Message from the SRBP New President

By Kendra Kelling

I am honored to take on the role as President of the Sheboygan River Basin Partnership (SRBP) at such a pivotal time for both the organization and the Sheboygan River. The SRBP kicked off the New Year by forming a new 2016 Action Plan to help guide this year’s projects within our watershed, which I am pleased to share with you in this newsletter.

In order to determine our organization’s direction, we reviewed our original mission and vision to ensure that our actions align with SRBP’s foundation. We also examined the organization’s capacity to carry out our goals and identified current and potential partnerships to maximize our impact and outreach. While developing our current Action Plan, we highlighted past accomplishments and recognized areas of need within the basin requiring additional attention.

The Sheboygan River Basin Partnership has come a long way over the years and, thanks to its efforts along with those of many others, so has the beloved Sheboygan River we care for. The continued health of the river lies in the hands of organizations like the SRBP and individuals like you.

As a steward of the Sheboygan River, you are sure to find an activity of interest on our Action Plan. Some primary issues we are addressing this year include habitat restoration, management of storm water and agricultural runoff, water quality monitoring, community education and recreational river use. Sound interesting? Get involved!

Not only is this work critical to the Sheboygan River’s health and vitality, but it is also fun! Spending time outdoors engaging in activities like tackling invasive species and cleaning up litter contributes to the health of the river and your own well-being. Consider taking the time to volunteer at one or more SRBP events and joining our organization as a board member or general member partner. We have an exciting year ahead. Join the SRBP in caring for our water resources throughout the basin!
SRBP Participates in Strategic Planning

The SRBP Board gathered for a three-session strategic planning process facilitated by the Lakeshore Natural Resource Partnership. Participants met in January, February and March to confirm the mission and vision statements, and create an annual action plan as our primary objectives.

Here are our results from this process!

**Mission Statement:** The Sheboygan River Basin Partnership cultivates partnerships to raise public awareness, engage participation in stewardship, and promote sound decision-making regarding issues that affect the health of water resources in the Sheboygan River Basin.

**Scope:** The Sheboygan River Basin includes the watersheds of the Sheboygan, Pigeon, Black, Onion, and Mullet Rivers, and Sauk and Sucker Creeks.

**Vision for the Basin:** The rivers and lakes in the Sheboygan River Basin will be enjoyable, healthy places.

**Vision for the Sheboygan River Basin Partnership (SRBP):** The Sheboygan River Basin Partnership is an effective and credible organization that works for “healthy watershed” initiatives of interest to its member organizations, agencies, businesses and citizens within the Sheboygan River Basin.

**Goals of the Sheboygan River Basin Partnership:**
- Raise public awareness of the significance of, and threats to, natural resources (past, present and future) in the Sheboygan River Basin
- Engage SRBP members and the public in healthy watershed initiatives
- Promote sound decision-making when issues impact the health of the rivers and their watersheds

**Action Plan:** Several areas of interest emerged through these discussions that included:
- Willow Creek: enhanced fish habitat with culvert improvements
- Invasive Species and Habitat Enhancements: a number of volunteer days for removing invasive species with follow up restoration activities
- Harrington Beach: a grant from the Fund for Lake Michigan will help manage storm water and runoff into Lake Michigan
- River Paddle, River Map: a series of river paddles will provide the information for an interactive river map that will be produced as a waterproof map for boating and an interactive map on the SRBP website
- River and Beach Clean Up: the group will host an annual river and beach clean up
- Water Action Volunteer Monitoring of the Pigeon River: the group seeks volunteers to monitor water quality on the Pigeon River

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Agricultural Projects: in collaboration with The Nature Conservancy, SRBP is looking to engage the agricultural community in implementing best management practices to improve water quality.

Pollinator Workshop: the group will host a workshop on cultivating plants beneficial for pollinators.

Area of Concern (AOC) Seminar: as an update to the clean up of the Sheboygan River, the group will host a seminar on the delisting of the river as an Area of Concern.

Get Involved!

Here are dates of some upcoming events and activities:

- **Invasive Species Removal:** Saturday, May 21, 10 am - 12:30 pm, various locations along the Sheboygan River and at Willow Creek, in conjunction with the River Clean Up and followed by a celebration at Camp Y-Koda. Sign up today or find out more information by contacting Sarah at sdezwarltkokoysheboygancountymca.org.
  - Create your own invasive species removal event! If you have a group of individuals who would be interested in organizing an event, please contact Kendra at kkelling@sheboygancountymca.org and we will set up an event just for you and your group.

