

GUEST EDITORIAL

by **Bob Anderson, Golder Associates Inc**

As the second season in the Northwest approaches (6 months of darkness and rain), and the stock market continues to slide, those of us involved in water issues may actually have more to look forward to this winter than our stock-trading-technology neighbors. It promises to, if nothing else, be an interesting experience, perhaps with some daytime soap-opera drama... will local charm and effort be enough to woo the Federal supermodel on a date with salmon?... will the engagement ring between cities and water districts result in holy matrimony?...will Paul Allen save the salmon too? Stay tuned to the next installment of "As The Watershed Turns".

As a technical person, it is tempting to dismiss the political and organizational dynamics that exist in today's watershed debates, but the reality is that they are both important and necessary in order to reach a solution. The best way to facilitate these dynamics is to communicate, communicate, communicate. Communicate technical issues. Communicate jurisdictional motivations. Communicate equity. We all need to know what a redd is; the difference between fall and spring Chinook runs; and the role of groundwater and winter flooding in salmon ecology. We all need to know how water can be managed with existing infrastructure, what new investments can be made, and how they improve our ability to manage water. We all need to have at least an order of magnitude understanding of the definition of a "natural" and "affected" environment. We all need to know what it will cost to us as individuals to have a better system.

The effort expended so far to communicate these things is really quite staggering, but we seem to have been preaching to the choir for the past six months. I suspect the rest of the world has been high on Microsoft stock and real estate, and not paying attention. Anyone who is reading this has, I am sure, been to at least three meetings where these issues have been discussed, have missed at least three more, was unaware of another three. This may cover the month of September. We are investing a tremendous amount of effort in discussion at the moment and the question being asked is..."will this produce results?" We need to start asking our neighbors, rather than our colleagues. Last I heard, traffic and education were a little higher on the general public's priority list. While I assume that we will figure this out, it still perplexes me that we can decide on nearly a billion dollars worth of stadium in one short year, but will agonize over the cost and implications of salmon and water management for years if not decades. I think I'll give Paul Allen a call. ☺

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Upcoming Events

Thursday, Nov. 12, 1998

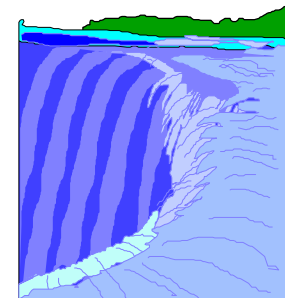
8:00 a.m. — 5:00 p.m.

1998 Fall Conference

Seattle Art Museum

(See pages 10-13 for details.)

Annual Membership Meeting and 1999 Board Member Elections to Follow Conference



Ecology's Technical Advisory Committee on the Capture Of Surface Water By Wells (a.k.a. Hydraulic Continuity)

Bob Anderson, Committee Member, Golder Associates

The Technical Advisory Committee on the Capture of Surface Water by Wells was convened by the Washington Department of Ecology in June of 1998 to seek agreement among peer-selected technical experts on appropriate methods for assessing and quantifying the effects of groundwater withdrawals on surface water sources. A draft document on the committee's findings was released in late August, and can be found on the Department of Ecology's website (<http://209.207.133.109/water/>). This article summarizes elements of the committee's findings and some editorial perspectives on the process, outcome, and next steps.

As a backdrop, consider that groundwater science (hydrogeology) is relatively young, and somewhat burdened with past ideas of water witching and wishing wells. There is a cultural perception of groundwater as an unseen, mysterious and, therefore limitless source of water. In 1923, H. O. Meinzer recognized that water levels observed in wells were related to topographic influences of recharge areas and that there was a component of pore-volume storage in aquifers. In 1935, C. V. Theis recognized that, "after a sufficient time has elapsed" [a reference to aquifer storage], rights to surface waters "may be injured". The issue of the interaction of groundwater and surface water was recognized in these early studies, and has since produced a voluminous technical and regulatory bibliography. These technical foundations have not changed; yet here we are, nearly 70 years and many research papers later, still grappling with this problem.

The Technical Advisory Committee was asked to address several issues. The resulting report is perhaps lengthy, but, given the short time frame in which it was developed, it is complete and strikes a balance between technical and non-technical aspects of the groundwater surface water dilemma. The committee concluded that, whether examined at a regional or local scale, there is no magic formula or unified approach, suitable for codifying in administrative code, that can adequately characterize and predict the location, timing, and magnitude of surface water capture from groundwater wells in all situations. There is, however, a set of guiding relationships or "first principles" and a wealth of analytic and computer modeling tools available to assess groundwater conditions and predict effects. These principles and tools are specialized enough that their use and application is best conducted by trained hydrogeologists.

