

**U.S. Environmental Protection Agency
Regional Science Topic Workshop**

**Wetlands and the Evaluation of Ecosystem Services
in a Watershed Context**

*Hilton Salt Lake City Airport Hotel
Salt Lake City, Utah*

September 26-27, 2007

PURPOSE:

Our workshop brings together Utah State agency staff, U.S. Environmental Protection Agency (EPA) Regional staff, EPA Office of Research and Development (ORD) scientists, and their partners in science. We will explore how science can be applied to help protect and restore wetlands and the valued ecosystem services that they provide to communities. We will review our understanding about the environmental significance of these systems, their functional attributes, and the factors that place them at risk. Together, we will then explore the management and science programs that currently are being implemented to help sustain and restore the wetlands of the Great Salt Lake. Special emphasis will be placed on the consideration of market-based approaches for attaining environmental goals.

OUTCOMES:

During a post-workshop special session, we will review the scope of a new EPA-funded research study entitled, "*Evaluating the technical feasibility of integrating wetlands into a water quality trading program for the Great Salt Lake: An alternative futures approach.*" The research project is part of a new interagency coordination effort called the Great Salt Lake Wetland Goals Project. The Wetland Goals Project is linked to Utah's Watershed Restoration Initiative and the Great Salt Lake Water Quality Steering Committee.

The desired outcomes of the workshop are: (1) an inventory of science needs for the evaluation of wetland ecosystem services; (2) a general plan for research to support regional and state program needs; and (3) the development of an informal technical advisory committee for the "Great Salt Lake Wetland Alternative Futures Project." We will identify specific research studies and products that can help practitioners make better informed decisions on wetland policy and individual projects. Also, lessons learned at the workshop will help EPA better plan and implement its Ecosystem Research Program.

BACKGROUND:

EPA's Regional Science Topic Workshop series is sponsored by the ORD's Office of Science Policy (OSP). One of the objectives of a Regional Science Topic Workshop is to establish better cross-agency understanding of the science, applicable to a specific region and human health and/or ecological topic. Another objective is to develop a network of EPA scientists who will continue to exchange information on these science topics as the Agency moves forward in planning research. This workshop is being held in Salt Lake City to highlight the unique and valuable wetlands of the Great Salt Lake ecosystem. The location also enables greater participation and attendance by our Utah partners in science. More information on EPA's Regional Science Topic Workshops can be found at <http://www.epa.gov/osp/regions/workshops.htm>.

Wednesday, September 26, 2007

Wetlands and Ecosystem Services

We define ecosystem services as the products of ecological functions or processes that directly or indirectly contribute to human well-being, or have the potential to do so in the future.

- 8:30 a.m. – 9:30 a.m. **Welcome**
Brian Caruso, EPA Region 8, Denver, CO
*Ying Ying Macauley, Utah Department of Environmental Quality,
Salt Lake City, UT*
- 9:30 a.m. – 10:00 a.m. **Keynote Presentation: What Are Ecosystem Services and How
Might They Be Evaluated?**
*Rick Linthurst, National Program Director, EPA Ecological Research
Program, Research Triangle Park, NC*
- 10:00 a.m. – 10:30 a.m. **Framework for Assessing Wetlands and Their Associated
Ecosystem Services**
*Mary Kentula, EPA, National Health and Environmental Effects
Research Laboratory (NHEERL), Corvallis, OR*
- 10:30 a.m. – 10:45 a.m. **Break**
- 10:45 a.m. – 11:15 a.m. **Research To Evaluate the Feasibility of Using Wetlands
in a Water Quality Trading Program: Achieving a Net Gain in
Wetland Quality and Quantity**
*Joseph Schubauer-Berigan, EPA, National Risk Management Research
Laboratory (NRMRL), Cincinnati, OH*
- 11:15 a.m. – 11:45 a.m. **Incorporating Wetlands in Water Quality Trading Programs:
Economic and Ecological Considerations**
Hale Thurston, EPA, NRMRL, Cincinnati, OH

Wednesday, September 26, 2007 (continued)

- 11:45 a.m. – 12:15 p.m. **Ecological and Beneficial Use Assessment of Farmington Bay Wetlands**
Theron Miller, Utah Division of Water Quality, Salt Lake City, UT
- 12:15 p.m. – 1:30 p.m. **Lunch**
- 1:30 p.m. – 3:00 p.m. **Panel: An Alternative Futures Approach to Watershed Evaluation**
Facilitator: Richard Sumner, EPA, National Wetlands Program, Corvallis, OR
Richard Toth, Utah State University, Logan, UT
Dixon Landers, EPA, Corvallis, OR
- 3:00 p.m. – 3:15 p.m. **Break**
- 3:15 p.m. – 4:45 p.m. **Panel: Assessment of Great Salt Lake Wetlands**
Facilitator: Mary Kentula, EPA, Corvallis, OR
Terry Johnson, Utah Department of Transportation, Salt Lake City, UT
Brian Nicholson, SWCA Environmental Consultants, Salt Lake City, UT
Heidi Hoven, The Institute for Watershed Sciences, Kamas, UT
Mike Sipos, BIO-WEST, Logan, UT
- 4:45 p.m. – 5:00 p.m. **Wrap-Up: Setting the Agenda for Research of Great Salt Lake Wetlands**
- 5:00 p.m. **Adjournment**
- 5:00 p.m. – 6:00 p.m. **Poster Session/Social Hour (at Hotel)**

Thursday, September 27, 2007

Special Session

Evaluating the technical feasibility of integrating wetlands into a water quality trading program for the Great Salt Lake: An alternative futures approach.

- 8:30 a.m. – 9:30 a.m. **Overview of Planned Research**
Facilitator: Richard Sumner, EPA, National Wetlands Program, Corvallis, OR
Joseph Schubauer-Berigan, EPA, NRMRL, Cincinnati, OH
Jill Minter, EPA Region 8, Denver, CO

Thursday, September 27, 2007 (continued)

- 9:30 a.m. – 10:45 a.m. **Panel: Understanding the Threats to the Wetlands of the Great Salt Lake**
Facilitator: Jill Minter, EPA Region 8, Denver, CO
Pam Kraemer, Utah Division of Wildlife, Salt Lake City, UT
Jason Gipson, U.S. Army Corps of Engineers, Bountiful, UT (invited)
Leland Meyers, Central Davis Sewer District, Kaysville, UT
Nathan Darnell, U.S. Fish and Wildlife Service, Salt Lake City, UT
Maunsel Pearce, Great Salt Lake Alliance, Salt Lake City, UT
- 10:45 a.m. – 11:00 a.m. **Break**
- 11:00 a.m. – 12:00 p.m. **Group Discussion: Clarifying Study Goals and Objectives**
- 12:00 p.m. **Adjournment**

*For more information about this agenda, please contact
Jill Minter, EPA Region 8 (Denver) at minter.jill@epa.gov or (303) 312-6084.*