- **River Clean Up:** Saturday, May 21, 10 am - 2 pm, various locations along the Sheboygan River followed by a celebration at Camp Y-Koda. Sign up today or find out more information by contacting Sarah at sdezwarltkokoysheboygancountymca.org.

- **Beach Clean Up:** Saturday, September 17, 9 am-12 pm, site TBD along the lakeshore, Sheboygan

- **Annual Brat Fry:** Saturday, November 12, the annual brat fry will be held at Gander Mountain, Sheboygan

Check out our website for more details in the next few weeks including the dates and time as well as additional volunteer opportunities.
Sheboygan River Native Shoreline Landscaping Demonstration Project

By Peter Pittner

The Sheboygan River Basin Partnership (SRBP) partnered with Cellcom and Glas Coffee House to demonstrate the benefits of native habitat restoration that fits well on the grounds of businesses and in the backyards of private homeowners. The completed project provides an example for others to follow and encourages subsequent partnerships.

Habitat restoration on private lands within the Sheboygan River Area of Concern (AOC) will help connect habitat projects to the Lake Michigan shore, thus increasing the value of the corridor as fish and wildlife habitat.

This project is located at the Glas Coffee House, 924 N. 14th Street, in Sheboygan. This highly visible location within the community has 21,000 vehicles driving past every day and 57,000 customers coming to the coffee shop throughout the year. Full-length dining and meeting room windows overlook the grounds and the Sheboygan River. The project has restored native vegetation and manages storm water impacts to this portion of the shoreline via the construction of an approximately 2,000 square foot rain garden. Additionally, educational signage developed by Debbie Beyer of UW-Extension, and funded through other means, enhance the educational value of this demonstration project, attracting and educating people who might not otherwise take notice of, or understand, its function and impact on water quality.

The project consisted of constructing a rain garden planted with native vegetation adjacent to the Sheboygan River and was positioned to collect storm water runoff from the adjacent parking lot and building downspouts. Plantings included examples of three native community types: woodland, tall grass prairie and short grass prairie. Project partners included:

- Nsighttel Wireless, LLC, DBA, Cellcom & Glas, the Green Coffeehouse
  450 Security Blvd, Green Bay
- The Sheboygan River Basin Partnership
- Oneida Total Integrated Enterprises (OTIE)
- UW-Extension, Natural Resources Education Program
- Miller Engineers & Scientists
- Citizen Volunteers

After: Rain garden area (Nov 2015) following 1” rainfall
Camp Evelyn Dam on the Mullet River, Sheboygan County, Removed!

By John Nelson

January 8, 2016 was a monumental day for the Mullet River in central Sheboygan County-- the final day of removing the dam at Camp Evelyn, a Girl Scout Camp. The dam was constructed in the early 1950’s to form a pond for the scouts to use for recreation. Initially, the girls both swam in and canoed on the pond. Eventually, sediment moving downstream settled behind the structure made the pond less attractive to use.

The dam’s impact on the cold water fish community was dramatic in that stretch of the river. The stream was managed for both brown and native brook trout, requiring cold water to exist year-round. The pond allowed the river to warm to lethal temperatures in summer, and cool below freezing in winter, killing fertilized trout eggs. Fish were prevented from swimming upstream past the dam to reach good quality spawning habitat.

The idea of removing the dam first developed in 2014 when the Manitou Council of the Girl Scouts studied ways to make the pond more attractive to its users. Dredging costs were high and access to conduct the dredging was difficult at best. The alternative to dredging was to remove the dam and return the river to its natural state at a much reduced cost.

The Manitou Council leadership bravely decided to remove the dam. Grant money became available from Sheboygan County’s “Stewardship” Fund, The Lake Michigan Fund, and the Sheboygan River Basin Partnership to design the removal construction, remove the dam, and follow up with bank restoration above the former dam. The SRBP answered the call first with a $5,000 donation towards the engineering and permitting work.

