THE LOWER FOX RIVER



watershed monitoring
program



Eleventh Annual

Watershed Symposium

Tuesday, April 8, 2014

UNIVERSITY of WISCONSIN **GREEN BAY**

University Union Phoenix Rooms



Agenda

2014 Watershed Symposium Tuesday, April 8, 2014 UW-Green Bay Campus University Union Phoenix Rooms

- 8:15 am **Registration** (Outside Phoenix B)
- 8:30 am Welcome & Introductions (Phoenix B)

Dr. Kevin Fermanich, Natural & Applied Sciences, and **Annette Pelegrin**, Cofrin Center for Biodiversity, UW-Green Bay

8:35-9:15 Keynote Presentation (Phoenix B)

Dan Cibulka, Aquatic Ecologist, Onterra, LLC "Opportunities and Challenges in Water Resource Management: A UWGB Graduate's Perspective"

As a graduate student at UW-Green Bay, Dan's involvement with LFRWMP led to a Master's Thesis in Environmental Science & Policy. His work with local agencies to monitor Fox River tributaries led to his eventual position as an Aquatic Ecologist with Onterra, LLC, and an environmental management firm, specializing in lake management planning and lake stewardship.

9:15 – 9:30 **Teacher Presentation** (Phoenix B) *"What do Scientific Climate Change Projections Mean for our Streams?"* **Rich Krieg, Science Teacher**, Green Bay East High School

9:30-10:45 Student Presentations - Watershed Research Projects (Phoenix B) Moderator: Annette Pelegrin, UW-Green Bay

Keynote Speaker: Dan Cibulka, Onterra LLC



"Opportunities and Challenges in Water Resource Management: A UWGB Graduate's Perspective" Dan has a Bachelor of Science degree in Biology and Environmental Studies from Central Michigan University and in 2009 completed his Master of Science degree in Environmental Science and Policy from UW-Green Bay. During his time at UWGB, Dan worked closely with LFRWMP staff, teachers and volunteers on stream data collection and analysis. For his thesis work, Dan worked with the Oneida Tribe of Indians to analyze water quality and watershed conditions on tributaries within the Duck Creek and Trout Creek Watershed. Dan joined the Onterra staff as an aquatic ecologist in 2009. Since then, he has taken on projects involving nutrient dynamics in lakes, watershed management and restoration, aquatic invasive species management as well as general lake ecology. Some of his projects involve lake management planning for some of the largest lake chains in the state - the Three Lakes Chain of Lakes (Oneida County), Pike Chain of Lakes (Bayfield County) and Manitowish Chain of Lakes (Vilas County). He also oversees all of Onterra's stakeholder survey work, which is used to assess the perceptions and needs of lake riparian property owners. When he is not traveling the state protecting lakes, Dan enjoys cycling, camping, live music, scuba diving and international travel.

9:30 *"Nutrient Data for Ashwaubenon Creek"* Ashwaubenon Creek Team Green Bay East High School, West De Pere HS Teachers: Rich Krieg & Dana Lex

> This presentation will be an analysis of nutrient data of Ashwaubenon Creek. The main focus will be looking at trends over time.

9:45 "Impairments in the Green Bay and Fox River Area of Concern... Student AOC Videos" Trout Creek Team

Pulaski High School, Oneida Nation High School Teachers: Allison Thut & Becky Nutt

Students from Pulaski HS created videos about the Green Bay and Fox River Area of Concern (AOC). All videos can be viewed at <u>www.uwgb.edu/watershed</u>.

- Green Bay & Fox River AOC
- The Effects of Poor Water Quality on Recreational Activities

10:00 Break

10:15 *"Water Levels at Spring Brook" Spring Brook Team* Oshkosh North High School

Teachers: Barb Reed & Mark Lieffring

We continue to analyze the low water levels and investigate the potential causes of low stream flow.

10:30 **"A Student's Perspective: Monitoring Baird Creek"** Luxemburg-Casco HS, Green Bay Preble HS Teachers: Charlie Frisk, Chris Hansel, Kevin Hendricksen

> Student Dakota Hitchner will talk about her five year experience with the program: what she learned, how it influenced her life, and other opportunities that came as a result of her participation.

