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# C O N T E N T S

Foreword . . . . .	1
<i>Governor Jim Doyle</i>	
Apostle Islands Wilderness . . . . .	2
<i>Harald (Jordy) Jordahl</i>	
Sustainable Development in the Menomonee Valley . . . . .	4
<i>Mary Beth Driscoll</i>	
Protecting Beach Health in Door County . . . . .	6
<i>Vinni Chomeau</i>	
Lake Michigan Communities Reinvent for Tourism . . . . .	8
<i>Jennifer Garrett</i>	
Coastal Performance Indicators . . . . .	10
<i>Elizabeth Mountz</i>	
Waterfront Redevelopment . . . . .	12
<i>Andrew Savagian</i>	
State and Federal Coordination on Wisconsin's Great Lakes . . . . .	14
<i>Kathleen Angel</i>	
2005 Wisconsin Coastal Management Program Grants . . . . .	16
Acknowledgements . . . . .	20

## On the Cover

A sailing charter cruises among the Apostle Islands in the blue waters of Lake Superior.



# FOREWORD

Governor Jim Doyle

Dear Friend of Wisconsin's Great Lakes:

The 1,100 miles of Great Lakes shoreline in Wisconsin shape who we are in this state. Lake Superior and Lake Michigan are critically important for commerce, safe drinking water and countless recreational opportunities. The Lakes are a freshwater resource that is unique on our planet, supporting thousands of species—including our own.



My new *Conserve Wisconsin* environmental agenda is a broad package of legislation and executive orders that will safeguard Wisconsin's great environmental legacy. In addition to initiatives to conserve our lands and ensure a sustainable energy future, the agenda includes many initiatives to protect our waters. We will regulate ballast water in ocean-going ships and work to stop the spread of invasive species.

As the Co-Chair of the Council of Great Lakes Governors, I am working with other governors to develop and implement policies on a region-wide basis to restore and protect the Great Lakes for future generations.

In 2004, nine priorities were identified by the eight Great Lakes governors for restoration and protection of the Lakes. Since that time, these priorities have

been adopted by the Great Lakes Mayors and the Great Lakes Commission. Among them:

- Confront the challenge of invasive species and guard against ballast water discharges from ocean-going ships that can damage the Lakes forever;
- Protect the sustainable use of our water resources while confirming that the States retain authority over water use and diversions of Great Lakes waters;
- Ensure the waters stay open as highways of commerce while protecting their fragile ecology.

While the Governors together play an important role, the strength of our recent efforts has been the partnership of our regional collaboration. A robust working relationship has developed with the states, our region's mayors, Native American Tribes, the federal government and nongovernmental organizations concerned about our natural resources.

In December 2004, I joined hundreds of people representing stakeholders from across the Great Lakes basin to develop a restoration and protection plan for our Great Lakes. Our initial draft action plan has been completed and is now available for public review and input. It calls for greater investment of resources and better coordination of efforts to protect and enhance our Great Lakes. Working together, we can make a difference. For more information about the Great Lakes Regional Collaboration, please visit <http://www.epa.gov/glnpo/collaboration/>.

The responsibility to restore and protect the Great Lakes is not limited to state and local government. We call upon the federal government to recognize the value of our Great Lakes and the influence they have on our country's welfare. We need a commitment of federal resources comparable to those provided for ecological restoration in the Gulf of Mexico, the Everglades and San Francisco Bay.

One of Wisconsin's—and America's—greatest leaders was profoundly aware of the value of the Great Lakes. Former Governor and U.S. Senator Gaylord Nelson passed away in 2005 after a life dedicated to many important issues including protection of the Great Lakes. I was honored to attend a ceremony in August naming the Gaylord Nelson Wilderness area within the Apostle Islands. Gaylord Nelson laid out a clear vision for the environment in 1970 when he founded Earth Day:

*“Our goal is an environment of decency, quality and mutual respect for all human beings and all other living creatures—an environment without ugliness, without ghettos, without poverty, without discrimination, without hunger and without war. Our goal is a decent environment in its deepest and broadest sense.”*

A critical component of this goal is the restoration and protection of the Great Lakes. I invite you to join me in working toward the fulfillment of Gaylord Nelson's vision.

The process to protect the Apostle Islands took decades of work and the leadership of U.S. Senator Gaylord Nelson.

## APOSTLE ISLANDS WILDERNESS

*Harald (Jordy) Jordahl*

Lake Superior's Apostle Islands archipelago in Ashland and Bayfield Counties is among the most beautiful and culturally rich places in our state.

The Apostle Islands National Lakeshore is a unique collection of rugged coasts, deep green forests, sea caves and undeveloped sand beaches. Native Americans, voyageurs, loggers, farmers, commercial fishermen and people working in quarries all played a role in the Islands' history. Starting with the Ojibwe people—the original inhabitants of the area—the Islands have provided food, trade and now recreation for generations of people. Its six historic light stations are the most found in any national park. Many still provide beacons to ships on Lake Superior and some remain open to visitors.

Today, the cold blue waters of Lake Superior are covered in summer months by visitors in kayaks, sailboats and motorboats while the Apostle Islands' forests have tents and trails for hikers. Nearly 200,000 people visit every year, a number that has grown as the popularity of kayaking has increased over the last three decades.

The process to protect the Apostle Islands took decades of work and the leadership of Governor and later U.S. Senator Gaylord Nelson. It required nearly 10 years of work by Senator Nelson and a large group of supporters to finally pass federal legislation protecting nearly all of the islands.

The Apostle Islands National Lakeshore was established on September 26, 1970 “to conserve and develop for the benefit, inspiration, education, recreational use, and enjoyment of the public.”

Twenty-one islands in the Apostles are included in the National Lakeshore managed by the National Park Service. The 69,372 acre park includes 21 islands and the waters 1/4 mile around their shores. A 12-mile stretch of mainland in Bayfield County is also included. Madeline Island, the remaining island, is mostly privately owned although the State of Wisconsin manages the highly popular Big Bay State Park on its shores.

Although part of the Lakeshore, community leaders believed an official federal Wilderness designation would also provide permanent protection for the Islands' unique natural features. Some form of Wilderness designation for the Islands was considered for decades—even before the federal Wilderness Act was passed in 1964 and before the Apostles became a part of the National Park system in 1970.



The National Park Service initiated a formal three year Wilderness study in 2001. Strong community feedback supported continuing to protect and manage the Apostle Islands' natural resources and maintaining access to the Islands. Dozens of public meetings were held and thousands of public comments were received over the three years. After formal alternatives were presented for public review, more than 99 percent of the formal public comments supported some form of Wilderness protection.

In 2004, with the leadership of Senator Russ Feingold and Congressman Dave Obey, the U.S. Congress passed a law designating much of the Islands as an official Wilderness Area under the protection of the 1964 Wilderness Act. In so doing, Congress honored the man most responsible for protecting the Apostles by naming the area the Gaylord A. Nelson Wilderness.

