



PRESIDENT'S NOTES

By Tyler Jantzen, P.E., CH2M Hill, AWRA-WA President

Happy 2015, and welcome to another year of AWRA-WA. I am honored and excited to serve as president of this organization. I would like to thank outgoing president Megan Kogut for her leadership, energy and many tireless hours of service to this organization in 2014. Lucky for us, Megan is sticking around and is staying extremely active with the organization. I'm glad that I can continue to lean on her and her wealth of institutional knowledge. Thank you also to the outgoing 2014 board members: Dustin Atchison, Becky Crompton, and Rachel Moss.

There are many things I'm looking forward to for AWRA-WA in 2015. I am looking forward to working with a diverse and enthusiastic board of directors. These directors are passionate about water resources, and have a wide and valuable variety of interests and skills to make this organization a success. Welcome to our new board members: Rabia Ahmed, Terry Smith and Erin Thatcher. I invite you to read their biographies on our website, or in the December 2014 edition of the newsletter, and to welcome them next time you see them at a dinner meeting.

I also look forward to meeting, interacting with, learning from, and discussing water resources issues with you, the AWRA-WA membership. Our mission is member-centric, and we strive to provide value to our members through the newsletter, dinner meetings, conference, student scholarships, and recognition of service to the water resources community. If you ever have ideas on ways AWRA-WA can better serve you, please don't hesitate to contact me directly.

I look forward to continued organization growth in Central and Eastern Washington. I'm told by those with longer tenure than I that a large portion of AWRA-WA membership and leadership used to be located outside Puget Sound. Over the past few years AWRA-WA has made conscious effort to be a statewide organization and to serve the needs of water resources professionals both east and west of the Cascades.

This year we intend to continue that effort on multiple fronts:

- CWU Student Chapter: I am happy to announce that a Central Washington University Student Chapter

was approved by the AWRA National Board of Directors at its January 2015 meeting. Thank you to Jason McCormick, Dan Pittinger, and the others at CWU who have been working hard for the past year to make this happen.

- Dinner Meetings: building on the success of 2014 dinner meetings in Ellensburg, we are currently planning a few 2015 dinner meetings in central Washington. Stay tuned for announcements with more details about dates, topics and location.
- Spokane Conference: in addition to the regularly scheduled AWRA-WA annual conference to be held in the fall, we are planning a spring conference for late March in Spokane, focusing on the topic of rural water supply in Eastern Washington and Northern Idaho. As with the dinner meetings, stay tuned for announcements and registration in the near future.

As we kickoff 2015, now is a great time to become more involved in AWRA-WA. I encourage you volunteer on a committee, be it by contributing content for the newsletter, planning dinner meetings, or helping with the conference. As a nonprofit organization with a volunteer board, our strength and success comes from member involvement. Even if you are not able to volunteer on a committee, we welcome suggestions on topics and speakers for our various events.

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AWRA-WA DINNER MEETINGS ARE BACK!

JOIN US FEBRUARY 24TH, 2015

PYRAMID ALEHOUSE, 1201 1ST AVENUE SOUTH, SEATTLE

SPEAKER: **KELLY SUSEWIND**

TOPIC: **WASHINGTON ECOLOGY'S DRAFT TOXICS REDUCTION RULE**

SOCIAL HOUR STARTS AT 5:30, DETAILS ON PAGE 4

REVIEW OF THE AWRA-WA UNIVERSITY OF WASHINGTON STUDENT MIXER

By Patrick Vandenberg, University of Washington

January 22nd: With over 60 attendees and a pleasant evening of mingling at the UW Waterfront Activities Center, the 2015 Winter Mixer was a success! The second half of the mixer featured an hour-long presentation by University of Washington professor and MacArthur Fellow Dave Montgomery titled "Enormous Landslides and Really Big Floods."

Dr. Montgomery was a volunteer on the GEER (Geotechnical Extreme Events Reconnaissance) team that collected field data directly after the 2014 Oso, Washington landslide, in the interest of having that information publically available to the scientific community. He elaborated on how seismograph measurements indicated the potential occurrence of two consecutive landslides, detailed the different zones and layers of debris discovered, and presented LIDAR images and hazard maps of the North Fork Stillaguamish River valley where the slide – and many others historically – occurred. Dr. Montgomery then spoke about a landslide the size of North America in the Valles Marineris valley on Mars, and how volcanic heat melting ice in the martian soil was likely a key agent in the transport of material.

The presentation ended with the topic of giant floods in the Tsangpo River Gorge of southeast Tibet, the deepest canyon on Earth. Dr. Montgomery participated in three field expeditions over 15 years on trips to Tibet and India. The gigantic ancient lakes that flooded the Tsangpo River Gorge were on the order of hundreds of cubic kilometers, and could only temporarily be constrained by glacial moraine dams.

