

Regional Water Resource Planning Workshops in the Spokane Valley Rathdrum Prairie
Report
Summer 2016

Dates and Location

Two planning workshops took place on July 12 and August 9, 2016 at Liberty Lake Sewer & Water District Conference Room in Liberty Lake, WA. Each workshop was 3 hours in length.

Workshop Team

The members of Idaho Washington Aquifer Collaborative (IWAC) decided to plan two summer workshops to expand a regional discussion on future water resources planning. The planning team consisted of Mike Galante, President of IWAC, Tonilee Hanson, Program Manager of SAJB, Dr. Allyson Beall King, Clinical Professor at Washington State University (WSU), and Melanie Thornton, PhD candidate at WSU. Allyson and Melanie facilitated each workshop and Kayla Wakulich, Masters student at WSU, was a participant observer and record keeper.

Agenda: July Workshop

This workshop included a facilitated discussion and causal mapping exercise on problems and issues, barriers and potential solutions to integrated water resource management in the SVRP.

- Futures Triangle: problems, barriers, and plausible futures
- Causal Loop Diagramming
- Next Steps

Agenda: August Workshop

This workshop included a facilitated discussion on potential solutions to, and action items for, integrated water resource management in the region that have been identified and described within the integrated causal map.

- Critical Uncertainties: developing strategies for plausible futures
- Update on Causal Loop Diagram
- What, So What, Now What: reflection on progress to date and discussion of next steps

Participants

The July workshop was attended by 12 individuals from: City of Spokane Valley, Hayden Lake Irrigation District, Liberty Lake Sewer and Water District, Model Irrigation District, Idaho Water Engineering, North Kootenai Water & Sewer District, Spokane Aquifer Joint Board, Spokane County Water District No. 3, Spokane County Environmental Services, and WA Department of Health – Division of Drinking Water.

The August workshop was attended by 19 individuals from: Spokane Aquifer Joint Board, North Kootenai Water & Sewer District, WA Department of Health- Division of Drinking Water, Panhandle Health District, ID Department of Environmental Quality, City of Post Falls, Spokane County Water District No. 3, Spokane County Environmental Services, Spokane County Conservation District, City of Spokane, Liberty Lake Sewer and Water District, Idaho Water Engineering, ID Department of Water Resources, City of Spokane Valley, Consolidated Irrigation District, East Greenacres Irrigation District, Spokane Regional Health District, and the Spokane Tribe.

Workshop Overview

July Workshop Overview

The July workshop began by Mike addressing the workshop participants with an overview of the purpose of the workshop, including the challenges and problems to regional water resources and the opportunity to develop solutions and recommendations for bi-state water planning. Allyson gave additional background on the challenges to brainstorming ideas and potential solutions to an uncertain and unknown future. In addition, Allyson gave an introductory overview of the challenges and benefits of causal loop diagramming.

Melanie led the group into the first activity called Futures Triangle. The basic idea is that there are three dimensions that help explore plausible futures -- past/barriers, the present and the pull to the future. Each participant worked individually to answer the following questions:

- What are 5 problems related to water resources in the region?
- What are 5 barriers to fixing the issues you previously mentioned?
- What are 5 hopes and fears for the future?

The next portion of the workshop the participants split into two groups, and discussed items from the first activity and translated them in causal loop diagrams (CLD) of the SVRP water resource system (see draft CLD below). A CLD is a diagram that helps individuals visualize how different variables are interrelated within a system.

The workshop concluded with a roundtable debrief and discussion about next steps. In addition, the participants had a critical discussion about who should attend the next workshop in August.

August Workshop Overview

The August workshop began by Allyson providing background and overview of the first workshop, which included expanding the conversation and moving from challenges and barriers to strategies and actions.

Melanie led the Critical Uncertainties and Scenario Matrix session. This session aimed to help a group develop strategies and build capacity to respond to future challenges. Melanie invited the workshop participants to identify and explore the most challenging factors to predict or control related to regional water planning. In addition, each group (total 4) was prompted to formulate strategies that would help them successfully develop and implement a regional water plan. Each group developed a scenario matrix (4 quadrants), named each quadrant and wrote a thumbnail scenario for the group's preferred quadrant (see table below). Then, each group brainstormed three strategies that would help the group operate successfully in the scenario that they had described.

Scenarios to Causal Loop Diagrams was the next portion of the workshop, and Allyson prompted the group to translate their scenarios and strategies into the current draft version of causal loop diagram. In addition, workshop participants had the opportunity to revise and edit the current draft version of the CLD.

