



COASTAL MANAGEMENT NEWS

Volume 3, Issue 3 July, 2009



Communities on the Island of Kauai sustained wind damage from Hurricane Iniki in September 1992.

Hawaii Increases Resilience through Hurricane Force Wind Building Design Standards

The coastal hazard mitigation work of the Hawaii Coastal Zone Management Program (HCZM) involves a robust network of partners that includes various disciplines within the public and private sectors. Through this network, HCZM launched a community resilience initiative that entailed statewide adoption of hurricane-force wind building design standards, which are specific to each of Hawaii's four counties.

In 2006, Hawaii's four counties still followed either the 1991 or 1997 Uniform Building Codes, causing a system of fragmented building requirements that was problematic to the building, design, and insurance industries. HCZM and the hazard mitigation community understood

that new codes would provide a greater level of protection from the destructive impacts of earthquakes, hurricanes, and floods.

Simply adopting the International Building Code (IBC) and its universal standards would not properly account for the unique conditions of Hawaii. Specifically, the wind standards of the IBC would not work in Hawaii because of the dynamic topography and wind directionality factors. Without wind hazard exposure research specific to Hawaii, it would be very likely that the design standards would be incorrect for Hawaii's wind conditions. HCZM funded the necessary wind speed research for the counties of Maui and Hawaii, using techniques that would

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*Smart growth techniques enable communities to enhance, preserve, and provide access to coastal waterfront resources.
Credit: G. Wright. (page 7)*

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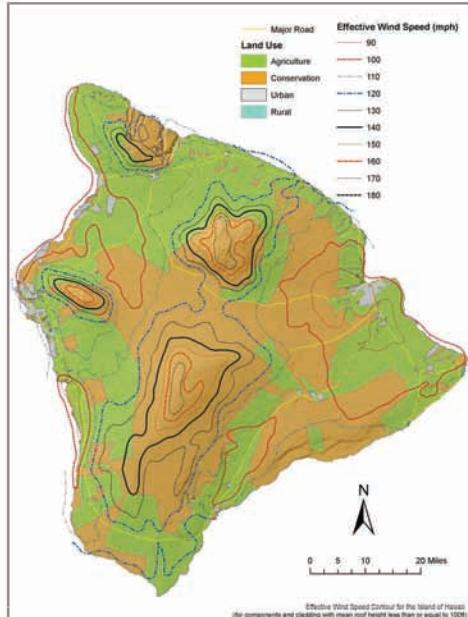
Hawaii Wind Standards (Continued from pg. 1)

account for wind flow over the terrain, while the Federal Emergency Management Agency (FEMA) supported the technical work for Oahu and Kauai.

By mid-2008, all wind speed studies were completed and transmitted to the State Building Code Council (Council) and offered as technical amendments to the 2006 IBC. HCZM participated in this effort by helping to draft legislation that established the Council and serving on the State Building Code Committee, a predecessor to the Council. HCZM provided key testimony to the council, requesting automatic adoption of the wind standards as a part of the county IBC adoptions.

The Council adopted the wind standards for all four counties in its final draft of the State Building Code (entering public review later this year), and required each county to use their specific wind standards no later than two years after state adoption of the State Building Code. Two counties (Honolulu and Kauai) are already using the new codes.

The American Society of Civil Engineers (ASCE) 7 Standards Committee revised the 2005 Edition of ASCE 7 by designating the State of Hawaii as a Special Wind Region. This designation represents national acceptance



Hawaii County wind speed study maps were used to draft county specific wind standards.

of the technical accuracy of the Hawaii wind standards and recognizes that, for Hawaii, those standards supersede the more generalized national wind standards.

Since commencing this project, HCZM and its partners have jointly delivered training on the new codes to approximately 1,465 county, state, and federal building officials, design professionals, and development, building, and insurance industry representatives. HCZM was recently honored with the Cooperation Award from the Hawaii Chapter of the Construction Specifications Institute, a professional industry organization composed of architects, engineers, contractors, and building

materials suppliers, for its work in bringing International Code training to Hawaii.

The Council's rapid adoption of the wind standard is due largely to significant collaboration among the various public and private groups and is an example of how good science informs policy making in Hawaii. For additional information, contact Ann Ogata-Deal at AOgata-Deal@dbedt.hawaii.gov.

Michigan Works with Locals to Preserve Waterfront Character

Winston Churchill once stated "First, we shape the buildings . . . afterward, the buildings shape us." Sir Winston's insightful words strike a chord in city planners and other officials responsible for managing the growth of Michigan's old coastal port and resort communities. Like many coastal cities, Michigan's cities and villages along the Great Lakes have banked a considerable wealth of authentic character over their long histories, and their distinctive charms please residents and delight tourists.

