### LAKE MICHIGAN WATER TRAIL



NORTHWEST INDIANA REGIONAL PLAN

2009-2010

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The Lake Michigan Water Trail Along the Indiana Shoreline is a Key Component of the Marquette Plan

# SAFETY TIPS FOR PADDLING LAKE MICHIGAN

Lake Michigan can be very dangerous, with weather conditions changing quickly, and power boat traffic creating additional hazards for unprepared paddlers. Here are some guidelines to make your paddle safer:

Check the northern Indiana near-shore marine forecast on NOAA weather radio - either the Romeoville station or by using NOAA's web site: nws.noaa.gov

#### Be Aware of Wind

On-shore winds can cause large waves near the shore, while off-shore winds will yield smoother water near shore. Wave heights are a function of wind speed: how long it's been blowing and the distance over water it's been blowing. Surf generated by on-shore winds can provide fun conditions for experienced paddlers, but can be hazardous to novices in recreational kayaks. Rip currents form with strong on-shore winds, a hazard with which paddlers should be familiar.

#### Know the Water Temperature

Wear clothing that will protect you in case of immersion. Body heat loss is 25x as great in water than it is in air. Cold water can impair muscle function and manual dexterity long before hypothermia sets in.

### PROPER GEAR AND PROPER SKILLS

Many different types of boats are available, not all of which are appropriate for open water paddling. Paddlers who paddle far from shore should seek training in both self and group rescue skills.

#### SEA KAYAKS

Use sea kayaks with bulkheads or bow and stern flotation for paddling farther than the swimming distance from shore.

## RECREATIONAL KAYAKS

Most recreational kayaks are not appropriate for paddling farther than the swimming distance from shore. They generally lack adequate floatation to keep the kayak floating high after capsizing. Without bow and stern floatation, self rescue is virtually impossible.

### SPRAY SKIRT

A must on Lake Michigan for distance touring and any trip if the waves are forecast to be one foot or more. Most recreational kayaks can be fitted with a spray skirt but, if the skirt part is so big that a wave crashing onto the skirt causes it to collapse into the cockpit, you'll be swamped in no time. Essential for performing Eskimo rolls. Know how to release it in a capsize.

#### PADDLES

Have one to use plus a spare. Paddle shafts can and do break, so get a breakdown paddle that you can stow under the deck bungee cords where you can reach it when needed. Be sure to use a tether.

#### BE VISIBLE

Buy a brightly colored boat. Wear bright clothes. If paddling during dusk, dawn, or at night, your boat must have lights. Put reflective tape on your paddle and your PFD. Stay alert and out of the way when you hear motors. For more information on navigation rules, visit uscgboating.org/safety/fedreqs/equ\_nav.htm

#### PFD (OR LIFE JACKET)

It has to fit you properly, and it must be zippered while paddling. If you capsize without your PFD on, you'll have a very difficult time holding onto the boat and your paddle while struggling to get back into the boat. Wearing a properly-fitted life jacket can save your life. It must be and is the single most important safety precaution a paddler can take. Many boating fatalities could have been prevented had a life jacket been worn.

A bilge pump is essential for getting water out of your cockpit after capsize and self rescue. Some means of towing another boat is advisable for group outings should someone become incapacitated. All paddlers should practice falling out of their boat in shallow water to experience what it would be like. Being hundreds of yards offshore is not the time to find out that you can't get back in your boat and keep paddling.

#### PADDLE FLOAT

This is a self-rescue aide particularly useful if you paddle alone. Learn how to use it before you need to do it.