Committee members each had ideas of the "ideal watershed", with sufficient monitoring, mapping and oversight to monitor and predict any and all

changes to the hydrology of the basin. However, the Committee recognized that the hydrogeology and resource allocation issues in Washington State are highly varied, in many cases very complex, and defy "sufficient monitoring" for our ideal watershed. Therefore, selection and application of analytical tools depends not only on hydrogeologic complexity, but also on the nature of proposed withdrawals, regulatory constraints and management needs for information.

What is needed for better water management is a means to move forward while recognizing uncertainty. What is lacking is a framework that provides the context and specific questions being asked for a valid analysis. Without a framework, the analysis may fall short of expectations, or over-reach its intended purpose. With a framework, the correct questions will get answered, creative solutions and mitigations will be explored, and we will stop counting water molecules.

A Technical Framework

At each of our meetings, the committee discussed the framework, and spent a good deal of time shaping it. After a few flowchart attempts reminiscent of previous hydraulic continuity approaches, we arrived at a simple problem-solving approach that is not unique to hydrogeology. The foundation for the framework is scientific: an adequate and updated database and a conceptual model. A conceptual model is applicable at a regional or local scale; is based in data; and represents an intellectual understanding of a hydrogeologic system. The conceptual model is then asked the questions of where, when, and how much surface water will be affected, given some scenario of groundwater withdrawal.

Depending on the hydrogeologic circumstances and the questions posed, differing levels of quantitative analysis may be applied to answer the question. A comprehensive, three-dimensional, transient model is not always necessary. The committee identified four categories of analysis which could be applied: water balance, a spatial analysis, a temporal analysis, and an integrated analysis. These analyses often rely on numerical computer models, which represent the "state-of-the-art" in predicting groundwater flow patterns. The report presents a range of simple to complex analytic tools, and describes how to decide which approaches are technically valid and appropriate for different settings.

Asking questions and getting answers is important, but evaluating the answers is equally important. Quantitative analyses typically rely on single values for parameters like hydraulic conductivity, which are

known to vary widely. The accuracy and reliability of quantitative modeling tools are critically dependent on the conceptual model and database. The Committee recognizes the importance of interpreting and presenting results of technical analysis with due acknowledgement of the uncertainty present in quantitative analytical methods.

The required accuracy and reliability of quantitative modeling tools are also dependent on the regulatory setting and basin context. Here the lines get a little fuzzy. Short of preserving every remaining molecule of water in Washington, decisions are needed in the face of uncertainty. How can uncertainty be reduced and at what cost? Should all water right applicants or watersheds be burdened with a comprehensive integrated analysis that reduces uncertainty to the greatest level practical? With whom does this responsibility lie - the State? What is technically feasible? From a purely theoretical standpoint, upwards of 100 years of monitoring data may be needed to provide statistically valid assessments of hydrologic systems.

Without entering the policy arena, the Committee believes that developing basin-scale analytic tools throughout the state will, in the long run, reduce the cost for analyzing, managing and allocating water resources. This basin scale context needs to permeate both the technical and non-technical analyses conducted in the assessment and management of water resources. The Committee outlines three tiers of basin analysis based on the urgency of problems and level of demand for water. The whole-watershed perspective allows for better long-range planning, what-if analyses, evaluation of individual withdrawals in the context of cumulative withdrawals, consideration of exempt wells and uncontrollable factors, and evaluation of systemic mitigation and management measures.

An established framework, a recognized range of analytical tools, specified categories for quantitative analysis, and established tiers of watershed approaches are the principal outcomes of the Committee's work. Like any committee product, there are certainly refinements and additions to come. However, given the urgency of water issues, expediency is warranted. Water is a common thread in many of the planning efforts and conundrums now facing us. The next steps lie in integrating many water-related initiatives and processes now underway, including the watershed management process established in HB 2514, Salmon Recovery Planning under HB 2496 and the Endangered Species Act, Growth Management and SEPA, Federal 303d listings and TMDL determinations, outstanding water rights adjudications, local and tribal watershed planning efforts, and perhaps water rights legislation itself. This will not be an easy process.

