

Wisconsin Great Lakes Chronicle  
2016



# CONTENTS

Foreword . . . . .	1
<i>Governor Scott Walker</i>	
Transform Milwaukee Creates a Vision for an Industrial Corridor . . . . .	2
<i>Wyman Winston</i>	
Wisconsin Point—Urban Wilderness and Coastal Asset . . . . .	4
<i>Mary Morgan</i>	
Back to the Root . . . . .	6
<i>Mayor John Dickert</i>	
Wisconsin Invests in Shipbuilding Industry . . . . .	8
<i>Sheri Walz</i>	
Coastal States Organization and its Wisconsin Perspective . . . . .	10
<i>Mike Friis</i>	
NEW Water Protects Our Most Valuable Resource . . . . .	12
<i>Bill Hafz</i>	
Wisconsin Wetlands of International Importance . . . . .	14
<i>Katie Beilfuss</i>	
2016 Wisconsin Coastal Management Program Grants . . . . .	16
Acknowledgements . . . . .	20

## On the Cover

Apostle Islands



# FOREWORD

*Governor Scott Walker*

Dear Friends of the Great Lakes,

Welcome to the fifteenth year of *Wisconsin Great Lakes Chronicle*. Since 2002, the Chronicle has given voice to community leaders and coastal managers on issues of importance to Wisconsin's Lake Superior and Lake Michigan coasts. We



are pleased this year to highlight two coastal initiatives that will strengthen our state's economy and protect cultural resources.

On June 15, 2016, the Conference of Great Lakes Governors and Premiers Task Force released the first-ever regional strategy to jumpstart the Great Lakes-St. Lawrence maritime transportation system. The objectives are to double maritime trade, shrink the environmental footprint of the region's transportation network, and support the region's industrial core.

Wisconsin is a bit ahead of and in synch with this effort. In December 2014, the Wisconsin Commercial Ports Development Initiative (WCDPI) produced deliverables that will support freight and economic development at Wisconsin ports, such as a port infrastructure inventory, a Wisconsin marine commodity market analysis, an analysis of port planning and the Wisconsin

Harbor Assistance Program, and the development of a Wisconsin commercial ports master plan with strategic initiatives. In addition, the WCDPI gathered data to be used as baselines for future metrics and identified port infrastructure needs and associated costs.

Funding for the WCDPI has been provided by the Wisconsin Coastal Management Program (WCMP) and the Wisconsin Economic Development Corporation (WEDC). Led by the University of Wisconsin-Madison National Center for Freight & Infrastructure Research & Education (CFIRE), project leadership included state staff from WCMP, WEDC, the Wisconsin Department of Transportation (DOT), and the Wisconsin Department of Natural Resources (DNR).

For the past 40 years, national marine sanctuaries have protected special places in America's oceans and Great Lakes waters, from the site of a single Civil War shipwreck to a vast expanse of ocean surrounding remote coral reefs. Wisconsin's recent nomination to the National Oceanic and Atmospheric Administration (NOAA) focuses on protecting, interpreting, researching, and enhancing access to a nationally significant collection of shipwrecks.

The proposed 875-square-mile sanctuary encompasses Lake Michigan waters adjacent to Mequon, Port Washington, Sheboygan, Manitowoc,

and Two Rivers. All five communities and Ozaukee, Sheboygan, and Manitowoc Counties continue to be committed and engaged in this effort.

On October 5, 2015, President Obama announced NOAA's approval to have Wisconsin's Lake Michigan and Maryland's Malloes Bay nominations begin the process toward possible designation. NOAA, the Wisconsin Historical Society and WCMP are now working with local and state partners on drafting the Environmental Impact Statement (EIS) and management plans. When the EIS and management plans are completed, they will be made available for public comment.

It is an honor to achieve this stage of approval as there are only thirteen national marine sanctuaries and one national marine monument in the federal system. If approved, Wisconsin's Lake Michigan coastal communities can look forward to significant economic and quality of life benefits in the areas of tourism, small business development — such as new dive shops and boat excursions, enhanced recreation and educational opportunities — and of course the preservation and recognition of Wisconsin's historical maritime cultural resources.

We invite you to reflect on the following 2016 *Chronicle* articles that highlight restoration, revitalization, and economic development in Wisconsin's coastal communities. Finally, please visit and enjoy Wisconsin's coastal resources.

# TRANSFORM MILWAUKEE CREATES A VISION FOR AN INDUSTRIAL CORRIDOR

*Wyman Winston*

Located northwest of downtown Milwaukee, the 30th Street Industrial Corridor was a manufacturing hub a century ago. At the time, development happened quickly with natural drainage ways and wetlands filled in and no provision made for water flowage systems or open green spaces used today in contemporary construction. Nonetheless, this industrial strip was the mainstay for the central city attracting employers, workers and housing.

During the past three decades, the Corridor has experienced a significant economic decline with industries leaving the area contributing to a large inventory of abandoned properties and foreclosures. As a result, the area has experienced significant challenges such as declining property values, high crime and widespread unemployment.

Despite these setbacks, the Corridor is poised for redevelopment due to its under-utilized industrial space, established transportation system and access to local workers. A key drawback to this urban district, however, is its poor environmental infrastructure.

Something needed to be done to build upon Milwaukee's proud economic tradition—not only in the 30th Street Corridor, but in other core industrial areas of the city. Understanding that Wisconsin's economic vitality is dependent upon a vibrant Milwaukee, a bold new initiative was required to grow businesses and restore the city as an energetic place in which to live and work.

On April 30, 2012, Governor Scott Walker and the Wisconsin Housing and Economic Development Authority (WHEDA) announced Transform Milwaukee, one of the most aggressive and comprehensive efforts in Wisconsin history to energize the state's largest city. Transform Milwaukee is a public-private partnership focused on restoring economic prosperity to the industrial, residential and transportation areas connecting the 30th Street Industrial Corridor, the Menomonee Valley, the Port of Milwaukee and the Milwaukee Aerotropolis located south of General Mitchell Airport.

Transform Milwaukee supports the Corridor through a sustainable solution to stormwater runoff that will reduce future flooding events. The Corridor is comprised of 7,000 acres within the Lake Michigan Basin—3,000 drain north to Lincoln Creek and 4,000 acres drain south to the Menomonee River. Before development changed the landscape of the Corridor, the area was a complex network of wetlands and streams. Due to industrial-era engineering, rainwater was instead confined and routed to an inefficient system of storm sewers. Consequently, major storm events generate basement backups and flooding.

The Federal Emergency Management Agency (FEMA) has declared three flooding disasters in Milwaukee in the past decade. The most recent flooding event occurred in 2010 when a line of powerful thunderstorms struck the city. Vast flooding shut down streets and freeways and tens of thousands of residents were left without power.

Milwaukee's Greenway Corridor is designed to restore natural drainage systems and spark industrial redevelopment.



The *Milwaukee Journal Sentinel* reported on the unprecedented nature of the event: “The rain fell so fast and furious—more than 7 inches in a couple of hours.”