Work at the site is by no means complete. Sediment stored upstream of the dam needs to stabilize to the point where it may be shaped, seeded and stabilized. Some sediment is expected to move downstream with spring runoff, benefitting some areas downstream of the dam previously “starved” of sand and soil particles needed for insects’ and other aquatic invertebrates’ micro habitat.

All in all, the Mullet River will emerge a much healthier ecosystem for trout and other cold water organisms as a result of dam removal. Thank you to the SRBP and other donors for making this project possible. Your generosity is truly appreciated.

For more specific information, contact John Nelson at (920) 980-2539, or nelson.john.e@gmail.com.
Schuchardt Property Update

By Jon Gumtow

Progress continues to acquire, preserve and restore approximately 135-acres of the Schuchardt Farms Property in the City of Sheboygan through the efforts of the Sheboygan River Basin Partnership (SRBP) and Glacial Lakes Conservancy (GLC). This project will benefit fish and wildlife populations in Willow Creek and the Sheboygan River AOC and, when completed, assist in delisting two Beneficial Use Impairments (BUIs): (1) degradation of fish and wildlife populations and, (2) loss of fish and wildlife habitat. Following acquisition, the property will be renamed the Willow Creek Preserve.

The vision for this property is to “Preserve a land legacy and create a unique designation for Sheboygan with local community-based leadership.” For the past two years, a dedicated group of concerned citizens have been working with GLC, SRBP, and several local, state and federal agencies to make this vision a reality.

Schuchardt Farms Property consists of a diverse mix of high quality habitats including upland forest/shrub, wetland forest/shrub/sedge meadow and cropland. It also features a rolling landscape, steep slopes, groundwater seeps and Willow Creek, a Class II trout stream. The setting of this special property and historic private landownership has limited agricultural use or other disturbances, keeping natural habitats intact. Invasive plants, primarily buckthorn control, will be a large part of the long-term management strategy. In addition to its natural communities, the property offers scenic vistas from adjacent properties in all cardinal directions.

Future habitat restoration concepts include preserving high quality habitats, maintaining stream and wetland buffers, improving fish passage, restoring wetland and oak savanna habitat, controlling invasive species, preserving cultural areas and creating passive recreational facilities with signage to highlight its unique features.

Funding for this project will come from a variety of sources including state and federal grants as well as settlement dollars from the Natural Resources Damage Assessment (NRDA) currently being evaluated by the US Fish and Wildlife Service.
Air Quality Applied Sciences Team Uses Satellite Data to Find Wisconsin Ozone Patterns

By Olivia Sanderfoot and Ben Kaldunski
(Editor’s Note: adapted from original article)

Sheboygan is a great vacation destination. Located on the shore of Lake Michigan, this picturesque town boasts four-star hotels, beautiful beaches, outstanding sailing and fishing, over 30 parks, and a quaint, historic downtown district offering shopping and dining. Surprisingly, the small, mostly rural county is also the site of one of the state’s biggest air quality concerns: ozone pollution. Ground-level ozone is a serious air pollutant regulated by the U.S. Environmental Protection Agency (EPA). It forms when ozone precursors — nitrogen oxides and volatile organic compounds — react in sunlight. High atmospheric concentrations of ozone harm human health by causing respiratory damage and have been linked to premature mortality.

State agencies must design programs to bring counties into compliance with EPA’s air quality standards. Ozone formation is affected by many factors, including the source of ozone precursors, wind patterns, weather, and climate. Sheboygan County receives upwind sources including those from Chicago and the Ohio River Valley. Ozone concentrations can be especially high right along the Lake Michigan shoreline due to a phenomenon referred to as “the lake breeze effect.” This complexity makes it challenging to pinpoint the best emission reduction strategies to lower ozone concentrations.

This map of Wisconsin points to the location of Sheboygan County, shown in red. (Source: Wikimedia Commons)

This map shows counties in Wisconsin at risk of failing the ozone NAAQS based on 2012-2014 “design values.” These values are compared to the NAAQS to determine whether or not a county is in compliance with the standard.

Ozone design values are calculated by averaging the fourth highest daily maximum 8-hour ozone concentration over three years. Each color in the key represents a range of design values, measured in parts per billion. Counties shown in red are most likely to fall out of attainment. (Source: Angela Dickens)
“There is a need for better understanding of ozone chemistry,” says Dr. Angela Dickens, an air policy analyst with the Wisconsin Department of Natural Resources (DNR) and Lake Michigan Air Directors Consortium (LADCO), especially following EPA’s amending the ozone National Ambient Air Quality Standard (NAAQS) in October 2015. The daily maximum 8-hour ozone was reduced from 75 to 70 parts per billion making more counties likely to be classified as ‘non-attainment.’