- 10:45 **Overview of UW-Green Bay Opportunities** (Phoenix B)
 - 10:45 Trent Sorensen: Online science course
 - 11:00 Keith Marquardt: Volunteer TMDL Monitoring
 - 11:15 am Presentation of 2014 Stream Monitoring Award to LFRWMP Pat Robinson, UW-Extension and Director of Environmental Resources Center, UW-Madison
 - 11:30 am Student Poster Session (Phoenix C)
 - Noon Lunch (Phoenix B and C)

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12:30 pm **Bird Session** (Phoenix B) Moderator: Prof. Robert Howe, UW-Green Bay

- 12:45 -3:30 Rotating sessions (A, B, C)

 (A) Field Trip: "Birding with Bob"
 Prof. Robert Howe, UW-Green Bay
 Hop a bus and join Ornithology professor Bob Howe on a field expedition to identify birds in a variety of habitats on campus.
 (D) Terms Bighter Museum (MAC Hell)
 - (B) Tour: Richter Museum (MAC Hall)

Curator: Thomas Erdman, UW-Green Bay The Richter Museum of Natural History contains one of Wisconsin's most significant collections of animal specimens for scientific research and education. The collection is built around a gift from Carl Richter, one of the state's most prominent ornithologists. The Museum ranks among the 10 largest oological (egg) collections in North America. http://www.uwgb.edu/biodiversity/richter

(C) **Campus Tours:** Tour various UW-Green Bay locations including the Kress Center, Housing, and overview of the campus from the 8th floor of the Cofrin Library.

3:30 pm Wrap up and dismissal

Student Research Poster and Video Display Topics:

"Monitoring in Collaboration" Trout Creek Team Oneida Nation High School, Pulaski High School Teachers: Becky Nutt & Allison Thut

Working together: Students from Oneida Nation and Pulaski High have collected data to establish a current picture of Trout Creek. Our site will be influenced in the upcoming year by a major restoration project on our north branch upstream from our collection site.

"How does Duck Creek Contribute to the Dead Zone?"

Green Bay Southwest High School Teachers: Lynn Terrien & Rick Berken

The Duck Creek monitoring team investigated causes of the Dead Zone in Green Bay. Students are looking at their data to see if Duck Creek is a contributor to the Dead Zone.

"Nutrient Data for Ashwaubenon Creek" & "Frog Species of Ashwaubenon Creek"

Green Bay East HS Teacher: Rich Krieg

Students analyzed phosphorus, ammonia, and nitrate data collected at two sites at Ashwaubenon Creek since 2006. Data will be compared to other area streams. Our second poster presents frog monitoring data in terms of species and trends over time. It also includes projections for the future.

"Analysis of Ashwaubenon Creek Birding Sites and Muddy Macroinvertebrates"

West De Pere HS Teacher: Dana Lex

West De Pere HS Environmental Science classes looked at an aerial view of Ashwaubenon Creek birding sites using images from Google Earth with a bird's eye view of habitat change and an index of ecological condition. Students also summarized spring macroinvertebrate data with biotic index comparisons at a variety of stream sites.

"Permeable Parking Lot and its Effects on Dutchman's Creek" Dutchman's Creek Team

Ashwaubenon HS Teachers: Dan Albrent & Dan Newel

Students researched the possible benefits of a permeable pavement installation (at the Ashwaubenon Branch of the Brown County Library) on the water quality of Dutchman's Creek and the Fox River.

"Water Levels at Spring Brook" Spring Brook Team Oshkosh North High School Teachers: Barb Reed & Mark Lieffring

We continue to analyze the low water levels and investigate the potential causes of low stream flow.

"Stream Conductivity and Road Salt" Apple Creek Team Appleton East HS Teachers: Ryan Marx, Kara Pezzi

"Streamflow and its Relationship to Dissolved Oxygen Content" Apple Creek Team Appleton North HS Teachers: Jamie Sadogierski, Sheryl Stidham-Gebert

"Stream Buffers and Phosphorous Levels of Baird Creek"

Baird Creek Team Luxemburg-Casco HS, Green Bay Preble HS Teachers: Charlie Frisk, Chris Hansel, Kevin Hendricksen

We continue to analyze phosphorous levels at the Northview Rd. site and Superior Rd. site. We focused on any statistical significance in phosphorous level change when comparing pre-buffer years of 2004-2008 with post-buffer years of 2009-2012.



Program partners:

- Appleton East High School
- Appleton North High School
- Ashwaubenon High School
- Boys & Girls Club of Green Bay
- Green Bay East High School
- Green Bay Preble High School
- Green Bay Southwest High School
- Luxemburg-Casco High School
- Oneida Nation High School
- Oshkosh North High School
- Pulaski High School
- West DePere High School

Program Website: www.uwgb.edu/watershed

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The Lower Fox River Watershed Monitoring Program is coordinated and administered by staff from the UW Green Bay Department of Natural and Applied Sciences and the Cofrin Center for Biodiversity.