#### SIGNALING DEVICES – EMERGENCIES

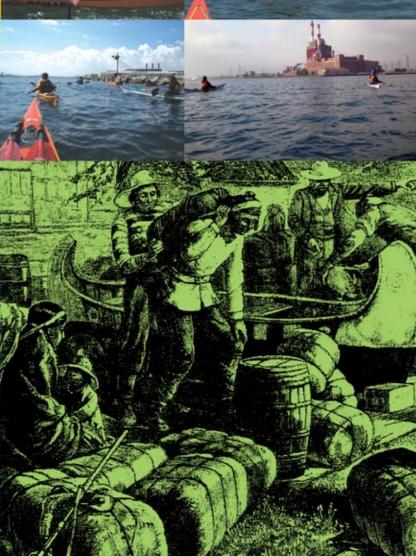
The bare minimum would be a whistle fastened to your PFD. Compressed air horns are much louder and easily carried in your dry bag. A signal mirror works if the sun is shining. Aerial flares are easy to stow in your dry bag accessible from your cockpit. For night time, a flashing strobe light on your PFD and aerial flares are about the only items that are visible. The international distress signal is sets of three blasts on the whistle or horn or setting off three aerial flares. Waving a paddle at a passing boat also works. Sending a "mayday" call on a VHF handheld radio tuned to channel 16 works if you're in range of a receiving radio; harbor masters and marine police monitor channel 16. See uscgboating.org/safety/fedreqs/equ\_refchart.htm for more information.

Wear synthetic clothing that can help keep you warm when wet. DON'T WEAR COTTON. Use a wet suit (farmer john/jane), a synthetic top, and a paddling jacket for water temps in the high 50s and low 60s. Use a dry suit for water temps lower than the mid 50s. Dress in such a way that you can stay warm long enough to get back into your boat before becoming hypothermic. Test your clothing by getting in the water before you paddle.

#### PERSONAL ITEMS

Wear polarized sun glasses, sun screen, and rain gear if weather dictates and bring lots of drinking water.







# HISTORY AND NATURAL FEATURES OF THE **INDIANA SHORE**

#### LAKE MICHIGAN'S **INDIANA SHORELINE**

Welcome to lake kayakers! The Indiana shoreline of Lake Michigan represents 50 miles of the approximate 1,000-mile shoreline of the Lake Michigan Water Trail. Packed along the complex shoreline landscape is a cultural and natural history spanning 4,000 years, from the pristine dunes country preserved in state and federal parklands, to the steel mills, industrial development municipal beaches and marinas developed within the past 100 years, to gambling casinos of the past fifteen years. A new vision for the lakefront's next 100 years is laid out in the Marquette Plan and local government initiatives.

Traversing the Indiana lakefront route in its entirety is not for the inexperienced paddler. Miles of vertical steel sheet piling and massive boulders protect almost 15 miles of the shorelines of the steel mills. There is no safe access, and changing weather conditions on the lake, a common occurrence, can leave you in a life or death situation if you are inexperienced or lack the right safety equipment.

Thirty-five miles of the lakefront are available for day trips and multi-day trips. Fifteen miles of the shoreline are part of the Indiana Dunes National Lakeshore. You will find communities that will welcome you, places to camp, beautiful beaches, the rich biodiversity of the dunes ecosystem, and a sand-based landscape unique to the world.

#### THE GLACIAL HISTORY OF THE SHORELINE

Lake Michigan was carved by the last glacial advance, which began its meltback approximately 14,500 years ago. Glacial ice blocked the drainage of the meltwater in the region at the Mackinac Straits off and on for the next 4,000 years, and the meltwater periodically drained southwest into the DesPlaines and Illinois rivers causing fluctuations to Lake Michigan 60 ft. higher and 200 ft. lower than today's water. (Fifteen miles north of Hammond, 85 feet below the surface, lies a grove of 50 underwater tree stumps from 8,300 years ago.) To make the situation more complex, the final melting of the glaciers at the north end of Lake Michigan and the removal of their enormous weight caused the whole landscape to rebound upward at the Indiana end, an isostatic uplift. The beaches formed by currents carrying in a continuous load of sand. Waves and the prevailing winds created the dunes. The dunes are relatively young landscape features...4,500 years old at the Michigan City eastern lakeshore, diminishing to less than 1,000 years old at the beaches in Hammond and East Chicago.

#### LAKE ELEVATION

The lake level varies depending on rainfall and snowmelt. The lake was high at 580 ft. in 1997 before entering a recent low water phase of 577 ft. since then. It is apparently on the rise again as of 2009. A three-foot water elevation difference on the flat shoreline causes very different beach widths.

