
PRESIDENT'S NOTES

Timber Ruling Favors Salmonids

by Fran Solomon, President, AWRA Washington Section

Every morning, I vacillate between reading the newspaper in order to be a well-informed citizen and tossing the newspaper directly into the recycling bin because most of the news is so negative and discouraging. During the past several months, this has especially been the case for the water resources issues that AWRA members care about. Therefore, I am pleased to be the messenger of a recent federal court ruling that favors salmonid habitat protection.

In late May, a three-judge panel of the 9th U.S. Circuit Court of Appeals barred 193 timber sales affecting between 15,000 and 20,000 acres of forest in the West Coast states. The forest lands that are protected from logging by this ruling include the Gifford Pinchot National Forest near Mt. St. Helens in Washington, the

Umpqua River watershed in southwestern Oregon where the Umpqua cutthroat trout and Oregon Coast coho salmon were among the first oceangoing fish to receive protection under the Endangered Species Act, and the Shasta Trinity National Forest in northern California. Federal regulatory agencies had decided that the proposed timber sales would have short-term, localized effects rather than long-term, significant effects to entire watersheds and that damage would be assessed starting 10 years after logging had occurred. However, the federal court recognized that three generations of salmonids would migrate to sea and return to freshwater to spawn during that decade and ruled "This generous time frame ignores the life cycle and migration cycle of these fish. In 10 years, a badly degraded habitat will likely result in the total extinction of subspecies that formerly returned to a particular creek for spawning."

We all know that logging in a relatively small area can impact fish habitat in the following ways:

- Tree removal leads to loss of riparian canopy, which leads to loss of stream shading. This results in elevated temperatures and decreased concentrations of dissolved oxygen in the water.
- Tree removal leads to streambank erosion and accelerated delivery of sediments to the particular waterbody. This can impact water quality and adversely affect all salmonid life history stages.
- Tree removal decreases the potential for large woody debris (LWD) recruitment into streams and rivers; LWD and the pools created by it provide refuge and rearing habitat for young salmonids.

Patti Goldman, the attorney who represented environmental and fishing groups in the court hearing, pointed out that the cumulative impact of the proposed timber sales must be taken into account. It doesn't matter if the trees will grow back and there will be fish habitat later if the fish haven't been able to hatch and return in the meantime.

In addition to protecting salmonid habitat, I see the federal court ruling as favorable to reducing the global warming problem that I described in the last issue of the AWRA newsletter. Trees are an essential part of the carbon dioxide-oxygen cycle, utilizing carbon dioxide for photosynthesis and then producing it as a byproduct of respiration. Humans and other animals exhale carbon dioxide as a byproduct of respiration. When trees are removed on a large scale, the carbon dioxide sink is altered and the cycle shifts in the direction of more carbon dioxide in the atmosphere. Restrictions on logging help to protect the cycle.

The timber ruling may be appealed to the entire panel of 9th Circuit Court judges and could eventually be appealed to the U.S. Supreme Court as well. The final outcome of this case is difficult to predict. For now, however, salmonid habitat and natural biogeochemical cycles in the newly protected forest areas can enjoy a respite.

Save the Date !!!

November 15, 2001

AWRA Washington Chapter Annual Fall Conference

"Impact of Drought on Water Resources and Energy Management"

YOU CALL THIS A DROUGHT?

By Peter Sturtevant

The Winter Season of 1976-77 was approaching and I had my first big assignment. I was in charge of the fieldwork supporting the Snohomish-Stillaguamish Areawide Waste Management Study, also known as the SNOMET 208 Project. Among other things, I was tasked with collecting stormwater runoff samples from a series of urban and agricultural sites and also from a number of streams scattered throughout the middle and lower portions of these two basins. Throughout the summer of 1976 I made friends with a number of farmers at the agricultural sites and I got to know several homeowners cooperating in the urban areas, as well. I also established a half dozen strategically located flow recorders. A full sampling circuit covered between 100 and 200 miles. I needed early warning of approaching storms if I was to effectively manage these sites at the onset of a major rain event. This was long before the days of Doppler Radar on the Internet. Instead, I enlisted the help of the Air Traffic Controllers out in Auburn. Their radar was capable of tracking incoming storms off the Washington Coast and they could generally give me 4-6 hours warning before a storm hit Puget Sound. Now all I had to do was wait for the rainstorms. If there's one place where it's easy to pick up rain events, it's got to be Western Washington, right?