The Michigan Coastal Management Program has been working with many lakefront communities to revise their comprehensive plans, zoning codes, and ordinances to manage development in a way that preserves their unique waterfront character. For example, with a grant from the Michigan Coastal Management Program, the City of Marquette recently explored an alternative option for managing growth by crafting its first form-based codes.

The form-based code is a relatively new zoning approach that allows community officials to prescribe specific building forms and densities first, and then dovetail in appropriate land uses. The approach promotes creating public spaces supporting mixed-use, walkable developments that reduce auto-dependent sprawl and realize many other environmental benefits. It is also a powerful tool for ensuring that new development is in keeping with community character.

These advantages appeal to the people of Marquette since Marquette's leaders are determined to maintain their sense of place along Lake Superior and retain their strong maritime heritage. Marquette, the largest city in the Upper Peninsula at nearly 20,000 residents and over 15 miles of publicly owned Lake Superior Shoreline is built upon an economy, history, and culture that has always been closely tied to the lake. The shoreline has undergone

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Michigan Waterfront (continued from pg. 2)

extensive change over time—from heavy industrial use to a now largely recreational base.

City officials chose the downtown waterfront and South Marquette waterfront areas for the form-based code project. The process included significant public involvement, beginning with a weekend-long community design charrette for the downtown waterfront and a guided bus and walking tour of the South Marquette waterfront. With the help of professional consulting firms, the City Planning Department drafted form-based codes that incorporated stakeholder input and reflected the public's vision for the neighborhoods. Ultimately, these efforts culminated in the adoption of both the Downtown Waterfront and South Marquette Waterfront Form-Based Codes into the City's Zoning Ordinance.

The new codes prescribe the form and density of development before it's built; creating a predictable



Under the form-based code, Marquette designated the bay association dock as a working waterfront to maintain the historic integrity of the area.

pattern of development for citizens and developers. Encouraging citizens to decide on urban form in advance helps allay fears about increased density. The approach also maintains access to the water and preserves Marquette's working waterfront. With the recent adoption of form-based codes the city is

a model for planning a vibrant and resilient coastal community that is true to its heritage. The new codes are also helping the city realize its vision of becoming the premier livable/walkable winter city in North America.

For more information about the Marquette experience, including copies of the adopted codes, see the City's planning web site at: www.mqtcty.org/plan.html or contact Dennis Stachewicz at DSTACHEWICZ@mqtcty.org.

Minnesota Symposium Educates Students about Lake Superior

From May 14-17, 2009 over 360 students from the Lake Superior watershed gathered in Duluth, Minnesota for the 8th Biennial Lake Superior Youth Symposium. The symposium, held every two years at various locations along Lake Superior, brings together 8th through 12th grade students and teachers from Minnesota, Wisconsin, Michigan, and Ontario to learn about Lake Superior, its ecosystems, and cultural history through hands-on field trips and classroom sessions. The Minnesota Lake Superior Coastal Management Program sponsored this year's symposium along with the U.S. Environmental Protection Agency.

This year's symposium focused on global climate. Keynote speaker Dr. Jay Austin from the University of Minnesota Duluth's Large Lake Observatory talked about his research on winter ice and the general affects of climate change on Lake Superior. He has found that Lake Superior surface water temperatures have been warming rapidly over the past few decades, faster than

air temperatures. Abby Fenton, Education Program Manager with the Will Steger Foundation and member of the 2006 Baffin Island Expedition, also shared her Arctic experiences and encouraged participants to engage in global warming solutions.

Other symposium activities included 18 different field trips and over two dozen classes, including trips to a local wild rice lake to learn about the traditional food source of many Anishinabe people and to observe wild rice restoration activities, a Duluth trout stream to understand the impacts of storm water runoff, and the longest freshwater sand spit in the world to understand the processes that shape this unique geological feature and to learn about the beach grasses and shorebirds that habitat this sensitive area.

For additional information, contact Amber Westerbur at Amber.Westerbur@dnr.state.mn.us.

CELCP Updates NOAA's Coastal and Estuarine Land Conservation Program

CELCP Authorization Legislation

New authorization language for CELCP was signed into law on March 30, 2009 as part of the Omnibus Public Lands Management Act (P.L. 111-11). While the new CELCP authorization maintains much of the program's structure, it also makes a few changes to the way the program operates, including a provision that reserves a portion of CELCP funding for projects that also benefit National Estuarine Research Reserves. The new law took effect immediately and therefore applies to the FY09 and FY10 competitions that are currently underway, as well as all future competitions.

