

9.0 INFORMATION & EDUCATION PLAN

This Information & Education Plan (I&E Plan) recommends campaigns that are designed to enhance understanding of the issues, problems, and opportunities within the Pike River Watershed. The intention is to promote general acceptance and stakeholder participation in selecting, designing, and implementing recommended Management Measures to improve watershed conditions. The first step in understanding the issues, problems, and opportunities within Pike River watershed is to gain a better perspective of how the watershed evolved over time into what exists today.

The Pike River watershed was dominated by maple – basswood forests, oak savannas, prairies, and wetlands. These communities were largely maintained and shaped by frequent fires ignited by both lightning and the Native Americans that inhabited the area. Ecological communities were in balance and resulting water quality excellent.

Ecological conditions changed drastically and quickly following European settlement in the mid 1800's. The majority of prairie and forest was removed and drain tiles were installed throughout wet areas as farming became the primary land use in the early 1900's. Industrial, residential and commercial development continued slowly until the 1980's and greatly increased until the mid 2000's. In the direct drainage areas, consisting primarily of the City of Racine, the watershed was quickly converted to industrial, commercial and residential in the early 20th century. The natural drainage system in this area of the watershed is not discernible, as all water is routed to Lake Michigan through stormwater pipes.

The Pike River is proposed to be listed by the EPA as impaired in the most recent 2012 Water Quality Report and Section 303d List for Total Phosphorus indicated by a degraded biological community. North Branch Pike River is listed as impaired for fish and aquatic life due to chronic aquatic toxicity and degraded habitat caused by stream channelization, debrushing of streambanks, draining of wetlands, sedimentation from runoff and increased stormwater drainage due to urban development within the watershed. Waxdale Creek, one of the northern tributaries is listed as an impaired stream suffering from high amounts of sedimentation and degraded habitat. This reach was previously listed for an unknown pollutant causing chronic aquatic toxicity, but the pollutant has since been removed. Additionally, both Alford Park Beach and Pennoyer Park Beach along Lake Michigan are listed as impaired for Recreational Uses due to elevated E. coli levels (WDNR, 2011). Due to the current conditions of water quality within the watershed, it is imperative that the Management Measure recommendations be closely linked with watershed information and education programs.

Many of the stakeholders in the Pike River watershed have been active in the creation and leadership of the Root-Pike WIN (Watershed Initiative Network). The key stakeholders include the Village of Mount Pleasant, Village of Somers, City of Racine, City of Kenosha and the WDNR. The Root-Pike WIN is actively engaging the public in watershed activities such as: educational seminars, research grants, paddling outings, rain garden demonstration areas and plants, beach and river clean up days and extensive public education programs. The watershed planning process for the Pike River began in 2011 with educational sessions. The watershed planning process has allowed watershed partnerships to form that will help with implementing the watershed plan and initiating projects. It should be noted that the Root-Pike WIN will be combining information and education

programs that will work in conjunction and support other watersheds plans in their region, as appropriate.

Recommended Information & Education Campaigns

A successful I&E Plan first raises awareness among stakeholders of watershed issues, problems, and opportunities. The second step is to provide stakeholders with information on alternatives to implement to address the issues, problems, and opportunities. This I&E Plan includes the following components as referenced in USEPA's "Handbook for Developing Watershed Plans to Restore and Protect Our Waters" (USEPA 2008):

- Define I&E goals and objectives.
- Identify and analyze the target audiences.
- Create the messages for each audience.
- Package the message to various audiences.
- Distribute the message.
- Evaluate the I&E program.

Goals and Objectives

Development of an effective I&E Plan begins by defining I&E goals and objectives. Goals were established for the Pike River watershed to address the issues and opportunities raised during the issue identification survey, watershed summit visioning, public meeting questions and "Places of the Heart" exercises. The list was refined during the planning process. Objectives assigned to each goal are intended to be measurable where appropriate so that future progress can be assessed. The following goals refer to communications goals and objectives.

Goal A: Foster engagement and provide opportunities for stewardship of our watershed.

