



Coastal **CLIMATE Adaptation & Resilience Workshop**

*Supporting climate and coastal resilience
planning in the Western Lake Erie Basin*

Owens Community College Toledo Area Campus
June 19, 2013

AGENDA

- 8:00 a.m. Registration and check-in**
- 8:30 a.m. Welcome**
Melissa Greene Lucas County
Patekka Bannister, City of Toledo
- Course Overview and Introductions**
Heather Elmer, Ohio Department of Natural Resources Division of Wildlife
Patrick Robinson, University of Wisconsin Extension
- 8:45 a.m. Setting the Stage – Developing a Great Lakes Coastal Resilience Planning Guide**
Jeff Stone, Association of State Floodplain Managers
- 9:15 a.m. Climate Trends in the Western Lake Erie Basin**
Molly Woloszyn, Midwest Regional Climate Center
- 9:45 a.m. Climate Change Science and Regional Impacts**
Jeff Andresen, Michigan State University
- 10:15 a.m. Break**
- 10:30 a.m. What Does Climate Change and Coastal Resilience Mean for You?**
Heather Elmer and Patrick Robinson
- 10:50 a.m. Adapting to Climate Change - Planning Strategies and Tools**
Tashya Allen, NOAA Coastal Services Center
Patekka Bannister, City of Toledo
Melissa Greene, Lucas Soil & Water Conservation District
- 12:00 p.m. Lunch**
- 1:00 p.m. Breakout session tracks**
- A. Adaptation Planning in the Western Lake Erie Basin
 - B. Developing Western Lake Erie Case Studies for the Great Lakes Coastal Resilience Planning Guide
 - C. Climate Change Adaptation Tools and Resources
 - D. Climate Change Communication, Engagement, and Action
- 4:00 p.m. Next Steps and Closing Remarks**
- 4:30 p.m. Adjourn**

Breakout Sessions

Time	TRACK A <i>Adaptation Planning in the Western Lake Erie Basin</i>	TRACK B <i>Developing Western Lake Erie Case Studies for the Great Lakes Coastal Resilience Planning Guide</i>	TRACK C <i>Climate Change Adaptation Tools and Resources</i>	TRACK D <i>Climate Change Communication, Engagement, & Action</i>
1:00pm	<p>A1 - Integrating Adaptation into Municipal Plans and Programs</p> <p>Learn about engagement between the Great Lakes Adaptation Assessment for Cities and the City of Toledo, including key areas of concern the City identified through an adaptation workshop and ongoing discussions. Hear findings from GLAA-C on how adaptation strategies are being integrated into a variety of non-climate action plans from across the country. Participants will identify areas of impact and key departments needed to respond to these impacts and brainstorm on how greater inter-departmental collaboration could leverage resources to respond to climate impacts.</p> <p>Patekka Bannister, City of Toledo Beth Gibbons, University of Michigan</p>	<p>B1 - Examining Habitat & Environment Case Studies</p> <p>Healthy coastal zone and watershed ecosystems are able to buffer upland areas from erosive forces like wind, waves and storm surge; absorb excess waters to minimize flooding; and adapt to a range of changing short- and long-term conditions, the latter including lake level fluctuations. This session will look at the data, tools and applications that could help address habitat planning and management decisions related to natural hazards, such as heavy rainfall and the impacts that a changing climate may have on those decisions. We will also explore ideas for new case studies and local stories that look at habitat issues, natural hazards and climate change.</p> <p>Katie Kahl, Rachael Franks Taylor, The Nature Conservancy</p>	<p>C1 - Introduction to Vulnerability Assessment and Identifying Vulnerabilities in Your Community</p> <p>This interactive session will include a brief introduction to vulnerability assessment and individual and group work to help participants qualitatively identify vulnerabilities across sectors in their community or organization. Discussions will include barriers to and benefits of adaptation, key stakeholders, action time frames and next steps to take locally.</p> <p>Tashya Allen, NOAA Coastal Services Center</p>	<p>D1 - Fostering Climate Action - Community-Based Social Marketing and other Strategies</p> <p>This session will highlight best practices and tips for successful climate change communication, including social marketing approaches that support individual action.</p> <p>Bret Shaw, University of Wisconsin-Madison</p>