CELCP Funding Competitions

Fiscal Year 2009: NOAA was appropriated \$15 million for FY09 CELCP projects. NOAA selected nine projects to submit final grant applications for funding through the FY09 competition in the following states and territories: Virginia, Puerto Rico, Massachusetts, Florida, Maine, New York, Washington, and Maryland.

Fiscal Year 2010: The closing date for applications for the FY10 CELCP competition was originally March 31st, one day after the new CELCP law was passed. Due to changes in program priorities based on the new legislation, NOAA will advertise a limited reopening of the FY10 competition in late July. This will allow (but not require) states and territories to revise previously submitted project applications, if needed, to adjust to the new provisions contained in the new law and to submit and/or substitute new project applications. New applicants are also welcome to submit proposals for this competition.



Aerial view of the Great Neck Conservation Project Partnership area in Wareham, Massachusetts—a project selected for funding through the FY2009 CELCP competition.

Selected Project Closings

On April 21, 2009, the Village of Bratenahl, Ohio, purchased an eight acre parcel to complete phase II of the Lake Erie Coastal and Riparian Forest Preserve. The preserve is located less than 600 feet from the Lake Erie coast and contains high quality mature forest that provides important habitat for migratory birds, including eight state-listed rare bird species.



The Lake Erie Coastal and Riparian Preserve.

On April 8, 2009, the Oregon Parks and Recreation Department recorded NOAA's interest in 440 acres of land known as Delaura Beach within the city limits of Warrenton, Oregon. The land is adjacent to the existing Fort Stevens State Park. This expansion to the existing park will provide enhanced coastal recreation, including walking and hiking trails and beach access. The site has extensive coastal dune systems with mature vegetation and upland forests as well as marine intertidal zones and sandy beaches.

On March 31, 2009, Lee County and the State of Florida recorded NOAA's interest in 1,124 acres of the Lee County portion of Babcock Ranch. This land is part of a larger 74,000 acre acquisition that will sustain certain critical environmentally sensitive lands essential to the health and viability of Charlotte Harbor, a state-protected estuarine system lying in part in the northern portion of Lee County and interfacing with the Caloosahatchee River. The property has several critical habitats, including functioning wetlands and pine flatwoods, which sustain a wide range of both flora and fauna.

New York Develops Ecosystem Based Management Approach

New York's coastal areas include significant shorelines along the Atlantic Ocean and Great Lakes. Spanning a range of diverse ecosystems, the health of New York's coasts, watersheds, and offshore areas face complex challenges that defy simple, single-agency solutions.

Urgent challenges such as climate change, invasive species, habitat loss, and nonpoint source pollution collectively threaten the continued health of the state's ocean and Great Lakes ecosystems and the quality of life of its citizens.

Recognizing the growing need for action, the governor of New York signed the Ocean and Great Lakes Ecosystem Conservation Act into law in 2006. The Act created the New York Ocean and Great Lakes Ecosystem Conservation Council, consisting of the nine

State agencies responsible for managing human activities affecting the health of coastal and offshore ecosystems.

New York's Coastal Management Program staffs the Council.

The Act charges the Council with developing comprehensive strategies, grounded in science, to embrace and advance ecosystem-based management (EBM) principles, an approach to management that considers the entire ecosystem, including humans. These activities include program and grant coordination, changes to existing statutes, and using the best science to inform state, regional, and local actions and decisions.

As one of its first actions, the Council released a report on April 8, 2009, addressing the environmental, economic, and social aspects of ocean and Great Lakes ecosystem health, as well as outlining how state agencies can collaborate to develop comprehensive, locally driven solutions. While developing the report, the state held 14 informal "community conversations" across the state to enable the public to provide input into the process.



Great South Bay on Long Island is one of two demonstration areas where the Council is working to advance integration of EBM principles at the local level.

The Council staff's current focus includes:

- *Providing the public with information and mechanisms for better decision making.* Through the New York Ocean and Great Lakes Atlas, a user-friendly online mapping program and data portal, over 900 datasets will be available to decision-makers and the public. The available data will include spatial information on items such as storm drains, wetland boundaries, underwater vegetation, park locations, and fisheries.
- *Working to accommodate competing demands for limited resources and space in offshore areas.* As human uses in offshore areas continue to increase, the Council is pursuing offshore spatial planning to accommodate multiple offshore uses, starting with a pilot project in New York's ocean waters. The development of offshore-use plans will engage broad-based stakeholder participation and will focus on habitat protection and offshore renewable energy development.
- *Collaborating beyond state jurisdiction to ensure ecosystem health.* Council agencies contributed to the recent creation of the Mid-Atlantic Regional Council on the Ocean (MARCO), with the New York Coastal Management Program leading the state's involvement. The Governors of New York and New Jersey co-hosted the inaugural MARCO meeting, which also includes Virginia, Delaware and Maryland, on June 4, 2009. Regional ocean governance, a priority action identified in the Council report, will help New York contribute to management of the entire mid-Atlantic ocean ecosystem, working in concert with other states and federal partners.