We live in a water-rich landscape and, unlike many western states, have not yet faced water resource decisions that result in pervasive over-exploitation or massive inter-basin transfers. Washington is considered one of the more progressive states in the country in its regulatory processes and treatment of groundwater and surface water, and has been labeled as "The Scientific Ideal"¹. The use of technical advisory committees and continued involvement of the scientific and engineering community will ensure that we continue to build on that ideal as we tackle the challenges of mitigation and future appropriation. ☺

1. Glennon, J.G., and Maddock, T., 1997, The Concept of Capture: The Hydrology and Law of Stream/Aquifer Interactions. Rocky Mountain Law Institute, 43rd Annual Conference.

King County Council Funds Projects to Save Chinook

On October 5, King County took the first step in the fight to keep Chinook salmon off the federal Endangered Species list when Metropolitan King County Council members approved more than \$4 million in funding for salmon recovery projects throughout the county. The final vote was 10 to 0.

Today's action marks King County's initial funding of projects specifically designed to bring back dwindling numbers of Chinook salmon. Earlier this year, the National Marine Fisheries Service (NMFS) listed the Chinook as a "threatened" species under the federal Endangered Species Act (ESA). Some of the projects also will benefit the Coastal-Puget Sound Bull Trout, which has been listed as a threatened species.

"Unlike recent actions taken by this Council, the funding approved today is designated for actual projects - not personnel or organization," said Council member Larry Phillips, a long-time advocate for saving salmon. Phillips also is one of three

Council members (Louise Miller, Larry Phillips, and Pete von Reichbauer) named to a special salmon action team to help devise the county's efforts to deal with the proposed listing. "The Council sent the signal that we are going to take a leadership role in the long trip down the road to recovery for this and other species. Driving this species into extinction is not an option."

The \$4.2 million approved for projects and land acquisitions are one-time appropriations from fund balances or reallocations from project savings, not fee or tax increases. "We have a responsibility to taxpayers to be fiscally responsible in our actions," said Council member Greg Nickels, chair of the Council's Budget and Fiscal Management Committee. "The critical action taken today is responsive to a delicate budget and a delicate environment. ☺

(See <http://splash.metrokc.gov/hydrodat/starttop.htm> for more details including proposed budget allocations.)

New U.S. Water Quality Standards May Be on the Way

by Grant Bailey, Principal, Jones & Stokes Associates

Remember the Clean Water Act (CWA)? There may be a new one on the way. At least, there may be new water quality standards and related water quality criteria changes under the Act. Both programs under the CWA are under review by the Environmental Protection Agency (EPA).

EPA is considering rewriting 40 CFR 131 which is the national water quality standards program. Among the many reasons for this review are the Clinton Clean Water Action Plan, issued February 14, 1998, and the current focus on watershed-wide planning and evaluations instead of specific location and point-source regulation. EPA issued an Advanced Notice of Proposed Rulemaking (ANPRM) in July to notify the public that changes may be coming.

The July 7 Federal Register ANPRM Notice is 126 pages of single-spaced text. Although many options are mentioned, nothing is proposed at this time. What is offered is a chance for the public to comment, for the rest of the year, on water quality standards and procedures that could or should be changed. All comments to the ideas offered by EPA are due by January 4, 1999. Once they're in, EPA will begin to decide what part(s) of current water quality regulations should be revised or rewritten, if any. No schedule is given for completion of this effort. Late 1999 may be a target -- in time for the new millennium?

While reevaluation of standards is going on, EPA is also evaluating procedures related to TMDL, proposing changes to water quality criteria affecting public health, new sediment quality criteria, and moving forward on other aspects of Clinton's plan, none of which are discussed here. Some aspects of the ANPRM are summarized below.

The major goals of the water quality standards review are to achieve a program that uses the best data to determine whether designated (beneficial) uses are attained and/or how to attain them; that water quality criteria come from a wide range of options tailored to each watershed; and that national norms of consistency and flexibility in state and Tribal water quality standards are clear.

Three major components, each with many subsets, are up for discussion along with other factors: designated uses, water quality criteria, and antidegradation policies. Mixing zones, the definition of wetlands with respect to water quality, and various assessment methods are also up for discussion. It is clear that this process intends to incorporate new science while recognizing the data needs and resource constraints facing some states and Tribes. The options discussed are far too extensive to completely summarize here, but some examples are provided to illustrate the tenor of the Notice.

