

2018 AWRA-WA
Annual State Conference



Hirst, Foster, Boldt, and Beyond: *A New Era of Water Management?*



October 16, 2018

Mountaineers Seattle Program Center

**The American Water Resources Association
Washington Section**

is a scientific and educational 401(c)(3) non-profit organization established to encourage and foster interdisciplinary communication among persons of diverse backgrounds working on any aspect of water resources disciplines. Individuals interested in water resources are encouraged to participate in the activities of the Washington Section. Opinions and views expressed in this conference are those of the speakers, not AWRA-WA.

AWRA-WA wishes to extend a big

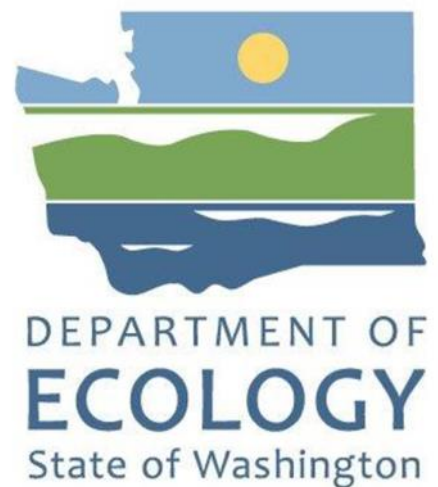
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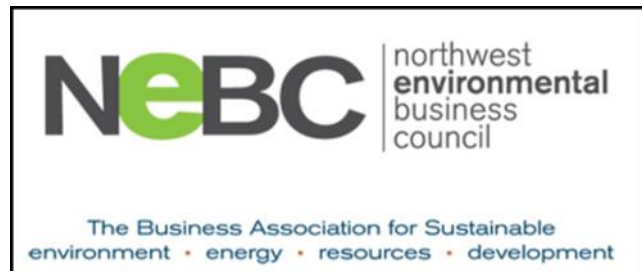


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From left: Perched culvert, migrating salmon, “six-pack” exempt wells
Photos by Tom Ring, Steve Nelson

2018 CONFERENCE COMMITTEE

Conference Co-Chairs

Dave Christensen, Department of Ecology
Felix Kristanovich, Ramboll Environ

Members

Rabia Ahmed, Greene Economics
Eleanor Bartolomeo, Environmental Science Associates
Katherine Beeler, Associated Earth Sciences
Tyson Carlson, Aspect Consulting
John Chandler, Puget Sound Energy
Amanda Cronin, AMP Insights
Thomas FitzHugh, Stantec
Steve Hirschey, King County
Jason McCormick, McCormick Water Strategies
Steve Nelson, RH2 Engineering
Tom Ring, Yakama Nation

Student Volunteers

Central Washington University: Brandon Kautzman
Silas Sleeper
Alex Wernle
Oregon State University: Elisa Dawson
Western Washington University: Nolan Walker

CONFERENCE WELCOME



Yakima River
Photo by Tom Ring

Dear Colleagues,

The Washington Section of the American Water Resources Association (AWRA-WA) welcomes you to the 2018 State Conference. This year's theme explores several key Washington State Supreme Court decisions as well as recent legislation to evaluate how water management in our state may be required to adapt to meet stresses from development pressures and water use. The conference speakers will also explore how climate change might affect modification of regulatory approaches and infrastructure.

Significant uncertainty still exists despite the fact that the Legislature approved the most substantial change to water law in fifteen years. Several speakers will talk about how the early implementation steps are proceeding. Still, the new law is interrelated with existing laws and water policy. How will this new management framework which authorizes rural development merge with the existing legal framework case law that has developed over the past several decades?

One of the key uncertainties that we must consider and address is that of climate change. The conflicts of today might be minor compared to the challenges faced by our state to adapt to a changing climate. Will water supplies remain secure? How will critically endangered fish and wildlife species fare under predicted hydrologic changes? Can the new Streamflow Restoration law help in improving instream habitat to help protect native fish populations despite the future uncertainty?

CONFERENCE WELCOME

Today's conference is slated with exceptional presenters to help us put the past into context, understand the present more clearly, and provide insights into the future of water resource management. The conference committee has been meeting weekly since January to pull this event together and we are excited about the quality of the program and diverse viewpoints represented. We wish to personally thank the conference committee members. AWRA-WA is an all-volunteer group who has spent a significant amount of time to create the themes, find highly talented speakers, and execute the logistics of an event of this size. There are also several student volunteers who will be helping throughout the conference. We thank them for their help too.

Our sponsors also play a critical role in this event. The AWRA-WA thanks them for keeping the prices of this event lower and therefore making it easier for more people to attend. Their generosity also funds two student scholarships, as well as paying for students to attend the conference at a discounted price and dinner events throughout the year for free.

The AWRA-WA is a non-profit, volunteer-run organization with a clear vision – to provide forums for advancing water resources management in Washington and the Pacific Northwest region; serve the public interest by supporting education and informational exchanges; involve professionals and students from all disciplines and interested members of the public in activities that promote broad discussion and understanding of water resources issues; and recognize excellence in water resource education, management, and research. If you have any suggestions for us to further these causes, then please write your comments on the survey or talk to members of the Board or committee.

Finally we want to thank each and every one of you for attending. We hope you enjoy the excellent presentations, network with your peers, meet some new connections, and join us for drinks and hors d'oeuvres at the reception afterwards. We look forward to see you at future AWRA-WA events.