Interestingly, an oral tradition regarding the guru Padma-sambhava recounts him draining a lake around 800 A.D., which coincides exactly with the forensic results of flood deposits in the valley. Dr. Montgomery and his wife are currently writing the book "The Hidden Half of Nature", which focuses on the microbial interactions in nature and health.

REVIEW OF THE AWRA 2014 NATIONAL CONFERENCE

By Jason McCormick, Aspect Consulting

Our AWRA-WA Board Member, Jason McCormick, traveled to Tyson's Corner, Virginia for the 2014 AWRA National Conference. The National Conference showcased four days of distinguished speakers, panels, and individual presentations from November 3-6, 2014. Tyson's Corner sits on the outskirts of Washington D.C., in stark contrast to our homes in Washington State, in an area known for its towering corporate office headquarters landscape and lavish commodities.

On the first day of the conference, Jason had a chance to speak with John Anderson, Staff Director, U.S. House of Representatives, and to receive some words of advice for large project development in Washington State (hereafter referred to as the "State" to avoid confusion). Mr. Anderson said that a "persistent" presence in Washington D.C. of the State and benefitted constituents is essential to keeping projects visible in front of Congress. Mr. Anderson also noted that, as many of you realize, someone is always going to lobby for a cause, and interested parties from the State need to maintain a lobbying presence to ensure their message is highly visible.

Mr. Anderson also encouraged approaching Congress with coalition and consensus agreements. Fortunately, we're acting on all of the above here in the State, most visibly around the Yakima Basin Integrated Plan. It's rewarding and reassuring to hear we're taking the right approach from Washington D.C.

Tyson's Corner quickly proved to be a fitting geographic platform to discuss the nation's leading water resource management efforts. Being in the company of AWRA National Staff and Board Members put Jason in the position to discuss our newly formed Central Washington University Student Chapter, and signal AWRA-WA's commitment to maintain a national presence. Jason's participation was met with welcome greetings from the AWRA National Board,

Conference: Page 4



An aerial photograph of the now familiar Oso Landslide, which contained approximately 5 million cubic meters of sediment and temporarily blocked the Stillaguamish River. Seismic signals from the slide were detected up to 170 miles from the slide location. Dave Montgomery was part of the field team that collected data immediately following the event.

WATER LAW AND THE PUBLIC TRUST: REVIEW OF THE CENTER FOR ENVIRONMENTAL LAW AND POLICY 2014 CONFERENCE

By Terry Smith, AWRA-WA Board Member

The Center for Environmental Law & Policy presented its 4th annual "Water Law and the Public Trust" seminar on December 5, 2014. Two primary themes of the seminar were 1) how to determine the rights to rural groundwater supply and the effect on instream flows and 2) determining what regulatory mechanism should be used to limit or allow access.

These themes of the seminar were intended to explore the increasing demands on water usage in rural areas as population growth demands more residential and other uses. Several current cases before the Washington courts are and will be deciding these issues.

Attorney Jean O. Melious presented the case of *Hirst et. al. vs Whatcom County*, that had been argued before the Growth Management Hearings Board (GMHB), Western Washington Region. In that case, Whatcom County had been issuing permits to build new residential developments, which were then able to drill rural residential exempt wells. The petitioners in the case claimed that permitting the new developments resulted in use of water from shallow aquifers that are responsible for approximately 70% of base stream flow. The GMHB found that the County "land use plans and regulations are necessary to assure protection of rural character, including water resource protection" and that "(T)he County may limit growth in areas where water availability is limited". The finding was appealed, and hearing was held before the Washington Court of Appeals on January 15, 2015. The decision will be printed in upcoming issues.

A panel discussion was held on whether rural water supplies and instream flows could co-exist. This has been an issue for many years, but current cases have highlighted the impact of building permit issuance and municipal water use on instream flows. The 2011 decision of *Kittitas County v. Eastern Washington Growth Management Hearings Board* ruled that counties have a duty under the GMA to protect groundwater and instream flows in building permit and subdivision approval and that these land use decisions must be consistent with water resources law. In 2013 the Supreme Court issued its decision in *Swinomish Indian Tribal Community v. Ecology*, prohibiting Ecology from amending instream flow rules to allow for exempt well use that will impact existing instream flows. The ruling further limits Ecology and the counties' ability to rely on exempt wells for rural development. The case of *Hirst* (described above and pending appeal) will determine whether Whatcom County is bound to protect instream flows from future exempt well use.

These cases have prompted the Washington State Department of Ecology (Ecology) to form two work groups to study the issues. The Rural Water Supply work group will propose policies for the management of limited water resources while protecting instream flows and allowing for future rural development. The Water Availability Guidance for Counties work group will update the guidance document to address the requirement expressed in the *Kittitas* case (see below) that counties certify water availability prior to approving building permits and subdivisions.

