary federal-state partnership to protect, restore, and responsibly develop our nation's coastal resources and communities. In addition, the federal funding directly supported over 650 jobs and indirectly

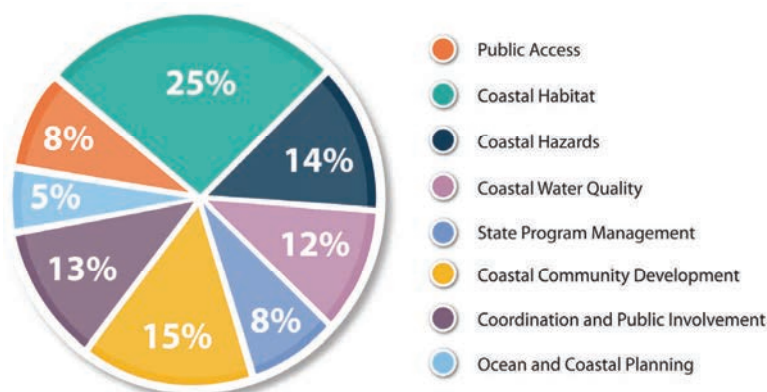
supported many more through investments to local governments, universities, nongovernmental organizations, and the private sector.

Slightly over half of the federal and matching funds supported three priority areas: protecting and restoring coastal habitat (\$29.4M), promoting coastal community development (\$17.6M), and mitigating coastal hazards (\$16.3M). The National Coastal Zone Management Program plays an important role in protecting and restoring coastal habitats which buffer communities from storms and are needed to maintain sustainable fisheries, robust recreation and tourism industries, and thriving wildlife populations.

Helping coastal communities manage development to promote water dependent uses and industries and protect coastal character and health is another important aspect of the program as is minimizing risk to coastal hazards such as storms, flooding, erosion, and sea level rise.

For a full summary of FY 2011 National Coastal Zone Management Program funding and examples some of the activities the program is undertaking in FY 2011 to solve important issues visit: <http://coastalmanagement.noaa.gov/resources/docs/czmfy11funding.pdf>.

For additional information, contact Allison Castellan at [allison.castellan@noaa.gov](mailto:allison.castellan@noaa.gov).



Distribution of federal and matching FY 2011 National Coastal Zone Management Program funding.

## NOAA Recognizes Excellence in Coastal and Ocean Management

Innovation, resourcefulness, leadership, and a commitment to balancing the human use of America's coastal and ocean resources with the needs of the resources themselves. These are the hallmarks of the Walter B. Jones Memorial Awards, which were created to honor the late 11-term North Carolina Congressman Walter B. Jones who, as chairman of the House Merchant Marine and Fisheries Committee, was a strong supporter of coastal zone management. Every two years, NOAA uses these awards to honor people and local governments that have made outstanding contributions to the maintenance of healthy coastal and ocean resources.

The 2012 Walter B. Jones Memorial Award winners are as follows:

- **Coastal Steward:** Peter M. Douglas, California Coastal Commission (retired)
- **Excellence in Local Government:**
  - Port of Anacortes, Washington
  - City of Morro Bay, California

- City of Naples, Florida
- Town of Plymouth, North Carolina

- **Excellence in Coastal and Marine Graduate Study:**
  - Michelle Brodeur, University of North Carolina at Chapel Hill
  - Michelle Covi, East Carolina University
  - Jennifer Cudney-Burch, East Carolina University
  - Tim Ellis, North Carolina State University
  - Rachel Kelley Gittman, University of North Carolina at Chapel Hill
  - Melissa Keywood, University of Virginia
  - Katie Laakkonen, Florida Gulf Coast University
  - Matthew McCarthy, University of North Carolina at Wilmington
  - Katherine Sherman, Oregon State University

For more information on the Walter B. Jones Memorial Awards, visit <http://oceanservice.noaa.gov/programs/ocrm/jones-noaa-awards.html> or contact Patmarie Nedelka at [patmarie.nedelka@noaa.gov](mailto:patmarie.nedelka@noaa.gov).