The storm caused sewer overflows to area streams and Lake Michigan. It was reported that more than 1,000 properties experienced basement backups, 35 locations suffered severe flooding and private sector damage was estimated at \$28.5 million throughout the city.

The Corridor was especially impacted and this industrial backbone needed significant re-imagining to prevent future losses. To that end, WHEDA and the Milwaukee Metropolitan Sewage District (MMSD) collaborated to create a vision for a Greenway Corridor. Other Transform Milwaukee partners include the Milwaukee Department of City

Development, the Department of Public Works and the 30th Street Industrial Corridor Corporation.

In 2014, a comprehensive study to support a Greenway Corridor concept was completed. The concept features a continuous green pathway of reclaimed urban land running from north to south to help restore the natural drainage system lost during the original development of the area. The design will address not only flooding and basement backup issues, but also complement redevelopment activity for the Transform Milwaukee initiative.

The Greenway Corridor solution includes a series of three storm water basins that will collectively hold nearly 40 million gallons of water when the current system of pipes has reached capacity. In this densely developed urban stretch, the basins

will strike a balance between the natural system of tributary streams and wetlands that used to occupy this area and the stormwater sewers.

Two basins are under construction and scheduled for completion in June 2018. The third and final basin is scheduled to be completed in 2022. When completed, the basins will provide a level of storm water flood protection ten times greater than the current infrastructure.

Since the basins are only active in extreme wet weather events, they will be built as green spaces that may be used for recreation, urban agriculture and environmental education. In addition, more than five acres of asphalt will be removed and replaced with wetland plantings, trees and permeable pavement. Green bio-swales are also being added by the City as part of street reconstruction efforts.

All of these measures will help to prevent flooding, basement backups and pollutants from entering waterways that flow into Lake Michigan. On April 27, 2016, construction crews started moving dirt to dig the all-important storage basins. Through collaborative planning by Transform Milwaukee partners, work has begun on a determined effort to reduce flooding challenges realized from over a century of industrial-based development in the Corridor.

*Wyman Winston is the Executive Director of the Wisconsin Housing and Economic Development Authority (WHEDA). He can be reached at (608) 266-7884 or [wyman.winston@wheda.com](mailto:wyman.winston@wheda.com).*



The magic of Wisconsin Point is its coastal wildness and proximity to the greatest of the Great Lakes.

## WISCONSIN POINT—URBAN WILDERNESS AND COASTAL ASSET

*Mary Morgan*

Wisconsin Point—with its twin, Minnesota Point—constitutes the longest freshwater sand bar in the world. The Point, located in Superior, is a 229-acre peninsula situated between Allouez Bay and Lake Superior. Unlike its counterpart on the Minnesota side, Wisconsin Point is protected by local ordinance from industrial, commercial or residential development. Unspoiled and pristine, the property features three miles of beautiful sand beach on the shores of the great and majestic Lake Superior. Allouez Bay has been identified as the largest freshwater marsh in the Great Lakes.

The Point has been designated as a Watchable Wildlife Area by the Wisconsin Department of Natural Resources and an Important Bird Area by the National Audubon Society. An abundance of birds can be found at the Point as it is a major flyway for migratory birds, and the waters of Allouez Bay draw plenty of waterfowl.

The Port of Superior entry is located at the end of the Point where a historic lighthouse rests. The lighthouse went into commission in October 1912. The lighthouse is listed in both the National and State Registers of Historic Places.

Home of a Chippewa burial site, the Point was once a primary Chippewa settlement. Chief Osaugie migrated from Michigan to Wisconsin Point in the early 1800s and became the native community's leader. Non-native claims to the land drove a contentious period ending in 1924 with a judicial ruling that Agate Land Company had

clear title to most of the land. During the course of the court battles, the company was compelled to relocate the remains of the Chippewa cemetery to the Nemadji River Cemetery in Superior. The former Chippewa cemetery on the Point is identified with a sign and stone monument.

The leadership of the Fond du Lac Band of Lake Superior Chippewa is currently in negotiations with the federal government to obtain approximately eighteen acres of surplus federal land adjacent to the break-wall serving the Port. This portion of the Point includes two buildings—a maintenance garage and a dock that were part of the former lighthouse station.

In 2011, the Wisconsin Coastal Management Program and Wisconsin Department of Natural Resources funded a planning process resulting in the first-ever comprehensive master plan for Wisconsin Point and the surrounding area. Stakeholders and the general public provided significant input to the planning process and property owners of the Point and surrounding area led the planning process.

The *Wisconsin Point Area Management Plan* divides the Point into zones that have specific recommendations to meet prioritized goals. For example, certain areas have been identified for habitat restoration. Other areas serve recreational use and still others preserve cultural assets. This plan assists local leaders and researchers in securing funding for the most important

initiatives on the Point by zone. The plan can be accessed at the city of Superior website at [www.ci.superior.wi.us](http://www.ci.superior.wi.us).

Quite a number of grand adventures take place on Wisconsin Point. Each spring, the City of Superior celebrates International Migratory Bird Day in May with an early morning birding hike led by a local birder. The Wisconsin Society of Ornithology (WSO) hosts a three-day field trip known as Jaegerfest every September. WSO notes Jaegerfest as “one of the highlights of the birding year.”

For the last four years, the St. Louis River Alliance—with help from federal, state and local partners—has worked to lure the federally-endangered piping plover back to Wisconsin Point. The Alliance has led an effort to provide the proper habitat for the plover to comfortably mate on Lake Superior shoreline owned by Douglas County. Unsuccessful to date, the Alliance has made a valiant effort to return the bird to the Lake Superior shore and will continue to do so.


In 2015, a multi-agency project began to re-establish wild rice in Allouez Bay. Led by Douglas County, the project consists of reseeded Allouez Bay with a goal of 25 acres of wild rice habitat restoration by 2017. The Lake Superior Research Institute, Wisconsin Department of Natural Resources, City of Superior and Lake Superior National Estuarine Research Reserve have all played a key role in returning Allouez Bay to its pre-settlement habitat.



In 2016, the City of Superior in partnership with the Wisconsin Coastal Management Program will lead an effort to further restore habitat along the peninsula proper. Twenty parking turn-outs will be consolidated to four larger ones, each featuring a boardwalk to the beach. The turnouts and informal paths will be re-vegetated with native species to form contiguous habitat. The project will also include nearshore habitat restoration along Allouez Bay. The piping plover project, the wild rice project and the dune restoration project will assist in the de-listing of the St. Louis River as an Area of Concern.

Wisconsin Point serves as a recreational area for duck hunting, fishing, swimming, picnicking, birding, agate hunting and hiking. The Chippewa burial ground, Port of Superior and historic Lighthouse are destinations for locals and tourists. The magic of the Point, however, continues to be its coastal wildness and proximity to the greatest of the Great Lakes.