The last part of the workshop, Melanie led the group through a debrief and discussion exercise called What, So What, Now What. This session allowed participants to reflect on the experience, which progressed into making sense of the workshop discussion, and to develop action items and next steps. The group was prompted with a series of questions:

- What? What happened? What did you notice, what factors or observations stood out?

- So What? Why is that important? What patterns or conclusions are emerging?
- Now What? What actions make sense?

The workshop concluded with a roundtable discussion about next steps for the workshops and future actions items.

Workshop Discussion & Outcomes

July Workshop Discussion

Futures Triangle:

During this activity, workshop participants worked individually to think about the problems, barriers, hopes/fears of the future and potential actions/solutions. The table below is a summary of the results from this activity.

<i>Problems (yellow)</i>	<i>Barriers (blue)</i>	<i>Potential Actions/Solutions Hopes/Fears of the Future (green)</i>
<ul style="list-style-type: none"> • Population • Low flow in river • Excessive outdoor water use during summer months • Climate Change • Heavy metals • Stormwater quality impacts • Regulatory enforcement • Lack of state involvement in IWAC • Public perception: unlimited supply & unchanging quality • Increased development adjacent to surface water • Political inconsistency • Water right availability • Exporting water out of the watershed • Fair ownership of pollution sources 	<ul style="list-style-type: none"> • Poor/inconsistent messaging of water resource issues by utilities • Heavy metals into CDA Lake • Unrealistic expectations: river flows and river quality • Public Perceptions • Value of Water • Cost of Water • Cooperation: politics & power • Emotions and political power over logic • Political will • Political leadership • Complexity drive by: scale, intensity, toxicity • FERC regulations • Recreation needs • Tribal needs • Finances & Costs • Social acceptance of potential solutions & change • Different goals & objectives 	<ul style="list-style-type: none"> • Conservation • Water education (outdoor water use) • Aquifer degradation • IWAC creates a water use plan that influences policy in both WA & ID • Regional communication • Science based policy • Improved monitoring of natural system • Improved Economy • Climate resilient policies • Regional water collaborative • Common methodology for demand projections • User behaviors • Regional/Consistent education and outreach • More stringent regulation on pollution

Causal Loop Diagram:

Immediately after the futures triangle activity, the workshop participants split into two groups to begin developing two causal loop diagrams to characterize the regional water resource system. These diagrams aim to describe relationships and causation and allow participants to discuss the various relationships within the Spokane River Basin and SVRP system. Allyson and Melanie facilitated the dialogue for each individual group of participants. In addition, they each used the items from the brainstorming futures triangle session to begin building the diagram with the participants.

Each group began drawing out the relationships of the physical hydrologic system. Group members discussed how aquifer quantity, river flows, and demand were related. The group discussed how population impacts water use, both indoor and outdoor use. The relationships and connections between river quality, aquifer quality, storm water, wastewater, and point and non-point sources were also discussed.

During this process, participants discussed the challenges related to public perceptions, social acceptance of potential solutions and change, politics and power, and education. Workshop participants discussed in detail the importance of education, and how it could be beneficial to begin conversations of more consistent and regional education of the water resources to the general public, but also to decision and policy makers. There was also a lengthy discussion about inconsistent state policies, regulations and enforcement, in the context of both water quality and water quantity. Workshop participants were concerned about varying perceptions of the water supply. Public perception about aquifer quality and river quality were also a concern. Conservation was also discussed and debated among workshop participants. The group discussed the motivation and sustainability of conservation strategies to reduce water use, and the challenges with developing a consistent conservation message to the general public. Participants also talked about the cost and value of water. All of these aspects were incorporated into the causal loop diagram, and each facilitator challenged the participants to describe how these items were related.

While there was lots of dialogue about the challenges and barriers to the regional water resource system, the workshop participants also informally discussed potential actions and solutions. There were different ideas and innovative solutions discussed, including: irrigation design standards, regional education, regional water messaging and communication, regional water demand model, regional water collaborative, lining the river (to prevent seepage to the aquifer), restoring various wetlands, pumping storage into smaller lakes, and impounding smaller lakes. Participants also discussed the role IWAC could play in developing recommendations related to regional water planning and management.

Roundtable Discussion about next steps:

The final portion of the workshop was to incorporate a quick debrief and to allow participants to provide input on next steps at the next workshop. There was general agreement that while there are different views at the table within the group of participants, there is a level of trust that helps the participants work through a decision or action. Participants agreed that inviting the state agencies to this conversation would be beneficial. In addition, participants wanted to make sure we invited representatives from the Spokane Tribe and the Coeur d'Alene Tribe. IWAC leaders would be responsible for personally inviting key agency stakeholders that did not attend the first workshop.

These activities allowed participants to think critically, and the facilitators strived to promote out of the box discussion of potential action items and solutions.