Felix Kristanovich

Dave Christensen

Conference co-chairs



2018 BOARD MEMBERS

President:	Jason McCormick, McCormick Water Strategies
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Student Representatives:	Brandon Kautzman, Central Washington University Tyler Oshiro, University of Washington

AGENDA

7:00—8:00	Registration and Networking
8:00—8:10	Welcome by Conference Co-Chairs
	<i>Dave Christensen, Department of Ecology Felix Kristanovich, Ramboll Environ</i>
8:10—9:00	Keynote Address
	<u>Speaker</u> Professor Leon Szeptycki Stanford Woods Institute for the Environment and Executive Director—Water in the West
9:00—10:20	Session 1: Introductory Session
Abstracts on pages 9 - 11	<i>Moderator: Adam Gravley, Van Ness Feldman</i> <u>Speakers</u> Alan Reichman, Washington State Attorney General’s Office Patrick Williams, Law Office of M. Patrick Williams Lauren King, Foster Pepper
10:20—10:40	Networking Break
10:40—12:00	Session 2: Implementation Session
Abstracts on pages 11 - 12	<i>Moderator: Carl Einberger, Aspect</i> <u>Speakers</u> Kirsten Harma, Chehalis Basin Partnership Mike Hermanson, Spokane County Gary Stoyka, Whatcom County
12:00—12:15	State of the AWRA-WA Section and Outstanding Service Award
	<i>AWRA-WA Board President: Jason McCormick</i>
12:15—1:00	Lunch

AGENDA

1:00—1:55	Session 3: Net Ecological Benefits
Abstracts on pages 14 - 15	<p><i>Moderator:</i> Amanda Cronin, AMP Insights</p> <p><u>Speakers</u></p> <p>Kiza Gates, Washington Department of Fish and Wildlife</p> <p>Phil Roni, Cramer Fish Sciences</p> <p>George Walter, Nisqually Indian Tribe</p>
1:55—2:15	Networking Break
2:15—3:45	Session 4: Climate Change and Impact
Abstracts on pages 15 - 16	<p><i>Moderator:</i> Steve Nelson, RH2</p> <p><u>Speakers</u></p> <p>Rick Dinicola, United States Geological Survey</p> <p>Nick Bond, University of Washington Climate Research Center</p> <p>Jennifer Johnson, United States Bureau of Reclamation</p> <p>John Chandler, Puget Sound Energy</p>
3:45—4:05	Networking Break
4:05—5:00	Session 5: Looking Forward
	<p><i>Moderator:</i> Jamie Morin, Mentor Law Group</p> <p><u>Panel Speakers</u></p> <p>Leon Szeptycki, Stanford Woods Institute for the Environment</p> <p>Mike Schwisow, Washington State Water Resources Association</p> <p>Daryl Williams, Tulalip Tribes</p> <p>Mary Verner, Washington State Department of Ecology</p>
5:00 - 7:00	Closing Remarks and Reception

KEYNOTE ADDRESS



Leon Szeptycki

**Professor of the Practice—
Stanford Woods Institute for the
Environment and Executive
Director—Water in the West**

*Managing Water in a Changing West: Early
Lessons from California.*

Leon is an attorney who specializes in water quality, water use and watershed restoration. His work includes issues related to stream flow restoration in the context of the western appropriative rights system, sustainable groundwater management, and restoration of aquatic species. Over his career, Leon has worked on a broad range of matters related to the restoration of river health and water quality on a landscape scale.

From 2006 until 2012, Leon taught at the University of Virginia School of Law, where he ran the Environmental Law and Conservation Clinic and helped create an interdisciplinary course in conservation for students in the environmental sciences department and the law school. Prior to that, he spent 10 years with Trout Unlimited, a national conservation organization devoted to the protection and restoration of trout and salmon rivers. While at Trout Unlimited, Leon helped develop innovative legal and policy tools for voluntary watershed restoration by a variety of means, include dam removal and reclamation of abandoned mine sites. He has also worked in private law practice and at the U.S. Department of Justice. Leon received his B.A. from the University of Kansas and his J.D. from Yale Law School.

In 2016, Leon was appointed by California Governor Jerry Brown to the Board of Directors of the Klamath River Renewal Corporation, an organization formed in 2016 whose sole purpose is to oversee the removal of four dams on the upper Klamath river.

PROGRAM AND ABSTRACTS

8:00 - 8:10

Conference Welcome

Conference Co-Chairs:

Dave Christensen, Felix Kristanovich

8:10 - 9:00

Keynote Address

Speaker: Leon Szeptycki

Managing Water in a Changing West: Early Lessons from California

9:00 - 10:20

Session 1: Introductory Session

Moderator: Adam Gravley, Van Ness Feldman

Alan Reichman

The Supreme Court's Decision in Hirst and the Legislature's Enactment of ESSB 6091

Abstract:

In its 2016 decision in *Whatcom County v. Hirst*, the Washington Supreme Court held that Whatcom County's comprehensive plan and development regulations violated provisions of the Growth Management Act that require the protection of water resources. The Court concluded that the County's plan and regulations were unlawful because they allowed the approval of subdivisions and building permits that would be reliant on permit-exempt wells for water supply, and that such groundwater use would cause impairment of minimum instream flows and violate stream closures established under the Nooksack River Basin Instream Flow Rule. The *Hirst* decision had statewide implications for counties in how they regulated rural development relying on permit-exempt wells, and development restrictions were imposed in several counties.

In response to the *Hirst* decision, the Washington Legislature enacted ESSB 6091, the Streamflow Restoration Act. This is a sweeping new law that allows the approval of subdivisions and issuance of building permits for development of homes reliant on permit-exempt groundwater use in areas of the state that were affected by the *Hirst* decision. In numerous watersheds, this law requires the payment of fees by building permit applicants, and the development and adoption of plans that must project new permit-exempt groundwater use over the next twenty years and identify streamflow restoration and enhancement projects that will be implemented to assure that impacts from new use will be offset in a manner that will result in a "net ecological benefit to instream resources" in the watersheds. Additionally, the new law contains numerous other provisions, including some that were precipitated by the Supreme Court's 2015 decision in *Foster v. Department of Ecology*.

