



Winter 2023

PRESIDENT’S NOTES

Jessica Kuchan - Confluence Law PLLC

AWRA-WA Section President

Hello AWRA-WA members. Please let me introduce myself. My name is Jessica Kuchan and I am honored to serve as the President of AWRA-WA this year. I greatly appreciate the work of last year’s president Jenna Mandell-Rice and the other preceding presidents in providing opportunities for our membership. The efforts of the members and the Board of Directors have maintained AWRA-WA as a strong and vibrant section of AWRA.

Last year, AWRA-WA continued its work to provide opportunities to connect with other professionals, support students, and develop learning opportunities, all the while navigating virtual and in-person format challenges. In the spring, AWRA-WA funded **five** fellowships for students and provided funding to enable students to attend the National Conference held in November in Renton. Many thanks to each of you and your continued participation and the generosity of our corporate sponsors to enable us to support students.

AWRA-WA hosted numerous virtual presentations last year. In April, Sonja Michelsen, with the U.S. Army Corps of Engineers presented on the November 2021 Skagit River Flooding and the Corps’ role in flood risk reduction. In May, Urban Eberhart, Secretary Manager of the Kittitas Reclamation District, presented on water storage and collaborative governance in the Yakima River Basin. In June, Sam Fixler, a student and former fellowship recipient, presented on his work considering channel morphology and groundwater connectivity in the Taneum Creek subbasin of the Yakima River Basin. In June, we also held our first in-person event since 2020, with a walk around Green Lake in Seattle. In August, Tom Tebb and Jaime Short of the Washington State Department of Ecology presented on current Ecology rulemaking and permitting actions. In September, Michael Swiger presented on small in-conduit hydropower opportunities and licensing considerations. The recordings of these presentations are available to our members.

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In November, AWRA held its National Conference in Renton. This conference spanned four days and was the culmination of thousands of hours of work by AWRA-WA members. The conference hosted hundreds of people from many states. A special thank you to Rabia Ahmed and Felix Kristanovich for co-chairing this conference. Another special thank you to all the members who volunteered countless hours working on the technical agenda, State section luncheon, and related events. The National Conference was a great success.

In December, we hosted an annual meeting with a presentation from Dave Christensen of the Department of Ecology on upcoming policy initiatives. We also voted in our 2023 Board of Directors. Four previous Board members – Tyson Carlson, John Chandler, Felix Kristanovich and Stan Miller – retired from the Board. We greatly appreciate their many years of service. We also welcomed four new Board members – Colin Butler, Anurag Mishra, Robin Nimmer and Hayley Ventoza. Each new Board member brings experience and new ideas. I am excited for what is to come in 2023.

We are now planning our 2023 activities including events and the state conference. We encourage all members to consider joining the planning committees. We would love to hear your suggestions and thoughts for upcoming events. Please feel free to reach out to me at kuchan@confluencelaw.com or (206) 502-4403.

AWRA Washington Section 2023 Committees	
Executive Committee	Jessica Kuchan (President) Katherine Ryf (Vice President) Greg McLaughlin (Secretary) Stephen Thomas (Treasurer) Jenna R. Mandell Rice (Outgoing President)
Finance/Strategic Relations	Stephen Thomas (Chair) Jessica Kuchan, James Bush, Hayley Ventoza and Jenna R. Mandell-Rice
Membership and Communications	Tom FitzHugh (Chair) Anurag Mishra, Colin Butler, Greg McLaughlin, Patrick Vanderberg and Tom Ring
State Conference and Awards	Tom Ring and Hayley Ventoza (Co-chairs) Jenna Mandell-Rice, Jessica Kuchan, Jason McCormick, Anurag Mishra, Stephen Thomas, Tom FitzHugh, Robin Nimmer, Katherine Ryf, Rabia Ahmed
Student Mentorships and Fellowships	Jason McCormick (Chair) Colin Butler (co-chair), Tom FitzHugh, Tom Ring, Patrick Vanderberg, Robin Nimmer, Emily Polizzi and Katherine Ryf
Nominations	Jenna Mandell-Rice (Chair) Jessica Kuchan, James Bush, Stephen Thomas, Katherine Ryf and Rabia Ahmed
Events (Networking and Professional Development)	Katherine Ryf (Chair) Jessica Kuchan, Anurag Mishra, Colin Butler, Jenna Mandell-Rice, Tom Ring, Jason McCormick and Rabia Ahmed