Dickens and members of the National Aeronautics and Space Administration (NASA) Air Quality Applied Sciences Team (AQAST) are working to tease out ozone patterns in Wisconsin, and she is focused on analyzing the persistently high levels of ozone in Sheboygan County.

AQAST researchers have used satellite data to study the sources, sinks, and transport of ozone in Sheboygan and throughout Wisconsin. AQAST member Brad Pierce, from the National Oceanic and Atmospheric Administration (NOAA), has improved modeling of the lake breeze effect over Lake Michigan, which Dickens says is the root cause of many of Wisconsin’s worst ozone episodes. Another study conducted by an AQAST member confirmed that more ozone is transported to Wisconsin from other states than is produced from in-state emissions. Dickens says the DNR may be able to use that information to demonstrate how emissions transport is preventing parts of Wisconsin, such as Sheboygan County, from complying with the ozone standard. Wisconsin DNR and LADCO modelers are currently working with researchers to develop improved, fine-resolution modeling of ambient ozone concentrations in Wisconsin to gain further insight into air quality trends along the eastern edge of the state.

Someday, Dickens would like to see satellite data used in a regulatory context. She says that given the limited number of monitors for ozone precursors in Wisconsin, satellite data could prove to be an efficient and cost-effective way to measure ground-level air pollutant concentrations. “The vertical resolution isn’t quite fine enough for us to use right now,” she says, but new analysis techniques and next-generation satellites could open the door for broader use of space-based data. Holloway hopes that by the time better data are available, there will be a regulatory framework in place to allow the DNR to use those tools.

Using these tools is an important step toward improving air quality in the region while supporting the businesses, shops, and restaurants that make Sheboygan such a wonderful lakeside vacation spot.

The St. Louis ozone gardens feature plants sensitive to high ambient concentrations of ozone. High ozone levels cause damage to leaves, the extent of which can be used as a proxy for measuring ozone pollution. The exhibit helps educate local community members, especially younger students to visualize the impact of ozone pollution on vegetation. (Source: Tracey Holloway)
B. Bruce Krier Conservancy Wetland Restoration: A Dream Becoming a Reality

By Andy Wallander

On Saturday, August 15, 14 volunteers (including representatives from Ozaukee County Land and Water Management, Ozaukee Treasures Network, Pheasants Forever, Clay Ridge Hunt Club, and Eco-Resource Consulting) planted more than 1700 native wetland and aquatic plants on the B. Bruce Krier Conservancy. This was our third annual volunteer work day, bringing the total native wetland plants installed to nearly 6000 since the first event in 2013. Volunteers planted native aquatic species such as arrowhead, bulrush, pickerel weed, and bur reed in the water along with several native sedges and wetland grasses on the shorelines.

This 28-acre floodplain restoration in Belgium Township runs along both sides of Sucker Brook commenced in 2011 included survey work, planning, and permitting. More than 300,000 cubic yards of colluvium (mineral soil transported from farmland into wetlands during decades of heavy rain events) was excavated from the wetland and land-spread onto adjacent upland cropland. These associated uplands were removed from agricultural use and restored into prairie along with extensive native re-seeding, plant installation and invasive species management in the wetland. The wetland also hosts three scrapes which are heavily used by several wildlife species.

The wetland restoration was the dream of Bruce Krier, who lost his battle with cancer late in 2013. Krier’s family owned this land and used it for vegetable production over two generations. Cropping took a heavy toll on the soils and, in the early 1990’s, Krier began to retire lands from intensive cropping practices, converting them to grasslands. Today, nearly 300 acres of native prairie grasslands have been restored and are managed primarily with the use of prescribed fire.

Since Krier’s passing, his nephew John Rassel is working to form a non-profit organization to preserve the land, continue with management and restoration efforts, and make the land available for botanical and wildlife research and youth conservation education, ensuring Krier’s legacy will live on.