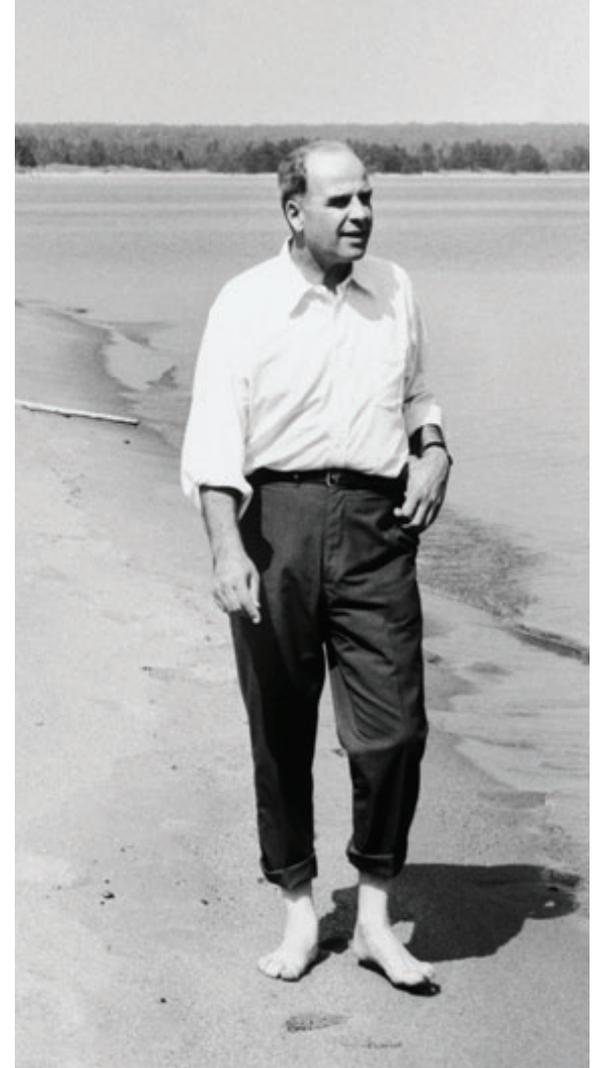
The designation of 35,000 acres—about 80% of the land area—as official Wilderness makes permanent the current management for most of the Islands. Sand, Basswood and Long Islands are excluded from the Wilderness because of their highly visible evidence of human history and use. These islands will be used to provide visitors with more opportunities for cultural interpretation and educational materials.

Of the remaining 18 park islands, eight will be managed entirely as Wilderness while the other ten are more than 90 percent Wilderness. Wilderness status ensures that our children and grandchildren find these places much the same when visiting them far into the future.

All of the park's public docks, lighthouses and facilities where visitors congregate are excluded from the Wilderness designation. None of the waters in the Lakeshore are included—guaranteeing continued access to the Islands by boat and without impact on existing rules for snowmobilers who have access to the frozen surface of Lake Superior in the winter. This balance shows the possibility of protecting wild places as Wilderness while also protecting areas for visitors for cultural history and interpretation.

Park Superintendent Bob Krumenaker noted public comment on the Wilderness study confirmed what “Senator Nelson instinctively knew all along—that these islands were meant to be visited, enjoyed and experienced, but that they shouldn't ever be allowed to lose the wild and primitive character that brings people here in the first place.”

The Wilderness designation will protect this vision.



For more information about the Apostle Islands National Lakeshore and the Gaylord A. Nelson Wilderness, visit <http://www.nps.gov/apis/home.htm> or call the Park Headquarters at (715) 779-3397.

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The Menomonee River Valley offers a compelling story for achieving environmental restoration in urbanized areas.

## SUSTAINABLE DEVELOPMENT IN THE MENOMONEE VALLEY

*Mary Beth Driscoll*

At 1,500 acres, the largest collection of brownfield properties in Wisconsin continues on the path to restoration. Broad and sustained support from entities like the Wisconsin Coastal Management Program (WCMP) has generated significant progress on a long list of objectives in Milwaukee's Menomonee River Valley: environmental remediation, stormwater treatment, flood abatement, improved water quality and natural areas incorporating habitat restoration.

With partnership and imagination, this contaminated corridor is being transformed into a community destination featuring creative environmental restoration and new economic development. Guided by principles of sustainable development, this long-term collaborative effort is attracting high-quality investors and family-supporting jobs capable of adding long-term value and pride to the community.

Starting with a 1999 U.S. Environmental Protection Agency-sponsored Sustainable Development Design Charrette, or visioning exercise, new ideas were generated for development plans that would accommodate sustainability and smart growth objectives. The charrette involved over 140 local architects, engineers and planning professionals from the public and private sectors who engaged in brainstorming and listening sessions and

volunteered to create drawings and plans. Their results—published as “A Vision for Smart Growth”—gave form and substance to the vision for sustainable development.

To further accelerate the vision for sustainable development, Sixteenth Street Community Health Center (SSCHC) assembled a broad community partnership to host a design competition in 2002—sponsored in part by the National Endowment for the Arts, the WCMP and foundations—that focused on a specific 140 acre parcel that lies in the shadows of Miller Park. The winning submission, created by a team lead by Wenk Associates of Denver (CO), includes an industrial park that will provide family-supporting jobs while adding to the City's property tax base. While meeting the city's immediate economic needs, the Wenk plan also allows for the integration of natural and open-space elements including a stormwater park that prevents water pollution, a community green and the Hank Aaron State Trail.

With continued encouragement from the WCMP, the national design competition's winning concept has moved much closer to reality with the creation of detailed drawings and engineering specifications for the stormwater park, including an innovative stormwater treatment train that mimics regional habitat types. The stormwater



park provides the necessary non-point pollution control to allow a portion of the parcel to be densely developed as an industrial park, which in turn will bring jobs back to the Valley and give a boost to the regional economy. The stormwater park provides the ecological benefits of habitat restoration and species diversity along with a community commons that provides active and passive recreational opportunities.

Designed in concert with the new Canal Street extension, construction of the stormwater park has begun so that it will be capable of treating stormwater from Canal Street starting in 2006. The stormwater park is already serving as a demonstration site by influencing other similar projects, resulting in a more comprehensive approach to water resource management throughout the entire Menomonee Valley.

Principles from the Menomonee River Valley Sustainable Design Guidelines have provided the private sector development community with performance standards for ecological enhancement, restorative techniques and a “how to” for employing a Best Management Practices approach to address these sustainability goals.



The Menomonee Valley Benchmarking Initiative (MVBI) will track and study environmental, economic and community development indicators to gauge impacts of redevelopment in the Valley, including changes to water quality and aquatic habitat. The Menomonee Valley Partners, Inc. (MVP), SSCHC and the University of Wisconsin-Milwaukee Great Lakes Water Institute have collaborated on a WCMP-supported project that will assist the MVBI in measuring changes to the Menomonee River.

This partnership has deployed water quality monitoring technology in the lower reaches of the Milwaukee River basin including two devices in the Menomonee River. These sampling points will provide critical data to the MVBI while also making water quality information available to the general public through a network of kiosks and web-based applications.

