Artificial Reefs Become A Reality

Although the reefs are far from completion, Lake Erie’s first artificial reef materials are in place. On Thursday, the 9th of August, two barges, owned by Great Lakes Dredge and Dock and carrying over 6 million pounds of sandstone rubble, donated by O’Brien Stone Company in Warrensville Heights and transported by the Cuyahoga County Engineers Office, were moved by the tug boat William A. Lydon from our Ford Motor Company storage site on the Cuyahoga River to our artificial reef site approximately 3/4 of a mile offshore from Lakewood Park. This reef site is 1/2 mile long running parallel to shore and 1/4 mile wide. The material was placed in the northeast and northwest corners of the site. Four large piles, approximately 10’ high and covering an area of 50’ x 200’, were placed in the northeast corner. Six smaller piles, approximately 5’ high, of the same material and covering an area of 50’ x 300’, were placed in the northwest corner. These 10 piles, placed in approximately 35’ of water, will look like small mountains on a depth finder and should maximize “edge effect” and its attractive value for fish.

Those present to observe the initial reef construction were aboard the Holiday, captained by Wayne Bratton, and included the Cuyahoga County Commissioners who had contributed $62,500 to the artificial reef program, officials from the Ohio Department of Natural Resources, and members of the North Central Ohio Sea Grant Advisory Committee. Bratton, who is also a member of the Sea Grant Advisory Committee, was instrumental in securing and working with marine contractors as well as supervising activities at the Ford Motor Company dock. George Vosmik, Director of Development for the Cleveland Electric Illuminating Company and a Sea Grant Advisory Committee member, was responsible in securing the Ford Motor Company dock, initiating contacts with the Cuyahoga County Commissioners, handling all public relations, and coordinating many of the efforts necessary in making the overall project successful. Placement was supervised by Sea Grant District Extension Specialist Dave Kelch who was aboard the OSU research vessel Polyp, North Central Advisory Committee member Bill Mason aboard his boat the Roll-n-Rock, Dr. Glen Johnson who was also aboard the Roll-n-Rock, and Dr. Jeffrey Reutter who was aboard the Lydon.

Fishermen can expect to see the Polyp in the area frequently as the Sea Grant Program conducts research to evaluate the effectiveness of the initial portions of the reef. The information we learn will assist us in designing and placing future reefs in the most effective and economical fashion possible.

Although these initial reefs are relatively small, they mark the ground breaking of a program inaugurated by the North Central Sea Grant Advisory Committee almost 2 years ago. In the months and years to come, we expect to deposit a great deal more material to enlarge this reef and to construct new reefs near Lorain, Edgewater Park, Fairport Harbor and Ashtabula.

All Lake Erie fishermen owe a great deal to Dave Kelch and his North Central Ohio Sea Grant Advisory Committee for their foresight in working toward the development of this program and to the Cuyahoga County Commissioners, ODNR, the Ford Motor Company and to the many sportsmen’s groups and others who contributed to its success!

—Dr. Jeffrey M. Reutter
What Can Be Done to Develop Urban Fishing?

Fishing opportunities in urban areas are given scant attention by most anglers, largely due to perceptions that waters around cities are heavily polluted or that few fish will be found in such areas. As a result, little attention or money is given to fishing access sites when planning many shoreline construction projects.

Good quality urban fishing can, however, be developed in nearly any city—whether focusing on Lake Erie, inland rivers, or small ponds. Such development usually requires positive attitudes about the role fishing can play in an urban recreation plan along with innovative ideas for making the most of the resources at hand.

One expert on developing urban fishing opportunities is Ben Jaco, fisheries specialist with the Tennessee Valley Authority. Years of urban fishery development throughout the TVA area has given Ben the belief that local governments and interest groups can take strong leadership in developing fishing opportunities by combining ideas with action. At a recent fishery development conference in Buffalo, Ben shared several suggestions which can be adapted to many areas. First, teach children both fishing methods and ethical concerns about fishing while they are young. Today’s kids will influence tomorrow’s policies, and if they develop an appreciation of fishing early, they won’t have to be convinced of its value later. Second, disregard cost/benefit ratios. Sportfishing is largely based on a system of values, and many benefits which are real cannot be translated into dollars. Thirdly, encourage sportsmen to release some of the gamefish they catch into heavily-fished urban ponds. Many anglers are very willing to share their catch for charitable causes. If live fish are transported and cared for properly prior to stocking, they can be a valuable supplement to ponds which may or may not be stocked otherwise. Fourthly, governments can induce shoreline construction projects to include the development of fishing areas into the plans.

