



PRESIDENT'S NOTES

Cleve Steward, WA-AWRA Section President

This newsletter highlights the annual conference our Section is planning in cooperation with the British Columbia Branch of the Canadian Water Resources Association. Titled "Transboundary Water Resources of Washington State and British Columbia", the conference will take place October 4-5, 2007, at the Museum of History and Industry near the University of Washington campus. Note that this will be a 2-day conference in October, which deviates from the 1-day annual conference in November that we've customarily held in the past.

Working with our Canadian colleagues, this year's conference will feature an outstanding slate of speakers who will address a wide range of water-related issues affecting Washington State and British Columbia. We invite you to join us as we explore approaches to managing stormwater, streamflows and liquid waste, adjusting to climate change, and minimizing our impacts on water bodies such as the Strait of Juan de Fuca and the Columbia River that either define or extend across jurisdictional boundaries. Although the focus will be on "transboundary" water issues, we are interested in hearing the Canadian perspective, and they ours, on water management, research, policy, and opportunities for collaboration across the region.

We are honored that the BC Minister of the Environment, Barry Penner, and the Director of the Washington State Department of Ecology, Jay Manning, have accepted our invitation to present keynote addresses at the opening sessions on October 4 and 5, respectively. The headline speaker for the first day's luncheon will be the national AWRA President, Dr. Gerald Galloway. Gerry has graciously offered to overview ongoing and proposed national AWRA initiatives and to share his experience working for, among other entities, the US Water Resources Council, the World Bank, and as Secretary of the United States Section of the US-Canada International Joint Commission, an independent binational organization charged with preventing and resolving transboundary air and water quality issues disputes between the countries.

The conference was moved up to early October to accommodate the BC-CWRA. The advantage to us, besides being able to mix it up with our Canadian friends, is that there will be greater separation in time between our Section's conference and the annual AWRA meeting, both of which normally take place in November (note that this year's national AWRA meeting runs from November 12th through the 15th in Albuquerque, New Mexico). Those of us who are inclined to attend both conferences are less likely to get our schedules jammed up.

Moving the Section's conference up by a month requires a couple of administrative adjustments, however. The Student Awards that are normally handed out for best student projects at the Section's conference will be delayed until (tentatively) early December, when they will be awarded at a special joint meeting of the State Section and Student Chapters. The decision to postpone the Student Awards was prompted by the recognition that students will not have sufficient time to prepare and submit material, and the Awards Committee will not be able to review the submittals and select award winners, prior to the October conference. Another reason for postponing the awards is to allow us to showcase the endowment recently set up for this purpose; we are regularly soliciting donations, adding surplus revenues, and reinvesting earned interest in the endowment to increase the number and size of the financial awards that we give to deserving students each year. (President's Notes, page 5...)

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September 10, 2007 Board Meeting – All are welcome. Contact Felix Kristanovich for meeting location details at: fkristanovich@anchorenv.com.

Water Banking: Mirage or Delusion?

By Joe Mentor and Jamie Morin, Mentor Law Group, PLLC

Hardly a conversation discussing “innovative” water supply mitigation or a summary of strategies to resolve a water use conflict doesn’t include the vision of developing a “water bank.” As the term becomes increasingly pervasive, any clarity as to what water banking is or could be and any consistency in the description is becoming increasingly inconsistent.

The traditional rules for water reallocation require water rights transfers to be approved by state water resources agencies and sometimes by state courts. Obtaining agency or court approval for water transfers can be time consuming and costly and may be cost-prohibitive altogether when seeking to satisfy smaller water needs. Variations on traditional water transfers have evolved in many states in response to increasing costs, permitting delays and growing water shortages. Many of these variations are referred to as “water banks.” These so called water banks have become an increasingly common theory of how to address instream and out-of-stream water needs.

The term “water banking” means different things around the West. Generally, however, “water banking” is an institutional process specifically designed to facilitate water transfers. More specifically, water banking means the “deposit” of any water use entitlement with a person or entity that makes it available for withdrawal by the transferor or another person or entity, either at the same time or place or later in time or at another place.

At least ten western states have authorized water banking in some form, varying greatly from state to state in operation or in the purposes served. The main purpose of many water banks is to make water available to other, third party users. Most of these banks essentially operate as an exchange between willing sellers and interested buyers. Some water banks operate at least in part to facilitate instream flow transfers. Others operate primarily to facilitate domestic, municipal or supplemental irrigation transfers. Most banks operate at a regional level within a state, usually at a watershed or basin level, rather than statewide.

WATER BANKING FUNCTIONS

A water bank can perform several key functions, serving as an intermediary or as a facilitator. The water bank as intermediary serves as a “depository,” where valid water use entitlements are “banked” for withdrawal at a later time or by different parties. In some states, water banks are formed to establish and hold water mitigation credits, which may be used or sold. Another variation of water banking describes programs similar to aquifer recharge, where surface water is stored or banked as groundwater for later withdrawals.

As a facilitator, a water bank can act as a brokerage or clearing house. Water banks decide who is eligible to rent or buy water from a bank and establish rules

for transfers. Water banks can evaluate water rights transfers to determine which rights can be transferred, and the extent to which transfers can be accomplished without detriment or injury to third parties.

