Division of Watercraft

Ohio Department of Natural Resources

Boating on Ohio Waterways Plan

MAY 2004

Bob Taft, Governor
Sam Speck, Director
Kenneth J. Alvey, Chief

Contents

Chapter 1 Why Plan?

Late in 1998, the Ohio Department of Natural Resources (ODNR) produced a succinct planning document for outdoor recreation in Ohio titled Strategic Plan for Recreation Opportunities**.** Input was gathered for this plan from numerous public and private agencies and through 19 public forums and five focus groups, held statewide.

Based on this statewide input from the citizens of Ohio, ODNR identified five goals in the Strategic Plan for Recreation Opportunities**.** These goals were set for ODNR as a whole, with a primary focus on those Divisions within ODNR that have a recreation based mission. These goals were:

1. Enhance recreational resource management and protection
2. Improve quality of life
3. Expand access to recreational resources, experiences, services and information
4. Expand partnerships
5. Support an outdoor recreation ethic for citizens

These are broad based goals as befits a diverse public agency like ODNR. To better place these goals in the context of measurable achievability, eight prioritized strategies were developed. Not surprisingly, the first three of these eight strategies pertain to boating, as well as other outdoor recreational pursuits that many Ohioans enjoy.

Strategy #1: *ODNR will protect Ohio's recreation resources using best management practices and will serve as a leader and advocate of recreation resource protection to others.* The desired outcomes of this strategy were identified:

- Reduction of recreational user conflicts
- Appropriate levels of recreational use on land and waters
- Reduction of human induced stress on recreation resources
- Recognition of non-traditional recreation activities in management plans

Strategy #2: *ODNR will improve access to* ***water-based*** *recreation*. Desired outcomes for strategy #2:

- Increased awareness of services and information regarding recreational waterway access
- Increased water-based recreational opportunities
- Recreational waterway access improvement and development based on a current plan

Strategy # 3: *ODNR will be an active participant in the recreational corridors and green ways movement in Ohio*. This strategy also has boating implications. Desired outcomes to Strategy # 3 included:

- Recreational corridor ... development and management based on a current plan.
- Expansion of recreational corridors ....in Ohio.

The Division of Watercraft, in a continuous effort to stay current with issues of primary importance to boaters, has held a variety of forums over recent years to facilitate communication between the many diverse boaters in Ohio and the division. These forums included:

- 18 public meetings held in 1996 and 10 public meetings in 2002
- Written input solicited within the Division of Watercraft and ODNR
- Data from Watercraft Planning Studies *
- The Waterways Safety Council, representing Ohio's boating constituency

Through these forums the division has identified boating issues such as conflict and crowding, a priority issue in the *Division's Strategic Plan for the 21st Century*. To further define this issue, a team made up of staff members from the Division and stakeholders from the watercraft community was chartered with the following mission:

Identify and determine user conflict and crowding issues statewide
and determine current satisfaction levels.
Develop a strategic action plan to address these issues.

The team studied this issue and produced a report in 1999 where inland, unlimited horsepower lakes were identified as being most problematic. Team recommendations of related issues for future study included:

- Waterway congestion
- Availability of launch ramps and marina facilities
- Quality design of launch ramps and marina facilities
- Environmental issues

The Boating on Ohio Waterways Plan (BOW Plan) was launched in an effort to further study boating issues. In November 2000, the Waterways Safety Council, advisory body to the Division of Watercraft, passed a resolution in support of this recommendation.

* *Watercraft Recreation Planning Studies*, Ted L. Napier, Ph.D., 1985, 1986, 1987, 1992, 1994, 1996 and *Survey of Recreational Boater Safety & Participation in Ohio*, Dr. Leroy Hushak, Ohio Sea Grant College Program, OSU, 1999, 2001

Budget Issues

The BOW Plan process was initiated during a very lean time in terms of government budgets. As a result of economic downturns after 9/11, many government agencies, municipalities, and political subdivisions have had their budgets slashed. Is this an appropriate time to propose new, potentially costly improvements to Ohio's boating arena, when just meeting today's expenses is challenging enough?

Planning is a very suitable pursuit during times of economic downturn. History tells us that economic trends are cyclical. There is every reason to expect that this time of budget deficits is a short-term inconvenience. As Abraham Lincoln once said: *"I will prepare and someday my chance will come."*

BOW Plan Goals

- Find out, through a discovery process, what specific issues are most important to Ohio boaters
- Further define those issues on a regional and waterway type basis
- Analyze the existing distribution of boating opportunities in Ohio
- Study boater input and existing boating opportunities in Ohio. Develop strategies and targeted recommendations to improve the boating experience relative to issues identified by Ohio boaters

Future changes will surely trigger modifications to this plan. However, for today, current issues will be thoroughly identified, problems will be defined and analyzed, and recommendations will be made regarding currently identified issues.

Guiding Planning Philosophy

There are many diverse interests associated with Ohio's waterways. Searching for a balance between many diverse perspectives is, in itself, a truly worthy mission. In fact, this search for balance between diverse perspectives is integral to the mission of ODNR:

To ensure a balance between wise use and protection
of our natural resources for the benefit of all.

This mission statement sets an ideal direction for the BOW Plan, the focus of which will be recreational boating.

Chapter 2 Overview of Boating in Ohio

Recreational boating is one of Ohio's most popular outdoor activities and has been for decades. The number of recreational watercraft registered in Ohio has grown from 98,562 in 1960 to a total of 416,270 registered watercraft in 2002. As shown in the breakdown of vessel types in Figure 1, 80% of recreational boats in Ohio were motorized vessels of one sort or another in 2002. Motor types comprising this 80% ranged from small electric motors to jet drives to large inboard motors. Ohio does not collect information on size of motor on boat registrations, although information on length of vessel is collected.

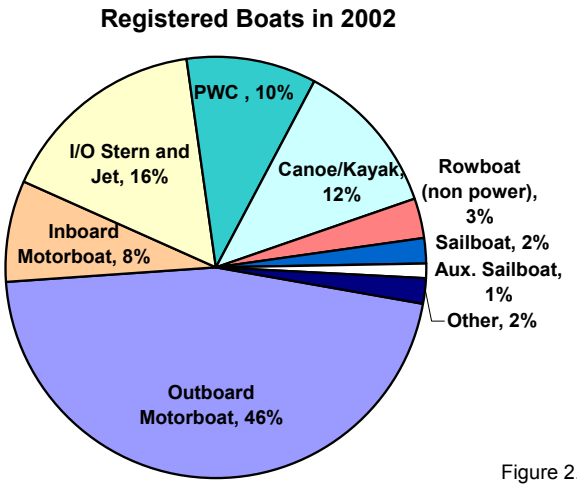


Figure 2.1

Ohio ranks 8th nationally in number of watercraft registrations. All Ohio vessels defined as watercraft by the United States Coast Guard are registered by the Ohio Division of Watercraft. Registration numbers are greatest in Ohio's major urban areas and along Ohio's Lake Erie coast. For 2002, Franklin County led the state with 27,559 registered watercraft, followed by Cuyahoga, Summit, Hamilton, Montgomery, Stark, Lucas, Butler, Lorain and Lake counties. Relative numbers of boat registrations are mapped in Figure 2.

The 2001 *Survey of Recreational Boater Safety & Participation in Ohio* showed that the average boat-owning Ohio household owns 1.9 boats. This number is up from similar data collected in 1998-99, where it was found that the average respondent household owned 1.74 boats. It is estimated that approximately one out of every 20 Ohio households owns at least one boat.

Ohioans in general, both boat-owning and non-boat-owning, have an impressive participation rate in boating. A recent telephone survey of Ohio adults, *The Ohio Poll,* conducted by the University of Cincinnati in the fall of 2002, found that 32.3% of a cross section of all Ohio adults went boating during 2002. Nearly 25% of respondents reported boating "occasionally" during the past twelve months, while

7.6% went boating “frequently”. Sixty percent of these Ohioans who went boating either occasionally or frequently went on a boat not owned by a household member. Over 50% participated solely on Ohio waters, and an additional 35% boated in Ohio and other states.

These survey results illustrate how many people are directly affected, at least occasionally during the boating season, by boating issues in Ohio. Nearly 2 ½ million adult Ohioans spend time boating on Ohio waterways.

7,720,135	Ohioans 18 and over (2000 US Census)
X 32.3	Ohio Poll %
2,493,604	Ohioans who boat

With participation rates like these, it is no surprise that studies show boating contributes an estimated $1.5 billion annually to the state’s economy and supports 19,500 Ohio jobs.

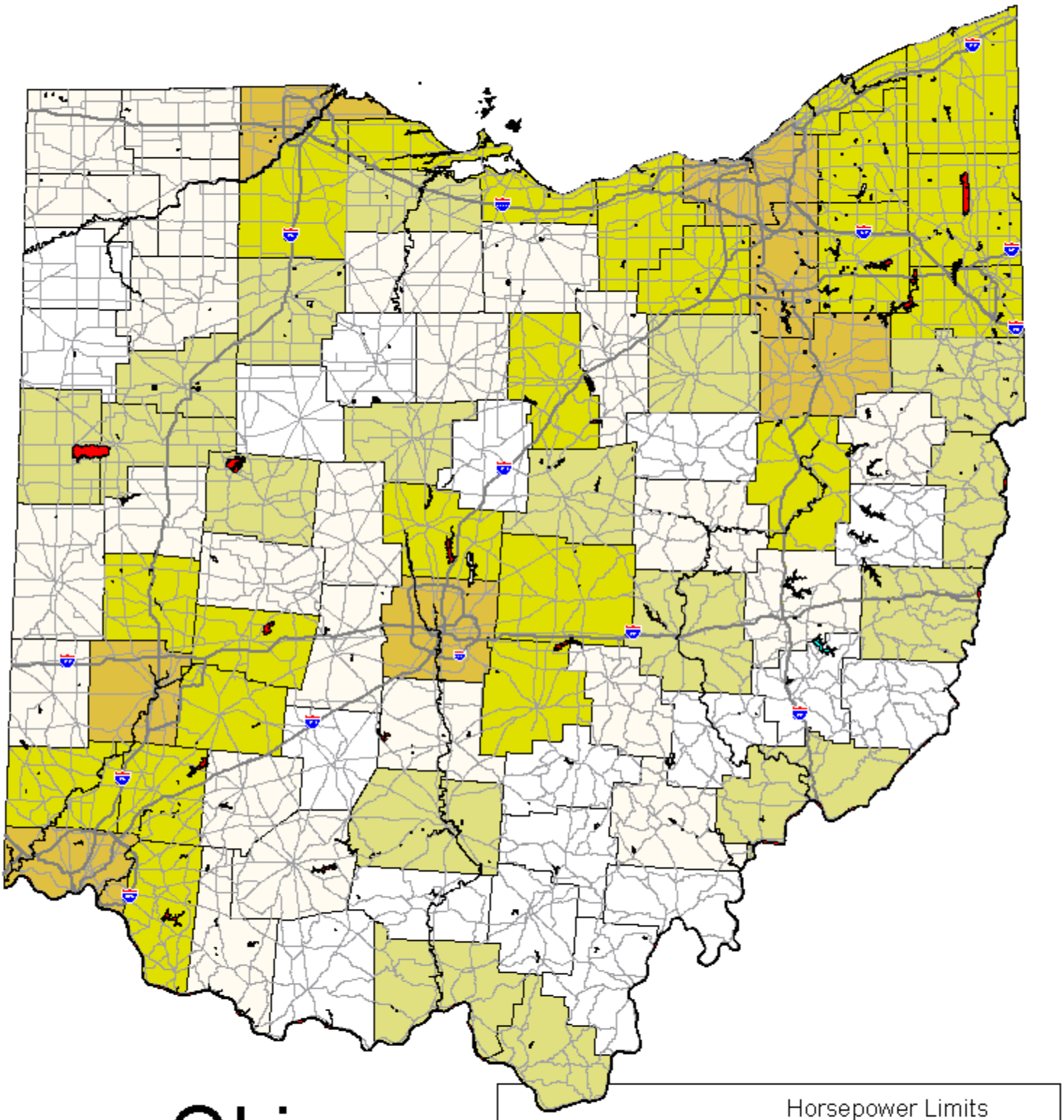

Ohio
Boating
Registered Boats (2002)
522 - 1401
1402 - 2539
2540 - 4311
4312 - 11086
11087 - 27810
Horsepower Limits
no motors
electric only
10 hp
25 hp
250-299 hp
400 hp
unlimited
unlimited no wake
rivers, streams & private

Figure 2.2

Chapter 3 Overview of Ohio Waterways

Ohio waterways offer a variety of boating opportunities, from the open waters of Lake Erie to many small lakes and navigable streams. Opportunities and atmospheres vary lake to lake in Ohio, due to factors such as geographic location, size, and lake management policies.

Lake Erie

Ohioans enjoy 262 miles of Lake Erie shoreline along the state's eight northern counties that border Lake Erie. Over 50 public launch ramps and marinas, as well as scores of private boating facilities, provide access to the lake. Over 31% of Ohio boaters report Lake Erie as the waterway frequented most often (2002)*.

Although all of Lake Erie waters are popular boating waters, a 1998 statewide survey of Ohio boat registrants** revealed that 11% of respondents identified Ottawa County as their most frequent boating destination during the 1998 season. This makes Ottawa County, location of most of the Lake Erie Islands, the number one boating destination among Ohio's 88 counties. Erie County, adjacent to Ottawa County and location of Kelley's Island, ranked second as a coastal destination choice, with four percent of survey respondents reporting it as their primary boating choice. With 416,270 registered recreational boats in Ohio (2002), the enormous boating impact on the Lake Erie Islands from Ohio boaters alone is obvious. The Lake Erie Islands are known to be a popular destination for many cruising boaters from other states and Canada as well.

All sorts of recreational vessels enjoy boating and fishing on Lake Erie, from sea kayaks to large documented vessels. During the past few years, there has been an increase in Ohio's registration of recreational documented vessels (vessels of five net tons or more used on navigable waters of the U.S). Most vessels more than 25 feet in length will measure five net tons or more. In 2002 there were 2210 documented recreational vessels, almost a 3-fold increase from 1999, when Ohio registered 791 recreational documented vessels. These large boats are well suited to voyages of more than one day, also known as transient boating, which is a very popular activity on Lake Erie.

During the 20th century, much of the land use along Ohio's Lake Erie coast has been focused on industrial production and transport. This focus is now rapidly shifting away from industrial use and towards recreational use and tourism. Resource and future trends planning professionals find that recreation and tourism are the primary drivers of coastal development. Improvements to boating access in coastal areas are symbiotic with community economic development.

* Response to Boating on Ohio Waterways Plan survey question # 4.
** *Recreational Boating in Ohio, An Economic Impact Study*, Dr. Leroy Hushak

Inland Lakes

Ohio is blessed with 86 inland lakes of at least 100 acres in size. These lakes are quite varied both in size and management methodology. Lake sizes range from many very small lakes to Pymatuning Lake, which straddles the Ohio-Pennsylvania border, and has a total of 16,150 acres. All lake waters are open to the public; but access is restricted at a few private lakes through lack of public ramps and marinas. As Figure 3.1 illustrates, over fifty percent of boating in Ohio occurs on inland lakes.

Access to many of Ohio's inland lakes is controlled by horsepower limitations. This management technique has been used in Ohio for decades. Although 24 of lakes (> or = 100 acres) have no restrictions, the remaining 62 lakes (> or = 100 acres) are limited to boats with motors of either 400 horsepower, 299 horsepower, 250 horsepower, 25 horsepower, 9.9 or 10 horsepower, 6 horsepower, electric motors, or, in one case, no motors.

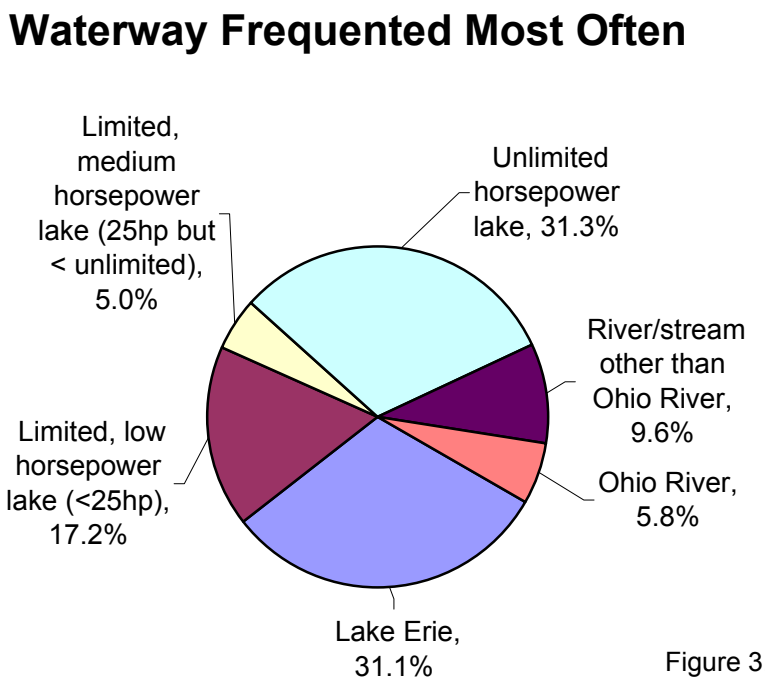


Figure 3.1

Ohio Rivers and Streams

Ohio has an extensive river system; much boating occurs on these rivers and streams. The Ohio River borders the state for 452 miles, offering many interesting and historic ports of call. The Muskingum River, portions of which are federally navigable, contains a historic system of locks. Many rivers along Lake Erie are used by boaters for river boating and for access to Lake Erie.

Ohio's smaller rivers offer boating opportunities to a variety of boaters, from paddlers to small fishing boats to personal watercraft. Eleven of Ohio's river systems have been included as components of the State Scenic Rivers Program. These total 20 individual stream segments are designated as Wild, Scenic and/or Recreational. The majority of Ohio's designated rivers are designated as Scenic, although portions of the Little Beaver Creek and Grand River have been designated as Wild and portions of the Maumee River and Stillwater River systems have been designated as Recreational.

Ohio's Scenic Rivers

Figure 3.2

Chapter 4 At the Helm: Ohio Boaters and Waterway Managers

The path from recognition of a need for planning to the actual completed plan is often referred to as the planning process. For the BOW Plan, this path or planning process has been designed and constructed with an important foundation, extensive input by those who recreate on Ohio waterways.

Getting Started

At the outset of the planning process, the Division of Watercraft established a range of topics that the plan would address. Topics selected for study within the BOW Plan were:

- Boater wants and needs,
- Ease of boating access to Ohio lakes and rivers via launch ramps, marinas, and put-in areas,
- Current regulations, and
- Opportunities to create a more favorable boating environment.

The desired products of the planning process were:

- An established framework that can be utilized for future local and state planning efforts,
- Identification of areas of greatest need for facilities, and
- Lake management guidelines (statewide basis).

Issues that were identified as not being germane to the BOW Plan included:

- Law enforcement (for example: "Blue Lake" needs more patrol officers),
- Site-specific recommendations (for example: "Blue Lake" needs another launch ramp), and
- Boating safety.

Focus Groups

"Focus groups come in a matter of hours to conclusions that the population as a whole will eventually come to. … When well done, it works with an uncanny efficiency."
– Hans Bleiker, *Citizen Participation Handbook*

In the first step of the planning process, Ohio boaters and waterway managers (both Division of Watercraft managers and non-Division managers) worked together to identify the most important issues on Ohio waterways. These issues were determined in focus groups made up of Ohio boaters and through responses to questionnaires sent to waterway managers.

Focus groups were organized into groups of individuals who shared a common boating style. For the most part, paddlers met in groups of paddlers, power boaters met in groups of power boaters, and so forth. This homogeneous organization allowed for more synergy and less time-consuming dispute of issues during the two-hour group sessions. It was understood that one group as a whole might raise concerns and issues that were contradictory to those raised in another group.

Groups were held around the state from August 2001 through March 2002. Group size varied from one participant to around ten. A state agency is unable to offer cash compensation to focus group participants as is commonly done by marketing research companies. Nonetheless, many dedicated boaters donated an evening to participate in these groups. Participation was lowest when the evening weather was perfect for boating.

Focus Group Locations & Types

Akron	Power boating
Cambridge	Pontoon boating
Cincinnati	Power boating, with a focus on the Ohio River
Cleveland	Lake Erie power boaters, Lake Erie sailors, and paddlers (three separate groups)
Columbus	Paddlers
Huron	Lake Erie sailors (informal group)
Springfield	Inland lake sailing
Wapakoneta	Boaters who are also canal lake property owners
At large group	A personal watercraft (PWC) group participated by mail and email. (PWC operators who agreed to participate in a focus group lived all over the state, from Cleveland to Cincinnati. Because of driving distances, a mail-in-format best suited these volunteers.)

In addition to focus groups, the following groups of people were invited to complete an open-ended questionnaire:

- Ohio Marine Patrol Grant recipients
- Cooperative Boating Facility Grant recipients
- ODNR Division of Watercraft field managers
- ODNR Division of Parks and Recreation waterway managers
- ODNR Division of Wildlife field managers
- Ohio municipalities and conservancy groups that oversee boating waterways

Over 50 completed questionnaires were received. Waterway management information submitted by individuals in these groups was as integral to issue identification as the information brought to the table in focus groups. Many excellent comments were also submitted via email. A Boating on Ohio Waterways website was maintained within the Division of Watercraft website through out the project. The Division recorded the following number "hits" on this site during the 2002 boating season:

May	1,210 hits
June	1,376 hits
July	1,690 hits
August	1,250 hits
September	992 hits
October	712 hits
November	520 hits

In addition, there were numerous postings on a non-ODNR, Ohio-based sport fishing website. Electronic forums, the division's website and the fishing website generated considerable email commentary.

Compiling the Comments

The 1000-plus comments from 11 focus groups, 50-plus completed questionnaires, and email input were presorted into like categories by a division workgroup. Each comment was reviewed using the following four BOW Plan topics as a filter:

a. **Boater wants and needs**: Does the comment relate to a specific way in which Ohio boating could be improved? Is the comment within the realm of possibility?

b. **Boating access:** Does the comment pertain to boating access and access needs, facility design, operational ideas, etc?

c. **Current regulations:** Does the comment identify issues that would improve the boating experience that could be addressed through regulations (new or changes to existing)?

d. **A more favorable boating environment:** Does the comment describe issues with the current boating environment (for example: user conflict)?

Comments were then summarized wherever possible without losing the essence of the comment. Through this process, a number of themes emerged, resulting in the following 25 main topics and issues.

Summary of Focus Group Comments, Organized into Main Topics & Issues.

1. Boating on Lake Erie

- Lots of transient boating occurs in groups.
- Boaters want certain amenities at transient marinas; cost of stay should be justified by services and facilities available.
- Boaters want variety in destination types (quiet/busy). Boaters want tie up opportunities near other amenities/activities that provide something to do.
- Boaters want more (good quality) transient facilities than what is currently available on Ohio's Lake Erie waters.

2. Transient Marinas: Need

1. Need for transient facilities on Lake Erie and the Ohio River.
2. Spacing of transient facilities is very important.
3. Locating transient facilities at well-known places where there are attractions/amenities is desirable.
4. There is a need for transportation/circulation links between transient marina and area activities.

3. Transient Marinas: Design & Operations

1. Transient boaters are looking for convenient amenities like showers, a nearby restaurant, outdoor grills, a supply store, cleanliness and friendliness, etc.
2. Dock fee structure is an issue to boaters visiting transient marinas.
3. Transient marinas must be easily accessible by boat (deep water, etc).
4. Boating group size varies from individual to 50+.
5. Boat size varies: there is a need to provide appropriate dock sizes and utility needs.
6. Boaters desire short-term/day-use options at transient marinas.

Focus Groups: Summarized Input

4. Boating on Ohio's Inland Lakes

1. Boaters on Ohio lakes putt around, observe wildlife, race in organized events, fish (individually and in tournaments), swim, ski, stay overnight (on and off the boat), and picnic (on and off the boat). Type of boat often corresponds to activity.
2. Some lakes are ideally suited to certain activities.
3. Group activities vary greatly in numbers of participants.
4. Landowner rights are a growing concern around (especially) canal lakes as permanent residents increasingly replace seasonal residents.

5. Inland Lake Amenities

1. Boaters would like to see more amenities at inland lakes.
    1. Day docks at strategic locations such as picnic areas, restrooms, launch ramps, beach areas and other lakeside facilities.
    2. Areas zoned for specific activities such as swimming from boat, camping on boat, water skiing in a protected area, etc.
    3. Lakeside supply stores, gas facilities, and snack bars/restaurants

6. Marinas (with Leased Docks): Need

1. More marinas are needed at large inland lakes.
2. More marinas are needed in Lake Erie harbors.

7. Marinas (with Leased Docks): Design & Operation

1. Social interaction of boaters should be a key programming issue during marina design.
2. Boater input is essential when designing a marina. Features important to boaters include:

    1. Convenient parking.
    2. Convenient showers.
    3. Convenient trash receptacles.
    4. Security.
    5. Water surge protection.
    6. Dock utilities.
    7. Docks sized for today's larger boats.
    8. Water that is deep enough for access.
    9. Reasonable dock fees.
    10. Better maintenance.
    11. Boat boxes.

8. Launch Ramps: Need

1. Boaters need better access via launch ramps to Ohio's inland waters and to the Ohio River.
2. Renovation and better maintenance of existing ramps is needed.
3. Access to rivers is needed in metropolitan areas.

Focus Groups: Summarized Input

9. Launch Ramps: Design & Operation

1. Customer friendly design is needed at launch ramps. Customer friendly design includes (the top five are the most often cited by boaters):

    1. More parking (preferably sized for large trailers).
    2. Restrooms.
    3. Courtesy docks (preferably floating).
    4. Lighting.
    5. Alleviation of congestion through efficient courtesy dock design/placement and more personal assistance to boaters
    6. Protection from wakes & waves.
    7. Deep ramps for better multi-season launching.
    8. Multiple lanes.
    9. Camping adjacent or integral to the launch ramp facility.
    10. Multi use design for ease of launching by a variety of watercraft (sailboats, canoes, etc).
    11. Wide ramps.
    12. Ramps that are not too steep.
    13. Wide turning radii.
    14. No overhead obstructions (sailboats).
    15. Trash cans, picnic tables, snack bars.
    16. Fishing areas away from launch areas.
    17. Wash down areas.
    18. Pump outs.

10. Boating on Ohio Rivers and Streams

1. Lowhead dams are a danger to boaters and cause long portages for paddlers.
2. Rivers need clear, marked channels.
3. The Ohio River has many needs (in addition to access)
    1. Need for more tie-ups.
    2. Need for coordination between recreation boating traffic and commercial traffic.
    3. Better coordination of multi-state river jurisdiction.

Focus Groups: Summarized Input

11. Paddler Access to Waterways

1. More river and stream access is needed, particularly in urban areas and along pristine rivers and streams and in whitewater areas.
2. Desirable distance between access points varies.

    1. Access sites should generally be about 10 to 12 miles apart.
    2. Access sites should be approximately 3 miles apart in urban areas.
    3. Access sites should be approximately 4 miles apart in good fishing areas.

    - Access sites need the following:

    1. A path that provides easy access to waterway.
    2. Parking (gravel is ok).
    3. Restrooms, at more developed sites.
    4. Privacy enclosure.
    5. Trash receptacles.

3. Whitewater release enthusiasts experience too many barriers to the enjoyment of their sport. Release schedules should be better preplanned. Parking for many cars is needed at whitewater releases.

12. Paddler Water Trails

1. Water trails for small vessels (usually paddled) are desired on Ohio rivers and streams and on Lake Erie.
2. There are good examples of water trails in other states.
3. Typical trail activities include paddling, fishing, bird watching, hiking, and camping.
4. Campsite facilities should include restrooms, potable water, phone, parking, and availability of supplies nearby.

13. How Time of Day, Week or Season Affects Boating

1. Weekdays are best for boating.
2. Early mornings and late evenings are the best times for boating.
3. Spring and especially autumn are great times for boating, yet many inland lakes are inaccessible due to lowered lake levels.

Focus Groups: Summarized Input

14. Waterway Management

1. Opinions vary among boaters regarding current management rules that limit horsepower on certain lakes. Prevalent opinions are:

    1. The existing 9.9 horsepower limit on many limited horsepower lakes is outdated and could/should be updated to a speed limit (no wake or idle speed) as a lake management method. This would allow boats with larger engines onto more Ohio waterways; more water surface area would be available to a larger number of Ohio boaters.
    2. Current limitations on horsepower as a management method are desirable because these limits control noise, wakes, crowding, and preserve wildlife viewing.
    3. Operating regulations (speed limits, no wake) are difficult to enforce whereas a horsepower limit is not.
    4. Physical features of the water body (size, etc.) and/or common boating usage should be used to determine horsepower limits.

2. Waterways should be managed through zoning that is responsive to the unique situation at each waterway. Zoning policies should undergo periodic review.
3. Waterways should be managed through access limitations, such as zoning by hour of day, day of week, activity type, lake area, size of boat, type of boat, horsepower, and/or capacity of parking area.
4. High speed is a concern to boaters; there is a desire for control of speed, such as an upper speed limit on waterways that are currently unlimited horsepower.
5. Additional water surface area or lakes are needed in Ohio.
6. Better cooperation between management entities and private citizens (for example: advisory groups) is needed.

15. Legal Issues

1. Boating access rights on waterways, especially streams and rivers, need to be clearly defined.

16. Law Enforcement

1. More law enforcement presence on the water is needed.
2. More alcohol and drug enforcement is needed.
3. More noise law enforcement is needed.
4. Stiffer penalties are desired for serious offenses.
5. There are too many violators that threaten the safety of other boaters.
6. More opportunities for friendly contact with officers are needed (through safety inspections, boat shows, etc).

Focus Groups: Summarized Input

17. User Conflict and Crowding

1. User conflict occurs mostly in crowded areas, especially in channels and rivers with access to Lake Erie, on popular unlimited horsepower lakes, and on heavily used rivers and streams.
2. User conflict results from overlapping waterway use by user groups with very different purposes. Typical examples of boaters with diverse purposes: Waterfowl hunters, pleasure boaters, fishing tournament participants, boaters seeking solitude & quiet, personal watercraft operators enjoying speed and wave jumping, speedboaters and sailors.
3. Overcrowding, especially on the weekends at unlimited hp lakes and at launch ramps.
4. Lack of boating knowledge by boating participants exacerbates conflict between boaters.
5. There is a lack of consideration and understanding between various user groups.
6. Methods Ohio boaters have used or suggested to alleviate user conflict:

    1. Problem identification.
    2. Local public meetings/forums.
    3. Coordinated efforts (through clubs, etc) by individuals to improve relations with the *other* boater type.
    4. Reduction of opportunities for confrontation.

18. Buoys, Signs, & Mooring Buoys

1. Mooring fields are desired for tie-up at popular Lake Erie destinations.
2. Consistency in waterway marking is needed statewide.
3. Greater numbers of clear, easy-to-read waterway markings are needed in channels, at swimming areas, by hazards, etc.

19. Dredging and Natural Debris

1. Silt accumulation in waterways and the resultant need for dredging for boating access exists statewide.
2. The Ohio River and other rivers have an urgent need for debris removal.
3. Silt accumulation in waterways is effectively reducing available water acreage for recreational boating.

20. Environmental Issues

1. Poor water quality is a concern to Ohio boaters.
2. Shoreline erosion is a concern to Ohio boaters.

21. Boating Education

1. More education is needed for all boaters.
2. Mandatory education for all and/or boater licensing is favored.
3. More river rescue courses are needed.

Focus Groups: Summarized Input

22. Boating Information

1. Updated waterway maps that illustrate zoning, hazards, and access points are needed.
2. The Internet is a desirable format for boating information.
3. Launch ramps, waterway access points, and watercraft registration offices are good locations for dissemination of information.
4. A wider variety of waterway information is desired. Updated information on water quality, special events on the waterway, non-traditional times to boat, and dockside etiquette is desired.

23. Grants and Funding

1. Boaters like existing boating related grant opportunities available through the Division of Watercraft.
2. More funding resources are desired for dredging, boating access, and marine patrol.

24. Regulations

1. Licensing for all boaters is favored.
2. Testing for all boaters is favored.
3. No new regulations are needed.
4. More regulations for boater safety are needed.

25. Miscellaneous

1. Paddlers seek equity in boating.
2. Promote the many benefits of all types of boating.
3. Explore partnerships to promote boating.
4. The Division of Watercraft is on the right track.

Focus Groups: Summarized Input

Chapter 5 BOW Plan Survey

The BOW Plan survey was sent to 2,600 randomly selected Ohioans with registered recreational watercraft. A map showing survey respondents counties of residence is shown in page 33. The 25 topics and issues identified through focus groups and questionnaires were used as the building blocks of the survey. Through this method, a survey is more likely to ask the right questions and be relevant to issues foremost in the minds of boaters.

Even though information derived from focus groups and questionnaires is considered to be fairly reliable, a survey is still necessary. Survey results will enable planners to: answer the following questions:

- Determine if focus groups input is really valid for Ohio boaters
- If valid for Ohio boaters, are there regional differences?
- What closely related issues may also be important to Ohio boaters?
- If improvements are made as a result of the planning process, a survey will provide baseline data for comparison with future surveys to measure customer acceptance of the improvements.

The survey on the following pages was developed through a partnership between the ODNR Division of Watercraft and the Ohio Sea Grant College Program of The Ohio State University and was sent out in the fall of 2002. Surveys conducted by the Division of Watercraft typically have a very good response rate. At 54.5%, the response rate for this survey was one of the best response rates to date for a Division of Watercraft mail survey.

The following pages contain survey questions and statewide results for each question. Additional information resulting from sorting survey question results is included in later sections of this report.

2002
Ohio Survey of Recreational Boater Opinion

Ohio Department of Natural Resources
Division of Watercraft

As the Division of Watercraft plans for the future, we must first hear from our most important customer, **you**. It is essential that we learn more about your experiences while boating on Ohio's waterways. For the purposes of this survey, **an Ohio waterway is defined as Lake Erie, the Ohio River, or an inland lake, river, or stream in Ohio**.

If you and/or members of your household participated in boating in Ohio during the 2002 season, we invite you to answer the questions below. If possible, have the **primary boat operator** in the household, i.e., the person who most frequently operates the boat(s) owned by your household, complete this survey. The survey should take approximately 20 – 25 minutes to complete.

If you own more than one boat and/or boat on more than one waterway, please answer questions based on the boat you used most frequently and the waterway you visited most frequently. Exception: Answer question 22, marked with an asterisk (*), based on your overall boating experience. *All responses will be kept strictly confidential.*

1. Did you or a member of your household boat on an Ohio waterway during 2002?

Respondents	
1126	Yes
201	No (Please stop here and return this uncompleted survey. Thank you for participating.)

2. Of the boat(s) owned by your household, please tell us the type of boat that is used most often by members of your household. (*Please check only one*.)

Total Respondents: 1122

Respondents	Percent	Boat type
119	**10.6%**	Pontoon boat
56	**5.0%**	Rowboat
30	**2.7%**	Sailboat with motor
17	**1.5%**	Sailboat without motor
7	**0.6%**	Houseboat
204	**18.2%**	Cabin motorboat
0	**0**	Inflatable boat
57	**5.1%**	PWC (*i.e. wave runner, jet ski, etc)*
522	**46.5%**	Open motorboat
75	**6.7%**	Canoe
32	**2.9%**	Kayak
3	**0.3%**	Other

3. Please describe the boat used most often.

Respondents	Average result	
1091	**19.1 ft.**	Length of Boat
907	**164 hp**	Horsepower
131		No motor on boat

4. Please select the type of Ohio waterway that you frequented most often during 2002. See the enclosed list of Ohio lakes for horsepower (hp) information.

Respondents	Percent	Type of Ohio waterway
348	**31.1%**	a. Lake Erie
192	**17.2%**	b. A limited, low hp lake (25 hp or less, including electric only)
56	**5.0%**	c. A limited, medium horsepower lake (greater than 25 hp but less than unlimited)
350	**31.3%**	d. An unlimited hp lake (all motor sizes allowed) other than Lake Erie
107	**9.6%**	e. A river/stream other than the Ohio River
65	**5.8%**	f. Ohio River

5. Please refer to the enclosed Ohio map and list of lakes. In which section of Ohio is the waterway, or waterway area, located where you boat most often?

Respondents	Percent	Section of Ohio*
348	**31.2%**	a. NW section
326	**29.2%**	b. NE section
154	**13.8%**	c. C section
187	**16.8%**	d. SW section
101	**9.1%**	e. SE section

* see appendix

6. Did you keep your boat at a marina dock that you rented for the 2002 boating season?

Respondents	Percent	
249	**22.4%**	Yes
864	**77.6%**	No

7. What features are important to **you** at a marina where boaters lease docks for the season? If you did **not** keep your boat at a marina dock that you rented for the 2002 boating season, please answer this question based on your experiences visiting marinas.

	Not at all important	Somewhat important	Important	Very Important	Essential	Respondents	Average Results
Parking close to docks	1	2	3	4	5	**989**	**3.39**
Restrooms	1	2	3	4	5	**1010**	**3.97**
Security for boats	1	2	3	4	5	**962**	**4.08**
Nice area for social events	1	2	3	4	5	**971**	**2.68**
Adequately sized docks	1	2	3	4	5	**974**	**3.67**
Boat boxes	1	2	3	4	5	**810**	**2.22**
Marine fuel	1	2	3	4	5	**949**	**3.21**
Shower facilities	1	2	3	4	5	**957**	**2.33**
Affordability of dock lease	1	2	3	4	5	**906**	**3.45**
Protection from wave/wake surge	1	2	3	4	5	**967**	**3.80**
Dockside water	1	2	3	4	5	**942**	**2.80**
Dockside electric	1	2	3	4	5	**930**	**2.60**
Pumpout and/or dump station	1	2	3	4	5	**910**	**2.40**
Suitable draft for your vessel	1	2	3	4	5	**890**	**3.50**
High quality maintenance of marina facility	1	2	3	4	5	**946**	**3.20**
Convenient trash receptacles	1	2	3	4	5	**988**	**3.68**
Bulletin board with updated information about waterway	1	2	3	4	5	**962**	**3.10**
Other: _____	1	2	3	4	5	**119**	**3.72**

8. If you did **not** keep your boat at a marina dock that you rented, what is the reason you did **not** rent a seasonal dock? Choose one answer that most closely applies. (If you select **f**, please also answer **f1** through **f4**.)

Respondents	Percent	Reasons did not rent a seasonal dock
139	**13.8%**	a. I kept my boat at a marina dock that I rented for the 2002 boating season
479	**47.6%**	b. I prefer to trailer my boat and use a launch ramp.
145	**14.4%**	c. I own my own dock.
102	**10.1%**	d. A leased dock is not appropriate for my type of boat.
28	**2.8%**	e. I prefer to keep my boat in dry rack storage.
114	**11.3%**	f. I would like to keep my boat in a marina, but do not for the following reason:
		*Please place a **1** by the primary reason and a **2** by the secondary reason (if there is one).*
	Primary reason	
	27	f.1. Dock space at my favorite waterway is in short supply or does not exist.
	37	f.2. The cost of seasonal dock space is too high for my budget
	23	f.3. The cost of seasonal dock space at my favorite waterway is too high for the value received.
	23	f.4. Other reason: _____

9. During 2002, did you launch your boat from a launch ramp?

Respondents	Percent	
825	**74.3%**	Yes
286	**25.7%**	No (Skip to question **11**.)

10. Which features are important to **you** at a launch ramp?

	Not at all important	Somewhat important	Important	Very Important	Essential	Respondents	Average Results
Adequate parking for vehicles & trailers	1	2	3	4	5	**776**	**4.12**
Launch ramps that are wide and extend deep into the water	1	2	3	4	5	**769**	**3.79**
Protection from wakes and waves	1	2	3	4	5	**779**	**3.68**
Efficient traffic flow at launch ramp	1	2	3	4	5	**753**	**3.67**
Launch ramps that are designed for use by a variety of types of watercraft.	1	2	3	4	5	**763**	**3.64**
Multiple launch lanes (more than 2)	1	2	3	4	5	**767**	**3.60**
Restrooms	1	2	3	4	5	**765**	**3.52**
High quality maintenance of facility	1	2	3	4	5	**734**	**3.49**
Lighting	1	2	3	4	5	**765**	**3.27**
Courtesy docks that fluctuate with water levels	1	2	3	4	5	**751**	**3.27**
Posted “rules of the road” for boating	1	2	3	4	5	**763**	**3.09**
Posted information on water quality	1	2	3	4	5	**762**	**3.05**
Posted current waterway zoning maps	1	2	3	4	5	**754**	**2.95**
Drinking Water	1	2	3	4	5	**757**	**2.75**
Posted current events schedule for the waterway (regattas, tournaments, etc)	1	2	3	4	5	**762**	**2.61**
Shoreline fishing away from launch ramp	1	2	3	4	5	**755**	**2.48**
Camping adjacent to launch area	1	2	3	4	5	**755**	**2.20**
Wash down area	1	2	3	4	5	**746**	**2.19**
Picnic area	1	2	3	4	5	**761**	**2.19**
Launch assistance for boaters when needed	1	2	3	4	5	**756**	**2.04**
Pumpout and/or dump station	1	2	3	4	5	**713**	**1.95**
Snack bar	1	2	3	4	5	**744**	**1.66**

11. How satisfied are **you** with the availability of launch ramps at the waterway you boated on most often? If you usually use carry in/put in access points, answer in reference to carry in/put in access points instead of launch ramps.

