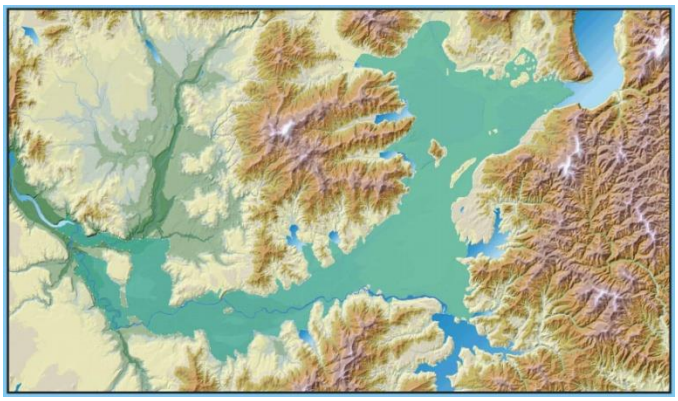

IWAC

Idaho Washington Aquifer Collaborative

December 10, 2013, 1:30 – 3:40 PM, Liberty Lake Sewer and Water District
Officers: President Mike Galante; VP Ty Wick; Secretary Bryan St. Clair; Treasurer Alan Miller
Representatives Present

	Organization	Representative	Email Address
√	**Avista**	Linda Kiefer	Linda.Kiefer@avistacorp.com
	Bar Circle S Water Company	Rob Turnipseed	avondalecon@frontier.com
	City of Coeur d'Alene	Jim Markley	jimm@cdaid.org
√	**City of Post Falls**	Mike Neher	mneher@postfallsidaho.org
	City of Spokane RPWRF	Mike Coster	mcoster@spokanecity.org
√	**City of Spokane Water Department**	Dan Kegley Bill Rickard	dkegley@spokanecity.org brickard@spokanecity.org
√	**Coeur d'Alene Tribe of Indians**	Laura Laumatia	llaumatia@cdatribe-nsn.gov
√	**Consolidated Irrigation District No. 19**	Bob Ashcraft	consolidatedirrigation@comcast.net
√	**East Greenacres Irrigation District**	Ron Wilson	ron@eastgreenacres.org
	Hayden Area Regional Sewer Board	Ken Windram Shirley Carter	ken@harsb.org
√	**Hayden Lake Irrigation District**	Alan Miller	alan@haydenirrigation.com
√	**Liberty Lake Sewer and Water District**	BiJay Adams Jeremy Jenkins	bijay@libertylake.org jjenkins@libertylake.org
√	**Moab Irrigation District**	Kathleen Small	kathleensmall@comcast.net
√	**Model Irrigation District**	Jim Lahde	jimlahde@netzero.net
	Modern Electric Water Company	Bryan St Clair	bstclair@mewco.com
√	**North Kootenai Water & Sewer District**	Mike Galante	mikeg@nkwsd.com
√	**SAJB Program Leader**	Tonilee Hanson	sajbinfo@gmail.com
√	**Spokane Co. Water Resources**	Rob Lindsay	rlindsay@spokanecounty.org
√	**Spokane County Water District No. 3**	Ty Wick	scwd3@comcast.net
	Spokane Tribe of Indians	Brian Crossley	crossley@spokanetribe.com
	Vera Water and Power	Todd Henry	thenry@verawaterandpower.com
	Guests		
√	**Idaho Water Engineering**	Bob Haynes	bob@idahowaterengineering.com
√	**City of Spokane Valley**	Henry Allen	hallen@spokanevalley.org
√	**UI Extension Water Education**	Jim Ekins	jekins@uidaho.edu

AGENDA

Welcome and Introductions - President Mike Galante opened the IWAC meeting and welcomed everyone. Representatives and guests introduced themselves.

Agenda Additions - President Galante called for additions or revisions to the Agenda and no changes were requested.

Approval of Meeting Minutes – The Minutes for November 12, 2013, were amended with corrections submitted via e-mail by Mike Neher on the reuse portion of the discussion. Mike's e-mail comments of 12/10/13 at 8:17 a.m. are pasted below.