Designated Uses - Current regulations allow for protection of existing uses and designated uses. Designated use standards may not be currently met but may be a goal which is presumed to be obtainable for a designated use. Water quality standards are then set for the use, whether met or not. However, one agency's "water supply" designation which may be suitable for industrial purposes (and is not defined) may not be suitable for another agency's potable supply system -- an agency which may have four or five designated "water supply" uses. These differences may result in over- or under-protection of the source, or over- or under-protective standards. Should standards more closely match defined uses? EPA now lists six feasibility tests as exemptions to meeting standards, e.g., flow, dams, and uncontrolled pollutant sources. Should they be changed?

Water Quality Criteria - Here are a few examples of the 16 water quality criteria topics under consideration.

- *State or Tribe derived criteria* - Would changes to standards help to derive criteria and, if so, what changes would help? Should EPA continue to use various guidance documents and interpret them, letting states and Tribes decide how to use them, or should they incorporate the new criteria into law for all water bodies?
- *Toxicity criteria* - Should all states and Tribes adopt numeric criteria or should they use other methods such as numeric testing, or effluent toxicity or mixing zone toxicity?
- *Nutrient criteria* - EPA intends to identify the major sources of nitrogen and phosphorus in waters and actions to reduce them. There will be a National Nutrient Strategy. Regional nutrient levels will be determined. EPA is asking whether states and Tribes should establish nutrient criteria. What are the impediments to collecting data and developing standards? Should standards be applicable statewide, by ecoregion, or by water body?

Antidegradation Policies - Various tiers of protection are determined based on the existing condition of water bodies. For example, some waters are better than the criteria used to protect them. EPA wants to know how to streamline the program and whether national guidance should be developed defining it. Are definitions of instream uses or loss of same adequate? Should existing and designated uses be protected by regulation? Should protection be focused on water bodies or on pollutants specifically? For example, should all Class AA streams have standards for multiple parameters, or should there be standards for all pollutants everywhere?

Mixing Zone - Mixing zone issues include the variable and general nature of state and Tribal requirements from region to region and site to site.

Most guidance is in handbooks and not in the CWA. EPA is considering specific mixing zone regulations which would be incorporated in the CWA to bring about more consistent protection across the country. Specific mixing zone requirements may be set for each designated use, if authorized at all. (Some entities may not authorize a mixing zone of degraded water.) Certain locations may be prohibited, as some states and Tribes do now. EPA may ask permit authorities to identify prohibitions. There are close to 15 pages of discussion on the mixing zone topic alone.

How to Comment - Keep an eye on this process or join the debate. If you are a Tribe or state govern-

ment with a burning water quality issue at hand, you should comment now. If not, you can wait for EPA's proposal and comment on them, perhaps next year.

Electronic comments may be sent to: ow-docket@epamail.epa.gov. More information, including the ANPRM, may be found on the EPA home page, Office of Water at www.epa.gov/ow or via the Water Environment Federation. EPA will begin this process next year after comments are received. The result may be new water quality standards for the United States. ♫

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Lummi Exploring Major Project to Restore Estuaries

by Logan Harris, Northwest Indian Fisheries Commission

If opening the diked off Lummi and Nooksack River estuaries means re-establishing hundreds of acres of prime salmon rearing and migration habitat, the Lummi Nation wants to know.

But if doing so means redirecting a portion of the dairy waste-polluted Nooksack River into Lummi Bay -- after flowing for more than 100 years into Bellingham Bay -- and jeopardizing the tribe's rich shellfish beds, that's something the Lummi Nation also must know.

Those are just two questions among many to be tackled as an ambitious plan aimed at recovering nearly two square miles of on-reservation historic wetland habitat is unveiled by the Lummi Indian Business Council and Lummi Natural Resources Department. Judging by the initial federal, state and local reaction to the tribe's "Nooksack River Estuary Recovery Project" at a recent meeting at Lummi's Wex li em Community Center, the tribe has governmental and non-governmental agency support to, at the least, find money to study the issue.

"It's rare we have the opportunity to restore such a large chunk of natural resource," said Curtis Tanner of the U.S. Fish and Wildlife Service (USFWS).