September: 1.25" (-0.74") – The month started out innocently enough. We got 1.25", only 0.74" below normal. (No big deal; it's still only summer, right?) The early part of the sampling program started out in a feeble manner. Our project manager (PM) was out to observe me collect some of the first stream samples of the project. I tossed a bucket off of a bridge over the Snohomish River, flowing about 30 feet below. Unfortunately, the rope was only about 28 feet long. It flew out of my hand just before the bucket hit the river. Both bucket and rope floated slowly down river in the waning sunlight. I can still hear the peals of laughter from my Associate. That night I learned to use lots of rope and I always wrapped the end tightly around my hand. I always learned to carry a spare bucket and other gear since it's a long drive back to Seattle if equipment is lost. (this needs to be moved to the end of the September report.)

October: 2.06" (-1.85") - I recall collecting a couple of sets of samples that month. The rainfall was low for the first month of the new Water Year, but otherwise things seemed to go OK.

November: 0.75" (-5.14") - A miserable month. Several false alarms for my Field Crew. PM a little concerned.

December: 1.86" (-4.08") - There were just two decent rain events this month and I MISSED first one.

The Radar Controllers never called me. Both the PM and I are now really concerned. I was opening gifts early on Christmas morning with my family when (you guessed it) the trusty Air Traffic Controller called to tell me of an imminent storm. I kissed my wife good-bye and spent the next 23 hours driving, turning on ISCO sample collectors and returning water samples to laboratories. I missed that Christmas (the only one, so far, I'm happy to say) but I nailed that storm!

January: 1.77" (-4.02") - This was getting real frustrating. I got perhaps one decent storm sampled that month. By now, of course, the word was out everywhere. This was looking to be the worst 1-year drought since at least the Great Depression days.

February: 1.58" (-2.63") - The Great Drought continued and my field program languished. It had gotten to the point where I had to stay near a phone 7 days a week. Phone alerts from my radar buddies in Auburn came at all hours of the night; most of them rescinded as the incoming storms failed to materialize. Needless to say, the field sample program was way behind schedule and I had run out of excuses. During a sunny weekend at the end of February, I took the family on an outing to Snoqualmie Pass. I remember being amazed to see more than half of the ski

slopes clear of any snow. There were no skiers and my little boy and I walked up to the bare slopes to the top of the beginner chairlifts. THAT's how dry things were! (This needs to be moved to the end of the February report, followed by the March and April reports.)

March: 3.80" (+0.19") - FINALLY SOME REAL RAIN! I got several sets of good runoff samples that month. Ski lift operators even opened the ski lifts up for about a month, trying to salvage the ski season.

April: 0.55" (-1.91") - Another miserable month.

I finally got the last water samples I needed in May. By then we were months behind, but we eventually got the report out. Here's how that "Wet" Season (October through April) pencilled out:

1976-77: Rainfall: 12.4" Deficit: 19.3"

2000-2001: Rainfall: 20.6" Deficit: 11.1"

That year we didn't have a West Coast electrical power crisis raging like we do now. In fact, that drought fell conveniently between the two big gasoline shortages of 1973 and 1978. But I'll let the above numbers speak for themselves. The 1976-77 Drought was one for the record books. ☹

Dinner Meeting Review

By Johnny Grady, AWRA University of Washington Student Chapter President

The AWRA May Dinner Meeting was held at the Hale Ale's Brewery in Ballard. The evening began with the attendees introducing themselves and sharing with the group their interest in shoreline areas. Representing public, private and non-profit sectors, the audience expressed curiosity in new shoreline management regulations mainly because of personal interest in shoreline areas as property owners and outdoor enthusiasts. Speaking to the crowd of 30 individuals, Peter Skowlund of the Washington State Department of Ecology began his presentation with the history of the Shoreline Management Act (SMA) before describing the details of the 2000 revision.

The SMA was originally passed by the Washington State Legislature in 1971 to protect water quality, and the natural environment and to preserve the public's access to shorelines. Under the policy, city and county governments were required to write "shoreline master programs" that regulate streams, lakes over 20 acres, and marine waterfronts. Shoreline master programs are to comply with guidelines established by the Department of Ecology, which in turn protect shoreline areas. During the last 28 years, 247 city and county master programs have been developed based on the Department of Ecology's 1972 guidelines. Under a state law enacted in 1995, the Department of Ecology was charged with revising guidelines for the state's SMA within five years. The new guidelines were to protect and restore the shoreline areas and address recent additions to the Endangered Species Act (ESA).

