

American Water Resources Association
2009 ANNUAL WATER RESOURCES CONFERENCE
November 9-12, 2009
Seattle, WA

Thursday, Nov. 12

3:30 PM – 5:00 PM

SESSION 75: Collaboration between Nations

Hydrography Mapping between the U.S., Canada, and Mexico - Jeff Simley, U.S. Geological Survey, Denver, CO (co-authors: Pete Steeves, Paul Kimley)

The hydrography for The National Map is represented using the National Hydrography Dataset (NHD) and the Watershed Boundary Dataset (WBD). These datasets currently extend only to the perimeter of the United States border. Water issues, however, behave irrespective of the border and therefore there is a need for geospatial data that also behaves irrespective of the border. Fortunately both Canada and Mexico are developing surface water datasets similar to the NHD and WBD. This provides the opportunity to combine the datasets into harmonized cross-border mapping. The U.S. Geological Survey is working closely with Natural Resources Canada (NRCan) and Instituto Nacional de Estadística y Geografía in Mexico (INEGI) to develop such data that will allow more seamless scientific investigations of water issues across both borders.

CHANGE (Climate and Hydrology Academic Network for Governance and the Environment) - Gregg Garfin, Institute of the Environment, Tucson, AZ (co-authors: Nancy Lee, Terry Rolfe)

North America's water supply is vulnerable to climate change and variability. Canada, Mexico and the United States must cooperate to strengthen efficiencies in freshwater management and achieve sustainability across their borders. The insights resulting from cooperative capacity-building and technology transfer will lead to more robust water management, helping North Americans deal with limited supplies and extreme events such as drought. On March 5-6, 2009, researchers and policy analysts from the three nations met to discuss their shared interests and the challenges of climate change, water and governance; the workshop kicked off an effort called the Climate and Hydrology Academic Network for Governance and the Environment (CHANGE). The 23 attendees considered continental and national evidence along with regional and sub-regional prospects for improved academic exchange and broader stakeholder engagement. Discussions moved beyond climate and water management to consider transboundary issues, hydroclimatic monitoring, oceanic influences along with ecological sensitivities, land use impacts, and related energy constraints. Several opportunities were identified to: transcend bi-lateral political trust concerns through broader-based academic, stakeholder and NGO network participation; develop potential for better climate and water data sharing, technology and climate science capacity to strengthen resiliency and disaster preparedness; and develop reciprocal science and policy exchange to effectively increase awareness and secure support for accelerated decision-making needs. This presentation will report on the first CHANGE workshop and ongoing efforts, organized by Agriculture and Agri-Food Canada, the University of Arizona, the University of Manitoba, and the Universidad Nacional Autónoma de México.