Although redevelopment of Milwaukee’s Menomonee River Valley has only recently begun,

its central location and other attributes have already drawn investors such as The Sigma Group, a private sector firm that has built a highly attractive, sustainable facility in the heart of the Valley. The enthusiastic response Sigma has received to its new offices portends well for the mutual benefits that can be achieved as the Valley’s environment is cleaned up and new family-supporting jobs improve the health and livability of the surrounding community.

From a more strategic perspective, it is clear that the revitalization of the Menomonee River Valley offers a compelling story for achieving environmental restoration in urbanized areas that already have the infrastructure needed to support quality development and are close to an available workforce. This pattern of development reduces pressure on farmland and existing open spaces, and protects water quality and water recharge areas that are under enormous pressure from sprawling development. The story of the Menomonee River Valley can play out up and down Wisconsin’s magnificent Great Lakes shorelines.

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It is essential to monitor and improve near shore water quality for human health protection, water recreation and ecological integrity.

## PROTECTING BEACH HEALTH IN DOOR COUNTY

*Vinni Chomeau*

Door County's beaches draw millions of people with diverse interests to the water's edge: swimmers, limnologists, boaters, bird lovers, fishermen, home owners and sunset watchers. All of these persons are connected by a common desire for themselves and future generations to enjoy the thrills and pleasures of Door County beaches without suffering the ill effects of contaminated water.

Door County is an ecological haven for biodiversity. It provides habitat to many threatened and endangered species, is a destination for nearly 2.2 million visitors per year and is the home of 28,000 residents. The health of Door County's 250 miles of Lake Michigan and Green Bay shoreline and near shore waters is invaluable to the county and the State of Wisconsin.

In 2003, the Door County Public Health Department (DCPHD) began regular monitoring of 28 public beaches utilizing Federal Beach Act funds. Additionally, the Door County Soil and Water Conservation Department (SWCD) began the task of determining the sources of beach contamination at all 28 monitored beaches. Each agency contracts with the University of Wisconsin-Oshkosh Biology and Microbiology Department to collect the monitoring and source identification water samples. A comprehensive

team of conservationists, health professionals, microbiologists, ecologists, limnologists, statisticians and shoreline/beach experts analyze and interpret the beach data.

Door County has beaches with sand and rock substrates with various degrees of water circulation based on their location within bays and the predominant wind directions. Some of the beaches are in urban areas with stormwater runoff on the beach and others are in rural areas with no stormwater runoff. All of these different beach characteristics make determining potential contamination sources an individual and challenging pursuit at each beach, and establish Door County as an excellent site for researching beach contamination sources and persistence.

With assistance from Wisconsin Coastal Management Program (WCMP), the SWCD in 2003 conducted watershed surveys for every monitored beach. The surveys included mapping the beach watershed and stormwater conveyance systems, determining beach slope and substrate, quantifying land use and identifying potential contamination sources. With a WCMP grant and donations from local governments and organizations, SWCD used the 2003 beach data to enact a water sampling project in 2004 with the sole purpose of identifying beach contamination sources.

In 2004, SWCD water sampling for source identification included expanded sampling at five high priority beaches and a system of rain gauges within five miles of every beach. Source identification sampling included spatial sampling for E. coli in 12, 24 and 48 inches of water.

The results showed that E. coli concentrations significantly decreased as water depth increased. The average of the samples taken in 48 inches was below the swim advisory level of 235 MPN per 100 ml of water, revealing that the sources of beach contamination are localized from onshore/watershed sources. Analysis of the rainfall events at several beaches with stormwater outlet pipes revealed that E. coli concentrations stayed above 235 MPN for eight to 12 hours after rain events of 0.5 inches.

Bird populations were observed using both bird count and bird waste count methods. Bird populations were correlated with E. coli concentrations at selected beaches. Genetic codes and the antibiotic resistance of E. coli isolates that were recovered from five beaches revealed that there were human and avian sources of E. coli present at all five beaches. Four of the five beaches had a significant amount of human derived E. coli.

As a result of the 2004 source identification project, two beaches in the City of Sturgeon Bay now issue pre-emptive beach closures based on

rainfall. The City of Sturgeon Bay and the Village of Ephraim have extended the source identification water sampling into the stormwater and surface water conveyance systems to isolate sources of contamination. The City of Sturgeon Bay and the Town of Gibraltar have made improvements to their stormwater discharge areas on the beach to improve swimmer safety and beach health.

In 2005—with the assistance of a WCMP grant and local donations—thirteen beaches are being sampled for contamination source identification using the same 2004 methods with an emphasis on isolating sample locations during rainfall events to determine specific sources of contamination.

The efforts of Door County to ensure the safety of water users and protect this valuable resource have not gone unnoticed. After an unfavorable review of their beach monitoring activities in 2003 by the Natural Resource Defense Council, this comprehensive regimen of water quality sampling and bacterial source inventory has placed the County on its Beach Buddy list.



The beach contamination source identification project has provided the county one method of accessing and abating non-point pollution sources. It is essential to the residents, tourists and ecosystem in Door County to monitor and improve near shore water quality for human health protection, water recreation and ecological integrity.

Door County Interim Beach Report is available at <http://map.co.door.wi.us/swcd/BeachInterimReport.pdf>

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Waterfront communities  
are transitioning  
from manufacturing  
to vacation spots.

## LAKE MICHIGAN COMMUNITIES REINVENT FOR TOURISM

*Jennifer Garrett*

Travelers spent nearly \$12 billion in Wisconsin last year, and it is easy to see why. The range of activities, accommodations and amenities makes it easy for everyone from earthy campers to highbrow art lovers to find a place to visit, rest, play and enjoy.

However, tourism does not happen by accident. Even lakeshore destinations—blessed with beautiful scenery and access to fishing, sailing and other water-based activities—must constantly reinvent themselves to remain attractive and accessible to visitors.

Some waterfront communities are transitioning from manufacturing to vacation spots. Others are focused on small niches, like nature or cultural tourism. Longstanding favorites continue to improve and evolve as they earn widespread attention and attract visitors from around the globe.

**Kenosha.** Once an automotive manufacturing center, nearly ninety percent of Kenosha's lakefront is today dedicated to public recreation in the forms of parks, gardens, trails, beaches and fishing piers. Getting from attraction to attraction is easy thanks to the two-mile electric streetcar that connects the historic district, downtown business district, parks and marina.

Paula Touhey, director of the Kenosha Public Museum, says residents are proud to tout their city as a destination that offers unique shopping, great restaurants, good fishing and nature. "Our location between Chicago and Milwaukee is ideal. People can easily enjoy the lakefront, and costs in this area are reasonable."

**Racine.** Racine, well known for manufacturing, is also making strides with its cultural tourism industry. Jessica Zalewski, marketing specialist for the Racine Art Museum, says the new museum sends a clear message about the importance of investing in tourism as a means of economic growth. "If there is more to see and do, there are clearly more reasons to visit for a longer period of time and more often."