To view the April report or the Atlas, visit the Council's web site: www.nyoglecc.org. For more information, contact Greg Capobianco at gregory.capobianco@dos.state.ny.us.

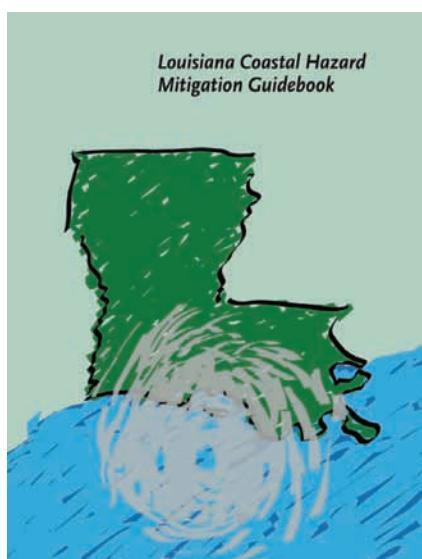
Coastal Hazard Mitigation Guidebook Developed for Louisiana Residents

Hurricanes Katrina and Rita delivered a devastating blow to Louisiana's already fragile coastline, costing lives, damaging property, and causing further deterioration of the coast. While buildings cannot be made indestructible, they can be built as strong and safe as possible. To help the state improve siting and construction techniques and prepare for future storms, the Louisiana Sea Grant Law and Policy Program partnered with the Louisiana Department of Natural Resources, the Louisiana State University (LSU) AgCenter, and the Federal Emergency Management Agency (FEMA) to develop the *Louisiana Coastal Hazard Mitigation Guidebook*.

Designed for state and local officials along Louisiana's coastal parishes as well as the general public, the guidebook addresses the hazard mitigation issues and needs of both rural and urban areas and demonstrates the cost-effectiveness and benefits of incorporating hazard mitigation into the earliest stages of development (or post-storm redevelopment).

In conjunction with the guidebook, the Louisiana Coastal Management Program and Sea Grant held workshops in three Louisiana coastal towns to help local officials, planners, builders, and consumers rebuild their communities.

Also, the Louisiana Sea Grant Law program staff presented the guidebook to local permitting staff during a Louisiana Local Coastal Programs meeting. As a result, local permitting staff are now equipped to make more informed decisions. The Louisiana Department of Natural Resources is also developing best management practices based on concepts in the guidebook. These practices will be used to facilitate permit reviews on new construction projects in the coastal zone.



The Louisiana Coastal Hazard Mitigation Guidebook was developed through a multi-agency partnership.



Constance Beach, Cameron Parish, Louisiana, after Hurricane Rita: While the house in the foreground was washed away by Rita's storm surge, the structure behind escaped destruction because it was properly elevated. Credit: D. Dartez.

The guidebook and workshops are providing officials and the public with knowledge of the relevant laws and techniques for siting and constructing buildings so that they can better protect life and property along the state's coast.

Download a copy of the guide book at <http://dnr.louisiana.gov/crm/coastmgt/interagencyaff/documents/LaCoastalHazMitGuidebook.pdf>. For additional information, contact Jim Wilkins at jwilkins@lsu.edu or Linda Pace at Linda.Pace@LA.GOV.



The planning concept from the Louisiana Coastal Hazard Mitigation Guidebook.

Interagency Guide Offers Smart Growth Help for Coastal and Waterfront Communities

NOAA, in partnership with the U.S. Environmental Protection Agency, International City/County Management Association and Rhode Island Sea Grant, will be releasing, in August 2009, a first-of-its kind interagency guide that adapts smart growth principles to the unique needs of coastal and waterfront communities.

Smart Growth for Coastal and Waterfront Communities builds on existing smart growth principles to offer 10 coastal and waterfront-specific guidelines that help manage development while balancing environmental, economic, and quality of life issues. Aimed at planners, local government officials, developers, non-profit groups, and coastal and waterfront residents, the guide will help coastal and waterfront communities plan for growth and development while protecting their natural and economic resources, maritime heritage, and traditional sense of place. The guide includes an overview of waterfront communities' growth-related challenges and opportunities, a description of tools and techniques for applying smart growth guidelines, and case studies that illustrate the guidelines in action.