## Celebrating 40 Years of the Coastal Zone Management Act

Although the Coastal Zone Management Act (CZMA) does not officially turn 40 until October 27<sup>th</sup>, the celebration is already underway. Recognizing the national importance of the coast, Congress created the CZMA in 1972. The Act established strong federal-state partnerships, including the National Coastal Zone Management Program, to ensure our coastal lands and waters are used in a balanced way to support jobs, reduce use conflicts, and sustain natural resources.

NOAA's Office of Ocean and Coastal Resource Management (OCRM) is working closely with the Coastal States Organization to celebrate the achievements of the Act's first 40 years. As part of the celebration, OCRM developed a new webpage that provides an overview of the CZMA and cornerstone programs and initiatives that have been developed as a result. The webpage also provides a timeline of historical CZMA milestones and a list of upcoming coastal events.

In addition to the webpage, other 40<sup>th</sup> Anniversary activities include developing a short video on the importance of the CZMA, producing a commemorative poster, issuing a special edition of the *Coastal Management Journal*, and having special sessions on the CZMA and its accomplishments as part of upcoming coastal forums and events such as The Coastal Society Meeting (June 3-6, Miami, FL), Capitol Hill Ocean Week (June 5-9, Washington, DC), Coast Weeks (September 17-October 9, various locations), Estuaries Day (September 29, various locations), and others. State coastal management programs are also planning anniversary activities and using the opportunity to



A commemorative poster helps celebrate the 40<sup>th</sup> anniversary of the Coastal Zone Management Act.

communicate their valuable work to key audiences around the country.

Over the past 40 years, thanks to the CZMA, NOAA investments in state coastal management programs, matched by state and local contributions, have ensured our coasts continue to be productive and enjoyable places that benefit the nation. The CZMA remains one of America's best tools to safeguard our coastal communities and economies now and in the future. Here's to 40 more successful years!

Check out the CZMA 40<sup>th</sup> Anniversary webpage: <http://coastalmanagement.noaa.gov/about/czma40.html>. For more information, contact Lou Cafiero at [louis.cafiero@noaa.gov](mailto:louis.cafiero@noaa.gov).

## OCRM Releases Report on Protecting the Public Interest through Shorefront No-Build Areas

NOAA's Office of Ocean and Coastal Resource Management (OCRM) has released a report that summarizes where coastal states and territories employ shorefront no-build areas (e.g., through setbacks, rolling easements, or zoning) along ocean and Great Lake shorefronts to protect the public interest. The information was compiled by OCRM with input from state and territorial partners to help OCRM better understand and communicate how state and territorial coastal management programs manage ocean and Great Lake shorefront development.

Approaches to managing shorefront development and protecting the public interest continue to evolve. In the face of continued population growth and increasing economic activity along our nation's coasts, more devastating storms, and sea level rise, a number of states

have changed their regulations in recent years, and others are considering change or are already in the process. Thus, the report, "Protecting the Public Interest through the National Coastal Zone Management Program: How Coastal States and Territories Use No-Build Areas along Ocean and Great Lake Shorefronts" is also meant to be a resource for states and territories that are considering revising their shorefront development laws and regulations or adopting new ones. It should also be useful to other policy makers and researchers with an interest in how coastal states are managing shorefront development.

The report is available online at: <http://coastalmanagement.noaa.gov/resources/docs/nobuildareas.pdf>. For more information, contact Christa Rabenold at [christa.rabenold@noaa.gov](mailto:christa.rabenold@noaa.gov).

## – Spotlight on NOAA Marine Debris Program –

Marine debris is a widely recognized threat to the coastal environment and its impacts are far-reaching. Debris, which can be anything from consumer plastics, to derelict fishing gear, to abandoned vessels, harms and kills marine wildlife, degrades ocean habitats, interferes with navigation safety, and causes economic loss to coastal communities.