**Milwaukee.** Milwaukee has been a hotbed of tourism development thanks to a \$2.2 billion boom that includes the stunning Calatrava addition to the Milwaukee Art Museum, the Milwaukee Brewers' new home at Miller Park, the Potawatomi Bingo Casino and the Riverwalk. The newest attraction on Milwaukee's lakefront will be Discovery World at Pier Wisconsin due to open in 2006. The redeveloped municipal pier will feature a science, economics and technology museum including special exhibits on freshwater and the Great Lakes. Pier Wisconsin will also be

the summer home to *S/V Denis Sullivan*, a 137-foot replica of a 19th century Great Lakes schooner that provides scenic tours and serves as a floating classroom for water and conservation programs.

**Port Washington.** As long-time manufacturing businesses closed, Port Washington balanced its changing economy by investing in tourism. Concentrated efforts to capitalize on the city's New England-style maritime charm have worked as the local tourism industry has outpaced statewide tourism growth. Kathy Tank, executive director of the Port Washington Tourism Council, says the community has learned to embrace tourism—and not just to fuel the economy. “A town that is attractive to tourists also adds greatly to the quality of life of its residents.”

**Manitowoc.** During World War II, the Manitowoc Shipbuilding Company built 28 submarines for the Pacific War effort. Now Manitowoc's shipbuilding heritage is at the heart of its tourism industry. Every year, thousands of people head to Wisconsin's Maritime Capitol to visit the

World War II submarine *USS Cobia*, now an international memorial and historic landmark. The Wisconsin Maritime Museum recently finished a multi-million-dollar addition, and carferry travelers on their way to Ludington, Michigan, embark from Manitowoc.

**Kewaunee County and the Door Peninsula.** One has to look no further than Door County to understand how tourism can drive a local economy. The popular lakefront destination draws nature lovers to its beaches, state parks, bikeways and waters. Art lovers can take in live theatre performances or peruse more than 80 galleries and museums. Sturgeon Bay, Algoma and Kewaunee are employing their well-deserved reputations as great fishing communities to attract sport travelers with top-notch charter fishing.

**Marinette.** Marinette is using its abundant waterfalls and parks to develop a nature-based

local tourism industry. Kay Eaton, owner of Eaton Design Studio which publishes the Marinette County Visitors Guide, says Marinette is focusing on a narrow segment of the traveling population with sport fishing and natural attractions. “We realize that we're not a Wisconsin Dells that has amazing water park attractions, but we do have nature and that really is a nice draw. We like to call ourselves ‘Nature's Waterpark.’”

**Special Events.** Large—sometimes international—events can drive tourism industry development locally and statewide. For instance, the 2004 PGA Championship held at Kohler's Whistling Straits golf course impacted numerous communities along Lake Michigan. Hotels, resorts and restaurants filled up fast when Tiger Woods and the rest of the golf world showed up.

Regional and worldwide visitors are attracted to the beauty and history of Wisconsin's Lake Michigan shores. Coastal communities are using their assets to meet the needs of the traveling public and improve the quality of life for residents.

*Jennifer Garrett is a freelance writer. For more information about Great Lakes tourism opportunities or to receive a copy of the Harbor Towns brochure, please contact the Wisconsin Department of Tourism at 1-800-432-TRIP or [www.travelwisconsin.com](http://www.travelwisconsin.com).*





Coastal programs are required to develop performance measurement systems to evaluate effectiveness.

## COASTAL PERFORMANCE INDICATORS

*Elizabeth Mountz*

How should the nation determine whether it is successfully managing coastal areas? How should limited resources be allocated among numerous coastal priorities such as habitat restoration, coastal hazards and providing public access to the coast?

These are the types of questions that Congress and the federal Office of Management and Budget have asked the national network of state and territory Coastal Zone Management (CZM) programs. In an era of increasing governmental accountability, federally-funded programs are required to develop performance measurement systems to evaluate program effectiveness.

Over the past three years, the National Oceanic and Atmospheric Administration (NOAA) and the 34 state and territory CZM programs have worked to develop a system of performance indicators—using measurable and quantifiable data—that will tell the story of coastal management in the United States. This system is referred to as the National Coastal Performance Measurement System. The Wisconsin Coastal Management Program (WCMP) has played a leading role in this process, participating in both developing and testing the proposed performance indicators for coastal zone management.

**Developing Performance Indicators.** The process of developing performance indicators first sought to define objectives for which CZM programs are responsible. At first glance, this seems to be an

easy task since the Coastal Zone Management Act (CZMA)—the legislation authorizing federal support for state CZM programs—prescribes a wide range of goals and objectives.

However, the CZMA was also designed to give each state or territory the flexibility to develop a management program best suited for its specific needs. The 34 state and territory CZM programs encompass a wide range of variability in climate, geography, cultural norms and political structure. For example, the Puerto Rico CZM program works in a tropical ecosystem that is dramatically different from California's Pacific coastline which in turn differs from Wisconsin's Great Lakes shoreline. Regardless of these differences, each state and territory CZM program works to protect, restore and ensure responsible development of its share of the nation's coastal communities and resources.

In 2003, a NOAA and state CZM program working group developed a draft list of approximately fifty performance indicators based upon six key areas within the CZMA:

- public access
- coastal habitat
- coastal water quality
- coastal hazards
- coastal dependent uses and community development
- government coordination and decision making

In addition, the working group developed a list of contextual indicators that will provide insight to the socio-economic and environmental trends influencing coastal management needs at both state and national scales. For example, the contextual indicators 'population density' and 'percentage of population change' demonstrate the extent of human-generated pressures upon the coastal environment. The WCMP brought a Great Lakes perspective to the working group ensuring that the resulting indicators would be applicable to both Great Lakes and oceanic coastal systems.

**Testing the Indicators.** In 2004, the WCMP was one of seven state CZM programs to volunteer for a year-long pilot program to test the usefulness and feasibility of the draft indicators. The WCMP focused on testing the coastal habitat, public access and coastal hazards draft indicators by partnering with programs such as the University of Wisconsin-Madison Sea Grant Institute and the Department of Natural Resources Wisconsin Wetland Inventory program.

During this phase, the WCMP worked to determine whether existing data sources could be used to answer questions such as the number of acres of coastal wetlands in Wisconsin and the acreage of coastal wetlands impacted by permitting decisions within any given year. The WCMP also worked with the University of Wisconsin-Madison

Botany Department to adapt Species Dominance Index indicators—originally developed through the Great Lakes Environment Indicators project—for use as coastal management habitat indicators.

**Next Steps.** In July 2005, all state and territory CZM programs began tracking performance indicators to quantify the national impact of the Coastal Zone Management Program. During the next year, the programs will concentrate on collecting information on the public access and government coordination and decision making indicators. The set of indicators will be expanded to include coastal habitats and coastal water quality.

By the third year of the program, state and territory CZM programs will track coastal hazards and coastal dependent uses and community development indicators providing a strong picture of the condition of coastal management across the United States. A list of the performance indicators and contextual indicators are available online at <http://coastalmanagement.noaa.gov/cpd/welcome.html>.

The WCMP will continue to work with NOAA and the other Great Lakes CZM programs to coordinate on a regional level. Data and methodologies will be shared between state CZM programs and with other regional indicator initiatives such as the State of the Lakes Ecosystem Conference and the Great Lakes Environment Indicators project.



