

Water Policy Proceedings
PNWER Annual Summit – Big Sky, Montana
July 14, 2015

Sen. Jim Honeyford, Washington State Legislature

David Hill, Centres and Institutes and Research Advocacy, University of Lethbridge

Speakers:

Tim Davis, Administrator, Montana Department of Natural Resources and Conservation

Mike Nemeth, Environmental Specialist, Alberta WaterSMART

Derek Sandison, Director, Washington State Department of Agriculture

Spencer Cohen, Senior Economist, Community Attributes, Inc

Reed Watson, Executive Director, Property & Environmental Research Center

Richard Moy, Commissioner, U.S. Section, International Joint Commission

Water Supply – Water Storage – Adaptation

Tim started bringing up the questions of how to meet future demand without speculating on water. How is the climate changing and how do we meet future demands with the timing of run off? How to meet demands while protecting current water users? State water plan is a road map to do that. The Montana state water plan has three type of recommendations: short term, intermediate, and long term. They cover how to fulfill current and future needs while protecting water rights and identify potential changes in demand, current historic and new water uses, timing and form of precipitation. We need more water data, more information, more stream gauges, better water measurement, remote sensing, Landsat data, develop better models to project real time and operational models during each water year to determine how much water we'll have and how to use it. Getting funding to carry out next steps, improving water rights enforcements, getting states more engaged in enforcing the priority system and stopping illegal water use. How to prepare and plan for future droughts? How to use current tools to be more flexible and more adaptable to future needs, how to respond more quickly to future needs while protecting senior water rights holders. Why aren't we building new storage across the state? How to analyze existing storage products? How to get more out of existing storage and looking into new smaller, off stream storage. Explore small, distributive, off stream storage. Dams are expensive to build and maintain and off stream storage is less risky than on stream. How to we look at using aquifer recharge to delay that water in the system and do it in a very strategic way across the state – natural storage. Moving forward with short term recommendations now. We need to engage water users at the local watershed level to help them develop collaborative plans for future water use, particularly for future water shortage. Engage communities in more areas across the state.

Developing new levels of partnership and collaboration of water storage facilities throughout the region

Mike Nemeth addressed the difference between mitigation and adaptation. Adaptation is local. Being able to adapt to climate change is key. Collaborative process used – starts with bringing people together, going out and talking to people with issues and concerns and having engaged participants to determine what to do. Next you need tools, a strong base data, interactive models, and performance measures. Want a technically valid model, needs to be live and interactive. After having a model – look at the effectiveness of changes in infrastructure, operations, climate, and how that might affect water users. Balancing upstream reservoirs allowed for increased expansion and benefits for both upstream and downstream users. Big disasters sometimes help drive and promote water issues. Looking at upstream reservoirs to aid in flood mitigation – using existing infrastructure differently instead of building new upstream dams. Maximize and repurpose existing reservoirs before considering new infrastructures – benefit to tax payers, the environment, economically socially and physically responsible.

Identifying new funding sources to support water infrastructure

Derek started on the current drought and how it is affecting how we handle future water supply. Most efforts are oriented towards evaluating current facilities and enhancing those current facilities. But it is also looking into every other way to supply water and meeting new demands instream as well. Financing entities are interested in big projects, looking for design innovation, a stable revenue stream, overall, looking for stable risks.

Economic Impact of Water

Spencer focused on the agricultural side of water. His research focused on animal and crop production, but only things that use intensive commodities, excluded large seafood processors but most are commodities harvested outside WA State. Products make it to final demand, households, exports, etc. Crop production is the life of some countries, they heavily rely on this production. Animal production is more dispersed but similar, strong concentrations in certain counties. Three types of impacts, direct impacts, indirect impacts, induced impact. Water plays into the risk assessment of ag in WA State. There's a price taker aspect, producers are at the bottom of the totem pole and have no choice but to accept the prices given to them and they're very volatile prices. Farmers consider it a 10 year cycle, losing money half the time and making money half the time. They have a full report for anyone interested in learning more about the study.

Reed discussed the possibility of water markets. We don't always have enough water, need a mechanism to allocate the resources we have. Climate change will most likely make water scarcer. Potential answer – water markets. What is a water market? The voluntary trading of rights to water. Conservations can achieve

outcomes more effective by paying for the water itself, leasing it. Why water markets? First, help overcome ignorance about the value of water; allows users to reveal the value that they place on water. We know the value people place on water is higher than what they pay for it. We don't have to know the exact values we just need to create a forum to get an idea of where these values may lie. Water values change over time, demands on water resources change over time, markets allow you to adapt to those changing values over time. How to embrace water markets?

Number 1 – clarify water rights, remove barriers from trading water - accelerate ground water adjudications. Number 2 – quantify and clarify reserve rights. Number 3 – Add water banking or marketing as a beneficial use, MT added water marketing as a beneficial use. Add water marketing to list of beneficial uses at the legislative level. Number 4 – Streamline change and transfer review process without undermining it – a balance to keep rigor without tying up potential trades. Number 5 – consider reviewing management plans for a geographical area such as irrigation district and allowing that to go through a suite of transfers as opposed to a singular transfer. Number 6 – Limit transfer challenges to only water rights holders. Number 7 – Shift burden of proof from proponents of water transfer to potential opponents of water transfer. Allow for flexibility, overcome differences, and allow adjustment to an ever-changing water portfolio. Facilitating water transfers allows us to maximize value of scarce water resources

Water Compacts: How to Protect Water in States and Provinces

Rich has been working with PNWER on the Sores River, addressing flood flows and water supply, and water quality objectives. There was a 500 year flood and they're trying to determine how to better address this issue. Also have St. Mary's-Milk River apportionment, Flathead River reference. IJC wants healthy waters for present and future generations. Two issues – Skagit River, flows from BC to WA. In the 70's Seattle decided to raise the dam for additional water but that would back water into BC. BC asked gov to go to IJC to solve this issue. IJC administered a process, decision was not to raise the dam, and WA paid money to BC for BC to provide the addition energy that would have come from raising the dam – called the Paper Dam. Second Issue, Columbia River Basin as a whole, IJC received an application for the Grand Coulee dam, issued an order in 41 to move forward in construction. In 44 gov came back and want a way to optimize power production and flood control. In 59 they came back for the principles of a treaty between us and Canada on the Columbia. IJC laid out key principles for the foundation of the treaty for power production, flood control, and sharing the benefits. Further east they've created the best hydrological data base that there is on the great lakes. They created the shared vision model, determining how to bring in local people/stake holders/leaders to help guide the development of the technical data and outcome of the models. There's an agreement between all 8 great lake states and the two provinces to try to protect the water of the great lakes, within the great lakes, and how to control and increase conservation in those great lakes. All 8 states agreed to a compact, it is now law to protect the lakes from outside conflict. On water quality they're experiencing severe concern in

some of the great lakes. There was a policy decision made to produce more ethanol from the corn, they were fertilizing the lands and putting in drainage and a heavy rainfall after fertilization, high levels of phosphorus comes out into the great lakes. High levels of toxicity in the lakes. Suggested to gov to reduce phosphorus going into the lakes. EPA wasn't happy but recommendations got results from EPA and Canada environment. There's 182 invasive species in the Great Lakes. Impacts they have on changing ecosystems is devastating.

Action Items

Action items to be emailed to Felicia