August Workshop Discussion

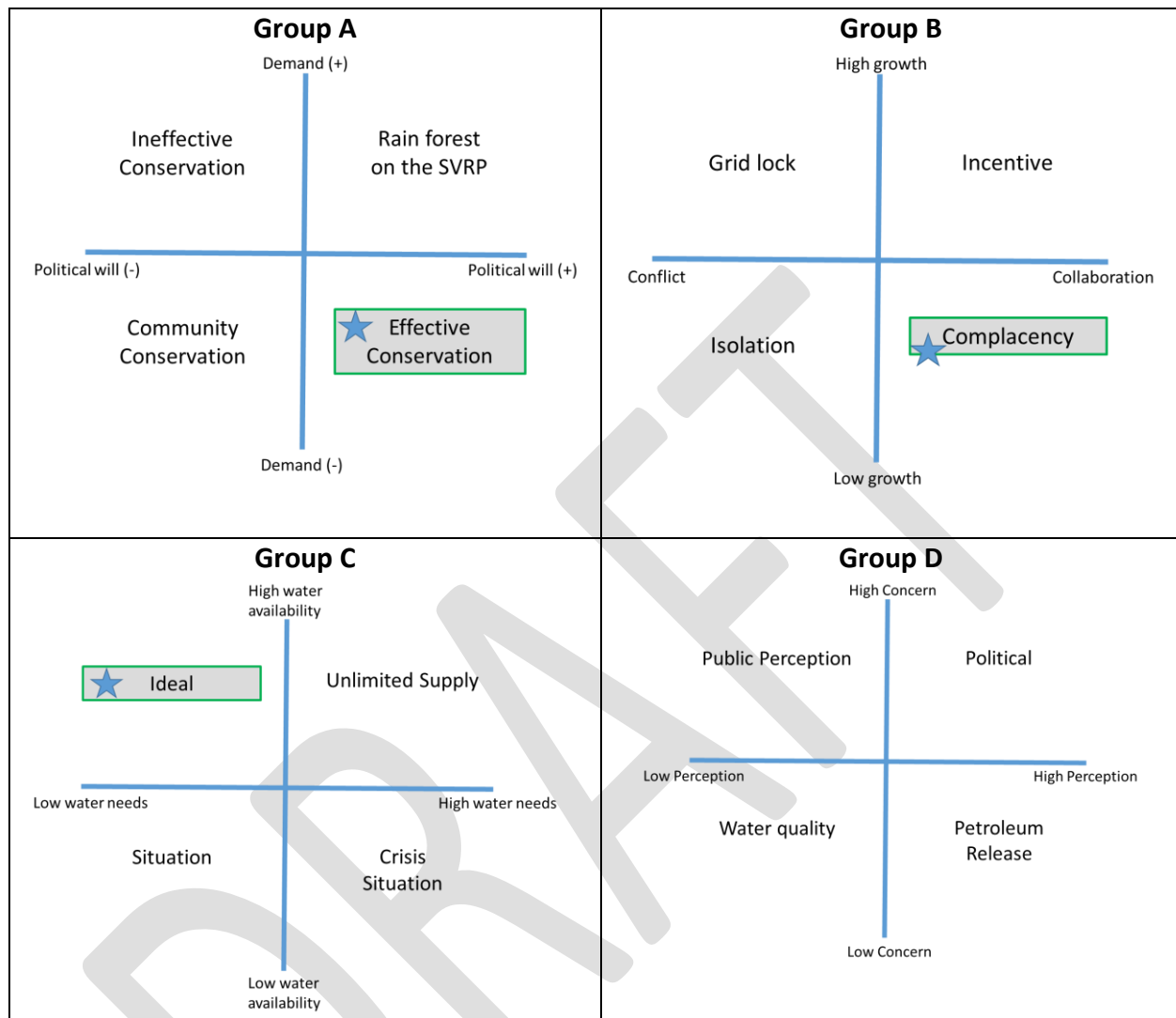
The second workshop began with introductions from all workshop participants. Next, Mike, Allyson and Melanie gave an overview and re-cap from the first workshop. The facilitators emphasized the need to expand the conversation and move from talking about the problems and barriers to strategies and action.

Critical Uncertainties & Scenarios Matrix:

The first portion of this workshop focused on allowing the participants to think critically about uncertainties and factors that create challenges to developing and implementing a regional water plan in the future. Workshop participants worked on the following question: What factors create the biggest challenge to develop and implement a regional water plan?