On November 19, 2000 the Department of Ecology established new revisions to the law requiring about 250 cities and counties to update their local shoreline master programs to comply with new guidelines. Skowlund stated that "the department worked with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS) to determine what requirements should be included in the new guidelines to comply with the ESA". The new guidelines limit the amount of development allowed adjacent to streams, lakes and marine waters in Washington State. New structures or activities that are not "water dependent" will have to occur farther back from the edge of water bodies, partly to protect the quality and natural functions of the shoreline, but also to protect people and businesses from floods. Natural vegetation along shorelines is also recommended to be preserved to help prevent erosion and to provide habitat for aquatic life such as endangered salmon.

A new feature of the 2000 guidelines is a two-path approach that gives cities and counties a choice in

how they write and implement their shoreline master programs. The default "Path A" allows local governments flexibility and creativity in how they meet the standards of the SMA, while "Path B" contains specific measures for protecting shoreline functions. NMFS and FWS have agreed that any local master program that complies with Path B will automatically get an exception under the ESA. This will shield cities and counties from federal penalties and citizen lawsuits if an ESA-listed fish is harmed or its habitat disturbed as the result of an activity covered by the exception. Explaining the two approaches, Skowlund used riparian buffer widths as an example. "Path A" does not have a default vegetation buffer width, whereas "Path B" does (the distance is equal to that of a "site potential tree").

In order to develop new master programs, local governments have to inventory their shoreline areas to reevaluate and revise shoreline environmental designations. Based on their analysis of land-use, flood and slide hazard areas, degraded sites with restoration potential, and the locations of channel migration zones updated master programs are filed with the Department of Ecology. Although the Department of Ecology is still developing an official manual for the 2000 SMA, local governments have two years to prepare revised local master programs based on the guidelines. The legislature has agreed to provide funds for updates and the Department of Ecology is supporting requests for an extension of the two-year compliance deadline.

An audience member questioned if the law was retroactive. Skowlund, said "the revised shoreline guidelines apply only to new development or redevelopment". The law does not apply to existing homes, businesses or farming practices, nor to shoreline projects that have already been approved for development by cities and counties under their existing shoreline master programs. Also shoreline regulations only apply to individual projects after the local government has amended its local master program.

In summary, the new guidelines promote a basin wide approach to avoiding impacts to shoreline processes and promote limited development by uses that truly depend on a waterfront location, or uses that provide opportunities for the public to enjoy the shoreline. For further information, check out the Department of Ecology web site <http://www.ecy.wa.gov/programs/sea/SMA/guidelines/newguid.htm>.

July Dinner Meeting

"Ecological Trends in Puget Sound Streams"

Featuring: Robert Black, U.S. Geological Survey

WHEN : Thursday, July 26, 2001

WHAT: 5:30 p.m. Social and Dinner, followed by the Program at 7:00 p.m.

WHERE: At Hale's Ales Brewery and Pub, 4301 Leary Way NW (in the Fremont neighborhood of Seattle)

We're pleased to have **Robert Black**, of the **U.S. Geological Survey's National Water Quality Assessment Program**, as our featured speaker for this upcoming dinner meeting. Mr. Black will discuss ecological trends in streams of the Puget Sound basin. He has served as the ecologist/biologist of the Puget Sound Study Unit of the USGS's National Water Quality Assessment Program since 1995. Recently Mr. Black also assumed the duties of Project Chief of the Central Columbia/Yakima Study Unit. Mr. Black came to the USGS after post-graduate studies at Colorado State and Utah State Universities.

Registration cost is \$20.00 (members), \$25.00 (non-members), \$10.00 (student members) if received by July 19th. Late fee is an additional \$5.00. Dinner includes chicken enchilada verde, pub salad, and herbed focaccia. Please direct any phone inquiries to Fran Solomon at (206) 296-1924. Walk ins are welcome. ☺

REQUEST FOR NOMINATIONS

The Annual Award For Outstanding Contribution To Washington's Water Resources

The **AWRA, Washington Section** plans to honor an individual at our annual conference on November 15, 2001 for outstanding contribution to the water resources profession in the State of Washington. 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.

The following criteria will apply.

- 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.
- Acknowledgement of the outstanding contribution from a diversity of perspectives.