Objectives:

- 1) Create Pike River Education & Public Outreach Committee to engage County, City and Town boards, schools, and foster partnerships
- 2) Educate the public about invasives, native plants, balanced ecosystems, restoration, pollutants and their relation to the health of the Pike River. Encourage public involvement and inform the public of their role in the stewardship of the Pike River.
- 3) Provide watershed stakeholders with an education plan that promotes the knowledge, skills, and motivation needed to take action on implementing the watershed plan.
- 4) Inform the public and public officials on the benefits of sustainable development practices and support changes to ordinance language that promotes sustainable development.
- 5) Create targeted educational information for land owners adjacent to the river, tributaries and floodplain.
- 6) Install environmental interpretation signage at access points throughout public open space.
- 7) Develop recommendations for education and alternatives for fertilizer and pesticide use.
- 8) Develop recommendations for education and alternatives to road & other pavement salt use.



*Example of a watershed sign.
Source: wren.palwr.org*

Goal F: Increase communication and coordination among municipal decision-makers, businesses and agricultural communities and other stakeholders within the watershed.

Objectives:

- 1) Encourage governing bodies to adopt the Pike River Watershed-Based Plan.
- 2) Encourage amendments of municipal comprehensive plans, codes and ordinances to include watershed plan goals and objectives.
- 3) Encourage and support business and agricultural communities and other stakeholder efforts to implement recommended actions within the watershed plan.

Target Audiences

The recommended target audience for each education campaign is selected based on the ability to attain objectives. The target audience is a group of people with a common denominator who are intended to be reached by a particular message. The target audience of the watershed includes people of all demographics, locations, occupations, and watershed roles. There can be multiple target



Ongoing education at Hawthorn Hollow. Source: Lori Artiomow.

audiences depending on which topic is being presented. The overall umbrella target audiences selected to meet watershed goals and objectives include riparian landowners, homeowners, general public, local government, elected officials, homeowner and business associations, and schools.

Public Input

Creating and distributing a message for each audience is done via campaigns that address education goal objectives. The I&E Plan objectives for the Pike River watershed were determined through stakeholder meetings. An I&E Plan matrix (Table 44) was developed as a tool to help implement the I&E Plan. Not only does the matrix include recommended education campaigns, it also includes columns for 1) “Target Audience”, 2) “Package” (vehicle) for delivery of the message, 3) “Schedule”, 4) “Lead & Supporting Organizations”, 5) “Outcomes/ Behavior Change”, and 6) “Estimated Cost”.

Evaluation

The I&E Plan should be evaluated regularly to provide feedback regarding the effectiveness of the outreach campaigns. Evaluation conducted early on in the effort will help determine campaigns that are successful and those that are not. Based on the evaluation, information, money, and time can be saved by focusing on the campaigns that work. Those that do not work should be ended and/or refined. Section 11.0 of this plan contains a “Report Card” with milestones related to watershed education that can be used to evaluate I&E Plan implementation efforts.

Noteworthy- Existing Education Campaigns

Root-Pike Watershed Initiative Network:

Greener Yards, Cleaner Waters workshops.

Rain Garden Demonstration Projects.

Funding of Environmental Education Projects through the Watershed-based Grant Program.

Education of municipal stormwater engineers and public works managers who are members of the Southeast Wisconsin Clean Water Network, which is comprised of 17 cities, villages and towns and the University of Wisconsin-Parkside.

Root-Pike WIN and Sweet Water (Southeast Wisconsin Watersheds Trust)

Respect Our Waters media and community outreach campaign, funded by Wisconsin Department of Natural Resources and over 30 municipalities and UW-Parkside.

Hawthorn Hollow Nature Sanctuary and Arboretum

We All Take Environmental Responsibility (WATER) education program targeted to 5th and 7th grade students in Racine Unified School District.

Nature camps and nature classes for youth and adults.

River Bend Nature Center

Nature camps and classes for youth and adults.

Caledonia Conservancy

School to Nature Program targeted to youth in Racine County.