The problem is this: Dike and levee construction, along with agricultural ditching to drain fields and wetlands, have resulted in a major reduction of wetland/estuary areas in the lower Lummi River. A 1980 U.S. Geological Survey study indicates only about 5 percent of the wetland areas that existed in the late 1880s currently remain in the Lummi River delta.

Estuaries provide a protected and food-rich environment for juvenile salmon growth and allow a transition area for both juvenile and adults between fresh and saltwater environments. They become more critical with Chinook salmon in the Nooksack River Basin proposed for listing this winter as "threatened" under the Endangered Species Act.

"We haven't fished for Chinook in the last 20 years but they are still declining," said Merle Jefferson, Lummi Natural Resources Director. "Today our young salmon are homeless. They have no home. We must work together to find and create homes for our salmon."

A study and environmental assessment, with full public involvement, would consider all impacts and likely produce a list of options ranging from no action to the breaching of dikes and rewatering of the Lummi River with outflow into Lummi Bay.

Tanner said USFWS is involved in a similar project on the Snohomish River estuary that is having positive effects on juvenile Chinook, chum and Coho salmon. "They are fatter, healthier and making their way out to the ocean in a better condition," he said.

As "salmon people," the Lummi Nation is interested in the project primarily for its salmon habitat benefits, but the tribe expects there are many more benefits to recovering the estuaries.

The project may: restore other finfish, shellfish and wildlife habitat; reduce flooding in the Marietta area; and provide opportunities for Lummi economic development in ecotourism.

Wetlands also work as natural filtration systems, and restoring the estuaries may improve the water quality flowing from the Nooksack River. A Washington Department of Health report identified Whatcom County dairy waste as the cause of high levels of fecal coliform pollution in the river. In December 1996, at great financial cost, the Lummi Nation closed 60 acres of tribal shellfish beds because of high fecal coliform counts.

While possible benefits are very encouraging, there are also many questions and hurdles to overcome. For example: there is a patchwork of land ownership in the project area, with some of the land leased for agricultural production. Partners in the project would explore land acquisition, trades, wetlands leases, etc. Impacts would be anticipated for the local diking district, businesses and residences.

The Lummi Nation is concerned the project could redirect a dairy waste problem from Bellingham Bay to Lummi Bay, where rich shellfish beds, the tribe's state-of-the-art shellfish hatchery and its sea ponds are located. An increased sediment load would also impact Lummi Bay.

The cost of the study and environmental impact assessment alone could reach \$2 million. Costs of the project itself are unknown until an option is chosen; a completion date would be perhaps seven years away. The tribe anticipates funding for the project would come from various agencies, along with direct Congressional appropriations.

It is anticipated that numerous and sometimes overlapping environmental permits would be required since the project is located on lands under the jurisdiction of the Lummi Nation, U.S. Government, State of Washington and Whatcom County.

Because of the project scope and multiple jurisdictions involved, the Lummi Nation can't tackle these questions alone. That's why it is soliciting agency and public feedback and support, and beginning the process of identifying possible funding sources to study impacts.

While ambitious, the Nooksack River Estuary Recovery Project may just represent too good an opportunity for ecosystem recovery to let it pass by.

"This would take the efforts of families, governments, everyone," said Darrell Hillaire, Vice Chairman of the Lummi Indian Business Council. "But we have a dream that someday we can look out over the Lummi River delta and say we had a hand in the salmon restoration of this area."

For more information, contact: Merle Jefferson, Lummi Natural Resources Director, (360) 384-2225; Darrell Hillaire, Vice Chairman, Lummi Indian Business Council, (360) 384-1489; Logan Harris, North Sound Information Officer, Northwest Indian Fisheries Commission, (360) 424-8226.

(See related article on the restoration of the Snohomish Estuary in the May, 1998 newsletter which is posted on <http://earth.golder.com/waawra/>.)

WDOT Embraces Watershed Approach

Washington Department of Transportation, Environmental Affairs Office

The Washington State Department of Transportation (WSDOT) has received funding from the state Legislature and the Federal Highway Administration (FHWA) to support its new multi-faceted approach to environmental impact mitigation. In the past, WSDOT mitigated project impacts on a case-by-case basis. This piecemeal approach often ignored top priorities and needs within watersheds and did not address the fact that an entire watershed can be affected by transportation projects. Site-by-site efforts also reduces the likelihood of the Department entering into cooperative cost-sharing projects with stakeholders and increases the potential for investing mitigation dollars in locations that result in functionally impaired improvement sites.