> "Regarding potable use of reclaimed water in Nevada and Arizona, I think the facts might be different than what the minutes say. I've been out of Nevada for 7 years, but in my 16 years in Las Vegas area I never heard of a direct to potable reuse project in Nevada. In southern Nevada, "reclaimed water" is discharged to Las Vegas Wash which enters Lake Mead. In accordance with USBR rules, the reclaimed water returned to Lake Mead via Las Wash is not a consumptive use, and therefore extends the value of the 300,000 AFY allotment of Colorado River water to southern Nevada. Vast field studies and 3-D modeling have been done to measure the blend ratio, which varies seasonally, of reclaimed: lake water that is drawn in by the SNWA water treatment plants. The SNWA WTPs are state of the art facilities that include ozonation for the destruction of organic molecules and pathogens. The Nevada situation is an example of indirect potable reuse, and is not a closed system (as in pipes or direct to potable reuse). Reclaimed water is used extensively for landscape irrigation and golf courses in the Las Vegas area. The excess is discharged to Las Vegas Wash. If there is a closed potable reuse system in Nevada, the location should be noted in the minutes.
>
> In Arizona, Tucson draws water from the aquifer. Some of the area's reclaimed water is used to recharge an aquifer via infiltration basins remote from the drinking water wells. The blended reclaim/aquifer water is used for landscape irrigation. CAP water from the Colorado R is also used to recharge the aquifer. Tucson had a huge PR problem in the 1980s when CAP water, even after treatment, caused chemical reactions in the water system creating massive "red water" complaints. The City vowed to never use CAP water directly in the system again. See this site for more info:
> http://cms3.tucsonaz.gov/water/recharged_water "

Financial Report –Treasurer Alan Miller reported new memberships have been received from the City of Coeur d'Alene and Modern Electric and Water Co. Both the cities of Post Falls and Spokane are in process but needed W-9 forms which have been sent.

Income from new memberships was $2,000. No expenses were paid. The account balance is $5,697.73.

Old Business

Technical Facilitation – The IWAC Executive Board met with Bob Haynes to discuss technical facilitation and a set of "talking points" prepared by President Galante. The consensus of the Executive Board was to move forward with a Bob Haynes as the technical facilitator on a month by month basis. Bob will submit invoices from Idaho

Water Resources. An hourly fee of $140 was agreed upon for facilitation with an estimated 4 hours per month required for preparation and meeting facilitation. An initial budget of $ 7,000 for facilitation was proposed with a six month review. The facilitator duties and roles were discussed with an emphasis on keeping the focus on IWAC goals and objectives and the group discussions on task. Bob proposed possible speakers such as Steve Robischon to discuss challenges for the Palouse Basin Aquifer Committee (PBAC) and help IWAC learn from PBAC experiences.

President Galante put forth a request to support Bob Haynes as the technical facilitator. Several individuals expressed support and the group agreed by consensus to retain Bob Haynes, on a month by month basis, as the IWAC technical facilitator.

IWAC Logo Contest – A Logo contest draft was presented by Tonilee Hanson**.** Included were criteria for the logo design, the submission process, timeline and prizes. The criteria, timeline and prizes were discussed and modified. A revised logo contest form will be distributed in January. Everyone is encouraged to send the contest flier out to their contact lists. The primary focus will be on Community College and High School graphic design classes and professional artists whom we hope will contribute their design work for a worthy cause.

Implementation of IWAC Goals – Discussion Continued – President Galante sent out the following questions in November. These questions and others generated by the group continue to provide substantive discussions.

Questions for Consideration and Discussion

1. How can flows in the Spokane River be increased during low flow events in September and early October?
2. What are the future needs of water purveyors in Washington? In Idaho? How many additional AF will be needed to meet the future demand looking out 50 years?
3. What are the challenges that we know about today for water quality? For the River? For the Aquifer?
4. What are the likely future water quality challenges?
5. How can reclaimed water play into meeting future needs?
6. Which conservation practices will yield results?
7. What are the regional conversations we need to have?
8. How can recent presentations inform our discussion? http://www.spokaneaquifer.org/idaho-washington-aquifer-collaborative/initiatives/

Discussion of the questions was interactive and engaging. Discussion points are summarized below. For the record, no attempt was made to credit individuals with specific comments but rather to capture the range of ideas expressed.