PROGRAM AND ABSTRACTS

SESSION 1 CONTINUED

Patrick Williams

The Foster Decision: OCPI, Mitigation, and Protecting Instream Flows

Abstract:

Earlier this decade the continued demand pressure on Washington's water resources, coupled with its antiquated Water Code, led the Department of Ecology to push the boundaries of water resource management. One example of this was the Department's decision to approve water right applications for the cities of Yelm, Lacey, and Olympia despite the fact that doing so would take water from instream flows set in the Nisqually and Deschutes watersheds. In order to bypass the legal protections afforded instream flows, Ecology relied on two avenues. The first was to invoke the Overriding Considerations of the Public Interest ("OCPI") test to show that taking the water was absolutely essential. The second was to utilize "out of kind" mitigation to offset the loss of water to the streams. Ms. Foster a small-farm owner in the area appealed the approval of Yelm's water right, which eventually found its way to the state Supreme Court. The Court found that Ecology could not use the OCPI exemption to permanently impair instream flows and that out of kind mitigation is insufficient to offset the legal harm caused by the water right approval. Many of these protections for senior water right holders and instream flows were changed as a result of the Hirst bill. This talk will examine the reasoning behind the Court's decision and how the Hirst bill alters the water code in order to allow the increased use of exempt wells and out of kind mitigation.

Lauren King

Tribal Water Rights: Summary of Foundational Cases and the Recent Culverts Decision

Abstract:

This presentation will provide a high level overview of foundational tribal water rights cases, including:

United States v. Winans, 198 U.S. 371 (1905): Under the “reserved rights doctrine,” tribes retain all rights not expressly granted to the United States in a treaty. Such rights can only be abrogated by express language in a treaty or congressional act, and cannot be abrogated by silence. The Supreme Court in *Winans* held that the northwest tribes’ treaty fishing right imposed “a servitude upon every piece of land subject to the treaty.”

Winters v. United States, 207 U.S. 564 (1908): In *Winters*, the Supreme Court held that establishment of a reservation necessarily reserved water rights sufficient to serve the purpose of the reservation.

Arizona v. California, 373 U.S. 546 (1963): Addressing the quantification of reserved water rights of several tribes along the Colorado River, the Supreme Court found that the “only feasible and fair way by which reserved water for the reservations can be measured is irrigable acreage,” and used the “practicably irrigable acreage” standard to quantify those rights.

PROGRAM AND ABSTRACTS

SESSION 1 CONTINUED

United States v. Adair, 723 F.2d 1394 (9th Cir. 1983): In *Adair*, the Ninth Circuit held that “[a] reserved right for hunting and fishing purposes consists of the right to prevent other appropriators from depleting the stream waters below a protected level in any area where the non-consumptive right [of hunting or fishing] applies.” There were dual purposes for establishing the reservation in this case – (1) a “livable” homeland with (2) protected fishing and hunting rights.

United States v. Washington/Culverts: A treaty fishing right without fish is no treaty right at all. In the recent *Culverts* decision, the 9th Circuit held (and the Supreme Court affirmed by an equally divided court) that Washington State violated the northwest tribes’ treaty fishing right by establishing culverts that blocked salmon passage.

10:20 - 10:40

Networking Break

10:40 - 12:00

Session 2: Implementation

Moderator: Carl Einberger

Kirsten Harma

Chehalis Basin Watershed Planning: Addressing the low end of the hydrograph

Abstract:

The Chehalis Basin Partnership was the second planning group in the state to adopt a mutually supported Watershed Plan in 2004. Since that time, the group has been the only planning group in the state to support itself and stay together to implement its watershed plan. None the less, since state funding for watershed planning ended, the group has not found a source of sustainable funding, and has struggled to assert both its relevancy as a group and the relevancy of its groundwater management, water policy, and instream flow recommendations as the state’s focus moved to catastrophic flooding in the basin. The adoption of 6091 will provide an opportunity for the Chehalis Basin Partnership to regain recognition and develop implementable actions to reach its goal of “water for people and water for fish.” This presentation will include a brief history of the original watershed planning effort, an overview of the many new watershed-related initiatives in the basin, a summary of the CBP’s initial ideas on how to approach the requirements of 6091, and then will close with a request for guidance and recommendations.

Mike Hermanson

The Use of Modeling Tools in the WRIA 55 90.94 Watershed Plan Update

Abstract:

Development of the WRIA 55 Watershed Plan Update as required by RCW 90.94 will begin in

PROGRAM AND ABSTRACTS

SESSION 2 CONTINUED

October 2019. Tools developed through watershed planning implementation and federal drought resiliency funding will provide a foundation for development of the update. This presentation will focus on the use of a water demand forecasting model and an integrated ground and surface water model to analyze the fundamental questions of how much permit exempt water use is expected in the next 20 years and what will be the impact on instream resources.

Gary Stoyka

Implementing the Streamflow Restoration Act (ESSB 6091) in the Nooksack Basin (WRIA 1)

Abstract:

WRIA 1 is one of two watersheds in the state with a mandate to update their watershed management plans to comply with ESSB 6091 through the local planning process by February 1st, 2019 or hand over the process to the Department of Ecology. WRIA 1 partners have been working diligently on this effort since passage of ESSB 6091. This presentation summarizes the WRIA 1 watershed management plan update process to date and provide the plan for meeting the February 1st deadline. The presentation identifies the processes employed to engage stakeholders to update the WRIA Watershed Management Plan to address the requirements of ESSB 6091.

12:00 - 12:15

State of the AWRA Washington Section and Outstanding Service Award

STATE OF THE AWRA WASHINGTON SECTION

Presented by: Board President Jason McCormick

2018 OUTSTANDING SERVICE AWARD

Presented by: Stanley Miller and Dave Christensen

Each year since 2001, AWRA-WA has recognized a member of the state's water resource community for their outstanding contribution to Washington's water resources. The state section developed this award program to recognize an individual who has shown significant and sustained commitment to the protection and wise management of the state or region's water resources. The Awards Committee accepts nominations for the award from any AWRA-WA member.