And finally, attract fish to fishing areas. A variety of techniques for attracting fish have been tested throughout this country.

Promising Methods

The Use of Bait. Electronically timed fish feeders using commercial chow have been effective in some areas. Japanese beetle traps and electric “bug zappers” with bottom trays removed can also be hung over water with effective results.

Trickling Food Scents. Trickling food scents or pheromones in the water have been proven to be effective. Recent studies have shown both natural food scents and sex attractors can establish trails which fish will follow.

Guiding Fish with Air Bubble Curtains. Air bubbles from a perforated pipe or hose on the bottom form a curtain which fish prefer to follow rather than cross. Strategically placed bubble curtains can channel natural fish movements into fishing areas.

Phototaxis (or movement caused by light). Lights suspended above the water will attract baitfish which in turn attract gamefish. Strings of lights can be turned on and off in a sequence to lead offshore fish into fishing areas.

Develop Fish Attracting Structures. Submerged trees and rockpile reefs can attract fish if they are placed and maintained properly. Some bodies of water, such as Lake Erie, are affected by federal and state regulations regarding the placement of structures.

DC Electrical Current. Other successful attempts to attract fish have used DC electrical current and net-like “leads” to funnel fish toward shoreline areas. These methods may be technically difficult for some operators or might cause navigational hazards.

While none of these suggestions can guarantee high quality fishing for urban areas, they reflect ideas that have been successful at various times for people with serious intentions to expand fishing opportunities.

—Fred L. Snyder

Governor Celeste Signs Bill Protecting Lake Erie Water

Ohio Governor Richard Celeste’s Capitol for a Day Program in Mentor on July 13th included the signing of S.B. 360, the Water Diversion Bill. Governor Celeste referred to Ohio as being at the heart of America’s “Water Belt” as he signed the bill on the shores of Lake Erie at Mentor Beach Park in Mentor-on-the-Lake, Ohio. He and State Senator Robert Boggs (D-Jefferson) also noted that Ohio’s water resources represent a unique and increasingly valuable asset. Senator Boggs was the sponsor of S.B. 360.

The Water Diversion Bill requires that anyone desiring to divert over 100,000 gallons of water per day from either Lake Erie or the Ohio River watershed secure a permit from the Director of the Ohio Department of Natural Resources before beginning such a diversion. The law, which affects diversions of Lake Erie waters within Ohio, will become effective in mid-October. Current diversions will be issued permits.

S.B. 360 will empower the ODNR to “police” any further large scale diversions of water from Lake Erie. Such future proposed diversions could be denied if it was deemed that such diversions would have a harmful effect on the health, safety or welfare of the citizens of Ohio. S.B. 360 is an attempt by Ohio to build a body of law to protect Lake Erie waters from large scale diversion in order to irrigate the arid southwest.

Ohio is one of the first Great Lakes states to pass such a law. Concern that the arid high plains states covet Great Lakes waters for future irrigation spurred the passage of S.B. 360. The Ogallala Aquifer in the High Plains is being pumped dry as water from it is being used for irrigation faster than it can be replenished. Some have suggested that water from the Great Lakes be pumped hundreds of miles south to replenish the aquifer. Coal slurry pipelines are another potential use and diversion for large amounts of Great Lakes water. Proposals to use Great Lakes water to transport coal from the western coal fields of Wyoming to the industrial midwest have been voiced.

S.B. 360 also creates an Ohio Water Advisory Council to the Division of Water in the ODNR. This seven member council will have the responsibility to make recommendations on Ohio Water use and conservation, water management and surface and ground water protection.

—Frank R. Lichtkoppler
Sea Grant Congressional Internship Awarded to OSU Student

Editor's Note: After a lengthy written competition and an intensive interviewing process, Mark Monaco, an Ohio Sea Grant graduate student, was chosen as one of 12 finalists from more than 50 nominees from across the country. The Sea Grant Fellowship Program, initiated in June of 1978, offers selected applicants an opportunity to have a one-year work experience in Washington, D.C. with staff offices of Capitol Hill or the Department of Commerce.

Assigned to the Office of Marine Pollution Assessment within the National Ocean Service of NOAA, Mark is spending this year researching ocean and Great Lakes pollution problems and serves as a liaison with Congressional Committees. Having already begun his term, Mark gives us the following report from Washington.