The new philosophy focuses on watershed management. WSDOT has initiated several programs within a watershed context that will change the way the department mitigates impacts associated with road, ferry, and rail projects. Initiatives directly contributing to the watershed approach include the Department's Wetlands Strategic Plan, fish barrier removal program, the advanced mitigation account, and stormwater retrofit grants. A common thread inherent in each of these programs is the establishment of incentives for targeting mitigation investments towards sites that contribute the greatest benefits towards protecting, preserving, or restoring key components of the watershed. In order for these programs to be successful, there must be improved coordination among stakeholders and decisions makers affecting the department's mitigation projects and the state's watershed management activities.

On a project level, WSDOT has initiated a Snohomish Basin Pilot Project, which is funded jointly by the department and FHWA. The new philosophy will be applied within the Snohomish watershed to evaluate its effect in a defined geographic area. Work will include close coordination with the basin's stakeholders to identify cost-sharing opportunities

and to determine top watershed enhancement priorities within the basin. Projects considered under the approach encompass the full range of aquatic resource concerns, such as wetlands, fish and wildlife habitat, water quality, flooding, sediment quality, and stream restoration activities. WSDOT will then consider those watershed restoration and enhancement needs as mitigation decisions are made. By focusing on the watershed approach to mitigate transportation impacts, the department expects to make more efficient use of its mitigation dollars and provide more effective environmental protection.

Successful integration of watershed-based mitigation decisions and watershed management activities requires increased coordination on everyone's part. The 1997 legislature added a requirement in the Capital Budget that government agencies must share information on environmental enhancement, preservation, and mitigation projects. This is a significant departure from existing practice. WSDOT was required to notify resource agencies of transportation projects, but resource agencies doing enhancement or preservation work did not have to notify or coordinate with WSDOT.

This new requirement in the Capital Budget is a logical extension of the focus on state agencies working cooperatively to save money, improve environmental benefits, and increase mitigation options. Private entities involved in the development of Capital funded projects, or other watershed improvement activities, are encouraged to contact WSDOT if there is potential for establishing linkages between WDOT projects and basin stakeholder interests. While the department is focusing on the Snohomish Basin, our interest in applying our watershed-based approach is open to all areas of the state. For information about WSDOT's watershed initiatives, call Patty Lynch at (360) 705-7448 or e-mail her at lynchp@wsdot.wa.gov.

The Changing World of Water Rights

by Glenn K. Rice, Assistant City Manager, City of Yakima

Washington's legendary abundant supply of pure water in rivers, lakes, and aquifers that can support a multitude of recreational, residential, and industrial uses has been taken for granted. Water is not as available as it once was. Competing interests for fish and wildlife preservation, forest enhancement, recreation, municipal and industrial uses, agriculture, and hydropower all have a claim. In addition, the federal government, in matters related to salmon habitat, is challenging not only the quality but also the quantity of water in Washington State through agencies such as the National Marine Fisheries Service and through legislation such as the Endangered Species Act. This is just the beginning.

At a recent Washington City/County Manager's Association meeting, some basic questions were posed:

- Do you know what water rights your city holds and how solid they are?
- Do you know if your city has both domestic and irrigation water rights?
- If you receive your municipal water from a water district or private company, how sound are those water rights?
- Is your city affected by the issues of salmon preservation and/or habitat restoration?
- Has your city dealt with a neighboring Indian tribe and/or the federal government with respect to water quality or quantity?
- What contingency plan does your city have when a court, or the entity providing your water, informs you that they will no longer be able to continue service based upon water quality or quantity issues?

Since the 1970s, the cities involved in the Acquavella case [Yakima River Basin general adjudication; Department of Ecology v. Acquavella, 131 Wn.2d 746 (1997)] have been dealing with water rights issues — exploring existing rights, claims, appropriations, and uses in all sections of the local economy. Of late, many of these issues are beginning to come into focus. Decisions and orders will soon be handed down and more challenges filed with the probable outcome at the U.S. Supreme Court or congressional level. Whatever the outcome, the shortage of water and the need for water conservation, together with maintaining and improving its quality, will affect all competing interests.