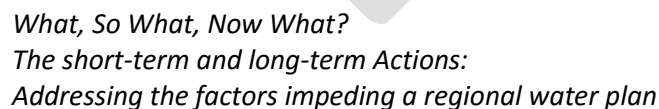
Then, workshop participants worked in groups to develop 4 future scenarios/strategies. This allowed groups to think about the uncertain future, and question assumptions, drivers and forcers for these potential future scenarios. The groups discussed the following factors that would be challenging to developing and implementing a regional water plan: political will, public perceptions, demand for resource conflict, collaboration/conflict, water availability, conservation and education.

Each group created a scenario matrix (see table below) based on the two most critical and challenging factors. *Group A* approached the scenarios from a regional conservation (demand) and political will point of view. This group's ideal scenario within the matrix was effective conservation (low demand, high political will), which is ideally achieved through regional education, shared values, and clear and consistent bi-state regional planning (or policies). *Group B* discussed the conflict/collaboration continuum and also growth. This group's preferred scenario was low conflict (high collaboration) and low growth, which is achieved through developing a regional water plan. *Group C* approached the scenario matrix with supply and demand, more specifically with water availability and water needs. Their ideal scenario, called ideal, includes enough water to meet future water needs, but this also includes responsible use of the water that is not limited by water availability. *Group D* incorporated aspects of public perception and the concerns of water professionals in the region.



The groups then came up with strategies that help the region attain the preferred scenario. Group A discussed the possibility of creating a regional water collaborative that could develop strategies to: create regional awareness of the water resource, develop standards and conservation ideas, and coordinate policies and standards so that everyone is working together to achieve one common goal (conservation). Group B discussed unifying the demand models and creating one regional water demand model. This group also discussed the importance of having one consistent message and education plan and strategy, which could be given to policy makers. Group C aims to address low water needs through conservation, improving efficiency and design standards, water recycling, and creating surface water storage system to augment in-stream flow. Group D discussed the importance of education from kindergarten through high school and the general public.

The groups each had time to provide feedback on the causal loop diagram that was developed at the first workshop. In addition, Allyson guided each group to also incorporate how their individual strategies could be incorporated into the diagram (see updated version below). There was a lot of discussion about the impacts of a crisis or catastrophic event on the system.



Each group was prompted to breakout and discuss what were the common factors arising among their individual groups and/or the entire group. Participants were then asked to further decipher how these factors could be addressed with attainable actions.

Education was a central theme to the discussion about potential action items and next steps. Education has the potential to change behavior, and the participants are hopeful that this change in behavior could result in change from innovative solutions. Developing an effective, consistent and sustainable message was important to participants. Participants also recognized the importance of framing the messages to different target audiences. A potential action step would be to create a tailored K-12 regional water resources curriculum and implement in both states. An educational curriculum of water resources for decision makers, policymakers and lobbyists was also a potential action item discussed.

The idea of creating a regional water collaborative was discussed. Participants discussed the potential for a regional water collaborative and how it could develop educational recommendations, coordinate communication and outreach, and develop regional recommendations related to regional water planning. However, the participants agreed that there needs to be more research on what this entails, how they are created, who would be the stakeholders, where would the funding come from, and how would it work in a bi-state basin.

The next part of the conversation focused on short-term action steps. Participants proposed developing a voluntary standard lawn watering ordinance/challenge (no lawn watering from 9am – 5pm). The group discussed using the local newspaper and media to inspire other neighboring communities to accept the challenge. Related to education, the group discussed developing an education committee within IWAC to develop a plan to change curriculums for K-12. This committee would also include an educational plan for decision makers, which includes current knowledge, information they should know, and information necessary to make informed decisions.

The workshop concluded with a roundtable discussion about what the participants want to do next. Some participants wanted to broaden the stakeholder participant to include more interest groups, such as environmental, recreational, etc. Some participants wanted to focus on short term action items that could be implemented by water utilities within the region. Next steps in detail will be discussed at the September IWAC meeting.

Additional Remarks

IWAC is a non-profit organization that encourages the participation of all public water purveyors in the SVRP region. IWAC funding comes from all participating organizations, and currently the membership fee is a flat amount. Leaders of IWAC would like to examine cost-sharing based membership fee, based on the size/population served (to be discussed at a future IWAC meeting). In addition, IWAC aims to receive other funds from *both* state legislatures.

The leadership of IWAC agrees to limit the next steps discussion to IWAC members and any other public water/sewer purveyor that wants to join. In short, the goal for current IWAC members is to work on developing a joint strategy, starting off with short-term actions and strategies with the goal of being able to show the members' respective boards/councils/commissioners that IWAC is making progress. For example, IWAC members could develop a strategy to adopt uniform no watering times. This joint strategy and action steps will be discussed in more detail at the next (Sept.) and future IWAC meetings.