Other cases discussed in the seminar that will have an impact on water use and water rights include:

I. *Water rights and instream flow protections*

Cornelius v. Ecology and WSU

This case challenges some provisions of the 2003 Municipal Water Law. In an application to Ecology, WSU requested that six water rights held by the university be consolidated. At issue is whether the water right certificates held by WSU that have never been used resulted in relinquishment. There is also a challenge to Ecology's approval, and whether Ecology failed to evaluate the "safe, sustaining yield" of an aquifer. The consolidation would have resulted in additional pumping of groundwater from the Grande Ronde Aquifer, which is the sole source of water for the appellants and approximately 70,000 other residents of the area. The Pollution Control Hearings Board (PCHB) and subsequently Whitman County Superior Court upheld the changes approved by Ecology. The Court of Appeals subsequently certified the case to the Supreme Court where a decision is currently pending.

Okanogan Wilderness League (OWL) v. Ecology and Kennewick General Hospital (KGH)

A challenge to Ecology's issuance of a water right application to KGH. Ecology had found that the application would deplete instream flows, but that 13 out of kind habitat projects on tributaries to the Columbia River would mitigate the impairment. The appellants argued that issuance of the permit would impair instream flows and that the Water Code did not authorize Ecology's use of out of kind mitigation for water rights impairment. The Pollution Control Hearings Board (PCHB) found that Ecology must still make a determination that the new water permit will not impair existing senior rights and must demonstrate that the out of kind mitigation actually results in no impairment of senior rights or detriment to base flows. KGH has filed a motion asking for a remand to Ecology to allow the agency to issue the water right subject to compliance with established instream flows.

II. *Water Quality and Instream Flows*

There was discussion of multiple cases challenging Ecology action (or inaction) regarding water quality and instream flow protections. *CELP v. Ecology and Okanogan PUD* involved a challenge to Ecology's Clean Water Act Section 401 Certification for the licensing of the Enloe dam. The parties bringing the issue before the PCHB alleged the agency failed to require substantive instream flow in the river below the dam, flowing over Smilkammen Falls, and therefore protecting the water quality standard for aesthetics. The PCHB directed the PUD to conduct flow studies after the project is built to determine best flow. It seems that the primary reason for not requiring the substantive instream flows was that the falls were not as popular as other falls, like Snoqualmie Falls, and therefore not of significant value to regulate the flows.

Sierra Club & CELP v. Ecology and Spokane County

CELP: Page 5

Page 2: Conference staff, and conference participants.

The conference featured a keynote addresses from Dr. Kathryn Sullivan, NOAA Administrator, focusing on climate change adaptation, resiliency, communication and infrastructure. Following Dr. Sullivan, a panel session set the stage for the conference discussing 21st Century Water Resource Challenges. The panel consisted of Major General John Peabody, U.S. Army Corps of Engineers; John Anderson, U.S. House of Representatives; George S. Hawkins, D.C. Water and Sewer Authority; and Lynn Scarlett, The Nature Conservancy. Overall, the panel session focused on the value of integrated efforts and state-level planning for instream, out of stream, and ecosystem services at a high-level.

For the next four days, Jason engaged in conference topics ranging from case law across the U.S. to various scales of water resources planning. Jason found that the National Conference offers engaging topics for water resources professionals from all backgrounds including academic, legal, and technical. Water quality, water quantity, habitat, markets, and climate change were integral to the daily sessions. In fact, there were so many topics and concurrent sessions that he couldn't possibly attend all of those of interest.

The AWRA National Conference is an empowering place for any water resource professional and we encourage you to make a point of attending a National Conference at some point in your career, and consider becoming involved at the more local AWRA-WA level. AWRA-WA's next State Conference will be in Seattle, Washington in October and AWRA National's next National Conference will be in Denver, Colorado in November as well. We look forward to your involvement.

THINKING ABOUT ATTENDING THE UPCOMING NEBC STORMWATER CONFERENCE?

AWRA-WA MEMBERS CAN USE THE CODE **SWP15** TO RECEIVE A \$30 DISCOUNT ON THE REGISTRATION FEE.

FEBRUARY DINNER MEETING DETAILS

Draft Toxics Reduction Rule

On Jan. 12, 2015, Ecology issued a formal draft rule that updates to the state's Water Quality Standards for toxics, including an updated fish consumption rate. The draft rule is directly tied to a toxics reduction package Governor Inslee will propose to the 2015 Legislature.

The package will address broader pollution challenges that the Clean Water Act alone can't solve and lays the groundwork to better protect Washington's people, its waters, and its economy. Mr. Susewind will provide an overview of the rule and comment on the strategy of the toxics reduction package during the 2015 legislative session.

More information is on the Ecology website:

<http://www.ecy.wa.gov/water/standards/>

Speaker Bio:

Kelly Susewind joined the Department of Ecology 24 years ago after working as a consulting engineer for several years. He entered the agency as a staff engineer and has progressively taken on increasing levels of responsibility.

