

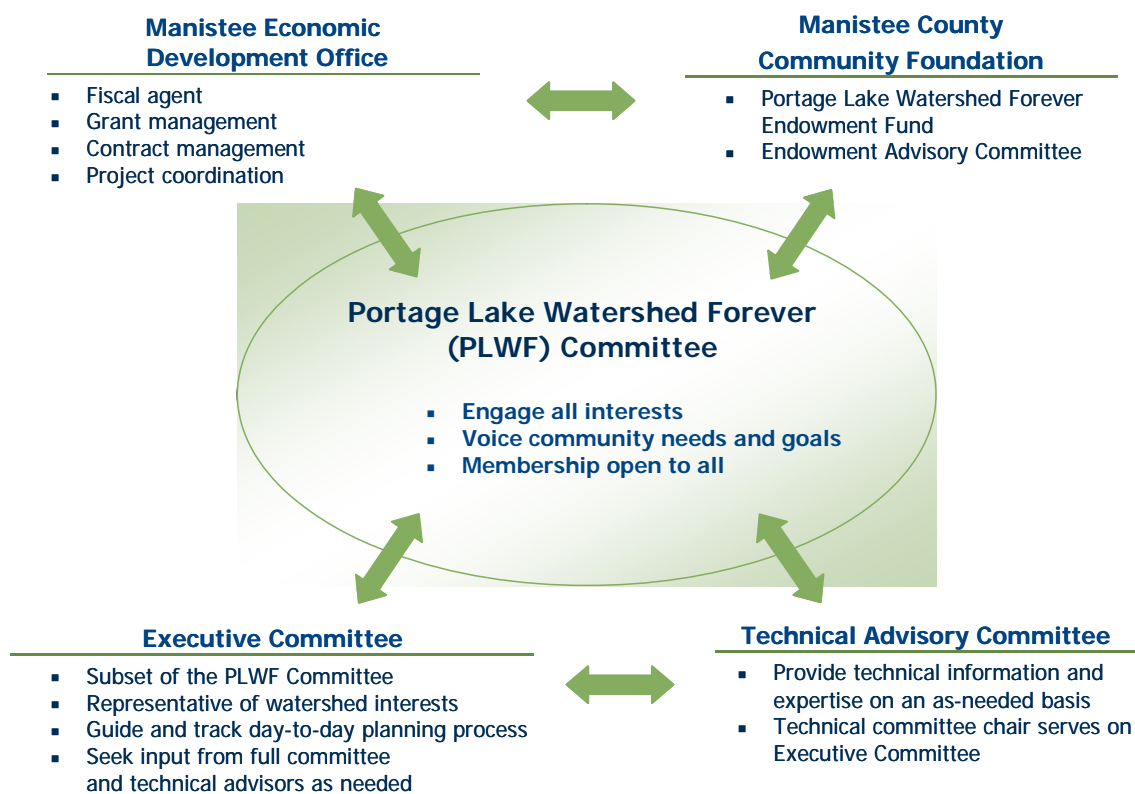
Stakeholder Involvement

The Portage Lake Watershed Forever Plan began in 2006 as a local initiative by residents, public officials, nonprofit organizations, and business leaders aided by the Manistee County Community Foundation and Manistee Economic Development Office, all of whom recognize the importance of protecting and enhancing this natural resource for the future quality of life and economic well-being of the area. At the beginning of the planning process, more than 50 individuals, organizations, agencies, and businesses signed the *Portage Lake Watershed Forever Partnership Agreement*, which contained principles that helped guide the development as well as the expected outcomes of the plan.

PLAN DEVELOPMENT ORGANIZATIONAL STRUCTURE

Several organizations and committees provided leadership in the development of this plan. The Manistee Economic Development Office (MEDO) served as a nonprofit, 501 (c)(3) hub for financial, grant, and contract management for the planning process. The MEDO engaged a neutral facilitator, Public Sector Consultants Inc. (www.pscinc.com) of Lansing, Michigan, to assist the community in developing the plan. The Portage Lake Watershed Forever Committee and its Executive Committee and Technical Advisory Committee, all of which include representation from all watershed interests, guided the planning process. A Portage Lake Watershed Forever Endowment Fund was established at the Manistee County Community Foundation (www.manisteefoundation.org) to provide support for the plan and its implementation. The plan organizational structure is illustrated in Exhibit 1.