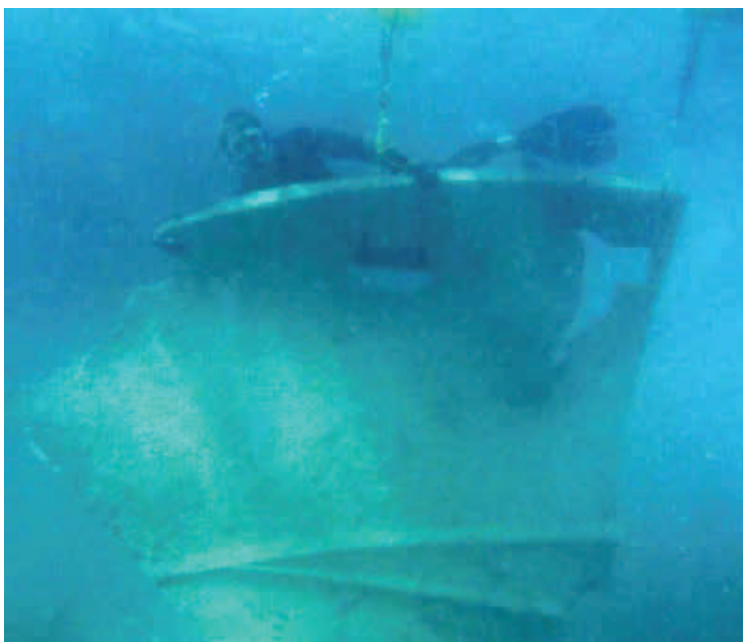
The NOAA Marine Debris Program (MDP) tackles these issues head-on by working with states, nonprofits, and industries and building interagency relationships to support national and international efforts to prevent, identify, and reduce the occurrence of marine debris in the nation's oceans and natural waterways.

Central to the Marine Debris Program, and an important aspect of coastal zone management, is protecting natural resources. Each year, program funds support locally driven, community-based marine debris prevention and removal projects that benefit coastal habitat, waterways, and wildlife and improve public awareness of marine debris issues through community clean-ups and education. Marine Debris Program funded projects have ranged from removal of derelict fishing gear, such as lobster gear in Maine and abandoned crab pots in Washington, to abandoned vessels removal in South Carolina, and coastal clean-ups in New York and Hawaii.

Currently, one project underway is helping to protect coral reefs in Puerto Rico. The Surfrider Foundation, with funding from the Marine Debris Program, teamed up with Puerto Rico's Department of Environmental and Natural Resources and local businesses to remove marine debris from reefs in two marine protected areas, Arrecifes de

Tourmaline and Reserva Marina Tres Palmas, and restore reefs impacted by the debris.

Using Geographic Information Systems (GIS) and in situ surveying, the team calculated the amount of debris that affected both protected areas. With the cooperative efforts of local businesses and volunteers, they removed over 6,000 pounds of debris off the Cayo Ron reef located within the Arrecifes de Tourmaline reserve and reattached small Staghorn coral colonies, an endangered species, whose growth and recruitment was limited because of marine debris. Efforts to remove debris from the Reserva Marina Tres Palmas are ongoing.



*A diver for Surfrider Foundation guides a portion of a boat bow during debris removal activities in two Puerto Rico marine protected areas. Credit: Shayne McIntryre*

With the project entering the final stage, Surfrider is also working with school groups, local communities and municipalities to establish a strong marine debris prevention program. By explaining the link between land-based activities, marine debris, and the direct impact it has on Puerto Rico's fragile coral reef systems, these outreach and education efforts will raise awareness about the importance of healthy coral reef systems and the detrimental impacts of habitat degradation.

The Puerto Rico project is just one of many ways the Marine Debris Program has worked with coastal states and others to improve coastal habitat by

cleaning up marine debris. For more information about the program, funding opportunities, on-going projects, and available outreach material visit: [www.marinedebris.noaa.gov](http://www.marinedebris.noaa.gov) or contact Asma Mahdi at [Asma.Mahdi@noaa.gov](mailto:Asma.Mahdi@noaa.gov).

Don't forget to like the Marine Debris Program on Facebook ([www.facebook.com/NOAAMarineDebris](http://www.facebook.com/NOAAMarineDebris)) and follow them on Twitter (<http://twitter.com/#!/NOAAdebris>).



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The *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@noaa.gov](mailto:allison.castellan@noaa.gov). The submission deadline for the next newsletter is August 15, 2012.