The addition of the National Coastal Management Performance System will provide data specifically tailored to the needs of coastal policy makers and resource managers at the state, regional and national levels.

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Brownfields redevelopment  
can raise the value of  
surrounding property by  
as much as 30 percent.

## WATERFRONT REDEVELOPMENT

*Andrew Savagian*

Our coasts are the places where much of the business of humanity takes root. They are the points where water greets the land, where societies are gathered up and brought together into communities, and where the booms and busts of history have played out for centuries.

Along our Great Lakes shorelines, Wisconsin has marked the passage of time through Native populations, the influx of early European settlers and the rise of manufacturing industries. Today, many of our cities are dealing with polluted places where industries ran their course.

The empty factories, abandoned warehouses and old gas stations that dot the Great Lakes landscape present unique and often difficult issues. They are, however, issues that must be dealt with before communities can reclaim and redevelop these coastal eyesores now labeled “brownfields.”

### **The Benefits of Coastal Redevelopment.**

A combination of common sense and data are driving our coastal cities, suburbs and small towns to tackle brownfields. Communities benefit financially by replacing vacant properties with thriving businesses. Recent studies have shown that brownfields redevelopment can raise the value of surrounding commercial property by as much as ten percent and residential property by 30 percent.

Waterfront redevelopment also helps protect public and environmental health and preserve

valuable green space. Shoreline redevelopment is typically at a higher density, provides ready-made transportation routes and often saps fewer natural resources.

The State can play an important role in successful waterfront redevelopment projects. In Wisconsin, recent figures show that for every one dollar spent in State brownfield grant money, 14 dollars of local funding was invested in redevelopment. These State/local collaborations are creating success stories across Wisconsin.

**Sheboygan’s Blue Harbor Resort.** A high profile coastal redevelopment is playing out on the western shore of Lake Michigan in the City of Sheboygan.

In the 1880’s, the city’s C. Reiss Coal Company opened its doors for business. More than 100 years later, the company ceased operations and left a waterfront property with environmental contamination problems.



City officials stepped in with new brownfield tools available through the Department of Commerce and Department of Natural Resources (DNR). Utilizing the DNR's technical assistance, the City was able to clean up the soil and groundwater contamination, remove leftover storage tanks and begin redevelopment. In addition to a Commerce brownfield grant of \$1.1 million and a DNR Land Recycling Loan, the city invested an additional \$3 million on cleanup.

Today the former waterfront eyesore is home to Blue Harbor Resort, a 183-room hotel and conference center with more than 350 employees. The project not only provides an increased tax base of more than \$100 million, it also contains a beach restoration area created with funding from the Wisconsin Coastal Management Program. The property is the centerpiece to Sheboygan's coastal redevelopment plan and an excellent example of balancing commercial interests with public access and green space preservation.

**Kenosha's Harbor Redevelopment.** Part of the fast-growing corridor running from Chicago to Milwaukee, Kenosha had one of Wisconsin's most troublesome coastal brownfields. In the early 1990s, much of its shoreline was taken up with an old American Motors manufacturing plant including more than 40 acres of abandoned buildings, underground tanks and contaminated land.

Working with a host of partners—including the DNR, Department of Commerce, the U.S. Environmental Protection Agency, the Urban Land Institute and private consultants—Kenosha officials began piecing together an impressive array of redevelopment tools and technical assistance.

With more than \$2.5 million in funding from these federal and state agencies, Kenosha began remediation by removing eleven underground storage tanks and more than 6,000 cubic yards of contaminated soil.

Cleanup and redevelopment took several years, but today the City boasts two new museums, bike and walking trails, condominium developments and a trolley service to downtown. Not only has the harbor redevelopment created jobs, coastal property values have also increased \$50 million since 1989 and nearby property values increased by more than \$13 million.



Even more impressive is the City's ability to blend green space preservation with economics, creating a community destination where 90 percent of Kenosha's coastal area is accessible to the public.

**Waterfront Revitalization Awareness.** The success of brownfield redevelopments depends upon the input and support of citizens who live and work along our Great Lakes coasts. With that in mind, Wisconsin state agencies teamed up with the Great Lakes Commission to host the 2005 Waterfront Revitalization Conference at Blue Harbor Resort. The meeting drew 200 individuals seeking to redevelop contaminated Great Lakes waterfronts.

Conference participants learned about success stories like those in Kenosha and Sheboygan. They also discussed how community participation has helped hundreds of cities all over the Great Lakes turn their blighted shorelines into coastal treasures.

Future conferences and a comprehensive, statewide "one-stop" web site are in the works. Everyone involved in coastal redevelopment believes this momentum will bring new ideas to Great Lakes communities, each one dedicated to the goal of making coastal brownfields a place to gather once more.

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Wisconsin's coastal zone is best managed when all levels of government work together.

# STATE AND FEDERAL COORDINATION ON WISCONSIN'S GREAT LAKES

*Kathleen Angel*

Enjoy and protect Wisconsin's Great Lakes. This simple statement guides the Wisconsin Coastal Management Program (WCMP) and underlies all of its efforts. The WCMP is best known for providing matching grants to communities and organizations working on economic development and preservation projects along Lake Michigan and Lake Superior. The WCMP's work, however, goes well beyond funding and grants management. An equally important task is monitoring the federal government's activities in the coastal zone through a process called federal consistency review.

Federal consistency is an agreement between a state and the federal government. It comes from Section 307 of the Coastal Zone Management Act (CZMA), the federal legislation under which the WCMP formed. Federal consistency requires that *federal actions* that will have *reasonably foreseeable effects on land or water uses or natural resources* of the *coastal zone* must be consistent with a state's federally-approved Coastal Management Program.

**Federal Actions.** Federal consistency review applies only when the federal government takes an action. Actions include those taken directly by or on behalf of the federal government, such as dredging, construction or planning. Actions also include indirect activities such as federal permitting. Federal financial assistance activities are also subject to federal consistency review. Applications for funds from the Department of

Housing and Urban Development, for example, may be subject to federal consistency review.

**Reasonably Foreseeable Effects on Land or Water Uses or Natural Resources.** Not all federal actions require federal consistency review. In addition to involving the federal government, the activity must have reasonably foreseeable effects on land or water uses or natural resources in the coastal zone. Uses include recreation, fishing, floodplain management and historic preservation. Resources include biological and physical entities such as air, rivers, lakes, aquifers, minerals, plants, fish, reptiles and mammals.

**The Coastal Zone.** Federal consistency review is subject to the physical boundaries of the coastal zone. States delineate their coastal zones in different ways. In Wisconsin, the coastal zone consists of the 15 counties bordering Lakes Michigan and Superior. All direct actions that involve federal development projects and many federal permitting actions are automatically subject to federal consistency review if they occur in Wisconsin's coastal zone. Even if the planned activity is outside of the 15 counties, the action may be subject to federal consistency review if the project will likely affect the land, water or other resources of the coastal zone.

**The Review Process.** If the proposed activity is a direct action, the federal agency will determine whether there are any foreseeable coastal effects.