We have come to understand that water is not an infinite resource and municipalities need to consider amending their policies. Up until recently, municipalities have felt "ok" about their water rights. Our general position has been, "they are ours and nobody would consider denying our right to use them, let alone consider taking them from us." Not only are we told today that our water rights may not be ours, but we are also told what rights we are permitted to use and how we are to "perfect" these rights. Court decisions and several federal and state laws now define the controlling paradigms and set the institutional constraints. A few specific examples that we must take into account and make accommodations for are: Safe Drinking Water Act, Clean Water Act, Endangered Species Act, Northwest Power Planning Act, National Marine Fisheries, Instream Flow¹, Growth Management Act, Water Resources Act, etc.

What's next? - Existing and new laws that cause us uncertainty are one issue, but recent and expanded interpretations which appear to have contravened our understanding of municipal water rights and supplies are much more disturbing. Some of these understandings include inchoate rights (those rights not yet completed), pumps and pipes (a method of "quantifying" a water right based upon system capacity, rather than the amount of water used), the requirement to serve (meeting the demands of growth), and hydraulic continuity.

A good example of the "pumps and pipes" issue is found in the Department of Ecology v. Theodoratus case. It is time for all cities to pay close attention.²

Conclusion - While this article is not meant to alarm, it certainly is meant to be a wake-up call. Review your city's water rights and investigate the condition of ownership to see what streams affect your water supply. Find out where your municipal water comes from, and be prepared to answer the questions posed at the beginning of this article. One day, when the water tap is turned on, there may or may not be any water, let alone a supply of quality water.

1. Given status of beneficial use under RCW 75.20.050 - circa 1947

2. Department of Ecology v. Theodoratus, 135 Wn.2d 582 (1998) (links to this court decision available on the links page at <http://earth.golder.com/waawra/>) 

County Gov ts to Help Process Water Right Applications

Washington Department of Ecology

A law established by the state legislature in 1997 allows counties to establish local water boards to process water right applications for changes to existing water right permits, certificates or claims. Under the law, Washington Department of Ecology (Ecology) approves the establishment of the local water-conservancy boards and reviews water right decisions made by boards.

To help implement the law, Gov. Gary Locke directed Ecology to develop a pilot rule to specify training requirements for the boards and other details of how the boards and Ecology would work together. Under the pilot rule, two local governments, **Benton and Lewis Counties**, are acting as "pilots" to test the rule and conservancy-board process.

"We have the privilege to implement the most progressive water transfer legislation in the U.S. This type of opportunity is very rare, an ability to improve in real tangible terms water resources management in our state," said Max Benitz Jr., Benton County Commissioner.

Ecology held a workshop in Kennewick to hear from people in one of the areas that is participating as a pilot community. Another workshop will be conducted in Lewis County later this fall for residents of that pilot area.

Currently, approximately 6,000 water right permits statewide are awaiting decisions by Ecology. About 23 percent of the applications are

changes to existing water rights. "We want to get citizen's and local government's ideas and opinions on how best to involve county governments in processing water-right change applications," said Keith Phillips, Ecology's Water Resources Program manager. "Conservancy boards are a very important step toward our goal of watershed management at the local level."

It is important to note that a water right change does not affect the amount of water being used. A change may be made to the place where water is used, the location where water is withdrawn or diverted (including adding points of withdrawal or diversion), and/or the purpose of the water right (e.g., from irrigation to domestic use).

The conservancy board would investigate applications and issue a decision to approve, deny or condition the water right change. Ecology would have 45 days to review the board's decision and issue final approval or denial of the water-right change.

Following a year of testing the rule, in Benton and Lewis counties and gaining public comment throughout Washington State, Ecology expects to adopt the final rule in the fall of 1999. Once the rule is adopted, Ecology will work with other communities that have an interest in establishing conservancy boards. ~~~

Sandhill crane viewing: They're moving out fast but you still may be able to catch a glimpse of migrating sandhill cranes. Traveling in flocks of up to 200, cranes arrive in the Columbia River Basin from mid-September through October to congregate in the Columbia National Wildlife Refuge near Othello. Unlike many other birds, cranes usually can be watched from the road. Randy Hill, a U. S. Fish and Wildlife Service biologist, reported seeing 5,000 birds two weeks ago, west of Othello. The cranes have been seen on Royal Slope, between Royal City and Othello. They also have been seen near Crab Creek, landing in grain fields, irrigated pasture and grain stubble. The best times to see the cranes is two- to three-hours before daylight and sundown. They feed in morning and evening and roost mid-day and evening. White pelicans and great egrets can be seen scattered throughout the refuge in wetter areas north of Potholes Reservoir. Birds can be seen by driving the Dodson Road west of Moses Lake. For more information call the refuge at (509) 488-2668. Another great birding area is the Ridgefield National Wildlife Refuge, located about 15 miles north of Vancouver WA. Abundant waterfowl, cranes and swans can be seen in the northern section of the refuge. This area is always open to birding during daylight hours. For more information call the Washington Department of Natural Resources at (360) 887-4106. (Excerpted from www.wa.gov/wdfw/do/weekendr/weekendr.htm) ~~~