The first recipient was Jim Esget of the Bureau of Reclamation for his work in developing agreements among fisheries interests, hydropower producers and irrigators that provide water for all these uses in the Yakima River Basin. Since this first award, over a dozen water resources professionals and several organizations have been recognized. In addition to a commemorative plaque for the recipient, AWRA-WA provides a donation of \$500 to a non-profit group selected by the recipient to promote work on water resources locally, nationally, or around the world.

PROGRAM AND ABSTRACTS

2018 OUTSTANDING SERVICE AWARD

Guy Gregory
receives this year's AWRA-WA Service Award for
"Outstanding Contribution to
Washington's Water Resources"



Guy Gregory, this year's winner of the 2018 award for "Outstanding Water Resources Professional," graduated from Washington State University with a BS in 1979 and received an MS in Geology from the University of Vermont in 1982. Guy worked in both the public and private sectors.

After several years working in the private sector on mining related projects, Guy joined the Department of Ecology in 1988. He spent 16 years in the Hazardous Waste Program in the Eastern Regional Office before moving to the Water Resources Program in 2004. Guy retired from Ecology in April of 2018 after serving for 30 years.

At Ecology, Guy was a leader in developing water resource policy and solutions throughout central and eastern Washington. Early in his Water Resources tenure, he provided input to Ecology for the Federal Energy Regulatory Commission (FERC) relicensing for 5 Avista

Dams on the Spokane River. From that work he transitioned into working with the Idaho Department of Water Resources and the US Geological Survey to develop a model of the interaction between Spokane River flow and pumping from the Spokane Valley Rathdrum Prairie Aquifer.

Guy's genial personality and technical expertise were key to keeping Spokane River parties, often focused on different agendas, on track to successfully complete the project. Guy was instrumental in creating a user-friendly spreadsheet "tool" through which model results could be emulated on ordinary personal computers in short periods of time (Note: a full model run for differing scenarios could take up to 24 hours). Lastly, Guy was also the lead in Ecology's recent rule-making effort to establish an instream flow rule for the Spokane River.

Guy's career is marked by significant accomplishments, and his legacy in

PROGRAM AND ABSTRACTS

12:15 - 1:00

Lunch & Networking

1:00 - 1:55

Session 3: Net Ecological Benefits

Moderator: Amanda Cronin

Kiza Gates

Assessing flow restoration and mitigation projects for benefit to aquatic resources, past and present

Abstract:

Instream projects that restore flows have long been used in Washington State to benefit aquatic systems by augmenting existing flows, flow restoration, or by offsetting an impact, flow mitigation. With the development of the Net Ecological Benefit concept, the state is exploring new non-traditional ways to benefit aquatic systems and mitigate for impairment to instream flows. Traditional flow restoration and mitigation projects that put water instream provide distinct benefits to fish, wildlife, and aquatic resources that can be generally quantified and monitored. Non-traditional projects, which attempt to provide a benefit by creating aquatic system enhancements that may or may not put water instream, are more difficult to quantify and may require closer monitoring of the baseline ecological conditions. I will discuss how WDFW has approached flow restoration and mitigation projects historically as well as the technical challenges of developing an assessment framework that can quantify non-traditional aquatic resource benefits.

Phil Roni

Effectiveness of habitat restoration techniques at mitigating for habitat degradation and flow alteration

Abstract:

Hundreds of millions of dollars are spent every year in the Pacific Northwest to restore watershed processes, habitat conditions, and recover listed salmonids. Common habitat restoration techniques include fish passage, instream structures, off-channel/floodplain habitat, riparian improvement, sediment reduction, flow augmentation, nutrient enrichment, and acquisition and protection. Historically, most evaluations of the success of these actions have focused on changes in habitat and fish numbers, though more recent efforts have attempted to quantify their effects on flow and other watershed processes. Based on my own work evaluating restoration projects and a recent review of more than 600 published evaluations of restoration effectiveness, I discuss the current state of knowledge on the physical and biological effectiveness of various restoration techniques and their ability to

PROGRAM AND ABSTRACTS

SESSION 3 CONTINUED

mitigate for different types of habitat degradation including changes in flow and temperature due to water withdrawal or climate change. In addition, I discuss different approaches for quantifying the cumulative benefits of various restoration and mitigation actions at both a reach and watershed scale.

George Walter

Nisqually Watershed Planning: A Report from the Field

Abstract:

A progress report on how we are approaching streamflow restoration planning process in the Nisqually Watershed. The challenge of providing “real” net ecological benefit while providing water for some level of rural development and exempt single family wells.

1:55 - 2:15

Networking Break

2:15 - 3:45

Session 4: Climate Change and Impact

Moderator: Steve Nelson

Rick Dinicola

Anticipated Impacts of Climate Change on Washington Groundwater and Stream Low Flows

Abstract:

This presentation will focus on how climate change may impact or alter groundwater and stream low flow conditions in Washington during the coming decades. A distillation and synthesis of recent findings from USGS and many others will be presented that will highlight recurrent or common themes as well as uncertainties and gaps in our understanding. The approach being used to evaluate potential impacts of both climate change and population growth on groundwater resources and stream low flows throughout the Puget Sound Regional Aquifer System will also be described.

PROGRAM AND ABSTRACTS

SESSION 4 CONTINUED

Nicholas Bond

Climate change and its impacts on water resources and extreme events in Washington state

Abstract:

This presentation will review some of the latest information on the regional manifestations of climate change. The focus will be on water resources in terms of precipitation, snowpack and stream flows, and on extreme events (e.g., floods). The discussion will include consideration of the uncertainties in the future projections.