Eco-Resource Consulting, an ecological restoration and consulting firm in Stoughton, oversees restoration and ecological monitoring activities. Future plans include developing a trail network with interpretive signage, bridges over Sucker Brook, and several infrastructure improvements such as a nature center and pavilion.
Membership Update as of May 1st, 2016
by Kristi Sorenson

Your continuing support makes SRBP watershed projects and programs possible. Thank you! Together we are making a difference in the health of the Sheboygan River Basin.

We Thank Our New & Renewing Member Partners for 2016:

| Ozaukee County Planning and Resources Dept. | Betty & James Kuplic | Diane & John Schuchardt |
| Lil & Ken Pipping | Christine & Chris Frank | Evelyn Gundersen |
| Debbie & Tim Beyer | LuAnn & Vic Pappas | Jane & Roger Klettke |
| William F. Munns | Landmark Landscape | Susan Ramey |
| Beth & Tim Harrison | Jeanne Kiejunas | Rose & Joe McKillips |
| Ken Winter | Gerald Baumann | Alliant Energy |
| Jo & Bob Birkmeyer | Steve Klock | Bemis Manufacturing Co. |
| Terry J. Kohler | Marjean & Charles Pountain | Ellyn & Ed Potokar |
| Kevin Struck | Jeff Freye | Mary Kohl |
| Wally Wiech | Barbara Kurten | Lynn McIntosh & Bob Rhynas |
| John & Char Nelson | Crystal Lake Sportsman's Club | Elkhart Lake Improvement Assn. |
| Mary Piehl | Jon Gumtow | Sheboygan County Conservation Assn. |
| Marshview Conservation Club | *James Kettler* | |

*Welcome new member!*

You should have received your membership renewal notice for 2016. If you have not sent your renewal in yet, please do so in the addressed envelope you have received. We need ongoing membership and support from water-minded people like you to continue the work of the partnership in and around the Sheboygan River Basin. Please invite your friends and relatives to become members also and to join us in our projects and programs. If you have membership questions, please contact Kristi Sorenson at (920) 528-7258. Annual membership is $30 for the initial membership with continuing donations welcome! You may mail memberships to: SRBP, PO Box 3, Sheboygan Falls, WI 53085.
LNRP Model of Community Engagement

This last year, the Sheboygan River Basin Partnership (SRBP) and the Lakeshore Natural Resource Partnership (LNRP) began working together, creating collaboration using shared staff resources from LNRP to help SRBP implement their action plans.

The LNRP model uses strategic planning to spawn engagement built on creating Board member liaisons with local and regional partners. As reported in our cover story, Kendra joined the LNRP Board of Directors earlier this year.

Beyond working with SRBP, LNRP engages with local watershed action teams including the Climate Change Coalition of Door County, Friends of Crescent Beach, Friends of the Twin Rivers, Friends of the Branch River Watershed, Friends of the Manitowoc River Watershed, Little Manitowoc River Partnership, and the Friends of Hika Bay. LNRP also provides a steering committee presence and provides staff guidance and support for the Lakeshore Invasive Species Management Area (LISMA), the Niagara Escarpment Resource Network (NERN), and the Lake Michigan Stakeholders (LMS).

LNRP Board Members participate with the leadership teams of these partners in roles that range from separate Board of Directors to Steering Committees to Strategic Planning Committees. Shared staff resources and a strong volunteer network help implement each partner’s action plans. With shared staff resources, LNRP provides strategic planning support, fiscal management, collaborative grant writing, member management, and outreach.

Building community is fundamental to LNRP’s mission as partnerships are crucial and most effective at getting significant buy-in from local, regional, statewide, and federal stakeholders. LNRP has strategically created a support structure using a stewardship fund that invests in community and creates opportunities for stewardship of our land and water resources.

The SRBP action plan includes funding from the LNRP Stewardship Fund for a River Guide and Water Trail Map. Additional funding for the project comes from the Kohler Foundation. We’ll be working on creating this map later this summer with paddles scheduled for later this summer. Check the SRBP website for further information and plan to join us as we map and engage with the Sheboygan River!
The Sheboygan River Basin Partnership is a non-profit organization working to improve water quality and preserve our natural resources within the Sheboygan River Basin.

Our mission is to improve the health of our rivers and lakes.

For more information on issues in our watershed, please visit www.sheboyganrivers.org.