Conceptually, water banking addresses many of the shortcomings found in Washington’s current water reallocation system. First, the water banking process is intended to make the voluntary reallocation of small quantities of water more cost effective. The water rights available for transfer very rarely match the quantities needed by the new use. The existing water rights are either far more than the new use requires, or not enough. In the instance of a source water right far larger than required, the seller either has to be willing to sell to multiple buyers or the buyer is forced to buy more than they need or can use and so is forced to find a co-buyer or write off the surplus. In either case, changing partial water rights adds yet another level of complexity to an already complex process. Water banking allows portions of a single water right to be transferred to new uses on an as-needed basis, which will allow water users to obtain only the actual quantity of water required. In addition, because water rights are reviewed under RCW 90.03.380 at the time the water right is transferred to the Trust Water Right Program, specific future uses can be pre-approved. This will serve to reduce the time required for transfers of small quantities of water – perhaps the most unpredictable transaction cost under the existing water right transfer process.

WATER BANKING IN WASHINGTON

In 2003, Washington adopted its own version of water banking, specific to the Yakima Basin tied explicitly to the water right transfer statute. In Washington’s version of water banking, Ecology is authorized to use water banking in the Yakima Basin for mitigation of new water users, to meet future water supply needs, and for beneficial uses consistent with terms established by the transferor.

The program works like this, if a water right holder seeks to have a water right managed for water banking purposes, that water right is transferred to the Trust Water Program. At the time of the transfer into Trust, the water right is subject to review under RCW 90.03.380 based on the foreseeable temporary or permanent uses for the water right. When those future water demands exist, the water right or a portion of the water right can be assigned to that new water use or user so long as the new use is consistent with the future use reviewed under RCW 90.03.380 at the time the water right was transferred to the Trust Water Program.

Washington’s statutory process has both similarities and differences to water banking programs in other states. Most notably, water banking is explicitly au-

thorized as one of the purposes of the Trust Water Program, a program already existing in state law.

Ecology has been exploring water banking to resolve the out-of-priority water needs for small domestic water users in the Yakima Basin. By leasing or buying senior water rights to substitute for water use by junior water users, senior water right holders would be mitigated for otherwise out of priority water use. One of the initial stumbling blocks to setting up a water bank is to "fund" the bank. During the 2005 drought, Ecology conducted a reverse auction to find water rights to transfer to the Trust Water Program and "bank" on a temporary basis. A similar process was tried for the 2007 season, but with little response.

Although Washington's water banking legislation is specifically geared toward the Yakima Basin, water banks are being talked about elsewhere in the state as well. Watershed planning groups and others throughout the state are increasingly discussing water banks as potential tools to meet instream flow needs as well as to meet current and future out of stream needs. The problem, for the time being, is whether water banking outside of the Yakima basin is authorized.

There are two separate statutory schemes in Washington authorizing the Trust Water Program, one which is applicable statewide and found at Ch. 90.42 RCW, and one that applies specifically to the Yakima Basin found at Ch. 90.38 RCW. The 2003 amendments to the Trust Water Program authorizing water banking amended the statewide Trust Water Program at Ch. 90.42 RCW, but very clearly apply only to the Yakima Basin. Although Ecology arguably had the authority to conduct water banking through the Trust Water Program prior to the water banking amendments, there is now a statutory ambiguity as to whether water banking can happen in other areas of the state.

CONCLUSION

Water banking is a concept that seems to enjoy widespread support, even though most people don't have a clear idea of what specifically can be accomplished with a water bank. Support for the concept reflects the fact that water transfers generally have become well accepted as the primary means of meeting future water supply needs in Washington and throughout the western United States. ~

2007 Salmon Homecoming Forum

7th Generation Awards and Potlatch Ceremony

Seattle Parks Golden Gardens Bathhouse

8498 Seaview Pl. NW, Seattle, WA

Monday, September 17, 2007, 8:00 am to 7 pm

In the face of impending climate change, pro-active steps taken now will help us to achieve cultural and environmental sustainability. The 2007 Forum focuses on how we can work together to meet the challenges of climate change and sustainability in our region. Presentations will address when and how climate is expected to change and what the impacts will be to our ecosystems. Model watershed approaches and agricultural and urban water strategies will be presented as a way forward. Then ways that local government can meet the challenges will be demonstrated. Finally, the spiritual and cultural dimensions of this challenge will be discussed.

Featured speakers include:

Billy Frank Jr., Chair, NW Indian Fisheries Comm.

Dr. Ed Miles, UW Climate Impacts Group

Terry Williams, Tulalip Tribes

Janice Adair, Washington Dept. of Ecology

Mike Shelby, Western WA. Agriculture Assoc.

Steve Moddemeyer, City of Seattle

Ron Sims, Executive Director, King County

Micah McCarty, Councilman, Makah Tribe

Continental breakfast, coffee breaks, and a lunch of traditional fire-baked salmon will be provided. Following the Forum, please join us at a Gala Reception celebrating 15 years of Salmon Homecoming. A special Potlatch Ceremony to honor the 7th Generation Award recipients and our many long time friends and supporters of Salmon Homecoming will conclude the day.

The Forum is open to all, but space is limited. Entry is by donation, please register at www.salmonhomecoming.com. Suggested donation is \$125

Questions? Contact Sono Hashisaki (206) 545-1117 or sono@springwood-usa.com.

From: <http://wdfw.wa.gov/do/weekendr/weekendr.htm>:

The salmon fishery on the Snohomish River opens Aug. 16. Anglers will have a daily limit of two salmon, plus two additional pink salmon, but must release chinook. Farther north, the Skagit River will remain closed to salmon fishing until September, said Brett Barkdull, a WDFW fish biologist. "The closure is necessary because only about 90,000 pink salmon are expected to return to the river this year," he said. "That's far below the minimum return of 330,000 salmon necessary to consider a recreational fishery."