Jennifer Johnson

Potential Climate Impacts on Columbia River Basin Hydrology - Results from RMJOC-II Study

Abstract:

In June 2018, the Columbia River Management Joint Operating Committee published part one of their update to a basin wide climate change assessment (called RMJOC-II Part 1). The five year study utilized the most recent output from the Global Climate Models (CMIP-5) and looked to address a wide range of questions related to the computational methodologies that arose in the previous study. The study resulted in a set of 182 traces of future projected climate adjusted hydrology at 396 sites throughout the Columbia River Basin that can be used to understand potential future impacts on the system.

John Chandler

Hydrologic Changes Over Time at the Baker Project

Abstract:

The Baker Project is a two reservoir- 200 MW hydroelectric facility in northwestern Washington. Daily inflows to Baker Lake, the upstream reservoir, go back to 1960. Using multiple types of analysis this presentation will discuss the changes in the Baker basin hydrology in terms of seasonality, frequency of storms, and dry periods. These changes will be put into the context of why they are important to water management.

3:45 - 4:05

Break & Networking

PROGRAM AND ABSTRACTS

4:05 - 5:00

Session 5: Looking Forward

Moderator: Jamie Morin, Mentor Law Group

Panel:

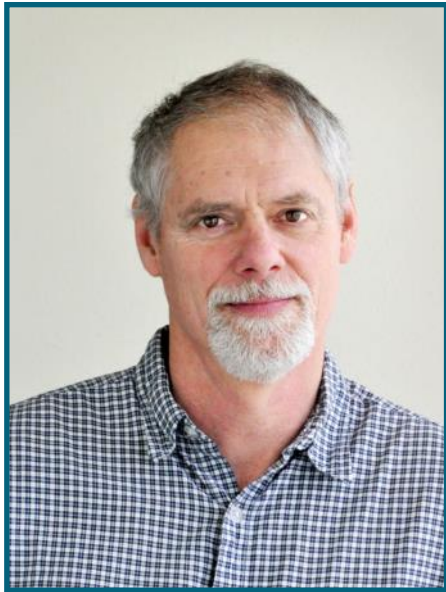
- **Leon Szeptycki**, Stanford Woods Institute for the Environment
- **Mike Schwisow**, Washington State Water Resources Association
- **Daryl Williams**, Tulalip Tribes
- **Mary Verner**, Washington State Department of Ecology

5:00 - 7:00

Closing Remarks & Reception



SESSION SPEAKER AND MODERATOR BIOGRAPHIES



NICK BOND

Nick Bond is a principal research scientist with the Joint Institute for the Study of the Atmosphere and Ocean (JISAO) of the University of Washington (UW), and is affiliated with the Pacific Marine Environmental Laboratory (PMEL) of NOAA. He has a Ph.D. in Atmospheric Sciences from the University of Washington. His research focuses on the weather and climate of the Pacific Northwest and the linkages between the climate and marine ecosystems of the North Pacific and Alaskan Arctic. He serves as the climatologist for the state of Washington.

John Chandler is the technical lead of water resources at Puget Sound Energy. He has been the water manager of the Baker Project for nearly five years and has been responsible for about 620 billion gallons of water annually. John also supports dam safety, licensing, and operations. He earned his P.E. in 2012 and received a masters focused on environmental and water resources engineering from the University of Maine at Orono in 2008.



JOHN CHANDLER



AMANDA CRONIN

Amanda Cronin, is a Manager at AMP Insights, a water resources consulting firm. Amanda has fifteen years of professional experience in water rights, water transactions, stream restoration and conservation program design and implementation. At AMP Insights, Amanda specializes in water resource policy and planning, water transactions and water banking across the western US. Before joining AMP Insights, Amanda was a Project Manager at the Washington Water Trust and worked across Washington State to develop and implement water right acquisitions for environmental flow restoration and groundwater mitigation and she also led the development of the Walla Walla and the Dungeness Water Exchanges for the Water Trust. Amanda holds a B.A. from Whitman College and an M.S. in Environmental Science and Policy from Northern Arizona University.

SESSION SPEAKER AND MODERATOR BIOGRAPHIES

Richard S. Dinicola is a Hydrologist and Associate Director of the USGS Washington Water Science Center in Tacoma. He earned a BS in Watershed Science from Colorado State University, a MS in Forest Hydrology from Pennsylvania State University, and is a Licensed Geologist and Hydrogeologist. Over the past 30+ years, he has conducted a wide range of hydrologic investigations in the Pacific Northwest addressing urbanization and rainfall-runoff processes, groundwater resources and contaminants, water availability, and interdisciplinary Puget Sound ecosystem science. As Associate Director for Hydrologic Studies, he currently manages a team of about 35 scientists and technicians who conduct applied research concerning the hydrology, geomorphology, and aquatic ecology of Washington State. Beyond USGS, he serves on the Washington State Water Supply Availability Committee, the Steering Committee of the Puget Sound Partnership’s “Puget Sound Ecosystem Monitoring Program,” and chairs the PSEMP Freshwater Workgroup.



RICHARD DINICOLA



CARL EINBERGER

Carl Einberger is a hydrogeologist with Aspect Consulting and has 30+ years of experience in Washington with water resource project planning, management, and technical support. His expertise includes specialization in water rights issues, including water right transfers, new water right applications, mitigation approaches, and water banking. Carl is currently supporting Spokane County with updating the WRIA 55 (Little Spokane) Watershed Plan to meet the requirements of ESSB 6091 and RCW 90.94. He is a licensed hydrogeologist and certified water right examiner in Washington.