*Mary Morgan retired in Spring 2016 as Director of Parks and Recreation for the City of Superior. More information on Wisconsin Point is available by contacting Linda Cadotte, Director of Parks and Recreation for the City of Superior, at (715) 395-7270 or [cadottel@ci.superior.wi.us](mailto:cadottel@ci.superior.wi.us).*



The Root River is making Racine a destination city for developers and tourists alike.

## BACK TO THE ROOT

*Mayor John Dickert*

Racine's history is inextricably tied to the Root River. They even share a name, as *racine* is French for root. The river was responsible for the health of the city's early manufacturing economy, and 170 years later the city is once again turning to the river—this time as a source of recreation and retail.

For many years, industrial cities like Racine used their rivers as the primary form of transportation for commerce. In Racine, farm machines, wagon wheels, traveling trunks and other goods the nation depended on were floated down the river to distribute far and wide. Manufacturing use created urban landscapes that hid rivers behind warehouses and industrial buildings. Nonetheless, this arrangement provided the economic foundation for Racine.

Economic and technological evolution changed transportation over time. And in keeping with changing methods of transport and production, manufacturing along the Root River gave way to marinas, residences and retail. These new uses helped further the life of the riverfront. Nonetheless, the area struggled.

In 2006, the Root River Council began as a conversation among various community members concerned about the river. With the assistance of its first Wisconsin Coastal Management Program (WCMP) grant in 2008, the conversation grew into community workshops and a year's worth of community input eventually compiled into *Back to the Root: An Urban River Revitalization Plan*. The

main goals of the plan were fourfold: create a sense of place, stimulate economic growth, improve water quality and allow public access and interaction.

Upon creating a community-focused plan, conversation turned to action. Imagine solving a very large puzzle. The best approach is to consider the puzzle as a collection of small sections. The more of these smaller sections you start putting together, the clearer the full picture becomes. Similarly, with a project as large as the Root River revitalization—covering five different redevelopment sites stretching over 300 acres—it has to be broken down into manageable pieces. The WCMP has been a major player and valuable partner in this journey to bring the full picture of the Root River redevelopment into view and residents back to the water.

In 2012, WCMP funded the RootWorks Comprehensive Plan. Vandewalle and Associates was hired as planning consultant and community meetings and stakeholder interviews were conducted. The plan developed site-specific standards for redevelopment and established 47 projects to achieve the renewal of this urban river. The City adopted the plan, changed zoning ordinances to reflect its vision and worked with the Racine County Economic Development Corporation to implement the plan.

The collaboration has paid off and the project management team meets twice a month with city, county and state officials, and non-profit and the





private sector to implement RootWorks. While collaboration and partnerships help get it all done, they also serve as ways to reveal the picture on top of the puzzle box as the vision becomes clearer for residents. Developers beyond the scope of the project want to become part of this city with a sense of future. They want to be there, and they want to be there sooner rather than later.

Another segment of the puzzle was located across the river from the largest redevelopment site, a site clearly underused and underappreciated. In 2012, WMCP assisted the City with funding the West Bluff Overlook design for a bike path and outdoor classroom. The SC Johnson Company—

one of the largest sponsors to date—donated a large portion of land to help with the bike path phase. The land donation was matched by Wisconsin's Knowles-Nelson Stewardship Fund which helps fund land acquisition and recreational development statewide. Funds are also leveraged from the Fund for Lake Michigan.

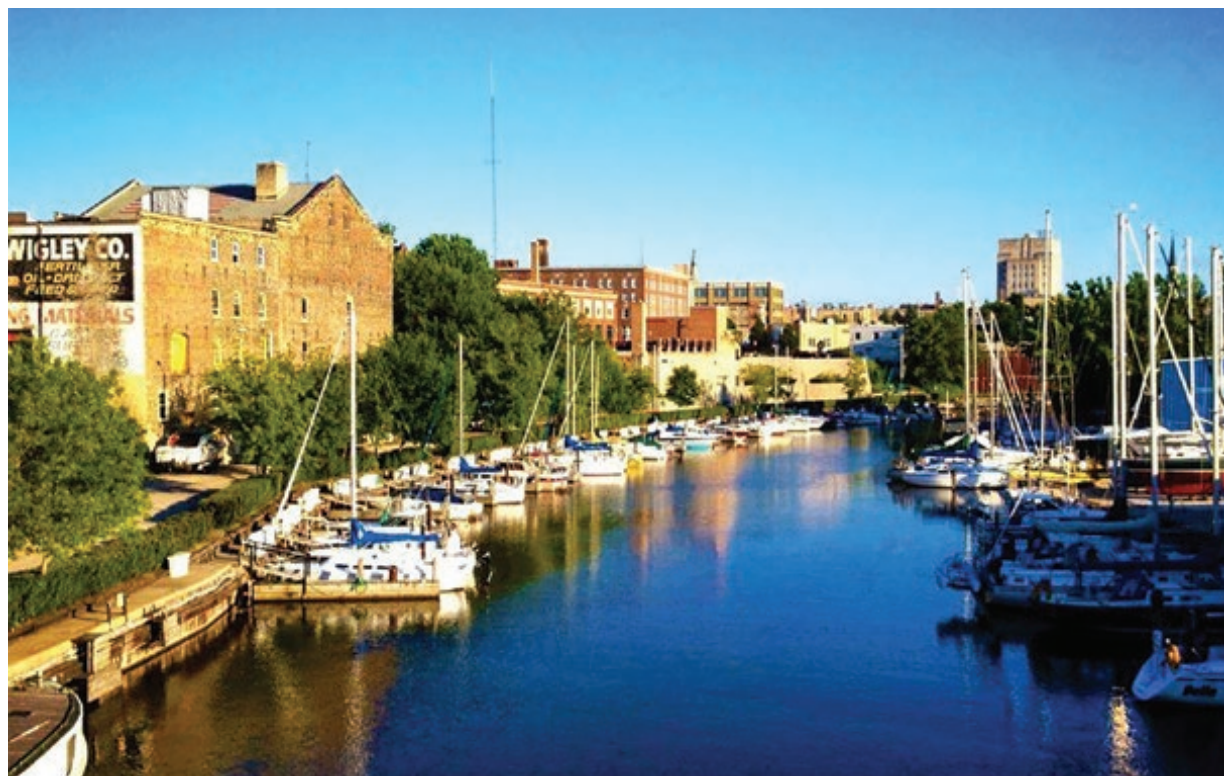
A 2013 WCMP grant funded plans and design recommendations for completing a dedicated riverfront path in downtown Racine to decrease stream-bank erosion and strengthen the connections between the riverfront path and commercial, retail and recreational hubs. In addition, the largest redevelopment site in the RootWorks plan

is Machinery Row, a 17-acre development that includes the Riverfront Promenade stretching around a lazy arch in the river. The promenade will be part of a two-mile river-loop pathway allowing residents the first opportunity in the history of the city access to this area of the Root River. As a partner in the redevelopment, the City controls river access and continues discussions with WCMP to complete design work.