EXHIBIT 1
Portage Lake Watershed Forever Plan Organizational Structure



SOURCE: Public Sector Consultants Inc., 2007.

COMMUNITY CONVERSATIONS

One of the first steps in the development of this watershed management plan involved identifying and convening stakeholders in the watershed through community conversations. Stakeholders were defined as individuals, groups, agencies, and organizations that make and carry out decisions, are affected by decisions, or have the ability to impede or affect decisions that impact the watershed. Stakeholders were involved at an early stage and throughout the development of this plan. Their participation was considered critically important to ensure the development of a community-driven watershed management plan and local commitment toward achieving goals through implementation of the plan.

The purpose of the community conversations was to:

- Educate participants about watersheds, the history and status of the Portage Lake watershed, the development of watershed management plans, and how a plan can benefit the local community
- Solicit information from all interests about water quality concerns and desired uses to provide a foundation for the development of the watershed plan and gather qualitative information that would help inform the development of a watershed household survey

■ Build community ownership of and engagement in the plan

Public Sector Consultants engaged nearly 150 people through eight community conversations organized by stakeholder groups (see Exhibit 2) conducted between March and June 2007 and a community forum aimed at engaging the general public held in May 2007. A series of eight questions were asked during each facilitated meeting and responses were recorded. A summary table of questions and responses is provided in Exhibit 3. Responses from stakeholders indicate that they believe the health of the watershed is essential to their quality of life and economic well-being.

EXHIBIT 2

Stakeholder Groups and Number of Participants Engaged through Community Conversations and Community Forum

Stakeholder group	Number of participants
Year-round residents	11
Seasonal residents	35
Youth/students (Onekama High School)	15
Educators	4
Village, township, county, and tribal government	11
Recreation, tourism, business, and civic organizations	7
Agriculture and land developers/managers	13
Natural resource managers	14
Community Forum (general public)	38
Total	148

SOURCE: Public Sector Consultants Inc., 2007.

EXHIBIT 3

Combined Summary of Responses from Community Conversations and Community Forum

Question	Responses
What are some of the things you do in the watershed?	<ul style="list-style-type: none"> • Participate in numerous water and land-based recreational activities • Enjoy natural beauty; live; work; educate; manage/protect the health of the watershed
What do you consider to be some of the biggest problems facing the Portage Lake watershed right now?	<ul style="list-style-type: none"> • Lack of complete/accurate/current fact-based information about the watershed • Lack of understanding about how actions impact water quality • Development of sensitive areas • Loss of critical habitat • Invasive species • Nutrient loading from fertilizer application and improperly maintained septic systems • Lack of channel dredging • Not enough long-term planning • Lack of communication among local units of government or

Question	Responses
	<ul style="list-style-type: none"> collaborative planning • Lack of economic development • Decreasing number of students and young families
<p>What are some possible solutions to these problems?</p>	<ul style="list-style-type: none"> • Information, education and outreach • Leveraging additional financial, human and technical resources • Implementation of best management practices (BMPs); joint planning • Land use planning • Economic development planning • Dredging • Water quality monitoring
<p>Have you ever had a conflict with other people who use the watershed differently than you do?</p>	<ul style="list-style-type: none"> • Personal water crafts and other lake users • Development that impacts critical habitat and views • Users of road ends as public access sites and nearby property owners • Hunters and other watershed users • Various watercraft users and fisherman • Government regulations and property owners
<p>Are there certain cultural, historic or environmental sites or resources that you think should be protected?</p>	<ul style="list-style-type: none"> • Parks and public access sites • Camps • Beaches • Views and vistas • Trails • Farming/agriculture • Historical sites and structures • Rural character • Fair grounds • Critical habitat and sensitive areas (water quality, wetlands, dunes, feeder creeks, forests) • Fishery • School
<p>How do you get most of your information about the Portage Lake watershed?</p>	<ul style="list-style-type: none"> • Local newsletters and web sites • Federal, state, and local agencies and organizations • Word of mouth • Teachers • Past studies and plans
<p>Are there certain sources of information you consider more trustworthy than others?</p>	<ul style="list-style-type: none"> • Most are trusted • No central source for fact-based information about the watershed
<p>Imagine the Portage Lake watershed 50 years from now—what do you want it to look like?</p>	<ul style="list-style-type: none"> • Not a lot different from now • Enhanced and more parks and public access and trails • Views and vistas maintained • Abundant fish and wildlife • Lack of exotic and invasive species • Excellent water quality • Protected fragile environments • Outstanding schools with water curriculum • Protected and wisely planned community • Engaged community • Multiple generations live and work • Vibrant cultural focus