Kiza Gates is an aquatic ecologist who has worked throughout the West at the science and policy interface exploring how the management of water resources can influence aquatic communities. She received her BS in biology from the University of Oregon, her MS in fisheries with the Montana Cooperative Fisheries Research Unit, and her PhD in ecology from Montana State University. In 2013-14 she was a Science and Technology Policy Fellow with the American Association for the Advancement of Science serving in the executive branch with the Department of the Interior. She has been with the Washington Department of Fish Wildlife since 2016 as their instream flow science and policy lead.



KIZA GATES

SESSION SPEAKER AND MODERATOR BIOGRAPHIES



ADAM GRAVLEY

Adam Gravley practices water law and policy at Van Ness Feldman in Seattle, where he represents clients in administrative, litigation, legislative, and private transactional matters. He is a past President of the American Water Resources Association (Washington section), and has degrees from Kalamazoo College (BA), Brown University (MA), and Georgetown University (JD).

Kirsten Harma currently serves two functions in her Watershed Coordinator role in the Chehalis River Basin. She facilitates the Chehalis's watershed planning group, the Chehalis Basin Partnership, and helps implement locally supported salmon recovery projects through the state's Lead Entity process. Prior to this work, she helped lay the foundation for formation of a watershed governance body for the headwaters of the Columbia River in eastern British Columbia, while running water quality monitoring and environmental education programs for a small non-profit lake stewardship group. She has done field research in aquatic ecosystems in Canada, Costa Rica, Mexico and Washington State and obtained a BS degree in Environmental Science (WWU) and MSc in Resource Management and Environmental Studies (UBC).



KIRSTEN HARMA



MICHAEL HERMANSON

Michael Hermanson is the Water Resources Manager in the Spokane County Environmental Services Department. Over the last 11 years at Spokane County Mr. Hermanson has been involved in the development and implementation of watershed plans for WRIAs 54, 55, and 57 and the Little Spokane Water Bank. He has been involved in numerous water resource investigations, both as a project manager and scientist. He graduated from Western Washington University in 1994 with a degree in Environmental Science.

SESSION SPEAKER AND MODERATOR BIOGRAPHIES

Jennifer Johnson is a hydrologic engineer with the Bureau of Reclamation in the Pacific Northwest Region's River and Reservoir Operations group. She leads and conducts long term planning and modeling studies throughout the Pacific Northwest and supervises a team of modelers. She is a professional engineer in Idaho and received a PhD in Water Resources from the University of Idaho.



JENNIFER JOHNSON



LAUREN KING

Lauren King is a citizen of the Muscogee (Creek) Nation and a partner in the law firm of Foster Pepper PLLC in Seattle, WA, where she is chair of the Native American practice group. She practices Indian law in the areas of cultural resource litigation and other complex litigation matters. She represented the Quileute Tribe in the recent culverts litigation in *United States v. Washington*. Lauren is also a board member for the Seattle Indian Health Board and the Northwest Tribal Court Judges Association, as well as a former section chair for the Indian Law Section of the Washington State Bar Association.

Jamie Morin is an attorney with Mentor Law Group, PLLC, where she helps clients navigate through complex water, land conservation and nonprofit matters, designing creative legal solutions to reach project goals quickly and cost effectively. Jamie works with private water users, local governments, and nonprofits around the west to acquire, transfer, and protect water rights, and with local governments and nonprofits as outside general counsel. Jamie believes leaving a place better than we found it is vital to our communities, ourselves and our planet.



JAMIE MORIN

SESSION SPEAKER AND MODERATOR BIOGRAPHIES



STEVE NELSON

Steve Nelson (Past-President) is a licensed hydrogeologist and engineering geologist with 25 years of experience involving water resource assessment, development, management, remediation, and protection. Steve’s project experience includes characterization of groundwater systems for groundwater supply; water reuse; water rights evaluation; aquifer testing and modeling of groundwater flow, contaminant fate and transport. Steve conducts geologic investigations to evaluate foundations for water infrastructure, geologic hazards and slope stability; and designs infiltration and construction dewatering systems. Depending on the season, find Steve trail running, skiing, climbing in the Cascades or Sierra, and/or fly fishing.

Alan M. Reichman is Senior Counsel in the Ecology Division of the Washington State Attorney General’s Office. He serves as Section Manager of the Water Resources Section of the Ecology Division, and is lead counsel to the Department of Ecology’s Water Resources Program. He represents the Department of Ecology in water resources cases before the Pollution Control Hearings Board and in state and federal courts, and was the lead attorney for the State in Lummi Indian Nation v. State of Washington, the case involving the constitutional challenge to the Municipal Water Law. He is a graduate of Oberlin College, and received his J.D. magna cum laude from the University of Puget Sound (now Seattle University) School of Law.



ALAN REICHMAN



PHILIP RONI

Dr. Philip Roni is a Principal Scientist with Cramer Fish Sciences (CFS) and an Affiliate Professor at the University of Washington School of Aquatic and Fishery Sciences. He has more than 25 years of experience as a fisheries research scientist and directs the CFS Northwest science team where he focuses on designing, implementing and publishing definitive studies on watershed restoration. He regularly teaches courses and has published numerous papers on restoration science including the comprehensive books “Stream and Watershed Restoration: a guide to restoring riverine processes and habitat” (2013 Wiley-Blackwell) and “Monitoring Stream and Watershed Restoration” (2005 AFS). Dr. Roni received a Presidential Early Career Award (2004) from the US President and a Certificate of Achievement (2012) from the AFS for his contributions to restoration science and monitoring and evaluation. He has both an M.S. and a Ph.D. from the University of Washington.

SESSION SPEAKER AND MODERATOR BIOGRAPHIES

Mike Schwisow operates Schwisow & Associates, a government relations firm located in Olympia. Mike’s lobbying activities focus on water, natural resource and agricultural issues. Mike is a Ritzville native and Agricultural Economics graduate of Washington State University. A registered lobbyist since 1976, Mike’s past clients have included the wheat, fruit and dairy producer associations and the Washington Potato Commission. Mike also served as Deputy Director of the Washington Department of Agriculture during the Spellman and Gardner administrations.