2022 AWRA-WA BOARD

EXECUTIVE COMMITTEE

President: **Jessica Kuchan**

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Vice President: **Katherine Ryf**

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UW Faculty Advisor: **Vacant**

CWU Faculty Advisor: **Carey Gazis**

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Meet AWRA-WA's Newest Board Members:

Colin Butler – Colin is a hydraulic engineer with Watershed Science & Engineering in Seattle. He specializes in river modeling and technical water resources projects, working on flood studies, basin-wide hydraulic and hydrologic analyses, habitat restoration, culvert replacements, and field data collection throughout the Pacific Northwest. He graduated with a Bachelor of Science in Civil Engineering from the University of Washington where he worked in mountain and snow hydrology research and served as the UW AWRA Student Chapter President. He is a licensed professional engineer in Washington and California and an FAA certified remote pilot. Outside of his professional life, he loves to cycle, swim, ski, backpack, and support student-led outdoor education trips run by a local nonprofit. He also enjoys traveling, attending concerts, exploring new cuisines, and cheering on his local professional sports teams.



Anurag Mishra – Dr. Mishra is Senior Hydrologic Engineer at DSI, with more than a decade of consulting experience. He completed his master's and PhD at Virginia Tech. His research focused on estimating uncertainty in water quality modeling. He worked at AQUA TERRA Consultants/RESPEC for more than ten years before moving to Pacific Northwest area to work at DSI. Dr. Mishra lives with his wife and a high school age son and enjoys all the natural outdoor activities that PNW has to offer, year around. He likes cricket, kayaking, skiing, hiking, biking, badminton and running, in "no particular order". His interest in improving the environment doesn't stop at work, and he volunteers with local organizations in water quality data monitoring and habitat restoration.



Robin Nimmer – Dr. Nimmer is Senior Hydrogeologist and has worked as a project management lead at the Water Resources Division at Alta Science and Engineering for the last 14+ years. She has a B.S. in Geology from the University of Wisconsin Milwaukee, an M.S. in Hydrology from the University of Idaho, and a PhD in Geology from the University of Idaho. She is a Professional Geologist in Idaho and a Licensed Geologist in Washington. Robin works on hydrogeology-related projects in the northwest and specializes in flow and transport in fractured rock. Her projects range from characterizing and remediating groundwater to helping individuals and communities have a sufficient water supply.



Hayley Ventoza – Haley is an associate at Tupper Mack Wells in Seattle, Washington. Her primary practice areas are water rights, environmental compliance, and administrative and judicial appeals in the areas of environmental law, land use, and natural resources. Hayley has represented clients in both state and federal court and has negotiated hundreds of tough cases to a favorable resolution. Hayley has been named a "Rising Star" by Washington Super Lawyers® for 2021 and 2022. Hayley is also passionate about improving our community. She helped establish the first Veteran's Treatment Court in Lakewood, Washington, which assists veterans by providing them access to treatment, employment, and a supportive community. She successfully petitioned the Clemency and Pardons Board on behalf of the first woman sentenced to life without parole under Washington's three-strikes law. And she serves on the City of Burien Parks and Recreation Board, which is dedicated to strengthening the community through outdoor spaces and events.

Thank You AWRA-WA 2022 Sponsors!

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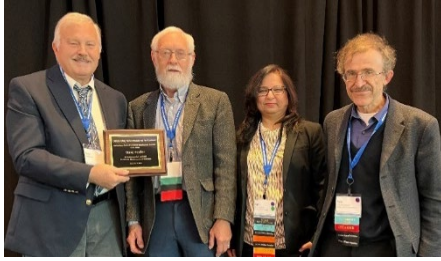
Stream Level Sponsors \$500



AWRA-WA Board Meetings in Attendance at AWRA National Conference

David Peeler: 2022 WA AWRA Outstanding Water Resources Professional

By Stan Miller



The winner of the 2022 Outstanding Water Resources Professional is David Peeler. Dave received the award during the Awards Luncheon at the 2022 AWRA National conference in Renton.