If coastal effects are reasonably foreseeable, the federal agency will make its own consistency determination. The agency must give notice to the WCMP at least 90 days before the activity begins. The WCMP then has 60 days to concur with or object to the federal agency's determination.

In the case of a federal license or permit activity, the individual, organization or government agency applying for the federal permit must submit a Consistency Certification to the approving federal agency and the WCMP. The program then has six months to respond. The federal agency may not grant the permit or license until the consistency process is complete.

When reviewing a proposed project, the applicant, federal agency and WCMP will look to the WCMP's enforceable policies. These are the state laws, rules and regulations that the WCMP has identified as related to coastal uses and resources. They can be found on the WCMP's website at <http://www.coastal.wisconsin.gov>.

The enforceable policies are a part of the WCMP's federally-approved program. That is, the federal government has reviewed the policies and agreed to abide by them. Furthermore, the WCMP does not develop regulations of its own; its enforceable policies come from state statutes and the regulations developed by other agencies such as the Department of Transportation and the Department of Natural Resources. As statutes and rules evolve over time, the WCMP must revise its policies in response. The WCMP is currently updating its enforceable policies.

**Consistency as a Coordination Tool.** Federal consistency protects Wisconsin's coastal resources by requiring the federal government to follow state regulations when taking actions that may affect our Great Lakes. The federal government may not approve permits or licenses that violate identified state regulations.

Federal consistency also encourages cooperation between the federal government, state

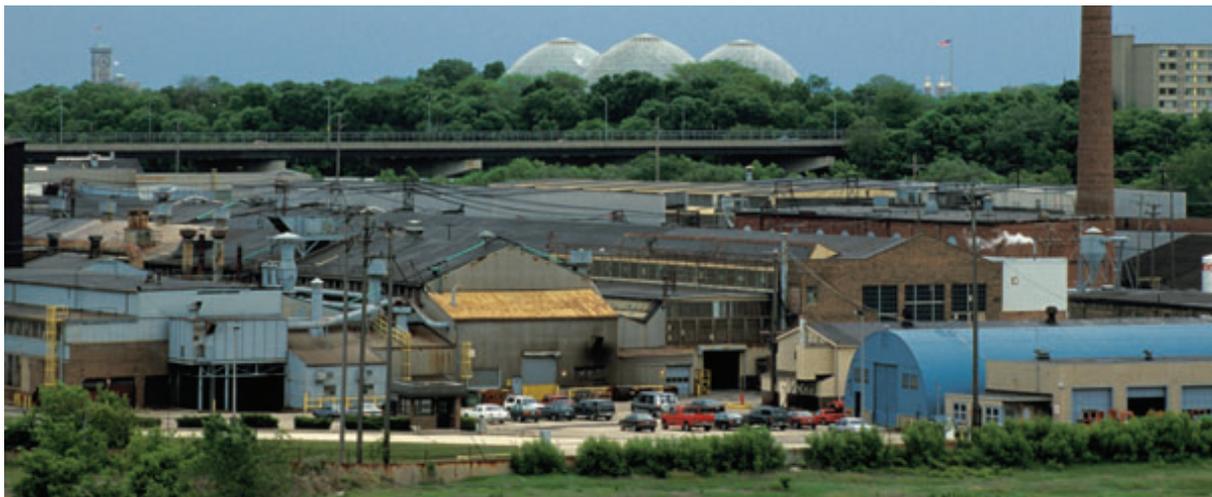


government, local governments and individuals. Furthermore, because the WCMP's enforceable policies are tied to the Wisconsin Statutes, rules and regulations, the federal consistency process requires coordination between state agencies.

Federal consistency requirements also help the WCMP stay up to date with projects throughout the coastal zone. Program staff uses this information to share innovative ideas and best practices throughout coastal communities. The WCMP is also better able to make informed decisions on grant requests and provide useful technical assistance to local governments and organizations.

Wisconsin's coastal zone is best managed when all levels of government work together. Federal consistency creates an environment where all may enjoy and protect Wisconsin's Great Lakes.

*Kathleen Angel is Federal Consistency Coordinator with the Wisconsin Coastal Management Program. She can be reached at (608) 267-7988 or [kathleen.angel@doa.state.wi.us](mailto:kathleen.angel@doa.state.wi.us).*



# 2005 WISCONSIN COASTAL MANAGEMENT PROGRAM GRANTS

*Project Name*

*Grantee*

*WCMP Award*

*Project Description*

## Coastwide

### **Assessing Cladophora Management Strategies**

University of Wisconsin-Milwaukee

\$78,373

Support development of a management strategy that addresses the Cladophora concern. Project Contact: Dr. Harvey Bootsma, (414) 382-1717

### **Enhanced Web Access for Communities**

Department of Natural Resources

\$57,273

Develop web-based tools to enhance access to ecological, management and cultural information on State Natural Areas. Project Contact: Ms. Betty Les, (608) 266-3369

### **Smart Prevention of Aquatic Invasive Species in Lake Michigan Coastal Counties of Wisconsin**

University of Wisconsin-Madison

\$38,785

Identification of tributaries and coastal sites that are vulnerable to invasion by rusty crayfish and zebra mussels from inland waters. Project Contact: Dr. Jake Vander Zanden, (608) 262-9464

### **Lake Michigan Birding and Nature Trail: Phase III Great Wisconsin Birding and Nature Trail**

Department of Natural Resources

\$30,000

Develop a mapped auto trail guiding travelers to birding and nature-based recreation sites in Lake Michigan counties. Project Contact: Ms. Susan Foote-Martin, (608) 266-0545

### **Facilitating Wetland Restoration in Wisconsin's Coastal Counties**

Wisconsin Wetlands Association

\$29,800

Five wetland restoration workshops in coastal counties, a web-based restoration guide and an online list of restoration professionals. Project Contact: Ms. Becky Abel, (608) 250-9971

### **Great Lakes Circle Tour Coastal Access Guide**

University of Wisconsin-Madison

\$29,673

Develop an interactive web mapping site with marine heritage tourism attractions and public access sites to the Great Lakes coast. Project Contact: Dr. Stephen J. Ventura, (608) 262-6416

### **Natural Areas Assistance Program**

Natural Resources Foundation of Wisconsin

\$29,500

Promote community leadership and volunteer support of State Natural Areas. Project Contact: Mr. Charles Luthin, (608) 261-4384

### **Characterization of Escherichia coli in Beach Sands Relative to Sediment Size and Hydrologic Factors**

University of Wisconsin-Parkside

\$20,000

Assess the interaction between surface run-off, E. coli (bacterial) sediment burden and groundwater, and the processes by which they interact. Project Contact: Dr. John D. Skalbeck, (262) 595-2490



### **Lake Superior Visual Quality Inventory**

Northwest Regional Planning Commission  
\$18,750

A collaborative effort between the NWRPC and the University of Wisconsin-Extension to develop an informational publication and convene an educational forum focusing on the visual resources of Wisconsin's Lake Superior shoreline. Project Contact: Mr. Jason Laumann, (715) 635-2197