The project has brought together a wide range of public, private and corporate organizations that leverages the contributions of all—creative, monetary, muscular or intellectual. Partners include SC Johnson Company, Wisconsin Coastal Management Program, National Oceanic and Atmospheric Administration, Wisconsin Department of Natural Resources, River Alliance of Wisconsin, Business Improvement District Downtown Racine, Wild Ones, Watershed Initiative Network Root-Pike, University of Wisconsin-Parkside, Olympia Brown Unitarian Church, Racine Community Foundation and the City of Racine.

There is a clear vision, a working plan and realistic standards adopted by the city and an extensive network of partners. The RootWorks Plan has inspired developers to approach the city. With five waterfront development opportunities available, Racine is becoming a destination city for developers and tourists alike.

*John Dickert is Mayor of the City of Racine. He can be reached at (262) 636-9101 or [mayor@cityofracine.org](mailto:mayor@cityofracine.org).*



Wisconsin shipyards  
are at the forefront of  
supporting the nation's  
economy and security.



## WISCONSIN INVESTS IN SHIPBUILDING INDUSTRY

*Sheri Walz*

Connected to the world by water, Wisconsin shipyards have a three-century history of building and maintaining commercial, military and recreational vessels for diverse global markets. Wisconsin marine manufacturing is a \$6 billion dollar industry that employs over 3,200 people statewide, the majority in northern Wisconsin and rural communities.

Recognizing the importance of waterborne transportation, the Wisconsin Legislature created the Department of Transportation (WisDOT) Harbor Assistance Program (HAP) in 1979. The program provides grants to harbor communities on the Great Lakes and Mississippi River to maintain and improve waterborne commerce.

Almost twenty percent of WisDOT's HAP awards have gone to projects benefiting the shipbuilding industry. Since 1982, WisDOT has awarded \$25.6 million in HAP grants for 15 dockwall and dredging projects at five Wisconsin shipbuilding facilities on the Great Lakes and Mississippi River. Over a 25-year project life, these projects are expected to generate over \$730 million in economic benefits and create or preserve over 1,000 jobs.

**Bay Shipbuilding.** In 2014 and 2015, Bay Shipbuilding in Sturgeon Bay received two HAP grants totaling \$5 million for dockwall rehabilitation and installation of an additional berth for construction and winter repair. Bay Shipbuilding has a history that dates back to 1918

specializing in articulated tug-barge units, dredging equipment, double hull commercial vessels and a wide range of offshore support vessels.

The company also repairs vessels ranging from tugs and barges to thousand-foot long bulk tankers—the company repaired and repowered 14 vessels of the Great Lakes fleet in the winter of 2016. Repair work includes removing hazardous materials and retrofitting vessels to be more energy efficient. Bay Shipbuilding reports that recent updates to the *M/V John G. Munson* will reduce fuel usage 37 percent and cut carbon dioxide and carbon dioxide emissions.

**Burger Boat Company.** Manitowoc and Burger Boat Company received HAP grants between 1982 and 2013 totaling \$6.8 million for five projects including dredging, dockwall construction and rehabilitation, launch well construction, utility upgrades and deep well relocation. Burger Boat believes these grants have helped make the company more competitive on new yacht and commercial vessel construction projects as well as for service and repair work on the existing fleet.

Burger Boats was founded in 1863, and at 153-years old is the oldest yacht builder in America. Burger Boats designs, constructs, maintains, refits and repairs aluminum and steel custom yachts. About 350 employees launch an average of three yachts a year and have four to six projects under construction at various stages of completion. They have also built commercial vessels such as research ships and tour boats.



**Cruisers Yachts.** From 2005 to 2013, Cruisers Yachts of Oconto benefited from three dredging and dockwall repair HAP grants totaling \$3.6 million. The company's history dates back to 1904 and it has been located in Oconto since 1953. Cruisers employs over 450 employees in four plants that manufacture midsize to luxury pleasure yachts. The HAP-funded dredging maintains a navigable waterway for Cruisers to launch newly constructed vessels on the Oconto River to Lake Michigan and beyond. It also allows Cruisers to launch larger vessels, such as a new 59-foot flagship vessel in 2015.

**Fraser Shipyards.** Fraser Shipyards in Superior is in the midst of completing the third phase of a dockwall rehabilitation project that started in 2009 for which it received two HAP grants totaling \$4.7 million. This 126-year-old company repairs and builds vessels and is the last major independent shipyard on the American side of the Great Lakes. The HAP funding represents almost half of a \$10 million update that is allowing the company to modernize and add additional dock footage.

During the winter layup season, Fraser converts vessels to modern and efficient fuel sources—as an example, from steam engines that need to be refueled every ten days to modern fuels that can go about 30 days without refueling. Maintenance performed by Fraser can help lakers last for over 100 years in the fresh waters of the Great Lakes.



In 2015, seven vessels wintered at the shipyard for repairs, removal of asbestos, installation of pollution control technology to meet federal emissions standards and repowering. According to Fraser Shipyards, the winter of 2016 included its biggest job since the 1980s, a six-month, \$20 million repowering of the *Str. Herbert C. Jackson*. Fraser is one of only four shipyards on the Great Lakes equipped to handle the job requiring seventy workers on two shifts.

**Marinette Marine Corporation.** In Marinette, three HAP grants totaling \$5.3 million in 1982, 1999 and 2015 funded dredging, dockwall rehabilitation and construction at Marinette Marine Corporation. Marinette Marine was founded in 1942 to meet demand for naval

construction and has designed and built more than 1,500 vessels. In 2016, the company was awarded \$564 million to build its eleventh littoral combat ship for the US Navy, and is expected to continue construction of the ships for five years or more. The ships will detect and clear mines and engage in surface and anti-submarine warfare.

Wisconsin shipyards are at the forefront of supporting the nation's economy and security. The Harbor Assistance Program stands ready to assist shipbuilders and their employees fulfill the needs of America's maritime transportation system.

*Sheri Walz is the Harbors and Waterways Program Manager at the Wisconsin Department of Transportation. She can be reached at (608) 267-9319 or [sheria.walz@dot.wi.gov](mailto:sheria.walz@dot.wi.gov). More information on the Harbor Assistance Program is available at [www.wisconsin.dot.gov](http://www.wisconsin.dot.gov).*

The Coastal States  
Organization advocates  
for state-based  
coastal programs and  
responsiveness of federal  
agencies to issues of  
state concern.

## COASTAL STATES ORGANIZATION AND ITS WISCONSIN PERSPECTIVE

*Mike Friis*

Congress created the Coastal Zone Management Act in 1972 to support state initiatives that manage resources along the nation's oceanic and Great Lakes coasts. Among the ten oldest of the 34 federally-approved programs, the Wisconsin Coastal Management Program (WCMP) resides in the Department of Administration (DOA) where it has for 38 years partnered with local governments and organization to manage economic development, environmental protection and coastal hazards projects along the shores of Lakes Michigan and Superior.