SOURCE: Public Sector Consultants Inc., 2007.

Additional stakeholder meetings were conducted by members of the Portage Lake Watershed Forever Executive Committee, including meetings with the Lions Club, Onekama Guild, Portage Lake Association, Portage Point Summer Resort Corporation, joint meeting of Onekama Township and the Village of Onekama, and numerous individuals and business owners.

The information collected through the community conversations, community forum, and additional stakeholder meetings provided a valuable foundation for the development of the watershed management plan and helped to inform the development of the household survey. These meetings also provided an excellent way to educate and engage various stakeholders in the development of the plan.

HOUSEHOLD SURVEY

Development of this watershed management plan included a survey of 250 households in the watershed. Conducted in August 2007 by Public Sector Consultants, the survey was designed to learn how residents use the watershed, how they want it to look in the future, their perceptions of and priorities for improving water quality, and to provide general information about the households that could impact the watershed. The survey also helped shape the information and education section of this plan by shedding light on the perceived use and trustworthiness of different sources of information, uncovering false perceptions, identifying targets for outreach efforts, and establishing a baseline of information that can be used to evaluate the success of future watershed management activities.

Because this survey was designed to include seasonal residents, the total number of housing units (1,351), which includes rental properties, was used to calculate the margin of error, which is ± 5 percent at the 95 percent confidence interval. A complete report containing the survey instrument and results can be found at <http://www.pscinc.com/documents/PLWF>. The following sections provide a summary of the report findings.

Activities

When creating a watershed management plan, it is important to know how residents use the watershed and how they want it to look. This information is important because it helps guide and prioritize protection and restoration efforts. To identify how residents in the Portage Lake area use the watershed, respondents were asked to report how frequently they participate in certain activities, weather permitting. The activities that respondents **most frequently** engage in are:

- Boating: 45 percent participate once a week or more often
- Swimming, snorkeling, or scuba diving: 42 percent participate once a week or more often
- Fishing: 37 percent participate once a week or more often

The activities that respondents report **never** participating in include:

- Waterfowl hunting (94 percent)
- Winter snowmobiling or ATV riding (84 percent)

- Water skiing, tubing, wakeboarding, or kneeboarding (68 percent)
- Canoeing, kayaking, or tubing on a river (58 percent)

Among respondents who report fishing, 66 percent rate the fishing as *excellent* (13 percent) or *good* (53 percent). Nearly half (46 percent) report that the fishing has stayed *about the same* over the past few years. Among respondents who report boating, motor boats are the most frequent type of boat used. Within this category, 40 percent use a motor boat 20 feet in length or smaller, and 24 percent use a motor boat over 20 feet. Jet ski/waverunner/personal watercraft represent the least frequent type of boating among residents.

It appears that residents in the watershed use different boating access points to Portage Lake in fairly equal proportions. One-third (33 percent) of respondents who report boating access Portage Lake by a dock, mooring, or launch from their own property; 31 percent from a Michigan Department of Natural Resources (MDNR) state public access site; and 23 percent from Village Park.