Most recently, he managed the agency's Water Quality Program before being promoted to his current position as Special Assistant to Director Maia Bellon. He earned a degree in Geological Engineering from Washington State University and holds licenses in civil engineering, geology and hydrogeology.

Pre-register at www.waawra.org using PayPal or register at the door.

Registration is limited to 40 people, so we encourage you to register early.

Students: Free

Members: \$30

Non-Members: \$40

THANKS TO ALL OUR 2015 SPONSORS!



Page 1: President

Another great way to support AWRA-WA is through financial sponsorship. Member fees and event registrations only cover a portion of the organization's operating costs. Corporate and other outside sponsorship allows us to fulfill our mission, especially our support of water resources education through our two annual academic fellowships and free student attendance at dinner meetings.

Please feel free to contact me about committee volunteer opportunities, financial sponsorship, dinner meeting topics, suggestions on how to better serve our members, or anything else at tyler.jantzen@ch2m.com.

I look forward to hearing from you all,

-Tyler

WATER RESOURCES NEWS ROUNDUP

By Eric Buer, RIDOLFI Inc.

At the risk of turning into something more akin to a weather blog, the Roundup first must recognize the dismally warm winter that has settled across the northwest. Thanks to some fairly consistent high pressure ridging off the coast ([hit Cliff Mass for the details](#)) snowpacks appear dismal all over the map. Snow [telemetry data](#) from across the Washington Cascades is littered with snow water equivalent measurements below 25% of average. Oregon isn't fairing any better. However, things improve to the east in western Montana and southern Idaho. If you're desperate for a trip to the snow, you could do a lot worse than the Sawtooth Mountains.

It all pales in comparison to California of course. The Golden State set new record for rainfall in San Francisco during January of [zero inches](#); Governor Jerry Brown has declared a state of emergency; and as of February 1,061 senior water rights holders were asked to provide detailed claim information to ensure no unauthorized diversion has occurred to date. Snow [telemetry data](#) from the Sierra Nevada doesn't appear to crack 25% of average in any location; most stations are below 10%. Analysis by the U.S. Drought Monitoring Program now shows a majority of California and Nevada are experiencing severe to extreme droughts affecting more than 45 million people.

As of this writing a series of storms are rolling over the west coast that are expected to drop several inches of rain. [Forecast precipitation](#) totals for the Olympic Mountains are in the range of 10 inches. Up to 17 inches are expected at higher elevations in the Sierras and Cascades. By the time you're reading this at least a few pretty impressive landslides should have made the news by blocking commuter trains or otherwise making a mess. But unfortunately this most recent rainfall amounts to little more than a drop in the [11-trillion gallon](#) bucket (according to NASA) that currently makes up California's water deficit.

What does 11-trillion gallons look like you ask? NASA offers the equivalent figure of 42 cubic kilometers, which is roughly 1.2 times the size of Lake Mead [using 2010 bathymetric](#) data. Astute readers may recall that California has previously (circa 1990) eyed the Columbia River as another potential source of fresh water. With an average discharge of approximately 265,000 cubic feet per second, completely dewatering the Columbia could deliver the deficit volume in just over two months.

Page 3: CELP

This was a case before the PCHB appealing the NPDES wastewater discharge permit issued by Ecology for Spokane County's new wastewater treatment plant, for failure to set effluent limits for PCBs. Spokane argued that the new plant was not a new discharge, but a replacement for an existing plant that would substantially reduce discharges of contaminants. The PCHB ruled that the new plant was a new discharge, and therefore Ecology had to impose effluent limits. The Thurston County Superior Court upheld the PCHB decision.

An often overlooked aspect of water quantity is the effect of climate change on water availability. Paul Fleming of Seattle Public Utilities, and Co-convening Lead Author of the Water Resources Chapter, 3rd National Climate Assessment, gave a presentation on Climate Assessment and Pacific Northwest Resources. While one of the major concerns of climate change is rising sea levels, interior water resources present a mixed bag. Very heavy precipitation has increased and is expected to increase further in all US regions. Events with 1:20 year frequencies are expected to occur 1:15 to 1:5 by 2100. On the other hand, changes in the timing of snowmelt will reduce the supply of water for many competing demands and cause far-reaching ecological and socioeconomic consequences. Snowmelt is expected to occur 3 to 4 weeks earlier by 2050. There is no one solution throughout the state; hydrologic responses will depend upon the dominant form of precipitation in a watershed. Among the conclusions of the NCA to address these issues are 1) providing infrastructure (storage and distribution) to support a sustained process and 2) diversifying resource base and setting priorities.

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Please indicate if you prefer to receive your newsletter electronically.

Check if you would like to be actively involved on a committee. You will be contacted by a board member.

2014 Membership Dues: \$35.00.

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