

## Information and Education Plan

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This Information and Education (IE) strategy addresses the communication needs associated with implementing the Portage Lake Watershed Forever Plan. Increasing awareness and understanding about how actions on the land within a watershed can impact water quality is a critical step toward water quality protection and improvement.

During the planning process, a variety of means were used to inform the public and other stakeholders about the planning process and outcomes, and also to seek input to be used in the development of the plan: numerous focus groups were held with stakeholders, a resident survey was conducted, presentations were made to various civic organizations and property owner associations, e-mail updates were issued, and many informal conversations were held. These activities helped to educate community members about the planning process and the benefits of having a watershed management plan, and engaged them in the development of this plan.

To help inform future public education efforts, a series of questions were included in the survey of households in the Portage Lake Watershed conducted by Public Sector Consultants in 2007. These questions asked residents where they obtain their information about the watershed and which sources of information they trust. Local newspapers were the most cited source. The sources of information considered the most trustworthy by residents are neighborhood or lake associations, the District 10 Health Department, and MSU Extension. When 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 group most frequently mentioned. (For more detailed information about these efforts and findings refer to the Stakeholder Involvement section of this plan.) These public engagement efforts helped to shape the goals and objectives of the watershed plan and helped to identify specific needs and strategies for information and education.

The purpose of the IE strategy is to establish and promote educational programs that support effective implementation of watershed planning goals, objectives, and tasks. Exhibit 62 outlines key tasks in this strategy. It is important to note that a great deal of educational material exists on many of the issues this plan seeks to address. Therefore, to keep costs down, existing materials will be modified for the Portage Lake watershed rather than generating new sources of information.

**EXHIBIT 62**  
Public Information and Education Plan

IE task	Target audiences	Frequency	Medium or method	Potential partners <sup>1</sup>	Timeline (years out)	Estimated cost/year <sup>2</sup>
Inform stakeholder of results of <i>E. coli</i> beach monitoring	Beach owners, general public, riparian owners, local governments, tourists	Immediately upon results, annual summary	Website, e-news list, newspaper, newsletter, kiosk/bulletin board	PLWF, MSU Ext., MCD, PLA, PLEA, PPSRC, School	0–2	S/V/N
Inform stakeholders of results of other <i>E. coli</i> monitoring efforts and other monitoring efforts	Riparian owners, local governments, general public, tourists	Immediately if public health risk, otherwise quarterly summaries	Website, e-news list, newspaper, kiosks/bulletin board	PLWF, MSU Ext., MCD, PLA, PLEA, PPSRC, School	0–2	S/V/N
Implement a cooperative pollution prevention program to protect groundwater from hazardous chemicals	Businesses, local governments	Initiate, annual reminder as needed	Letter, brochure, workshop, newspaper	PLWF, MSU Ext., MCD, MDEQ, EPA	2–5	S/V/M/N
Implement a mechanism to ensure anglers have the best information on state consumption advisories for fish taken from Portage Lake	Anglers, general public, tourists, local governments	Develop, update as needed	Website, e-news, kiosk/bulletin board, newsletter, newspaper	MDNR, MDEQ, LRBOI, MSU Ext., MCD, PLA, PLEA, PPSRC, PLWF	2–5	S/V/M/N
Establish a reporting mechanism for incidences of swimmer's itch in Portage Lake	General public, riparian landowners, tourists, local governments	Develop, then ongoing	Website, e-mail, newsletter, comment card	Onokama Twp., Village, PLWF, School, PLA, PLEA, PPSRC	0–2	\$500+S/V/N
Provide information about swimmer's itch, its causes, and steps to minimize exposure	General public, riparian landowners, tourists, local governments	Develop, repeat annually	Brochure, newspaper, website, e-news	MSU Ext., MCD, PLA, PLEA, PPSRC, PLWF	0–2	S/V/N
Develop and distribute information about cost-effective ways to have drinking water tested for bacteria and contaminants	General public, businesses, local governments	Develop, repeat annually	Strategy, brochure, newspaper, newsletter, website, e-news	Health Dept., MSU Ext., MCD, USDA-NRCS, MDEQ, School	0–2	S/V/M/N
Advocate for groundwater pollution prevention best management practices, including plugging of abandoned domestic	Well drillers, Health Dept., general public, businesses, local	Develop, implement strategy, annual	Strategy, brochure, newspaper,	MSU Ext., MCD, USDA-NRCS, Health Dept.,	0–2	S/V/M/N

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and hydrocarbon wells, quick response to known areas of release or spills of contaminated materials, and encouraging local governments to support volunteer household hazardous waste disposal programs	governments	update	newsletter, e-news, website	MDEQ, PLWF		
Develop and distribute information on proper maintenance and operation of septic systems	General public, riparian landowners, local governments, businesses	Develop, annual distribution	Brochure, newsletter, newspaper, video, website, e-news, workshop	MSU Ext., MCD, USDA-NRCS, MDEQ, Health Dept., School, PLWF	0–2	S/V/M/N
Develop and distribute information on limiting phosphorus loadings to surface water through use of low- or zero-phosphorus fertilizers	Riparian landowners, businesses, general public	Develop, annual distribution	Brochure, newspaper, newsletter, website, e-news	MSU Ext., MCD, USDA-NRCS, MDEQ, Health Dept., School, PLWF	2–5	S/V/M/N
Develop and distribute information on the important functions of wetlands	Riparian landowners, local governments	Develop, annual distribution	Brochure, newspaper, newsletter, website, e-news	MSU Ext., MCD, USDA-NRCS, USFWS, MDEQ, EPA, MDNR, School, PLA, PLEA, PPSRC, PLWF	0–2	S/V/M/N
Develop and distribute information on the importance of the nearshore littoral zone and the impacts of beach grooming, shoreline hardening, and permanent mooring structures on the habitat essential to resident fish, wildlife, and fish food organisms	Riparian landowners, local governments	Develop, annual distribution	Brochure, newspaper, newsletter, website, e-news	MSU Ext., MCD, USDA-NRCS, USFWS, MDEQ, EPA, MDNR, School, PLA, PLEA, PPSRC, PLWF	0–2	S/V/M/N