Conflicts

For watershed planning purposes, it is important to know if any of the ways in which residents use the watershed are in conflict. To answer this question, respondents were asked if they had personally observed any conflicts between users of Portage Lake, such as personal watercraft interfering with fishing. About two-thirds (67 percent) of respondents say that they have not seen conflicts between various users of Portage Lake. Respondents who have personally observed conflicts most frequently mentioned personal watercraft being involved (39 percent), even though personal watercraft represent just 6 percent of boating reported on Portage Lake by those surveyed. Other conflicts include issues involving access to the lake (19 percent), conflicts between those fishing and those boating on the lake (14 percent), and among boaters on the lake (10 percent). Half of those reporting conflicts (51 percent) say that the conflicts occur at peak times only (that is, holiday and summer weekends), 39 percent say both peak and non-peak times, and 10 percent say non-peak times only. Nearly half (47 percent) say that these conflicts are not very frequent.

Water Quality Perceptions and Improvement Actions

To begin to understand potential water quality problems in the watershed, survey respondents were asked about their perceptions of the water quality of Portage Lake. Overall, respondents give the water quality of the Portage Lake high marks.

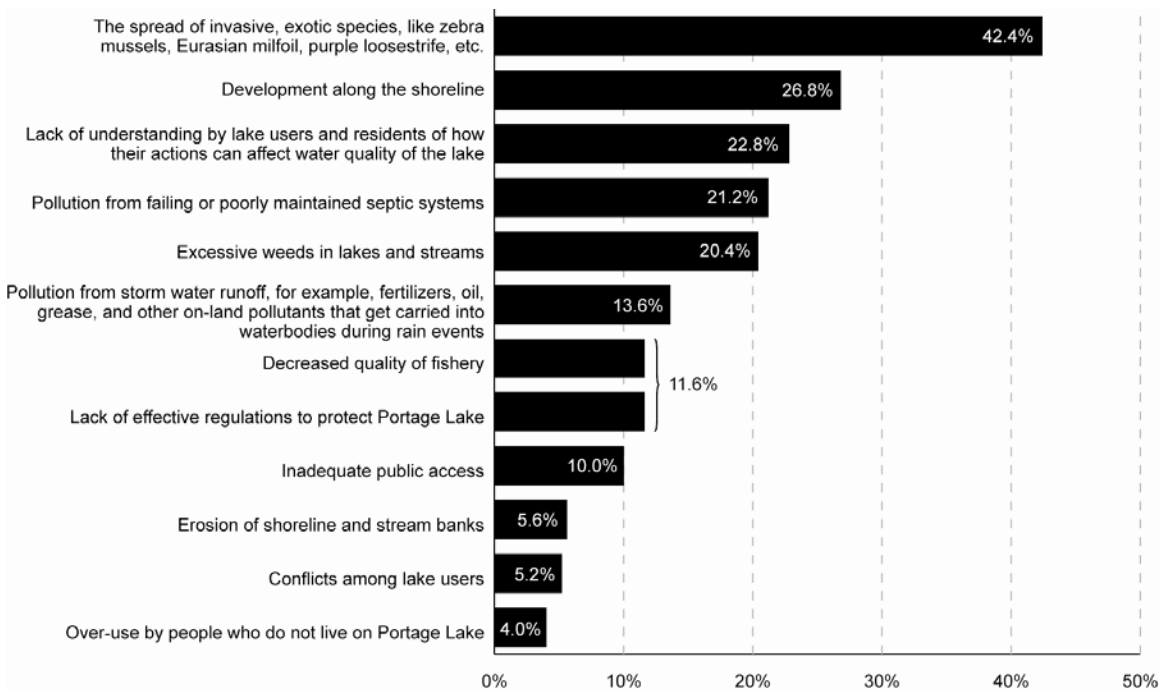
- 82 percent of respondents rate the overall water quality of Portage Lake as excellent (25 percent) or good (57 percent).
- The majority (64 percent) feel that the water quality of Portage Lake is somewhat (39 percent) or significantly (25 percent) better than the water in other inland lakes.
- About half (55 percent) say the water quality has stayed about the same over the past few years; another 18 percent say that it is either somewhat (16 percent) or much (2 percent) better.