Completely Dissatisfied	Dissatisfied	Neither Satisfied Nor Dissatisfied	Satisfied	Completely Satisfied	**Respondents**	**Average result**
1	2	3	4	5	**1052**	**3.72**

12. During 2002, did you hand carry your boat from your vehicle to an access site without a launch ramp?

Respondents	Percent	
178	**16.4%**	Yes
908	**83.6%**	No (Please skip to question **14**.)

13. Which features are important to **you** at a **put in/carry in** access point?

	Not at all important	Somewhat important	Important	Very Important	Essential	Respondents	Average Results
Clear access path to waterway	1	2	3	4	5	**196**	**3.82**
Restrooms	1	2	3	4	5	**186**	**2.95**
Designated parking for boaters	1	2	3	4	5	**191**	**3.42**
Changing booth	1	2	3	4	5	**178**	**1.92**
Trash receptacles	1	2	3	4	5	**189**	**3.41**
Cleanliness	1	2	3	4	5	**189**	**3.40**
Information signs / bulletin board	1	2	3	4	5	**183**	**2.92**
Drinking water	1	2	3	4	5	**187**	**2.67**
Proximity to fishing spot	1	2	3	4	5	**188**	**2.72**
Proximity to an urban area	1	2	3	4	5	**184**	**1.91**
Proximity to a picturesque area	1	2	3	4	5	**181**	**2.60**
Other: _____	1	2	3	4	5	**25**	**3.88**

14. At the waterway you boated on most often please indicate if an accumulation of silt in the waterway had a negative effect on your boating experience.

Respondents	Percent	
576	**58.4%**	a. My boating experience was not affected by silt in the waterway.
280	**28.4%**	b. My boating experience was somewhat negatively affected by silt in the waterway
130	**13.2%**	c. My boating experience was very negatively affected by silt in the waterway.
101		d. Don't Know or Not Applicable

15. At the waterway you boated on most often please indicate if an accumulation of natural debris (tree branches, logs, etc.) in the waterway had a negative effect on your boating experience.

Respondents	Percent	
622	**57.7%**	a. My boating experience was not affected, in a negative way, by natural debris in the waterway.
367	**34.0%**	b. My boating experience was somewhat negatively affected by natural debris in the waterway.
89	**8.3 %**	c. My boating experience was very negatively affected by natural debris in the waterway.
34		d. Don't Know or Not Applicable

16. During 2002, did you travel by boat and stay overnight on the boat at a location other than where the boat is usually kept? (Please check the most appropriate answer.)

Respondents	Percent	
149	**13.4%**	a. No, I did not travel by boat and stay overnight on the boat at a location other than where the boat is usually kept. (Please skip to question 21.)
965	**86.6%**	b. Yes, I traveled by boat and stayed overnight on the boat at a location other than where the boat is usually kept.

17. When you stayed overnight on the boat at a location other than where the boat is usually kept, what waterway were you on?

Respondents	Percent	
100	**67.6%**	a. Lake Erie
18	**12.2%**	b. The Ohio River
30	**20.3%**	c. Other waterway: _____(Please write in name of waterway.)

18. At the waterway you selected in question 17, which statement below best describes the circumstances of your overnight stay on a boat at a location other than where the boat is usually kept?

Respondents	Percent	
23	**15.4%**	a. The boat was in a designated boat camping area.
17	**11.4%**	b. The boat was tied up along the shoreline, but was not in a designated boat camping area.
18	**12.1%**	c. The boat was anchored in open water, but was not in a designated boat camping area
82	**55.0%**	d. The boat was tied up at a transient, or short-term rental dock.
9	**6.0%**	e. The boat was tied up at a privately owned, non-rental dock (such as a friend's/relative's dock)

19. When traveling by boat and staying overnight on the boat at a location other than where the boat is usually kept, how many other boats did you usually travel with?

Respondents	Percent	
84	**56.8%**	a. I traveled in a solo boat
52	**35.1%**	b. 2 – 5 boats
6	**4.1%**	c. 6 – 10 boats
4	**2.7%**	d. 11-20 boats
1	**0.7%**	e. 21-30 boats
1	**0.7%**	f. over 30 boats

If you selected answer **a** (Lake Erie), or **b** (Ohio River) on question **17**, please answer question **20**, all others please skip to question **21.**

20. How important is each feature to you when you are choosing a destination to stay overnight on the boat (at a location other than where the boat is usually kept)?

	Not at all important	Somewhat Important	Important	Very Important	Essential	Respondents	Average Results
Short term rental docks or designated boat camping area	1	2	3	4	5	**122**	**3.67**
Nearby restaurants	1	2	3	4	5	**123**	**3.30**
Nearby special event	1	2	3	4	5	**121**	**2.40**
Nearby shops	1	2	3	4	5	**121**	**2.33**
Nearby tourist attraction	1	2	3	4	5	**121**	**2.35**
Nearby taverns and pubs	1	2	3	4	5	**122**	**2.81**
City atmosphere	1	2	3	4	5	**120**	**2.02**
Park atmosphere	1	2	3	4	5	**120**	**2.66**
Back to nature atmosphere	1	2	3	4	5	**118**	**2.71**
Suitable draft for your vessel	1	2	3	4	5	**123**	**4.19**
Land based transportation	1	2	3	4	5	**120**	**2.77**
Other _____	1	2	3	4	5	**12**	**3.83**

21. How satisfied are you with the number of available overnight tie up facilities on the following waterways?

	Completely Dissatisfied	Dissatisfied	Neither	Satisfied	Completely Satisfied	Respondents	Average Results
Lake Erie	1	2	3	4	5	**338**	**3.29**
Ohio River	1	2	3	4	5	**160**	**2.96**
Other Waterway_____	1	2	3	4	5	**154**	**2.84**

***22.** Have you participated in an overnight boat trip in a small boat (hand powered or low horsepower) where you camped on shore for the night? (Check all that apply.)

Respondents	Percent	
94	**8.8%**	a. Yes, in Ohio on the _____waterway (Please write in name of waterway.)
79	**7.4%**	b. Yes, but not in Ohio
202	**19.0%**	c. No, but I would like to participate in such a trip in Ohio
688	**64.7%**	d. No

23. Have you had a negative experience involving a possible trespassing issue when boating on an Ohio waterway?

Respondents	Percent	
74	**6.9%**	Yes
996	**93.1%**	No

24. In question **4,** if you selected answer **b, c,** or **d** (inland lakes), please rate how important each feature is to **you** on an inland lake. (All others please skip to question **25**.)

The results of question 24 are inconclusive due to an unfortunate text error in the question format.

	Completely Dissatisfied	Dissatisfied	Neither	Satisfied	Completely Satisfied	Don't Know/Not Applicable
Day docks *(short term daytime tie up*) at day use areas (picnic areas, beaches, etc.).	1	2	3	4	5	6
Designated boat swimming areas	1	2	3	4	5	6
Designated boat camping areas	1	2	3	4	5	6
Boat maintenance and repair	1	2	3	4	5	6
Marinas	1	2	3	4	5	6
Marine fuel	1	2	3	4	5	6
Boat rentals	1	2	3	4	5	6
Shore side supplies (groceries, food service, etc)	1	2	3	4	5	6
Other: _____	1	2	3	4	5	6

25. If you boat on unlimited horsepower waterways, how would you rate Ohio's need for a speed limit on unlimited horsepower waterways?

Respondents	Percent	
109		a. I do not boat on unlimited horsepower waterways in Ohio
365	**42.2%**	b. There is no need for a speed limit
272	**31.5%**	c. There is some need for a speed limit.
153	**17.7%**	d. There is a need for a speed limit.
74	**8.6%**	e. There is an urgent need for a speed limit.
109		f. Don't Know or Not Applicable

26. In question 4, if you selected b or c (low or medium horsepower lake), please choose the statement that most closely applies. (All others skip to question 27.)

Respondents	Percent	
51	**14.5%**	a. I think the horsepower limit should be **decreased** at the lake I visit most often.
259	**73.8%**	b. I think the horsepower limit should **remain unchanged** at the lake I visit most often.
22	**6.3%**	c. I think the horsepower limit should be **increased** at the lake I visit most often.
19	**5.4%**	d. I think the horsepower limit should be changed to unlimited horsepower with a **no wake or idle speed** limit at the lake I visit most often.
95		e. I Don't Know or Not Applicable.

27. If, because of horsepower limits, you did not take your boat with a high horsepower motor on some Ohio waterways, please choose the statement that most closely applies. (All others go to question **28**)

Respondents	Percent	
45	**10.3%**	a. I think the horsepower limit should be **decreased** at some limited horsepower lakes.
158	**36.2%**	b. I think the horsepower limit should **remain unchanged** at limited horsepower lakes.
96	**22.0%**	c. I think the horsepower limit should be **increased** at some limited horsepower lakes.
138	**31.6%**	d. I think the horsepower limit should be **changed to unlimited horsepower with a no wake or idle speed limit** at some limited horsepower lakes
299		e. I Don't Know or Not Applicable

28. At the waterway you boated on most often please indicate approximately how often you experienced the following during 2002.

	Never	Some Trips	About Half of Trips	Most Trips	Always	Respondents	Average Results
Another boater's apparent lack of knowledge about boating caused a problem for you.	1	2	3	4	5	**1050**	**2.11**
Another boater's discourtesy caused a problem for you.Describe: _____	1	2	3	4	5	**995**	**1.93**
Another boater was engaged in a significantly different boating activity than your own, which caused a problem for you.Your boating activity:_____ Other's boating activity:_____	1	2	3	4	5	**975**	**1.68**
Law violations by other boaters caused a problem for you. Describe: _____	1	2	3	4	5	**954**	**1.51**
Crowded conditions on the water caused a problem for you.	1	2	3	4	5	**978**	**1.81**
Crowded conditions at the launch ramp caused a problem for you.	1	2	3	4	5	**952**	**1.81**
Other:_____ _____	1	2	3	4	5	**83**	**2.57**

29. What day(s) of the week do you usually boat? (Check all that apply.)

Respondents	Percent*	Day of week
356	**32.4%**	Monday
336	**30.6%**	Tuesday
365	**33.2%**	Wednesday
376	**34.2%**	Thursday
614	**55.9%**	Friday
908	**82.6%**	Saturday
872	**79.3%**	Sunday
102	**9.3%**	I'm usually on vacation when I boat.

*of total responses

30. What day(s) are you usually **not** able to boat due to other commitments (job, family, school, church, etc.)? Check all that apply.

Respondents	Percent*	Day of week
598	**75.4%**	Monday:
613	**77.3%**	Tuesday
606	**76.4%**	Wednesday:
584	**73.6%**	Thursday
371	**46.8%**	Friday
115	**14.5%**	Saturday
144	**18.2%**	Sunday

*of total responses

31. Do you expect a significant change to your schedule within the next 5 years, resulting in more boating outings for you on the days checked in question **30**?

Respondents	Percent	
337	**31.3%**	Yes
740	**68.7%**	No

32. Are any of the following statements about spring and fall boating true for you? (Please check all that apply.)

Respondents	Percent*	
72	**6.7%**	a. I would boat more in the spring if leased docks were available earlier in the boating season.
71	**6.6%**	b. I would boat more in the fall if leased docks were available later in the boating season.
271	**25.0%**	c. I would boat more in the fall if inland lake water levels remained at summer pool levels longer.
216	**20.0%**	d. I would boat more in the spring if inland lake water levels reached summer pool levels earlier.
714	**66.0%**	e. None of these statements apply to me.

*of total responses

33. Have **you** ever taken a boating education course? (Please check all that apply. If you select **d**, please also answer **d1** through **d4**.)

Respondents	Percent*	
558	**50.7%**	a. No, I have not taken a boating course of any kind.
184	**16.7%**	b. Yes, I've taken a home study course using a book or on the Internet.
124	**11.3%**	c. Yes, I've taken a hands-on boating skills program such as canoeing, kayaking, sailing etc.
314	**28.5%**	d. Yes, I've taken a certified classroom boating education course from the US Power Squadron, US Coast Guard Auxiliary or the Division of Watercraft.
		I took the course approximately:
86	**27.8%**	d1. 0-5 years ago
88	**28.5%**	d2. 6-10 years ago
49	**15.9%**	d3. 11-15 years ago
86	**27.8%**	d4. 16 or more years ago.

*of total responses

If you selected answer **d** on question **33**, please skip to question **35**.

34. What are the reason(s) you have **not** taken a certified **classroom** boating education course? (Check **2 or 3** that apply the most.)

Respondents	Percent*	
140	**19.2%**	a. I don't know much about them.
216	**29.7%**	b. I'm not required by law to take one
133	**18.3%**	c. I took a non-classroom course that serves my needs.
96	**13.2%**	d. Course time is inconvenient.
63	**8.7%**	e. Course location is inconvenient.
17	**2.3%**	f. Course costs too much.
350	**48.1%**	g. I don't feel that I need one.
158	**21.7%**	h. Other reason: _____

*of total responses

Demographic Questions (needed for statistical validation of survey)

35. What is the age of the **primary boat operator** in your household?

Respondents	Average Age
1108	**49.4 years.**

36. How many years of boat operating experience does the **primary boat operator** have?

Respondents	Average # of years
1101	**24.4 years.**

37. What is the highest year of schooling completed by this household's **primary boat operator**? (Check most appropriate.)

Respondents	Percent	
8	**0.7%**	a. Completed middle school or less
58	**5.2%**	b. Attended high school
360	**32.5%**	c. High school graduate / GED
240	**21.7%**	d. Attended college, but did not graduate
110	**9.9%**	e. Associates degree
180	**16.2%**	f. Bachelors degree
152	**13.7%**	g. Graduate or professional degree

38. What is the employment status of the **primary boat operator?**

Respondents	Percent	
832	**74.4%**	a. Employed full time
26	**2.3%**	b. Employed part-time (go to question **40**)
18	**1.6%**	c. Not employed (go to question **40)**
242	**21.6%**	d. Retired (go to question **40**)

39. The **primary boat operator's** typical work schedule is:
(Check the most appropriate.)

Respondents	Percent	
506	**59.9%**	a. Usually daytime hours, M-F
148	**17.5%**	b. Usually daytime hours, M-F, plus extra hours on many weekends
13	**1.5%**	c. Daytime hours, usually on weekends plus some weekdays
52	**6.2%**	d. Evening or nighttime hours, M-F
15	**1.8%**	e. Evening or nighttime hours, usually on weekends + some weekdays
64	**7.6%**	f. Schedule often changes due to nature of work
47	**5.6%**	g. Other _____

40. How many persons presently live in this household?

Respondents	Average # persons per household
1098	**2.73**

41. In what state and county does the primary boat operator reside?

Respondents	Percent	
1108	**99.2%**	Ohio County: **87 counties represented**
21	**0.8%**	Other state_____ (Please write name of State.)

42. What was the approximate total household income, before taxes, for the 2001 tax year?

Respondents	Average total household income
979	**$71,415**

43. Other comments? Attach additional sheet if needed.

_____ 260 Comments Received_____

Thank you

for taking the time to complete this survey.

Please return survey in the envelope provided. The envelope contains information that will remove your name from further mailings about this survey. All answers will be kept strictly confidential.

Leroy Hushak
OHIO SEA GRANT
1314 Kinnear Road
Columbus, Ohio 43212-1194
614-292-3548

Be sure to check the ODNR Division of Watercraft website at the start of the 2003 boating season to view survey results.
http://www.dnr.state.oh.us/watercraft/plan

Bob Taft, Governor Samuel Speck, Director Kenneth J. Alvey, Chief

2002 Ohio Survey of Recreational Boater Opinion
Number of Survey Resondents by County

A Word about Analysis Format: Ohio's Regions

In order to take a closer look at boating in Ohio, many topics in this planning report will be discussed by tourism region. The Ohio Department of Development, Division of Travel and Tourism, has divided the state into 5 regions, Northeast (NE), Northwest (NW), Central (C), Southeast (SE), and Southwest (SW). These tourism regions are used as an analysis tool in the BOW Plan.

Chapter 6 Boating on Lake Erie

Focus Group Issues

Boating participants in focus groups held in the Lake Erie vicinity stressed the need for more transient tie up opportunities on Lake Erie, almost to the exclusion of all other access issues. Comments pertaining to Lake Erie are summarized as follows:

- Lots of transient boating occurs in groups.
- Boaters want certain amenities at transient marinas; cost of stay should be justified by services and facilities available.
- Boaters want variety in destination types (quiet/busy). Boaters want tie-up opportunities near other amenities/activities that provide something to do.
- Boaters want more (good quality) transient facilities than what is currently available on Ohio's Lake Erie waters.

BOW Plan Survey Results

In the survey boaters were asked to identify the waterway used most often. Using this information, many questions could be sorted to zero-in on responses just from Lake Erie boaters. This reveals the following:

- 31.1% of respondents choose Lake Erie first for a boating outing.

- 13.4% of all survey respondents reported participation in an overnight trip on a boat during 2002. A clear majority (67.6%) of these overnight trips took place on Lake Erie. Applying this figure, 67.6% of 13.4%, to the total number of registered boats in Ohio, yields a figure of 32,014 boats. This figure gives a rough idea of the large numbers of boats on Lake Erie that are being used for overnight travel.

416,270 (Registered Boats 2002) x 84.9% (boated in Ohio 2002)	= 353,413 boats
353,413 boats x 13.4% went on overnight trips	= 47,357 overnighters
47,357 overnighters x 67.6% on Lake Erie	= 32,014 Lake Erie overnighters

- Lake Erie transient boaters rank the following five features as most important when choosing a destination for an overnight stay. (See Figure 6.1 for more detail.)

- o suitable draft for vessel
- o a short-term rental dock
- o nearby restaurants
- o land-based transport
- o nearby tavern or pub

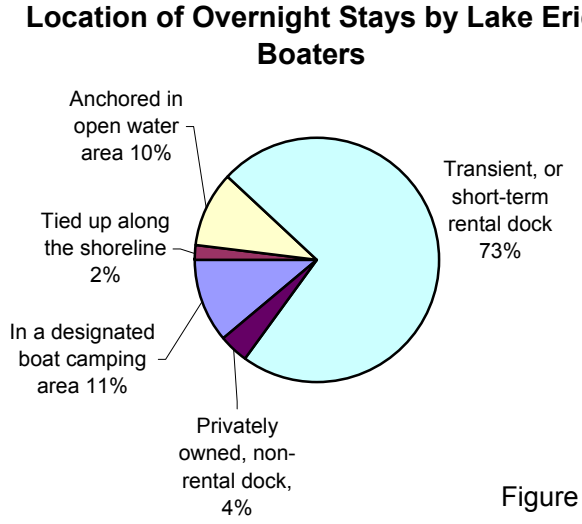


Figure 6.1

- The survey shows that most (73%) participants taking an overnight boat trip on Lake Erie stayed at a transient or short-term rental dock instead of tying up along shore, anchoring in open water, etc. This is a substantial majority as compared to the same figure for the Ohio River (16.7%).

- The size of Lake Erie travel groups varied: 58.6 % of respondents reported traveling solo, 31.3 % reported traveling in groups of 2 – 5 boats, 4.0% each reported traveling in groups of 6 – 10 boats or 21 – 30 boats. Only on Lake Erie did respondents report traveling in groups of 21 – 30 boats.

- Lake Erie boaters were slightly more satisfied with the availability of overnight tie-up facilities than boaters on the Ohio River or on other inland waterways. (Tie-up facilities on "other inland waterways" might be boat camping areas on lakes and tie up facilities on Ohio's larger rivers.)

- In northwest Ohio, coastal counties Lucas, Ottawa, Sandusky, and Erie, respondents were only slightly less than satisfied with availability of launch ramps on Lake Erie. In northeast Ohio, coastal counties of Lorain, Cuyahoga, Lake, and Ashtabula, respondents were also only slightly less than satisfied with availability of launch ramps on Lake Erie. There is a somewhat higher level of satisfaction in the northwest section than in the northeast section. (3.72 versus 3.58 on a 5 point scale, where 5 is completely satisfied and 1 is completely dissatisfied)

- Over half (51.6%) of Lake Erie boaters saw no need for a speed limit on unlimited horsepower waterways, whereas less than half (42.2%) all Ohio boaters who boat on unlimited horsepower waterways felt the same way.

- Almost half (47.3%) of Lake Erie boaters reported that their boating experience was either somewhat or very negatively affected by silt in the waterway. Statewide, 41.6 % of boaters reported being somewhat or very negatively affected. This may be reflective of Lake Erie's comparatively low lake levels of the last few years.

Transient Boating and Ohio's Lake Erie Coast

The need for temporary moorage locations for transient boaters is so great in the U.S. that this issue has been identified by the United States Congress:

> *"Recreational boats 26 feet or more in length, called ``non trailerable'' boats, represent about 4 percent, or more than 600,000, of the recreational boats in the United States. Although we have approximately 12,000 marinas in the United States, Congress recognized that insufficient tie-up facilities exist for transient, non trailerable boats for reasonable and convenient access from our navigable waters. These boaters are unable to enjoy many recreational, cultural, historic, scenic, and natural resources of the United States. We also have an insufficient quantity of marinas or commercial tie-up facilities along extended stretches of our coastlines and rivers that benefit transient, non trailerable boats. In many parts of the country, the number of places to tie-up, moor, or anchor a cruising boat, especially during a storm, is limited. Basic features, such as tie-ups, fuel, utilities, and restrooms, are often nonexistent."*
> – Federal Register Vol. 66, No. 12/ January 18, 2001

Although transient facilities are lacking in much of the country, Michigan's harbor system is an excellent example of a safe harbor network. Michigan inaugurated this Great Lakes Harbors Program in 1947. The program's goal was to locate harbors in such a way that no boater will ever be more than 15 shore miles from safety. Although this ambitious goal has not been met in all areas, Michigan has achieved an extensive network of harbors, many of which are no more than 15-20 nautical miles apart. The US Army Corps of Engineers (USACE) was an essential partner in the development of many of these harbors in the mid 20th century. Due to changes in mandated priority, unfortunately, the USACE no longer allocates funds for the development of recreational harbors.

Ohio's Lake Erie harbors system is much less extensive than Michigan's. Yet 13.4% of Ohio boaters reported having participated in an overnight trip on a boat during 2002, and 67.6% of these overnighters were on Lake Erie. The location of the overnight stay was overwhelmingly reported (73%) to be a transient dock by Lake Erie boaters, whereas only 16.7% of Ohio River boaters and 20% of other non-Lake Erie boaters reported staying at transient docks. Boaters stated that there is an undersupply of transient facilities on Ohio's federally navigable waterways, including

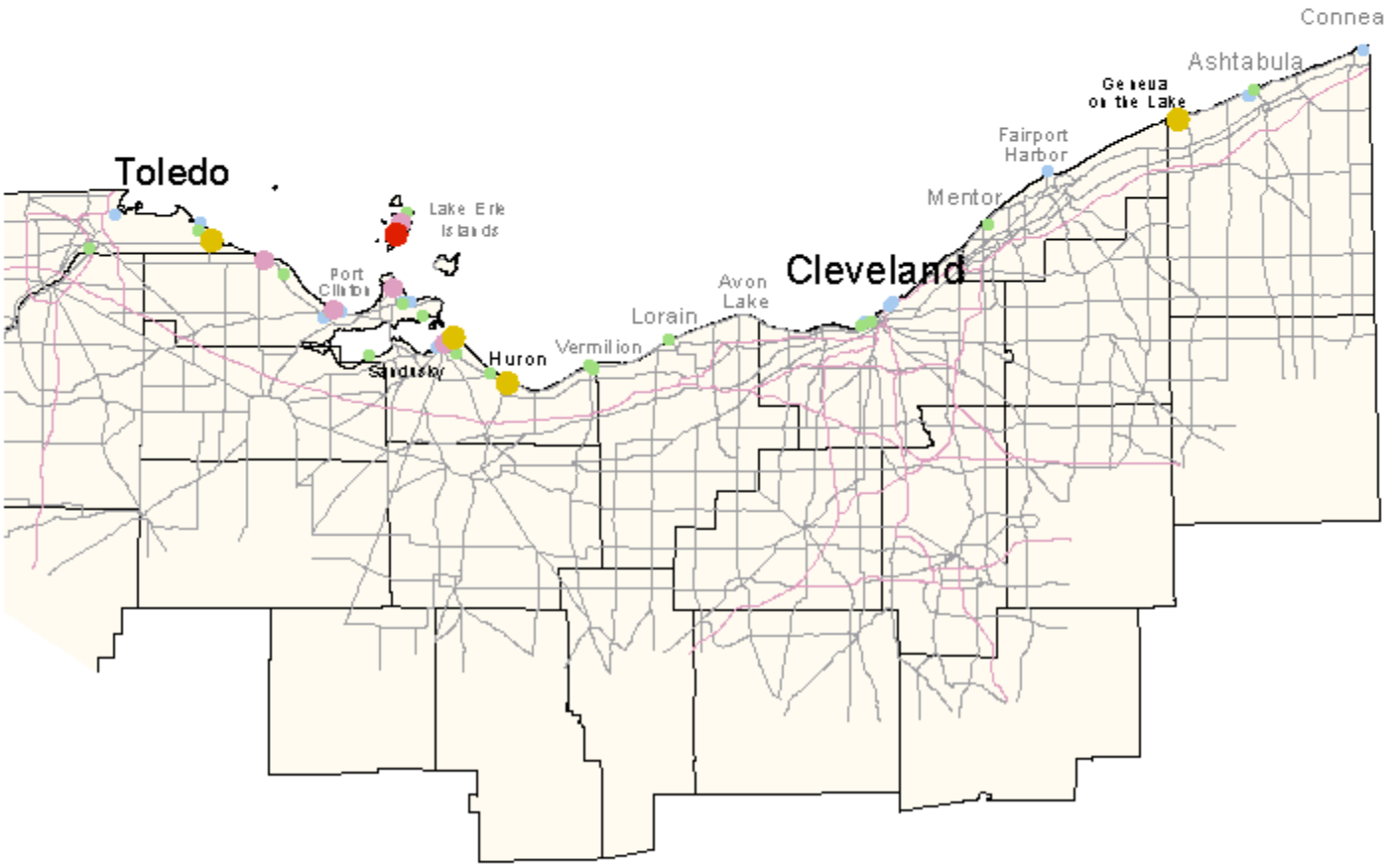
Lake Erie. The lake can be very choppy due to its shallow depth; boaters often need a safe harbor to run to in a storm. A well-developed transient system provides both safe harbor opportunities and recreational/economic benefits.

Figure 6.2 illustrates relative numbers of existing transient docks along Ohio's Lake Erie coast that are open to the public. Determining the number of transient docks available to the public for short-term mooring is an inexact science. Numbers vary during times of the boating season and because of the method many private marinas use to offer transient dock rental. Commonly, when a seasonal lease holder takes their boat out for an extended period of time (for example, on a 'transient' boat trip) the private marina rents out the leased dock on a short-term basis through a prior arrangement with the lease holder. Although sometimes such docks are only available to members of a boating association or club, often they are open to any traveling boater. Only transient opportunities available to any traveling boater are listed in the following chart and are discussed in this plan.

Lake Erie Coastal County	Number of Transient Docks Open to Public*
Ottawa	778
Erie	387
Lucas	170
Ashtabula	100
Cuyahoga	72
Lake	27
Lorain	25
Total:	**1559**

*Division of Watercraft Facility Database

Virtually all Lake Erie marinas and thus, transient tie-ups, are located in an existing harbor or on a river that is a Lake Erie tributary, often one that is dredged and maintained by the USACE. Although some areas along the lake do not require regular maintenance, many do. Dredging is always an option for creating or improving deep water access, but there are many environmental considerations and considerable expenses inherent in the dredging process.



Ohio's Transient Marinas Along Lake Erie

Marina Legend

Number of Transient Docks

- 10 - 15
- 16 - 30
- 31 - 60
- 61 - 100
- 101 - 150

Figure 6.2

These harbors and transport corridors in Lake Erie waters and tributaries are maintained by the USACE on a regular basis for commercial purposes.

Ashtabula Harbor – Dredged about every three years
Cleveland Harbor – Dredged annually
Conneaut River – Dredged approximately every three to five years
Fairport Harbor – Dredged every one to two years
Huron Harbor – Dredged approximately every two to three years
Lorain Harbor - Dredged approximately every two to three years
Rocky River – Dredged about every five years
Sandusky Harbor - Dredged annually
Toledo Harbor - Dredged annually
Toussaint River Harbor - Dredged approximately every two to three years
Vermilion Harbor - Dredged about every five years
West Harbor - Dredged about every five years

This information, provided by the USACE, is current for 2003, but may change in the future, especially for shallow draft (recreational) harbors that are on a five-year cycle.

Locations for New Transient Facilities

In order to determine optimum locations for future transient facilities, let's look first at the survey results. Destination feature preferences of just Lake Erie boaters who participate in transient boating are shown below.

Survey Question 20: How important is each feature to you when you are choosing a destination to stay overnight on the boat (at a location other than where the boat is usually kept)?

	Not at all important	Somewhat Important	Important	Very Important	Essential	Average Results
Suitable draft for your vessel	1	2	3	4	5	**4.36**
Nearby restaurants	1	2	3	4	5	**3.42**
Land based transportation	1	2	3	4	5	**2.94**
Nearby taverns and pubs	1	2	3	4	5	**2.93**
Park atmosphere	1	2	3	4	5	**2.78**
Back to nature atmosphere	1	2	3	4	5	**2.66**
Nearby special event	1	2	3	4	5	**2.54**
Nearby tourist attraction	1	2	3	4	5	**2.49**
Nearby shops	1	2	3	4	5	**2.46**
City atmosphere	1	2	3	4	5	**2.12**

Current attractiveness of various locales on Lake Erie should also be considered when evaluating regional needs for transient boating facilities is. A recent study* showed that Ohio boaters in general predominantly choose certain counties for boating. Transient boaters are likely to choose similar areas for boating destinations as Ohio boaters in general.

All coastal counties are comparatively popular destinations statewide. Of these counties, boaters of all types (not just transient) are 6 times more likely to choose Ottawa County, nearly 2½ times more likely to go to Erie County, about 1½ times more likely to choose Cuyahoga County, and over 1¼ times more likely to select Ashtabula County or Lucas County over Lorain or Lake County for a boating outing. There are boating destinations within these counties other than Lake Erie, but for the purposes of comparison, it is assumed that the majority of boaters choosing these counties as a boating destination are boating on Lake Erie.

Recommendations

The following sections provide a brief overview of transient boating opportunities, both existing and potential, along the Lake Erie shoreline, west to east.

Lucas County

In Lucas County, at the west end of Ohio's Lake Erie shore, some transient opportunities are available in the Maumee River channel, which provides boating access through the very shallow waters of Maumee Bay. Additional transient docks are available at Maumee Bay State Park. Toledo has revitalized its waterfront in recent years, and through this effort there are many restaurants and shops. Popular outdoor events are also held during the summer. Additional transient opportunities are certainly warranted, although deep water space on the river is limited. The boater must exercise care in entering Toledo downtown via the Maumee River due to shallow depths just outside of the USACE-maintained channel.

Transient boaters who favor a back-to-nature atmosphere, which ranked fairly high in comparison with other features transient boaters look for, appreciate the many transient opportunities available along Lucas County's Lake Erie shoreline east of Toledo. Ottawa and Cedar Point National Wildlife Refugees and Crane Creek State Natural Area are in this area. Trends experts report that wildlife-associated travel is becoming more prevalent. The lake is shallow in this region, limiting access for larger cruising boats.

**Recreational Boating in Ohio, An Economic Impact Study,* Dr. Leroy Hushak, 1999

Transient dockage is relatively well supplied in this area at present; however, in consideration of the trend toward wildlife-related travel and the planned expansion of the Ottawa National Wildlife Refuge, more transient dock space may be needed in the future, especially when lake levels rise again, giving greater numbers of vessels easier access to the area.

Ottawa and Erie Counties

North, Middle and South Bass Islands are located in Ottawa County, and Kelley's Island is located in Erie County. Waters around these islands, especially South Bass Island, are by far the most popular boating destination in Ohio.

As shown on the map in figure 6.2, (page 39) the greatest number of existing transient docks are located in Ottawa and Erie Counties. Extensive "rafting" of boats for overnight stays at Put-in-Bay on South Bass Island is standard procedure; these figures are not even reflected in slip counts. (Given this situation, it is reasonable to conclude that demand exceeds supply, at least on South Bass Island.)

Put-in-Bay has nearly all of the highest ranking desirable features listed in survey, in addition to being on an island, a natural attraction. Although some might consider the area overcrowded, boaters who visit South Bass Island enjoy the social aspects of the experience and return time and again. During a typical summer week, boaters need to arrive as early as Wednesday or Thursday to secure a transient dock for the weekend.

Adequate planning for such a large boating group is essential. Provisions for sanitary facilities such as land based boat pump outs and marine patrol presence are the key to recreational enjoyment and protection of the resource.

The combination of those characteristics that boaters desire-suitable water depth, restaurants, land-based transportation, taverns, park atmosphere, tourist attractions, shops, and occasional special events-with the lure of an island getaway-translates into prime boating waters around the Lake Erie Islands. Appropriate areas in the islands as well as gateway communities in Ottawa and Erie counties should receive highest priority for additional transient docks and infrastructure.

Gateway communities offer convenient access to the islands as well as other nearby attractions, such as Cedar Point and the Marblehead Lighthouse. From Port Clinton east to Huron, communities are ripe for the development of additional transient dockage. A newly renovated public marina in Huron with 75 transient docks, enjoyed by many transient boaters, is a significant step towards meeting the need for docks in this area.

Vermilion, on Erie County's border with Lorain County, has some transient tie-ups available to the public and offers restaurant and shopping opportunities as well as the Great Lakes Historical Society. Although the size of the Vermilion River is a limiting factor for additional transient facility development, additional tie-up facilities, on a small scale, would be well situated in Vermilion.

Lorain County

Most of Lorain Harbor is currently used for commercial shipping. Additional public transient moorage in Lorain is needed for safe harbor as well as a convenient waypoint between the Lake Erie Islands area and Cleveland. The waters off of Avon Point, just east of Lorain, are known as rough waters; Lorain's refuge harbor is well situated. Opportunities for dining, shopping, visiting a park, and similar activities have been somewhat limited in this commercial area, but tourism-focused development is now taking place in Lorain. Both the harbor and the Black River that empties into the harbor, offer excellent opportunities for public transient dockage. Features that transient boaters look for, like shops, restaurants, and special events, can always be developed in a community. In a coastal community, this is usually a wise investment in the future.

Cuyahoga County

There are many exciting attractions in downtown Cleveland. Water depths are sufficient for most vessels as the Cleveland Harbor is maintained by the USACE. As a destination for transient boaters, Cleveland seems ideal. Boaters can choose from many places to visit in downtown Cleveland. For example:

- The North Coast District, located on the shores of Lake Erie, home to the Rock and Roll Hall of Fame and Museum, the Great Lakes Science Center and Cleveland Browns Stadium.

- Historic maritime museums, including the Steamship William G. Mather Museum and the U.S.S. Cod World War II submarine.

- Voinovich Park and the International Women's Air and Space Museum.

- The Flats Entertainment District, home to more than 60 restaurants and nightclubs.

- Historic Warehouse District, featuring coffee shops, specialty shops, art galleries, trendy restaurants, and nighttime hot spots complete with live jazz and blues music.

- Jacobs Field, the new stadium home of the Cleveland Indians.

- Gund Arena, home of the Cleveland Cavaliers, hosts many concerts and events during the boating season.

- The Tower City District, home to Public Square and Tower City Center, a renovated train terminal that includes historic Terminal Tower. The tower has an observation deck and an upscale, indoor shopping mall, with restaurants and an 11-screen movie theater. The lower level houses the Regional Transit Authority's light rail system hub. In addition, a convenient indoor walkway connects Tower City to Gund Arena and Jacobs Field.

Cleveland's downtown attractions more than meet the criteria boaters look for in a transient destination. Nearby restaurants, taverns, shops, special events, tourist attractions, and a city atmosphere all abound in downtown Cleveland. Land based transportation is available through Cleveland's rapid transit system, busses, trolleys, and taxis. Many of the city's downtown attractions are an easy walk from the lakeshore. Yet there are *very* few places for the transient boater to tie up for a visit.(See figure 6.3)

The addition of transient dockage along Cleveland's shoreline, especially in areas within walking distance of the downtown center, would be a huge benefit not only to Lake Erie boaters but also to the vitality and tourism potential of Cleveland's downtown area.

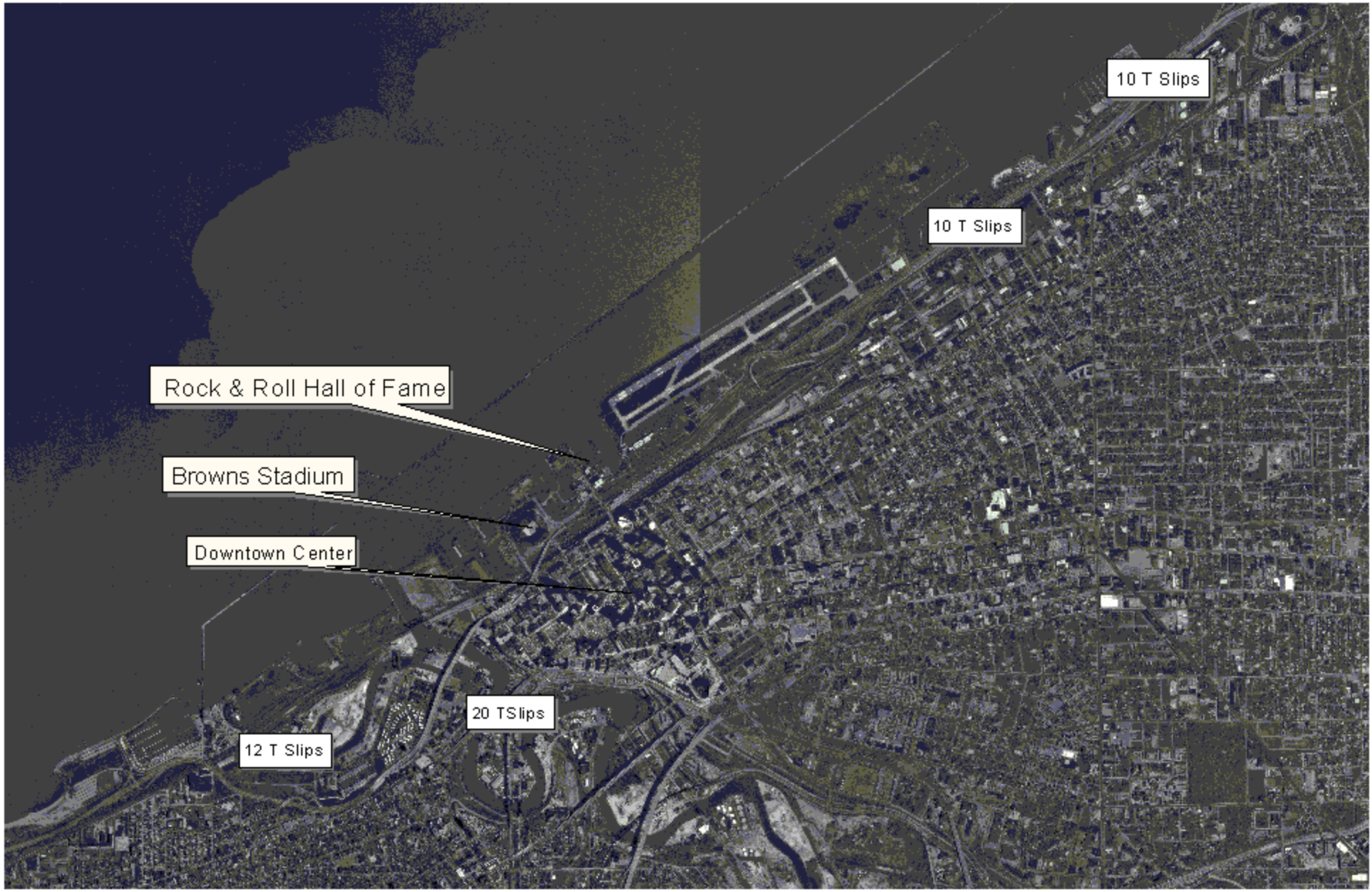
Although there are a number of marinas offering transient tie-up, both east and, to a lesser degree, west of Cleveland, the supply of transient slips is sadly lacking in the downtown Cleveland area. The addition of transient infrastructure in downtown Cleveland should be a priority for Ohio.

