



IDAHO WASHINGTON AQUIFER COLLABORATIVE

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 Mike Galante - President
 Ty Wick - Vice President
 Bryan St. Clair - Secretary
 Alan Miller - Treasurer

The Idaho Washington Aquifer Collaborative (IWAC) works to maintain and enhance water quality and quantity for present and future generations by developing management strategies which benefit the Spokane Valley Rathdrum Prairie Aquifer and the Spokane River region.

March 10, 2015, 1:30 – 4:00 PM, Liberty Lake Sewer and Water District
 Representatives Present

	Organization	Representative	Email Address
√	Avista	Michele Drake Linda Kiefer	Michele.drake@avistacorp.com Linda.Kiefer@avistacorp.com
	Avondale Irrigation District	Bob Chandler	bobchandlercda@gmail.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	John Beacham Matthew Isch	jbeacham@postfallsidaho.org misch@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	Shane Sheppard	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 Rick Neal	jim@modir.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	thentry@verawaterandpower.com
	Guest Speakers		
√	City Idaho Water Engineering	Bob Haynes	bob@idahowaterengineering.com
√	University of Idaho IWRRRI	Mark Solomon	
	Guests		
	City of Spokane, Environmental Programs	Doug Greenlund	dgreenlund@spokanecity.org
	City of Spokane Valley	Aaron Clary	aclary@spokanevalley.org
√	City of Spokane Valley	Art Jenkins	ajenkins@spokanevalley.org
√	City of Spokane Valley	Henry Allen	hallen@spokanevalley.org
	IDWR	Giovanni Del Papa	Gio.delpapa@idwr.idaho.gov
	IDWR	Keith Franklin	Keith.franklin@idwr.idaho.gov
	K & L Gates	Brian Werst	Brian.Werst@klgates.com
√	University of Idaho – Water Education	Jim Ekins	jekins@uidaho.edu
	WA Department of Ecology	Guy Gregory	ggre461@ecy.wa.gov
	WA Department of Ecology	John Covert	Jcou461@ecy.wa.gov
	WA DOH Drinking Water	Craig Riley	Craig.Riley@doh.wa.gov
√	Washington State University	Melanie Thornton	melanie.thornton@email.wsu.edu
	Welch Comer Engineers	Ashley Williams	awilliams@welchcomer.com
	Idaho Water Users Assn.	Norm Semanko	
√	University of Idaho	Todd Higans	

AGENDA

Welcome and Introductions - President Mike Galante opened the meeting and welcomed everyone.

Agenda Additions – President Galante revised the Agenda placing guest speaker Mark Solomon first to accommodate his schedule.

Approval of Meeting Minutes – Draft February 10, 2015 minutes were distributed on March 8th and revisions were incorporated into Version 2 printed for the meeting. President Galante called for any additional revisions to the Minutes. On page 4, bullet one, Linda Kiefer revised the 800 gallons/day for exempt wells to 5,000 gallons/day. No other revisions were requested.

Financial Report – Treasurer Alan Miller submitted the financial report as of March 10, 2015.

\$7,349.51 2015 Beginning Balance

2015 YTD Income from Dues

\$8,500.00 Nine water purveyors: Consolidated Irrigation District, Hayden Lake Irrigation, Liberty Lake Sewer and Water District, Model Irrigation District, North Kootenai Water District, and the cities of Coeur d’Alene, Millwood, Post Falls and Spokane.