As WCMP Manager, I have worked with countless dedicated and creative Wisconsinites over the past eighteen years. In addition, I have served on numerous regional and national associations who share a common vision of protecting America's coastal resources. One organization that has provided the greatest variety of rewarding challenges is the Coastal States Organization (CSO) where I have represented Wisconsin for over a decade and presently serve as Chair of this national association.

CSO works with the Great Lakes and salty coast states and territories to maintain a collective leadership role in the development and implementation of coastal and ocean policies at a national level. CSO advocates for support for state-based coastal programs as well as responsiveness of federal agency programs to issues and policies of state concern. Since states—and not the federal government—control most of the coastline for the public's benefit, the work is important.

CSO members and staff are looked to as resources by coastal stakeholders, other nonprofits and federal agencies such as the US Army Corps of Engineers, Federal Emergency Management Agency (FEMA), Environmental Protection Agency (EPA) and National Oceanic and Atmospheric Administration (NOAA). To underscore the importance of our nation's coasts, CSO routinely briefs Congress and federal agencies on the coastal economy, the benefit of coastal resources to our nation's quality of life, and the strategic economic advantage of diverse coastal businesses and recreation to tourism and sustainable economic development. I participate in these national briefings and in that way give the Wisconsin program visibility and provide a Wisconsin and Great Lakes perspective on critical issues.

CSO serves as an important network for state coastal and ocean managers. Work groups of members supported by CSO staff focus on coastal water quality, port and harbor issues, coastal hazards, coastal zone management, ocean policy and island affairs.

During my term as CSO Chair, we have addressed many policy issues and challenges. One of our successes was supporting a measure that would return more port fees—monies paid into a federal account known as the Harbor Maintenance Trust Fund—back to smaller ports like the ones that line Wisconsin's coasts. We also worked hard to ensure federal policies make it easier to use sand that is dredged from ports and ship lanes to be used in places that benefit the public and create

resilient shorelines, such as at eroded beaches or barrier islands that have washed away.

We have also forged a partnership with the Association of State Flood Plain Managers (ASFPM) to help communities lower their flood insurance costs by taking environmentally sound actions like restoring seaside vegetation. This has been especially gratifying since ASFPM is a large and respected national organization based in Madison.

Together with ASFPM staff and other organizations, I represent CSO on the Digital Coast Partnership. This work complements my role managing the Wisconsin Land Information Program. The Digital Coast initiative was developed to meet

the unique needs of the coastal management community to provide land information data, tools and training needed to intelligently manage coastal resources. The Digital Coast Partnership is achieving its goal of providing these resources in a relevant, useful manner.

As CSO Chair, I have worked to enable states to learn from each other by sharing successes and challenges so we are not all reinventing the wheel in our approach to managing increasingly threatened coasts. This is particularly important for vulnerable island states and territories including Hawaii, Guam, Northern Marianas Islands, Puerto Rico and the Virgin Islands that

otherwise lack daily working relationships with contiguous jurisdictions.

Finally, CSO is working closely with NOAA to break down problems caused by federal agencies that do not coordinate enough, a problem known as *stove piping* (in Wisconsin—America's Dairyland—we think of it as *silos*). Many great NOAA programs provide science, data and other services that substantially help state coastal programs. To facilitate these programs better working together, I represent CSO on a NOAA-convened roundtable focused on intra-agency collaboration.

Through this roundtable, CSO works with the National Sea Grant, National Marine Sanctuaries Program, National Estuarine Research Reserve System and other NOAA programs that positively contribute to the coasts. To this end, I appreciate that NOAA recently reorganized to create the Office for Coastal Management. CSO will work to assist this office provide better service to states and their coasts.

In September 2016, Wisconsin will host the annual CSO meeting in Milwaukee. This will be my last meeting as Chair and I am excited to share and feature the good work of Wisconsin's many coastal partners to a national audience. It has been fun, rewarding and challenging, and I am so proud to have been the Chair of CSO.

*Mike Friis is Manager of the Wisconsin Coastal Management Program and Chair of the Coastal States Organization. He can be reached at (608) 267-7982 or michael.friis@wisconsin.gov.*



NEW Water is transforming itself into a utility of the future that encourages economic development and delivers maximum environmental benefits.

## NEW WATER PROTECTS OUR MOST VALUABLE RESOURCE

*Bill Hafz*

NEW Water—the brand of the Green Bay Metropolitan Sewerage District (GBMSD)—serves over 230,000 residents within a 285 square mile area and treats over 38 million gallons of wastewater each day. NEW Water is on a journey of transforming itself into a Utility of the Future—an initiative of the National Association of Clean Water Agencies—that recovers and manages valuable resources, develops partnerships to encourage economic development, and provides leadership to deliver the maximum environmental benefit at the lowest cost to the community.

NEW Water is located at the mouth of the Fox River, the furthest point downstream of the Fox/Wolf Watershed. The Lower Fox River Basin (LFR) and Green Bay are impaired by excessive phosphorus and sediment loading. A Total Maximum Daily Load Watershed Management plan for the LFR and Lower Green Bay was developed in June 2010. The plan identified phosphorus and sediment loading by sub watersheds and established restoration goals. In addition, the plan notes that NEW Water contributes about three percent of total phosphorus loading to Green Bay estimated at 1,266,657 pounds per year.

As early as 2012, NEW Water began a systematic planning process to consider Adaptive Management as an option for meeting its future Wisconsin Pollution Discharge Elimination System (WPDES) permit requirements. The Adaptive

Management approach is an opportunity to work with municipalities and agriculture to get the lowest cost per pound for phosphorus reduction and potential economic benefit for agriculture with practices like nutrient management.

When its existing WPDES permit expires in 2019, NEW Water will be required to further reduce the levels of total phosphorus it discharges in the LFR and Green Bay. To meet the new water quality standards, NEW Water would need to build additional treatment to remove approximately 9,332 pounds of phosphorus per year at an estimated cost of more than \$220 million.

Understanding that adopting an Adaptive Management strategy would require an analysis of cost factors, agency and landowner cooperation and scientific evidence, NEW Water in 2013 began a five-year pilot project in Silver Creek. Silver Creek is a small stream located one mile west of the Austin Straubel airport and flows from Outagamie County into Brown County through the Oneida Reservation. Silver Creek is a tributary of Duck Creek which empties into Green Bay. The watershed is representative of northeast Wisconsin in regards to soils, slopes and land use.

From the beginning of the pilot project, it was understood that partnerships would be critical to successfully achieve water quality standards in Silver Creek. Further, conservation best management installation would be needed.



The Oneida Tribe was involved in the planning efforts from the beginning and helped lead the process. Other partners include Outagamie County Land and Water Conservation Department, Tilth Agronomic Services, Ag-Ventures Agronomic Services, The Nature Conservancy, the US Fish and Wildlife Service, Ducks Unlimited, Brown County Land and Water Conservation Department, USDA Natural Resources Conservation Service, US Geological Service, University of Wisconsin-Green Bay (USGB) and CH2MHILL. This partnership team has met regularly to coordinate and develop watershed management strategies.