Lake County

Although Lake County does not have the boater visitation of some of the other coastal counties, its port town of Fairport Harbor has a great deal of potential as a transient way-point or destination. Traditionally a commercial harbor, it is strategically located between Cleveland and Ashtabula/Conneaut.

Fairport Harbor is a small town that is currently somewhat limited in terms of restaurants and shops. However, it is within easy walking distance of the Grand River, a great spot for transient slips. Mentor Headlands State Park Beach is located just to the west of the Grand River, and a smaller beach managed by Lake County Parks is situated just east of the river. A very picturesque lighthouse and a maritime museum are also within walking distance of the river.

A limited number of transient docks are currently available on the Grand River; however, due to its many existing attractions that meet the criteria "park



Cleveland Lakefront Transient Slips

Figure 6.3

atmosphere", "back to nature atmosphere", and "nearby tourist attraction", this community has a lot of potential as a transient destination, especially if moorage were available at the mouth of the Grand River. Access to the town from the west side of the river could be provided through the use of a small ferry or water taxis. (See figure 6.4)

Ashtabula County

Ashtabula County ranked fourth as a coastal county boating destination in the 1999 study. Both Lake Erie and Pymatuning Lake, a limited horsepower lake, are popular boating destinations in Ashtabula County. (Some respondents who reported their most visited destination as Ashtabula may be Pymatuning boaters.) A large Lake Erie, 330+-slip marina with 75 transient docks is located at Geneva State Park. Additional transient opportunities exist in Ashtabula and Conneaut.

The cities of Ashtabula and Conneaut are located about midway between greater Cleveland and Erie, PA. (Erie's Presque Isle State Park, as well as its excellent natural harbor, makes Erie a popular boating destination.) Large commercial harbors take up most of Ashtabula's shoreline zone, and although not currently used for recreational boat mooring, this use is certainly worthy of consideration in the years to come (if and when commercial harbor space becomes available.) "Lower Ashtabula", not far from the Ashtabula River, where nearly all recreational docking facilities are now located, hosts a number of gift shops, eateries, and antique stores.

The transient docks in Geneva State Park, about 7 miles west of Ashtabula, fulfill much of the existing transient need in this geographic area of the lake, although Geneva's marina does report having to turn boats away on holiday weekends, particularly larger boats.

Conneaut, home to a number of restaurants and a nice park and beach, has a protected harbor constructed for commercial shipping. Silt accumulation is problematic in this harbor; otherwise the port community has many amenities that are attractive to transient boaters.

Fairport Harbor Area

Figure 6.4

Summary

Many marinas, especially privately owned marinas, are hesitant to dedicate dock space for transient use. Although very popular boating destinations do have consistent rental of transient slips, rental certainty is more of a sure thing with seasonally rented docks. Extended inclement weather can adversely affect transient boating volume.

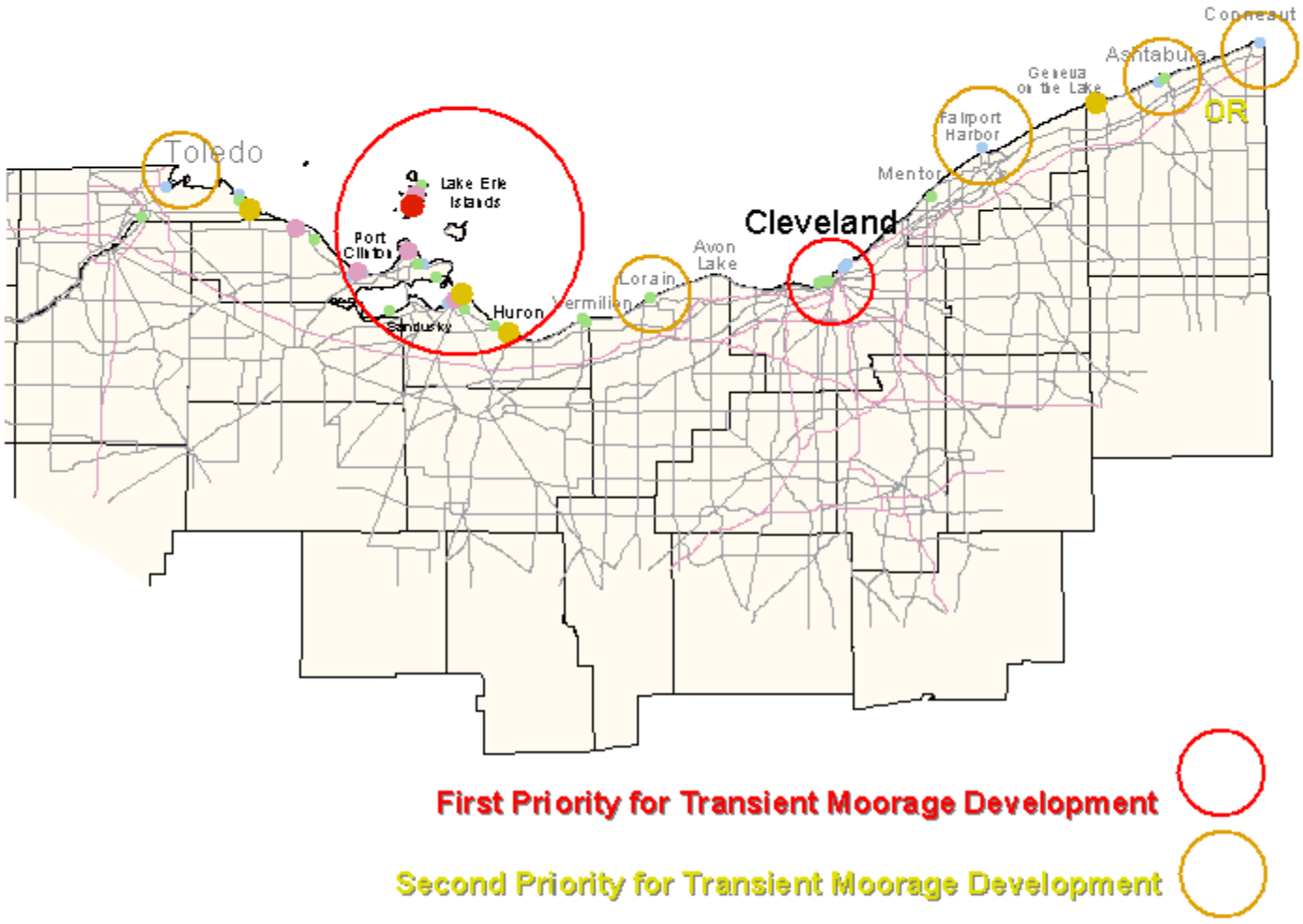
The responsibility for providing transient moorage best lies with the public sector, local communities and public agencies. Transient moorage should be considered right along with public parking needs that provide convenient access to community attractions or campground space that provides overnight enjoyment of an outdoor destination. Transient marinas can also be developed very successfully as resort-style destinations, with amenities conducive to relaxation and special event programming within the marina development.

There is a need for both large-scale and small-scale transient marinas along the Lake Erie coast; survey results reveal that while over half of transient boaters travel solo, over 30% travel in groups of two to five boats, and 10% travel in groups of six boats or more. Lake Erie boating clubs and organizations often coordinate large boating outings and rendezvous events that can bring 20, 30 or even 50 boats into a transient marina at one time. These large groups seek out transient marinas that can accommodate their larger groups. Club commodores report a preference for marinas with secure and adequately sized docks; docks with utilities; clean, modern restrooms and showers; friendly assistance from marina staff; and marina event programming*.

Ultimately, the successful development of a transient harbor depends upon the commitment and enthusiasm of the local community, managing agency, or commercial business. One of the most successful transient harbors on Lake Erie is located at Leamington, Ontario. Leamington is just a small town known for tomatoes that is well situated in the popular western basin of Lake Erie. The marina owes its success to providing features that boaters desire: suitable draft; nearby restaurants; taverns and shops; land based transport (rental bicycles and local shuttles); nearby special events (provided by the marina); and a park atmosphere on a small scale.

The map in figure 6.5 illustrates the locations along the Lake Erie coast where additional transient facilities are needed for the recreational enjoyment and safety of boaters. First priority areas are the Lake Erie Islands region and downtown Cleveland. Additional priority areas are Fairport Harbor, Lorain, Toledo and Conneaut/Ashtabula.

* Marina & Boatyard Today , May 2002



Existing & Proposed Transient Opportunities Along Lake Erie

Marina Legend

Number of Transient Docks
10 - 15
16 - 30
31 - 60
61 - 100
101 - 150

Figure 6.5

What Lake Erie Boaters Look for in a Marina

Boating participants in focus groups held in the Lake Erie vicinity commented on what features are important to them in a transient marina.

- Transient boaters are looking for convenient amenities like showers, a nearby restaurant, outdoor grills, a supply store, cleanliness and friendliness, etc.
- Dock fee structure is an issue to boaters visiting transient marinas.
- Transient marinas must be easily accessible by boat (deep water, etc).
- Boating group size varies from individual to 50+.
- Boat size varies; provide appropriate dock sizes and utility needs.
- Boaters desire short-term/day-use options at transient marinas.

To further explore this focus group input the survey asked: *What features are important to **you** at a marina where boaters lease docks for the season? If you did **not** keep your boat at a marina dock that you rented for the 2002 boating season, please answer this question based on your experiences visiting marinas.*

Results below are average responses of only Lake Erie boaters. Although the question did not ask specifically about transient boating preferences, results are reliable for boaters on Lake Erie. Common sense would suggest that showers might rank somewhat higher on a survey given only to transient boaters, although many larger boats have showers on board.

Marinas on Lake Erie

	Not at all important	Somewhat important	Important	Very Important	Essential	Average Results
Security for boats	1	2	3	4	5	**4.23**
Protection from wave/wake surge	1	2	3	4	5	**4.13**
Suitable draft for your vessel	1	2	3	4	5	**4.10**
Restrooms	1	2	3	4	5	**4.08**
Adequately sized docks	1	2	3	4	5	**3.92**
Affordability of dock lease	1	2	3	4	5	**3.84**
Convenient trash receptacles	1	2	3	4	5	**3.62**
Parking close to docks	1	2	3	4	5	**3.45**
Marine fuel	1	2	3	4	5	**3.44**
High quality maintenance of marina facility	1	2	3	4	5	**3.41**
Dockside electric	1	2	3	4	5	**3.17**
Dockside water	1	2	3	4	5	**3.15**
Bulletin board with updated information about waterway	1	2	3	4	5	**3.03**
Pumpout and/or dump station	1	2	3	4	5	**2.90**
Shower facilities	1	2	3	4	5	**2.90**
Nice area for social events	1	2	3	4	5	**2.84**
Boat boxes	1	2	3	4	5	**2.34**

If this prioritized information is used when making marina improvements or planning new facilities, the resultant marinas should be well received by Lake Erie boaters.

Lake Erie Launch Ramps

Boating focus group participants in the Lake Erie vicinity had very few comments on the subject of launch ramps along the lake. Can we conclude there is complete satisfaction with the existing supply and condition of Lake Erie launch ramps? The answer is, not necessarily.

Sixty-two percent of surveyed Lake Erie boaters reported having launched their boat from a ramp during 2002, and 29% of Lake Erie boaters identified themselves as boaters who prefer to trailer their boat and use a launch ramp. The first number (62%) contains all Lake Erie boaters who used a ramp even one time during 2002, which may have been just to get the boat into the water for seasonal dock mooring, whereas the second number (29%) reflects regular use of launch ramps.

All boaters statewide were asked how satisfied they were with availability of launch ramps at the waterway (all types) they boated on most often. The overall satisfaction rating for the entire state was 3.72 on a scale of 1 to 5, where 1 is completely dissatisfied, and 5 is completely satisfied.

This information was then sorted for Lake Erie boaters. The ranking for satisfaction with availability of launch ramps on Lake Erie was **3.68**, which is just slightly below the state average.

Completely Dissatisfied	Dissatisfied	Neither	Satisfied		Completely Satisfied
1	2	3	**3.68**	4	5

Regional differences also exist between Ohio's northwest and northeast regions that have Lake Erie coastline. Lake Erie boaters who boat out of Lucas, Ottawa, Sandusky or Erie county give availability of launch ramps a **3.72** rating, whereas those who boat out of Lorain, Cuyahoga, Lake or Ashtabula county rate their collective satisfaction at **3.58.** Although a rating of 3.58 is still much better than 2 (dissatisfied), it is low when compared to other access satisfaction scores. Only Ohio River boaters, in the southwest region, rate availability of ramp access at a lower score.

The maps in figures 6.6 & 6.7 show locations of existing launch ramps. The northwest region has approximately 43 paved launch lanes with Lake Erie access (including lake access via the Maumee River), and the northeast region has about 44 lanes. How is it that boaters who frequent Ohio's most popular boating region, the northwest, containing Ottawa and Erie counties, with no more launching

Western Lake Erie Launch Ramps

Legend

Paved Launch Ramp

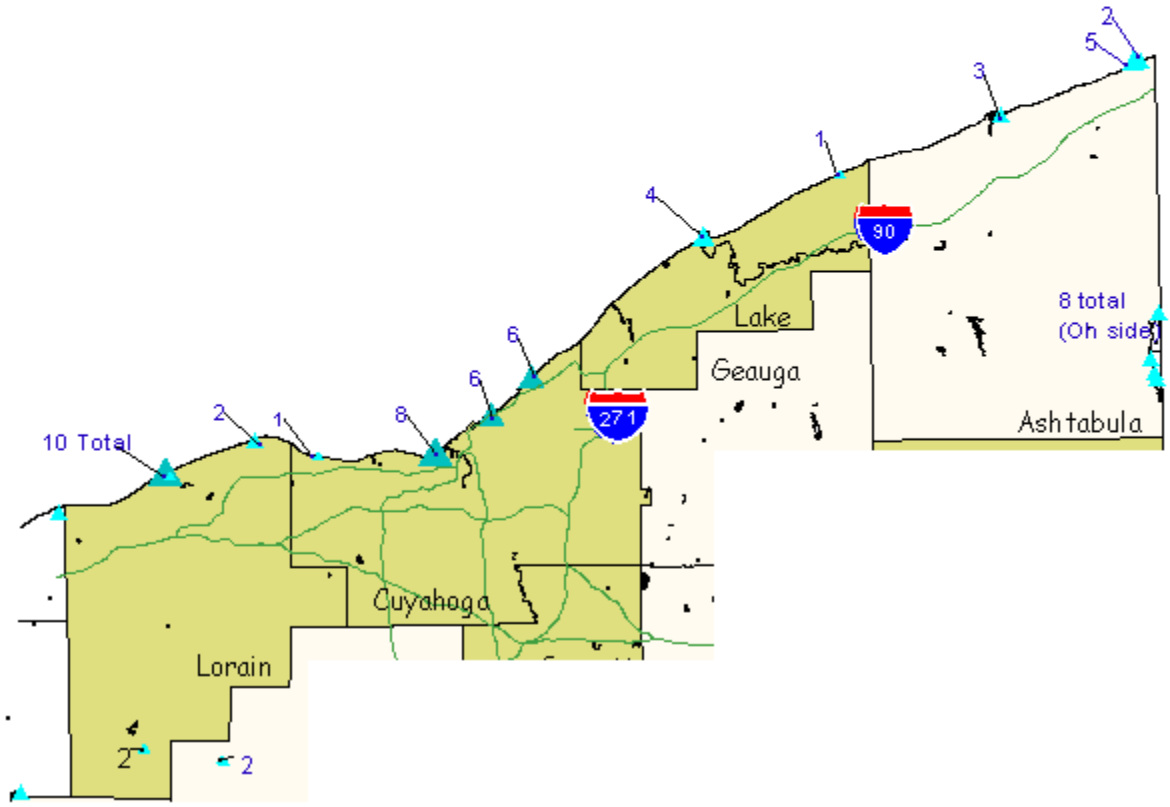
Number of Paved Launch Lanes — 2

Gravel Launch Ramp

- 1-2 lanes
- 3-4 lanes
- 5-6 lanes

Registered Boats (2001)	Horsepower Limits
522 - 1401	no motors
1402 - 2539	electric only
2540 - 4311	10 hp
4312 - 11086	25 hp
11087 - 27810	250-299 hp
	400 hp
	unlimited
	unlimited no wake
	rivers, streams & private

Figure 6.6



Eastern Lake Erie Launch Ramps

Legend

Paved Launch Ramp

Number of Paved Launch Lanes — 2

Gravel Launch Ramp

1-2 lanes
3-4 lanes
5-6 lanes

USACE Dams

Registered Boats (2001)

522 - 1401
1402 - 2539
2540 - 4311
4312 - 11086
11087 - 27810

Horsepower Limits

no motors
electric only
10 hp
25 hp
250-299 hp
400 hp
unlimited
unlimited no wake
rivers, streams & private

Figure 6.7

opportunities than the more modestly popular lake waters to the east, appear to be more satisfied with launch ramp availability?

Division of Watercraft regional managers report that many Lake Erie ramps in the northeast region are in poor shape. Many ramps in the Ashtabula-Conneaut area are silted in and either unusable or of limited use. Others, such as the E. 72nd Street ramp near the Division of Watercraft Cleveland office, are functional but not in the best shape.

Generally, ramps in the western counties are in very good shape. Many were constructed within the last 10 to 15 years, while the ramps in the eastern counties are generally older and in need of upgrades. Lake Erie launch ramps in the eastern region counties of Lorain, Cuyahoga, Lake and Ashtabula, should be upgraded as appropriate to the site conditions. Additionally, because of the urban location of Cleveland area ramps and the associated high need for these ramps, they should be maintained at a very high standard and expanded wherever possible.

Launch Ramp Preferences of Lake Erie Boaters: Survey respondents were asked about the relative importance of a variety of features found at launch ramps. These results were sorted for just Lake Erie boaters; results are shown below.

Launch Ramps on Lake Erie

	Not at all important	Somewhat important	Important	Very Important	Essential	Average Results
Adequate parking for vehicles & trailers	1	2	3	4	5	**4.16**
Launch ramps that are designed for use by a variety of types of watercraft.	1	2	3	4	5	**3.92**
Multiple launch lanes (more than 2)	1	2	3	4	5	**3.87**
Protection from wakes and waves	1	2	3	4	5	**3.84**
Launch ramps that are wide and extend deep into the water	1	2	3	4	5	**3.79**
Efficient traffic flow at launch ramp	1	2	3	4	5	**3.75**
High quality maintenance of facility	1	2	3	4	5	**3.59**
Restrooms	1	2	3	4	5	**3.47**
Courtesy docks that fluctuate with water levels	1	2	3	4	5	**3.38**
Lighting	1	2	3	4	5	**3.37**
Posted current waterway zoning maps	1	2	3	4	5	**3.03**
Posted “rules of the road” for boating	1	2	3	4	5	**2.97**
Posted information on water quality	1	2	3	4	5	**2.96**
Drinking Water	1	2	3	4	5	**2.76**
Posted current events schedule for the waterway (regattas, tournaments, etc)	1	2	3	4	5	**2.41**
Wash down area	1	2	3	4	5	**2.38**
Shoreline fishing away from launch ramp	1	2	3	4	5	**2.29**
Pumpout and/or dump station	1	2	3	4	5	**2.27**
Launch assistance for boaters when needed	1	2	3	4	5	**2.18**
Camping adjacent to launch area	1	2	3	4	5	**2.02**
Picnic area	1	2	3	4	5	**1.97**
Snack bar	1	2	3	4	5	**1.63**

When compared to all Ohio boaters, Lake Erie boaters concurred that their top priority is adequate parking. Lake Erie boaters also gave a higher priority to ramps that accommodate a variety of vessel types and have more than two lanes than Ohio boaters in general. Protection from waves and wakes was also a more important feature to Lake Erie boaters. Overall there were more similarities than differences between the subgroup of Lake Erie boaters and Ohio boaters in general.

If this ranked information is used when prioritizing improvements at existing ramps or planning for new facilities, resultant launch ramps should be well received by Lake Erie boaters.

Chapter 7 Boating on Ohio's Inland Lakes

Focus Group Issues

Focus groups held to discuss boating on inland lakes generated a variety of commentary:

- Access via Launch Ramps:
    - Boaters need better access via launch ramps to Ohio's inland waters.
    - Renovation and better maintenance of existing ramps is needed.
    - Customer friendly design is needed at launch ramps. Customer friendly design includes (the top five were cited most often by boaters):
        1. More parking (preferably sized for large trailers).
        2. Restrooms.
        3. Courtesy docks (preferably floating).
        4. Lighting.
        5. Alleviation of congestion through efficient courtesy dock design/placement and more personal assistance to boaters.
        6. Protection from wakes and waves.
        7. Deep ramps for better multi-season launching.
        8. Multiple lanes.
        9. Camping adjacent or integral to the launch ramp facility.
        10. Multi-use design for ease of launching by a variety of watercraft (sailboats, canoes, etc.)
        11. Wide ramps.
        12. Ramps that are not too steep.
        13. Wide turning radii.
        14. No overhead obstructions (sailboats).
        15. Trash cans, picnic tables, snack bars.
        16. Fishing areas away from launch areas.
        17. Wash down areas.
        18. Pump outs.
- Access via Marinas:
    - More marinas are needed at large inland lakes.

- Social interaction of boaters should be a key programming issue during marina design.

- Boater input is essential when designing a marina. Features important to boaters include:

    1. Convenient showers.
    2. Convenient trash receptacles.
    3. Security.
    4. Water surge protection.
    5. Dock utilities.
    6. Docks sized for today's larger boats.
    7. Convenient parking.
    8. Water that is deep enough for access.
    9. Reasonable dock fees.
    10. Better maintenance.
    11. Boat boxes.

- Lake Activities

    - Boaters on Ohio lakes putt around, observe wildlife, race in organized events, fish (individually and in tournaments), swim, ski, stay overnight (on and off the boat), and picnic (on and off the boat). Type of boat often corresponds to activity.

    - Boaters would like to see more amenities at inland lakes:

        1. Day docks at strategic locations such as picnic areas, restrooms, launch ramps, beach areas and other lakeside facilities.
        2. Areas zoned for specific activities such as swimming from boat, camping on boat, water skiing in a protected area, etc.
        3. Lakeside supply stores, gas facilities, and snack bars/restaurants.

    - Some lakes are ideally suited to certain activities.

    - Group activities vary greatly in numbers of participants.

- Other

    - Landowner rights are a growing concern around (especially) canal lakes as permanent residents increasingly replace seasonal residents.

Launch Ramps on Inland Lakes

A majority of boaters access inland lakes via launch ramps. Survey results show that more than half (55%) of inland lake boaters regularly trailer their boats and use launch ramps. In fact, nearly 75% of all Ohio boaters launched their boat at least once during the 2002 season, and for inland lake boaters only, this figure is 82 %.

With so many boaters using these facilities, they must be considered a top priority when evaluating ways in which boating in Ohio can be improved. The following pages will analyze launch ramp availability on a regional basis and provide information on customer friendly design. Other launch ramp concerns, such as user conflict, will be discussed in Chapter10.

In the survey all boaters were asked how satisfied they were with the availability of launch ramps at the waterway (all types) they boated on most often. The overall satisfaction rating for the entire state was 3.72 on a scale of 1 to 5, where 5 is completely satisfied, and 1 is completely dissatisfied.

Completely Dissatisfied	Dissatisfied	Neither	Satisfied	Completely Satisfied
1	2	3	3.72 4	5

Comparatively, the average score for launch access to just inland lakes, statewide, is 3.78**.**

The charts below show more detail. Results representative of just those boaters who boat primarily on inland lakes are sorted by lake management method (horsepower restriction) and by region.

Lake Type	Statewide	NW	NE	C	SW	SE
Low Horsepower	3.88	N/A*	3.88	4.11	N/A*	N/A*
Medium Horsepower	4.69	N/A*	3.67	N/A*	N/A*	N/A*
Unlimited Horsepower	3.76	3.79	3.74	3.70	3.94	3.67

*Too few responses

Boaters statewide appear to be most satisfied with launch access to medium horsepower lakes (greater than 25HP but less than unlimited). There are only 4 such lakes in Ohio, three of which are in the northeast region. However, northeast region boaters within this category did not report the same level of satisfaction. This northeast group was the largest response group (N=23) of boaters on medium horsepower lakes, the other medium horsepower regional groups were too small to

be considered valid by as subgroups. Collectively, their rating averaged 3.95, raising the statewide average in this category. Therefore, the northeast satisfaction rating of 3.67 should be given the greatest consideration as this is the region that contains most of Ohio's medium horsepower lakes.

Satisfaction with inland lake launching opportunities is fairly consistent by region. The relative satisfaction levels are shown in the table below, from most satisfied to least satisfied. Higher numbers indicate higher satisfaction. Three categories rank slightly below the state average. By comparison, Lake Erie boater's satisfaction rate was 3.72 and the average for boaters who frequent the Ohio River was 3.38. (Categories in which there were fewer than 15 respondents have been omitted; the greater the number of respondents, the more reliable results.)

Category	Average Result	Respondents
Low HP, Central	4.11	23
Unlimited HP, SW	3.94	85
Low HP, NE	3.88	73
Unlimited HP, NW	3.79	41
Unlimited HP, NE	3.74	80
Unlimited HP, Central	3.70	90
Unlimited HP, SE;	3.67	17
Medium HP, NE	3.67	23

Although variation in scores is minimal, lower-than-average statewide satisfaction scores (lower than 3.72) were found at unlimited horsepower lakes in the southeast and central sections of the state, and medium horsepower lakes in the northeast section. Ohio's southwest section, which has the greatest number of inland lake launch ramps, has the highest satisfaction rating with access to unlimited horsepower lakes.

Generally speaking, satisfaction with availability of launch access appears to be lower at unlimited horsepower lakes. Survey results show that 59% of inland lake boaters frequent these lakes most often. The chart below gives additional information by region and by relative popularity of each region. (The maps in figures 7.2 – 7.6 show the locations of launch lanes in the five regions of the state.)

Unlimited Horsepower Lakes (395+ acres)

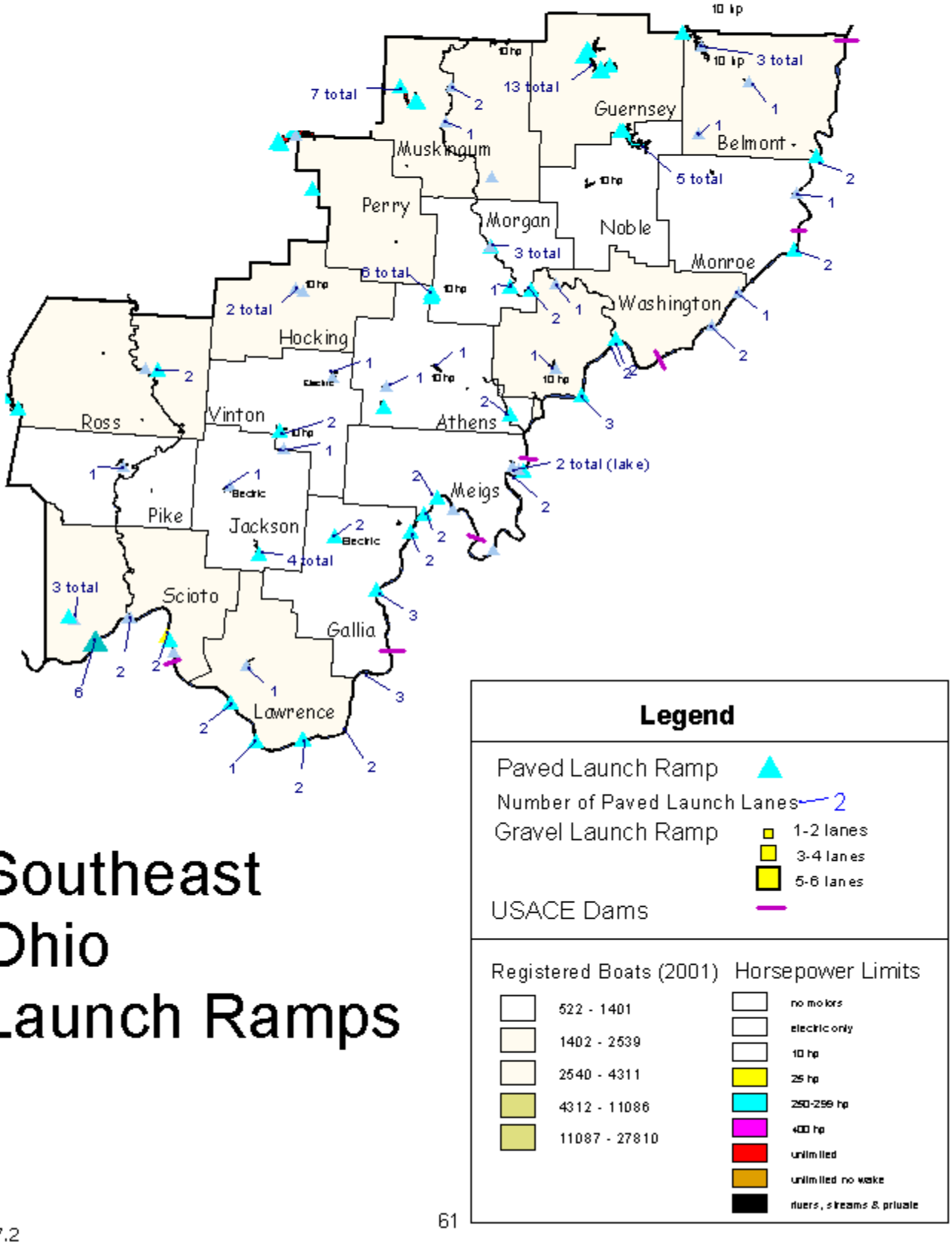
Region	**Paved Launch Lanes** (approximate numbers*)	**% of respondents selecting this region as their primary boating destination****
SW	61	21%
C	52	22%
NE	33	36%
SE	20	10%
NW	16	11%

*Division of Watercraft Facility Database
**Lake Erie and Ohio River excluded

Southeast Region:

Ohio's southeast section has only two unlimited horsepower lakes 395 acres and larger; Dillon and Salt Fork. There are 13 paved lanes at Salt Fork and 7 paved lanes at Dillon. Dillon Reservoir has been increasingly affected by silt accumulation from the Muskingum River watershed. (Silt accumulation was one purpose of the original reservoir construction.) As silt accumulates the lake will become less usable over time as a high horsepower lake where boats can go fast.

Other opportunities for boating on unlimited horsepower lakes in this region are limited to a few small lakes, like Lake White, a 347 acre lake in Pike County, with one paved launch lane. Paint Creek and Buckeye Lake, both unlimited horsepower lakes, with 3 lanes and 9 lanes respectively, are located on the region's geographic borders. Although there are fewer registered boats in this region of the state than in the other 4 regions, and the region is a less popular boating destination, there are considerably fewer access opportunities to unlimited horsepower lakes, not only because of the low number of lanes but also because of the lack of unlimited horsepower lakes in general. (See figure 7.2)



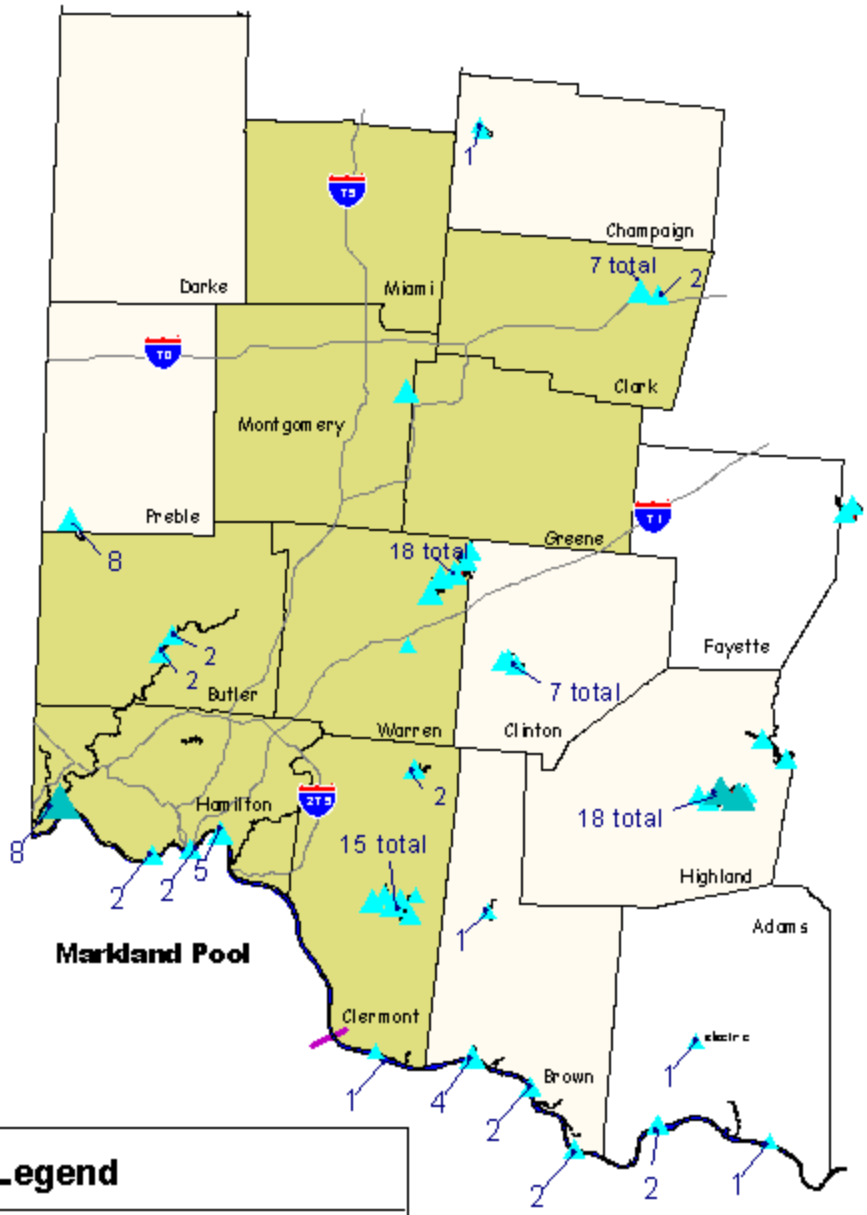
Southeast Ohio Launch Ramps

Figure 7.2

Southwest Region:

Ohio's Southwest region has 90,842 registered boats (22% of total Ohio boats), 60,519 of which are in the five-county area including and surrounding Cincinnati and Dayton (Hamilton, Montgomery, Butler, Clermont, and Warren). The region has three electric only lakes, two 10 horsepower lakes and six unlimited horsepower lakes, all of which are over 100 acres in size. A majority (55.8%) of respondents to question 27 favor an increase in access to limited horsepower lakes. Although Cincinnati and Dayton have undergone a slight population decline (average of approximately 2.5%) over the last 10 years, the growth rate of counties surrounding these cities averaged 24% from 1990 to 2000. Once again this positive growth rate is expected to continue, which will likely translate into more boaters on the water, and more crowding at unlimited horsepower lakes.

Larger lakes with unlimited horsepower within the region include East Fork State Park (15 paved lanes), Caesar Creek State Park (18 paved lanes) and Buck Creek State Park (7 paved lanes). While these parks experience significant recreational boating use, in general, survey participants who boat in southwest Ohio indicated higher-than-average satisfaction with the availability of launch ramps. The access facilities at these locations should receive regular evaluations for condition, use and appropriate improvements to maintain present levels of satisfaction. (See figure 7.3)



Legend

Paved Launch Ramp

Number of Paved Launch Lanes — 2

Gravel Launch Ramp

- 1-2 lanes
- 3-4 lanes
- 5-6 lanes

USACE Dams

Registered Boats (2001)

- 522 - 1401
- 1402 - 2539
- 2540 - 4311
- 4312 - 11086
- 11087 - 27810

Horsepower Limits

- no motors
- electric only
- 10 hp
- 25 hp
- 250-299 hp
- 400 hp
- unlimited
- unlimited no wake
- rivers, streams & private

Southwest Ohio Launch Ramps

Figure 7.3

Central Region:

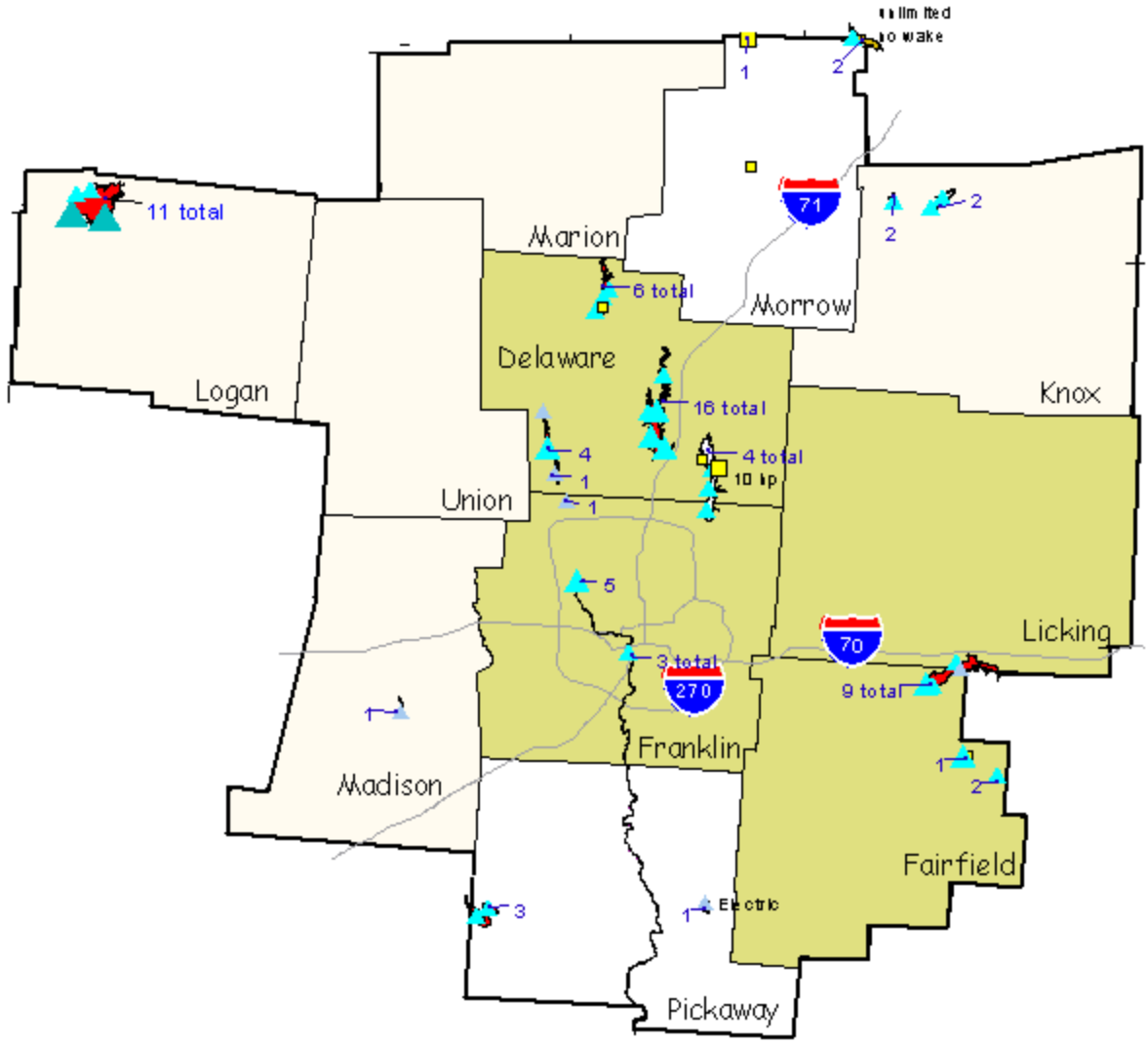
With 53 paved lanes it would appear that the central section of the State is comparatively well served by launch lanes, yet the satisfaction rating, although good, is below the state average and lower than three other sections of the state. Why is this? The BOW Plan survey asked boaters what region of the state their usual boating destination is located. The central region was named by 22% of respondents. In the 1999 study *Recreational Boating in Ohio*, boaters were asked in what Ohio county their boating outings occurred most frequently. The top five counties of first preference were, in order:

County of Choice	Number of Respondents*
Ottawa	189
Logan	83
Erie	75
Delaware	64
Mercer	51

*The average number of responses for an Ohio county was 20.

While a choice of Ottawa or Erie County implied Lake Erie as a destination, Logan and Delaware counties, both in the central region, generally indicate Indian Lake, Alum Creek Reservoir, Delaware Reservoir, O'Shaughnessy Reservoir, or Hoover Reservoir as a destination. Four of these five are unlimited horsepower lakes. (See figure 7.4)

The slightly lower-than-average satisfaction rating may be indicative of the very heavy boating use of the central region lakes, especially Indian Lake and Alum Creek reservoir. Weekend and holiday launch ramp lines at Alum Creek reservoir are known to be quite long, evidence of the concentrated use of this central region lake.