### THE NATURAL LANDSCAPE

"Indiana dune country stretches along Lake Michigan's southern shore across fourteen miles of undeveloped windswept beach between the cities of Gary and Michigan City. Inland for a mile and a half, it climbs over the high, grass-tussocked sand hills that give the place its name, dips down through cool pine forests, marshes, and tamarack bogs, into ancient oak woodlands on gentle ridges where acorns have dropped and blueberries have ripened on the ground for thousands of years." Glenda Daniel The Dune Country 1977

"So varied, so bewilderingly numerous are the hills, the marshes, bogs, prairie and lakes of this region, that one who first endeavors to study them is at a loss where to begin. Spring comes late in the dune country...little to be noted except hepaticas, anemones, the first few violets, water cowslip, lupine and a lovely phlox. (Then) buttercups, jack-in-the-pulpit, blue flag, shad-bush, dogwood, tulip tree, flowering crab apple and trailing arbutus. With the coming of warm weather the strangely beautiful dune cactus bursts into bloom, wild roses are everywhere, flowering mints, the full tide and splendor of water lilies, handsome grasses, while bog, meadow, and woods abound with orchids. In the autumn more than a dozen kinds of sunflower fill the oak woods with gold, three species of stately purple blazingstar are everywhere, the curious sedge family reaches its height with over 150 species, and the composites with one hundred fifty species or more..." Donald Peattie 1930

### THE CULTURAL LANDSCAPE

Father Marquette and his French-Canadian paddlers were among the first Euro-American explorers, missionaries, and military to paddle the Lake Michigan shoreline in Indiana. By the 1820s, a stageline from Detroit to Chicago operated along the shoreline before moving inland. The lakeshore was the last region to be settled in Indiana because of its low farming potential.

The rising demand for steel for skyscrapers and bridge building of the late 19th century and, later, because of WWI and WWII demand, resulted in a rapid expansion of steel mill facilities from the first few at the mouth of the Calumet River in Illinois, to massive production sites in Gary starting in 1906 to the last one at Burns Harbor in the 1970s. Lake Michigan and Lake Superior have long been iron ore transport routes from the mines initially in northern Michigan and later in Minnesota. ArcelorMittal and U.S Steel have now consolidated their operations. Collectively, the Indiana mills are in recent years the largest producing facilities in the world.

The massive employment at the mills gave rise to a local public need for lakefront beaches and parks in Hammond, Whiting, East Chicago, and Gary. Michigan City, always a recreation-based city, developed its beachfront park system and drew tourists from a multistate area. Three small picturesque residential communities developed along the lakefront starting in the 1920s: Ogden Dunes, Dune Acres, and Beverly Shores. Most of the larger lakefront cities developed marinas, and these, in turn, became sites for large gambling casinos in the 1990s. The Marquette Plan was adopted in 2007 as a guiding vision for the Indiana lakefront's future. It recommended converting underutilized industrial lands for public use, developing a lakeshore trail system, and maintaining at least 75% of the lakeshore as public open space.

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Since the Indiana Shoreline of the Lake Michigan Water Trail is formally open as of 2009, and the demand for overnight facilities is unknown, this description should be considered accurate only for the 2009-2010 season. At the end of the 2010 season, overnight facilities will be re-assessed, and changes will undoubtedly be made. After 2010, please check the NIRPC web site for

the map for phone numbers). In addition, tent camping for larger numbers of kayakers is provided at the East Chicago Beach the Portage Parks site one mile South on the Burns Harbor Ditch, and at the Indiana Dunes State Park where your boat can be locked up at the south main boathouse while you hike ¾ mile inland to the campsites. Reservations are needed. There are also motel accommodations near the water at Portage and Michigan City.



JOIN THE NORTHWEST INDIANA PADDLING ASSOCIATION Blueways Stewardship, Paddler Education, and Providing Paddling Opportunities nwipa.org

# CAMPING AND **OVERNIGHT FACILITIES**

updates or obtain a new brochure. Five marinas will allow limited camping in Hammond, Portage, and Michigan City. Reservations must be made in advance (see

## **ACCESS TO** THE BEACHES No access is allowed through a

swimming beach during swimming season, June 1-September 1. All other beaches are accessible only for rest stops. Please avoid dangerous industrial cooling water discharge locations. No camping is allowed unless shown on this brochure. If you see residential properties lining the shoreline, the beach is public only up to the high lake elevation (in 2009, generally two to three feet above the calm lake surface). Please respect private property. Remember there is no access to the industrial shorelines even in bad weather because of the inaccessible sheet piling or large boulders.



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