Dave has degrees in Zoology and English Literature from the University of Washington and studied environmental policy and science at The Evergreen State College (MES program). Dave began his career in 1975 with the Washington Department of Ecology and retired 2008, including stints as Water Quality Program Manager, Special Assistant to the Director and board member of the WA State Conservation Commission. Dave's 33-year career included work in water resources, water quality, shoreline management and Puget Sound restoration.

After retiring from Ecology, he worked as the Director of Policy at People for Puget Sound and for the Puget Sound Partnership's Puget Sound Ecosystem Monitoring Program. Dave has volunteered with Thurston Environmental Voters, Kiwanis Club of Olympia, homeowner's associations, Thurston County Democrats, and the Deschutes Watershed Advisory Committee. Dave and his wife Maria reside in the Scott Lake area near Tumwater, where they enjoy boating, gardening, bicycling, sports, loud rock music and their grandkids.

AWRA-WA Receives Outstanding State Section Award for AWRA National!

By Jenna R. Mandell-Rice



The Washington section of AWRA was honored to receive the Outstanding State Section Award, which is awarded to the State Section that has provided outstanding service in the furtherance of the AWRA's objectives. Washington state section President, Jenna Mandell-Rice, accepted the award on behalf of the state section.

The awards luncheon included a presentation by John Matthews, Executive Director and Co-Founder of Alliance for Global Water Adaptation. AWRA presented these additional awards at the 2023 national conference:

The A. Ivan Johnson Award for Young Professionals was awarded to Dr. Siddharth Saksena for outstanding achievements, talents, and leadership in water resources. Dr. Saksena, an Assistant Professor at Virginia Tech, has developed tools for building flood resilient communities in response to land use and climate change. This involves watershed-scale flood modeling and forecasting using an integrated hydro-systems analysis.

The Icko Iben Multidisciplinary Communications Award, to Dr. Nazzareno Diodato, a Geoscientist at the Met European Research Observatory, for outstanding contributions in promoting communication among the various disciplines concerned with water resources issues.

The Integrated Water Resources Management ("IWRM") Award, which recognizes outstanding IWRM teamwork on a complex water resources effort was awarded to Wyoming Valley Sanitary Authority.

The Sandor C. Csallany Institutional Award for Exemplary Contributions to Water Resources Management, which recognizes a water resources institution that has achieved a status of eminence in an aspect of managing the nation's waters was awarded to Turlock Irrigation District.



#AWRA2022 ANNUAL WATER RESOURCES CONFERENCE

November 7-9 | Renton, WA

awra.org/2022AnnualConference

Keynote Speakers AWRA 2022 Annual Water Resources Conference

By Alisa Royerm, Confluence Law PLLC

The American Water Resources Association (AWRA) held its annual conference in Renton, Washington from November 7th to 9th, 2022. Throughout the program, keynote speakers highlighted their contribution to the water resource community. Keynote speakers were chosen because of their influential work on raising awareness and affecting the understanding of water processes, community involvement, and scientific criteria that impacts water management in the face of growing demands on our limited water resources.



Erica Gies, is a journalist, activist, and National Geographic Explorer who spoke at the AWRA highlighting her new book *Water Always Wins: Thriving in an Age of Drought and Deluge*. Gies shared stories across geography and time to reveal the mysteries of water's journey from source to sea and spoke about how working with nature can help save us from the ravages of climate change. Gies challenges modern societies to relinquish some control and let water go where it wants to go coining the “Slow Water Movement.” Erica describes Slow Water approaches as working with local landscapes, climates, and cultures, instead of working against. According to Gies, the movement is creating a “fundamental shift in how we think about ourselves, our systems, and our world... to understand water and accept it for what it is instead of trying to shape it into what we might wish it to be.” Gies’ presentation included examples of efforts to address the impact of a flood event in the Fraser River watershed in British Columbia, beaver habitat improvement projects, and restoring an urban stream in Seattle. Geis’ work is featured in New York Times, Scientific American, Nature, Ensis, The Economist, bioGraphic, National Geographic, and other outlets.