Central Ohio Launch Ramps

Legend

Paved Launch Ramp

Number of Paved Launch Lanes — 2

Gravel Launch Ramp

- 1-2 lanes
- 3-4 lanes
- 5-6 lanes

Registered Boats (2001)

- 522 - 1401
- 1402 - 2539
- 2540 - 4311
- 4312 - 11086
- 11087 - 27810

Horsepower Limits

- no motors
- electric only
- 10 hp
- 25 hp
- 250-299 hp
- 400 hp
- unlimited
- unlimited no wake
- rivers, streams & private

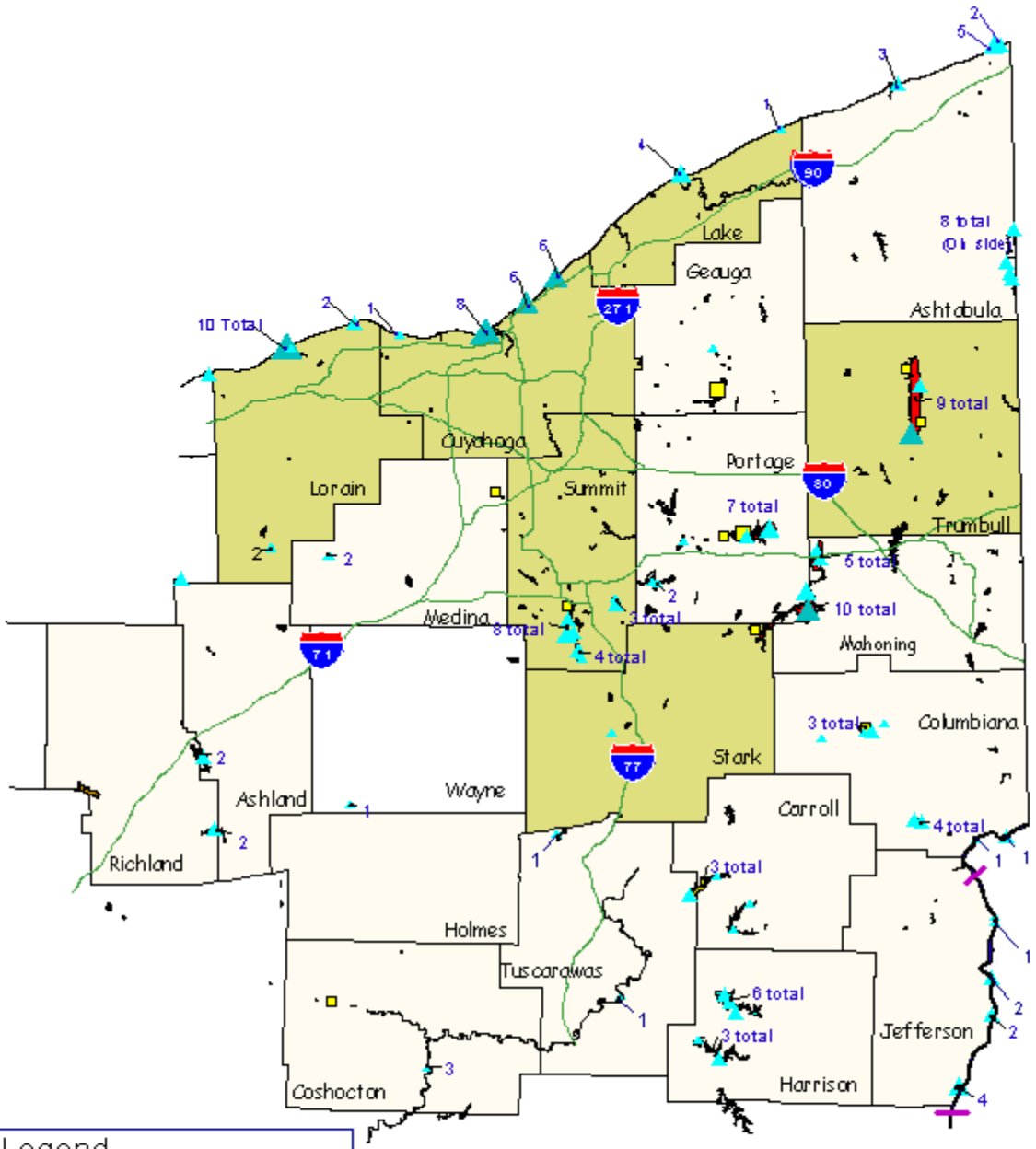
Figure 7.4

Northeast Region:

The largest percentage of inland lake boaters reported the northeast region as their primary destination. There are six unlimited horsepower lakes 395 acres and larger in the northeast region with a total of 33 paved launch lanes. Although 33 is a low number compared with the other regions of the state, these 33 lanes are augmented by 8 lanes at Portage Lakes, which has a 400 horsepower limit and is accessible to the vast majority of higher horsepower boaters. Boaters expressed the state's average "slightly less than satisfied (3.72)" with access to these lakes.

The survey also shows that boaters who boat on medium horsepower lakes (greater than 25 but less than unlimited) in this northeast region are somewhat less satisfied than average with availability of launch ramp access. There are three such lakes in this region, Tappan, Springfield, and Portage lakes with a total of 17 lanes. (See figure 7.5)

Harrison County, the location of both Tappan Lake (299 horsepower) and Clendening Lake (10 horsepower) ranked within the top ten county boating destinations in the 1999 study. Springfield and Portage lakes are located within Summit County, which has a great concentration of registered boats; although in 1999 it only ranked midrange as a boating destination. It is difficult to know if the lower satisfaction rating for medium horsepower lakes in this northeast region is descriptive of one particular lake or indicative of the overall demand for boating in the area. Thirty-three percent of inland lake boaters choose this region as a destination. Yet the region has relatively few launch lanes, and has a comparatively lower satisfaction rating with medium horsepower lakes. These are good justifications to consider additional launch access in this region, especially on medium horsepower lakes.



Legend

Paved Launch Ramp

Number of Paved Launch Lanes — 2

Gravel Launch Ramp

- 1-2 lanes
- 3-4 lanes
- 5-6 lanes

USACE Dams

Registered Boats (2001)

- 522 - 1401
- 1402 - 2539
- 2540 - 4311
- 4312 - 11086
- 11087 - 27810

Horsepower Limits

- no motors
- electric only
- 10 hp
- 25 hp
- 250-299 hp
- 400 hp
- unlimited
- unlimited no wake
- rivers, streams & private

Northeast Ohio Launch Ramps

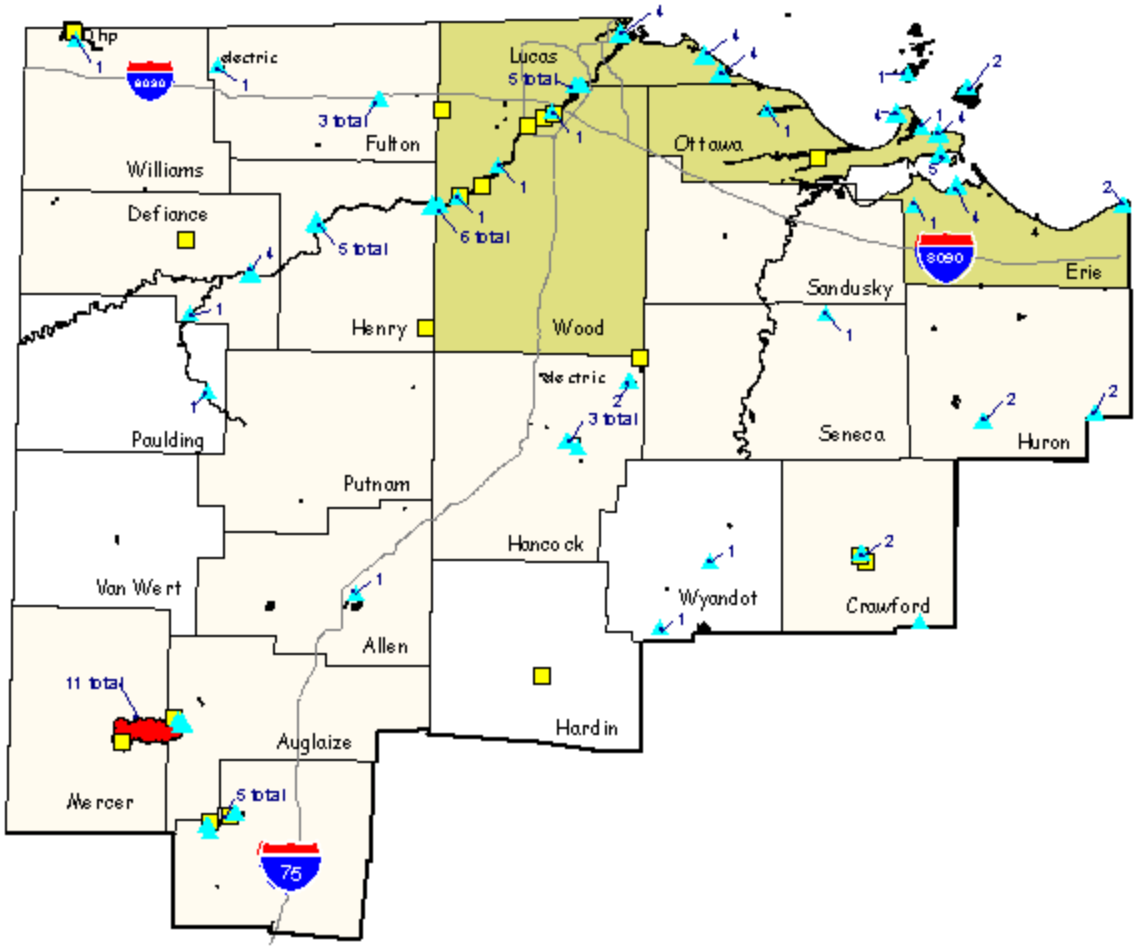
Figure 7.5

Northwest Region:

Ohio's Northwest region has 70,451 registered boats (17%) of total Ohio boats). The region has eight electric only lakes, three 10 horsepower lakes, one 25 horsepower lake and three unlimited horsepower lakes, all of which are over 100 acres. While the population has declined slightly in the region's population center, Lucas County (Toledo), there has been a moderate growth rate in the surrounding counties.

There are few opportunities for unlimited horsepower lake access in most of this region. Other than Grand Lake (11 launch lanes) and Lake Loramie (5 launch lanes), located in the southern portion of the region, the higher horsepower boater has only Lake Seneca (280 acres of water with 1 launch lane) in Williams County in northwest Ohio. Most of the remaining non-Lake Erie waterway access in this region is on the Maumee River. This river is quite wide and slow moving in many areas. Commercial traffic on the Maumee does not appear to be an intimidating factor to those who are accustomed to inland lake boating.

Based on a review of survey information, focus group input and existing access facilities, the array of opportunities currently available to unlimited horsepower lakes by boaters at existing waterways in the northwest region is relatively acceptable. Northwest regional boaters expressed similar satisfaction (3.79) regarding inland lake access versus the statewide average score (3.78). The region should continue to be monitored. If a wider range of inland lake access is warranted and desired by area boaters in the future, horsepower modifications at Findlay Reservoir #2 might be considered. Findlay Reservoir #2 is the largest body of water in the region, other than those that already allow unlimited horsepower access. In the meantime, maintaining quality access to the Maumee River should be a priority for this region. The Maumee River continues to be a regionally important boating opportunity for those with higher horsepower engines. (See figure 7.6)



Northwest Ohio Launch Ramps

Legend

Paved Launch Ramp

Number of Paved Launch Lanes 2

Gravel Launch Ramp

- 1-2 lanes
- 3-4 lanes
- 5-6 lanes

Registered Boats (2001)

- 522 - 1401
- 1402 - 2539
- 2540 - 4311
- 4312 - 11086
- 11087 - 27810

Horsepower Limits

- no motors
- electric only
- 10 hp
- 25 hp
- 250-299 hp
- 400 hp
- unlimited
- unlimited no wake
- rivers, streams & private

Figure 7.6

Summary: Access to Inland Lakes via Launch Ramps:

- Additional boating access to unlimited horsepower lakes is needed in Ohio's Southeast region.
- Launch access to unlimited horsepower lakes in the Central region should be improved.
- Additional inland launch access should be provided in the Northeast region, with medium horsepower lakes as a priority.

Launch Ramps on Inland Lakes: Customer Friendly Design

Question 10 in the survey asked: *What features are important to **you** at a launch ramp?* These results, sorted for just inland lake boaters, are shown in the chart below.

	Not at all important	Somewhat important	Import ant	Very Important	Essential	Average Results
Adequate parking for vehicles & trailers	1	2	3	4	5	**4.20**
Launch ramps that are designed for use by a variety of types of watercraft.	1	2	3	4	5	**3.88**
Launch ramps that are wide and extend deep into the water	1	2	3	4	5	**3.79**
Efficient traffic flow at launch ramp	1	2	3	4	5	**3.74**
Protection from wakes and waves	1	2	3	4	5	**3.71**
Multiple launch lanes (more than 2)	1	2	3	4	5	**3.64**
Restrooms	1	2	3	4	5	**3.62**
High quality maintenance of facility	1	2	3	4	5	**3.58**
Courtesy docks that fluctuate with water levels	1	2	3	4	5	**3.36**
Lighting	1	2	3	4	5	**3.34**
Posted "rules of the road" for boating	1	2	3	4	5	**3.25**
Posted information on water quality	1	2	3	4	5	**3.20**
Posted current waterway zoning maps	1	2	3	4	5	**3.14**
Drinking Water	1	2	3	4	5	**2.86**
Posted current events schedule for the waterway (regattas, tournaments, etc)	1	2	3	4	5	**2.81**
Shoreline fishing away from launch ramp	1	2	3	4	5	**2.68**
Camping adjacent to launch area	1	2	3	4	5	**2.44**
Picnic area	1	2	3	4	5	**2.37**
Pumpout and/or dump station	1	2	3	4	5	**2.30**
Wash down area	1	2	3	4	5	**2.29**
Launch assistance for boaters when needed	1	2	3	4	5	**2.16**
Snack bar	1	2	3	4	5	**1.88**

These features, ranked just by inland lake boaters - the launch ramp users - should be carefully considered when designing new ramps or renovating existing ramps. Thirteen of the twenty-two listed features rank as important to very important. Providing at least these thirteen features should be a launch ramp development priority, to the extent feasible. (See figure 7.7)

Features like efficient traffic flow can be assured at the time of design of a new facility, but can also often be improved at an existing facility through site modifications or even by providing traffic supervisors at peak use times. Adequate parking for launch ramps should always be a top priority. Additional parking at existing ramps that are short on parking should also be a top priority. This is often a challenge. Car trailer parking requires a lot of land area. In a park-like setting, large paved areas can be visually incongruous with the surroundings. Nonetheless, attractive parking areas can be built if carefully designed ahead of time with esthetics in mind.

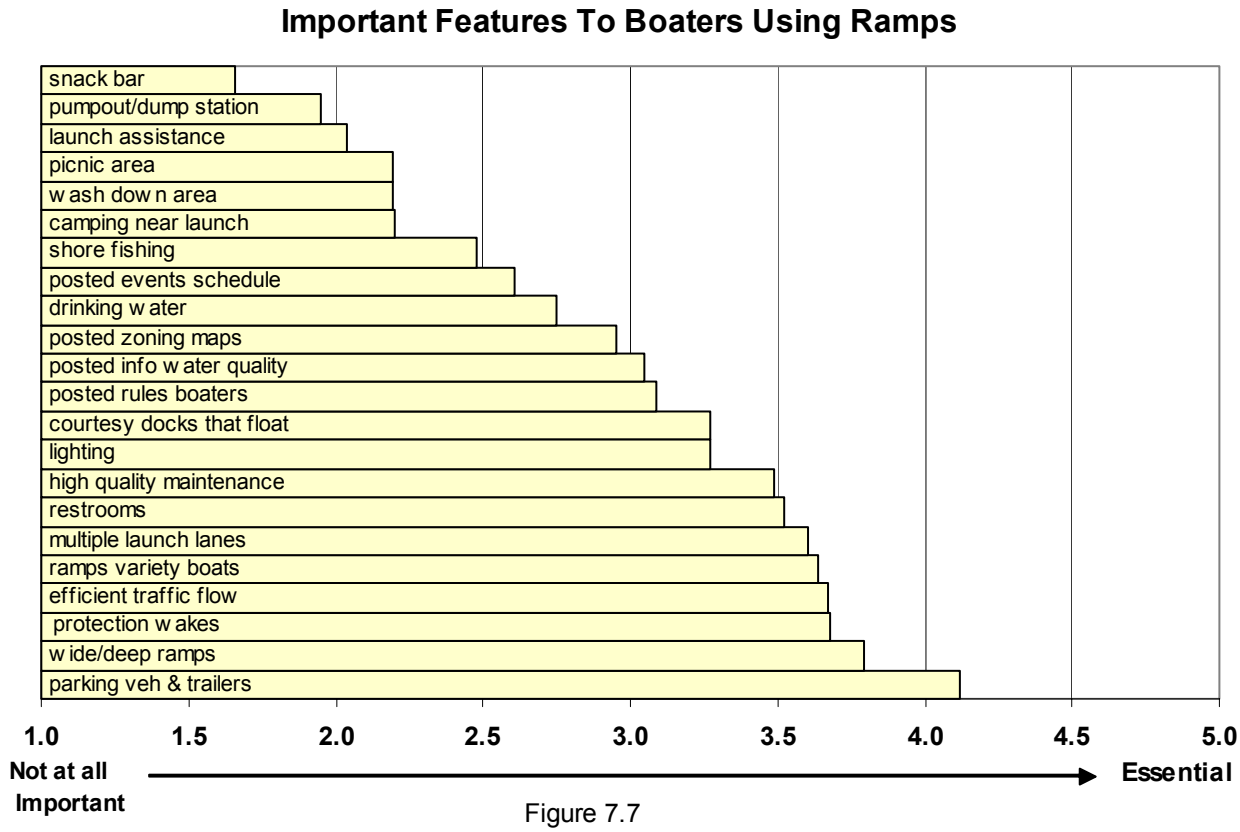
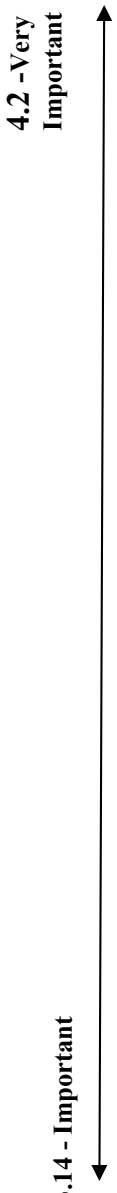


Figure 7.7

Summary: Launch Ramps on Inland Lakes, Customer Friendly Design:

All the following recommendations address issues boaters have identified as being important to very important in a customer friendly launch ramp.



- Parking: Evaluate existing launch ramps, especially at heavily used lakes, for parking adequacy. Provide additional parking if needed, whenever possible.
- Parking: Consider new standards for number of parking spaces per launch lane, based on lake management, locations, etc.
- Ramp: Consider criteria such as existing ramp width, depth into water, and flexibility for multi craft use when renovating existing ramps.
- Traffic Flow: Design new ramps for efficient traffic flow. Find ways to improve traffic flow at existing ramps, especially on heavily used waterways, through improvements such as boat prep areas, courtesy docks located outside of launching corridor, and traffic flow supervisors during peak use times.
- Waves and Wakes: Continue and redouble enforcement of no wake areas around launch ramps, evaluate potential for wake/wave disruptive action at all new proposed ramp sites. Install break walls and wave attenuators where needed at existing sites and new sites where warranted.
- Build a minimum of 3 or more lanes at all new inland lake launch ramps, unless special conditions exist.
- Provide restrooms at launch ramps.
- Maintain clean facilities in good repair.
- Provide floating courtesy docks in a configuration that does not block launching traffic.
- Provide lighting at launch ramps.
- Post boating “rules of the road” in a conspicuous location, in an attractive and inviting format.
- When available, post water quality information.
- Lake Maps: Develop current lake zoning maps that are easily accessible to the boater, using a format that is easily stored (discouraging litter) and is durable (waterproof).
- Pump outs: Boaters relatively high ranking of posted information on water quality reflects a concern for water quality at inland lakes. Funds available through the Clean Vessel Act, a Federal grant program, should continue to be applied to the installation of pump outs at inland lakes, and promotional efforts on the availability and use of pump outs should be undertaken.

Marinas on Inland Lakes:

Marinas serve many important functions in the boating environment. Many boats like large pontoon boats and fixed keel sailboats are not easily launched. Usually these types of vessels are kept at a leased or seasonal dock. Marinas are also a source for supplies like gas, food, restrooms, ice, and repairs for all boaters on the lake. Marinas often provide a hub for organized activities like regattas and social events as well.

While 13.8% of all Ohio boaters reported that they kept their boat at a marina during the 2002 boating season, only 7.2% of inland lake boaters did. Additionally, 10.6% of boaters who do not lease a dock in a marina would like to do so, but do not for one the reasons listed below.

- Dock space at the favorite waterway is in short supply or does not exist. (37%)
- The cost of seasonal dock space is too high for budget. (31%)
- The cost of seasonal dock space at the favorite waterway is too high for the value received. (17%)
- Other reason. (15%)

The percentage of inland boaters who would like to rent a seasonal dock at an inland lake will very likely increase over the next decade or two. Nationwide sales in both fiberglass and aluminum boats in the 21+ foot category have increased since 1997. Fiberglass market share has increased from 13% in 1997 to 29% in 2002; aluminum market share has increased from 11% in 1997 to 16% in 2002.* These larger boats are more difficult to launch than smaller craft. Pontoon boats currently represent 18.6% of boats with outboard engines in the national market place, up from 12.2% in 1997. Pontoon boat design becomes more deluxe all the time; these new designs have great potential appeal to the boater who is an aging baby-boomer. Newer, larger pontoons are more challenging to handle at the launch ramp than bass or utility boats, both of which are showing declining sales nationwide since 1997 (bass boats: 23.7% in 1997 to 13.3% in 2002; utility boats: 22.8 % in 1997 to 19.7% in 2002)*. Pontoon boat use in Ohio has grown substantially since the mid 1980s (see figure 7.8).

*Boating 2002 At A Glance- Fact & Figures, National Marina Manufacturers Association

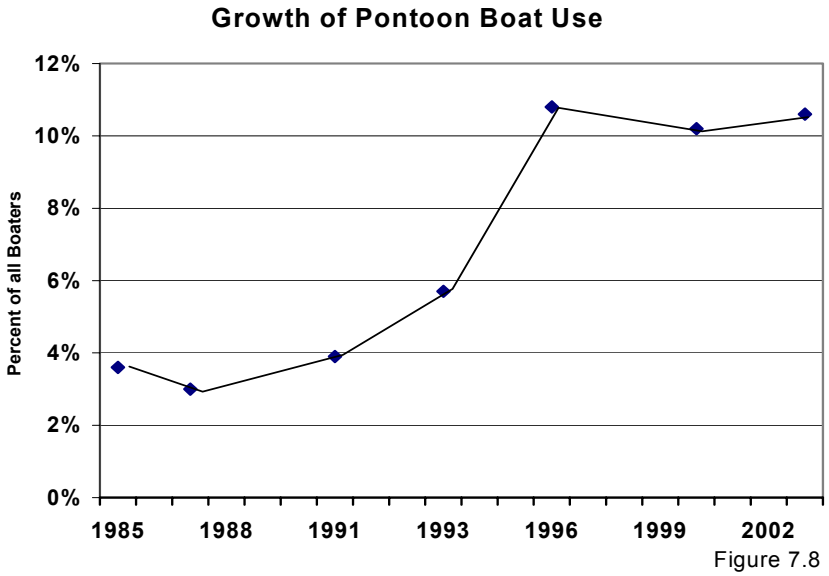


Figure 7.8

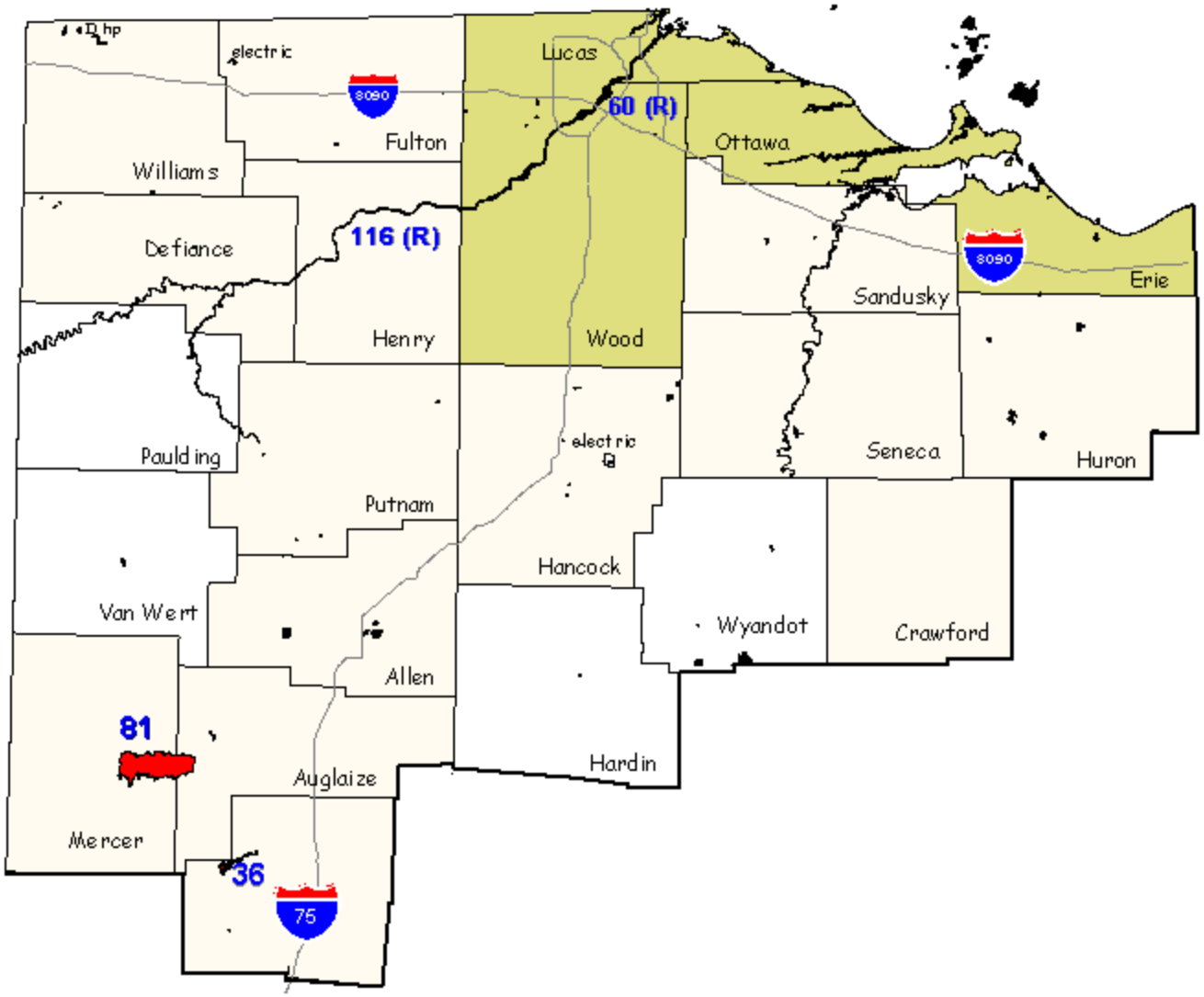
Sailboats with fixed keels are often moored at marinas. Although sailboats represent only three percent of registered Ohio boats, nationally sales have been steadily increasing since the early 1990s (Sailboats sold in 1991: 8,700; 1997: 14,400; 2002: 24, 900**) so suggesting that marina dock space in Ohio may very well increase in importance to Ohio boaters in the future.

Of the 249 survey respondents who reported renting a dock for the season in 2002, 30.5% were inland lake boaters. Approximate distribution of inland lake dock opportunities are shown in the figure 7.9 – 7.13 maps. This information is current as of 1999 and is being updated. Data collection (1999) may have been somewhat inconsistent; therefore, a general analysis of the mapped information showing marina locations and relative sizes is more useful at this time than a comparison of actual numbers.

Northwest Region

The northwest region of the state has very few inland lake docks, primarily because with the exception of Grand Lake the region has no sizable inland lakes. Other than Lake Loramie, which is only 1/16th the size of Grand Lake, there is little inland lake boating opportunity. Considerably fewer docks are available for lease on Grand Lake than on other similar and much smaller lakes around the state. When it comes to identifying locations where greater numbers of leased docks are needed for the future, Grand Lake, a popular sailing lake, should be strongly considered. (see figure 7.9)

** Annual Sailing Business Review, 1991 – 2002



Northwest Ohio Docks

Legend

Number of Leased Docks (Inland Lakes & Rivers) **100**

Docks Located on a River **(R)**

Registered Boats (2001)	Horsepower Limits
522 - 1401	no motors
1402 - 2539	electric only
2540 - 4311	10 hp
4312 - 11086	25 hp
11087 - 27810	250-299 hp
	400 hp
	unlimited
	unlimited no wake
	rivers, streams & private

Figure 7.9

Northeast Region

The northeast section is home to the greatest regional concentration of registered boats in the state and is the destination of choice of 33% of survey respondents. With this level of boating, there is considerable demand for dock space. The region, in addition to having Lake Erie among its boating opportunities, appears to have the best supply of seasonal docks of all Ohio regions. All major lakes have a good supply of seasonal docks, usually in good balance with the size of the lake and the number of privately owned docks along the shoreline. (see figure 7.10)

Central Region

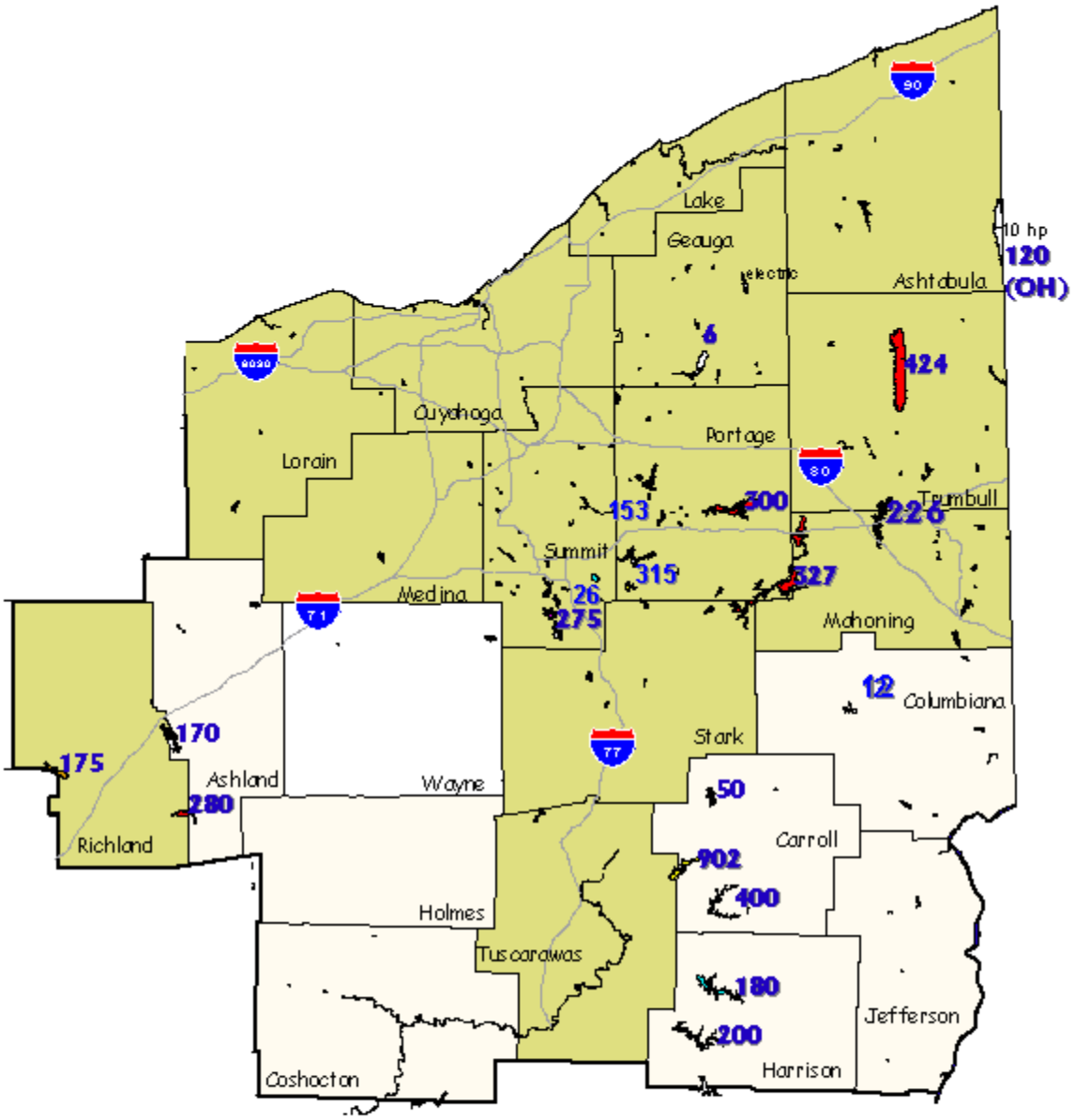
The central region also has a significant concentration of registered boats; in fact, Franklin County had more registered recreational vessels than any of Ohio's other 88 counties in 2002. Also, as previously mentioned, Delaware County ranked in the top 5 counties of first preference in the 1999 study *Recreational Boating in Ohio.* The two canal lakes on the edges of the region have a good supply of seasonal docks, and have many private docks along the largely privately owned shorelines. Boaters in the region would probably be happy to see additional docks on the lakes closest to Columbus, especially on the region's unlimited horsepower lakes. (see figure 7.11)

Southwest Region

As with the other urban areas of the state, there are large numbers of registered boaters in the Cincinnati and Dayton areas. This region was selected by 21% of survey respondents as their primary boating destination. The comparative need for dock space in this region, where boating opportunity is available only at inland lakes and rivers, is great. Although there are five lakes in this region with a fair supply of seasonal docks, the two largest lakes, which are open to all horsepower and are most conveniently located to Cincinnati and Dayton, have no seasonal dock facilities at all. Marina development at Caesar Creek and Wm. Harsha Reservoirs would be a great asset to boating in the region. (see figure 7.12)

Southeast Region

This region attracts 10% of survey respondents for boating. With over 1500 seasonal docks, the region is fairly well served in supply of seasonal docks on inland lakes. Additional docks at Dillon might help serve the needs of central Ohio boaters, however the rapid accumulation of silt in this lake may not warrant the investment. (see figure 7.13)



Northeast Ohio Docks

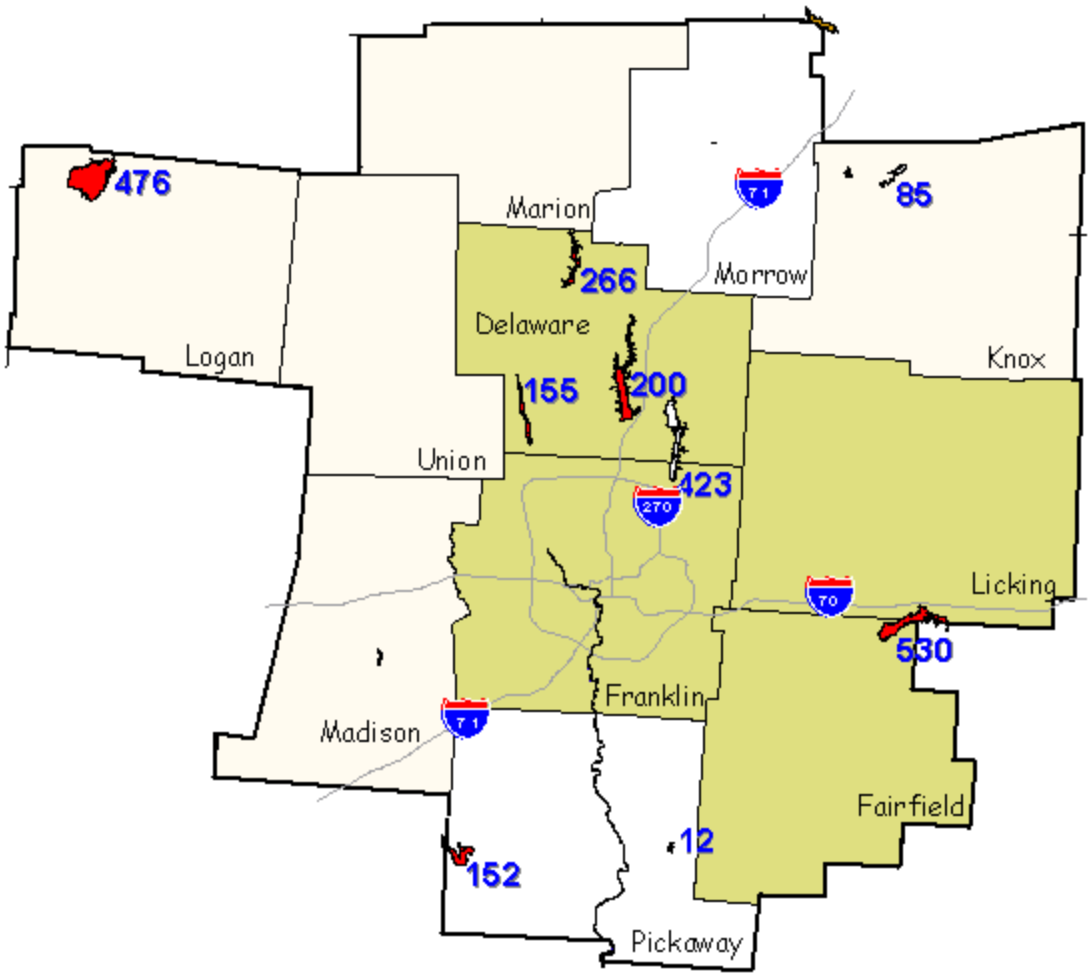
Legend

Number of Leased Docks (Inland Lakes & Rivers) **100**

Docks Located on a River **(R)**

Registered Boats (2001)	Horsepower Limits
522 - 1401	no motors
1402 - 2539	electric only
2540 - 4311	10 hp
4312 - 11086	25 hp
11087 - 27810	250-299 hp
	400 hp
	unlimited
	unlimited no wake
	rivers, streams & private

Figure 7.10

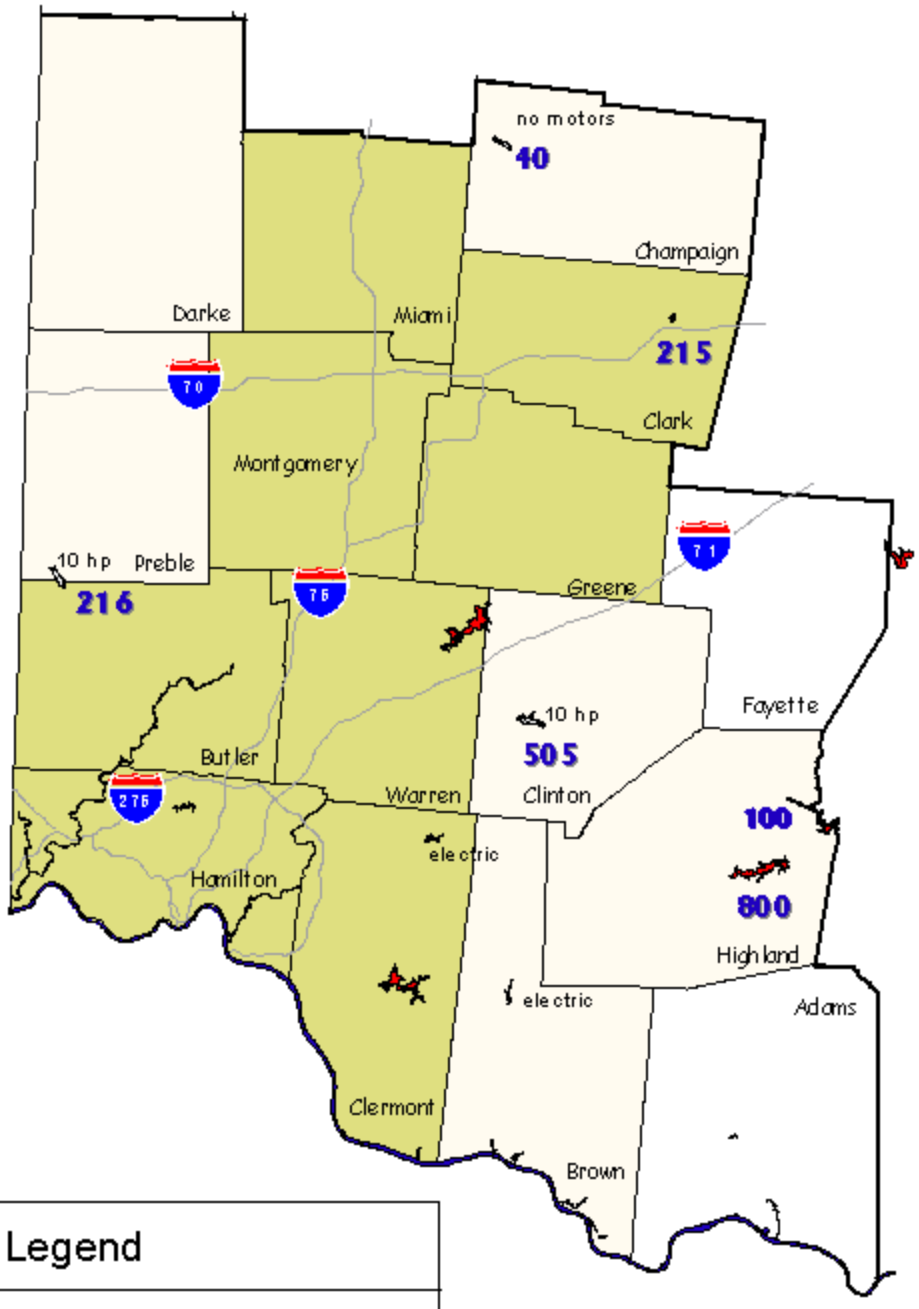


Central Ohio Docks

Legend	
Number of Leased Docks (Inland Lakes & Rivers)	100
Docks Located on a River	(R)