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2:00pm	<p>A2 - Integrating Climate Change Resilience into the Toledo-Lucas County Sustainability Plan</p> <p>Join this brainstorming and strategy discussion to discuss how climate change can be addressed in the Lucas County sustainability plan. The session will focus on how climate change may impact plan focus areas and how the county’s sustainability goals within those focus areas are addressing climate change.</p> <p>Melissa Greene, Lucas Soil and Water Conservation District Becky Fedak, Brendle Group</p>	<p>B2 - Examining Land Use & Zoning Case Studies</p> <p>Planning and managing land use involves tradeoffs and, often, the balancing of multiple objectives (e.g. fiscal, economic, aesthetic, and environmental) that requires an understanding of natural hazards and risks, including potential impacts resulting from climate change. This session will look at the data, tools and applications that could help address land use decisions related to natural hazards, such as flooding and the impacts that a changing climate may have on those decisions. We will also explore ideas for new case studies and local stories that look at land use issues, natural hazards and climate change.</p> <p>Bob Freitag, University of Washington Jim Schwab, American Planning Association</p>	<p>C2 - Stepping through Coastal Resilience Planning using the Climate Adaptation Collaboratory</p> <p>This session will familiarize users with the Climate Adaptation Collaboratory, an online, interactive resource and workspace for conservation practitioners, decision-makers, and researchers to find and discuss information, tools, and experiences related to climate change adaptation. The session will introduce a new adaptation workflow concept through a live, local example and illustrate how the Collaboratory links to partner resources, tools, and data around the Great Lakes basin to facilitate information sharing and dissemination. It will also give participants an opportunity to link their organizations’ resources.</p> <p>Katie Kahl, Kim Hall, & Rachael Franks Taylor, The Nature Conservancy</p>	<p>D2 - Connecting People and Climate Change - Climate Wisconsin Videos</p> <p>Climate Wisconsin is an educational multimedia project featuring stories of climate change. Produced by Finn Ryan, the stories are supported by research conducted in collaboration with the Wisconsin Initiative on Climate Change Impacts. Participants will learn about what went into developing the videos and how they have been used to impact climate awareness and action. This session will explore interest in developing a similar project for Ohio, including potential themes, available research on climate impacts, funding sources, and how stories of a changing climate in Ohio might be similar or different from Wisconsin.</p> <p>Patrick Robinson, University of Wisconsin Extension Heather Elmer, ODNR Div. of Wildlife, Old Woman Creek NERR</p>

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3:00pm	<p>A3 - Climate Smart Habitat Restoration</p> <p>This session will identify which Great Lakes’ coastal species and systems are most likely to be negatively impacted by a changing climate; clarify why these resources are vulnerable, considering the interaction of climate and existing stressors; and elicit restoration techniques that are ‘climate-smart’, particularly for western Lake Erie. It will introduce NWF’s ‘Great Lakes Coastal Future: Tools for the Design and Implementation of Climate-Smart Restoration’ and ‘Guide to Climate Change Vulnerability Assessment’ and live interaction with participants about vulnerability assessment and climate-smart restoration resources; highlighting western Lake Erie examples. It will conclude with a brief discussion of how restoration can help urban communities adapt and introduce a nature-based solutions to urban adaptation tool kit.</p> <p>Melinda Koslow, National Wildlife Federation James Cole, The Nature Conservancy</p>	<p>B3 - Examining Infrastructure Case Studies</p> <p>Coastal infrastructure planning and management is about helping coastal communities and maritime interests understand which critical “gray” and “green” infrastructure is vulnerable to potential climate variation and hazards, as well as the potential risks and economic and environmental impacts throughout the coastal zone and uplands. This session will look at the data, tools and applications that could help address infrastructure planning and management decisions related to natural hazards, such as lower lake levels and the impacts that a changing climate may have on those decisions. We will also explore ideas for new case studies and local stories that look at infrastructure issues, natural hazards and climate change.</p> <p>Roger Gauthier, Roger L. Gauthier Consulting Gene Clark, University of Wisconsin Sea Grant Institute</p>	<p>C3 - Economic Assessment of Flooding Impacts and Economics of Green Infrastructure</p> <p>The NOAA Coastal Services Center will share methods for assessing the economic impacts of flooding and identifying green infrastructure strategies to help reduce those impacts. The session will draw from a project in progress in Toledo and Duluth, MN. Participants will have the opportunity to share their technical assistance and capacity building needs for these types of assessments, and the discussion will help to inform CSC’s steps forward. The Coastal Services Center is conducting this effort in partnership with Cities of Toledo and Duluth, Eastern Research Group, and the Association of State Floodplain Managers.</p> <p>Lori Cary-Kothera, Jeff Adkins, and Tashya Allen - NOAA Coastal Services Center</p>	<p>D3 - Virtual Session: Climate Masters Program, University of Oregon Climate Leadership Initiative</p> <p>Enjoy this virtual session on the University of Oregon’s Climate™ Master Program, a set of model programs that provide cost-effective, actionable education and training to help individuals, businesses, and youth reduce greenhouse gas emissions and prepare for local climate impacts. These programs are designed to be easily replicable and to motivate behavioral change among participants and their organizations and communities.</p> <p>Sarah Mazze, The Resource Innovation Group (TRIG)</p>