Since January of 1984, I have worked for the National Oceanic and Atmospheric Administration (NOAA) in its National Marine Pollution Program Office (NMPPO). NMPPO carries out NOAA’s mandates under Section 4 and 8 of the National Ocean Pollution Planning Act of 1978, Public Law 95-273 (NOPPA). Section 4 of NOPPA requires NOAA to develop a five-year Federal Plan for Ocean Pollution Research, Development and Monitoring; to implement plan recommendations through interagency coordination every three years; and, to contribute to the Federal budget review process for related programs. Section 8 requires NOAA to disseminate results, findings and information related to such programs.

The Third National Marine Pollution Program Plan is due to the Congress in September of 1985, thus, many of my activities and projects this year are related to the development of this document. For example, a major factor of the Pollution Program Plan is deciding whether the Federal government is adequately addressing marine pollution research needs and to determine the magnitude and scope of non-federally funded marine and Great Lakes pollution research. Because of my experience on the Great Lakes while an employee of The Ohio State University’s Center for Lake Erie Area Research, I was assigned to inventory the Great Lakes Region. Consequently, I have been traveling extensively throughout the Great Lakes area interviewing and collecting information from utilities, state and local governments, universities, and private foundations that support Great Lakes pollution studies. I am presently entering and analyzing the data on an IBM personal computer.

Another task that I participate in relative to the formulation of the Plan is the production of the appendices to the Plan. These are the Agency Program Summaries Update and an annual update of the Catalog of Federal Marine Pollution Projects. The Summaries Update presents an overview of the activities of each of the federal departments and agencies that are currently engaged in marine pollution programs. The Catalog lists approximately 700 projects in 76 programs funded by 11 Federal departments and independent agencies involved in the National Marine Pollution Program. Projects included in the Catalog are limited to efforts that focus primarily on pollution problems in the oceans and Great Lakes.

As evident from the activities I have described, this work year in Washington is quite different from the technical experiences I received at the Center for Lake Erie Area Research. The Cladophora study, cruising on the Research Vessel Hydra, working at Stone Laboratory, and the various other projects I worked on at Ohio State University provided me with the basic understanding and technical knowledge of limnology and oceanography to succeed in my present position. The fellowship has sharpened my ability to communicate effectively and has improved my writing and oral skills, which are the skills one uses everyday with a governmental agency. I have enjoyed the opportunity to work with government interagency representatives, the private sector, and universities and to discuss and develop research strategies for our environmental problems. The experience I have gained concerning marine and Great Lakes pollution issues, legislation, and a working knowledge of the Federal government has made the fellowship an invaluable component of my graduate education. I hope to continue to blend my technical knowledge with this year’s legislative and policy experiences in my future work.

—Mark Monaco

IMPORTANT NOTICE

Twine Line currently has a circulation of over 11,000 readers. Many of the addresses, however, are either duplicates, old or incorrect, or no longer forwardable. Because of the tremendously high cost of printing, we would like to update our files so that we may continue to send you this publication free of charge.

If you are interested in continuing your free subscription, please complete the following form and send it back no later than Friday, November 30, 1984. Please address it to: Communicator, Ohio Sea Grant Office, 484 West 12th Avenue, Columbus, Ohio 43210. If you have any questions, you may contact us at (614) 422-8949.

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Farmers of the Sea

As the earth's expanding population places ever-increasing demands on limited natural resources, both industrial and developing nations must look to technology to provide ways for the human race to feed itself—while protecting the environment.

In "Farmers of the Sea," airing Tuesday, November 13 at 8 p.m. on PBS (check local listings), NOVA examines aquaculture, the ancient technique of raising aquatic animals and plants, a "blue revolution" that may hold the answer to providing adequate food and employment for large populations in a variety of settings.

NOVA, the award-winning weekly science documentary series, is produced for PBS by WGBH Boston and is made possible by grants from public television stations, Allied Corporation and the Johnson & Johnson Family Companies.

First developed by the Chinese 4,000 years ago as a way of supplying their emperors with fresh fish—considered then, as now, a delicacy in the Oriental diet—aquaculture and its modern applications bear out the truth of the old Chinese proverb: "Give a person a fish, and he will have food for one day; teach a person to fish, and he will have food for a lifetime."

In the Orient, modern aquaculture encompasses both edible and non-edible products. In addition to a fish called yellowtail and a type of seaweed, known as nori, now raised and harvested commercially, 3,000 cultured pearls are produced daily in the pearl oyster beds owned by Mikimoto.