Spokane River Flow

- Maia Bellon, Director of the Washington State Department of Ecology has signed the authorization to initiate rulemaking on the Spokane River to establish instream flow at the Spokane gage (USGS 12422500). The process of rule-making may take about a year. Flow levels under consideration are based on spawning and habitat needs for Mountain Whitefish and Rainbow trout (e.g., 850 cfs June 16 - September 30 and 1,700 cfs in the shoulder season from October 1 – March 31st.

Graph below is from Hal Beecher, WDFW Instream Flow Biologist's report dated May 31, 2012 and titled, "2012 Instream Flow Recommendations for the Spokane River"

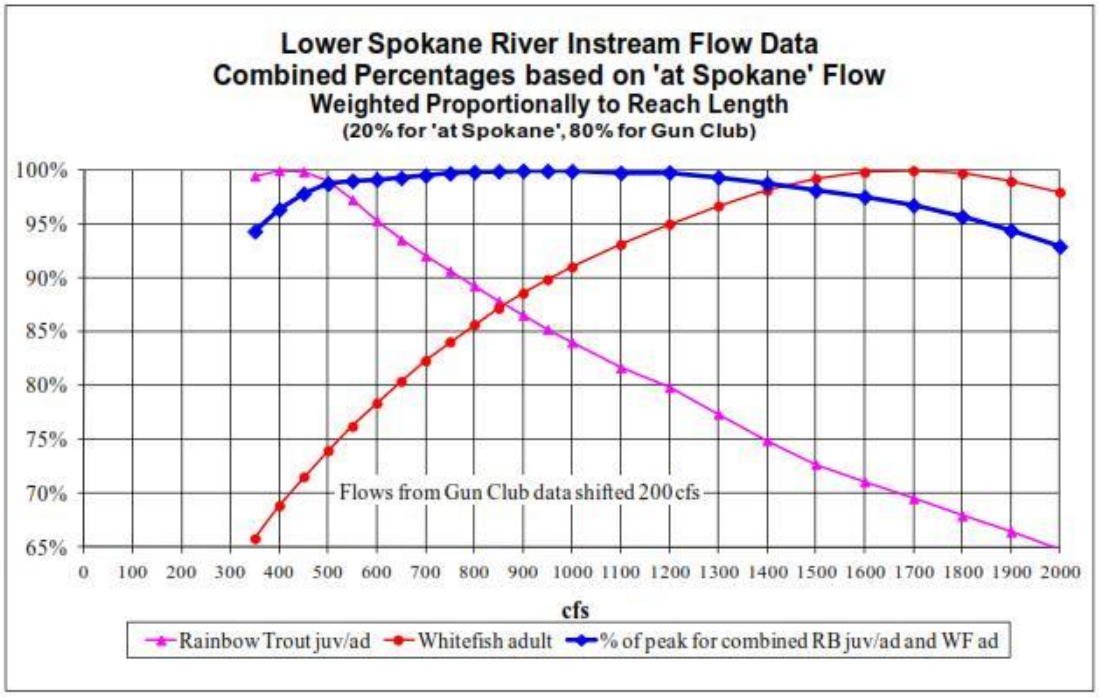

Figure 1. Modeled relationship between fish habitat (WUA) and flow in the lower Spokane River as determined by EES Consulting (2007) in a study commissioned by the Watershed Planning Unit. Juvenile and adult rainbow trout WUA, mountain whitefish WUA, and a combination of the two species were graphed in terms of percent maximum WUA. These relationships were used for recommending summer instream flow.

- AVISTA must maintain 600 cfs. Speed Fitzhugh could provide information about the shoulder season concerns. Invite Guy Gregory to the February 2014 IWAC meeting with Speed to discuss these issues.
- Concern was expressed for proposed instream flows that are higher than what existed in the natural setting before Post Falls Dam was built.