\$ _____ .58 YTD Interest Income

\$ 8,500.58 Total YTD Income

2015 Expenses

\$ 1,308.48 Bob Haynes facilitation

Current Account Balance

\$14,541.61

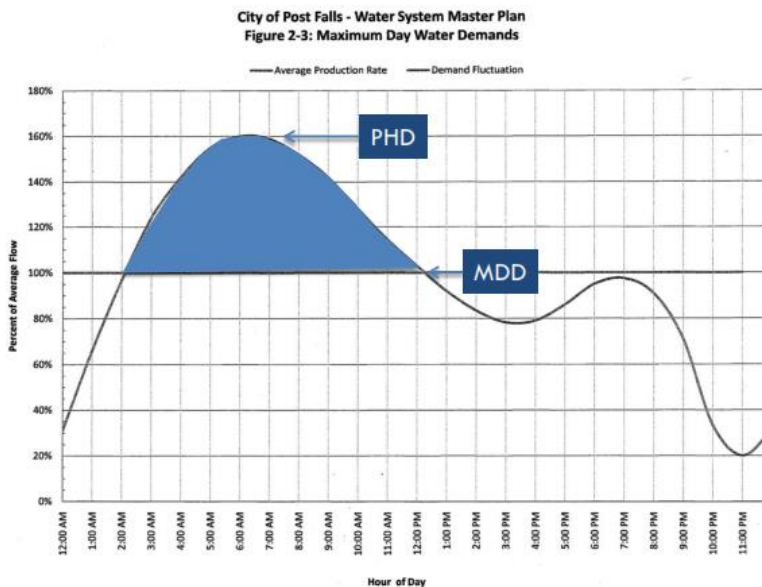
New Business

Guest Speaker – Mark Solomon, Ph.D., Water Research Scientist, Idaho Water Resources Research Institute (IWRRI), University of Idaho, presented the Rathdrum Prairie Aquifer Future Municipal Water Demand study. Mark described the process and methodology by which Idaho purveyors file water right applications based on **Reasonably Anticipated Future Needs (RAFN)** as provided for by Idaho law. Mark’s presentation can be viewed at <http://www.spokaneaquifer.org/wp-content/uploads/2015/03/Mark-Solomon-RAFN-report-3.10.15.pdf>.

Idaho RAFN water rights as described in Mark’s presentation, are determined by four components: Service area [slides 5-8], Planning Horizon, Future Demand [slides 9-23] and a Water Gap Analysis [slide 24].

Maximum daily water demand (MDD) was compared to peak hourly demand (PHD) [Slide 17].

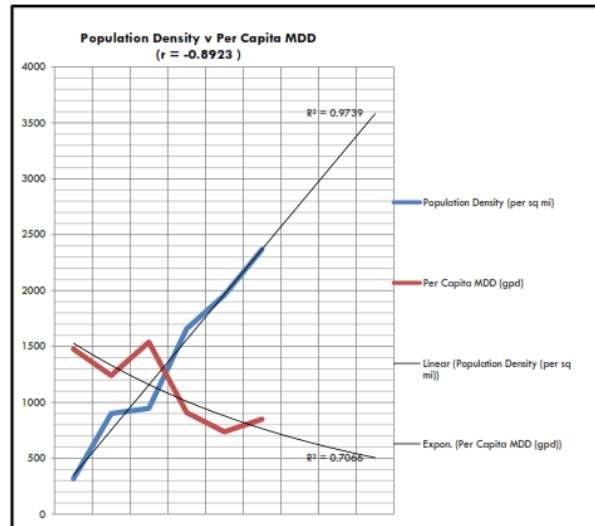
MAXIMUM DAILY DEMAND PEAK HOURLY DEMAND



The cost and feasibility of optional water storage scenarios to meet peak hourly demand were analyzed.

FUTURE DEMAND (MDD)

- Calculate 2014 per capita MDD
- Correlate with 2014 population density
- Forecast 2045 per capita MDD from 2045 population density projection

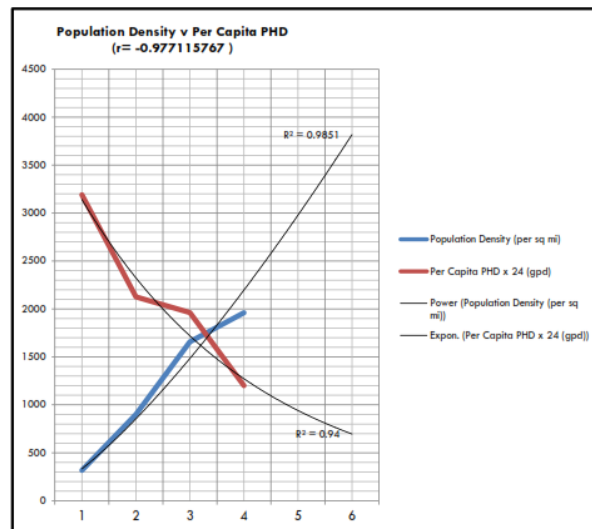


Slides 19 and 20 are shown to the left and display projections of future water demand for maximum daily demand (MDD) and peak hourly demand (PHD).

The projections show a relationship between an increase in population density and a decrease in per capita water use.

FUTURE DEMAND (PHD)

- Calculate 2014 per capita PHD
- Correlate with 2014 population density
- Forecast 2045 per capita PHD from 2045 population density projection



The assumption is that as population density increases the outdoor landscape, needing water, decreases and outdoor irrigation is the primary driver of peak water demand rates.

Water rights in Idaho are based on the maximum diversion rate necessary to support the beneficial use.