Outside the Orient, aquaculture contributes significantly to the economic health of many nations, including North America, where catfish and trout are raised, and Scotland, where a million pounds of salmon are processed annually in a plant with only 20 employees.

"Farmers of the Sea" tracks the promise, problems and progress of aquaculture, taking viewers to the research laboratories, food processing plants, universities, fish ponds, rivers and streams where the blue revolution is taking place.

But even with ample funding, modern techniques and well-endowed research, the answers do not come easily. Some marine animals, such as shrimp, do not breed in captivity. And, although the southern United States boasts a $250-million-a-year catfish industry, some American companies' aquaculture facilities have been lured to other nations that offer more favorable climates and an accessible, inexpensive labor pool.

"Farmers of the Sea" was produced for NOVA by Jim Larson. Sea Grant programs at the universities of Maine, Maryland, Washington, and Wisconsin and at Texas A & M University all cooperated in the making of the film. University of Wisconsin Madison communications director Linda Weimer, former director of Sea Grant communications there, was co-author of the script along with Larson.

Sea Grant scientists at the University of Washington have developed a treatment for a bacterial kidney disease which, when unchecked, may kill up to 40 percent of the adult spawners in salmon and trout hatcheries, and thus reduce the production of young fish.

Using erythromycin, the same antibiotic that is used to treat strep throat in people and bacterial disease in poultry, the scientists have been able to reduce the loss in hatcheries up to 50 percent.

The two-part process of treating both eggs and adult fish is being conducted under a field trial program at Idaho state fish hatcheries. The U.S. Food and Drug Administration has authorized the trials which are designed to provide additional information needed for licensing erythromycin to control fish disease.

Letter to Legislators

In an election year, citizen interest in communicating with local, county, state and federal officials is higher than usual. These officials are also ready to listen to their constituents. One effective method of being "heard" is a well-written letter.

Sportsmen who take advantage of putting their views down on paper will have an edge over those who do not. Well-written letters will effect the legislation that is passed by your elected representatives at all levels of government. A few guidelines on letter writing will increase your ability to communicate effectively with your elected officials.

Many of the following tips are from the Michigan Sea Grant publication, "How Citizens Can Influence Legislation In Michigan," MICH-SG-81-502.

- Use your own words. Write legibly or have your letter typed.
- Be clear, know your topic. Think before you write.
- Be brief. Write on only one topic or issue per letter. Don't waste words.
- Short letters are more effective.
- Be specific. Identify the bill by name and number. Clearly identify the issue you are writing about.
- Tell who you are and how the issue will affect you. Ask for assistance in the first paragraph. Make a specific request asking for a response.
- Be timely. Contact your representatives while they have time to act.
- Be persistent. One letter may not be enough. Contact all the "decision makers" who will decide on the issue.
- Be positive. A letter of praise or a follow-up thank you note is appreciated.
- Legislators are human and a pat on the back does wonders.

These letters do have an impact on the legislation that is passed by your elected representatives. A concerted public response in the form of letters is sometimes just the kind of documentation a representative will need. They need you as much as you need them!

—Frank R. Lichtkoppler

Correction

It was recently brought to our attention that the June 1984 Twine Line article, "Look Out for Flags While Boating," contained incomplete information. In order that we may bring you up-to-date with more concise and factual information, we are researching the subject further and will present a current article in the December issue.
Lake Erie Access Study

Governor Richard Celeste, as part of the Capitol for a Day Program in Mentor, Ohio on July 13th, announced the completion of the Lake Erie access study by the Ohio Department of Natural Resources (ODNR).

The comprehensive study outlines the recreational boating and fishing access opportunities and needs on Lake Erie. The study includes an inventory of current and potential Lake Erie recreational access sites, a recreational needs analysis, and recommendations for priority development of Lake Erie boating and fishing access sites.

The Ohio waters of the lake were divided into three districts to correspond with the Lake Erie statistical districts used by the ODNR Division of Wildlife. District I included the Western Basin (Toledo to Huron). District II encompassed Huron to Fairport and District III included northeast Ohio from Fairport to Conneaut. The total peak day boating demand on the Ohio waters of Lake Erie was estimated to be 25,000 demanded boating days. The results of the needs assessment study are compiled in Table I.

From the Table it can be seen that current demand for boating trips on Lake Erie exceeds supply by 4,388 demanded boating trips per day on a typical peak day. Demand for boating trips is greatest in District I where the supply of launch lanes and docks is also the greatest. Boating activity is closely related to availability of places to boat. Unmet demand is greatest in District II, the central basin of Lake Erie.