New Hydropower: Technical and Regulatory Challenges

By Ken Gish, K&L Gates

Gone are the major dam building days of the first part of the 20th Century. Environmental and regulatory restraints have made major hydropower development cost-prohibitive. Besides, most of the sites which would support major hydropower development have already been developed. That does not mean, however, that there is no potential for new hydropower development. Cutting edge technologies are being developed across the globe that will take advantage of the energy potential found in the ocean. In particular, recent developments have shown the installation of devices that harness the power of ocean waves and of tidal currents to be feasible. As with the traditional "big dam" hydropower development of the 20th Century, the Pacific Northwest sits poised to take the lead in this new field.

Tidal current and ocean wave power development represents an enormous potential energy source, but there remain challenges, from both technical and regulatory perspectives. FERC estimates the potential for wave and current power could exceed 350-terawatt hours per year. This is more than twice the current hydropower production in this country. However, harnessing that power is not easy. Technology that captures energy from ocean and river currents must address activating forces that flow in the same direction for a few hours at a time. For ocean wave energy technology the activating forces change every 5-20 seconds. As such the technology must compensate for the changing direction of the motive force.

Not only is the technical challenge of ocean wave and current energy development formidable, but the regulatory framework for these projects is in a nascent and, therefore, unsettled stage. Contributing to the confusion is the unique medium that must be studied from an environmental perspective. Many of the projects require the installation of project components on the ocean floor. There is not much in the way of existing study and analysis for project proponents to rely upon, and the necessary studies are likely to be quite expensive.

FERC is also addressing the manner in which these projects will be licensed. In February 2007, FERC issued Notice of Inquiry and Interim Statement of Policy on Preliminary Permits for Wave, Current and Instream New Technology Hydropower Project (FERC Docket No. RM07-8-000). In this notice, FERC asked for comments on how to treat preliminary permit applications for wave and current power projects.

Preliminary permits are granted by FERC under Section 4(e) of the Federal Power Act and hold applicants' places in line. A FERC preliminary permit does not grant the permit holder the authority to build or operate a project. Rather, it allows a project proponent to evaluate more deeply the feasibility

of a proposed project. FERC's notice of inquiry set forth three possible standards for evaluating preliminary permit applications: (1) continue with a light review where preliminary permit issuance is presumed; (2) take a stricter review of project applications to eliminate the possibility of site banking; or, (3) decline to issue preliminary permits for these projects at all. While FERC reviews comments on the issue, it has elected to use option (2) in an attempt to prevent certain project proponents from engaging in speculation in prime locations.

As daunting as the technical and regulatory challenges are, several companies have developed power generation equipment that works and are developing prototype power generation systems across the world. These prototype projects, while small in size, could lead the way for larger, commercial scale projects.

Ocean Wave Energy

Two different types of ocean wave energy systems are in development. The first type, an articulated machine, is represented by Scotland's Ocean Power Delivery LTD's Pelamis Wave Energy Converter. The Pelamis is a semi-submerged, articulated structure composed of cylindrical sections linked by hinged joints. The wave-induced motion of these joints is resisted by hydraulic rams, which pump high-pressure oil through hydraulic motors via smoothing accumulators. The hydraulic motors drive electrical generators to produce electricity. Power from all the joints is fed down a single umbilical cable to a junction on the sea bed. Each wave energy converter is 150 meters long, displaces 700 tons and is rated at 750 kW. Several devices can be connected together and linked to shore through a single seabed cable. Ocean Power has constructed a prototype project off the coast of Portugal consisting of three wave energy converters. Based on the success of the first phase, plans are in progress to expand the project to 22.5 MW. If constructed to the fully planned build out, the project would be able to serve 15,000 homes and would represent a savings of 60,000 tonnes of CO₂ emissions.

The second type of wave energy device is a point absorber. Irish company, Finavera Renewables produces a point absorber device called the AquaBuOY. As wave action moves the machine up and down (like a fishing bob), a pelton turbine is driven. Each AquaBuOY is rated at approximately 0.25 MW and power is transmitted to shore via a submerged cable. Finavera has proposed a pilot project consisting of four AquaBuOYs in Makah Bay. It is anticipated that the Makah Bay pilot project would produce approximately 1,500 MWhrs per year. Finavera has submitted an application with FERC for a minor license and the environmental assessment of the project was completed in

October 2006. The Makah Bay project is supported by PUD #1 of Clallam County, Energy Northwest and the Makah Indian Nation.

Tidal Current Energy

Tidal current energy technology resembles in many ways technology used in wind energy development. Tidal current generators are typically constructed on monopoles that sit along the waterbody bottom where tidal changes and the resulting currents are dramatic. One of the companies leading the charge in tidal development is Verdant Power. Verdant Power's prototype project, the Roosevelt Island Tidal Energy (RITE) Project (FERC Project No. 12611), in the East River in New York, has now filed for a license as well as a preliminary permit. The proposed project would consist of: (1) up to 300 5-meter-diameter kinetic hydropower axial flow turbine generator units (about 33 kW each) with a total installed capacity of 10 MW mounted on monopoles; (2) underwater power cables from each unit to a central control room; and, (3) appurtenant facilities. Verdant performed a field test of the RITE project in December 12, 2006 and January 21, 2007, and powered a supermarket on Roosevelt Island during the test. Studies are continuing on the RITE project including extensive analysis of the impacts of the project on the benthic community in the river.