Registered Boats (2001)	Horsepower Limits
522 - 1401	no motors
1402 - 2539	electric only
2540 - 4311	10 hp
4312 - 11086	25 hp
11087 - 27810	250-299 hp
	400 hp
	unlimited
	unlimited no wake
	rivers, streams & private

Figure7.11



Legend

Number of Leased Docks (Inland Lakes & Rivers) **100**

Docks Located on a River **(R)**

Registered Boats (2001)

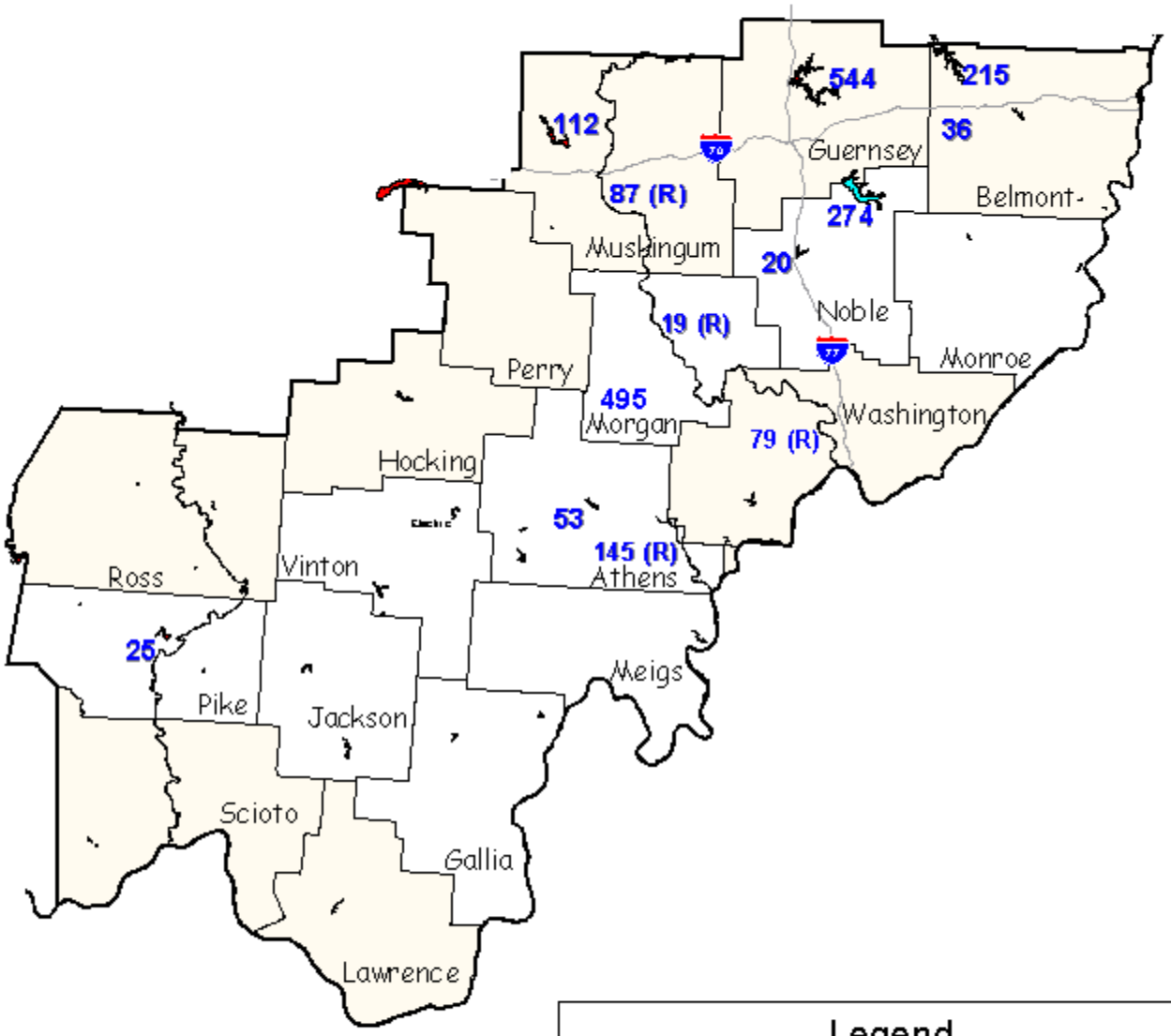
- 522 - 1401
- 1402 - 2539
- 2540 - 4311
- 4312 - 11086
- 11087 - 27810

Horsepower Limits

- no motors
- electric only
- 10 hp
- 25 hp
- 250-299 hp
- 400 hp
- unlimited
- unlimited no wake
- rivers, streams & private

Southwest Ohio Docks

Figure 7.12



Southeast Ohio Docks

Legend

Number of Leased Docks (Inland Lakes & Rivers) **100**

Docks Located on a River **(R)**

Registered Boats (2001)

- 522 - 1401
- 1402 - 2539
- 2540 - 4311
- 4312 - 11086
- 11087 - 27810

Horsepower Limits

- no motors
- electric only
- 10 hp
- 25 hp
- 250-299 hp
- 400 hp
- unlimited
- unlimited no wake
- rivers, streams & private

Figure 7.13

Dock Upkeep

Deterioration of recreational infrastructure is an issue nationwide. The latest 2003 edition of statewide comprehensive outdoor recreation plans (SCORPs) often list the needed rehabilitation of existing recreational facilities as an emerging priority*. Many public docks on inland lakes in Ohio are quite deteriorated. Docks are constantly exposed to the damaging effects of weather and wave action and need to be systematically maintained and periodically replaced. This is not only an esthetic issue; it is a public health, safety and welfare issue.

The first step in providing adequate dock space for the boating public should be a thorough review of the existing condition of inland lake docks, and priority given to the repair or replacement of those docks. Docks in areas of highest boating demand and all docks that are in a seriously dilapidated condition should be upgraded or replaced as soon as possible.

Secondly, a new approach to the development of new dock facilities is needed. The Division of Watercraft provides funding for many boating access projects, including dock projects. Successful applicants are required to reinvest in projects, a policy developed to assure money will be there when future costly maintenance is needed. In addition to this policy, grant applicants should be required to submit a long-term facility maintenance plan, including projected costs, so that there is greater awareness of and planning for future maintenance requirements.

Summary: Access to Inland Lakes via Marinas:

- Additional seasonal docks are needed in the northeast region. (Grand Lake is the obvious choice.)

- Additional seasonal docks are needed at unlimited horsepower lakes in the central region.

- Marina facilities are needed in the southwest region, at lakes that are convenient to Cincinnati and Dayton. (Harsha and Caesar Creek reservoirs are the best locations for new marinas.)

- Repair or replacement of poor quality existing docks should be a priority, especially in areas of high demand. New approaches are needed to insure that docks at public facilities do not become dilapidated, putting the public at risk. Standards and a schedule for marina maintenance should be followed at all public marinas. So that public boating safety is not compromised during slow economic times, planning for the ebb and flow of public monies

*Joel Lynch, PhD, National Park Service

thorough a dedicated marina maintenance account should be standard operating procedure at public marinas.

Marinas on Inland Lakes: Design Preferences

Boaters were asked to rate the relative importance of marina features. The following information has been sorted to reveal the preference of only those boaters who boat primarily on inland lakes.

Marinas on Inland Lakes

	Not at all important	Somewh at important	Important	Very Important	Essential	Average Results
Security for boats	1	2	3	4	5	**4.05**
Restrooms	1	2	3	4	5	**3.98**
Convenient trash receptacles	1	2	3	4	5	**3.72**
Protection from wave/wake surge	1	2	3	4	5	**3.66**
Adequately sized docks	1	2	3	4	5	**3.62**
Parking close to docks	1	2	3	4	5	**3.38**
Affordability of dock lease	1	2	3	4	5	**3.26**
Suitable draft for your vessel	1	2	3	4	5	**3.20**
Bulletin board with updated information about waterway	1	2	3	4	5	**3.18**
Marine fuel	1	2	3	4	5	**3.15**
High quality maintenance of marina facility	1	2	3	4	5	**3.09**
Pumpout and/or dump station	1	2	3	4	5	**2.90**
Nice area for social events	1	2	3	4	5	**2.66**
Dockside water	1	2	3	4	5	**2.61**
Dockside electric	1	2	3	4	5	**2.28**
Boat boxes	1	2	3	4	5	**2.20**
Shower facilities	1	2	3	4	5	**2.05**

This information should be incorporated into the design of any new marina and into upgrades of existing marinas, and can also be used to make immediate low-cost improvements to existing marinas. For example, *convenient trash receptacles* ranks third on the inland boaters list of desirable features, as compared to seventh on the same list generated by Lake Erie boaters. Providing convenient trash receptacles is a small improvement that can easily be made at many marinas without delay.

Security for boats is the number one issue for all Ohio marina customers. At the most rudimentary level, a marina is a parking lot for boats. Boats, by nature, are open vessels with very little inherent ability to deter unwanted trespass. Compare a typical boat in a marina to a car in a parking lot - most cars parked in a lot are locked, many with alarm systems. By comparison, boats in a marina are extremely vulnerable to trespass and theft of on-board equipment. While security should be integral to the design of all new marinas, security can also be improved at existing marinas through the use of security patrols, security camera systems, strategically placed gates, and even signage.

Summary: Marinas on Inland Lakes, Customer Friendly Design:

All the following recommendations address issues inland lake boaters have identified as being important to very important in a customer friendly inland lake marina.

4.05 – Very Important

- Security – This should be considered essential to all marina design and operation. Marinas must work as partners with marine manufacturers to provide boat security.
- Clean, modern restrooms should be available at all inland marinas.
- Trash receptacles, conveniently located, and *emptied frequently* should be available at all inland marinas.
- Marinas must offer protection from waves and surge. Consider wake and surge issues during site selection for new marinas, and add break walls and wave attenuators where appropriate at new and existing marinas. Orient docks so that boats are moored parallel to currents and prevailing winds whenever possible.
- Design all new docks and replace old docks with docks that are sized for today's vessels. The *average* boat length of 2002 BOW Plan survey respondents who are inland lake boaters and who rent a seasonal dock is 20½ ft.
- Locate marina parking areas as close to docks as possible.
- Affordability of dock leases is important to boaters, but so is value received. (17% of those who don't rent but would like to, cite the cost benefit ratio.) Marinas can keep costs down over the long run by performing high quality scheduled maintenance on dock facilities. Low cost measures like frequent fresh paint and repeated cleaning of the facility are examples of ways to keep the costs of dock leases down, but improve the value received.
- Adequate water depth is essential for many boaters; dredging is often necessary to maintain adequate depths in marinas. It is expensive; and is expected to be more so in the future due to environmental concerns.

3.09 - Important

Responsibility for private marina dredging usually lies with the marina owner and must be planned for in advance. Scarce public dredging dollars must be spent in a responsible manner, where the benefit to boating is greatest.

Ohio Soil and Water Conservation Districts are developing watershed conservation plans. Boaters will be directly affected by the effectiveness of these plans. The boating community should be involved in SWCD efforts, especially in canal lake watersheds where dredging needs are great. Such partnerships would be beneficial to both boaters and Soil and Water Conservation Districts.

- Post boating "rules of the road", water quality information, and current lake zoning maps on a bulletin board or other conspicuous location in an attractive and inviting format.

- Evaluate need for marine fuel at each waterway and provide fuel as needed.

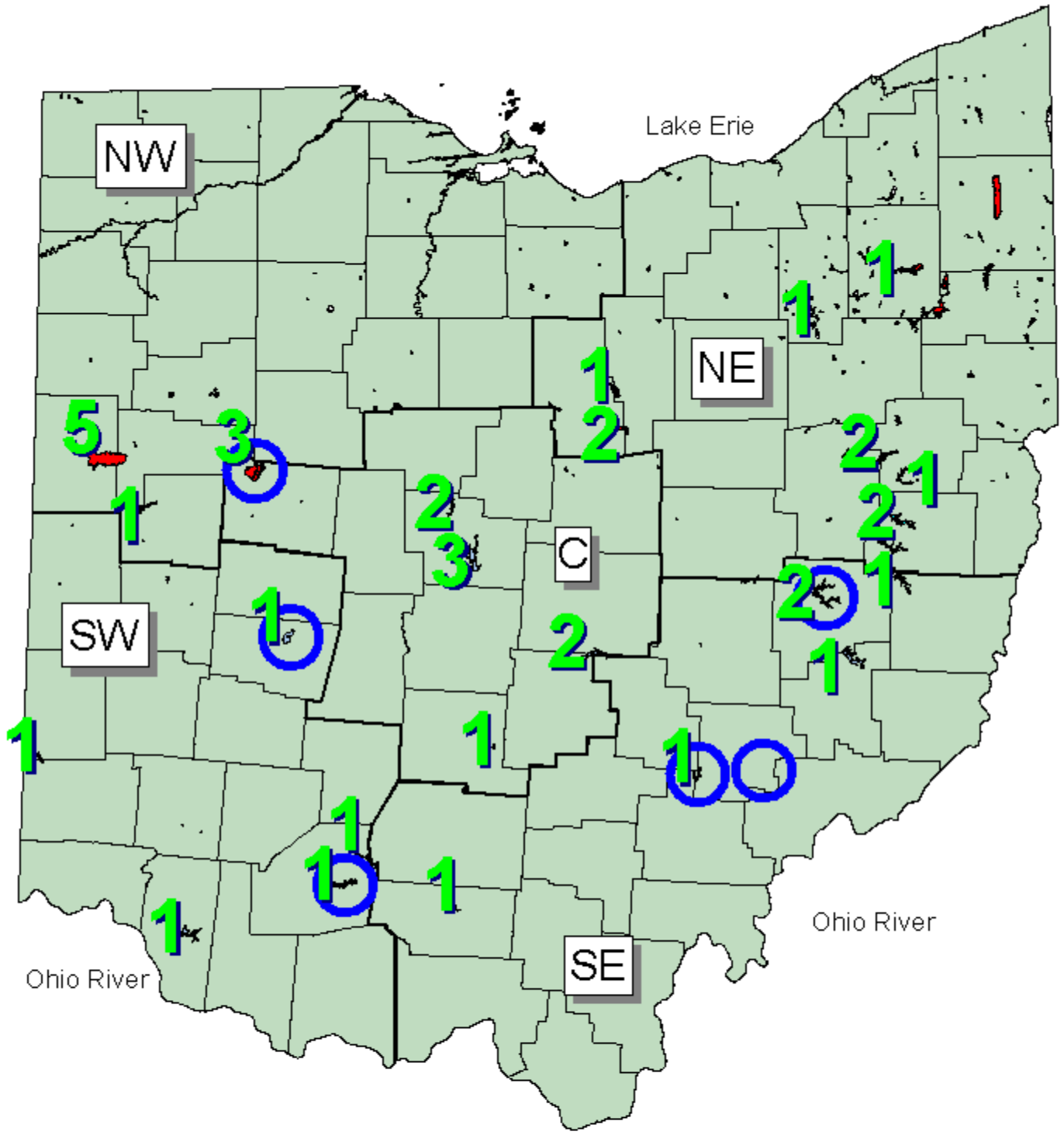
- Maintain the facility! Freshen paint, clean bathrooms, sidewalks, public spaces, etc. Plant flowers, freshen mulch. Keep docks in good repair. Empty trash receptacles often. Smile!

Boating Activities on Inland Lakes

Boaters participate in a variety of activities while boating. Inland lake boating focus group participants described recreational pursuits ranging from swimming, fishing, picnicking (both on and off the boat), water skiing, tubing, to overnight camping, in addition to just cruising around in the boat. The consensus seemed to be that non-boaters incorrectly assume that the boater only wants to stay on the boat during an outing.

Focus group participants also told of difficulties inland boaters experience in attempting to participate in some of these activities. The boater often launches the boat then has few opportunities to get off the boat until it is time to leave the water and go home. This is frustrating to those who would like to cool off with a short swim, take a break at the beach, or meet friends and family at the picnic area. Also, opportunities to spend a peaceful night on the boat are few for boaters who don't own or lease a dock on an inland lake.

The map in figure 7.14 shows locations of boat swimming and boat camping areas on Ohio's inland lakes. Boat swimming areas are currently available to boaters on 23 lakes or about half of Ohio's larger inland lakes. Five lakes, or about one in ten of the larger inland lakes, have designated boat camping areas.



Ohio's Inland Boat Camping & Boat Swimming

Legend	
○	boat camping location
1	boat swimming areas (number of areas at lake)

Figure 7.14

Boat Camping

The survey results indicated that 13.4% of Ohio boaters stayed overnight on a boat in 2002. Twenty percent of these overnighters reported that they were *not* on Lake Erie or the Ohio River. While 20% of 13.4% is not a large percentage of boaters, it does imply that somewhere in the neighborhood of 9,000 boaters are spending one or more nights on a boat on an inland body of water.

416,270 (Registered Boats 2002) x 84.9% (boated in Ohio 2002)	=	353,413 boats
353,413 boats x 13.4% went on overnight trips	=	47,357 overnighters
47,357 overnighters x 20% on inland water	=	9,471 inland water overnighters

Thirty percent of these inland water overnighters stayed in a designated boat camping area, while 43.4% were either tied up along the shoreline or were anchored in open water. The remaining 26.7% reported being at a dock.

Location of Overnight Stays by Inland Boaters

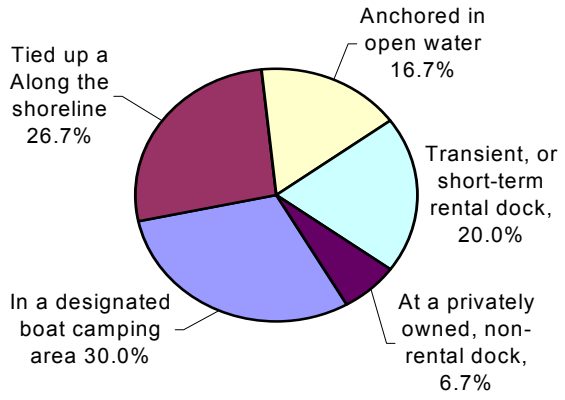


Figure 7.14

Multiplying the approximate 9,471 inland overnighters by 30% (the percent that report using boat camping areas) yields a figure of around 2700 boats. Ohio's five boat camping areas on inland lakes (Salt Fork, Burr Oak, Rocky Fork, and C.J. Brown, and Indian Lake) and one on an inland river (Muskingum) must serve the overnight needs of these 2,700 boats. The 43.4% who were either tied up along the shoreline or were anchored in open water suggests a figure of at least another 4000 boats moored for the night outside of a boat camping area.

On navigable waterways such as the Ohio and Muskingum Rivers, boaters may tie up along the shoreline for the night as long as they do not impede river traffic or trespass on shore side property. However, boaters who sleep on board in an Ohio State Park or conservancy district lake must stay in a designated boat camping area. Sleeping on a boat in a non-designated area is a 4th degree misdemeanor in Ohio.

There are a significant number of inland boaters who enjoy spending the night on their boat. Yet there are few opportunities to legally participate in this activity on inland lakes in Ohio. Additional areas designated for boat camping are needed on inland lakes, especially in the northeast and northwest regions, which are presently completely without boat camping opportunities. Providing boat camping areas for boaters requires very little expenditure and a few additional lake patrol hours. In general, boaters with watercraft suitable for camping recreate on medium to unlimited horsepower lakes. Also, lakes that are farther away from major urban areas, thus requiring a longer drive time by many boaters who might welcome the opportunity to boat camp, are good candidates for one or more boat camping areas. Boat camping areas are best located out of the way of boating traffic areas on the lake, in coves where possible, and in areas that can be easily patrolled at night.

Boat Swimming, Day Docks, Shore Side Supplies

In survey question 24 boaters were asked to evaluate relative importance of various features on inland lakes that were identified as being important in focus groups. Unfortunately, despite considerable proof reading, the format of question 24 was flawed. Although conclusions can be drawn about inland boat camping areas from other questions, conclusive evidence on boater opinion of the relative importance of boat swimming areas, day docks, boat rentals, shore side supplies, etc. on inland lakes is inconclusive. However, a regional analysis of boating use and existing boat swimming opportunities suggests that the southwest region of the state has the greatest need for additional boat swimming areas, followed by the northeast and central regions respectively.

Region	Number of Boat Swimming Areas	Survey Respondents: Percent of Inland Lake Boaters	Ratio: Boat Swimming Areas to Boaters
NW	9	11%	1 : 2331
NE	10	36%	1 : 6807
C	8	22%	1 : 5200
SW	5	21%	1 : 7941
SE	6	10%	1 : 1891

416,270 (Registered Boats 2002) x 84.9% (boated in Ohio 2002) =	353,413 boats
353,413 boats x 53.5% boat on inland lakes	= 189,076 lake boaters
189,076 inland lake boaters x 11%	= 20,798 inland lake boaters
189,076 inland lake boaters x 36%	= 68,067 inland lake boaters
189,076 inland lake boaters x 22%	= 41,597 inland lake boaters
189,076 inland lake boaters x 21%	= 39,706 inland lake boaters
189,076 inland lake boaters x 10%	= 18,908 inland lake boaters

As the need for more amenities at inland lakes was clearly expressed during focus groups, it is very worthwhile for lake managers to seek opportunities to zone for new boat swimming areas, construct day docks at strategic tie up locations like picnic areas, beaches, and historic sites, and to provide more shore side supplies.

Additional information on the relative importance of these amenities in the eyes of boaters and will be sought through future surveys.

Chapter 8 Boating on Rivers and Streams

River and stream boaters enjoy a variety of pastimes, from house boating on the Ohio River to canoeing and kayaking on small inland streams. Over 15% of survey respondents identified themselves as river/stream or Ohio River boaters (Ohio River: 5.8%, other river or stream: 9.6%).

Focus Group Issues

Boating participants in focus groups held to discuss boating on Ohio's rivers and stream generated the following commentary:

Pertaining to the Ohio River:

- The Ohio River has many needs including:
    - Better access via launch ramps.
    - Need for more tie-ups and transient facilities.
    - Need for coordination between recreation boating traffic and commercial traffic.
    - Better coordination of multi-state river jurisdiction.

Pertaining to paddling on rivers and streams:

- Water trails for small vessels (usually paddled) are desired on Ohio rivers and streams (and on Lake Erie).
    - Typical trail activities include: paddling, fishing, bird watching, hiking, and camping.
    - Water trail campsite facilities should include restrooms, potable water, phone, parking, and availability of supplies nearby.
- Low head dams are a danger to boaters and cause long portages for paddlers.
- More river and stream access is needed, particularly in urban areas, along pristine rivers and streams, and in whitewater areas.
    - Desirable distance between access points varies, but sites should generally be about 10 – 12 miles apart (around 3 miles apart in urban areas and 4 miles apart in good fishing areas).

- Access sites need the following:
    i. A path that provides easy access to waterway.
    ii. Parking (gravel is ok).
    iii. Restrooms at more developed sites.
    iv. Privacy enclosure.
    v. Trash receptacles.
- Whitewater release enthusiasts experience too many barriers to the enjoyment of their sport. Release schedules should be better preplanned. Parking for many cars is needed at whitewater releases.

Other

- Rivers need clear, marked channels.

BOW Plan Survey Results

In the survey boaters were asked to identify the waterway used most often. Using this information, many questions could be sorted to focus on responses just from boaters who primarily use the Ohio River or rivers and streams. Highlights of survey results sorted for this user group are:

- Satisfaction with availability of launch ramp access to the Ohio River in the southwest section of the state received the lowest score of *all* launch ramp regional and waterway specific categories (where there were more that 20 respondents).

- Boaters reported an average satisfaction rating of 2.96, neither satisfied nor unsatisfied, with the number of overnight tie up facilities on the Ohio River. This was a slightly higher satisfaction score than “other waterway” and somewhat lower than the Lake Erie score.

- Over sixteen percent of all Ohio boaters hand carried their boat to an access site without a launch ramp during 2002.

- Paddlers’ satisfaction with access via put-in access points is slightly below that of Ohio boaters’ satisfaction with access to waterways via launch ramps.

- Over sixteen percent of Ohio boaters have participated in an overnight trip in a small boat where they camped on shore. Another nineteen percent have never done so but would like to, in Ohio.

- Paddlers more commonly encounter negative experiences involving trespassing issues. (Percent of all boaters having such an experience: 6.9%; same figure for canoeists/kayakers: 16.3%)

- Those who use put-in/carry-in access points list the most important features of these facilities as (in order):
    - a clear access path.
    - trash receptacles.
    - designated parkin
    - cleanliness.
    - Restrooms.

Launch Ramps on Rivers

The survey results were queried for satisfaction levels with existing launch access on Ohio's rivers and streams, including the Ohio River. Some categories of responses are less statistically reliable than others due to inadequate sample size. Only results of categories with more than 20 respondents are shown below. Higher numbers in the "Satisfaction Rating" column indicate higher levels of satisfaction.

Section of State	River/Stream or Ohio River	Satisfaction Rating	Respondents
northwest	river/stream	**3.74**	39
southwest	Ohio River	**3.22**	27
southeast	Ohio River	**3.60**	23

For purposes of comparison, the satisfaction rating with launch ramp availability for all waterways in Ohio is **3.72**. Ohio boaters are just slightly less than satisfied with availability of launch ramp access to all waterways.

Completely Dissatisfied	Dissatisfied	Neither	Satisfied	Completely Satisfied
1	2	3	**3.72** 4	5

Compared to results of all other categories, by state section and waterway, the 3.22 satisfaction score for access to the Ohio River in the southwest section of the state is found to be the lowest satisfaction score of *all* categories (with 20 or more respondents).

Ohio River

Many Ohio River boaters report that they stay within one pool while boating, due to the time consuming and sometimes intimidating process of locking through to another pool. Therefore, we will look at the river not only by region but also by pool.

Southwest Region

There are four counties in the southwest region of the state, including Hamilton County, location of Cincinnati. In this stretch of the Ohio River there are two pools, Markland and Meldahl. Boaters have access to the Markland Pool at 17 lanes located within four launch facilities, all located within Hamilton County. The Meldahl Pool is accessible via 15 lanes at 5 facilities.

Hamilton County ranks fourth in the state in registered boats (18,857). The surrounding counties of Butler, Warren, and Clermont add nearly another 25,000 boats to the Cincinnati metropolitan area. Although these boat owners probably enjoy boating at a variety of waterways, the Ohio River is an excellent, close to home recreational boating opportunity. The 17 launch lanes at four Hamilton County facilities provide much needed access to the river, especially on the west side of Cincinnati. Because of the urban location and associated high need for these ramps, they should be maintained at a very high standard and expanded wherever possible.

As seen on the map on page 94, there is no public launch access into the Markland Pool east of Cincinnati. Yet this is an area with large numbers of registered boats. Boat registration numbers in Clermont County have grown by 10% over the last five years. With assistance from the ODNR Divisions of Watercraft and Wildlife, a new two lane ramp will be completed in Clermont County within the next few years by the Village of Neville. This facility will provide needed access, but more launch ramps into the Markland Pool on the east side of Cincinnati will still be needed.

Launch access to the Ohio River in Brown County to the east is amply provided, even though there are comparatively low numbers of registered boaters in Brown County. These Brown County ramps are within a reasonable drive for Hamilton and Clermont County boaters, but more convenient access to the “hometown pool”, the Markland Pool, is also needed. Based on the survey’s lower satisfaction rating and current lack of facilities, the section of the Ohio River from Cincinnati east to the Meldahl Dam, should be considered a very high priority area for development of new launch ramp facilities.

The chart below is derived from 1999 field evaluations of launch ramps by Division of Watercraft field staff. Although conditions may have changed since 1999, and not all ramps were assigned condition ratings, the averaged results by county are a general indicator of the need for improvements to existing publicly owned facilities in the region by county.

Average condition ratings for launch ramps into Ohio River by county in the Southwest region:

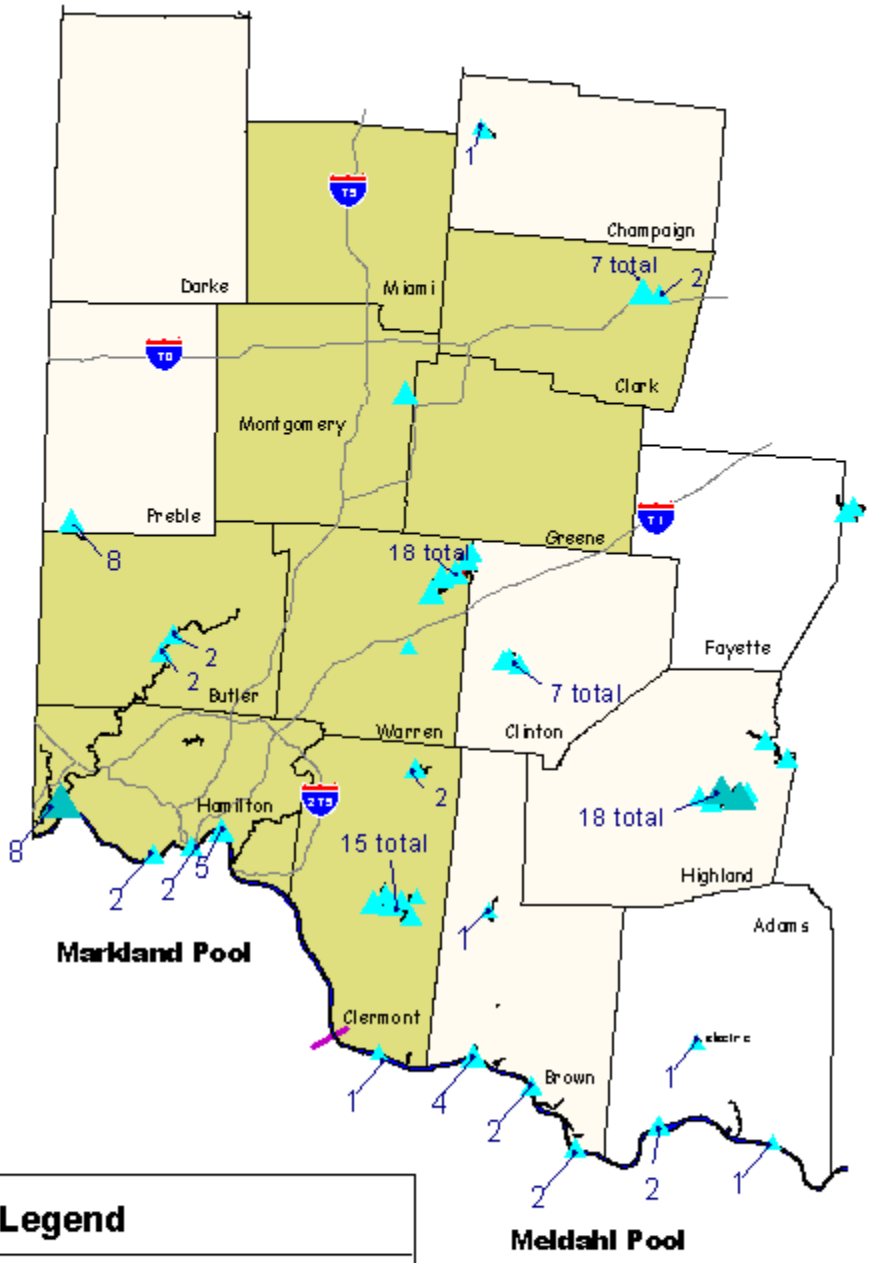
County	Region	Launch Ramps: Avg. Condition Rating (1 = very poor, 5 = excellent)
Hamilton	**SW**	**3**
Clermont	**SW**	**2.67**
Brown	**SW**	**4.67**
Adams	**SW**	**2.75**

This information, combined with mapping information, suggests that Brown County is in good shape launch ramp-wise, as compared with the other counties in the region. Adams County ramps are in comparatively poor condition. However, there are two grant projects (Cooperative Boating Facility Grant) in progress in Adams County, which will greatly improve conditions at these Ohio River facilities.

Because Hamilton County is a major population center, it is imperative that local boating facilities be well designed and in excellent repair so that larger traffic volumes can move efficiently onto to the water, especially during peak hours. The majority of publicly owned facilities evaluated in Hamilton earned just an average rating. Improving conditions at existing facilities, when advisable (facilities must be adequate in size and location) should be a priority for boating access on the Ohio River. Additional launch facilities are recommended, especially on the east side of Cincinnati where the metropolitan area merges into Clermont County and in the Markland Pool.

Southeast Region

The Ohio River flows by eight counties in the southeast region of the state where it is dammed into seven pools. These are, from west to east, Meldahl, Greenup, Gallipolis, Racine, Belleville, Willow Island, and Hannibal. The map of this area, (see figure 8.2) shows a fairly equitable distribution of launch ramps along the river. Gaps do exist though, most notably in the Belmont County portion of the Hannibal Pool. With nearly 3000 registered boats, Belmont has a real need for additional good quality access to the River. Local municipalities recognized this need and applied for and were awarded a Cooperative Boating Facility Grant, which will add much needed access to the Hannibal Pool.



Legend

Paved Launch Ramp

Number of Paved Launch Lanes — 2

Gravel Launch Ramp

- 1-2 lanes
- 3-4 lanes
- 5-6 lanes

USACE Dams

Registered Boats (2001)

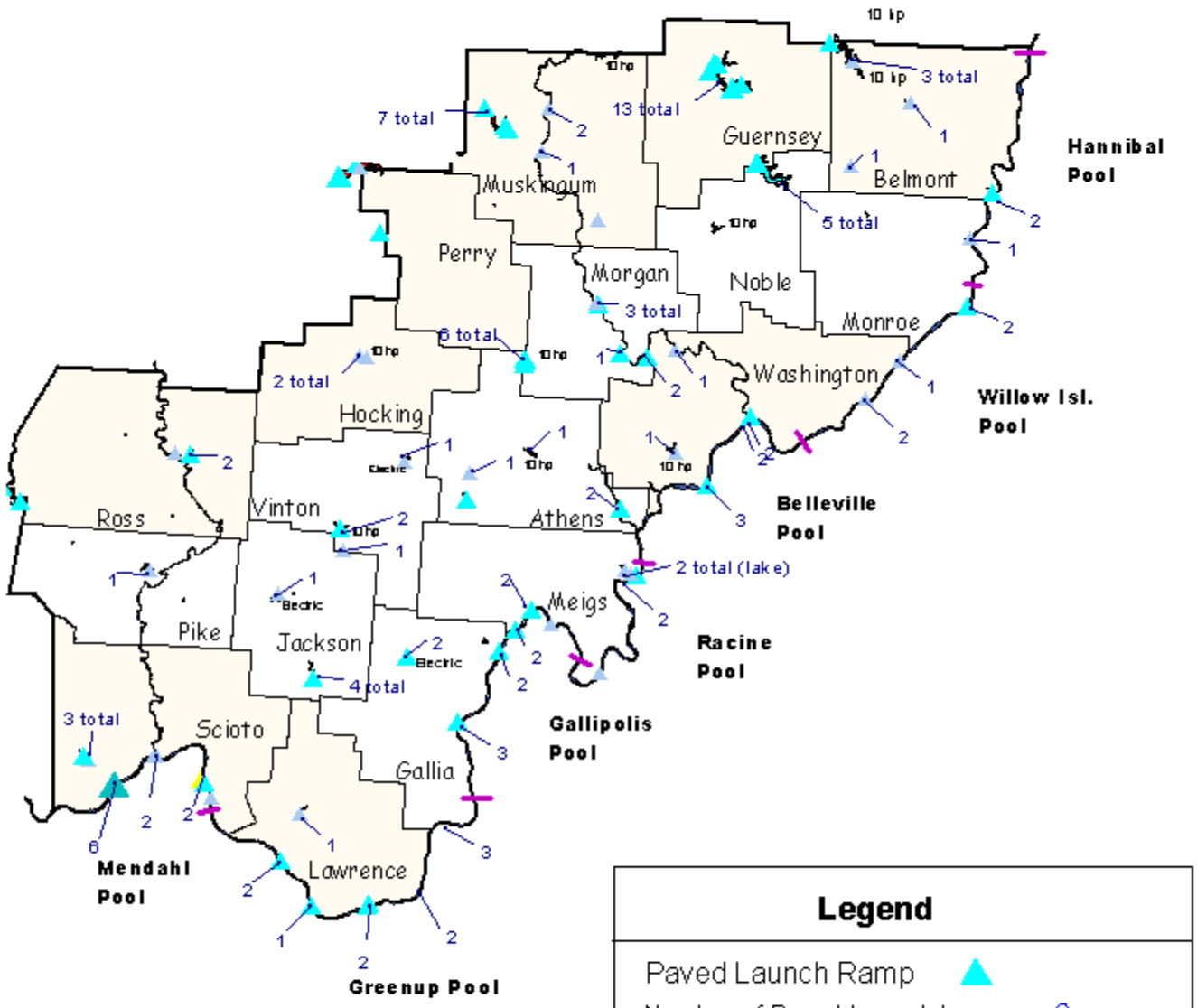
- 522 - 1401
- 1402 - 2539
- 2540 - 4311
- 4312 - 11086
- 11087 - 27810

Horsepower Limits

- no motors
- electric only
- 10 hp
- 25 hp
- 250-299 hp
- 400 hp
- unlimited
- unlimited no wake
- rivers, streams & private

Western Ohio River Launch Ramps

Figure 8.1



Eastern Ohio River Launch Ramps

Legend

Paved Launch Ramp

Number of Paved Launch Lanes — 2

Gravel Launch Ramp

- 1-2 lanes
- 3-4 lanes
- 5-6 lanes

USACE Dams

Registered Boats (2001)

- 522 - 1401
- 1402 - 2539
- 2540 - 4311
- 4312 - 11086
- 11087 - 27810

Horsepower Limits

- no motors
- electric only
- 10 hp
- 25 hp
- 250-299 hp
- 400 hp
- unlimited
- unlimited no wake
- rivers, streams & private

Figure 8.2

Averaged condition of publicly owned launch ramps into the Ohio River by county in the Southeast region:

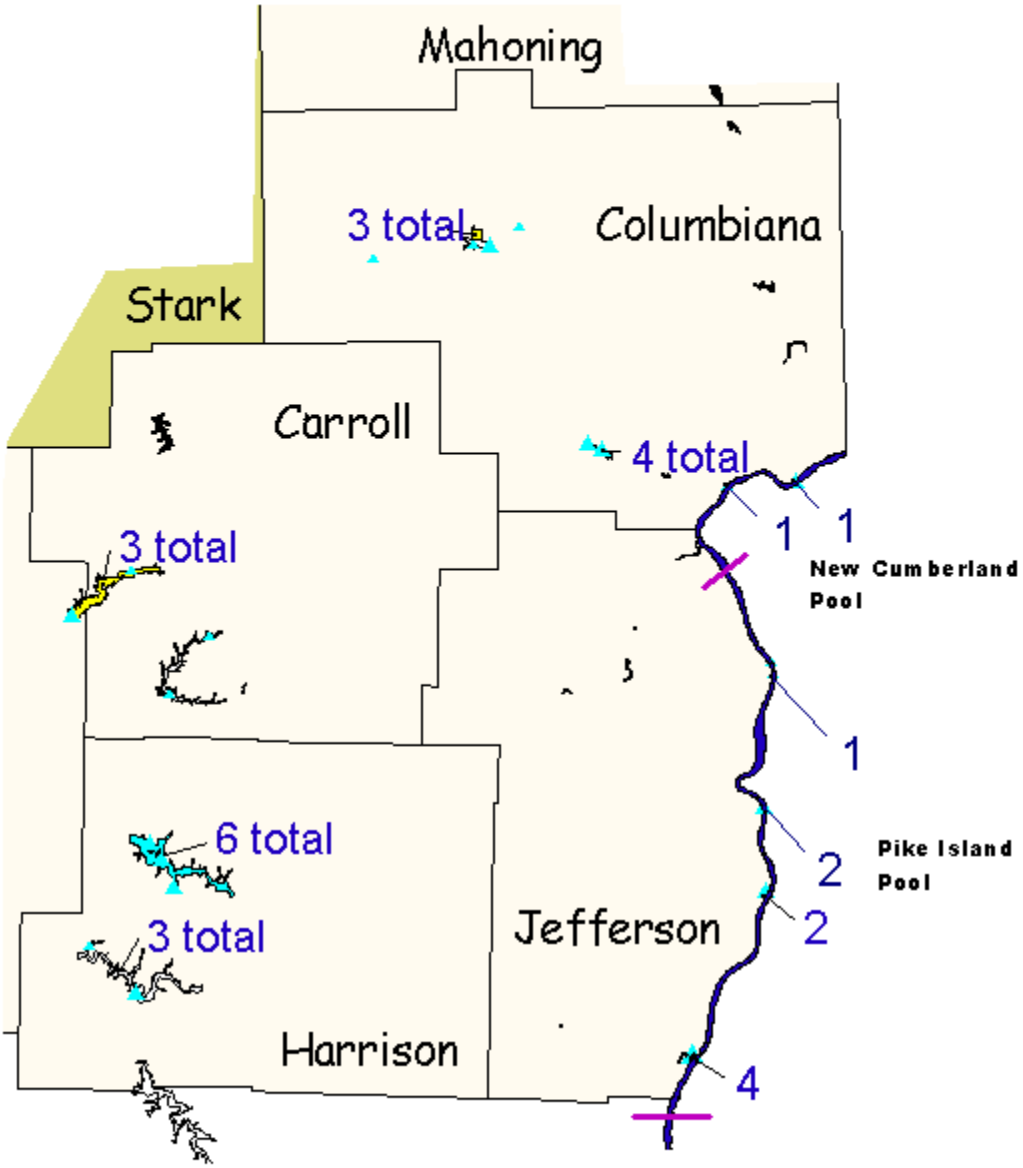
County	Region	Launch Ramps: Avg. Condition Rating (1 = very poor, 5 = excellent)
Scioto	**SE**	**3**
Lawrence	**SE**	**3**
Gallia	**SE**	**3.5**
Meigs	**SE**	**3**
Washington	**SE**	**3.2**
Monroe	**SE**	**4.5**
Belmont	**SE**	**4**

Based on the distribution and overall condition ratings of existing public facilities, and the average satisfaction rating assigned to availability of launch ramp access by Ohio River boaters in the southeast region (2.39), it is recommended that a focus be placed on upgrading existing facilities, when advisable (facilities must be adequate in size and location) in Scioto, Lawrence, and Washington Counties. Meigs County, with fewer registered boats, is a secondary priority.