In 2014 and 2015, water quality monitoring was conducted at five stream locations to establish a baseline, and soil samples were collected at 2.5 acre grids. Conservation planning was done on all fields to determine conservation practices needed. The conservation planning was conducted by a team including conservationists, a private agronomist, Oneida Tribal staff and CH2MHILL.

Modeling of the field runoff by UWGB and aquatic biological assessment was conducted by the Oneida Tribe's Aquatic Biologist. Inventory, modeling, assessment and monitoring were done to establish knowledge of current conditions. Water quality monitoring will continue throughout the pilot project, and soil sampling, modeling and aquatic biological assessment will be conducted at the end to assess impacts of conservation practices installed. Work thus far has produced several findings and observations:



- 77% of all water quality samples are higher than state criteria.
- 26% of soil tests were higher than 50 ppm phosphorous. High phosphorous soil locations were used to help prioritize conservation practice recommendations.
- Four to seven opportunities are available for structural conservation best management practices and operational practices on each field.
- Simple conservation plans with maps are needed for successful implementation.
- Conservation planning can have positive impacts on farm profitability.
- Owners of over 90% of cropland have applied for the Environmental Quality Incentives Program (EQIP) cost share in 2016 from the Natural Resources Conservation Service.
- Fluctuating weather will likely require flexibility and more time for implementation to show results.
- Economic resources—staffing, state and local jurisdictional capacity, monitoring, financial—needed to attain water quality from non-point sources on a larger scale adaptive management project are not yet in place.

Water quality monitoring will continue in 2016 and 2017 concurrent with the majority of conservation practice implementation. Conservation practices such as nutrient management, cover crops, rotational grazing, grassed waterways, buffer strips and wetland restorations will be installed. Water quality improvements, aquatic restoration and the future of NEW Water's path will depend upon the installation, operation and sustainability of conservation practices by landowners and technical support by the partnership team.

*Bill Hafz is the Director of Environmental Programs of NEW Water. He can be reached at (920) 438-1040 or [whafs@newwater.us](mailto:whafs@newwater.us). For more information on Silver Creek and NEW Water's water quality efforts, visit [www.newwater.us](http://www.newwater.us).*

Wisconsin is home to five wetlands of international significance, including three along our Great Lakes coasts.

## WISCONSIN WETLANDS OF INTERNATIONAL IMPORTANCE

*Katie Beilfuss*

Wisconsin is home to a rich diversity of wetlands. Our coastal wetlands are unmatched for their importance to water quality, lake health and biodiversity. While many of us in Wisconsin have recognized this fact for years, recently our coastal wetlands have been drawing international attention.

Wisconsin Wetlands Association has long worked to change the public perception of wetlands from wastelands to treasures and highlight the unique natural benefits wetlands provide that make our state a better place to live. Our Wetland Gems® list of 100 high quality wetlands got us thinking— Might some of Wisconsin's gems also be globally important? We set out on a mission to bring wider recognition to Wisconsin's most important wetlands.

It turns out there is a well-established mechanism for recognizing internationally important wetlands. Since 1971, the Ramsar Convention on Wetlands has recognized *Wetlands of International Importance* as part of its work as a cooperative, non-regulatory means of wetland protection. More than 165 countries—including the United States—are members of the Ramsar Convention.

To date, more than 2,200 sites comprising 530 million acres have been designated *Wetlands of International Importance*, including the Okavango Delta in Botswana, the Everglades in Florida, and the Pantanal in Brazil. All sites must satisfy the same rigorous criteria to qualify as *Wetlands of International Importance*. The United States has designated 38 sites totaling nearly 4.6 million

acres—far fewer than our neighbors to the south as Mexico has designated 142 sites. We can do better, and Wisconsin is a great place to start.

In 2009, a committee with statewide knowledge of Wisconsin's wetlands came together to look over the Wetland Gems® list to identify those that would satisfy the rigorous criteria established by the Ramsar Convention. Starting at the top of the final priority list, Wisconsin Wetlands Association began approaching each site's landowners by offering assistance in completing the nomination process. Seven years later, three coastal sites have been designated *Wetlands of International Importance*: the Kakagon/Bad River Sloughs on Lake Superior, the Door Peninsula Coastal Wetlands, and the Chippewa Illinois Beach Lake Plain in Southeast Wisconsin along the Illinois border.

At the mouths of the Kakagon and Bad Rivers along Lake Superior in Ashland County lie some of the most extensive and highest quality coastal wetlands in the Great Lakes. Owned and cared for by the Bad River Band of Lake Superior Chippewa Tribe, this is the only tribally-owned Ramsar site in the U.S. These rivers and other streams that flow into the sloughs cut through a clay plain deposited during the last glaciation. The associated wetland complex comprises more than 16,000 acres of wetland habitats that support many species of rare plants and animals. This vast wetland complex is an important spawning and nursery area for many fish species as well as critical stopover habitat for migratory birds. These





wetlands also have cultural significance—the site supports the largest natural wild rice bed in the Great Lakes basin and members of the Bad River Band have harvested wild rice here for centuries.

The Door Peninsula Coastal Wetlands complex comprises lands and waters featuring high quality regionally- and globally-significant wetland communities, including Great Lakes ridge and swale, interdunal wetland, northern wet-mesic forest, northern sedge meadow, calcareous fen and boreal rich fen. These wetlands support colonial nesting waterbirds, wetland-dependent breeding and neo-tropical migratory birds, Great Lakes migratory fish, and numerous resident wetland-associated mammals and amphibians. Of particular note are three federally endangered

species: the Hine's emerald dragonfly, dwarf lake iris and dune thistle. Researchers believe that 30-40% of the world's Hine's emerald dragonfly population is found in these wetlands.

Covering approximately 15 miles of coastline along Lake Michigan across the Wisconsin-Illinois border, the Chiwaukee Illinois Beach Lake Plain contains the highest quality coastal dune and swale ecosystem in the region. The 3,716-acre Lake Plain supports six globally rare wetland plant communities. In addition, the site supports two federally-protected wetland-dependent species: the eastern prairie fringed orchid and the federally-endangered piping plover. The area serves as important breeding habitat for many wetland dependent bird species and provides

critical migratory stopover habitat for at least 310 migratory bird species. It provides significant tourism opportunities for local communities, engages community members in volunteer conservation stewardship, and provides high quality examples of coastal wetland communities for education and scientific research.

Not only does designation as a *Wetland of International Importance* recognize and celebrate decades of effective conservation work, it also provides a unique opportunity for communities to realize economic benefits. Communities recognize that many tourists are drawn to their area because of the natural resource opportunities present in and near them. These communities have embraced the designation and promote their area's status as a *Wetland of International Importance* as an effective marketing tool.

California now is the only state in the nation with more designated *Wetlands of International Importance* than Wisconsin: they have six, and we now have five—Horicon Marsh and Upper Mississippi River Floodplain Wetlands in addition to the three coastal wetlands. Wisconsin Wetlands Association, working in collaboration with our partners, will continue helping communities achieve the benefits associated with this prestigious designation.