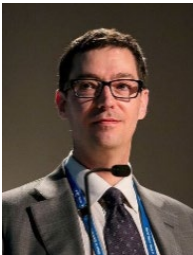
James Rasmussen, is a founding member of the Duwamish River Community Coalition, having represented the Duwamish Tribe on the organization’s Advisory Council for 10 years before joining the staff as Executive Director/Coordinator in 2011. Rasmussen has served as a member of the Duwamish Tribal Council for 26 years, and as the founding Director of the Duwamish Tribe’s Longhouse and Cultural Center. Rasmussen spoke at the AWRA conference highlighting the historical and cultural perspective of the

Duwamish people and their connection with the land in and around what is now the greater Seattle area. Rasmussen passionately spoke about power and privilege and the obligations of those in positions affecting water resources to connect with local and native communities to create integrated progress in wholistic water management. Rasmussen highlighted that many low-income communities carry an undue burden of pollution. Rasmussen called on water resource professionals to undertake actions involving local communities to better understand and preserve natural resources for all. A panel discussion followed with Sean Watts, Sally Gutierrez, ChiHo Sham, and Sharon Megdal to discuss “What are you doing to improve Diversity, Equity, Inclusion, and Justice?” Rasmussen and the panel members shared deep insights into strength and power in creating a sense of place with mindful community building.



Maia Bellon, is a Partner at Cascadia Law Group PLLC in Olympia, Washington. Bellon’s practice focuses on water, tribal, environmental, natural resources, and energy law and policy. As a keynote speaker she shared her journey of teaching water conservation as a child to her younger cousins, to becoming a water lawyer, then running Washington Department of Ecology’s Water Resources Program, and eventually being appointed as the first Native American to serve as Ecology’s Director and on the Washington Governor’s Cabinet. Influenced by her Native American roots, Bellon was raised with teachings about

the importance of water, including drinking water at the beginning and end of ceremonial meals. As a consultant of the affiliate Cascadia Policy Solutions, she provides facilitation, strategic process support, policy development, and legislative advocacy services in the areas of environmental justice, water solutions, natural resources management, and intersectional climate action.



John Matthews, Executive Director and Co-founder of the Alliance for Global Water Adaptation (AGWA), works at the intersection of water with climate adaptation and resilience. His work explores how to define, develop, and accelerate the uptake of our emerging set of best practices for climate resilience. Matthews travels the world advising more than 100 countries on their national climate adaptation commitments. Matthews’ keynote address was a call to action outlining innovative guidance on emerging approaches, such as resilient nature-based solutions to address both large-

scale technical climate risk assessments and to engage macroeconomic planners and decision makers to blend resilience with traditional economic evaluation approaches. Beyond AGWA, Matthews is a Senior Water Fellow at Colorado State University and Water Resources Courtesy Faculty at Oregon State University, an advisor to the Shockwave Foundation, and on the board of Living in Kindness.

Session Summaries AWRA 2022 Annual Water Resources Conference

Session 13: Special Topic Session: Citizens Volunteer Monitoring Programs

By Stan Miller

Session 13 featured five speakers on citizen-led data management and monitoring programs. The session was organized and moderated by Stan Miller from the Washington State Section of AWRA.

Dr. Jim Ekins presented on the IDAH2O master water steward program in Idaho, initiated in 2012 to enlist water stewards to provide local data on rivers and streams. Data collected by the water stewards is entered into a regional data base. During the summer of 2021, water steward data on the Priest River in North Idaho helped shed light on the massive fish die off that occurred. River temperatures above 27 °C were measured by water stewards. Initially there were only a dozen or so Stewards, who collected data on streams near their homes or recreational property, Thanks to Jim’s leadership and instrumental participation by regional teachers, the program has grown to over a hundred participants throughout Idaho and Eastern Washington.