### **Restoration of Coastal Wetlands: Invasive Species Removal**

Department of Natural Resources  
\$13,500

Restore 46 acres of degraded wetlands at eight coastal State Natural Areas. Project Contact: Mr. Randy Hoffman, (608) 267-7587

### **Great Waters Institute**

Institutes for Journalism & Natural Resources  
\$10,000

Seminars for fourteen competitively selected journalists to learn about Great Lakes environmental and coastal management issues. Project Contact: Mr. Peter Annin, (608) 278-8005

### **In Their Own Voices: Land Conservation in the Lake Superior Basin**

Bayfield Regional Conservancy  
\$6,000

A collection of stories from landowners who have protected their land through land preservation agreements with land trusts or other methods of land protection. Project Contact: Ms. Ruth Oppedahl, (715) 779-5263

### **Technical Assistance**

Northwest Regional Planning Commission  
\$20,000

Support local governments and the WCMP in coastal management activities. Project Contact: Mr. Jason Laumann, (715) 635-2197

### **Technical Assistance**

Bay-Lake Regional Planning Commission  
\$20,000

Support local governments and the WCMP in coastal management activities. Project Contact: Mr. Mark Walter, (920) 448-2820

### **Technical Assistance**

Southeastern Wisconsin Regional Planning Commission  
\$20,000

Support local governments and the WCMP in coastal management activities. Project Contact: Dr. Don Reed, (262) 547-6721

### **Coastal Wetland Inventory**

Department of Natural Resources  
\$83,338

Continue updates and enhancements to the Wisconsin Wetland Inventory in the coastal counties. Project Contact: Ms. Lois Simon, (608) 266-8852

### **Technical Assistance to Local Units of Government**

Department of Natural Resources  
\$368,684

Enhance the local role in wetland protection by supporting implementation and enforcement of waterway and shoreland-wetland regulations. Project Contact: Ms. Lois Simon, (608) 266-8852

## **Ashland County**

### **Improving Winter Public Access to Madeline Island**

Town of La Pointe  
\$30,900

Reconstruct Griggs Approach and provide stormwater collection and filtration areas for runoff. Project Contact: Mr. Keith Sowl, (715) 747-6855

### **2005 Waterfront Trail Public Access Improvements**

City of Ashland  
\$26,500

Provide a 1,820-foot connection to the Waterfront Trail from Memorial Park. Project Contact: Ms. Brea Lemke, (715) 682-7041

### **Maskiigimim (Cranberry) Inventory and Assessment**

Bad River Band of Lake Superior Chippewa  
\$20,070

Inventory existing wild cranberry species and potential habitat in coastal wetlands using fieldwork, aerial photos and historical data. Project Contact: Ms. Leah Gibala, (715) 682-7111

### **Use of Re-Directive Methods (Flow-Deflecting Vanes) for Reducing Bluff Erosion**

University of Wisconsin-Madison  
\$17,308

Implement, maintain and monitor re-directive flow techniques to control erosion along North Fish Creek. Project Contact: Mr. John A. Hoopes, (608) 262-2977

## Bayfield County

### City and Town of Washburn Comprehensive Plan

City of Washburn

\$55,200

Comprehensive planning process for the City and Town of Washburn. Project Contact: Ms. Ruth Oppedahl, (715) 373-0973

## Brown County

### Red Banks-Gilson Creek Conservation Plan

University of Wisconsin-Green Bay, Cofrin  
Center for Biodiversity

\$22,134

Ecological inventory and development of a conservation plan for the Red Banks and Gilson Creek site on Green Bay. Project Contact: Dr. Robert Howe, (920) 465-2272

## Door County

### Wisconsin's Maritime Trails 2005: Door County

Wisconsin Historical Society

\$54,405

Expand to Door County the Wisconsin's Maritime Trails initiative linking shipwrecks, lighthouses, historic waterfronts, historic vessels, museums, shore-side historical markers and attractions. Project Contact: Mr. John Broihahn, (608) 264-6496

### Non-Point Source Beach Contamination Correlation for High Health Risks (Continuation)

Door County Soil and Water Conservation  
Department

\$47,500

A replication of the 2004 testing regime to ensure accurate results and support for the Adopt-A-Beach program. Project Contact: Ms. Vinni Chomeau, (920) 746-2214

## Douglas County

### GIS-based Sediment Quality Database for the St. Louis River Area of Concern

St. Louis River Citizen Action Committee

\$47,000

Assemble a GIS-based sediment quality database that will meet the needs of stakeholders within the St Louis River Area of Concern. Project Contact: Ms. Lynelle Hanson, (218) 733-9520

### Stormwater Education

City of Superior Wastewater Treatment Plant

\$30,000

Develop a citizen waterway monitoring program, guidance for students to plan and install rain gardens at Superior Middle School, design and construction of a parking lot rain garden on Barkers Island, storm drain stenciling and rain barrel workshops. Project Contact: Ms. Diane Thompson, (715) 394-0392

## Kenosha County

### Chiwaukee Prairie Habitat Restoration

Department of Natural Resources

\$30,000

Restore 110 acres of degraded wetlands at Chiwaukee State Natural Area. Project Contact: Mr. Marty Johnson, (262) 884-2391

### *Discover Wisconsin* 2005-2006 TV Episode

Kenosha Area Convention & Visitors Bureau

\$15,000

Support a 30-minute *Discover Wisconsin* TV episode spotlighting the Kenosha area and its coastline. Project Contact: Ms. Deanna Goodwin, (800) 654-7309

## Kewaunee County

### Kewaunee County Wetland Restoration Inventory

Kewaunee County Land & Water  
Conservation Dept.

\$23,000

Inventory, assess and monitor small wetland restorations in Kewaunee County following the protocol of WCMP-funded projects in other counties. Project Contact: Ms. Jill Hewitt, (262) 242-7398

### *Discover Wisconsin* 2004-2005 TV Episode

Algoma Area Chamber of Commerce

\$15,000

Support a 30-minute *Discover Wisconsin* TV episode spotlighting the Algoma area and its coastline. Project Contact: Ms. Pam Ritchie, (920) 487-2041



## Manitowoc County

**Wisconsin Maritime Museum (*USS Rasher*)**  
City of Manitowoc/Wisconsin Maritime Museum  
\$40,000

A *USS Rasher* Submariners Memorial on the south shore of the Manitowoc River across from the Wisconsin Maritime Museum. Project Contact: Mr. Nicholas Levendusky, (920) 686-6932

**Dam Removal on Millhome Creek, Manitowoc County**  
Department of Natural Resources  
\$25,763

Removal of four small dams and channel restoration on the headwaters of a Class I trout stream that leads to the Sheboygan River. Project Contact: Mr. Michael Toneys, (920) 746-2864

**Manitowoc County Beaches Evaluation Project**  
Manitowoc County Soil & Water Conservation Dept.  
\$25,000

Identify the influence of factors such as waves, wind direction and other weather data on beach bacterial contamination. Project Contact: Mr. Tom Ward, (920) 683-4183