Mike is the Government Relations Director for the Washington State Water Resources Association, the statewide association of irrigation districts; the Columbia Basin Development League and the Washington Winegrowers Association. Mike also provides government relations services to East, Quincy and South Columbia Basin Irrigation Districts and the Roza-Sunnyside Board of Joint Control.



MIKE SCHWISOW



GARY STOYKA

Gary Stoyka is the Natural Resources Program Manager with the Whatcom County Public Works Department. Mr. Stoyka has over 25 years of experience in the natural resources and environmental field. He currently oversees the Lake Whatcom, River & Flood, Water Quality, Watershed Planning, Salmon Recovery, Whatcom Marine Resources Committee, and the Noxious Weed Control programs. Mr. Stoyka has been managing Whatcom County’s response to the ESSB 6091 (RCW 90.94). He has been with Whatcom County for over five years. Prior to coming to Whatcom County, Mr. Stoyka worked at the Skagit County Public Works Department for eleven years, most recently as manager of Skagit County’s Clean Water Program, where he oversaw salmon recovery, watershed planning, lake management, marine resources committee, the water quality program, and management of closed landfills. Before coming to Skagit County, he spent nearly ten years in the environmental consulting field in the Puget Sound region managing and conducting hydrogeological and environmental site investigations and remediation at sites throughout the Northwest. Mr. Stoyka has a Bachelor’s and Master’s Degree in Geology and is a Licensed Hydrogeologist in Washington State and a Registered Professional Geologist in Oregon.

Leon Szeptycki – see page 8.

SESSION SPEAKER AND MODERATOR BIOGRAPHIES



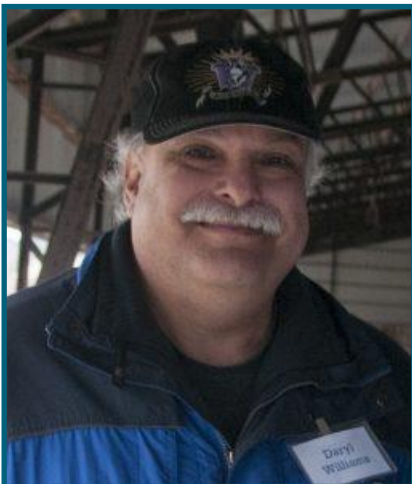
MARY VERNER

Mary Verner serves as the Water Resources Program Manager for Washington State’s Department of Ecology. She is responsible for a range of statewide duties related to water rights management, water supply, water code compliance, rules and regulations, instream flows, dam safety, well construction and various policy, legal, and administrative functions. Mary has been with Ecology since August 2017 and was previously a Deputy to the Washington Commissioner of Public Lands with responsibility for the wildfire, forest health, and several administrative programs. Before serving in Washington State government, Mary served as an elected official in city government, and as an executive in territorial and tribal governments. Born and raised in the southeastern U.S. and the U.S. Virgin Islands, Mary completed her undergraduate and graduate degrees on the east coast before relocating permanently to Washington in 1992. Her law degree is from Gonzaga University and she has been a member of the Washington State Bar since 1999.

George Walter has been employed by the Nisqually Indian Tribe since 1980 as the environmental program manager within the tribe’s Natural Resources Division. In these years he has been involved in all manner of Nisqually Watershed planning and management activities. He is the lead staff person for the Nisqually watershed planning process.



GEORGE WALTER



DARYL WILLIAMS

Daryl Williams is a consultant for the Tulalip Tribes. Previously he has worked for Tulalip as an employee for 39 years and has a B.A. in Business Administration from Columbia College of Missouri. He has been working on a wide range of agricultural, environmental, fisheries, and water rights issues affecting the Tribes usual and accustomed fishing areas. He is also a Commissioner for the Washington State Conservation Commission, President for the Adopt-A-Stream Foundation, Chairman for the Center for Environmental Law and Policy, and President of Qualco Energy.

SESSION SPEAKER AND MODERATOR BIOGRAPHIES



PATRICK WILLIAMS

Patrick Williams is a solo practitioner whose practice focuses on water resources, land use, and policy. Patrick began his career as the staff attorney for the Center for Environmental Law and Policy. While there Patrick worked on the Municipal Water Law implementation, tracked water right applications, and co-litigated the *Cornelius v. WSU* case. After 5 years as the staff attorney Patrick formed his own practice, the Law Offices of M. Patrick Williams, PLLC, where he has continued to represent individuals and tribes in protecting water resources throughout the state. Patrick was the attorney for Sara Foster in *Foster v. Dep't of Ecology, et. al.*, and has experience in complex negotiated settlements and water right and land use decisions. He is also on contract with the Tulalip Tribes as their water right attorney and to assist the Tulalips in monitoring the implementation of the "Hirst" bill.

STUDENT FELLOWSHIP PROGRAM

Nominations and Applications Sought

Each year the Washington Section of AWRA offers two graduate student fellowships. These awards are presented to a student enrolled in any Washington State advanced degree program studying a topic related to water resources science, policy, or management. One award, the Rod Sakrison memorial, goes to a member of a Washington Section sponsored student chapter of AWRA. The other award goes to any student in a water resources program. In 2018, the fellowship amount increased from \$2,000 to \$2,500, and only one award was given, as there were no student chapter applications.

The 2018 award went to Marissa Medina. Marissa is a student in the Eastern Washington University Biology program studying the role of climate change on wetland carbon cycling. In addition to the cash award of \$2,500, Marissa also received a full membership to the National AWRA and the State Section.