Preserving open space, farmland, natural beauty, and critical environmental areas can maintain essential environmental services and improve community resilience. Credit: Y. Alley.

In 1996, the Smart Growth Network, a coalition of more than 30 national organizations that promote smart growth and offer resources to help communities, defined 10 smart growth principles derived from experiences of thriving, diverse communities. In consultation with the Smart Growth Network, the interagency team drafted coastal and waterfront guidelines to address unique growth-related issues of waterfront communities, including:



For waterfront communities, improving the connection between pedestrians and the water can help increase interest in walking and biking and help to decrease the pressures of seasonal traffic. Credit: E. Park.

- The coastal and waterfront environment's vulnerability to impacts of development, such as degradation of water quality, habitat, and other critical environmental resources;
- Potential impacts of climate change, including changing water levels, flooding, and drought;
- The need for natural buffer zones between the built and natural environments to protect life and property.

Guidelines include suggesting that communities: combine comprehensive community planning with planning for natural hazards; use natural buffers to protect people and property from natural hazards and impacts of climate change; preserve and restore critical environmental areas that characterize coastal and waterfront communities; mix land uses, including water-dependent uses; use compact community design that enhances safe access to waterfront resources and provides opportunities for people to explore on foot; take advantage of land- and water-based transportation options; protect the public interest in and right of access to waterfront and coastal waters.

To download a copy of *Smart Growth for Coastal and Waterfront Communities*, see www.coastalsmartgrowth.noaa.gov or www.epa.gov/smartgrowth. For additional information, contact Sarah van der Schalie at sarah.vanderschalie@noaa.gov or Kenneth Walker at Kenneth.walker@noaa.gov.

– Spotlight on NOAA Resources –

National Ocean Service Uses Social Media to Get the Word Out on New Website

NOAA's National Ocean Service (NOS), which houses several offices familiar to the coastal management community, including the Office of Ocean and Coastal Resource Management and the Coastal Services Center, recently redesigned its web site. The new web site (<http://oceanservice.noaa.gov/>) features several new sections to help increase ocean literacy and promote NOS activities.

New content is added to the site almost every day, including:

- Weekly News Stories: Short updates/news on ongoing NOS programs and activities;
- Feature Stories: More indepth information about NOS programs and projects;
- Making Waves Audio Podcast: NPR-style audio program covering NOS news and events, often including interviews with NOS staff and partners;
- Diving Deeper Audio Podcast: Program featuring interviews where NOS staff answer ocean-related questions (e.g., "what is resilience?");
- Multimedia Section: Featuring images, videos, desktop wallpaper, and games.

To help get the word out about NOS and the new features on the site, NOS is using social media tools to connect people back to the site. Specifically, NOS is using:

- RSS feeds for ocean facts, weekly news, audio podcasts, and video to deliver NOS news and information already posted on the NOS web site

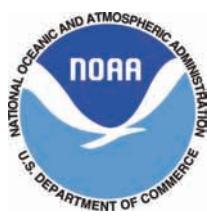
directly to subscribers; the RSS feeds are the most frequently requested pages on the site.

- An NOS Twitter account to highlight new web postings and drive more visitors to the NOS Web site; Twitter followers number over 2,500 and include the White House, the *Los Angeles Times*, and California Governor Arnold Schwarzenegger; the NOS Twitter account was recently named one of "100 Best Science Twitterers" by OnlineCourses.org.
- Two biweekly audio podcasts (Making Waves and Diving Deeper) as a new tool to inform a broader audience about the work of NOS.
- An NOS Facebook page to again highlight NOS web content and reach an additional audience with NOS messages while providing a forum for this audience to voice their opinions and interact with NOS.
- An NOS YouTube channel (<http://www.youtube.com/usoceangov/>) to present NOS videos.

NOS also plans to launch an NOS Flickr account in the upcoming months and to add the NOS podcasts to iTunes for increased access to this content. NOS is also preparing to add social bookmarking tools to the site.

The NOS site was recently one of 29 sites recognized by the American Library Association's Machine-Assisted Reference Section as an outstanding site for reference information.

To sign up for RSS feeds or Twitter, visit <http://oceanservice.noaa.gov>. For additional information contact Emily Crum at emily.crum@noaa.gov.



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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@noaa.gov. The submission deadline for the next newsletter is October 1, 2009.