**Comprehensive Planning for the Town of Centerville and Village of Cleveland**  
Village of Cleveland  
\$20,000

Support development of the natural resources, land use and plan implementation elements of the comprehensive plans for the Town of Centerville and Village of Cleveland. Project Contact: Ms. Cindy Huhn, (920) 693-8059

## Strategic Planning and Codes/Ordinance Development

Village of Howards Grove  
\$9,200

Complete natural resource planning for the Village of Howards Grove to identify and protect environmental corridors and special features. Project Contact: Mr. Kenneth C. DeSombre, (920) 565-3511

**Manitowoc County Septic Monitoring**  
Manitowoc County Planning and Park Commission  
\$5,000

A comprehensive monitoring program on the oldest septic systems near the lakes, rivers and tributaries of Manitowoc County. Project Contact: Mr. Matt Payette, (920) 683-4192

## Marinette County

**Discover Wisconsin 2005-2006 TV Episode**  
Marinette County Tourism Alliance  
\$15,000

Support a 30-minute *Discover Wisconsin* TV episode spotlighting Marinette County and its coastline. Project Contact: Mr. Don Clewley, (715) 732-0230

## Milwaukee County

**Vanselow Property Acquisition**  
Milwaukee Metropolitan Sewerage District  
\$147,400

Acquire 14 acres of farmed wetland in Oak Creek and restore the land to functioning wetland providing flood prevention and sediment reduction in the Root River. Project Contact: Ms. Sheila Charnon, (414) 225-2134

## Menomonee Valley Riverbank Stabilization and Public Access Project

Redevelopment Authority of the City of Milwaukee  
\$101,800

Implement the WCMP funded stormwater management and public access plan for a redevelopment site on the Menomonee River in Milwaukee. Project Contact: Mr. Brian Reilly, (414) 286-5616

**Shipshape II: Expansion of the Great Lakes Marine Vessel Files**  
Milwaukee Public Library  
\$44,830

Expand the Shipshape marine vessel database to include 2,000 additional records. Project Contact: Ms. Virginia Schwartz, (414) 286-3216

## Racine County

**North Beach Stone Wall Restoration**  
City of Racine Parks, Recreation & Cultural Services Department  
\$46,440

Restore a stone wall at the Racine North Beach Oasis. The Clean Beach Council designated North Beach as a Blue Wave Beach for 2004. Project Contact: Mr. Donnie Snow, (262) 636-9131

# ACKNOWLEDGEMENTS

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## Photographs

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- 1, Gov. Jim Doyle, Governor's Press Office
- 2, Stockton Lagoon, National Park Service
- 2, Gaylord Nelson at Quarry Bay, Fred Wessel
- 3, Gaylord Nelson, Frank Wallick
- 4, Menomonee Valley, Eddee Daniel
- 5, Spiderwort, Eddee Daniel
- 6, Lake Michigan splashing, Robert Queen
- 7, Lake Michigan beach, Wisconsin DNR file photo
- 8, Port Washington, Wisconsin Department of Tourism (WI Tourism)
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- 12, Milwaukee Riverwalk, Consultwebs.com
- 13, Kenosha Streetcar, WI Tourism
- 13, Blue Harbor Resort, WI Tourism
- 14, Kenosha Light, WI Tourism
- 15, Kewaunee Light, WI Tourism
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- 16, Lake Superior, Robert Queen
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- 21, Lake Michigan sunrise, WI Tourism
- Back Cover, Gaylord Nelson, Frank Wallick

## Wisconsin Coastal Management Program

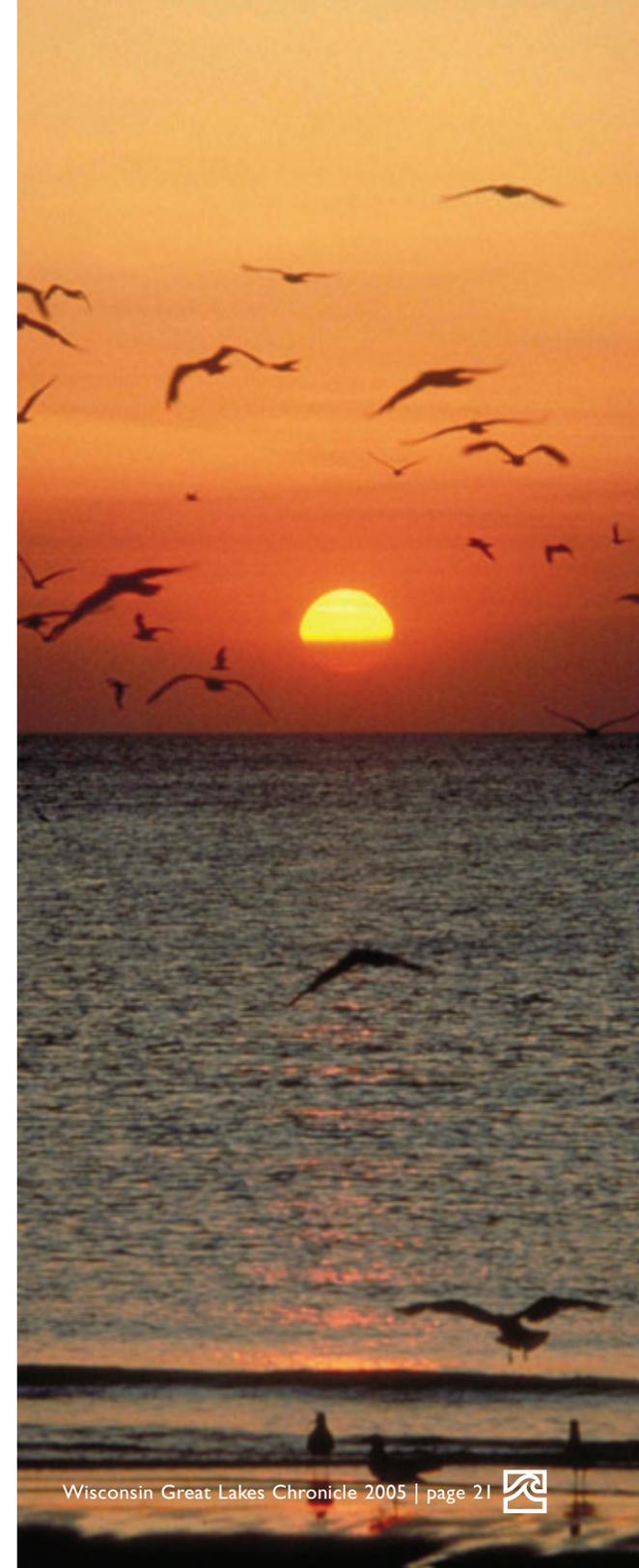
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The Wisconsin Coastal Management Program, part of the Wisconsin Department of Administration, was established in 1978 to preserve, protect and manage the resources of the Lake Michigan and Lake Superior coastline for this and future generations.



 WISCONSIN COASTAL  
MANAGEMENT PROGRAM





The *2005 Wisconsin Great Lakes Chronicle*  
is dedicated to the life and works of Senator Gaylord Nelson.

 WISCONSIN COASTAL  
MANAGEMENT PROGRAM