The Puget Sound is full of locations where tidal current power development may be feasible and utilities in the region are taking steps to develop the resource. Snohomish PUD sought and received seven preliminary permits from FERC authorizing it to research the viability of the following sites within the Puget Sound as tidal power resource areas: Admiralty Inlet; Speiden Channel; Rich Passage; Agate Passage; San Juan Channel; Guemes Channel; and, Deception Pass. The size of the projects proposed in these areas range from 22.1 MW at Admiralty Inlet to 400 kW at Agate Passage.

Tacoma Power has also obtained a preliminary permit from FERC to study the possibility of tidal power in the Tacoma Narrows. Under their preliminary permits, Snohomish PUD and Tacoma Power have three years to analyze the proposed projects and are required to provide six-month progress reports to FERC on their evaluation.

Next Steps

The development of ocean wave and tidal current energy technology seems to be progressing. Ideas have been converted into real life machines and prototype projects are being constructed and evaluated as we speak. Wave and current energy has certain benefits over existing power generation technology, most notably the lack of greenhouse gas emissions. This has won these technologies fans, including Rep. Jay Inslee who recently introduced a bill in Congress that would boost research funding for tidal and wave energy project and would provide tax incentives.

That said, there are uncertainties about the magnitude of the impacts of these new technologies on ocean habitat and the regulatory regime that will govern the development and operation of these projects. On July 19, 2007, FERC announced that it will convene a technical conference to discuss methods to make the licensing process more efficient for wave and current power developments.

Much about the development of wave and current energy projects will depend on what happens in the next few years. If an efficient regulatory process is developed that ensures adequate analysis of the environmental impacts, project proponents will be able to assess the regulatory risk of their proposals. Most importantly, the success or failure of the prototype projects in development will go a long way to inform the question of whether these projects are even feasible. The next few years will be an exciting time for those interested in developing these resources. ☞

President's Notes (from page 1)

Another important effect of moving the conference forward is that it pushes up the nomination process and election of new board members. This year, as in the past, a slate of board nominees is prepared and voted upon during the Section's business meeting that occurs at the end of the conference. The elected board members typically elect members of their Executive Committee, including President, Vice-President, Secretary, Treasurer, and Newsletter Editor, on the spot. The newly elected board and Executive Committee officially take over at the beginning of the calendar year.

This year, we plan to hold board elections as usual, which requires our Nominating Committee to come up with a slate of candidate board members by October. This is my cue to wax eloquent about the extensive professional and personal benefits of serving on the WA-AWRA Board of Directors. I'll try to lay off the wax, but believe me, the experience of serving the board is rewarding on many levels. As water resource professionals, most of us are motivated not only by our shared concern for the resource, but by a desire to give back to our professional community and, for lack of a better phrase, to serve the greater public good. Serving on the WA-AWRA board provides you the opportunity to act on those impulses.

At a recent WA-AWRA dinner meeting, I asked for a show of hands among those present of past Section Presidents. I was stunned that six people raised their hands. Their continued commitment, along with the many past and present board members that have been involved in AWRA activities over the years, speaks to the sustained and substantial impact that our organization has on its members, and vice versa. Join us – we could use your unique voice and blend of talents on the Board of Directors. (President's Notes, page 12...)



CWRA ACRH
Canadian Water Resources Association
Association Canadienne des Ressources Hydriques
B.C. Branch

Transboundary Water Resources of Washington State and British Columbia

Presented by

Washington Section of the American Water Resources Association

In cooperation with

British Columbia Branch of the Canadian Water Resource Association

October 4-5, 2007

Museum of History and Industry, Seattle, WA

Conference Overview

Join the Washington Section of the AWRA and the British Columbia Branch of the CWRA at the Section's 2007 Conference, October 4-5 at the Museum of History and Industry near the University of Washington campus. Our state and province share many freshwater, inland marine and coastal water resources. Join us as we explore approaches to managing stormwater, streamflows and liquid waste, adjusting to climate change, and minimizing our impacts on water bodies such as the Strait of Juan de Fuca and the Columbia River that either define or extend across jurisdictional boundaries.

Conference attendees will hear from scientists, technical experts and policy makers from both nations, including Jay Manning, Director of the Washington Department of Ecology and Barry Penner, British Columbia's Minister of Environment. Gerald Galloway, the national AWRA President, will address and describe opportunities for community, conversation, and connections between the AWRA and the CWRA. The technical and social elements of the conference have been specifically designed to promote professional dialogue and information exchange. You won't want to miss this interesting and exciting conference!

Who Should Attend

We welcome representatives from all levels of governments, private enterprise, and academia, including consultants, tribal communities, attorneys, and concerned citizens involved or interested in water resources in Washington and British Columbia.

The preliminary program and a registration form are on the following pages, and along with corporate sponsorship information, are available at www.wa-awra.org. ❧

Seeking New 2008 Board of Directors

The Washington State Chapter Board is seeking new board members to serve for the 2008 term which runs for 12 months starting in October, 2007. This is your chance to work with a diverse group of dynamic, influential members of the water resource community. The Board meets monthly and directs the activities of the chapter. You will work with committees that direct such interesting activities as publishing a bi-monthly newsletter, organizing an annual state conference, organizing a series of dinner meetings and student chapter activities or running an awards program. If you are interested, please e-mail the Nominations Committee Chair, Pete Sturtevant, prior to August 15, 2007. Include a brief summary of your background in water resources and any AWRA-related activity (if any) you have participated in within the past year.