Averaged condition of publicly owned launch ramps into the Ohio River by county in the Northeast region:

County	Region	Launch Ramps: Avg. Condition Rating (1 = very poor, 5 = excellent)
Jefferson	**NE**	**4.5**
Columbiana	**NE**	**2**

Launch ramp access to the Ohio River in the northeast region is very satisfactory in Jefferson County, however is in need of improvement in Columbiana County, where East Liverpool is located. Priority should be given to improving Ohio River launch access in this county. (see figure 8.3)



Legend

Paved Launch Ramp

Number of Paved Launch Lanes — 2

Gravel Launch Ramp

1-2 lanes
3-4 lanes
5-6 lanes

USACE Dams

Registered Boats (2001)

522 - 1401
1402 - 2539
2540 - 4311
4312 - 11086
11087 - 27810

Horsepower Limits

no motors
electric only
10 hp
25 hp
250-299 hp
400 hp
unlimited
unlimited no wake
rivers, streams & private

Northeast Ohio River Launch Ramps

Figure 8.3

Summary

Ideally, the goal of improving launch ramp access to the Ohio River should be a sufficient improvement in conditions such that survey respondents rate satisfaction with availability of access to the Ohio River at least as well as the average Ohio respondent. At this time (2003) that statewide rating is 3.72. Additionally, a field survey of conditions at publicly owned launch ramp should result in an average condition rating of 4 (good). Ohio River counties that are currently approaching this standard are: Monroe, Belmont, Jefferson, and to a lesser extent, Brown. All other Ohio River counties are in need of launch ramp access improvement. First priority should be given to additional launch access in Clermont County. Columbiana County and Hamilton Counties are also very high priority areas for new access and improvements to existing access.

Transient Boating on the Ohio River

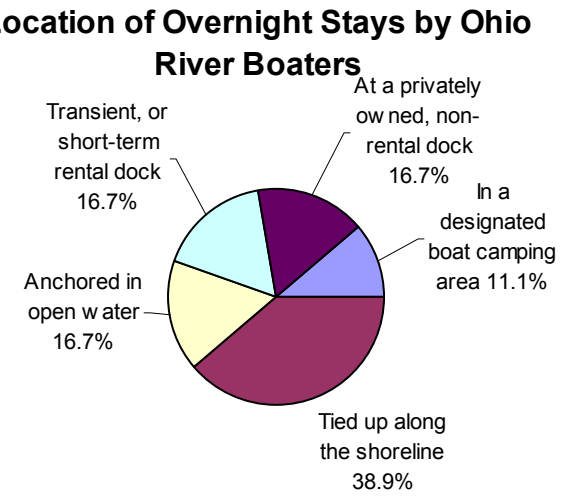
All boaters* were asked about their satisfaction with the number of overnight tie up facilities on Lake Erie, the Ohio River and "other waterway" (respondent could fill in a name). Boaters reported an average satisfaction rating of 2.96, neither satisfied or unsatisfied, with the number of overnight tie up facilities on the Ohio River.

	Completely Dissatisfied	Dissatisfied	Neither	Satisfied	Completely Satisfied	Respondents	Average Results
Ohio River	1	2	3	4	5	**160**	**2.96**

This was a slightly higher satisfaction score than "other waterway" and a somewhat lower satisfaction score than the Lake Erie score (3.29).

The sample size of respondents who reported traveling and staying overnight on their boats primarily on the Ohio River was small (N=18). This group was comprised of approximately 12% of all Ohio boaters who take such overnight trips. The most common overnight location for these boaters is tied up along the shoreline in an area that is neither a marina nor a designated boat camping area. Smaller numbers of these Ohio River boaters indicated that they either anchor in open water, stay at a transient dock, or stay at a privately owned dock.

* Even though many boaters do not currently participate in transient boating, they may have a desire to do so, and may be familiar with facility availability.



This group of survey respondents travels either solo or in groups of no more than five boats. The following five features (in order) are most important to Ohio River transient boaters when choosing a destination for an overnight stay:

- suitable draft for vessel.
- back to nature atmosphere.
- nearby restaurants.
- a short-term rental dock.
- land-based transport.

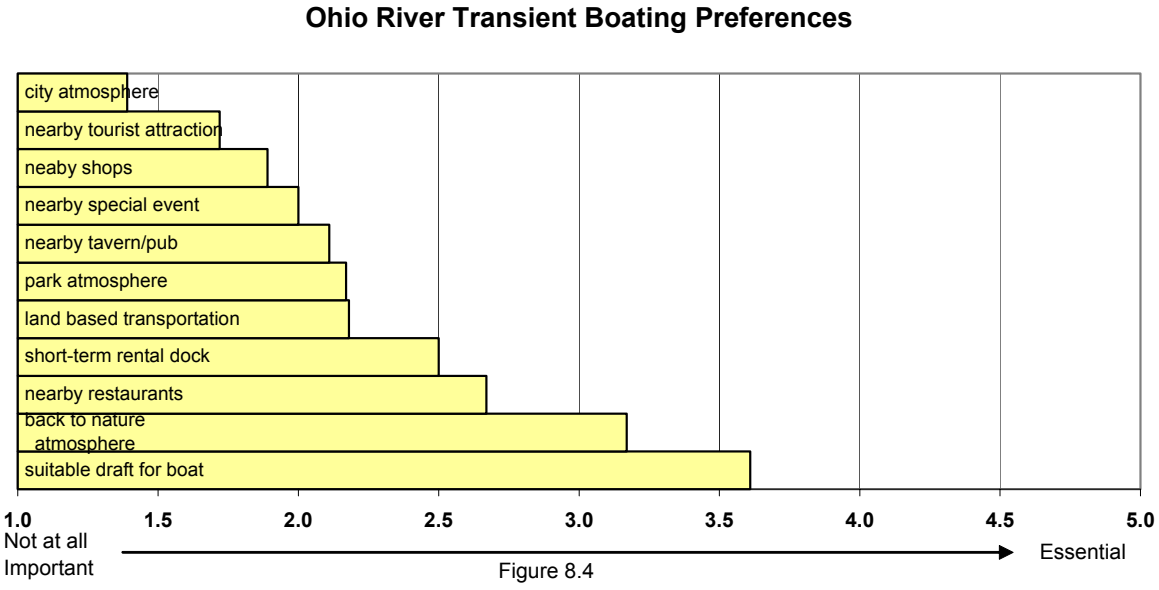


Figure 8.4

Recommendations

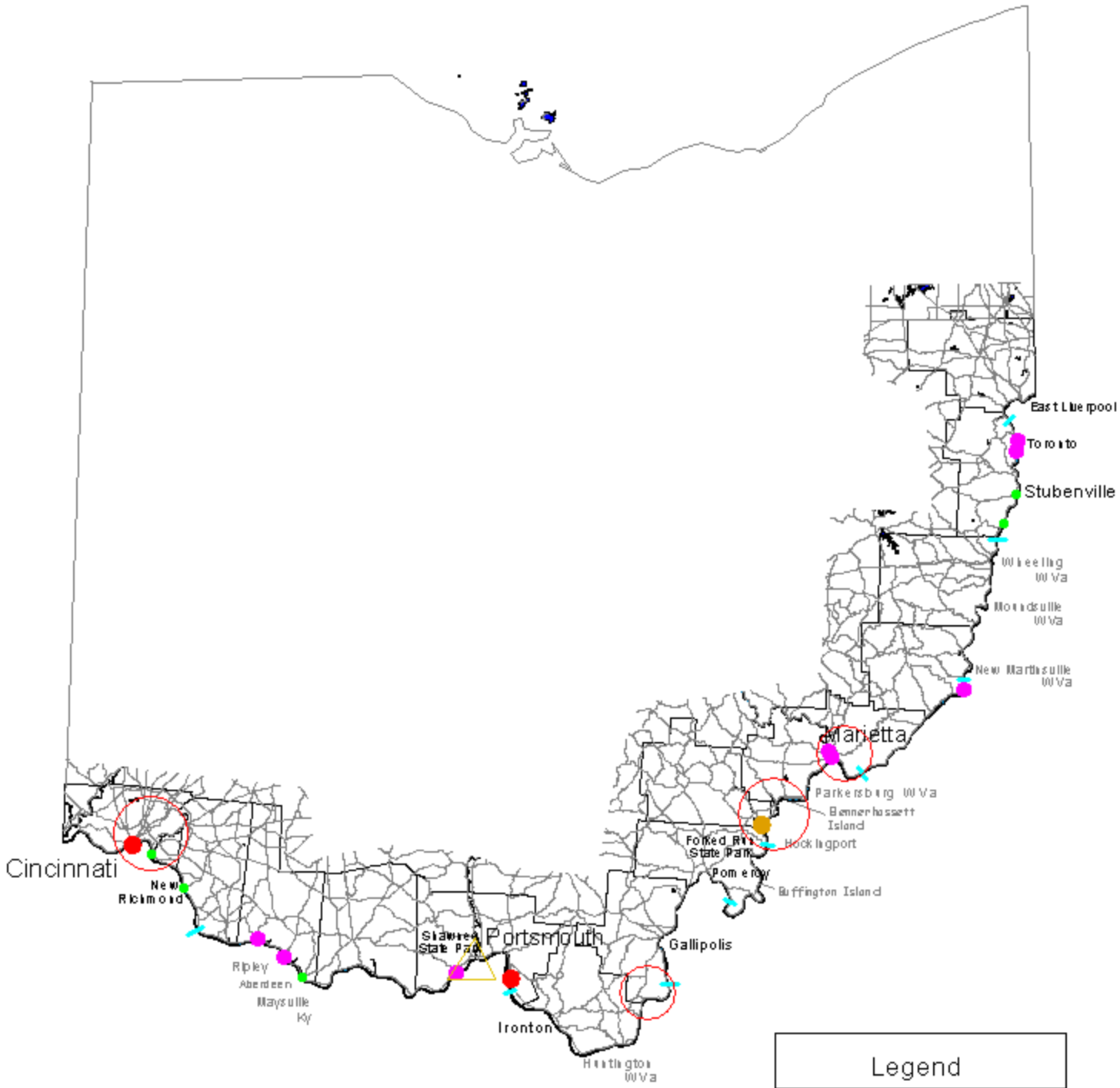
The current distribution of transient docks along the Ohio side of the Ohio River is shown page 101. The greatest numbers of these docks are located in the Cincinnati and Portsmouth areas. Based on survey results, there is a need for additional transient tie-ups on the river, especially in light of the commercial traffic using the river and the tendency of river boaters to tie up along shore for the night. A number of strategically located small tie-up facilities would best suit the needs of Ohio River boaters, who travel solo or in small groups.

Transient facilities adjacent to Shawnee State Park and Forest, Wayne National Forest, Forked Run State Park, and Shade River State Forest are recommended based on survey results that reveal a preference for a back to nature atmosphere and a park atmosphere.

Additional transient facilities are also recommended at Cincinnati and Marietta. Cincinnati has much to offer the transient boater, including the Riverfront Park, the new Great American Ball Park and Paul Brown Stadium, the Banks, a 24-hour urban neighborhood with restaurants and clubs, the Rosenthal Center for Contemporary Art, and numerous floating riverboat restaurants just across the Ohio River, in Kentucky. Riverboats and the L&N Pedestrian Bridge connect the Ohio and Kentucky shorelines.

The Ohio River serves as a corridor rich in history. Tourism studies show that visiting historic sites is an increasingly popular travel activity. Tie-up locations adjacent to historic sites would likely prove to be popular boating destinations. Additional transient development is recommended at historic locations like Marietta (with access to Williamstown, W.Va., home of historic Fenton Art Glass) and Ohio side tie-ups at historic Blennerhassett Island and Maysville, Ky.

The Muskingum River, a portion of which is considered federally navigable, empties into the Ohio River at Marietta. This river also has a wealth of historic features, including the Muskingum River locking system, designated as a National Historic Civil Engineering Landmark. The development of additional transient mooring facilities along the Muskingum should be encouraged so that boaters can be assured of overnight docking while enjoying this historic river.



Priority for Transient Moorage Development

Priority for Repair and Upgrade of Transient Moorage

Transient Marinas Along the Ohio River

Legend

Number of Transient Docks in Marina

- 1 - 6
- 7 - 15
- 16 - 30
- 31- 50

Dam Location
US Army Corps of Engineers

Figure 8.5

Other Ohio River and Rivers and Streams Issues:

Two issues pertaining to the Ohio River, coexistence of commercial and recreational boat traffic and problematic multi-state jurisdiction, were raised in focus groups. The most prevalent concern about commercial traffic on the Ohio River was that many commercial barges are not adequately lit during nighttime hours, resulting in occasional alarming situations and potential danger to recreational boaters. Additional study of this issue is recommended, followed by a dialog with commercial shipping groups who use the Ohio River.

The second issue, problematic multi-state jurisdiction between the states who border the Ohio River, has been partially addressed since the focus groups took place. A new agreement has been codified between Ohio and Kentucky that addresses problematic jurisdictional issues. The Statement of Understanding Between the Kentucky Department of Fish and Wildlife Resources and the Ohio Department of Natural Resources, signed September 8 2002, is included the Appendix G.

Focus group participants also identified a need for more clearly marked channels on Ohio's rivers and streams. The Division of Watercraft will address this issue. The division currently manages a grant program that provides buoys and signs for political subdivisions and public agencies. Through this program division staff members have observed wide and varying interpretations of both need for and placement of buoys on waters of the state. Guidelines for buoy and sign placement are needed and will be developed by the Division of Watercraft for use by waterway managers in Ohio.

Paddling on Rivers and Streams

About one in six Ohio boaters hand carried a boat from their vehicle to an access site without a launch ramp in 2002. Approximately 9.6% of Ohio boaters use a canoe or kayak as their primary boat; an additional 5% use a rowboat as a primary boat. Nearly ten percent of boaters (9.6%) frequent a river or stream other than the Ohio River as their primary boating destination.

Owners of canoes and kayaks are slightly less satisfied than other boaters (3.67 as compared to 3.72, where 4 = satisfied and 3 = neither satisfied nor dissatisfied) with "launch" access to the waterway they boat on most often. Over 35% of all responding boaters have either participated in an overnight (camping) waterway trail experience, or would like to do so in Ohio. Paddlers are at least twice as likely to have a negative experience involving a possible trespass issue than the average Ohio boater.

Several ODNR divisions (Wildlife, Watercraft, Real Estate & Land Management, Parks & Recreation, and Natural Areas & Preserves) initiated a workgroup to address the problem of lack of carry-in access to river and streams concurrently with the development of the BOW Plan. Subsequently, representatives from the National Park Service, Ohio Greenways (a non-profit organization affiliated with the Ohio Parks and Recreation Association) and the League of Ohio Sportsmen, joined the workgroup. This workgroup, called Discover Ohio Water trails (DOWT), actively works to promote the development of car-top/carry-in stream and river access, as well as water trail planning through partnerships with local groups.

The DOWT workgroup is addressing paddling and associated access issues raised through the BOW Plan input process. Planning information and recommendations will be available from the DOWT workgroup's efforts.

Information outlining the work to date of this group is included in the Appendix D.

Chapter 9 Lake Management: Horsepower Limits

ODNR's mission ensures a balance between wise use and protection of Ohio's natural resources for the benefit of all. In terms of boating in Ohio, this translates into setting waterway management policies that benefit many diverse boating pursuits, from kayaking on a quiet lake, to riding a personal watercraft (PWC), to cruising in a cabin cruiser. Protection of the boating natural resource, the waterway, is not only key to leaving a good legacy for future generations but also for recreational enjoyment today.

Horsepower (HP) and motor limits, or limiting access to selected lakes in order to preserve a desired atmosphere or address a specific environmental concern, have been used as lake management tools for decades. Many of these policies were established in the fifties and sixties then subsequently updated in the late 1970s.

This long-standing management method is not unique to Ohio. At least 30 other states utilize this practice to some degree. The results of a recent poll of all 50 states are shown in figure 9.1. The survey instrument is included in the Appendix F. Although six states did not respond, 68% of responding states (including Ohio) indicated that they use horsepower limits to some extent. Ohio has a "no motor" lake, "electric only" lakes, 6 horsepower, 10 horsepower, 25 horsepower, 250 horsepower, 299 horsepower, and 400 horsepower lakes. This is a greater range of motor-based limits than any other respondent states. One of these eight varieties of motor restrictions is used on approximately 80% of Ohio's inland lakes. Ohio also has two lakes that are unlimited horsepower with a no-wake policy, meaning that any watercraft may boat these lakes, but all boats (except sailboats) are prohibited from creating a wake.

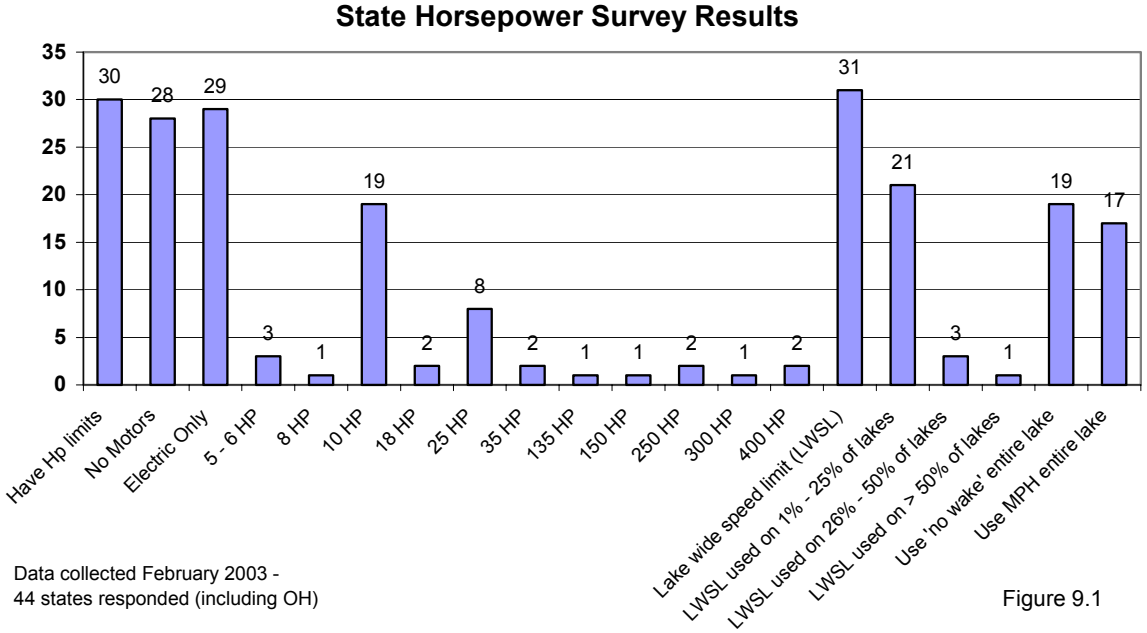


Figure 9.1

As Ohio's population has grown (See figure 9.2) and boat designs have evolved, overcrowding on unlimited horsepower lakes has increased dramatically. This overcrowding was identified as an issue in the Division of Watercraft's 1999 Strategic Plan for the 21st Century and again in the 2003 update of that Plan.

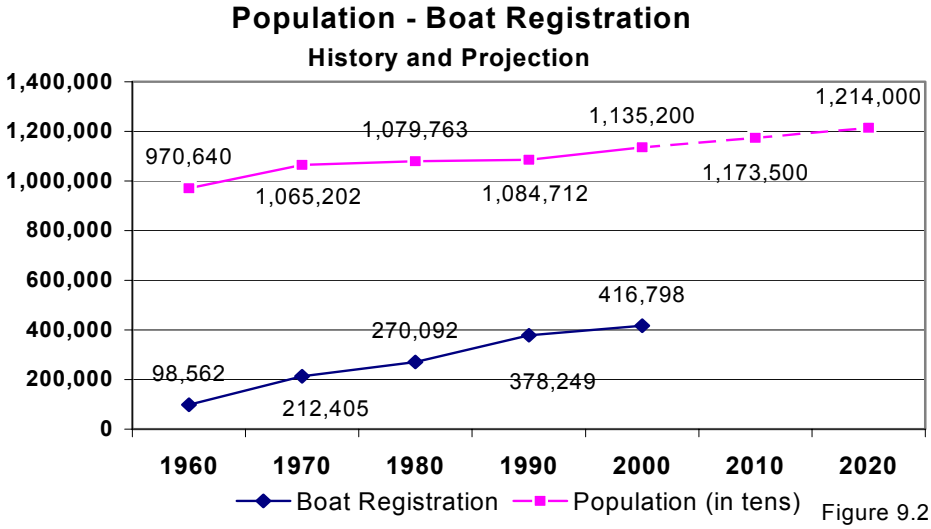


Figure 9.2

The issue of lake management through horsepower limitations was also discussed in focus groups. Opinions varied. The prevalent (and sometimes contradictory) opinions of focus group participants were:

- The existing 9.9 horsepower limit on many limited horsepower lakes is outdated and could/should be updated to a speed limit (no wake or idle speed) as a lake management method. This would allow boats with larger engines onto more Ohio waterways; more water surface area would be available to a larger number of Ohio boaters.
- Current limitations on horsepower, as a management method, are desirable because these limits control noise, wakes, crowding, and preserve wildlife viewing.
- Operating regulations (speed limits, no wake) are difficult to enforce whereas a horsepower limit is not.
- Physical features of the water body (size, etc) and/or common boating usage should be used to determine horsepower limits.

This input from BOW Plan focus groups, lake managers' familiarity with overcrowding on unlimited horsepower lakes, boaters' complaints, public input from a number of boaters with higher horsepower motors who fish* and who have asked for access to a greater number of Ohio's lakes, as well as projected population growth, all hastened the need for a comprehensive look at current horsepower policies on Ohio lakes.

*For example, in 2000, The Division of Watercraft received a petition to raise the horsepower limit at Acton Lake (southwest region of Ohio) to increase fishing access opportunities. This petition was signed by 83 boating constituents, and submitted by a member of the Ohio B.A.S.S. Federation.

Taking a look at the existing horsepower management landscape is an essential preliminary step in this process. Inland lakes in Ohio that are at least 100 acres in size are listed in the following tables. Current access to Ohio's inland lakes is managed as shown in these tables.

Table 1: Lake Access Restricted to Boats with Electric Motors or No Motors:

Lake	Electric (or Less) Limit	Region	Water Acres *
Beaver Creek Reservoir	Electric Only	NW	110
Belmont Lake	Electric Only	SE	117
Bresler Reservoir	Electric Only	NW	580
Deer Creek Reservoir	Electric Only	NE	313
East Branch Reservoir	Electric Only	NE	395
Ferguson Reservoir	Electric Only	NW	309
Findlay Reservoir # 1	Electric Only	NW	188
Grant Lake	Electric Only	SW	163
Hammertown City Reservoir	Electric Only	SE	165
Hargus Lake	Electric Only	C	130
Harrison Lake	Electric Only	NW	107
Highlandtown Lake	Electric Only	NE	184
Kiser Lake	No Motors	SW	385
La Due Reservoir	Electric Only	NE	1500
Lake Hodgson	Electric Only	NE	190
Madison Lake	Electric Only	C	112
Metzger Reservoir	Electric Only	NW	156
Mogadore Reservoir	Electric Only	NE	1401
New London Reservoir	Electric Only	NW	220
Nimisila Reservoir	Electric Only	NE	672
Punderson Lake	Electric Only	NE	150
Ross Lake	Electric Only	SE	140
Salem Reservoir	Electric Only	NE	110
Slope Creek Reservoir	Electric Only	SE	100
Stonelick Reservoir	Electric Only	SW	152
Timbre Ridge Lake	Electric Only	SE	100
Tycoon Lake	Electric Only	SE	176
Vesuvius Lake	Electric Only	SE	121
Wellington Upground Reservoir	Electric Only	NE	163
Willard Reservoir	Electric Only	NW	212
	Total		**8,821**

*Water acreage at summer pool, ODNR Division of Water

30 (>=100 acre lakes) + 41 (<100 acre lakes) = 10,443 acres of publicly accessible electric only lakes

Other Smaller Lakes Restricted to Boats with Electric Motors or No Motors

There are an additional 41 electric only (and one 'no motors') lakes with public boating access. These 41 lakes range in size from three to 97 acres and contain a total of 1622 surface water acres. This brings the total 'electric only' publicly accessible lake area to **10,443** acres.

Table 2: Lake Access Restricted to Boats with no more than 6 HP, 9.9HP, or 10 HP:

Lake	10 Horsepower Limit	Region	Water Acres*
Acton Lake	9.9 or 10 HP	SW	604
Beach City Lake	9.9 or 10 HP	NE	420
Burr Oak Lake	9.9 or 10 HP	SE	664
Charles Mill Lake	9.9 or 10 HP	NE	1350
Clendening Lake	9.9 or 10 HP	NE	1800
Cowan Lake	9.9 or 10 HP	SW	688
Dow Lake	9.9 or 10 HP	SE	161
Findlay Reservoir # 2	9.9 or 10 HP	NW	650
Forked Run Lake	9.9 or 10 HP	SE	138
Hoover Reservoir	9.9 or 10 HP	C	3272
Guilford Lake	9.9 or 10 HP	NE	396
Jackson Lake	9.9 or 10 HP	SE	220
Killdeer Reservoir	9.9 or 10 HP	NW	254
Knox Lake	9.9 or 10 HP	C	473
Kokosing Lake	9.9 or 10 HP	C	154
Lake Lacomte Reservoir # 5	9.9 or 10 HP	NW	129
Lake Logan	9.9 or 10 HP	SE	400
Lake Rupert	9.9 or 10 HP	SE	325
Leesville Lake	9.9 or 10 HP	NE	1000
Piedmont Lake	9.9 or 10 HP	SE	2270
Pymatuning Lake	9.9 or 10 HP	NE	16150
Rush Creek Lake	9.9 or 10 HP	C	306
Veto Lake	9.9 or 10 HP	SE	146
Walborn Reservoir	6 HP	NE	670
Wills Creek Reservoir	9.9 or 10 HP	SE	900
Wolf Run Reservoir	9.9 or 10 HP	SE	214
	Total		**33,754**

*Water acreage at summer pool, ODNR Division of Water

26 (>=100 acre lakes) + 8 (<100 acre lakes) = 34,025 acres of publicly accessible low HP lakes

Other Smaller Lakes Restricted to Boats with no more than 6 HP, 9.9HP, or 10 HP

There are an additional 8 lakes, ranging in size from 5 to 97 acres, with a 10 HP limit. These 8 lakes contain a total of 271 surface water acres. This brings the total 10 HP +/- publicly accessible lake area to **34,025** acres.

Table 3: Lake Access Restricted to Boats with no more than 25 HP Motors:

Lake	Horsepower Limit	Region	Water Acres*
Atwood Lake	25 HP	NE	1540
Outhwaite # 4 Reservoir	25 HP	NW	160
	Total		**1700**

*Water acreage at summer pool, ODNR Division of Water

Table 4a, 4b, & 4c: Lake Access Restricted to Boats with Medium Range HP:

4a Lake	Horsepower Limit	Region	Water Acres*
Springfield Lake	250 HP	NE	688

4b Lake	Horsepower Limit	Region	Water Acres*
Seneca Lake	299 HP	SE	3550
Tappan Lake	299 HP	NE	2350
	Total		**5900**

4c Lake	Horsepower Limit	Region	Water Acres*
Portage Lakes	400 HP	NE	1003

*Water acreage at summer pool, ODNR Division of Water

Table 5a, 5b: Lake Access Open to all Boats

5a Lake	Horsepower Limit	Region	Water Acres*
Clear Fork Reservoir	Unlimited – *no wake entire lake*	NE	1024
Lake Snowden	Unlimited – *no wake entire lake*	SE	131
			Total 1,155

5b Lake	Horsepower Limit	Region	Water Acres*	% of Lake in No Wake Zone**
Alum Creek Lake	Unlimited	C	3387	1/3 of lake (1100 AC)
Berlin Reservoir	Unlimited	NE	1850	
Buckeye Lake	Unlimited	C	2800	
C.J. Brown (Buck Creek)	Unlimited	SW	2120	1/3 of lake (700 AC)
Caesar Creek Reservoir	Unlimited	SW	2830	
Deer Creek Lake	Unlimited	C	727	
Delaware Lake	Unlimited	C	1300	1/3 of lake (400 AC)
Dillon Reservoir	Unlimited	SE	1560	1/3 of lake (500 AC)
Eastwood Lake	Unlimited	SW	184	
Grand Lake	Unlimited	NW	12813	
Harsha Lake (East Fork)	Unlimited	SW	2160	
Indian Lake	Unlimited	C	5063	
Lake Loramie	Unlimited	NW	829	1/4 of lake (200 AC)
Lake Milton	Unlimited	NE	1780	1/4 of lake (450 AC)
Lake Seneca	Unlimited	NW	280	
Lake White	Unlimited	SE	347	
M. J. Kirwan (W.Branch)	Unlimited	NE	3240	1/3 of lake (1000 AC)
Mosquito Lake	Unlimited	NE	8600	1/3 of lake, including 'no boats' (2850 AC)
Paint Creek Lake	Unlimited	SW	770	
Pleasant Hill Lake	Unlimited	NE	850	1/3 of lake (250 AC)
Rocky Fork Lake	Unlimited	SW	2100	1/4 of lake (525 AC)
Salt Fork Reservoir	Unlimited	SE	3010	1/2 of lake (1500 AC)
			Total 58,600	**Approx. 9500 Ac. (16% of 58,600)**

*Water acreage at summer pool, ODNR Division of Water

** Estimated figures, does not include no wake zones along shoreline in open zone areas of lake

Other Smaller Lakes with Access Open to all Boats

There is one additional publicly accessible inland lake with an unlimited horsepower management policy with a total water surface area of **95** acres. This brings the total area of publicly accessible inland lakes with unlimited horsepower to **59,850** acres. A number of these unlimited horsepower lakes have large areas that are managed as no wake zones. The sizes of these dedicated no wake zones are shown in table 5b. These approximate percentages do not include no wake zones that are commonly placed along the shoreline or in the vicinity of ramps and marinas.

Summary Table

Management Type	Total Lakes	Total Acres	Combined Types
Electric (including one "no motors")	71	10,443 Ac.	44,468 Ac.
9.9 / 10 HP (including one 6 HP)	34	34,025 Ac.	
25 HP	2	1,700 Ac.	69,141 Ac.
250 / 299 / 400 HP	4	7,591 Ac.	
Unlimited Access	25	59,850 Ac.	

How does the array of opportunity compare with the level of demand?

The total surface area of higher horsepower lakes is about 69,141 acres, which is 61 % of Ohio's total inland lake surface area. Omitting the 25 HP lakes, the combined water surface area for higher HP lakes is 67,441 acres. Generally speaking, most low horsepower or electric lakes are Ohio's smaller lakes. (72% of 299 HP to unlimited HP lakes are over 1000 acres in size while only 14% of electric only lakes are over 200 acres in size, and only 20% of 10 hp lakes are over 700 acres in size.)

Specific engine horsepower information is not collected during the boat registration process in Ohio, but registration data does show that approximately 80% of registered Ohio boats are motorized. Responses to the BOW Plan survey provide a snapshot look at the distribution of boat motor sizes in Ohio. Of the 1,126 survey respondents who reported boating in Ohio in 2002, 1038 (92%) provided information on the size of their boat's motor or lack of motor. Of these respondents, 73.8 % indicated that their primary boat had an 11hp or greater motor size. Without the purchase of an additional electric or 9.9 to 10 hp motor for the boat, and depending on motor size, this group has access to just 31 inland lakes that allow 25 HP, 250 HP, 299 HP, 400 HP or unlimited HP access. These higher horsepower lakes make up just 23% of Ohio's 136 inland lakes with public access.

Although the large no wake zones within unlimited lakes are accessible to all boats (See figure 9.3), it is noteworthy that when one subtracts the total surface area of these large no wake zones from total lake surface area, the resulting water surface area in Ohio where higher HP boats can travel at faster speeds, thus creating a wake, is approximately 49,195 acres, or about 43% of inland lake water surface area.

Inland Lake Boating Access Opportunities by Horsepower

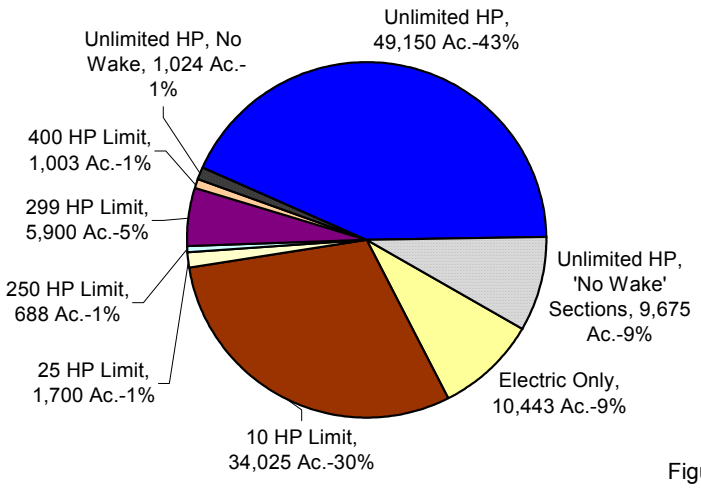


Figure 9.3

Since horsepower restrictions pertain only to inland lakes, it makes sense to look at this issue in terms of those boaters who are inland boaters, or who do *not* boat primarily on Lake Erie. Using the BOW Plan survey results, it was determined that of the 686 boaters who did not select Lake Erie as a primary destination, or non Lake Erie boaters, 67% use a boat with an 11 HP and greater motor, while 33% identify themselves 10 HP or less, or no motor boaters.

Although gasoline motors are not permitted on electric only lakes, generally speaking the 10 HP or less group has nearly all waters of the state available for boating use. However, most low horsepower lake boaters prefer to boat on low horsepower lakes; in fact the survey found that over 50% of boaters with a 10 horsepower or less motor (or no motor), chose a limited low horsepower lake (25 HP or less) as a primary boating destination. (The next most popular destination chosen was an inland river or stream at 22%.) These low horsepower boaters have roughly 44,468 acres of preferred “quiet” inland lake water surface available, or, if large no wake zones on higher horsepower lakes are also included as well as lakes that are entirely no wake, this group enjoys approximately 55,123 “quiet” low horsepower lake surface acres. This is 49% of Ohio’s publicly accessible inland lake water surface.

By applying survey results to 2002 registration numbers, it is possible to roughly compare the relative demand and opportunity for the two boating groups, low HP and higher HP boaters, who do not boat primarily on Lake Erie.

Active Lakes

163,383 [A] Higher horsepower boaters boat on 69,141 acres (25, 250, 299, 400 HP or unlimited lakes) **= 2.4 boats per acre**

163,383 [A] Higher horsepower boaters boat on 31 lakes (25, 250, 299, 400 HP or unlimited lakes) **= 5270 boats per lake**

Quiet Lakes

80,472 [B] Lower horsepower boaters boat on 44,468 acres (10 HP or less lakes) **= 1.8 boats per acre**

80,472 [B] Lower horsepower boaters boat on 105 lakes (10 HP or less lakes) **= 766 boats per lake**

Quiet Lakes

80,472 [B] Lower horsepower boaters boat on 55,123 acres (10 HP or less + large no wake zones & no wake lakes) **= 1.5 boats per acre**

80,472 [B] Lower horsepower boaters boat on 118 lakes (10 HP or less + large no wake zones & no wake lakes) **= 682 boat per lake**

A

416,270 (Registered Boats 2002) x 84.9% (boated in Ohio 2002)	= 353,413 boats
353,413 boats x 69% (% of non Lake Erie boaters from survey)	= 243,855 boaters
243,855 boaters x 67 % w/motors > 11HP	= 163,383 boaters

B

416,270 (Registered Boats 2002) x 84.9% (boated in Ohio 2002)	= 353,413 boats
353,413 boats x 69% (% of non Lake Erie boaters, from survey)	= 243,855 boaters
243,855 boaters x 33 % w/motors < 11HP	= 80,472 boaters

These numbers illustrate why boaters and waterway managers see so much overcrowding on Ohio's higher horsepower lakes. They are also evidence of today's growing market for higher horsepower engines.

The average motor size reported in the 2002 BOW Plan survey was 146 HP. This is an increase from 2001 Ohio survey results (128 HP) and 1999 Ohio survey results (126 HP). Boat engine size in Ohio has been steadily increasing for years; in 1985 the reported average motor size was 69.5 HP. Interestingly, although national boat motor trends also show that horsepower size has increased since 1985, this increase has been more modest than Ohio's. Nationally, the average size motor purchased has risen from 65.2 HP in 1985 to 85.7 HP in 2002, whereas sizes of motors owned by Ohioans have grown from 69.5 HP to 146 HP for the same period.

It appears that Ohio's lake management policies are not equitably accommodating the spatial needs of today's higher horsepower boaters. With the steady growth in motor size over the past few decades and the growing numbers of boaters in Ohio (see fig 9.4), it is not surprising that unlimited horsepower lakes are bursting at the seams.

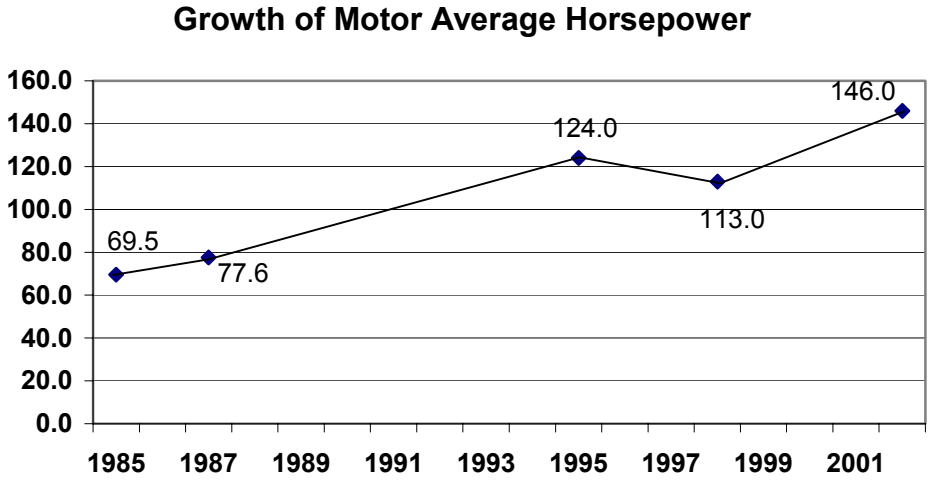


Figure 9.4

Does this Overcrowding Affect Boating Safety?