Water Quality Challenges

PCBs

- The Spokane River Regional Toxics Task Force (SRRTTF) is focusing on PCBs in the Spokane River. PCB contamination is a major issue for Spokane County and is becoming an issue for Idaho. Limnotech was hired to look at data and put together a proposal for dry and wet weather testing to identify potential sources of PCBs in the Spokane River.
- The aquifer is being looked at as a non-point source of phosphorus. The concentrations of phosphorus are relatively low but the tremendous volume of water interchanged between the river and aquifer may be a contributor. Testing of the aquifer has not been done to see if the PCBs might be sourced in the aquifer. What would be done if the aquifer is a contributor?

- Current technology is not effective for reaching the level of contaminant removal to meet the Spokane Tribe's requested criteria (i.e., 1.5 parts per quadrillion). The County is cleaning up to 200 parts per quadrillion, but data is not effective at this level.
- Doug Krapas presented a seminar on PCBs at the 2013 Spokane River Forum Conference. Inland Empire Paper Company has a commitment to use recycled products in its paper production. An issue in its recycling plan has been the PCBs in imported inks. Currently there is no EPA regulation in place for importation of printed products and according to EPA, less than 50 parts per million is considered PCB free.
- Other sources of PCB are caulks, concrete sealers, yellow road way paint and parking lot sealants.
- Spokane County Utilities conducted sampling from their north and south valley lines. The sampling separated the Dishman residential area form the business corridor along Sprague and Appleway. Values in the residential areas sampled were as high or higher than the commercial areas (10-20 part per trillion ranges). Is it in the water, dairy, dye, detergents or in the clothing?
- PCB is one water quality concern for discharger into the river but drinking water standards are higher for other contaminants like zinc. Maybe IWAC could put together a table of potential contaminants of concern listing what the problem is with each contaminant and what rules apply. This could be hard to scope out.
- For purveyors what is the possibility of monitoring each contaminant? A baseline is needed for water quality before it enters the pipe. For example, in Idaho, Panhandle Health District does not monitor zinc.

Stormwater

- Spokane is trying to keep stormwater out of the river using an integrated plan of low impact development, direct injection, drywell, UIC (underground injection control) and combined sewer overflow tanks. Managing direct injection near wellheads has been in discussion for many years and policy for injection throughout the aquifer could take even longer.
- Double depth drywells, in this ground surface, are good for getting rid of stormwater water but provide no treatment for contaminants in the water.
- There are over 10,000 untreated UICs that are "grandfathered" and massive parking lots in the commercialized areas of Spokane valley. We need to go back to best management practices and do the right thing.
- Grassy swales are at the point of overflowing, running down a street and collect at one point.
- Jim Ekins, Laura Laumatia, Jeremy Jenkins and others have been looking at potential stormwater demonstration/research sites to increase knowledge about the effect of unique climatic and hydrologic attributes on BMP design around Coeur d'Alene. Businesses currently are charged a stormwater service fee if they discharge stormwater into the city's stormwater drainage system. Businesses that make changes to redirect stormwater to be managed on-site will not need to pay that fee. A stormwater ordinance passed by the City of Coeur d'Alene in late 1994 requires the use of BMPs to manage stormwater on-site for new commercial and new subdivision development. However, BMP design manuals are not as well developed as they are elsewhere. The group is also looking at a potential demonstration/research site on an un-vegetated BMP on the North

Idaho Campus, adjacent to a community garden, to treat stormwater on site and possibly research treatment effectiveness for yet-to-be-determined pollutants of concern to help inform design options. The Bureau of Land Management is working with the City of Coeur d'Alene to consider additional demonstration swales to be placed in a new park by the river, with interpretive displays about stormwater to inform the public. Jim Ekins is helping to organize the group and will send out information.