Because Lake Erie boating is expected to increase in the future, access needs will also increase. Boating activity is tied directly to the success of Lake Erie’s sport fishery and the expanding central basin walleye fishery will increase demand for boating facilities in Districts II and III. Improved salmon and trout fishing will increase demand for boating access in District III in northeast Ohio. Construction of artificial fishing reefs in the Central Basin will further benefit angling opportunities in the Central Basin and will add to the demand for boating access in District II and III.

District III has the lowest boating demand and accounts for only 5 to 6% of all boat angling pressure on Lake Erie according to Division of Wildlife creel data. It can be argued that the lack of quality access directly results in low levels of use. District III has only 5% of the total launch lanes and only 2% of the total wet berths on Lake Erie.

The ODNR has made a commitment to the development of boat launch ramps rather than marinas. More boats can be accommodated at a lower cost for development at a typical 4 launch ramp than at a marina. Ten priority sites for public boat launch ramps have been identified. Criteria for priority site development included regional needs for boating (item 12 in Table I). Also included were criteria relating to site location, accessibility, size of site, adjacent land uses, physical constraints to development and offshore considerations including good fishing habitat.

The priority public launch ramp sites identified in the study include Cullen Park, Bay View Park near Toledo, East Harbor State Park, Willow Point Wildlife area, Mazurik Wildlife area and Dempsey Wildlife area all near Marblehead, as well as Sandusky City Hall, Vermilion City Launch ramp, Lorain dredge disposal site, Geneva State Park and Conneaut Harbor.

Shoreline fishing accounts for just over 10% of the total Ohio Lake Erie angling effort. The greatest need for shoreline fishing access was found to be in the Toledo and Cleveland metropolitan areas and at certain prime fishing locations. Twenty-two priority public shoreline fishing projects were identified in having good potential or increasing access to Lake Erie. Primary criteria used in identifying these shoreline fishing access sites included regional needs for shoreline fishing and quality of shoreline fish habitat. Breakwalls, piers and hot water discharges from lake front power plants are examples of shoreline fishing “hot spots.”

Priority public shoreline fishing projects include Toledo Edison Bayshore Power Plant, Crane Creek State Park, Camp Perry, Port Clinton Pier, Willow Point Wildlife area, East Harbor State Park, Mazurik Wildlife area, Dempsey Wildlife area, Sandusky sand docks, Vermilion city boat ramp, Lorain dredge disposal site, Avon Lake power plant, Goodtime Boat Pier, Euclid Beach, East Lake CEL, Madison-Arcola Creek, Indian Creek, Ashtabula CEL, Ashtabula West breakwall, Rock Creek, Conneaut West breakwall and Conneaut Inner Harbor.

Whether or not these priority access sites are actually developed will depend upon the local community’s efforts to a large extent. Identification of a locality does not mean that it will be developed. Other areas may be developed as needs change.

—Frank R. Lichtkoppler


**Table I**

<table>
<thead>
<tr>
<th></th>
<th>District I</th>
<th>District II</th>
<th>District III</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Demanded boating</td>
<td>15,000</td>
<td>8,750</td>
<td>1,275</td>
<td>25,000</td>
</tr>
<tr>
<td>days</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2) % of total</td>
<td>60%</td>
<td>35%</td>
<td>5%</td>
<td>100%</td>
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<tr>
<td>demanded boating</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>days</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Number of launch</td>
<td>124</td>
<td>66</td>
<td>10</td>
<td>200</td>
</tr>
<tr>
<td>lanes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) % of total Lake</td>
<td>62%</td>
<td>33%</td>
<td>5%</td>
<td>100%</td>
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<tr>
<td>Erie launch lanes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Number of boat</td>
<td>6,200</td>
<td>3,300</td>
<td>500</td>
<td>10,000</td>
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<tr>
<td>launches per day at</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>boat ramps</td>
<td></td>
<td></td>
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<tr>
<td>6) Number of docks</td>
<td>19,300</td>
<td>6,620</td>
<td>604</td>
<td>26,524</td>
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<tr>
<td>(wet berths)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>7) % of total docks</td>
<td>73%</td>
<td>25%</td>
<td>2%</td>
<td>100%</td>
</tr>
<tr>
<td>8) Number of boat</td>
<td>7,720</td>
<td>2,648</td>
<td>242</td>
<td>10,610</td>
</tr>
<tr>
<td>trips originating at</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>marinas</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9) Number of demanded</td>
<td>7,280</td>
<td>6,102</td>
<td>1,008</td>
<td>14,390</td>
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<tr>
<td>boating trips</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>originating at transit ramps</td>
<td>1,080</td>
<td>2,800</td>
<td>508</td>
<td>4,388</td>
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<tr>
<td>demand</td>
<td></td>
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<tr>
<td>10) Launch lanes</td>
<td>21</td>
<td>56</td>
<td>10</td>
<td>87</td>
</tr>
<tr>
<td>needed</td>
<td></td>
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<td></td>
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<tr>
<td>11) Number of boat</td>
<td>5</td>
<td>14</td>
<td>2-3</td>
<td>21-22</td>
</tr>
<tr>
<td>launching facilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>needed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1) Only launch lanes open to the general public were counted.
2) One launch lane is estimated to accommodate 50 boat launches per day.
3) An estimated 40% of boats from marinas are out on a typical peak day.
4) Unmet demand is the demanded boating days minus the number of boat launches per day at launch ramps minus the number of boat trips originating at marinas.
5) A boat launching facility is considered to include 4 launch lanes and parking for 200 cars and trailers.
A McDock?