Pete Sturtevant, psturtev@ch2m.com

Transboundary Water Resources of Washington State and British Columbia

PRELIMINARY PROGRAM

THURSDAY, OCTOBER 4

Registration: 7:30 AM; Conference Welcome and Keynote Address 8:15 AM

Keynote Speaker: Barry Penner, Ministry of Environment, British Columbia

Session 1 - Stormwater Management and Low Impact Development: What effects have technology improvements and increasingly stringent stormwater management requirements over the past 20 years had on the water quality of receiving waters? How will those resources be affected by burgeoning population growth and development in the future? And what lessons can Washington State and British Columbia learn from each other as they strive to minimize the impacts of stormwater runoff? In this session **Kim Stevens** P.Eng., Program Coordinator, Water Sustainability Action Plan for British Columbia, **Gary Minton**, PhD, Resource Planning Associates, and **Ed O'Brien**, Ecology Water Quality Program discuss and contrast approaches to stormwater control taken on both sides of the border.

Session 2 - Liquid Waste Management: It has been argued that improvements in basic sanitation, including the collection, processing and disposal of human sewage, has been one of civilization's most important advances in public health management. And yet, most of us possess scant knowledge of our existing sewage systems and the measures required to keep them functioning reliably. In this session, **Dwayne Kalynchuk**, Environmental Services General Manager, Capital Regional District, Victoria, BC, **Stan Hummel**, King County Design Manager for the Brightwater Treatment Plant, **Albert van Roodseelaar**, Ph.D., P.Eng., Division Manager, Utility Analysis and Environmental Management, Greater Vancouver Regional District will examine different perspectives and approaches to managing liquid waste in the Pacific Northwest, with emphasis on their effects on the receiving water environment.

Session 3 - Climate Change: Can we effectively analyze, design and build water resources projects? Change is inevitable, as the saying goes, but until recently we have done a pretty good job of denying its existence with respect to the effects of global climate change on regional water resources, policy and infrastructure. Fortunately, evidence for human-induced changes in climate and climate-linked processes is now widely accepted by the public. What effects do global warming and related processes have on this region's water resources, and how can we prevent or mitigate their harmful effects? Kurt Unger, Washington Department of Ecology, Stewart Cohen, Ph.D., Senior Researcher, Adaptation Impacts Research Division, Institute for Resources, Environment and Sustainability, Environment Canada, and Phillip Mote, PhD, University of Washington Climate Impacts Group Research Scientist will discuss water resource policy, planning, and impacts in the context of ongoing and future climate change.

Session 4 - Case Studies I: Building on Session 3, this session presents a series of ongoing, high-profile case studies of how our evolving knowledge of climate change has informed our water management decisions and actions. In this session **Neil Peters**, P.Eng, Inspector of Dykes, Ministry of the Environment, Province of British Columbia, **Paul Fleming**, Seattle Public Utilities, and **Stan Miller**, Spokane County (retired) will examine three case studies that address climate change and design considerations, and impacts to receiving waters.

Day 1 Sessions end at 4:00 PM

Evening Social Starts at 5:00 PM, Dinner (Downtown Seattle) 6:30 PM

FRIDAY, OCTOBER 5, 2007

Registration starts at 7:30 AM; Conference Welcome and Keynote Address 8:15 AM

Keynote Speaker: Jay Manning, Director, Washington Department of Ecology

Session 5 - Managing the Columbia River for the Mutual Benefit of the US and Canada: In recent decades, the diversion of water for agriculture and municipal water supply, and the construction and operation of water storage and hydroelectric dams have dramatically altered the hydrology of the Columbia River and its tributaries. These developments have contributed to the marked reduction of some salmon runs and extirpation of others. Various agreements have been struck between the U.S. and Canada to manage the Columbia system for the benefit of several ESA-listed species. Recently, Canada proposed altering operations at several British Columbia reservoirs to enable new summertime water uses and as “drought insurance” for interruptible water rights. In this session **Rachael Paschal Osborn**, Acting Executive Director of the Center for Environmental Law and Policy, **Derik Sandison**, Washington Department of Ecology, **Kindy Gosal**, Columbia Basin Trust Canada, and **Charles Hudson**, Columbia Inter-river Tribal Fish Commission discuss water management in the Columbia River basin in light of ESA constraints and recent reservoir storage and release proposals.

Session 6 - Case Studies II: How have ongoing trends in water availability and evolving water policy combined to affect water allocation, use and project design? Are we meeting our water supply and resource protection goals? In this session **Sandra Brown**, Ph.D., Adjunct Professor, Institute for Resources, Environment and Sustainability, University of British Columbia, **Allen Hamlet**, University of Washington, and **Guy Gregory**, Washington Department of Ecology will discuss case studies and projects that confront these issues.

Day 2 Sessions end at 3:00 PM

Annual meeting of the WA-AWRA Section starts at 3:15 PM

Basin Sponsors of the 2007 WA-AWRA/BC-CWRA Transboundary Conference:



Thank you!

Corporate Sponsorship

Conference sponsorship is available for between \$250 and \$1,000, with different levels of recognition. The objective of conference proceeds is to have registration fees pay for conference expenses, and to dedicate corporate sponsorships to the student fellowship endowment. If you would like to sponsor this conference, please visit the section's web site at www.wa-awra.org for a form, or contact any section board member (page 13).