*Katie Beilfuss is Outreach Programs Director at the Wisconsin Wetlands Association. She can be reached at (608) 250-9971 or [Katie.Beilfuss@WisconsinWetlands.org](mailto:Katie.Beilfuss@WisconsinWetlands.org).*



# 2016 WISCONSIN COASTAL MANAGEMENT PROGRAM GRANTS

*Project Name*

*Grantee*

*WCMP Award*

*Project Description*

*Contact*

## Coastwide

### Historical Coastal Database for the 1930s Wisconsin Land Inventory Data

University of Wisconsin-Madison  
\$56,613

Digitize historical Wisconsin Land Economic Inventory (Bordner Survey) maps, and create a database and portal to access and analyze spatial data.

Dr. David Mladenoff, (608) 262-1992

### Search for Sustainability

Glacierland RC&D Council  
\$50,000

Produce and broadcast a one-hour documentary that explores the science, sources and social implications of nonpoint source pollution threatening Lake Michigan water quality.

Ms. Kari Divine, (920) 465-3006

### Respect Our Waters

Southeastern Wisconsin Watersheds Trust, Inc.  
\$30,400

Integrate existing stormwater pollution awareness campaigns to improve Great Lakes environmental literacy and promote water quality stewardship in watersheds from Kenosha to Marinette Counties.

Mr. Jacob Fincher, (414) 382-1766

### Wisconsin Harbor Town Travel Guide

Wisconsin Harbor Towns Association  
\$29,300

Update, print and distribute 75,000 copies of the Wisconsin Harbor Town Travel Guide.

Ms. Kathy Tank, (800) 719-4881

### Beach Redesign and Remediation

University of Wisconsin Sea Grant Institute  
\$29,202

Evaluate impact of completed redesign/remediation projects at three restored beaches and potential impacts of planned projects at three reference beaches.

Dr. Adam Mednick, (608) 266-8117

### Technical Assistance

Bay-Lake Regional Planning Commission  
\$20,000

Support coastal management activities and provide technical assistance to local governments in the Bay-Lake region.

Ms. Angela Kowalzek-Adrians, (920) 448-2820

### Technical Assistance

Southeastern Wisconsin Regional Planning Commission  
\$20,000

Support coastal management activities and provide technical assistance to local governments in the Southeast region.

Dr. Thomas Slawski, (262) 547-6721



### **Technical Assistance**

Northwest Regional Planning Commission  
\$20,000

Support coastal management activities and provide technical assistance to local governments in the Lake Superior region.

Mr. Jason Laumann, (715) 635-2197

### **Wisconsin Breeding Bird Atlas**

Wisconsin Society for Ornithology, Inc.  
\$7,354

Conduct six Wisconsin Breeding Bird Atlas workshops in coastal counties.

Ms. Christine Reel, (262) 844-8187

## **Ashland County**

### **Bayview Pier Project—Phases II and III**

City of Ashland  
\$60,000

Construct the WCMP-funded plan for Bayview Pier that includes an ADA compliant pier and beach access on Lake Superior's southern shores.

Ms. Sara Hudson, (715) 682-7059

### **Sustaining Water Quality in Lake Superior**

Northland College  
\$29,250

Develop decision support tools to implement the Water Quality Trading Program in Bayfield County and develop a watershed nutrient management framework pilot in the south Fish Creek watershed.

Dr. Randy Lehr, (715) 682-1261

## **Bayfield County**

### **Village of Cornucopia Breakwater**

#### **Access Restoration**

Town of Bell

\$54,000

Restore and protect an existing path and steel pilings that provide public access to Lake Superior.

Ms. Yvette Fleming, (715) 742-3427

### **Autonomous Real Time Stereo Imaging System (ARTSIS)**

University of Wisconsin-Madison Department of Civil and Environmental Engineering

\$29,969

Develop ARTSIS to provide summer wave characteristics and winter ice conditions in the sea caves at the Apostle Islands National Lakeshore for the safety of visitors.

Dr. Chin Wu, (608) 263-3078

### **Groundwater Education and Well Testing Program**

Bayfield County Health Department

\$23,600

Implement a groundwater education and well testing program targeting rural landowners, shore land owners and agricultural producers.

Ms. Anne Marie Coy, (715) 373-6109

### **Houghton Falls Nature Preserve Stewardship Project**

Town of Bayview

\$20,000

Enhance trail conditions, create additional interpretive signage at key trail locations, and improve resource protection.

Mr. Charly Ray, (715) 813-0218

### **Bayfield Area Community Stewardship Project**

City of Bayfield

\$16,000

Implement invasive plant control and trail stewardship activities on public natural areas including the Brownstone Trail, Big Ravine Forest Preserve and Cornucopia Beach.

Ms. Billie Hoopman, (715) 779-5712

## **Brown County**

### **Bay Beach Amusement Park—Beach Restoration Engineering**

City of Green Bay

\$50,000

Generate a feasibility and engineering study for a swimming beach at Bay Beach.

Mr. Dan Ditscheit, (920) 448-3381

### **Brown County Watercraft Safe Refuge Inventory**

Brown County

\$29,994

Create an inventory of existing marinas, launches and harbors within Brown County and analyze their potential for small watercraft harbors of refuge.

Mr. Aaron Schuette, (920) 448-6486

### **Town of Scott Comprehensive Plan**

Town of Scott

\$11,305

Update the Town's Comprehensive Plan and incorporate the results of two WCMP-funded studies into the new plan.

Mr. Dave Cerny, (920) 406-9380

## Door County

### Dunes Lake Restoration

Department of Natural Resources

\$38,501

Restore Dunes Lake, an important waterfowl and migratory bird area, by removing phosphorus-rich sediment.

Mr. Joshua Martinez, (920) 662-5139

### Plum and Pilot Islands Life-Saving and Lighthouse Facilities

Friends of Plum and Pilot Islands

\$26,072

Establish an agreement with the State Historic Preservation Office to be used by the US Fish & Wildlife Service as part of a master-planning guide for preservation, rehabilitation and public interpretation.

Mr. Tim Sweet, (715) 823-6873

### Dunes Lake Public Access

Door County Soil & Water Conservation Department

\$3,000

Construct Dunes Lake public access parking and interpretive signage as a complement to a lake restoration project at the site.

Ms. Krista Lutzke, (920) 746-2363

## Douglas County

### Brule River Watershed Revisited Phase II:

#### Vegetative Cover

University of Wisconsin-Superior

\$38,474

Continue a current WCMP-funded project in the Brule River watershed to inform understanding and management decision-making in response to Lake Superior watershed changes.

Mr. Paul Hlina, (715) 394-8477

## Iron County

### Iron County Regional Trail

Iron County

\$25,000

Plan, design and perform title work to create a regional trail system connecting the East and West branches of the Montreal River in Iron County.

Mr. Joe Pinardi, (715) 561-3226

## Marinette County

### Peshigo River Fish Viewing Platform

City of Peshigo

\$20,644

Provide Phase I design, construction plans and cost estimates for the proposed fish viewing platform.