McDock with lilly pads in the foreground and The Harbour in the background.

The Great Lakes' first McDonald's Restaurant with boat docks opened this summer on the Cedar Point Causeway (you can also drive to it on your way to Cedar Point). As one would expect, boats are already tied to the "McDock." The restaurant, located at the mouth of Pipe Creek where it flows into Sandusky Bay, is truly in the middle of some very unique shoreline developments.

The Harbour. On the opposite bank of Pipe Creek lies "The Harbour," a breathtaking new condominium complex. In the process of constructing "The Harbour," however, a 15-acre wetland was destroyed and a large volume of dredged material needing disposal was created. This dredged material was from a boat channel from the Cedar Point Causeway to The Harbour and a marina at The Harbour.

Big Island Wetland. To mitigate the loss of the small wetland and to hold the dredged material, the 94-acre "Big Island Wetland" was created almost adjacent to McDonald's. Boaters passing through the causeway while traveling to The Harbour or McDonald's will follow the channel and will pass the riprapped dikes of this wetland. The wetland is being managed by The Ohio State University's Sea Grant Program and its Northwest Ohio Advisory Committee for research, education and public service use in cooperation with The Harbour, City of Sandusky, O.D.N.R., Army Corps of Engineers and U.S. Fish and Wildlife Service.

Boaters and other visitors to this McDonald's are also encouraged to read the educational and interpretive material in the restaurant's picnic area as well as along the nature walk by the shoreline.

These developments, the new McDonald's with its nature walk and McDock, The Harbour, and The Big Island Wetland, are a tremendous example of economic developments and environmental improvements occurring together rather than at the other's expense.

—Dr. Jeffrey M. Reutter

Funding for Lake Erie Access Development

Communities interested in developing recreational fishing and/or boating access to Lake Erie can gain financial assistance from a $3 million fund set up for that purpose. This Ohio Department of Natural Resources funding program was set up to help communities increase recreational access to Lake Erie. Funding for approved projects will be on a 50% state/50% local basis. Projects potentially eligible for funding assistance include: public boat launching and shoreline fishing facilities. More information on this program is available by asking for the Lake Erie Access Program Funding Application Booklet from the O.D.N.R., Building A-3, Fountain Square, Columbus, Ohio 43224.

—Frank R. Lichtkoppler

A study of the habitat preferences and movements of salmon and trout stocked in the U.S. waters of Lake Ontario has led to a similar investigation in Canada. Information gathered in the study has been particularly helpful to U.S. anglers who use it to more easily locate fish. Now the Ontario Ministry of Natural Resources and the Canadian Lake Ontario Charter Boat Association are providing support for New York Sea Grant scientist to continue their work along the Canadian side of Lake Ontario.

Sea Grant District Specialists

Frank R. Lichtkoppler
District Specialist—Sea Grant
Lake County Extension Office
99 E. Erie Street
Painesville, Ohio 44077
(216)357-2582

David O. Kelch
District Specialist—Sea Grant
Lorain County Extension Office
1575 Lowell Street
Elyria, Ohio 44035
(216)322-0127

Fred L. Snyder
District Specialist—Sea Grant
Bldg. 3, Room 12
Camp Perry
Port Clinton, Ohio 43452
(419)635-4417