2007 AWRA-WA Conference Registration

To register for the conference, please complete the following form and mail it to the address listed below.

For registrations mailed on or before September 29, 2007:

- 2-day registration, including lunches, dinner and 2008 State Section membership \$250
- 1-day registration (either day), including lunch and 2008 State Section membership \$125
- Student 2-day registration, including lunches, dinner and 2008 State Section Membership \$45
- Thursday night social and dinner (if bought separately) \$50

For registrations mailed after September 29, 2007 (including walk-up registrations):

- 2-day registration, including lunches, dinner and 2008 State Section membership \$300
- 1-day registration (either day), including lunch and 2008 State Section membership \$150
- Student 2-day registration, including lunches, dinner and 2008 State Section Membership \$60
- Thursday night social and dinner (if bought separately) \$50

Name _____ Title _____

Affiliation _____

If registering as a student, you must be currently enrolled:

Name of School _____ Student ID # _____

Phone (_____) _____ Fax (_____) _____

E-Mail _____ @ _____

Please check here if you do not want to be on the list of attendees provided at registration.

<p><u>Checks</u>. Make payable to "AWRA Washington" or Visit our website www.wa-awra.org for other payment options.</p> <p>Full refunds, less a \$20 administration fee, will be provided if requested in writing prior to September 29, 2007. No refunds will be given following this date.</p>	<p>Please mail checks by Saturday, September 29, 2007 to:</p> <p>WA-AWRA P.O. Box 2102 Seattle, WA 98111-2102</p>
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For questions regarding the conference, contact the conference registrar, Jamie Morin, by phone: 206.838.7654, or email: waawra@gmail.com

UW-AWRA Elwha Tour: June 8 and 9, 2007

By Matt Fontaine, UW Graduate Student

Approximately twenty members of the University of Washington AWRA Student Chapter and several members of the AWRA State Chapter visited the Olympic National Park for a tour of the Elwha River from the upper reaches to the coastal river mouth. The trip began un-



Dr. Brian Winter and Pat Crain explain the Elwha Dam history and planned removal.

der blue skies with a ferry ride across Puget Sound. We arrived at Altaire campground to set up camp and have lunch around midday, and then proceeded to the Elwha Dam. The



Anne Shaffer uses a seine to collect juvenile fish rearing in a slough on the Elwha River

dam, constructed in 1910 and still used for power generation today, is scheduled to be removed as part of the Elwha River Restoration Project. At the dam, we met Brian Winter and Pat Crain of the National Park Service and Kevin Yancy of the US Bureau of Reclamation. From the wooden bridge over the dam, Dr.

Winter and Mr. Crain told us about the history of the Elwha and Glines Canyon Dams--the Elwha dam failure in 1912, the reconstruction, and the impacts on fisheries of the Elwha River--as well as the river restoration project and the challenging political issues that surround the removal of the two dams. Meanwhile, Mr. Yancy led small groups on tours of the power house.

After the dam tour, we proceeded upstream to the Whiskey Bend trailhead for a hike along the river above Lake Mills. We stopped at several scenic overlooks to discuss the historic settlement of the river valley and then proceeded to Goblins Gate, a rocky constriction in the river that gets its name from ghostlike echoes created when boulders tumble along the bottom through the gorge. On the return trip we startled a baby black bear and watched as it climbed a tree, then quickly proceeded onward to avoid aggravating its mother, who was likely watching from afar.

The next morning we rose early to a breakfast of bacon, sausages, and oatmeal. After breakfast, we broke camp and headed to the mouth of the Elwha River just as the rain started. Guides Dave Parks of the WA Department of Natural Resources, Anne Shaffer of the WA Department of Fish and Wildlife, and Andrea Ogston of the University of Washington led us down the trail to the river mouth. Mr. Parks explained how the River has incised since the construction of the two dams and the resulting erosion of bluffs along the rivers edge. At the mouth of the river, Dr. Ogston gave an informative presentation on the planned study of sediment plumes that are expected to occur while the dams are systematically removed. Afterwards, Ms. Shaffer used a seine net to inventory an estuarine slough. The system appeared to be very productive as we counted and measured nearly 100 juvenile salmonids, flounder, and sticklebacks.

Before heading back to Seattle the group rendezvoused at a chowder house for lunch and to rehash the weekend's events. The Elwha River is a true gem of the Pacific Northwest and it was wonderful to learn about it. We are very grateful to our tour guides who shared so much knowledge with us and look forward to seeing the changes in the river as the dams are removed. ☺

2007-2008 Student Rod Sakrison Memorial Fellowship

By Stan Miller

The Washington State Section of the American Water Resources Association announces the availability of applications for the 2007–08 Student Fellowship Award. Several changes in procedure have been made for this year's award. The 2007 state conference is a joint effort of the Washington Section and the BC section of the Canadian Water Resources Association. This conference is scheduled for the first week in October. This is too early in the fall for the conference to serve as the venue for the Student Fellowship award presentation. Because of this the Washington Section Board opted to move the award presentation to a special student event to be held later in the fall. As a consequence, the application deadline for 2007 is scheduled for October 30, 2007 a month later than the regular deadline. Further information on the fellowship and an application form are available on the state section website (www.wa-awra.org) or by contacting Stan Miller (samillerh2o@comcast.net).