IE task	Target audiences	Frequency	Medium or method	Potential partners <sup>1</sup>	Timeline (years out)	Estimated cost/year <sup>2</sup>
Train local volunteers in a Portage Lake Watershed Stewardship program to periodically inventory and monitor certain stream and lake conditions (e.g., point-source and nonpoint source discharges, <i>Cladophora</i> algae, invasive species, erosion, shoreline development, wetlands, physical/biological/chemical conditions, etc.)	Riparian landowners, general public, School, PLWF, local governments	Develop, implement, repeat as necessary	Training packet, newsletter, workshop	MDEQ, MDNR, LRBOI, PLWF, MSU Ext., MCD	2–5	\$6,000+S/V/D/N
Establish a forum/communication tool that can be used by various resource protection and management agencies to communicate information to and answer questions from residents and visitors to Portage Lake	MDEQ, MDNR, LRBOI, general public, School, riparian landowners	Develop and maintain	Website, newsletter, bi-annual meeting	MSU Ext., MCD, PLA, PLEA, School, PLWF	2–5	\$500+S/V/N
Prepare and distribute information about public access facilities currently available for non-boating users	General public, tourists	Develop, update, and distribute annually	Brochure, website, e-news, newspaper, newsletter, kiosk/bulletin board	PLA, PPSRC, local governments, PLWF	5–10	\$1,340+S/V/N
Collect further information on user conflicts reported during 2007 Public Sector Consultants phone survey of Portage Lake residents and determine whether further actions are needed	General public, riparian landowners, tourists	Once, update as necessary	Survey, meetings, interviews	PLWF, local governments, School, PLA, PPSRC, PLEA	2–5	\$15,000
Develop and distribute information about the location of scenic vistas, historical sites, and locally grown produce in the watershed	General public, tourists	Develop, update, and distribute as necessary	Brochure, newspaper, newsletter, e-news, website, kiosk/bulletin board	PLWF, local governments, School, Historical Museum, service clubs	2–5	\$1,340+S/V/N
Recommend education, information, and voluntary actions by private landowners and public agencies about how to protect and enhance public enjoyment of scenic vistas	Private landowners and public agencies that own property that provides scenic vistas	Once, repeat as needed	Strategy, letter, meetings	PLWF, MDOT, GTRLC	5–10	\$500+S/V

IE task	Target audiences	Frequency	Medium or method	Potential partners <sup>1</sup>	Timeline (years out)	Estimated cost/year <sup>2</sup>
Encourage private and public efforts to preserve, protect, and provide interpretation of sites of historical significance	Private landowners and public agencies that own/operate historic sites	Once, repeat as needed	Strategy, letter, meetings	Historical Museum, PLWF, local governments, service clubs	5–10	\$500+S/V
Promote local agricultural products and encourage their sale and use.	General public, tourists	Develop, update, and distribute as necessary	Guides, newspaper, newsletter, e-news, website, kiosk/bulletin board	USDA-NRCS, MCD, MSU Ext., AES, PLWF, local farmers and businesses	0–2	\$1,340+S/V/N

SOURCE: Public Sector Consultants Inc., 2007.

<sup>1</sup>Partner Abbreviations:

EPA = U.S. Environmental Protection Agency  
GTRLC = Grand Traverse Regional Land Conservancy  
Health Dept. = District Health Department #10  
Historical Museum = Manistee County Historical Museum  
LRBOI = Little River Band of Ottawa Indians  
MCD = Manistee Conservation District  
MDEQ = Michigan Department of Environmental Quality  
MDNR = Michigan Department of Natural Resources  
MDOT = Michigan Department of Transportation  
MSU Ext. = Manistee County Michigan State University Extension Office

Onekama Twp. = Onekama Township  
PLA = Portage Lake Association  
PLEA = Portage Lake Environmental Association  
PLWF = Portage Lake Watershed Forever  
PPSRC = Portage Point Summer Resort Corporation  
School = Onekama Consolidated Schools  
USDA-NRCS = U.S. Department of Agriculture – Natural Resources Conservation Service  
USFWS = U.S. Fish and Wildlife Service  
Village = Village of Onekama

<sup>2</sup>The estimated cost figures do not include anticipated volunteer time, existing educational material that will be adapted, donated equipment, PLWF newsletter that will deliver educational information, or staff support for coordination of all tasks within the watershed plan. Project coordination is estimated at \$45,000–\$65,000 per year (1/FTE) depending on experience and responsibilities. PLWF newsletter is estimated to cost \$2,265/newsletter for 1,000 copies to produce and mail. Elements that require volunteer time (V), staff time (S), PLWF newsletter (N), donated equipment (D), and/or existing educational material (M) are noted.