Respondents were also asked to indicate how much of a problem is posed by certain issues regarding water quality and recreational opportunities. As shown in Exhibit 4, the following were most frequently identified by respondents as **major problems**:

- The spread of invasive, exotic species (42 percent)
- Development along the shoreline (27 percent)
- Lack of understanding by lake users and residents of how their actions can affect water quality (23 percent)
- Pollution from failing or poorly maintained septic systems (21 percent)

Another telling statistic is the number of respondents who say they “don’t know” if the issues are a problem: 27 percent don’t know if the decreased quality of the fishery is a problem, 24 percent don’t know if lack of effective regulations on Portage Lake are a problem, and 18 percent don’t know if pollution from failing or poorly maintained septic systems is a problem.

EXHIBIT 4
Issues Considered Major Problems by Watershed Residents



SOURCE: Public Sector Consultants Inc., Survey of Portage Lake Residents, 2007.

Respondents were also asked to rate the priority for protection of certain places in the Portage Lake watershed. The sites most frequently mentioned as the **highest priority** for protection include:

- Lake Michigan sand dune areas and beach areas (74 percent)

- Natural features that help maintain water quality, such as wetlands and natural vegetation along lakes and streams that help filter pollution and prevent erosion (73 percent)
- Scenic vistas (58 percent)

Respondents were also given the opportunity to list other priorities that were not included in the provided list. Keeping the Portage Lake Channel dredged was most commonly mentioned, followed by avoiding overdevelopment in the area and protecting wildlife habitat.

Respondents were also asked to rate how strongly they would support certain actions to improve water quality. Actions that respondents **strongly support** include:

- Addressing unplugged and abandoned oil, gas, and mineral wells to prevent groundwater pollution (71 percent)
- Getting more students involved in watershed activities (68 percent)
- More effective planning for future growth by local leaders (60 percent)

Sources of Information

To help inform future public education efforts, several questions were asked about where residents get their information about the watershed and which sources of information they trust. Respondents obtain information about Portage Lake from a variety of sources. Local newspapers, such as the *Manistee News Advocate* or *Traverse City Record Eagle*, were the most cited, with one out of three respondents (36 percent) saying they get most (22 percent) or a lot (16 percent) of their information from this source.

The top three sources from which respondents report getting **none** of their information are:

- Local cable access television (72 percent)
- Public service announcements on the radio (70 percent)
- Internet sources such as e-mails, newsletters, listservs, blogs, etc.(68 percent)

Respondents were also asked how much they would trust information from a variety of local, state, and federal sources. The sources of information considered the **most** trustworthy include:

- Neighborhood or lake associations: 67 percent (trust all of the time, 17 percent; trust most of the time, 50 percent)
- Manistee County Health Department: 67 percent (trust all of the time, 15 percent; trust most of the time, 52 percent)
- University Extension, professors, and scientists: 66 percent (trust all of the time, 19 percent; trust most of the time, 47 percent)

The sources of information considered **least** trustworthy include:

- U.S. Environmental Protection Agency: 61 percent (trust none of the time, 11 percent; some of the time, 50 percent)

- Local township, village, or tribal officials: 61 percent (trust none of the time, 7 percent; some of the time, 54 percent)

In addition, respondents were asked to list other organizations, people, or groups that they would trust or look to for information about the Portage Lake watershed. The Portage Lake Watershed Forever Committee was the most frequently mentioned group (37 percent), followed by homeowners or local businesses (23 percent) and the Nature Conservancy (12 percent).

Property Characteristics

Respondents were also asked about different amenities they have on their property that could impact the Portage Lake watershed. Respondents report having a:

- Washing machine (93 percent)
- Grass lawn (81 percent)
- Dishwasher (71 percent)
- Garbage disposal (42 percent)

The majority of respondents (67 percent) have either two (47 percent) or three (20 percent) bathrooms at their residence.

Eighty-two percent of respondents are served by a septic system. As shown in Exhibit 5, nearly half (42 percent) of these septic systems are less than ten years old. Regardless of the age of the septic system, the vast majority of respondents (85 percent) indicated that they have had their system inspected and/or pumped out in the last five years.

EXHIBIT 5
Age and Maintenance of Septic Systems

Age	% of Respondents	% Maintained in last 5 years
1 to 5 years	20%	90%
6 to 10 years	22	84
11 to 20 years	25	80
21 years or older	33	85

SOURCE: Public Sector Consultants Inc., Survey of Portage Lake Residents, 2007.