The fellowship award consists of a \$1,500 cash award and one-year membership in both the state

and national associations. The national association membership includes a subscription to the Journal of the American Water Resources Association. Winners also receive a paid registration to the state conference. Two awards are presented each year. One fellowship goes to a graduate student enrolled in a multidisciplinary program of study in water resources at any college or university in Washington. The other goes to a member of an AWRA Student Section enrolled in a similar program at the university sponsoring the section.

Earlier this year, long time state section member and two time past president of the State Association Rod Sakrison passed away. Rod was instrumental in establishing the University of Washington AWRA Student Chapter. In recognition of his effort to increase student involvement in AWRA, the AWRA State Section Board unanimously approved identifying the award presented to the student section winner as the Rod Sakrison Memorial Fellowship Award at its March meeting. ❧

AWRA Supports Water Walk-a-Thon!

By Jacque Klug AWRA-WA Vice President

WA-AWRA is proud to have sponsored a Water Walk-a-Thon organized by Global Visionaries and students at the Seattle Girls School. Several high school students and middle school students took to the street to raise money and raise awareness about global water issues on May 12, 2007. Global Visionaries is a local non-profit that educates high school students on social and environmental justice issues. Students participate in a year long leadership program which includes various cultural and antiracism workshops, a cultural immersion trip to Guatemala, local and international development projects where Global Visionaries Work Teams partner with various organizations to collectively address important issues such as poverty, immigrant's and civil rights, protecting ecological resources, and preserving Mayan indigenous culture. The Water Walk-A-Thon is an educational event for the program's students and a fund-raising event for their trip to Guatemala.

The event has grown every year since its inception two years ago. This year the Global Visionaries students partnered with the Seattle Girls School, a middle school for girls focusing on empowering girls through a supportive environment, with a curriculum that highlights math, science and technology. Students carried buckets of water for approximately 4 miles along Lake Washington in Seattle to Seward Park. This distance represents the average distance that a person in a developing

country must carry water. The students carried signs with water facts along their route to educate themselves and the public. Once the students arrived at Seward Park, the students enjoyed well-deserved snacks and drinks and shared facts about water. Several students had researched different water related issues and shared this knowledge with their peers. For instance, one student research and reported on how much water is used for typical household activities like showering and laundry and how the public could conserve water. Another student reported on water use associated with producing food and products and services we use in our daily life.

It was a wonderful event to see a new generation of individuals interested in water and environmental issues. Most inspiring was the students' passion and interest in educating themselves on water issues and sharing this information with each other! AWRA-WA was proud to have supported this event through a financial contribution of \$250 to help pay for the event expenses. To learn more about the work of Global Visionaries and the Seattle Girls School, visit these websites:

Global Visionaries:

<http://www.global-visionaries.org/>

Seattle Girls School:

<http://www.seattlegirlsschool.org/> ❧

Built Green!

July 25, 2007 Dinner Meeting Review

By: Jacque Klug, AWRA-WA Vice President

AWRA-WA was proud to host Aaron Adelstein, Director of the Built Green Program of Seattle and Snohomish Counties. Built Green is a non-profit organization with a mission to promote green building and educational programs. The organization is affiliated with the Master Home Builders of King and Snohomish County, but operates separate from the organization. The Built Green program certifies projects much like the LEED program, on a scale of 1 to 5 stars, with 5 stars representing the most environmentally friendly project. Elements of the Built Green Program include drainage and site design, energy efficiency, indoor air quality, and conserving natural resources through use of more green building products. Projects can be certified at different scales: a remodeled project, a single-family residence, a multi-family project or an entire development.

Aaron described the history of the program and the steady growth of interest in the program. Built Green practices include everything from using Low Impact Development, to maximizing energy efficiency of homes through insulation, and positioning of the building on building site to maximize energy efficiency. It also includes job site practices relating to demolition and recycling. Built Green also recognizes projects that promote environmentally responsible home ownership, such as integrating public transportation into the community.

Aaron highlighted several case studies of Built Green developments and individual homes using built green practices. For example, Aaron described the green building features of the High Point Redevelopment Project, a redevelopment project led by the Seattle Housing Authority. Practices employed at High Point include water quality

protection measures such as using rain gardens, cisterns, natural drainage and preserving trees.

Aaron also described some of the water saving practices used in Built Green such as installing the water saving devices, like dual flush toilets, water aerators, water saving appliances and use of native plants requiring no irrigation. Aaron showed pictures of green projects showcasing the beauty of green products like recycled countertops and tiles and environmentally friendly flooring products. Aaron also touched upon the performance standards of green products and growth of high quality green products available in the market. All attendees were amazed at the beauty of the products and the green building designs!

The Built Green program has been steadily growing since its inception. More than 10,000 projects have been certified in King and Snohomish Counties as Built Green and the interest in the program is growing. Aaron announced two new exciting initiatives for the Built Green program—the addition of Built Green as one of the features on the Multiple Listing Service (MLS) used by area Realtors and a series of grants that can be given to builders and developers to offset the cost of using green building practices. The MLS listing will be another means to promote the Built Green certification to potential buyers and will also be an important means to quantify the benefits of Built Green projects in the future. The incentive grant program is an initiative between the Built Green Program, King County and Seattle Public Utilities that can further help increase the use of green building.

