American Water Resources Association
2009 SUMMER SPECIALTY CONFERENCE
Adaptive Management of Water Resources II
June 29 – July 1, 2009
Snowbird, UT

Wednesday, July 1
8:30 AM – 10:00 AM
SESSION 29: Panel – Panel: Water Resources Adaptive Management along the U.S. / Mexico Boundary and U.S. / Canada Boundary: Common Themes, Challenges and Benefits to Trans-boundary Adaptive Management

Panel Participants:
Moderator – Dr. Eugene Stakhiv,
Co-Director, International Upper Great Lakes Study, Institute for Water Resources, U.S. Army Corps of Engineers, Alexandria, VA

Carlos Peña, Chief, Environmental Management Division, United States Section, International Boundary and Water Commission United States and Mexico, El Paso, TX
Ed Eaton, Engineering Advisor U.S. Section, International Rainy Lake Board of Control, St Paul District, U.S. Army Corps of Engineers, St. Paul, MN
Karen M. Hanson, Program Manager, US Geological Survey, Utah Water Science Center, Member of the Transboundary Hydrographic Data Harmonization Task Force (US-Canada), Salt Lake City, UT

During this panel a few case studies using an adaptive management framework from each of these boundaries will be presented and evaluated in the context of common trans-boundary adaptive management issues and challenges. Issues and challenges may include: managing uncertainty, international legal and policy issues, international stakeholder involvement, trans-boundary monitoring, goal setting and institutional arrangements and funding for conducting Adaptive Management.

Dr. Stakhiv is the U.S. Director of the International Upper Great Lakes Study currently underway and was the U.S. Director of the Lake Ontario St. Lawrence River Water Levels and Flow Study completed in March 2006. Both studies address climate change adaption. Dr. Stakhiv will highlight issues and challenges to address climate change adaption within these international water resource studies, as well as such issues and challenges associated with other international efforts.

Carlos Peña will represent the U.S. Section of the IBWC and will present the adaptive management techniques used in a Collaborative Process with stakeholders to determine potential restoration sites in the Upper Rio Grande Canalization Project. The Canalization Project was constructed by the USIBWC in the 1930s and 1940s to provide water deliveries in New Mexico and Texas and to the Juarez Valley in Mexico, pursuant to the 1906 Convention between the United States and Mexico. The Canalization Project also controls floods in the river that extends through its length in southern New Mexico and the upper valley of El Paso, Texas. The USIBWC evaluated river management alternatives for future operation and maintenance of the Canalization Project to accomplish its flood control and water delivery mission and to enhance the restoration of riparian habitat in the project area. The Record of Decision for an Environmental Impact Statement for Canalization Project Management Alternatives that was initiated in 1999 has been on hold pending the resolution of preferred alternative selection concerns voiced by stakeholders and elected officials. Through a collaborative process, the USIBWC has used the adaptive management process to resolve stakeholder concerns and arrive at a mutually acceptable management alternative for the project.

Ed Eaton will discuss the Rainy Lake and River and Namakan Lake which are international waterways, that bound Minnesota and Western Ontario, and flow to Lake of the Woods. Initially Rule Curves where implemented to manage water levels within these Lakes for multiple purposes, including hydropower. The International Joint Commission (IJC) has jurisdiction over these rule curves, and relies on its International

Rainy Lake Board of Control to lead this effort. The IJC also has their International Rainy River Water Pollution Board working collaboratively on activities that may impact water quality within the basin. Historically, the Rainy Lake and Namakan Lake Rule Curves were developed to address concerns over high and low water. More recently the rule curves have evolved over time to address environmental concerns. For example, since 2000 the rule curves have been modified to address environmental aspects. The IJC and its International Rainy Lake Board of Control are using adaptive management in overseeing rule curve operations. This presentation will discuss the adaptive management approach being used within these international waters associated with these rule curves, as well as associated with some other initiatives of these Boards, such as voluntary efforts to address Rainy River Sturgeon Spring Spawning and participation in IJCs International Watershed Initiative.

Karen M. Hanson: Through the International Watersheds initiative and the Transboundary Hydrographic Data Harmonization Taskforce, the IJC (Ottawa and Washington Sections) has initiated a hydrographic data harmonization effort that involves a programmatic [reexamination] of US and Canadian natural recourse data holdings. The goal of the effort is to standardize [harmonize] basic hydrographic geospatial datasets to assist border communities with the development of integrated and sustainable decision making tools, reduce redundancy in the reporting and tracking of legal and policy issues and to strengthen and formalize federal, regional and local stakeholder participation. To date, this bi-national effort has made significant progress at the technical level and has begun to raise awareness in both governments that consistent institutional support is critical for the long term evolution and sustainability of this relationship. Karen Hanson will discuss how harmonized hydrographic data can support national and local decision making as well as the challenges associated with the coordination and implementation of a data harmonization plan.