While there is no correlation between boating fatalities and horsepower restriction, there is a definite correlation between boating accident rate and horsepower. Boating fatalities often occur as a result of a boater falling overboard or capsizing, which occurs just as often on low horsepower lakes, rivers and streams as on higher horsepower lakes.

Although many boating accidents are not reported, the five-year period from 1998 through 2002 saw 1085 reported boating accidents in Ohio. Thirty seven percent of these accidents, or 402, occurred on unlimited or high horsepower inland lakes*. Only three percent or 35 of these accidents happened on low (< or = 25 HP) horsepower lakes. The remainder took place on rivers, streams or Lake Erie. These numbers show that an Ohio boater is 11 times more likely to be involved in a boating accident on a high horsepower lake than on a low horsepower lake. The vast majority of these high horsepower accidents are collisions.

Whereas accident reports list a variety of root causes for these collisions, congested waters, excessive speeds, and wakes are often cited. These particular accident causes are virtually unknown on Ohio's low horsepower lakes. Careless or reckless operation is also more likely to occur on high horsepower lakes, by a factor of four. Unfortunately, operator inexperience and inattention are universal accident causes on all waterways and are consistently in the top three accident causes.

*Figures for unlimited, no wake lakes not included.

Boat Trends

Increases in horsepower have been accompanied by some increase in average boat length over the last decade. A Division survey in 1992 found that the average boat length of the primary use boat was 18.3 feet. In 2002, that length had increased to 19.1 feet.

Figure 9.5 illustrates the results of Division surveys from 1985, 1991, 1996, 1998 and 2002 in which the relative growth and decline of various boat types has been tracked (the category "other" is not shown). The percentages of Ohio boaters who use a pontoon boat or a cabin boat have both increased since 1985. Cabin boats have increased from 11% in 1985 to 18.2% in 2002, while pontoon boats have increased from 3.8% to 10.6% for the same period. This increase is reflected in national trends for these types of boats.*

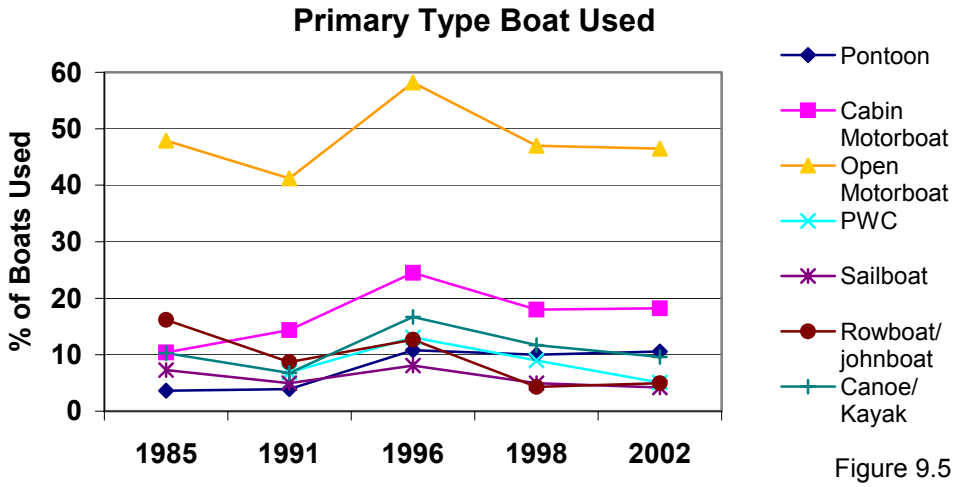


Figure 9.5

Rowboat/johnboat ownership share has declined significantly for the same period, as has sailboat ownership, to a lesser extent. PWC ownership has dropped significantly since 1996. The percentage of open motorboat ownership has ebbed and flowed, and is now at about 1985 levels.

These figures are of interest for several reasons. They not only illustrate consumer trends in boating and hint at more "speedboats" on the water, but they also raise other management issues. Take, for example, the pontoon boat. Many inland lake seasonal docks at Ohio marinas are rented by pontoon boat owners; after visiting several inland lake marinas one might conclude pontoon boats are in the majority at these marinas. Boat dealerships offer increasingly deluxe craft in this category. Most new 14, 16, and 18 ft. pontoon models come with 40 HP motors as standard equipment, while larger pontoons are equipped with 50, 75, 90 HP and larger motors. Only small "minitoons" now come equipped with 10 or 25 HP motors.

* Boating 2002 at a Glance Facts and Figures, NMMA

These slow moving boats tend to catch a lot of wind because of their extensive flat surfaces. Having adequate horsepower on a pontoon boat greatly improves maneuverability and can be a safety consideration; during stormy weather the pontoon boat needs adequate power to safely reach shore, especially on larger bodies of water. This safety issue is very important, and is a significant factor in current multi state discussions pertaining to increasing horsepower limits from 9.9 hp to 18, 20, or 25 horsepower at Pymatuning Lake, a 16,150 acre lake that straddles the Ohio/ Pennsylvania border.

New powerful electric marine motors are also on the boating horizon. According to a report in the July 2001 issue of Motorboating magazine,

"Coming soon to a marina near you will be a high performance electric outboard motor…..This new species could find a home on inland waterways where….ordinances restrict gasoline engines. The new propulsion package may be ideal for small fishing boats, houseboats, and pontoon boats."

These new motors promise to be considerably more powerful than the small electric outboards Ohioans are accustomed to seeing on electric-only lakes. For example, the "Extreme Machine 2000," an off-road amphibious vehicle powered by an electric motor, is new on the market. This boat/vehicle boasts twin 18 hp permanent magnet DC motors that are equivalent to 90 hp in gas powered vehicles.

Current low horsepower or electric only lake access laws have not accounted for these new technologies. These new electric motors may achieve greater speeds than currently seen on electric only lakes without breaking current rules and regulations. These regulations were often written as a means to maintain a desired character on a lake. Due to ongoing changes in technology, a speed limit may be the only viable tool to accomplish this goal.

What is the Opinion of Ohio Boaters on the Horsepower Issue: Survey Results:

Two questions pertaining to horsepower limits were included in the survey. These questions were designed to ascertain whether boaters favor some type of horsepower limit change on some lakes. The questions were written with several assumptions.

First, it was assumed that a broad spectrum of recreational boating experience is desirable on inland lakes. Ohio boaters happily engage in activities ranging from kayaking on quiet secluded waters to high-energy speed boating on crowded lakes. Recreational tastes vary; although various types of boating are not always highly compatible, all legal boating activities are considered valid boating pursuits by the Division of Watrercraft. Secondly, since excessive speeds on unlimited horsepower inland lakes is a known issue for many Ohio boaters, opening up additional lakes to unlimited horsepower without accompanying speed control was not under

consideration. Lastly, although reducing horsepower limits on some Ohio lakes is not currently being considered because such a measure would not help alleviate over crowding on unlimited HP lakes, allowing more equitable access or improving safety for larger boats was included in the question format to better gauge the range of opinion on the horsepower issue.

Question 26, an opinion question concerning potential changes in horsepower limits, asked only those boaters who identified themselves as primarily low or medium horsepower lake boaters (they selected b or c in question 4) to respond.

26. In question 4, if you selected b or c (low or medium horsepower lake), please choose the statement that most closely applies. (All others skip to question 27.)

Respondents	Percent	
51	**14.5%**	a. I think the horsepower limit should be **decreased** at the lake I visit most often.
259	**73.8%**	b. I think the horsepower limit should **remain unchanged** at the lake I visit most often.
22	**6.3%**	c. I think the horsepower limit should be **increased** at the lake I visit most often.
19	**5.4%**	d. I think the horsepower limit should be changed to unlimited horsepower with a **no wake or idle speed** limit at the lake I visit most often.
95		e. I Don't Know or Not Applicable.

Conclusively, a significant majority of boaters who now use low or medium horsepower lakes are opposed to an increase in horsepower or a change to unlimited horsepower with an idle speed policy. The latter is a policy that allows more diversity of access, yet is designed to preserve the quiet character on a lake. When the responses to question 26 are sorted by regions of the state, the results are:

NW	NE	C	SW	SE	
14.8%	**14.4%**	**19.1%**	**8.5%**	**16.7%**	a. I think the horsepower limit should be **decreased** at the lake I visit most often.
72.1%	**75.8%**	**72.2**	**80.9%**	**61.9%**	b. I think the horsepower limit should **remain unchanged** at the lake I visit most often.
8.2%	**7.2%**	**0%**	**6.4%**	**7.1%**	c. I think the horsepower limit should be **increased** at the lake I visit most often.
4.9%	**2.6%**	**8.5%**	**4.3%**	**14.3%**	d. I think the horsepower limit should be changed to unlimited horsepower with a **no wake or idle speed** limit at the lake I visit most often.

The only region of the state where there seems to be some, albeit modest, support for more diversity of access is the SE region of the state, where a no wake/idle speed policy was selected by 14.3% of respondents.

Next, boaters who are currently not able to take their boat on these limited horsepower lakes without the purchase of an additional low horsepower motor were asked their opinion about horsepower limits. This group is directly affected by horsepower limits. They are unable to access low horsepower lakes without incurring

the cost of purchasing an additional low horsepower boat motor for use on these lakes. Other affected boaters are those who boat on unlimited horsepower lakes and experience crowded conditions, due to the ratio of 5,270 boats per lake. Lake managers fervently hope these 5,270 don't all arrive on the same day!

27. If, because of horsepower limits, you did not take your boat with a high horsepower motor on some Ohio waterways, please choose the statement that most closely applies. (All others go to question **28**)

Respondents	Percent	
45	**10.3%**	a. I think the horsepower limit should be **decreased** at some limited horsepower lakes.
158	**36.2%**	b. I think the horsepower limit should **remain unchanged** at limited horsepower lakes.
96	**22.0%**	c. I think the horsepower limit should be **increased** at some limited horsepower lakes.
138	**31.6%**	d. I think the horsepower limit should be **changed to unlimited horsepower with a no wake or idle speed limit** at some limited horsepower lakes
299		e. I Don't Know or Not Applicable

This group prefers an increase in lake access through an increase in horsepower or an unlimited no wake policy by a slim margin (53.6% versus 46.5%). A change to unlimited with a no wake or idle speed policy is preferred over an increase in horsepower limits.

When the responses to question 26 are sorted by regions of the state, the results are:

NW	NE	C	SW	SE	
11%	**14%**	**8.8%**	**5.2%**	**7.5%**	a. I think the horsepower limit should be **decreased** at some limited horsepower lakes.
45%	**36%**	**35.3%**	**29.9%**	**27.5%**	b. I think the horsepower limit should **remain unchanged** at limited horsepower lakes.
14%	**28%**	**13.2%**	**22.1%**	**32.5%**	c. I think the horsepower limit should be **increased** at some limited horsepower lakes.
30%	**22%**	**42.6%**	**42.9%**	**32.5%**	d. I think the horsepower limit should be **changed to unlimited horsepower with a no wake or idle speed limit** at some limited horsepower lakes

Boaters who are restricted by current horsepower limits slightly prefer either the status quo or a decrease in horsepower limits in the northwest region, and are split 50/50 in the northeast region between a desire for more access and a preference for the status quo or a decrease in existing horsepower limits. In the central and southern regions, these higher horsepower boaters favor increased access to inland lakes by 55.8% in the southwest and central regions, and 65% in the southeast region of the state.

Summary Chart for Lakes over 100 Acres

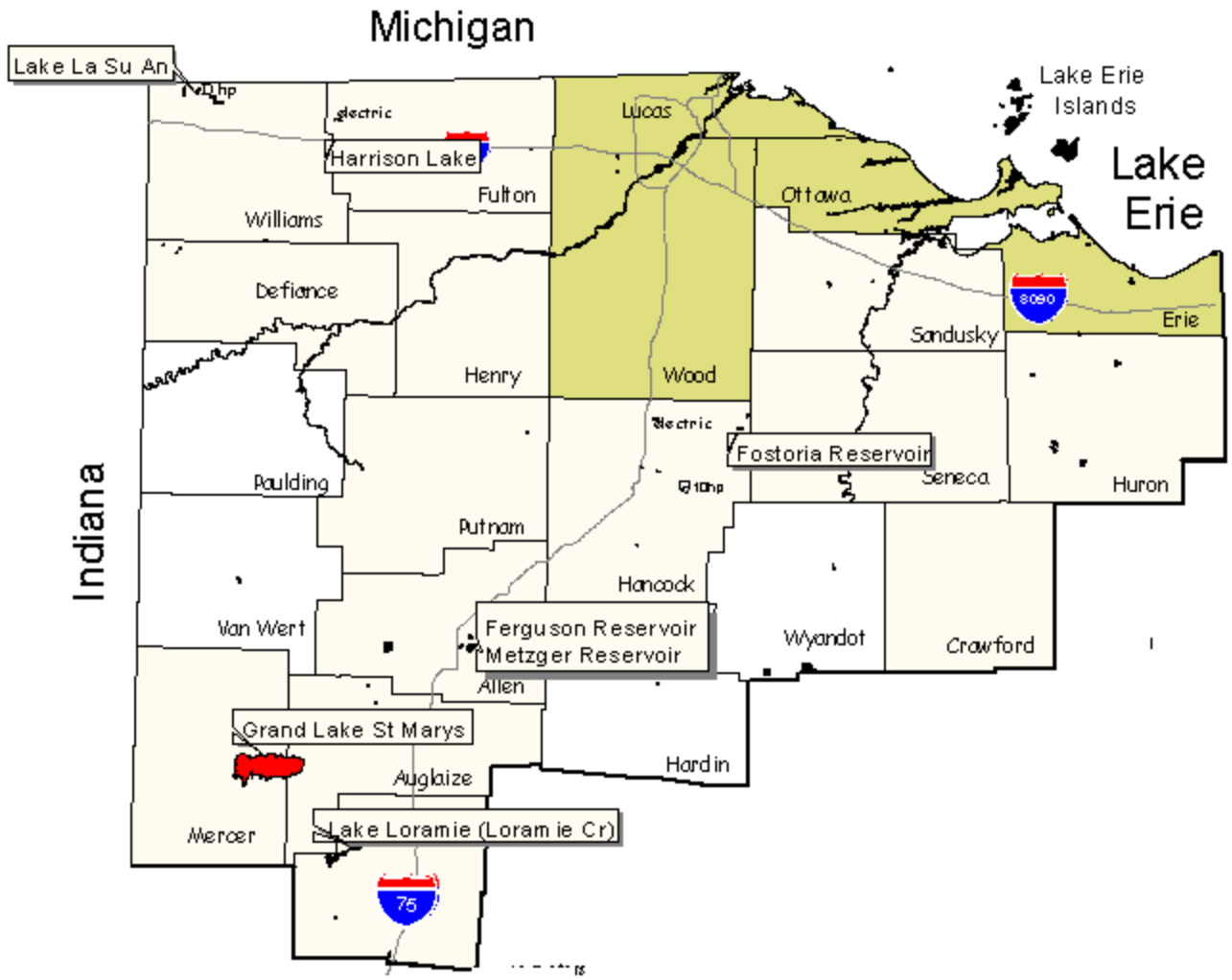
Lakes	NW Region	NE Region	C Region	SW Region	SE Region
Electric	8	10	2	3	7
9.9 / 10 HP	3	7	4	2	10
25 HP	1	1	0	0	0
Midrange 250-400 HP	0	4	0	0	1
Unlimited	3	4	5	6	3
Unlimited / No Wake	0	1	0	0	1

Northwest Region

Ohio's northwest region has 70,451 registered boats (17% of total Ohio boats). The region has eight electric only lakes, three 10 horsepower lakes, one 25 horsepower lake and three unlimited horsepower lakes, all of which are over 100 acres in size. While the population has declined slightly in the region's population center (Lucas County/Toledo), there has been a moderate growth rate in the surrounding counties. (See figure 9.6)

There are few opportunities for unlimited horsepower lake access in most of this region. Other than Grand Lake and Lake Loramie, the higher horsepower boater has only Lake Seneca (280 Acres) in Williams County on which to recreate. Most of the remaining non-Lake Erie waterway access in this region is to the Maumee River. This river is quite wide and slow moving in many areas. Commercial traffic on the Maumee is not an intimidating factor to those who are accustomed to inland lake boating, as is sometimes the case on the Ohio River.

Apparently, the array of opportunities currently available to unlimited HP boaters at existing waterways in the northwest region is relatively acceptable to this group. The region should be reevaluated in the future, and if a wider range of inland lake access is warranted and desired by area boaters, horsepower modifications at Findlay Reservoir #2 might be recommended, as this is the largest body of water in the region other than those that already allow access to all. In the meantime, maintaining good quality access to the Maumee River should be a priority, as this is a regionally important non-Lake Erie boating opportunity for those with higher horsepower engines.



Northwest Region

Legend

Registered Boats (2001)

- 522 - 1401
- 1402 - 2539
- 2540 - 4311
- 4312 - 11086
- 11087 - 27810

Horsepower Limits

- no motors
- electric only
- 10 hp
- 25 hp
- 250-299 hp
- 400 hp
- unlimited
- unlimited no wake
- rivers, streams & private

Figure 9.6

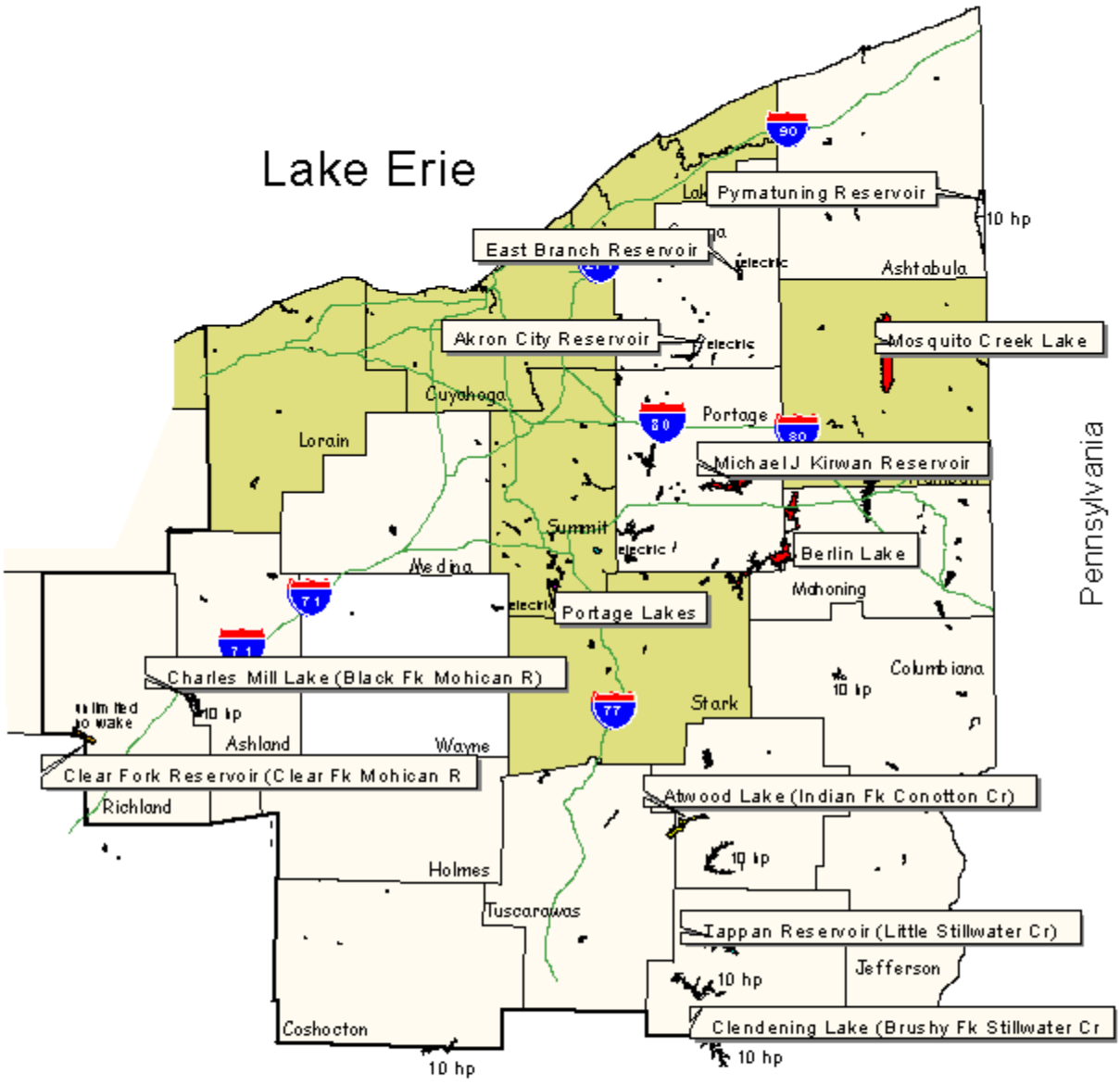
Northeast Region

Ohio's northeast region not only has the greatest number of registered boats (151,941 or 37% of total Ohio boats), but when it comes to inland lakes, also has the greatest diversity of boating opportunity. The region has ten electric only lakes, seven 10 HP lakes, one 25 HP lake, two 250 – 299 HP lakes, one 400 HP lake, one unlimited no wake lake, and five unlimited HP lakes, all of which are over 100 acres in size. The higher horsepower lakes are comparatively well distributed throughout the region. (See figure 9.7)

Question 27 survey results for this region show an even split between those who favor increased diversity of access and those who approve of the status quo, or would like to see more horsepower restrictions on certain lakes. Those who expressed a desire for an increase in HP limits may be accommodated in the near future, as a proposal to increase horsepower limits at Pymatuning Lake is on the table. This effort, initiated by the Commonwealth of Pennsylvania, seeks to accomplish several objectives. They include "legalizing" 15 or 18 horsepower motors which are currently mislabeled as 9.9 horsepower, and increasing the safety factor for larger boats like modern pontoon boats, by allowing these boats to carry slightly more powerful motors, which are often needed in stormy weather. Ohio supports this effort, because of the safety advantages on such a large lake and the potential for additional boating access in this region with the largest population of boaters.

Central Region

Ohio's central region has 63,502 registered boats (15% of total Ohio boats), 27,559 of which are in Franklin County. The region has two electric only lakes, four 10 HP lakes, and five unlimited HP lakes, all of which are over 100 acres in size. A majority (55.8%) of respondents to question 27 favor an increase in access to limited horsepower lakes. Unlimited horsepower lakes in the central region, especially Alum, Buckeye, and Indian lakes, are known to be very crowded. (see figure 9.8) The 2000 census reported the Franklin County population as 1,068,978 persons, an 11.2% increase since 1990. Delaware County, now virtually a bedroom community to Columbus, has experienced a burgeoning growth rate of 64.3% between 1990 and 2000. Ohio's population is projected to grow by approximately 9% over the next 25 years; central Ohio, a major business center and home to both the state capital and OSU, will likely grow at an even faster rate. Crowding on central Ohio lakes will continue under these conditions and only a multi-faceted planning approach will ease this problem. Availability of additional boating access opportunities would redistribute a portion of the boating population, thus somewhat alleviating crowding on existing unlimited horsepower lakes.



Northeast Region

Legend

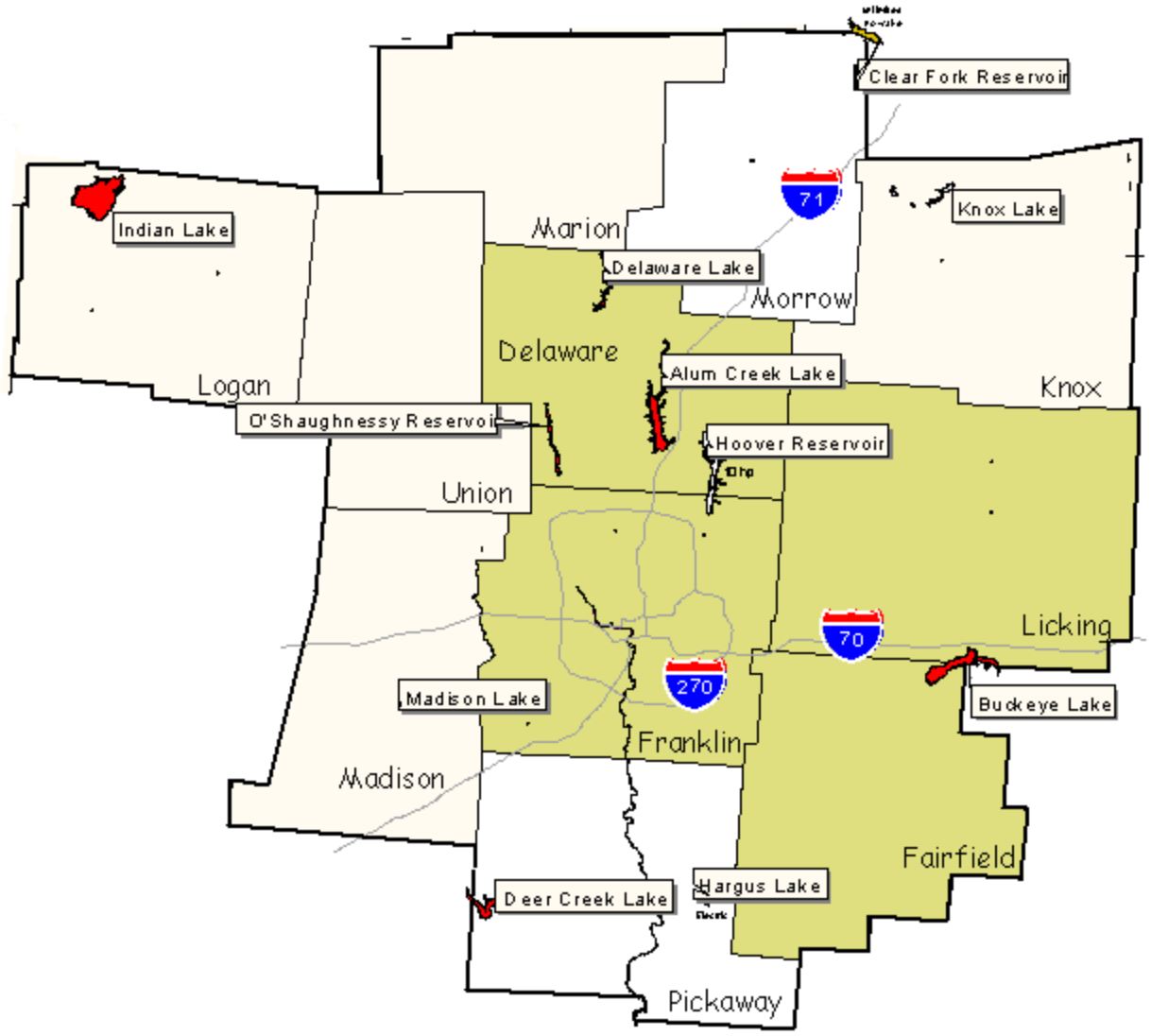
Registered Boats (2001)

- 522 - 1401
- 1402 - 2539
- 2540 - 4311
- 4312 - 11086
- 11087 - 27810

Horsepower Limits

- no motors
- electric only
- 10 hp
- 25 hp
- 250-299 hp
- 400 hp
- unlimited
- unlimited no wake
- rivers, streams & private

Figure 9.7



Central Region

Legend

Registered Boats (2001)

- 522 - 1401
- 1402 - 2539
- 2540 - 4311
- 4312 - 11086
- 11087 - 27810

Horsepower Limits

- no motors
- electric only
- 10 hp
- 25 hp
- 250-299 hp
- 400 hp
- unlimited
- unlimited no wake
- rivers, streams & private

Figure 9.8

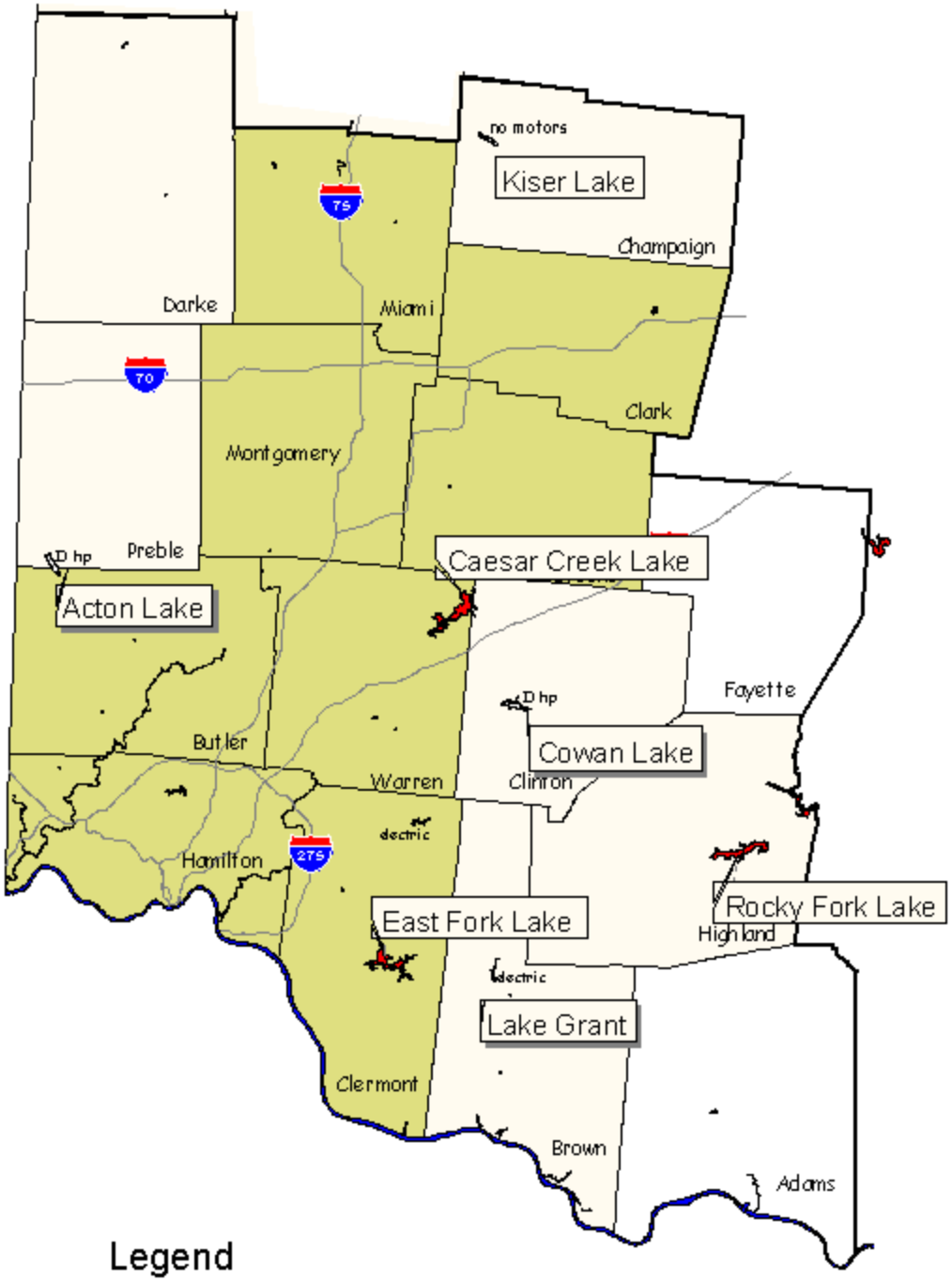
When looking around the region for potential opportunities to satisfy this need for more lake surface area for higher horsepower boats, there are few choices. The region has only four low horsepower lakes, one of which is Hoover Reservoir, a 3,272-acre City of Columbus water supply lake on the city's north side. Hoover is a popular sailing lake that serves the needs of low horsepower and no motor boaters and offers a quiet refuge from greater metropolitan Columbus. As there are few other "quiet" lakes in the area, this is truly a valuable resource. In terms of size, however, Hoover is well suited for a wider range of recreational access. The quiet nature of this lake could be maintained, through the use of a no wake speed limit, while granting additional access to central Ohio boaters through an upgrade in the horsepower limit. This would allow greater access to the lake for pontoon boaters and boaters who fish, while preserving the calm atmosphere on the lake.

Southwest Region

Ohio's Southwest region has 90,842 registered boats (22% of total Ohio boats), 60,519 of which are in the five - county area including and surrounding Cincinnati and Dayton (Hamilton, Montgomery, Butler, Clermont, and Warren). The region has three electric only lakes, two 10 HP lakes, and six unlimited HP lakes, all of which are over 100 acres in size. (see figure 9.9) A majority (55.8%) of respondents to question 27 favor an increase in access to limited horsepower lakes. Although Cincinnati and Dayton have undergone a slight population decline (average of 2.5%) over the last 10 years, the growth rate of counties surrounding these cities averaged 24% from 1990 to 2000. Once again, this positive growth rate is expected to continue, which will likely translate into more boaters on the water and more crowding at unlimited HP lakes.

For quiet lakes, this region has only three electric only lakes and two lakes with a 10 horsepower policy. There are, however, large areas on Rocky Fork and C.J. Brown reservoirs where a no wake policy is enforced, adding to the available quiet waters in the southwest region. Generally speaking, in terms "quiet" versus "active" waters, in the eastern 2/3rds of the region, there is a fairly equitable distribution of boating opportunities. But north of Cincinnati, lake boating opportunity is limited to Acton Lake, a popular sailing lake, which has a 10 horsepower limit.

A lake management change allowing more range of horsepower with a no wake speed limit should be considered at Acton Lake. The lake has an eight-lane launch ramp. In terms of utilization of existing state facilities, allowing additional boat access to the lake would maximize the use of an expensive facility, which has already been constructed. As the population grows, there will be increasing need for additional boating access to existing waterways; this can be accommodated at Acton Lake without a significant change to the lake's quiet atmosphere.(See figure 9.10)

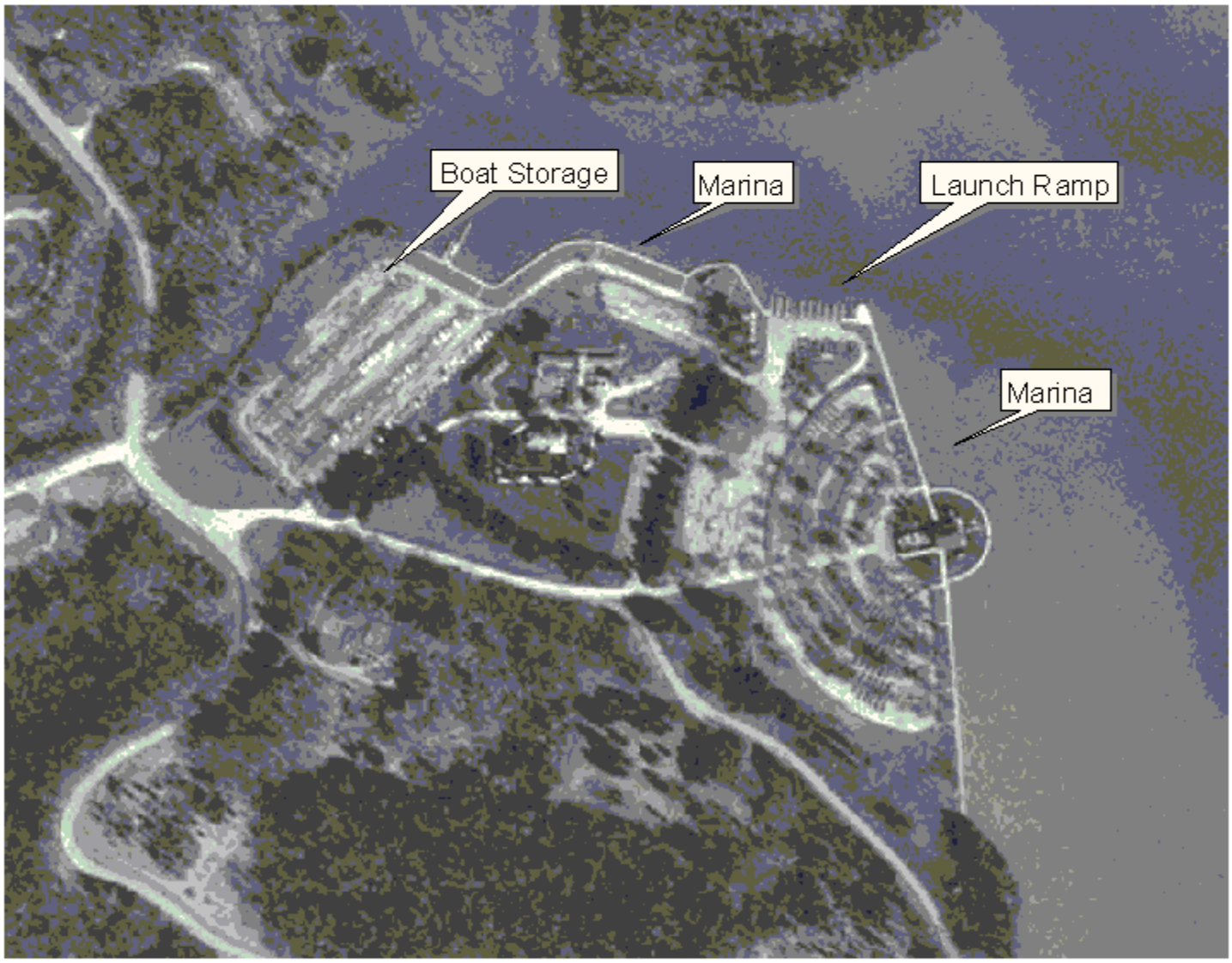


Legend

Registered Boats (2001)	Horsepower Limits
522 - 1401	no motors
1402 - 2539	electric only
2540 - 4311	10 hp
4312 - 11086	25 hp
11087 - 27810	250-299 hp
	400 hp
	unlimited
	unlimited no wake
	rivers, streams & private

Southwest Region

Figure 9.9



Boating Facilities at Acton Lake

Southeast Region

Ohio's southeast region has 33,707 registered boats (8% of total Ohio boats). The region has seven electric only lakes, ten 10 HP lakes, one 25 HP lake, one 299 HP lake, one unlimited no wake lake, and three unlimited HP lakes, all of which are over 100 acres in size. 65% of question 27 respondents in this region favored an increase in access to limited horsepower lakes. (see figure 9.11)

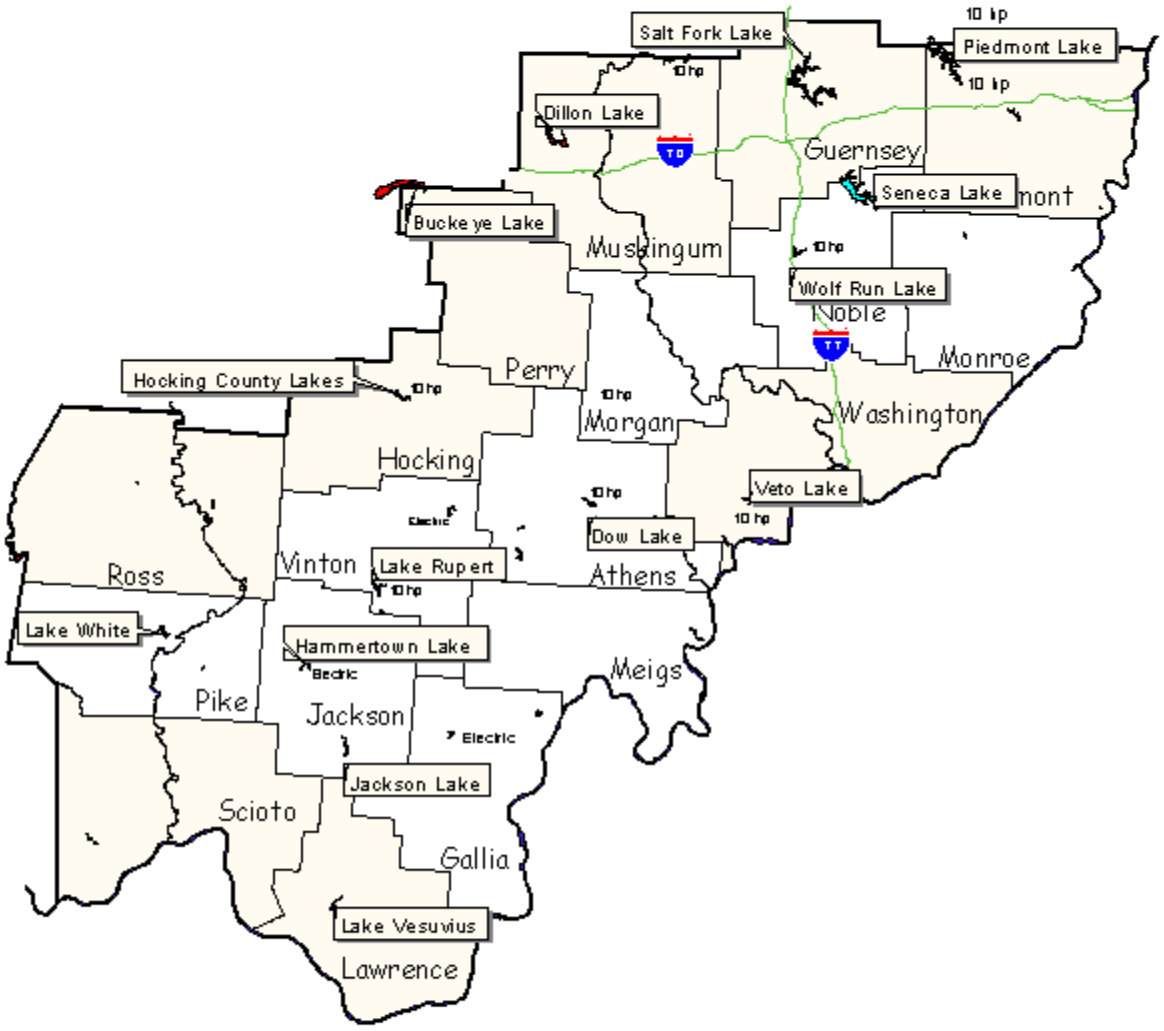
Although the southeast region has many lakes, virtually all lake boating opportunity for higher horsepower boaters lies within the northeast reaches of this region, in Guernsey (Salt Fork), Noble (Seneca), Perry (Buckeye Lake, central region), and Muskingum (Dillon) counties. Other than two very small lakes, Lake White (347-acre lake, Pike County) and Lake Snowden (131-acre lake, Athens County), no inland lake boating opportunities exist for boaters with higher horsepower boats.