Thank you, Aaron, for an informative presentation and a lively discussion on green building in our area. ☺

President's Notes (from page 5)

Diversity of opinion and background is important among board members, and, fortunately, our current board comprises a wide array of perspectives and professional expertise. Engineers and managers are well represented, of course, as are policy, regulatory, academic and legal professions. We even have a token fish biologist (that would be me). The current board is unbalanced from a gender standpoint, but fairly representative of the proportion of females and males in our membership – not counting past Section President Mona Thomason and UW Student Chapter President Julie Horowitz, there are 4 females and 11 males on the board. Regardless of gender, each board member is valued and given the opportunity to put their unique skills to use on behalf of the Section.

I'll end my plea to prospective board members with a tribute to those who currently serve in that capacity. Since this year's conference is drawing near, I want to extend my gratitude to the many individuals, in particular Conference Planning Chair Steve Hughes, who have devoted considerable time to organizing what is shaping up to be an outstanding Section conference program. Please take the time now to review the program and register for the conference. Consider the many benefits of taking in the technical presentations and hobnobbing with our professional colleagues from across the border. We encourage you to take advantage of the "early bird" discount on registration, and for those of you who are students, outrageously low registration fees (if you still aren't able to afford the fee, and want to attend to the conference, contact me and I'll arrange a "work-in-exchange-for-registration" deal with you). ☺

Upcoming Events

September 17, 2007. Salmon Homecoming Forum. Seattle Parks Golden Gardens Bathhouse www.salmonhomecoming.com

October 4-5, 2007 Transboundary Water Resources of Washington State and British Columbia. Museum of History and Industry, Seattle, WA www.wa-awra.org.

November 12-15, 2007. National AWRA Conference. Albuquerque, New Mexico. <http://Awra.org>.

The Board of AWRA WA seeks to provide through this newsletter a full range of views on water resource issues. Opinions expressed in this newsletter do not necessarily reflect the views of individual Board members, the section membership, or their employers.

Outstanding Contribution to Washington's Water Resources Call for Nominations

Pete Sturtevant, CH2M Hill

The AWRA, Washington Section plans to honor an individual at our annual conference on October 4-5, 2007 for outstanding contribution to the water resources profession in the State of Washington. Current State Chapter members are encouraged to send in a nominating letter for themselves or another candidate. In addition to identifying a nominee, the letter must contain an explanation of how the candidate specifically meets the criteria listed below. An individual need not satisfy all of the criteria to win the award, and other appropriate factors brought up in the nomination letter WILL be considered.

- Outstanding contribution or achievement in the water resources field (broadly defined) in the State of Washington.
- Leadership, so that others are enabled, inspired or organized to advance the understanding, management or wise use of water resources.
- Degree of innovation.

Interdisciplinary or bridge-building qualities. Any person may be nominated for this award, but only current State Chapter members may submit a nomination. The nomination letter must be received by **June 15, 2007**. The winner will be awarded a handsome plaque commemorating the honor. In addition, the AWRA Board will make a donation to a water-related, nonprofit organization of the individual's choosing.

Submit a letter of nomination to:

Peter Sturtevant
Awards Committee
c/o CH2M HILL
PO Box 91500
Bellevue, WA 98009-2050

There are lots of people out there working hard to protect and enhance Washington's water resources. This is your chance to bring some much-deserved recognition to one of them. ☺

AWRA-WA BOARD MEMBERS

President: **Cleve Steward**
(360) 862-1255

csteward@stewardandassociates.com

Vice President: **Jacqueline Klug**
(425) 649-7124
jklu461@ecy.wa.gov

Treasurer: **Jamie Morin**
(206) 838-7654
morin@mentorlaw.com

Secretary: **Felix Kristanovich**
(425) 827-3243
fkristanovich@anchorenv.com

Editor: **Chris Pitre**
(206) 267-1166
cpitre@golder.com

Past-President: **Mona Thomason**
(206) 764-3600
mona.jean@comcast.net

Director: **Tony Dubin**
(206) 749-2266
tdubin@brwnccald.com

Director: **Suzanne Dudziak**
greylockllc@comcast.net

Director: **Carl Einberger**
(206) 342-1776
ceinberger@geomatrix.com

Director: **Steve Foster**
(425) 450-6316
sfoster@hdrinc.com

Director: **Kenneth Gish**
(206) 623-7580
kennethg@klgates.com

Director: **Steven Hughes**
(206) 438-2159
steven_hughes@urscorp.com

Director: **Tom Martin**
(360) 286-0278
tommartin@wavecable.com

Director: **Stan Miller**
(509) 477-6024
samillerh2o@comcast.net

Director: **Tom Ring**
(509) 865-4946
ringt@yakama.com

Director: **Pete Sturtevant**
(425) 453-5000
psturtev@ch2m.com

UW Student Rep: **Julie Horowitz**
jdj27@u.washington.edu

Faculty Advisor: **Anne Steinemann**
(206) 616-2661
acstein@u.washington.edu

2007 Membership / Change of Address Form

(⌂ please circle, as appropriate ↶)

Annual membership in the state chapter costs \$25.

Name _____ Position _____ Affiliation _____

Street Address _____ City _____ State _____ Zip _____

Phone(_____) _____ Fax(_____) _____ E-mail _____ @ _____

- 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.

2007 Membership Dues: \$25.00. **Checks only.** Please make payable to **AWRA Washington Section.**

Mail to: American Water Resources Assoc. WA. Section
P.O. Box 2102
Seattle, WA 98111-2102

The American Water Resources Association is a scientific and educational 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.

Special Thanks!

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American Water Resources Association, Washington Section
P.O. Box 2102
Seattle, WA 98111-2102

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