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 above. An individual need not satisfy all of the criteria to win the award, and other appropriate factors brought up in the nomination letter may be considered. Any person may be nominated for this award, but only current State Chapter members may submit a nomination. The nomination letter must be post marked by Aug 9, 2001. Submit all letters of nomination to:

Peter Sturtevant, Nominations Subcommittee, 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 a chance to bring them some much-deserved recognition. ☺

This newsletter is a publication of the **Washington Section of the American Water Resources Association**. It is published bi-monthly or quarterly. This is a forum for members to share ideas and opinions; opinions expressed in the AWRA Newsletter are those of the authors and do not necessarily represent the official position of the WA Section of AWRA. Comments on articles are welcome.

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Submissions are welcome for the Aug-Sept, 2001 newsletter. The submittal due date is Aug 19 2001. The editor reserves the right to make changes for reasons of length, grammar or clarity. Contact Philip Beetlestone at (425) 883-0777, or send submittals directly to pbeetlestone@golder.com (most document/graphic formats are acceptable). Recent newsletters are available on: <http://earth.golder.com/waawra/>

Upcoming Events

August 27-31, 2001. Wetlands Engineering & River Restoration Conference 2001. Reno, Nevada.

September 1, 2001 - October 14, 2001. WaterWeeks 2001. Washington State.

November 15, 2001. AWRA Washington Section Annual Conference. "Impact of Drought on Water Resources and Energy Management" Seattle, Washington.

November 12-15, 2001, AWRA Annual Fall Conference, Albuquerque, New Mexico.

February 20 – 21, 2002 , Research and Extension Regional Water Quality Conference 2002, Red Lion, Vancouver WA, Abstracts due by September 28, 2001. More information can be found on the Washington Water Research Center website www.wsu.edu/swwrc/

March 25-28, 2002. 2002 International Groundwater Symposium. Berkeley, California. For additional conference information email Cindy Gold or call 1-800-548-ASCE

September 8-13, 2002. 9th International Conference on Urban Drainage (9ICUD). Portland, Oregon. Abstracts due by July 31, 2001. For additional conference information email Cindy Gold or call 1-800-548-ASCE.

AWRA holds National, Regional, and State Conferences. Further information on future meeting schedules can be found on the AWRA Website <http://www.awra.org/meetings/future.html>.

The Northwest Geological Society

(<http://www.scn.org/tech/nwgs/index.htm>) holds meetings or field trips. A list of the planned meetings and trips is <http://www.scn.org/tech/nwgs/calendar.htm#Calendar>

The Washington Hydrologic Society holds monthly meetings. Further information is available from Brian Drost at (253) 428-3600 ex. 2642 (<mailto:bwdrost@usgs.gov>) or Llyn Doremus (360) 592-2632 (<mailto:ladoremus@aol.com>).

For more information and web site links visit the AWRA Washington Chapter Web site at <http://earth.golder.com/waawra>.

What this State Section is All About!

The WA State Chapter of the AWRA fosters educational and professional development. **Student support** is provided in the form of two annual student fellowships, sponsorship of a student chapter at the University of Washington, underwriting of a special meeting in the late spring hosted by the student chapter, and other subsidies. **Inter-organizational support** is fostered with local, interstate, national, and international organizations. A **bimonthly newsletter** is published containing in-depth analysis and editorials on current issues. Several **dinner meetings** are held throughout the year providing good food and good company followed by a presentation by featured guests. **Brownbags** are organized on special issues as they arise. The annual climax is the **Annual Section Fall Conference**; the next one will be held November 15, 2001. The Conference is the principal funding vehicle for many Section activities, including providing financial support to the Section's Student Fellowship program. A **dedicated board** of approximately 15 members meets regularly to plan, organize and facilitate events. If you wish to learn more about your Section and/or wish to participate more in Section activities, you will be warmly welcomed. Please contact any of the board members listed on Page 5.

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2001 Membership Application / Change of Address Form

(☐ please circle, as appropriate ↗)

Annual membership in the state chapter costs \$25.

(If you attended the 2000 November Conference, you are already a member for 2001 – Welcome!)

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 one of the board members.

2001 Membership Dues: \$25.00. **Checks only.** Please make check payable to **AWRA Washington**

Section.

Mail to: AWRA, Washington Section
c/o Ingrid Wertz, Taylor Associates
3917 Ashworth Ave. N.
Seattle, WA 98103

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 to Golder Associates Inc. for word processing and graphics support on this newsletter.

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