There is a relative abundance of quiet lakes in this region. Most of these lakes are small and are not located close to a major metropolitan area. The region also has some of the state's largest quiet lakes, Piedmont (2270 acres) and Wills Creek (900 acres). Both are located in the northeast reaches of the region.

Two of the larger unlimited horsepower lakes, Dillon and Salt Fork, have large areas that are zoned no wake, adding to the availability of relatively quiet lakes. Dillon is subject to persistent silting due to the unstable soils in the Muskingum watershed and was, in fact, originally designed for this purpose (i.e., a limited recreational lifespan was anticipated.) Additional portions of Dillon Lake should be zoned no wake in the coming years, as some types of boating become more difficult and dangerous due to increasingly shallow depths. Additionally, a reduction in wake on this lake may help slow shoreline erosion.

A clear majority of question 27 survey respondents in this region desire more access for higher horsepower boats. Although the variety of boating opportunities is excellent in the northeast portion of the region, variety is truly lacking in the rest of the region. Burr Oak, a 664-acre 10 horsepower lake, is centrally located in this region. Burr Oak is a great vacation destination; the lake is located in one of Ohio's premier parks. It has a lodge and six launch lanes and a marina. (see figure 9.12) The surrounding counties, Athens, Hocking, Perry, and Morgan, exhibit health growth rates (average 7% from 1990 to 2000), so boating demand will grow along with the population.

Providing additional lake access to strategically located Burr Oak in the form of an unlimited horsepower/no wake policy makes sense. Existing facilities (i.e. the lodge, marina, and launch ramp) will experience additional use, thus increasing the benefit of these existing facilities, while the atmosphere on the lake will not change appreciably.



Southeast Region

Legend

Registered Boats (2001)	Horsepower Limits
522 - 1401	no motors
1402 - 2539	electric only
2540 - 4311	10 hp
4312 - 11086	25 hp
11087 - 27810	250-299 hp
	400 hp
	unlimited
	unlimited no wake
	rivers, streams & private

Figure 9.11

Unlimited Horsepower / No Wake Policy

In the 2000 census, Ohio ranked 7th in the country in population, and consistently ranks 8th nationally in registered recreational boats. The average HP engine in Ohio is 164 horsepower, much higher than the national average. It seems logical that efforts should be made to adequately accommodate the recreational needs of Ohio's boating population.

The policy of unlimited horsepower/no wake allows access for all, but greatly restricts speed, thus preserving a quiet calm atmosphere on a lake when desired. The survey of other states showed that this management method is one of the most commonly used lake management methods in other states. Yet in Ohio, where a big population of boaters exists with unusually high horsepower engines, this management method is uncommon. The results of survey question 28 reveal that 60% of boaters experience crowded conditions on the water at least some of the time.

A change in lake management policy to unlimited horsepower with a low speed limit has been recommended for several lakes. This policy is unfamiliar to many Ohioans; as it is rarely used. The following excerpt is an April 2000 report by a Division of Watercraft administrative staff member, documenting an interview with the Chief Ranger of Clearfork Reservoir, an unlimited no-wake lake in Richland County. The report describes the history of the lake and its current use patterns and issues.

This lake was built in the 1950's as a water supply reservoir for the City of Mansfield. That is its primary purpose. Initially there were no motors allowed. There weren't many motors around in 1950 anyway.

At some point in the 1960's, they allowed motors on the lake, but recreational needs were still secondary.

Their regulations state that there are idle speed areas and 8 mph areas for power boats only. ***Sailboats are exempt.*** *We have a copy of their regulations. Their reasoning was that any boat can use the lake as long as they obey the speed limit. The concerns are to eliminate high speed operation, reduce erosion, reduce turbidity, thus make water treatment easier.*

Enforcement – They have not written a citation for speed as long as the chief ranger has been working there. In fact it would be difficult to do without radar guns, calibration, training etc. They decided that they did not have a problem that warranted this expense and effort. They do stop boats from time to time, issue friendly warnings, and solve issues through education. Speed is just not a major problem on the lake. There are a couple of 22-23' sailboats with kickers. Technically they are a powercraft. If they are under sail, going slightly over what appears to be 8 mph it is overlooked and not considered a problem.

Adverse effects/complaints – The only adverse effects are from an occasional person wanting to waterski, etc. when they discover they can't. They get some PWC's that stop by; they explain the speed limit most of them leave. Occasionally a PWC will cruise the lake at 8 mph.

Benefits – Most people compliment the lake as an excellent fishing and cruising lake. Bass and Musky tournaments occur every weekend and several days during the week. The users enjoy the fact that they are not buzzed by faster boats, etc.

Excessive speeds, wakes, congested waters, as well as reckless operation, are frequently-listed causes of boating accidents on unlimited and high horsepower lakes. Although congested waters are possible, these conditions would be unlikely on unlimited lakes with a no wake or idle speed policy. Thus far, accident reporting on Ohio's two unlimited horsepower, no wake lakes has been too limited to draw any conclusions as to whether this rate mirrors that of a low horsepower lake.

Existing conditions are crowded on many of Ohio's unlimited horsepower lakes, negatively affecting the boating experience and even boating safety. Numbers of boats with larger horsepower motors has increased; there is a need to equitably accommodate these boaters. The probability that such a management change would have little if any effect on quiet lake atmosphere is low.

A change in lake management from low horsepower to unlimited with no wake, on a few lakes, even on a trial basis, should be strongly considered. Regional analysis indicates that Burr Oak Lake and Hoover Reservoir are logical candidates. In addition, Dillon Reservoir, an existing unlimited horsepower reservoir, is a logical candidate for enlarged no wake zones, and in time, lake-wide no wake zoning.

Chapter 10 User Conflict on Waterways

A boating definition of user conflict**:** Degradation of the recreational boating experience due to the actions/behavior of another boater or boaters, usually in another type of watercraft.

User conflict, as well as crowding, has repeatedly been identified as problematic by the Ohio boating community during recent years. Here's a brief history of boater commentary on user conflict.

Strategic Plan 1999

During the input phase of the 1999 Strategic Plan boaters weighed in on the topic of user conflict. Comments were overwhelmingly focused on PWC issues (92% of comments).

Number of Comments	Comment
33	More PWC regulations needed.
6	Zone separate areas for PWC
5	PWCs are singled out
2	Rental PWCs are problems
1	User conflict is worst at night
1	Fast boats on inland lakes are a problem
1	Power boating / fishing conflict
1	Boating / commercial fishing conflict on Lake Erie

1999 Work Group on User Conflict

As a result of boater input, a workgroup was formed made up of ODNR staff and boating partners. Members were ODNR Watercraft (3), ODNR Parks (1), ODNR Wildlife (2), Muskingum Watershed Conservancy District (1), boating industry/United States Coast Guard Auxiliary (1)

This group identified additional conflict issues, sought root causes of conflict problems, and made recommendations for the next step in addressing user conflict. Major conclusions included:

1. Inland unlimited horsepower lakes are most problematic.
2. Conflict is a by-product of:
    - Insufficient boater education: operator laws and alternate times and places to boat.
    - Poor facility design.
    - Underutilization of some boating areas, more pressure on other areas.

- Limited enforcement presence including a public perception that officers aren't around and insufficient manpower to control violators.
- Other duties of Watercraft officers, like towing and special events that take time away from enforcement.

3. Baseline info and analysis is needed before effective planning can proceed.

Strategic Plan 2002

User conflict comments gathered in public meetings again identified an array of conflict issues. This time PWC issues comprised only 11% of comments.

Quantity	%*	Comment
15	24%	No wake / speeding violations
11	18%	Launch ramp conflicts
7	11%	Problems with PWCs **
6	10%	Fast boats on inland lakes are a problem **
6	10%	Noise conflicts
5	8%	Commercial traffic conflicts on Ohio River
4	7%	Other Ohio River conflicts
3	5%	User conflicts on inland unlimited horsepower lakes
3	5%	Separation zoning (by area, lake, or time frame) desired
1	2%	Commercial traffic conflict on Lake Erie
1	2%	Recreational fishing / other boaters conflict **

*Percent of total user conflict comments. Due to rounding does not add up to 100%
** Issues also identified in 1999 Strategic Plan

2001 Boater Survey

The 2001 Survey of Recreational Boater Safety & Participation in Ohio asked respondents for additional comments on any issue pertaining to boating. These comments often pertained to user conflict issues. PWC issues still appeared to be very significant.

User Conflict comments written on returned survey:

Quantity	%*	Comment
15	42%	Problems with PWCs ◙
4	11%	Overcrowded conditions ◙
4	11%	Fast boats on inland lakes are a problem ◙
4	11%	Recreational fishing / other boaters conflict ◙
3	8%	Noise conflicts ◙
2	6%	No wake / speeding violations ◙
2	6%	Launch ramp conflicts ◙
1	3%	Hunting on lakes conflict
1	3%	PWCs are singled out

*due to rounding does not add up to 100%

◙ Issues also identified in the **Strategic Plan 2002**

A question on this same 2001 Safety and Participation Survey was related to user conflict:

Q27. At most used waterway how often did you experience:

Experience (not including *other*)	**Average Response N=652**
	Never (1) Some Trips (2) Most Trips (3) Always (4)
Law officer presence	2.06
Other	1.86
No wake violations	1.83
Careless or reckless boat operation	1.75
Speed limit violations	1.73
Crowding of waterways	1.73
Excessive boat noise	1.65
Operators obviously intoxicated	1.38

These were the array of user conflict issues on the table at the start of the BOW Planning process. What trends were identifiable from this data?

- Although PWC issues were still very evident, the percentage of comments on PWC issues dropped since the 1999 Strategic Planning meetings. PWC operator regulations that took effect in January 2000 seemed to be having a positive effect.

- All issues identified by the public in 1999 were still of concern to the public.

- The public identified a number of new user conflict issues.

- Many issues were identified across the board, from all sources of input.

Focus Groups

User conflict on Ohio's waterways was further defined through BOW Plan focus groups and questionnaires sent to waterway managers. The following is a summary of comments (sometimes contradictory) offered by all participants.

1. User conflict results from overlapping waterway use by user groups with very different purposes. Typical examples of boaters with diverse purposes: Waterfowl hunters, pleasure boaters, fishing tournament participants, boaters seeking solitude and quiet, personal watercraft operators in pursuit of speed and excitement, speedboaters, water-skiers, and sailors.

2. Waterways should be managed through zoning that is responsive to the unique situation at each waterway. Zoning policies should undergo periodic review.

3. Waterways should be managed through access limitations, such as zoning by hour of day, day of week, activity type, lake area, size of boat, type of boat, horsepower, and/ or capacity of parking area.
4. High speed is a concern to boaters; there is a desire for control of speed, such as an upper speed limit on waterways that are currently unlimited horsepower.

5. Better cooperation between management entities and private citizens (for example: advisory groups) is needed.

6. User conflict occurs mostly in crowded areas, especially in channels and rivers with access to Lake Erie, on popular unlimited horsepower lakes, and on heavily used rivers and streams. Conflicts on the Ohio River are often related to dual recreational/commercial use of the river.

7. Overcrowding is problematic, especially on weekends, at unlimited hp lakes and launch ramps.

8. Additional water surface area or lakes are needed in Ohio.

9. Lack of boating knowledge by boating participants exacerbates conflict between boaters.

10. There is a lack of consideration and understanding between various user groups.

11. Methods Ohio boaters have used or suggested to alleviate user conflict:

    1. Problem identification.
    2. Local public meetings/forums.
    3. Coordinated efforts (through clubs, etc.) by individuals to improve relations with the *other* boater type. (Example: Sailor and power boater conflict was improved at an inland lake. Problem was identified first, then sailing club members made coordinated effort to improve relations).
    4. Reduce opportunities for confrontation.

- Problems of excessive noise and PWC operator behavior are improving.

- Sailing and 10 horsepower fishing are compatible waterway uses.

BOW Plan Survey

Taking the cue from this input, survey question 28 was written to determine how a cross section of Ohio boaters perceives issues of user conflict.

28. At the waterway you boated on most often please indicate approximately how often you experienced the following during 2002.

	Never	Some Trips	About Half of Trips	Most Trips	Always	Respondents	Average Results
a. Another boater's apparent lack of knowledge about boating caused a problem for you.	1	2	3	4	5	**1050**	**2.11**
b. Another boater's discourtesy caused a problem for you. Describe: _____	1	2	3	4	5	**995**	**1.93**
c. Crowded conditions on the water caused a problem for you.	1	2	3	4	5	**978**	**1.81**
d. Crowded conditions at the launch ramp caused a problem for you.	1	2	3	4	5	**952**	**1.81**
e. Another boater was engaged in a significantly different boating activity than your own, which caused a problem for you. Your boating activity:_____ Other's boating activity:_____	1	2	3	4	5	**975**	**1.68**
f. Law violations by other boaters caused a problem for you. Describe:_____	1	2	3	4	5	**954**	**1.51**
g.Other:_____	1	2	3	4	5	**83**	**2.57**

Results for the "fill in the blank" portions of question 28 were:

28b. Another boater's discourtesy caused a problem for you.
Describe: _____

Respondents N= 373**(%)**	**Describe: Topic**
74 (20%)	Wakes in general
70 (19%)	Launch ramp issues
61 (16%)	Misc. education issues
39 (10%)	PWC issues
39 (10%)	Use conflicts while fishing
29 (8%)	One boater too close to another
24 (6%)	Excessive speed
20 (5%)	Cut in front of boater
17 (5%)	Lake Erie misc.

28e. Another boater was engaged in a significantly different boating activity than your own, which caused a problem for you.

Your boating activity:_____

Other's boating activity:_____

Respondents (%)	Activity	Other Boater Activity					
185 (60%)	Fishing	PWC 36%	Speed 19%	Waterskiing 18%	Too Close 9%	Cruising 8%	Other 10%
45 (15%)	Skiing/ Tubing/ Wakeboard	PWC 35%	Fishing 32%	Speed 18%	Tubing vs. skiing 6%		Other 9%
31 (10%)	Cruising	PWC 57%	Fishing 13%	Waterskiing 13%			Other 17%
22 (7%)	Sailing	Cruising 30%	Fishing 30%	Speed 15%			Other 25%
18 (6%)	Canoeing/ Kayaking	PWC 33%	Speed 24%	Waterskiing 24%			Other 19%
9 (3%)	Riding a PWC	Fishing 33%					Other 66%

28f. Law violations by other boaters caused a problem for you.
Describe: _____

Perceived Law Violation	Respondents (%)
No wake violation	63 (30%)
Speed violation	36 (17%)
Rules of the road, safety	36 (17%)
Too close	19 (09%)
OUI	17 (08%)
Other	40 (19%)

28 g. Other: _____

Comment Topic	Respondents N= 63
Ramps	34 (54%)
PWCs	11 (17%)
Law Violations	7 (11%)
Education	5 (08%)
Other	6 (10%)

Although some results shown here are derived from a very small number of respondents, and are therefore of limited statistical value, this survey information, as well as that provided by focus groups, gives the Division of Watercraft significantly more knowledge regarding user conflict issues and good baseline information (issue identification), as recommended by the 1999 User Conflict Work Group.

What do These Results Indicate?

Boating Knowledge

First indications suggest that information provided by focus groups was right on target. Virtually all user conflict issues identified by focus group participants were confirmed by the general boating population. These issues are inter-related and should be considered in a holistic manner.

The problem identified by participants as *a lack of boating knowledge that exacerbates conflict between boaters* is the aspect of user conflict that Ohio boaters report experiencing the most. To question 28a,

> *Another boater's apparent lack of knowledge about boating caused a problem for you*

The average response for all respondents (1050) was 2.11, or slightly more than "some trips". Nearly one quarter of respondents (24%) report this experience on half to all boating trips. Further analysis of survey data reveals that boaters across the state are fairly consistent in this response. Response values for the regions range from 2.2 in the northwest and central regions to 1.9 in the southeast region. These values vary more when analyzed in reference to type of waterway. Boaters experience this *apparent lack of knowledge* most frequently on Lake Erie and unlimited horsepower waterways (both 2.3), followed closely by medium horsepower lake boaters (2.2) and Ohio River boaters (2.0). *Apparent lack of knowledge* is observed less often on rivers and stream and low horsepower lakes (both 1.7).

This information will be useful to boating education curriculum planners, but will in no way modify basic National Association of State Boating Law Administrators (NASBLA) approved Ohio boating courses. These courses include essential boating information, not the least of which is boating safety relevant to all boaters, including those on rivers and streams and low HP lakes where unfortunate boating accidents do occur annually.

Discourtesy

Ohio boaters experience *discourtesy* on average of "some trips" (response 1.93). About 19% of boaters have such an experience on half to all boating outings. Respondents were asked to describe the nature of the discourtesy, roughly one third of respondents complied. Inappropriate creation of wakes was most often listed, followed closely by boater behavior at launch ramps, and observed lack of boating knowledge. Almost 50% of listed complaints pertained to one of these three topics. PWC operator behavior, disturbances to anglers, boaters coming inappropriately close, excessive speed, and boaters "cutting in front" were also mentioned, in descending order.

Crowded Conditions

There is a definite correlation between an experience of *crowded conditions* at the launch ramp and on the water. Both categories elicited a response rate of 1.81 from the average Ohio boater, which means slightly fewer than some trips. When survey data is sorted for regional information, results show that boaters in the central (2.0), southwest (ramp: 2, water: 1.9), and northeast (1.8) regions are experiencing crowded conditions more frequently than their counterparts in the northwest (1.7), and southeast (1.6) regions. The same analysis by type of waterway reveals less correlation between an experience of crowded conditions at the ramp and on the waterway. But the analysis does reveal that boaters on unlimited and medium horsepower lakes are experiencing crowded conditions on the water more frequently (both 2.0) than their counterparts on Lake Erie and the Ohio River (both 1.7), or on low horsepower lakes and rivers and streams (both 1.6). As might be expected, crowding at launch ramps is experienced most often at unlimited horsepower lakes (2.0) and medium horsepower lakes (1.9) and less often at Lake Erie, Ohio River and low horsepower lakes (all 1.7) and infrequently at river and stream ramps (1.4).

Conflicting Boating Activities

Although some boaters are periodically inconvenienced by another boater's conflicting activity, Ohio boaters report that this occurs less frequently than apparent lack of boating knowledge, discourtesy, or crowded conditions. The statewide response to question 28e,

> *Another boater was engaged in a significantly different boating activity than your own, which caused a problem for you."*

was 1.68, or appreciably less often than "some trips". A regional analysis of data shows a fairly consistent response across the regions of the state (NE, C, SW – 1.7, NW – 1.6), with the least amount of conflict occurring in the SE region (1.5). Medium and unlimited horsepower lake boaters experience this conflict more frequently (1.9 and 1.8 respectively) than Ohio River boaters (1.7) or Lake Erie boaters, low horsepower lake boaters (both 1.6), or river and stream boaters (1.5).

About one third of question 28e respondents wrote in their boating activity and the offending "other" boating activity. Fully 60% of submitted conflict examples came from boaters who were fishing. In nearly 75 % of these fishing conflicts, the angler was bothered by PWC behavior, excessive speed of another boater, or nearby water skiers. Interestingly, one-third of the few boaters who reported an activity conflict while operating a PWC said the bothersome activity was fishing.

Boaters who are waterskiing, tubing, wakeboarding, and cruising also identify PWC operation as a problematic activity. Nearly 60% of cruising respondents had this

comment. Approximately 32% of skiers-tubers-wake boarders, and 13% of cruising boaters also cited fishing activity. Sailors generally are not naming PWC riding when listing incompatible activity, but are instead identifying cruising and fishing, and to a lesser extent, excessive speed.

Law Violations

A question pertaining to law violations was included in the survey to gain additional insight into user conflict perceptions.

> *Law violations by other boaters caused a problem for you.*
> *Describe: _____*

As most boaters are not trained in the details of watercraft laws, what may be perceived as a law violation may not be in reality, and vice-versa. This said, survey results show that no-wake violations are perceived to be occurring most frequently (30% of responses). In fact, the most commonly written citation on Ohio waterways is for creating a wake in a no-wake zone. Speed violations and rules of the road/boating safety are also mentioned with considerable frequency.

Sixty three respondents wrote in a comment in the "other" section under user conflict. Over half of these comments described user conflicts at launch ramps.

Related Survey Information

As overcrowding (especially on weekends) was identified by focus participants, the survey asked several questions related to this topic. Questions 29, 30, 31, 38 and 39 inquired about days on which boaters can and cannot boat, expected schedule changes within the next five years, and boater's work schedules. The results were both unsurprising and surprising.

Boating participation is highest on Saturday (83%), closely followed by Sunday (79%), which is as expected, but boating is occurring during the week at a higher rate than previously thought: 56% of boaters report boating on Fridays, and 34% say they boat on Thursday. The quietest day for boating, according to the survey, is Tuesday, and even 31% of boaters report outings on this day. Although no historical data exists to support this observation, some Division of Watercraft field managers estimate that these weekday participation rates represent an increase over past boating activity.

Boating respondents typically work full time (77%) or are retired (22%). Most (77%) employed boaters work a traditional work week, Monday-Friday daytime hours. National trend analysts predict that modern technology and the nature of the "Gen X" worker will continue to redefine the workweek; the traditional work week will become less and less the norm. Whether as a result of this trend, or because the average age of the surveyed boater is 49.4 years (or a combination thereof), fully

31% of respondents expect a significant change in their schedule within the next five years, resulting in more boating outings on days previously unavailable for boating. These are predominantly weekdays.

It is reasonable to conclude that as boating use of Ohio waterways increases due to population growth and the retirement of the largest demographic group in recent history (baby boomer), a shift to more midweek boating will likely occur. This may somewhat temper the crowded situations boaters currently observe on weekends. However, it would be irresponsible to sit and wait for a prediction to come true. Boaters are experiencing overcrowded conditions on weekends. Solutions to this, and other problems, are needed now.

Recommendations

Boating Knowledge

The Division of Watercraft has been continuously working to improve boater education. In 1992, the Division of Watercraft began a basic statewide boating course. In 1993, volunteers, marine patrol officers, and staff were trained as instructors in what is now named the Ohio Boating Education Course (OBEC). The National Association of State Boating Law Administrators (NASBLA) approves this course, offered throughout the state. Topics include safety equipment requirements, operational laws, navigation rules, trailering, and launching. In 1993, the Splash Test Dummies™ , Splish™ and Splash™, were created to promote boating safety.

The growth of PWCs has attracted a greater number of younger operators to the waterways. In 1996, 26% of first-time registrations in Ohio were attributed to personal watercraft. Senate Bill 295 was introduced in 1996 to address the changing trends in boat types and the increasing problems associated with these trends. This bill was passed effective March 17, 1997. Under the law the minimum operator age for personal watercraft is 16; operators 12 to 15 years old can operate a personal watercraft with a supervisor on board. (The bill also included new regulations for exhaust mufflers on boats, effective January 1, 2000).

In 1996, the Division of Watercraft entered into memoranda of understanding with the United States Coast Guard Auxiliary and the United States Power Squadron to provide educational assistance with Ohio laws and safety requirements. The diversity and convenience of course offerings provided by theses agencies allow all Ohio boaters an opportunity to receive boating safety information and training at minimal cost and in close proximity to home.

The year 1998 witnessed the introduction and enactment of major boating legislation in the state. House Bill 502, signed by Governor Voinovich on June 25, 1998, established a graduated mandatory education requirement for individuals born on or after January 1, 1982, when operating powerboats over 10 horsepower. The law

requires the successful completion of a course approved by the National Association of State Boating Law Administrators (NASBLA) or passing a proficiency exam. The effective date for the law was January 1, 2000.

As of January 2004, all boaters younger than 22 years of age are required to at least pass a boating proficiency exam. Boating courses are offered in a wide variety of formats, including a web-based interactive course. Each year the number of boaters who have passed a proficiency exam increases, as the age requirement increases. Thus, over time, greater and greater numbers of boaters will have received at least web-based instruction.

In the meantime, 24% of Ohio boaters report they experience a situation where another boater's apparent lack of knowledge about boating has caused a problem for them on half to all boating trips. Compare this experience to other modes of transportation. It's doubtful that 24% of aircraft pilots would have this comment about their peers. How about drivers on the road? How often do you find yourself in a driving situation where another driver's apparent lack of knowledge about driving has caused a problem for you? Not that it doesn't occur, but it is unlikely that 25% of us would report this experience on at least half of all trips by car. Boating education has come a long way in Ohio, and but further improvements are needed.

Survey questions 33 and 34 asked boaters if they had taken a boating education course, if so, what kind and when, and if not, why not. Fifty-one percent of respondents had never taken a course of any kind. Twenty-eight percent had taken a certified classroom course, but only a little over half (56%) of these boaters took the course within the last ten years. Therefore about 16% of Ohio boaters have taken a classroom course within the last ten years that would be roughly equivalent to classroom driving instruction typically taken by new drivers.

When only those boaters who had never taken a classroom course were asked for reasons why they hadn't taken such a course, about half of respondents stated they didn't feel they needed a classroom course. Other reasons were (respondents could select up to three choices):

29.7%	b. I'm not required by law to take one
21.7%	h. Other reason: _____
19.2%	a. I don't know much about them.
18.3%	c. I took a non-classroom course that serves my needs.
13.2%	d. Course time is inconvenient.
8.7%	e. Course location is inconvenient.
2.3%	f. Course costs too much.

Current boating education programs offered in Ohio are of excellent quality and are comprehensive in nature. However, this boating education message is reaching too few boaters. In fact, *I don't know much about them* was selected nearly 20% of the time by question 34 respondents. New ideas and methods are needed to reach more Ohio boaters. Further study is warranted; the Division has recently held focus groups on this topic.

Brainstorming sessions are recommended as another excellent first step in finding ways to provide boating education to those who could most benefit.
Some sample brainstorming ideas are:

- Target new and existing boater education outreach efforts towards Lake Erie boaters, unlimited horsepower boaters, medium horsepower lake boaters and Ohio River boaters.

- Increase availability of boating courses that include opportunities to operate a boat. This may increase costs, but *Course costs too much* was only selected as a barrier to education 2% of the time, so current costs are universally perceived as low.

- Encourage courts to require a boating education course in more instances where a boating citation occurs or reoccurs. This technique is already used elsewhere in the country. A new California law ensures that the people who need boater education the most, receive it. California Assembly Bill 2005 requires a person convicted of any vessel moving violation pass a state-certified boating safety course. Under previous law, convictions for reckless and negligent operation, or violating the federal rules of the road did not require the offender to take a safety course.

  > "*Targeting persons convicted of boating law violations educates those most in need of boating safety knowledge*," says Raynor Tsuneyoshi, Director of the Department of Boating and Waterways in California.

- Offer more short courses or mini courses on specific boating subject matter, such as right of way topics, safety topics, how to launch a boat, etc.

- Host frequent education fairs at places boaters congregate, like boat shows, launch ramps on a weekends, marinas, boat dealerships, etc.

- Coordinate a campaign to enlist boat dealerships as partners in boating education.

- Promote specialized boating education classes for boat dealerships.

- Develop detailed distribution plans for boating education materials. Proactively place these materials into the hands of boaters and boat dealers.

Discourtesy

Boating discourtesy has been described by survey respondents as (in order of importance) inappropriate creation of wakes, boater behavior at launch ramps, observed lack of boating knowledge, PWC operator behavior, disturbances to anglers, boaters coming inappropriately close, excessive speed, and boaters "cutting in front".

Wakes: Creation of a wake is an unavoidable byproduct of boating at almost any speed higher than idle. Even sailboats under sail can create a wake. Yet there has been considerable public input regarding the disruption of the boating experience due to inappropriate wakes. Indeed, the largest percent of respondents to question 28f, which asked boaters about problematic law violations by other boaters, cited no-wake violations. Many no wake zones have been established for a variety of reasons on Ohio's lakes and rivers. Enforcement in no-wake zones has been ongoing and will continue. Additional recommendations:

- Enforcement of no-wake in designated no wake zones should be a priority, as this issue has been identified as very problematic to Ohio boaters.
- Determine which lakes have prevalent no-wake violations, and install signage at launch ramps stating "no-wake zones enforced" as fair warning to boaters.
- "Wake-free" boating opportunities should be promoted for the benefit of those boaters who are bothered by wakes. Maps highlighting the locations of quieter low horsepower lakes, no-wake lakes, and large no-wake zones should be made available to boaters through the web and distributed publications.
- Additional "no wake" lake surface area, available to all boaters, should be created through lake management modifications.

Boater conduct at launch ramps: Launch ramps are identified by survey respondents as prime locations for user conflict in terms of both behavior issues and crowding. No boater likes to head out for a day of recreation only to first experience an excessive wait in line. Although people expect this in some recreational settings, like amusement parks, launch ramp lines can be especially aggravating because efficient line movement depends on the line members having acquired skills in launching.

The following recommendations are suggested to address this problem.

- Crowding at launch ramps must be reduced wherever possible. Boaters should certainly be encouraged to come out and boat, but more information should be provided to boaters about alternative waterways, boating times, and access points.

- A “real time” launch traffic conditions reporting system should be developed using the web and / or a 1 -800 number, like 1-800-ULAUNCH, for the busiest lakes on weekends and holidays.
- Launching traffic must be managed at peak times. Staff and/or volunteers should be on hand to direct traffic and assist boaters launching onto high use lakes on the busiest days.
- More new boaters must be educated about launching procedures.
    - Advertised how-to launch clinics could be held at popular lakes on weekday evenings.
    - A special lane could be set up for new boaters to launch with assistance during certain hours.
    - A launching information kiosk could be installed at Ohio’s busiest launch ramps.
- Boater information, education, aid and refreshment booths could be set up at busy launching locations to provide a more festive atmosphere and give boaters something to do while they wait. A similar effort was instituted in San Diego, California, with great success. A number of public and private club partners worked together on a boat ramp education program. The program:

    > “begins with a ten-minute presentation of the Rules of the Road and Right of Way. A booth is set up and launch ramp instruction is given to those launching their boats.” – Christine Griffin, San Diego Jet Sports Club

- Additional boating access should be developed at strategic locations.

- Develop all new ramp facilities with greater thought toward alleviating user conflict. This should include the provision of courtesy docks at every boat launch ramp. These docks should be located away from the ramp so as not to interfere with launch and retrieval and should be built with the single occupant boater in mind. (If their needs are taken into account, multiple users will also be accommodated.) Where courtesy docks are not feasible or are a maintenance problem, shorelines around the ramp can be softened with sand or grass, so that some types of watercraft can use this area for courtesy functions.
- Develop fishing piers around, but away from, launch ramps, thus providing good public fishing access while discouraging conflicting use patterns.

Many of these suggestions require additional seasonal staff and/or volunteers. The possibility of working with partners who are dedicated to improving the boating experience at the local level should be thoroughly explored. Boating enthusiast volunteer groups (such as: Friends of Boating at Blue Lake, Inc.) could be very effective partners in the effort to alleviate user conflict. Boating is a seasonal business with a strong customer service component; gearing up for customer service during the boating season is an absolute necessity.

Observed lack of boating knowledge: Refer to section on boating knowledge, pages 135, 138-140.

PWC operator behavior: Personal watercrafts (PWC) are very versatile craft and, when operated in the manner of a traditional boat, are not usually problematic to other boaters. Although it is not the intent of this planning report to single out one type of watercraft, there were so many comments from a such a wide range user types (anglers, skiers, cruisers, and paddlers) pertaining to conflict issues with PWC operation, discussion of this vessel type is in the best interest of all boaters.

Courtesy, of course, cannot be legislated or mandated. However, courteous operation of PWCs is a national issue. Bans on PWCs have been proposed and even instituted around the country, often officially based on environmental concerns. Many of these bans have been successfully challenged and overturned because of lack of any evidence of PWC caused environmental harm. The PWC industry has been proactive in addressing the public's concerns, for example new, quieter, four-cylinder engine designs have made PWCs quieter.

The United States Power Squadrons, in cooperation with Kawasaki Motors Corp., U.S.A., have acknowledged that:

> "...*increasingly crowded waterways have resulted in disputes among boaters, and shore-based recreationists or residents. Included in these concerns are those of over-use, increasing speeds, noise, environmental effects, and irresponsible use practices. Personal Watercraft, in particular, seem to generate more controversy than many other boat types, possibly due to a combination of non- traditional use patterns and a rapidly increasing user population.* "

In an effort to address this issue, the Northwest Personal Watercraft Safety Project, a grassroots coalition of approximately 70 PWC dealers in Washington, Oregon, and Idaho, has created a personal Watercraft Conflict Resolution Website, which contains the following Code of Ethics.

A Personal Watercraft Code of Ethics

I will respect the rights of all users of the recreational waterways, both on public waters and on adjacent private property.

I will be considerate at the launch ramps and docks. I will get on and off the ramps quickly and not delay others.

I will follow the navigation rules of the road around all other vessels. I will learn and observe my state's rules on wake jumping.

I will give all fishing, anchored, or drifting vessels plenty of room.

I will always operate at headway speed in "no wake" zones.

When approaching the shore, I will be especially aware of swimmers and other craft near the shore.

I will not disturb wildlife. I will avoid areas posted for the protection of wildlife.

I will not litter the shoreside and I will be careful with my fuel.

I realize that my travel speed should be determined by my equipment, ability, weather and wave conditions, and especially other vessel traffic. In case of emergency, I will volunteer assistance.

I will not interfere with or harass others. I realize that people judge all personal watercraft by my actions.

I will pay close attention to the noise my vessel may make and be aware of how others on boats and on shore react to that noise.

This code of ethics, developed by the Personal Watercraft Industry Association, should be promoted in Ohio through boating education and partnerships with PWC dealers. Posting this pledge in conspicuous locations at high horsepower lake launch ramps and showcasing the pledge at boat shows and other boating events would proactively promote this message. A laminated pledge card might be provided to those who sign this pledge.

These small, versatile watercraft are often operated in a freestyle manner that more closely resembles waterskiing than traditional boating. This can be problematic to other boaters, who find it difficult to predict the PWC user's next maneuver.

Designating PWC zones, similar to water ski zones, where PWC operators could maneuver their boats in a freestyle manner, would allow PWC boaters freedom to enjoy their sport, while the rest of the lake remains more predictable to other boaters. On a few of Ohio's busiest unlimited and high horsepower lakes, where PWC use is determined to be very prevalent during high-use hours, zoning for PWC use might be tried in the form of pilot projects. Outside of the designated PWC zone,

PWC boaters would be restricted to normal headway type boat operation. These pilot projects should be distributed equitably around the state and are recommended only for very high use lakes during peak hours. In some cases, existing ski zones might be scheduled for skiing during certain hours and PWC use during other designated hours. (For example: PWC after 3:00.) Outside of these hours the subject lake would also be open to PWC, but operation style restricted to normal headway type boat operation.

Disturbances to Anglers: Looking at the responses to question 28e, where boating anglers identified a boating activity in conflict with fishing, PWC operation, speed, or waterskiing were specified nearly 75% of the time. Although anglers may fish in all waters of the state, quieter inland waters are usually more conducive to fishing. Speed, waterskiing, and PWC operation are typical uses in open zones, which are in fact the most appropriate locations for "active" boating. If PWC zones are successful, this should alleviate some of the user conflict associated with PWCs. Changing horsepower policies at a few lakes, thus adding to the number of quiet lakes accessible to all fishermen, may reduce the numbers of fishermen trying their luck in an active open zone.

One Boater Too Close to Another / Cutting in Front / Excessive Speeds: These are education and enforcement issues. Providing additional emphasis on these topics during education sessions and providing additional focus on these behaviors during patrol operations will likely have a positive effect.

Significantly Different Boating Activities Cause Problems for Boaters

A very wide range of boating activities takes place on Ohio waterways. Active boating styles like waterskiing, speeding, and PWC operation can be problematic for passive boating styles, and vice versa. Luckily, Ohio waterways offer many choices in atmosphere, depending on lake size, location, management policy, time of day, day of week, or time of year. With so many Ohio boaters with such diverse pursuits, it is just not possible for any given lake to be all things to all boaters on a sunny Saturday in July.

The Division of Watercraft may be able to ease on the water tensions between the various user groups by seeking ways to better distribute boaters. Boaters should be encouraged to recreate on water surface best suited to their boating activity. Past studies show that Ohio boaters travel an average 38 miles to their boating destination. Therefore it is imperative that a variety of boating opportunities be available in each region of Ohio, to the extent possible. It is also imperative that boaters have quick, easy, positive and comprehensive information about Ohio's variety of boating opportunities. Marketing efforts must include messages that

promote trying out new waterways and non-traditional boating times with the goal of better distribution of the boating public through the resources of both waterways and time.

Tensions between the various user groups may also be lessened through marketing, educating and facilitating on another front: boater empathy. Through the use of Division of Watercraft publications, website, and/or other education efforts, profiles of various types of boaters could be presented to the boating public, thus promoting and marketing a better understanding between boaters. For example, an on-line newsletter would not only be a vehicle to keep boaters apprised of upcoming boating events and new PFD styles, but could also feature real boater testimony about their sport and favorite waterway.

Ohio Boating Times, May Issue

The Smith family loves to water ski on Blue Lake. Joe Smith, a 45 year-old insurance salesman, has been waterskiing since he was 12 years old and is now teaching the sport to Kim and Tim, his children.

Joe says, "Blue Lake is perfect for waterskiing, especially on weekday afternoons. Every other Tuesday I leave work an hour early, meet up with the family, and head for Blue Lake. It's only 30 minutes from the outer belt of Metrocity, and the launch ramp is practically empty. It's great. On a nice day the open zone in northern end of the lake is clear as glass, which is what we water skiers love……"

Video presentations promoting empathy between boaters can be effective. Such a video might include a humorous look at a PWC operator trying out a johnboat, and the owner of the johnboat in turn trying out the PWC. A good example is *In Their Shoes*, a light-hearted (but effective) video, available through *Equestrian Land Conservation Resource*. The video addresses user conflict between equestrians and other user groups on recreational trails.

Marketing can be used as a tool, not only to attract new people to boating, but to improve boating experiences on Ohio waterways. Having a positive and fun experience on Ohio waterways is what will ultimately keep people boating and attract new boaters. Nearly 2½ million Ohioans reported boating in Ohio at least once in 2002. It is a safe bet that many told friends, family and co-workers about their boating outing. Word of mouth is always the most effective, straightforward and inexpensive marketing tool in the marketing toolbox.

Marketing tools can be effectively used to promote boater empathy, boating during non-traditional hours, to encourage boaters to try new waterways, and become better educated about boating. Improvements in these areas will reduce the number of user conflict instances, resulting in more pleasurable boating experiences for all.

Summary

Conflicts on waterways will continue to challenge recreation providers and users in the future. However, increased boater education, enforcement and facility upgrades should assist in alleviating the circumstances that lead to conflicts.