Reclaimed Water Reuse

- In addition to the comments above, correcting the November minutes, Mike Neher brought copies of a 57 page study conducted in 2011 entitled, "***An Analysis of Direct Potable Water Reuse Acceptance In the United States: Obstacles and Opportunities,"*** written by Charla R. Cain at John Hopkins Bloomberg School of Public Health. http://ocw.jhsph.edu/courses/Capstone2011/PDFs/Cain_Charla_2011.pdf
- The document has been added the SAJB website at http://www.spokaneaquifer.org/idaho-washington-aquifer-collaborative/initiatives/
- A major hurdle is public perception despite the fact that reclaimed water is currently returned to the river and 70,000 septic tanks returned water to our groundwater supply.

Conservation Practices

- Reflecting on Southern Nevada Water Authority Director, Pat Mulroy's comments about the unimaginable 10 year drought and subsequent lack of water, how should IWAC prepare for drought management? Would be the impact of a couple of "dry" years? What short and long term measures will be needed?
- The 50 year drought in the Phoenix area came from and inability to dam water. See the Salt River Project.
- Researchers at WSU are looking for information for the drought management planning scenarios. Climatologists in the Moscow Pullman area could be invited to come and talk to IWAC about models they are considering.
- Drought management is pertinent and would require public education about conservation. This can be done at the local level using educational tools and voluntary participation.
    - Lewiston Orchards voluntarily rations water each year.
    - In a drought the first things to go are yard water, hay, and vegetable gardens.
    - Voluntary only goes to a certain extent in a severe drought. Chattaroy was offered as an example of voluntary conservation working well the first time it was needed but the second and third times the public was less and less responsive. They saw the negative results on their yards, flowers and fire buffers and continued to use water despite the fact that the reservoir to fight a real fire was rapidly declining.
    - In the early 1980's Seattle had water cops giving fines. Auburn, drawing water from a separate aquifer, was not affected by the drought but the

education campaign resulted in Auburn residents conserving water. An unintended consequence of the voluntary conservation caused the Auburn water district to lose revenue.

With the breadth of discussion ranging over six issues, Vice President, Ty Wick urged the group to choose one area of focus as a place to start working strategically. The discussion turned to a regional future water demand forecast model.

Future Water Demand

- Spokane projected growth - The Annex to Airway Heights costs Spokane more than it provides in revenue. The current administration will not seek new annexations.
- The City of Liberty Lake will continue to expand as far west as possible as well as extending a bit farther north across the river.
- Mike Hermanson's presentation included the 2020 projected growth.
- Developing an Idaho water demand forecast model that is comparable to Spokane County. The needed data has been identified. Rob Lindsay offered three possible scenarios for assisting with the Idaho demand forecast.
    1. Rob could contact the Denver consultant who developed the Spokane County original model and invite them to make an independent proposal to CAMP for the Idaho demand forecast model. Spokane County Water Resources could provide time for Mike to review the Idaho model with the Denver Consultant to ensure consistency and seamlessness between the two models.
    2. Spokane County could be hired to fully develop the model for Idaho.
    3. Mike Hermanson could train someone, identified by the Idaho purveyors, and work together to develop the Idaho demand forecast model. $50 per hour for Mike's local knowledge and expertise would be less expensive than an out of state consultant
    4. Linda Kiefer offered a combined option that would engage the Denver Consultant as a review component to option 3 above.
    - IWAC may need to form a Water Demand subcommittee
    - President Galante will float the water demand forecast modeling idea at the CAMP meet Thursday, 12/12/13, and see if this project meets CAMP's proposal criteria.

New Business

January 14 - Agenda

Reclaimed Water Reuse: Spokane County - Dave Moss will present the County planning. HARSB, City of Post Falls, City of Coeur d'Alene, LLSWD, City of Spokane RPWRF and NKWSD are invited

February 11 – Agenda

Spokane River Flow & Avista Hydro Operations: Speed Fitzhugh, Spokane River License Manager and Patrick Maher, Sr. Hydro Operating Engineer for Avista Corporation; and Guy Gregory, Hydrogeologist for WA Dept. of Ecology's Water Resource Program in Spokane.

Updates Around the Table

Handouts: November 12, 2013 Meeting Minutes

The meeting adjourned at 3:45 p.m.