



US Army Corps
of Engineers
Detroit District

Great Lakes Update

Recreational Boating on the Great Lakes

The July sun is already high and the afternoon balmy as we ease the 17-foot Sea-Ray into the warm waters of Lake Macatawa, near Holland, Michigan. Small waves lap at the boat as seagulls circle overhead, awaiting the opportunity for a quick lunch. The jammed public access launch makes it difficult to maneuver amongst the catamarans and other pleasure craft. After a few initial sputters, the engine roars to life and we begin our afternoon adventure. We are not alone.

The Great Lakes region is home to a vast and growing recreational boating community. As shown in the figure below, the State of Michigan alone issued 800,000 recreational boating permits in 1997, over 54,000 more than just 3 years ago. These vessels can range from small jet-skis and wave-runners to large motor boats and sailing vessels. The recreational boating community supports a variety of activities such as sightseeing, pleasure cruising, sports fishing, and

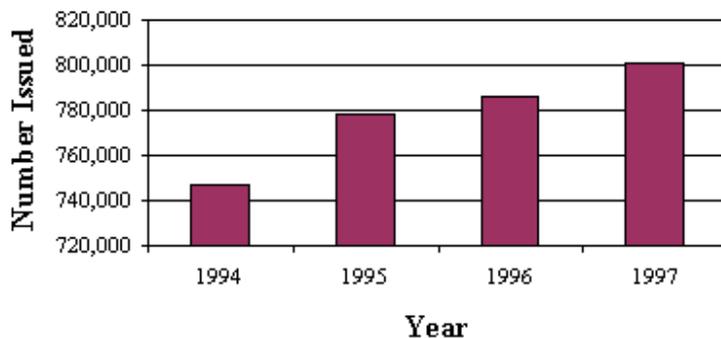
other water sports. The increase in recreational boating has changed the uses of federal and municipal harbors on the Great Lakes.

From Industry to Recreation

We have traversed the length of Lake Macatawa and are now approaching the outlet of Holland harbor. Atop the distant bluffs stand enormous summer homes and condominiums with their stairs down to the sandy beach. On both sides of the lake, new developments of private and public marinas and boat ramps where wilderness or industry once stood demonstrate how the shoreline has evolved from industrial-based to residential and tourist-based.

Many of the present day Great Lakes harbors were originally developed to service the booming timber and mining industries from the mid-1800s through the turn of the century. As the forests were cleared and industrial needs changed, many communities along the shoreline found different income sources for their harbors. Some of these resources included new industries with the necessary import of raw materials, terminals for rail and car ferries, and health and recreational passenger services. For example, in the early part of this century, thousands of residents from cities such as Chicago and Detroit used passenger vessels to tour the Great Lakes and to access the spas and "healing water" touted by

State of Michigan Boater Registrations



many towns along the coast of lakes Michigan and Huron.

As the Midwest continued to industrialize and transportation systems improved, more people found the time and the resources to utilize the Great Lakes and their coastline. Today, the Corps of Engineers has constructed and maintains nearly 150 harbors throughout the Great Lakes system. While some of these harbors have retained their commercial uses, many serve the recreational community either primarily or exclusively.



Recently, recreational boating opportunities and lakeshore development has greatly increased with the healthy economy. This growth, however, can be controversial. For example, a proposal of a new 50-slip marina on the coast of Lake St. Clair, in New Baltimore, Michigan, has found stiff resistance from environmentalists. While local business and government officials say the marina is necessary to spur downtown development, some environmentalists contend that the site is one of the last remaining locations of wild celery on Lake St. Clair. The celery is significant as a major food source for a popular breed of migratory duck, the canvasback. Approximately one quarter of all North American canvasbacks use Lake St. Clair as a stop on their migratory trek in the summer and fall.

Sports Fishing on the Lakes

A cool and refreshing mist hits our faces as we slow in the no wake zone exiting Lake Macatawa. We join the parade of motorboats and sailing vessels out of the channel to the blue-green waters of Lake Michigan. Soon, we pass a fishing charter boat with its long poles attached aft and its excited passengers recounting their morning excursion. In the distance stand the masts and sails of a sailing flotilla racing towards Mackinac Island.

Since the successful introduction of salmonids in Lake

Regattas are held throughout the Great Lakes each summer.

Michigan around 1967, the Great Lakes have taken on prominence as one of the world's best sport fisheries. Stocking of coho and chinook salmon, brown trout, rainbow/steelhead trout and lake trout has been economically and environmentally beneficial to the Great Lakes area. These species have successfully complemented the native fish stocks such as perch, bass, walleye, northern pike, and muskellunge.

The Great Lakes are an ideal fishing destination at almost any time of the year. Over 80% of Great Lakes open lake fishing occurs by recreational watercraft. Besides offering boating supply stores and charter fishing companies, many ports along the Great Lakes sponsor fishing contests and derbies throughout the year.

One of the most popular of these contests takes place in the Thousand Islands area of eastern Lake Ontario and the St. Lawrence River. While the islands form an inviting natural habitat for walleye and northern pike, the large and small mouth bass fishing are some of the best in the Great Lakes region. Occurring in mid-September, the New York Eastern Invitational is centered in Clayton, New York, and has been a frequent stop on the Bassmasters Tournament Trail over the last 20 years.