Slide 23 provides the following recommendation and rationale:

Recommendation: IDWR should consider approving Rathdrum Prairie Aquifer Reasonably Anticipated Future Needs Rights at the maximum daily demand flow rates with period-of-use-restricted higher peak hourly demand flow rates.

Rationale: The unique Rathdrum Prairie Aquifer hydrogeology and the comparative expense to the municipal; provider and rate payer of pumping versus above ground storage.

Dr. Mark Solomon's report can be found at uidaho.edu/cda/cwrc/rafn or uidaho.edu/research/iwrr/reports/ and the GIS files are available at <http://inside.uidaho.edu>

Questions and discussion included:

- What other academic literature is available quantifying a correlation between population density and water use?
- Regarding the comparison between Moscow, ID and CDA, ID was water use by the universities included?
- Is there a way to factor in daily temperature and irrigation use?
- How were population estimates determined? (i.e., census, land use planning, water district comprehensive plan, national and regional trends, transportation numbers)
- Access to waste water treatment will be a limiting factor for future growth. Reliance on septic systems for waste water treatment, over the aquifer, limits population density to one residence per 5 acres.
- How will the study account for future climate change or increasing population density?

Old Business

IWAC Regional Water Demand Model – Mike Galante and Bob Haynes met with Rob Lindsay and Mike Hermanson at Spokane County Water Resources Center on February 27, 2015. They continued the discussion of a regional water demand model for Idaho that mirrors the existing County model. The regional model would be enhanced with GIS mapping features and layers that can be turned on or off. Currently the Spokane County water demand model is not being used by the Washington water purveyors so the question is, “Will Idaho purveyors use a regional model and therefore, is it worthwhile?”

Mike Galante requested support for a regional water demand model at a recent CAMP meeting. IDWR representatives Dale Van Stone and Chuck Cutty felt that support for a regional model from the Idaho Legislature was needed before funding could be considered. Mike asked the IWAC members if the model should be presented to the Kootenai County Commissioners as a land use and management planning tool.

Next Steps: Discuss options at an Aquifer Protection District meeting. IWAC and additional funding sources may need to be considered for developing a regional water model.

Updates Around the Table

Spokane River Regional Toxics Task Force: John Beacham reported that PCB testing at various Spokane River locations has been conducted and a preliminary draft report by Limnotech indicates that PCBs increase down river. Known potential discharge points do not explain the total discharge found in river samples. Locating the contaminant source(s) may include a groundwater study, literature research and testing stormwater events.

Spokane River Stewardship Partners (SRSP): John Beacham reported that the SRSP are actively upgrading their facilities to comply with the DOTMDL requirements.

2015 Aquifer Atlas: The Atlas is being finalized for review by IDEQ technical editors. Kootenai County will administer the printing contract. Jim Ekins is working with Kristen Zimmer on the Aquifer Atlas educational guide for students and teachers.

Tonilee Hanson shared the Spokesman Review Article on the increasing number and frequency oil trains that will be crossing over the aquifer and travelling through the city of Spokane. Is this the type of issue for which IWAC may want to provide recommendations or guidance? The article will be scanned and sent to everyone for discussion in April.

Dan Kegley, reported that the City of Spokane applied to the Department of Ecology for a permit to move pumping from Well Electric, which is located near the river, to a new well in North Spokane. Ecology's initial response has been favorable.

Art Jenkins reported that the City of Spokane Valley has applied for funds to conduct stormwater retrofitting along Sprague Avenue from University to Park Road. If approved by the legislature the center divider berm would be replaced by swales and planter boxes. Stormwater would be intercepted before going to dry wells. Catch basins will also be retrofitted for spill prevention. If approved the work will begin in July 2015.

Jeremy Jenkins reported that Liberty Lake Sewer and Water District has applied for water reclamation upgrade funds.

Melanie Thornton and Allyson Beall King travelled to Washington DC in February and presented the WISDM research at the National Science Foundation.

Agenda for April, 2015 – IWAC Member Workshop

- IWAC website development
- Aquifer protection and the increasing frequency of oil trains.

Handouts: Agenda, 2/10/15 Meeting Minutes V2, and the 2015 February Treasurer's report and a letter from Ed Pace inviting discussion of the Department of Ecology Instream Flow rule March 12, 2015 2:30 -4:30 pm at Centerplace room 111.

Previous IWAC meeting agendas, minutes, supporting documents and presentations can be found at <http://www.spokaneaquifer.org/category/iwac/iwac-agendas-minutes/> and <http://www.spokaneaquifer.org/idaho-washington-aquifer-collaborative/initiatives/>