Carthage College

Water quality monitoring and education of college students and grade school children in select schools in the Kenosha Unified School District.

City of Racine, Village of Sturtevant, Sierra Club-Gateway Chapter

Rain barrel incentive programs.

Village of Mount Pleasant

Public presentations of its restoration of the Northern Branch of the Pike River.

Table 44. Information and Education Plan Matrix.

Education Action of Campaign	Target Audience	Communications Vehicles	Schedule	Lead (Supporting) Organizations	Outcomes, Behavior Change	Estimated Cost
<p>Educate elected officials about the completed plan and</p> <p>1) Encourage them to adopt the Pike River Watershed-Based Plan.</p> <p>2) Encourage amendments of municipal comprehensive plans, codes and ordinances to include watershed plan goals and objectives.</p>	<p>Elected Officials in the County of Kenosha, County of Racine, City of Racine, City of Kenosha, Villages of Mount Pleasant, Sturtevant, Town of Somers and residents of the communities</p>	<p>Meetings with heads of government (mayor, chairperson, president, and county administrators), special mailing, and presentations to elected officials. Tour of watershed.</p> <p>Presentations on model ordinances, codes, stormwater management plans, and stormwater best management practices.</p> <p>Include elected officials in BMP presentations (porous pavement, green roofs, bioswale/rain garden streets, etc.) and field trips of SE WI Clean Water Network</p> <p>Conference or workshop on topic of “Planning for Watershed Sensitive Development” (street design, conservation design for new subdivisions & business development, etc.)</p>	<p>Immediately following completion of plan</p> <p>Quarterly meetings of SE WI clean Water Network (March, June September, December)</p> <p>Conference in 2014, 2016</p>	<p>Hawthorn Hollow, UW-Extension, WIDNR</p>	<p>Within two years each municipality and county board of elected officials adopts the Plan.</p>	<p>\$7,200.00 (140 hours)</p>
<p>Educate farmland owners and renters about the plan and recommended actions, particularly the Critical and Priority areas.</p> <p>Encourage and support farmland owners and renters to implement recommended actions within the watershed plan.</p>	<p>Owners and renters of farmland identified for Critical and Priority projects in the plan.</p>	<p>Meetings of farmland owners and renters (available funding for projects, purchase of development rights, buffers and their impact on water quality, role of wetlands).</p> <p>Tour of completed projects.</p>	<p>Immediately following completion of plan</p>	<p>Kenosha and Racine County Conservationists; USDA, land trusts, NRCS</p>	<p>See private landowners below</p>	<p>See private landowners below</p>

Education Action of Campaign	Target Audience	Communications Vehicles	Schedule	Lead (Supporting) Organizations	Outcomes, Behavior Change	Estimated Cost
Educate private landowners about the watershed plan and the Critical and Priority areas identified for restoration, and inform them these areas were selected, how these areas can be restored, technical assistance and funding available.	Owners of land identified for Critical and Priority projects	Meetings, field trips, special mailings, hard copy and email newsletter targeted to the landowners including farmland owners.	Immediately following completion of plan	Hawthorn Hollow, UW-Extension, SEWRPC, WIDNR, USDA, County Conservationists	Root-Pike WIN will hold 30 meetings over five years (six per year) and will consult with landowners to help them find funding and contractors... 20 private landowners will initiate a restoration or easement project during the first five years following adoption of the plan.	\$10,800.00 (180 hours)
Inform the general public, that a Watershed-Based Plan has been developed for the Pike River watershed to gain interest in implementing recommended actions.	General Public	Use Root-Pike WIN's website, Greener Yards, Cleaner Waters e-newsletter and workshops, RPW's Facebook page, and Respect Our Waters media and community outreach campaign, news releases and media interviews to inform the public about the plan, how they can obtain the plan and actions they can take to implement projects.	Immediately following plan completion	Municipalities, UW-Extension, Hawthorn Hollow	The majority of the public in the watershed have good knowledge of the watershed conditions and who to contact to get involved and implement projects. The public also begins to alter every day activities leading to watershed improvement.	No cost if using existing resources
Fund restoration projects in the Pike River Watershed	Municipalities, schools	The Resource Group gives projects in Critical and Priority areas priority for funding consideration.	Starting in 2013 funding cycle	Root-Pike WIN Board of Directors, Resource Group	The majority of Root-Pike WIN's grant funding is awarded to restoration projects identified in the completed watershed plans of the Pike River, Root River and Wind Point watersheds.	No cost if using existing resources