Rick Reynolds talked about the River Mile citizen science program out of Portland, Oregon to study invasive crayfish in the Columbia River system. The River Mile program was started by the National Park Service on Lake Roosevelt (the reservoir behind Grand Coulee Dam) as a tool to get local communities, especially students, involved in reservoir quality issues. Through the program it was discovered that large populations of invasive crayfish had entered the Columbia River system. Rick integrated the investigation of crayfish into his outdoor education program on a basin-wide scale. As an interesting integration of two programs, Jim Ekins related an incident where a school class (an IDAH2O Water Steward was the teacher) in Lewiston Idaho identified an invasive crayfish in a stormwater pond near the Snake River. The invasive cray fish were prevented for getting into the Snake River and further degrading that system.

Jule Shultz talked about the Spokane Riverkeeper’s work to study impacts of sedimentation from Hangman (Latah) Creek on spawning habitat in the Spokane River, which is partially funded by the Washington State Department of Ecology. One of the goals of this work is to track the effectiveness of Agricultural Best Management Practices for controlling erosion being employed in the creek basin. This work engages volunteers to collect weekly samples for turbidity analysis from about a dozen sites. The results have confirmed significant contributions by Latah Creek to sediment loads in the Spokane River.

Stan Miller talked about the Selkirk Conservation Alliance’s Priest Lake Citizens Voluntary Monitoring Program, how the data is used in IDEQ’s Beneficial Use Reconnaissance Program. He also described the trend toward higher lake temperature at the PLNO site. The trend is apparent at most of our sites but this open water site has our most complete data record and is the type of site used around the world for assessing climate trends. At the PLNO site lake surface temperature has increased by about 3 °C since the early 1990’s and now averages about 24 °C in July and August.

Ava Saunders a high school junior at a magnet technical school in South Florida. Her class studied the attitudes held by homeowners in a gated community relating to the cause of degradation of their “lake”. They found that the homeowners generally denied that their behavior, lawn fertilization and watering in

particular, had anything to do with the quality degradation in the artificial lake in their community. Everyone in the room was impressed with this young lady's poise and delivery of her information.

Greg Volhardt, Tacoma Water: Forecast-Informed Reservoir Operations (FIRO) at Howard Hanson Dam

By Tom FitzHugh

Greg Volkhardt, Source Water & Treatment Operations Manager at Tacoma Water, spoke about current plans to implement Forecast-Informed Reservoir Operations (FIRO) at Howard Hanson Dam on the Green River. FIRO is a water management decision support analysis that uses atmosphere and watershed observations together with improved weather and hydrologic forecasts. This provides reservoir managers with more flexibility in retaining or releasing water to better manage weather extremes while retaining/improving water supply, flood-risk reduction, and environmental benefits. FIRO has been successfully tested at Lake Mendocino, a reservoir operated by Sonoma Water on the Eel River in California and is now being tested and implemented at other reservoirs across the country.

While Howard Hanson Dam was previously operated only for flood control in the winter and low flow augmentation in the summer, in the late 1990s an agreement with the Army Corps of Engineers expanded dam operations to storage for municipal and industrial (M&I) purposes. Volhardt emphasized that the implementation of FIRO at Howard Hanson Dam would help improve the ability of Tacoma Water to store M&I supplies, and provide other benefits as well. Under Phase 1 of the agreement, twenty thousand acre-feet (taf) of M&I water can be stored from Tacoma's water rights on the Green River. However, due to flood control rules in the dam's current Water Control Manual, storage of the full twenty taf is not always possible, with the full 20 taf of storage available in only eight of the last fifteen years.

Implementation of FIRO would enhance storage of M&I water, which can currently only begin on February 20, to begin earlier, and allow for more reliable refill up to twenty taf. Additional benefits of FIRO include (1) supporting salmon recovery with additional storage released to the river in the spring, reducing stranding of juvenile salmon in off-channel habitats; (2) providing needed flexibility in operations that would allow the system to better adapt to changes in inflow patterns due to climate change; and (3) allowing for implementation of Phase 2 of the agreement with the Army Corps, providing up to 9.6 taf of additional storage for instream flow releases for salmon and 2.4 taf of additional storage for M&I.

American Water Resources Association, Washington Section
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Seattle, WA 98111-2102

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Special Thanks to Washington Water Trust and Associated Earth Sciences, Incorporated for word processing support on this newsletter.

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