With the aging of populations and increases in incomes

around the Great Lakes, sport fishing seems certain to increase its current multi-billion dollar revenues. This growth, however, may be tempered by the fact that the Great Lakes may have reached their limits with respect to fish productivity.

Great Lakes Sailing

Organized sailing races have also increased recreational boating interest on the Great Lakes. These races offer a test of stamina and competition for the participants and a unique display of color and majesty for spectators. Regattas that are held throughout the summer include the Queens Cup from Milwaukee, Wisconsin, to Muskegon, Michigan; and the Trans-Superior Race from Sault Ste. Marie, Ontario, to Duluth, Minnesota.

July 1997 saw the 90th running of the Chicago-Mackinac Yacht Race. Approximately 300 vessels invited by the Chicago Yacht Club competed in last year's 333-mile race. Handicaps are issued to account for the variety of hull designs, which can range from traditional 40-foot sailing vessels to small catamarans and trimarans and crew sizes ranging from 5 to 10 members. After the handicaps are calculated and the winners declared, many crews turned around and headed south to reach Port Huron, Michigan, in time for the Port Huron to Mackinac Island yacht race. The order of the two races changes each year, but the combination is a real test of endurance for the competing crews.

Water Level Influences

Great Lakes water levels play a significant role for recreational boaters throughout the year and from one year to the next. Levels on the Great Lakes and connecting channels can cause headaches for boaters in both high and low water regimes.

While the Great Lakes as a whole have not seen prolonged low water levels since the mid-1960s, a severe drought could make recreational boating



Low water levels can leave you high and dry.

significantly more difficult. Low water can make it difficult for boaters and marina operators to get their boats into and out of the water. In addition, larger vessels and sailboats often need deeper drafts to safely navigate out to deeper waters. Damage to boats could result from props, keels, or hulls striking boulders or shoals hidden beneath the water's surface. Marina and boat operators have used pier extensions, floating piers, or costly dredging to counteract these problems.

Higher water levels can also have a negative impact on recreational boating. Damage and injury can result from mooring and boarding boats using launching or docking conditions beyond the design of inundated docks. While some Great Lakes slips have been converted to floating docks, many are still fixed in place. Another inconvenience associated with high water levels is the inability of tall ships to navigate under fixed bridges. For example, large masts on sailboats can prevent the safe exit from or entrance to a harbor or marina.

Even during high water periods, localized low water levels can hamper recreational boating. In order to alleviate high water levels on Lake Ontario, the flows through the hydropower plants are increased on the St. Lawrence River. However, the drawdown from the increased outflow significantly lowers water levels upstream of the hydropower plants causing problems

for marinas and docks in the immediate area. This phenomena is also experienced around Grand Island in the Niagara River.

The Role of Dredging

We approach the parallel piers at the opening to Saugatuck Harbor and pass a dredging vessel deepening and widening the navigation channel. A constant hum can be heard from the engine room as it hydraulically pumps dredged material down to a depth of 14 feet. Since the material is mostly sand and is unpolluted by contaminants, a large, flexible pipe protrudes from the dredge over the south pier to nourish the beach.

Beach nourishment has been used as a means of disposing of dredge material in Saugatuck since the early 1980s. In addition to being less expensive than open water disposal or unnecessarily transporting the material to a facility reserved for contaminated dredged material, beach nourishment mitigates for the damage caused by structures that interrupt the natural flow, or littoral drift, of the sand along the coastline.

As a result of budget cut backs at the federal level, controversial changes to the Corps of Engineers dredging program have recently been proposed. One plan suggests gradually decommissioning all federal



Maintaining an adequate depth is critical to recreational boating.

harbors classified solely as recreational. This would leave the responsibility of maintaining the channel depths and piers of the harbors up to local governments and marinas. However, according to Doug Zande, Chief of the Operations-Technical Support Branch at the Detroit District, decommissioning these harbors is not likely to happen anytime soon. The continuing political support will most likely keep most harbor maintenance duties at the federal level.

Heading Home

The boat eases up to the launch as the sun sets low in the western sky. As we marvel at the twinkling lights of the majestic sailboats reflecting off the calm waters, we are reminded of the diverse recreational activities available through the resources of the Great Lakes and their coastal ports. Whether fishing, sailing, water skiing, or just cruising, the Great Lakes offer unending possibilities and countless memories.

Suggested Further Reading

Michigan Secretary of State Web Page.
<http://www.sos.state.mi.us/>

Larson, John W., Essays - A History of the Detroit District, U.S. Army Corps of Engineers, 1995, p. 224.

Levels Reference Study, Great Lakes-St. Lawrence River Basin. Working Committee 3 - Recreational Boating Task Group Report. March 31, 1993, p. 5-6.

Notes:

More information on recreational activities throughout the Great Lakes can be found on the World Wide Web at <http://www.great-lakes.net>.

Look in future Monthly Bulletins for notices of public television broadcasts of “*Living on the Edge*”, a 30-minute program produced by the Detroit District and the International Joint Commission explaining natural and man-made influences on the water levels of the Great Lakes system.