Education Action of Campaign	Target Audience	Communications Vehicles	Schedule	Lead (Supporting) Organizations	Outcomes, Behavior Change	Estimated Cost
Educate homeowners on actions they can take in their yards to reduce polluted stormwater runoff	Homeowners	Offer workshops to homeowners to educate them on actions they can take in their yards to reduce polluted stormwater runoff: diverting rainwater and snow-ice melt to vegetated areas, use of rain barrels, benefits of removing non-native species and replacing with native vegetation, reducing turf grass and use of fertilizers and pesticides, planting trees, picking up pet waste.	4-6 workshops in Spring and Summer, <i>Greener Yards, Cleaner Waters workshops</i> E-newsletter, <i>Greener Yards, Cleaner Waters</i> , February, March, April, May, June, July, August, September, October	Municipalities; UW-Extension, consultants	Over 600 people will attend a workshop over five years and over 3,000 people will receive the Greener Yards, Cleaner Waters newsletters. The homeowners become more aware of the problem of stormwater runoff and how they contribute to it, and actions they can take in their yards to reduce their impact.	\$8,280.00
Educate private land owners along the Pike River how to properly manage land to benefit green infrastructure.	Private land owners along non-Critical and Critical and Priority areas of the Pike River and its tributaries	Conduct workshops for riparian and lake shoreline owners that explains the green infrastructure plan and recommends bioengineering options, funding sources, and qualified contractors for stabilizing eroded banks and establishing and managing a natural buffer. Distribute SEWRPC's buffer publication and UW-Extension shoreline protection publications. Provide homeowner and business associations with the knowledge needed to maintain naturalized detention basins. .	Annual land restoration conference	Consultants, municipalities, WIDNR, SEWRPC, Hawthorn Hollow, UW-Extension, USDA, County Conservationists	Private landowners along the Pike River and its tributaries recognize the benefits of bioengineering to reduce bank erosion and how natural buffers improve water quality and wildlife habitat as part of green infrastructure. Members of homeowner associations will recognize the benefits of vegetating a detention basin and the steps needed to carry it out.	No cost if we get sponsors
Educate professional landscapers about green practices in landscaping	Professional Landscapers	Hold a workshop featuring experts in native plant landscaping and best management practices, such as bioswales and rain gardens.	Offer every 2-3 years	UW-Extension, WIDNR	Professional landscapers will report that they are building more BMPs for their clients	Fees pay for costs of workshop.

Education Action of Campaign	Target Audience	Communications Vehicles	Schedule	Lead (Supporting) Organizations	Outcomes, Behavior Change	Estimated Cost
Provide schools with information about the Pike River watershed as a means to support outdoor curriculum within the watershed's green infrastructure.	Teachers/ Students (5 th and 7 th grades, college level)	Continue supporting and expanding reach of water education programs through Root-Pike WIN's Watershed-based Grant Program and the Respect Our Waters campaign to help integrate basic watershed planning and education into existing elementary, middle, and high school science curriculum. Offer free presentations to teachers and student groups. Provide schools with copies of the Pike River watershed Executive Summary to educate students about the role of watershed planning, importance of green infrastructure and actions they can take at home to improve overall watershed conditions. Distribute the Pike River Watershed brochure.	Annual program	Racine Unified School District, Kenosha Unified School District, private schools, Hawthorn Hollow, Alliance for the Great Lakes	5 th and 7 th grade students in the Pike River Watershed will understand the environment in which they live and realize the importance of maintaining a healthy place for people and nature to live in harmony and understand actions they and their family members can take to protect water quality.. What is learned will be passed on to parents and future generations.	\$6,000 for 300 copies of Executive Summary
Offer and participate in volunteer activities related to stewardship activities in the watershed to the general public.	General Public	Offer "Volunteer Days" for people to remove invasive species from natural areas, survey wildlife, or clean up litter from streams.	One program annually	Kenosha Sports Fishing Conservation Association, Municipalities	By interacting with the natural areas within the watershed, people develop an invested interest in watershed protection.	\$650.00 per event for staff and refreshments
Show public officials examples of best management practices installed in the watershed and Southeast Wisconsin.	Elected Officials; Stormwater Engineers, Public Works Directors	Continue to feature stormwater best management practices at meetings of the SE WI Clean Water Network, such as green roof, permeable pavement, street bioswales and rain gardens, parking lot rain gardens and other BMPs.	Immediately following plan completion & when projects are implemented	Southeast Wisconsin Clean Water Network, UW-Extension, Root-Pike WIN	In five years, 8 of the municipalities in the watershed will install new BMPs.	No cost using existing resources