More than one-third of respondents (38 percent) live on Portage Lake or on a river or stream flowing into Portage Lake. As shown in Exhibit 6, regardless of whether they live on the water, respondents' behavior is consistent, that is, about three-quarters or more of each group report maintaining a lawn, being served by a septic system, and owning a dishwasher and washing machine.

EXHIBIT 6
Distribution of Amenities with Possible Impact on Watershed

		Is your property on Portage Lake or on a river or stream flowing into Portage Lake?	
		Yes	No
Do you maintain a grass lawn at your residence?	Yes	89.2%	76.1%
	No	10.8	23.9
Do you have a washing machine?	Yes	89.2	94.8
	No	10.8	5.2
Do you have a garbage disposal?	Yes	52.7	36.8
	No	47.3	63.2
Do you have a dishwasher?	Yes	66.7	72.9
	No	33.3	27.1
Is your residence served by a septic system?	Yes	76.3	85.2
	No	23.7	14.8

SOURCE: Public Sector Consultants Inc., Survey of Portage Lake Residents, 2007.

Seasonal and Full-Time Resident Differences

Three-fourths of respondents (74 percent) are full-time residents, 26 percent are seasonal residents, and 1 percent are vacation renters for more than 30 days. Statistically significant differences between seasonal and full-time residents occur in only a few instances.

- Seasonal residents are more likely **not** to have a washing machine or maintain a grass lawn.
- Seasonal residents are more likely to get only some or none of their information about the Portage Lake watershed from local newspapers.
- Seasonal residents tend to be older than full-time residents, with 55 percent aged 65 years or older and 83 percent aged 55 years or older.
- Seasonal residents are also much more likely to have completed college or postgraduate study (70 percent) than full-time residents (45 percent).

Conclusion and Recommendations

Boating, fishing, and swimming/snorkeling/scuba are the most frequent activities, with most respondents unable to recall observing any conflicts between different types of lake users. Of those who had seen a conflict, conflicts mostly involved jet skiers or other boaters interfering with fishing and swimming at peak use times. As in other inland lakes in Michigan, personal watercraft are a source of tension between users of the lake and residents. This survey indicates that most personal watercraft users are day users and not residents of the watershed (only 6 percent of respondents say they use personal watercraft). Given the tension apparent in resident comments (included in the Appendix to the complete survey report, available at <http://www.pscinc.com/documents/PLWF>), communication and outreach for personal watercraft users should be considered. Motorboats were the most frequent type of boating, and respondents specifically mention

the need to dredge the Portage Lake Channel, indicating that Portage Lake is used as a means to access Lake Michigan.

Respondents have a favorable opinion of the current water quality in the Portage Lake watershed and feel that it compares favorably to other inland lakes. They consider the spread of invasive species and a lack of knowledge on the part of residents and other users as to how their actions impact water quality to be the two biggest problems facing the watershed. These results indicate the need for education and coordinated dissemination of information to residents and other users.

Another concern identified as a major problem by respondents is pollution from failing or poorly maintained septic systems. While 85 percent of respondents with septic systems report having their tanks serviced in the last five years, the number appears to be extremely high. In retrospect, the survey question may have prompted a positive response that resulted in an over-estimate of the frequency of septic tank maintenance.

Respondents trust information from their neighborhood lake association, the Manistee County Health Department, and university extension personnel more than they trust local or federal government officials. At the same time, organizations like the Portage Lake Watershed Forever Committee, the Nature Conservancy, and other property owners or local business owners were specifically mentioned by respondents as trustworthy sources. This indicates that communication and coordination of information about the watershed could be effectively disseminated by grassroots organizations such as these, and that residents are more likely to trust the information and efforts of these groups.

The vast majority of respondents have a washing machine and a dishwasher and maintain a grass lawn at their residence in the Portage Lake watershed. While the survey results provide baseline data for these property characteristics, the survey does not examine the frequency of use of these appliances or the specific types of fertilizers used to maintain lawns, if any. PSC recommends additional follow-up with residents to communicate and educate them about the potential impact of these appliances and lawn care on the Portage Lake watershed.