The application period for the 2019 student fellowships is now open. The Washington Section Board has moved the application deadline from late October to mid-February to provide more time for applicants from quarter-based schools to complete their applications. *Thus, February 15th is the application deadline for the 2019 award, and applications are welcome at any time.*

For more information on the fellowship program and how to apply see page 29.

AWRA-WA PAST PRESIDENTS

2017	Steve Nelson	1998	Adam Gravley
2016	Allison MacEwan	1997	Rod Sakrison
2015	Tyler Jantzen	1996	Rod Sakrison
2014	Megan Kogut	1995	Jackie Hightower
2013	Dustin Atchison	1994	Paul Korsmo
2012	Scott Kindred	1993	Peter Willing
2011	Beth Peterson	1992	Stan Miller
2010	Felix Kristanovich	1991	Rachel Friedman-Thomas
2009	Jamie Morin	1990	Joan Lee
2008	Jacque Klug	1989	Bill Eckel
2007	Cleve Steward	1988	David Brown
2006	Mona Thomson	1987	Alan Ward
2005	Tom Martin	1986	Dale Anderson
2004	Joe Mentor Jr.	1984	George Wannamaker
2003	Anne Savery	1982	Nancy Nelson
2002	Stephen Hirschey	1981	Chuck Mosher
2001	Fran Solomon	1980	Kris Kaufman
2000	Pete Sturtevant	1979	Gary Minton
1999	Teresa Platin		



Dungeness Valley

AWRA-WA PAST CONFERENCES

- 2017 100 Year Anniversary of the Washington Water Code: Where We Came From & Where We're Going
- 2016 Rural Domestic and Municipal Water Supply
- 2015 Water Management Strategies in the Face of Climate Change
- 2014 Water Resources Infrastructure: Emerging Frameworks to Meet Multiple Objectives
- 2013 Future Directions in Water Resource Management
- 2012 The Columbia River, Basin, and Treaty
- 2011 A Perspective on Water Quality Issues Across Washington State
- 2010 Water Rights: Investing in 21st Century Water Management
- 2009 AWRA National Conference, hosted by WA-AWRA
- 2008 The Future of Water Storage in Washington State
- 2007 Transboundary Water Resources of Washington State and British Columbia
- 2006 Water Resource Disasters in Washington: Risk and Recovery
- 2005 AWRA National Conference, hosted by WA-AWRA
- 2004 The Impact of Climate Change on Pacific Northwest Water Resources
- 2003 Water's Woven Web: Land Use Planning and Water Resource Management in Washington
- 2002 Beyond Watershed Planning
- 2001 The Impact of Drought on Water Resources and Energy Management in the Northwest
- 2000 Water Marketing in Washington: Negotiating for a Future



Retired cement truck near Linger Longer, WA, Hood Canal
Photo by Tom Ring

AWRA-WA PAST CONFERENCES

- 1999 Impressions of 1999 State Water Legislation: ESA Update and Pending 4(d) Rules
- 1998 ESA, Economy, Salmon and Agriculture...Where is the Water?
- 1997 Balancing Instream Needs with Out-of-Stream Demands
- 1996 The Water 'Crisis'- Myth, Reality, and Opportunities
- 1995 Water Quality/Water Quantity: An Artificial Distinction
- 1994 Fluvial Geomorphology: What We've learned in 20 Years, and where do we go from here? Interactions: River Dynamics, Land Forms and Land Use.
- 1993 Good Science, Good Decisions: The Role of Technical Analysis in Water Policy
- 1992 Reconciling Water and Growth
- 1991 State Water Policy and Growth Management
- 1990 Construction and Streams, Lakes and Wetlands: Closing the Gap between Planning and Doing
- 1989 New Developments in Floodplain Management
- 1988 Hydrology and Erosion Aspects of Timberland-Urban Conversions
- 1987 Attaining Compliance: Realities of Water Quality Regulation
- 1986 Off-site Impacts of Eroding Soils
- 1984 Groundwater Protection in Washington State, Preventing Aquifer Contamination and Depletion
- 1983 Small Streams and Lakes in the Urbanizing Environment—Will They Survive? Washington and Idaho Lakes and Their Future
- 1981 Water Resources Implications for Small Hydro Power Generation



Spokane River
Photo by Brian Walsh

STUDENT FELLOWSHIP PROGRAM

How to Apply

Any academic department with students enrolled in water resources programs may submit nominations for the award in a brief letter of nomination by a faculty representative familiar with the student's work. In addition, qualified students should prepare and submit an application packet, limited to five pages (excluding the faculty nomination), which includes the following:

1. The completed Application Form.
2. Statement of goals and objectives for graduate work.
- 3a. Detailed description of the student's research interest; or
- 3b. If pursuing a non-thesis degree, a one-page essay on how the course of study will allow the student to accomplish the goals and objectives identified in item 2.

The letter of nomination may be included in the application packet, or mailed separately by the faculty representative. Application packets and nomination letters are due by **February 15, 2019**, to:

**AWRA-WA Section
PO Box 2102
Seattle, WA 98111-2102.**

Prior recipients of the fellowship award may reapply if their research is different from or an expansion on the work presented earlier. Applicants may receive no more than two awards during their academic career.

How Fellowships are Awarded

The Fellowship Committee will evaluate all applications received based on the following:

- The interdisciplinary nature of the course of study and research.
- The effectiveness of the response communicating research objectives.
- The potential for applying the work to the current needs in water resource management.
- Overall impression of the applicant's qualifications and presentation.

The Fellowship Committee will recommend recipients to the Washington Section Board of Directors. The winners will be notified as soon as the Board approves the awards and will receive special recognition at a State Section event.

Additional Information

The application and additional information are available on the AWRA-WA website at <http://www.waawra.org>. Further questions can be answered by Stan Miller at (509) 953-7887 or samillerh2o@comcast.net.

NOTES

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2018 AWRA-WA Annual State Conference



AWRA-WA Section
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