Education Action of Campaign	Target Audience	Communications Vehicles	Schedule	Lead (Supporting) Organizations	Outcomes, Behavior Change	Estimated Cost
Install Pike River “Watershed Boundary” signs along major roads in the watershed.	General Public	Design and install signs at key points along major roads in the watershed that inform drivers and passengers that they are “Entering Pike River Watershed”	Following plan completion	Municipalities, counties and state, Root-Pike WIN	Thousands of drivers see Pike River watershed signage when entering the watershed. This sparks interest to search municipal and park district internet sites where they will find links to Root-Pike WIN’s Pike River watershed home page.	\$5,000 for five signs
Maintain the existing Pike River watershed web page on Root-Pike WIN’s website and update with new information.	All Stakeholders	Post the Plan and its executive summary, announce restoration projects, grant funding opportunities, river clean-up events, volunteer opportunities for invasive plant removal, meetings of river groups engaged in restoration, municipal tree, shrub and seed sales, Wild Ones plant sale, annual Plan update and other issues and opportunities.	Ongoing	Root-Pike WIN	The number of unique visits to the Pike River page will increase each year over five years.	\$7,200 over five years
Measurement of Outcomes	Random Sample	A Household Survey was carried out in 2010 to gather information on peoples’ knowledge of watersheds, water quality, yard care impacts and more. These results can influence outreach, education, and technical assistance efforts provided by local water quality partners by clarifying assumptions about “target audiences” within the Root-Pike watershed. Consistent with other studies, respondents to this survey connected most directly with the scenic and aesthetic aspects of water, and most value the importance of clean water for their communities. Trash and debris (aesthetically unpleasant) was considered one of the most severe water quality problems in the area. There was low awareness of most pollutants of concern to resource managers. A full report of the survey can be found at: www.rootpikewin.org (click on Keep Our Waters Clean)	Every 5 years	Root-Pike WIN	A follow-up survey in 2015 will measure if people are more aware and knowledgeable about water quality and stormwater pollution and the extent they have adopted new “green” practices as a result of the information and education outreach efforts.	\$4,000 to cover cost of printing, postage, mail handling.

Education Action of Campaign	Target Audience	Communications Vehicles	Schedule	Lead (Supporting) Organizations	Outcomes, Behavior Change	Estimated Cost
Evaluation of Programs	Participants	<p>Root-Pike WIN asks attendees of its Greener Yards, Cleaner Waters program to complete an evaluation of the workshop presentation and contents and uses the results to improve the program.</p> <p>Root-Pike WIN provides an Information and Education program for the Southeast Wisconsin Clean Water Network of municipalities under a renewable two-year contract. The I&E program is a requirement of their WIDNR-issued stormwater permit. Every two years the municipal representatives are asked to complete an evaluation survey of Root-Pike WIN's performance.</p> <p>Recommend that attendees of the proposed conference be asked to evaluate the workshops and overall conference.</p>	Ongoing	Root-Pike WIN	Programs are improved; attract more participants resulting in improved water quality.	No cost using existing resources