Mr. Dave Zahn, (715) 938-1296

## Milwaukee County

### Lake Vista Park Bluff Trail Construction

City of Oak Creek

\$100,000

Build 4,098 linear feet of trails and five overlook areas to provide Oak Creek with its first safe and legal public access route to the bluffs and shoreline of Lake Michigan.

Mr. Gerald Peterson, (414) 768-6504

### Milwaukee River Parkway Habitat and Access Improvement Project

Milwaukee County Department of Parks, Recreation & Culture

\$75,840

Restore 500 feet of an eroded bluff along the Milwaukee River, and construct a stairway and accessible path to connect the riverfront trail with the streets above.

Mr. John Dargle, Jr., (414) 257-4774

### Public Access to Milwaukee's Rivers and Lake Michigan

Milwaukee Riverkeeper

\$30,000

Update the 2006 Milwaukee Urban Water Trail Map, identify new access points and extend to Ozaukee County and Lake Michigan access points.

Ms. Cheryl Nenn, (414) 287-0207

### **Galvanizing Water Stewardship in Milwaukee Neighborhoods**

Milwaukee Water Commons  
\$17,500

Implement the Water School program to train diverse community members to become catalysts for water stewardship and create broader participation in Milwaukee's water future.  
Ms. Ann Brummitt, (414) 763-6199

### **Strategic Urban Forestry Plan Implementation**

Milwaukee County Department of Parks, Recreation & Culture  
\$14,000

Restore a long-neglected property, previously Riverside Park, by removing invasive plant species and planting native trees and shrubs in place of removed trees.  
Mr. John Dargle, Jr., (414) 257-4774

## **Ozaukee County**

### **Breakwater Gateway Public Access Project**

City of Port Washington  
\$75,000

Widen and renovate the nearshore sections of the city's breakwater to create an ADA-accessible fishing/viewing platform.  
Mr. Mark Grams, (262) 284-5585

### **Mequon Preservation Partners**

Ozaukee Washington Land Trust, Inc.  
\$31,530

Develop a watershed-based strategic plan for protecting and restoring land and water resources in the City of Mequon.  
Mr. Steve Henkel, (262) 338-1794

### **Lake Michigan Learning Lab at the Port Exploreum**

Port Washington Historical Society  
\$16,000

Develop and implement experiential learning exhibits, resources and teacher/volunteer training about Lake Michigan, waves, erosion and public safety while promoting Wisconsin's maritime heritage.  
Mr. Bill Moren, (262) 573-3130

## **Racine County**

### **Samuel Myers Park Public Access**

City of Racine  
\$35,025

Install the remaining 700 linear feet of cord walk trail at Samuel Myers Park and complete restoration with dune grass plantings.  
Dr. Julie Kinzelman, (262) 636-9501

## **Sheboygan County**

### **Amsterdam Dunes Invasive Species Management**

Sheboygan County  
\$39,000

Restore newly acquired county lakeshore property by removing invasive plants on 39 acres of a 328-acre parcel.  
Mr. Aaron Brault, (920) 459-3060



# ACKNOWLEDGMENTS

The Wisconsin Coastal Management Program was established in the Department of Administration (DOA) in 1978 under the Federal Coastal Zone Management Act. The program and its partners work to achieve balance between natural resource preservation and economic development along Wisconsin's Great Lakes coasts. The program thanks its principal federal partner, the National Oceanic and Atmospheric Administration, Office for Coastal Management, for the technical and financial support it provides on behalf of Wisconsin's coastal communities.

## Wisconsin Coastal Management Program

Scott Walker  
*Governor*

Scott A. Neitzel  
*Secretary, DOA*

Dawn Vick  
*Administrator, DOA Division of Intergovernmental Relations*

Mike Friis  
*Leader, Resource Policy Team and Manager, WCMP*

Travis Olson  
*Wetland Protection and Habitat Restoration Coordinator, WCMP*

Kathleen Angel  
*Coastal Natural Hazards and Federal Consistency Coordinator, WCMP*

Todd Breiby  
*Coastal Nonpoint and Education Coordinator, WCMP*

Anne Iwata  
*Program Policy Analyst and Federal Reporting Coordinator, WCMP*

Lauren Leckwee  
*Program and Policy Analyst, WCMP*

## Wisconsin Coastal Management Council

Larry MacDonald, *Bayfield, Chair*

Sharon Cook, *Milwaukee*

Mayor John Dickert, *Racine*

Stephen Galarneau, *Wisconsin Department of Natural Resources*

Patricia Hoeft, *Oneida*

James Hurley, *University of Wisconsin Sea Grant Institute*

Representative Joel Kitchens, *Sturgeon Bay*

Ken Leinbach, *Whitefish Bay*

William Schuster, *Sturgeon Bay*

Ervin Soulier, *Odanah*

Dawn Vick, *Wisconsin Department of Administration*

Sheri Walz, *Wisconsin Department of Transportation*

Senator Robert Wirch, *Kenosha*

## Editor

James M. Langdon

## Photographs

### *Page, Image, Source*

- Cover, Apostle Islands, Bayfield Chamber of Commerce and Visitor Bureau
- Contents, Manitowoc, Mike Roemer
- 1, Gov. Scott Walker, Governor's Press Office
- 2, Bioswale, Wisconsin Housing and Economic Development Authority
- 3, Lincoln Creek Flood Management, Milwaukee Metropolitan Sewerage District
- 4, Wisconsin Point, Anne Iwata
- 5, Wisconsin Point Shoreline, Anne Iwata
- 6, Root River, Root River Council
- 7, Root River, Root River Council
- 8, Commercial Ship Repair, Fincantieri Bay Shipbuilding
- 9, Shipbuilding, Burger Boat Company
- 10, Manitowoc, Mike Roemer
- 11, Eagle Bluff Lighthouse, Door County Visitor Bureau
- 12, City of Green Bay, Chris Rand
- 13, Lower Fox River, Brown County Port and Resource Recovery Department
- 14, Black-Crowned Night Herons, Brian Hansen
- 15, Door County Wetlands, Erin O'Brien
- 16, Point Beach State Forest, Mike Roemer
- 20, Manitowoc County Sailboats, Mike Roemer
- 21, Door County Sailing, Door County Visitor Bureau

## Wisconsin Coastal Management Program

101 East Wilson Street  
PO Box 8944  
Madison, Wisconsin 53708-8944  
(608) 267-7982  
<http://coastal.wisconsin.gov>  
[coastal@wisconsin.gov](mailto:coastal@wisconsin.gov)

Funded by the Wisconsin Coastal Management Program and the National Oceanic and Atmospheric Administration, Office for Coastal Management, under the Coastal Zone Management Act, Grant NA16NOS4190108.

The Wisconsin Coastal Management Program in the Wisconsin Department of Administration publishes *Wisconsin Great Lakes Chronicle*. It welcomes, but is not responsible for, the opinions expressed by contributing authors.



 WISCONSIN COASTAL  
MANAGEMENT PROGRAM