"ESA: Economy, Salmon and Agriculture...Where is the Water?"

Thursday, November 12, 1998, 8 a.m. to 5 p.m., at the Seattle Art Museum

This year's Washington AWRA Fall Conference focuses on the Endangered Species Act (ESA) and the potential impacts on water resources in Washington State. Balancing multiple demands with a growing economy has resulted in increased competition for water resources. New social paradigms and better access to information makes this issue even more complex. Unlike many of our western friends, the State of Washington was able to maintain adequate water supplies to satisfy demands until after we became more aware of the role of water in our region. Our turn has come and now we must face the issues.

The Fall 1998 program has been prepared to provide the audience a comprehensive perspective of the issues that lead up to the ESA and how it is used by different agencies. Two panel discussions have been arranged to illustrate and discuss different positions regarding ESA implementation in Washington State and the potential impacts on water resources planning. This conference will significantly advance the understanding of all those participating in the implementation of water resources plans for Washington's 63 WRIs. For more information on the conference, speakers, registration, the AWRA, links, and other aspects of the conference, check out the State Section's web site at: <http://earth.golder.com/waawra/>

Who should attend: Representatives from all levels of governments, business, and academia, including utilities, consultants, tribal communities, attorneys, technical experts, and concerned citizens involved in or interested in the management of water resources in the state of Washington.

Washington AWRA 1998 Fall Conference Registration

- | | |
|---|--|
| <input type="checkbox"/> Pre-registration (includes box lunch and 1999 Section Membership) - \$95 | <input type="checkbox"/> Regular Lunch |
| <input type="checkbox"/> Student pre-registration (includes 1999 Section Membership, excludes lunch) - \$25 | <input type="checkbox"/> Vegetarian preference |

Walk-ins accepted on a limited basis (includes 1999 Section Membership, excludes lunch) - \$105.

Name _____ Title _____

Affiliation _____

Street Address _____

City _____ State _____ Zip _____

Phone(_____) _____ Fax (_____) _____

E-mail _____ @ _____

- Please check here if you do not want to be on a list of attendees included in registration packet.

Checks only, payable to "AWRA Washington Section". **No credit cards or purchase orders, please.** Transferable. Refunds up to November 2, 1998, less a \$10 administration fee. Please mail checks by November 5, 1998 to:

AWRA, Washington Section
c/o Mike Wert, Shapiro & Associates
101 Yesler Way, Ste 400
Seattle, WA 98104

The Seattle Art Museum is located in Seattle, at 100 University Street between First Avenue and Second Avenue.



**Washington Section AWRA
Fall Conference
Seattle Art Museum
November 12 1998
Program Outline**

Time	Topic	Speaker
8:00	Registration	
8:30	Keynote Address – Jennifer Belcher – Commissioner of Public Lands, Washington State Department of Natural Resources	<i>Moderator – Chris Cleveland Brown and Caldwell</i>
9:00	Federal Implementation of ESA	<i>Moderator – Teresa Platin CH2M HILL</i>
	What Makes An ESA Listing - What Is a Species and Why Are We Concerned? Legal Enforcement of an ESA Listing - What does an ESA Listing Mean and How Is Each Section of the Act Used?	<i>Dr. Robin Waples, National Marine Fisheries Service</i> <i>Ken Bogdan, Jones & Stokes</i>
10:15	Break	
10:30	State Response to ESA Listings	<i>Moderator – Adam Gravley Preston Gates and Ellis</i>
	Oregon’s Experience – What Lessons Were Learned? Washington’s Salmon Recovery Plan – Where Are We Now?	<i>Jim Martin, OR Dept of Fish & Wildlife</i> <i>Chris Drivdahl, Governor’s Salmon Team Leader</i>
12:00	Lunch – <i>(Box Lunches: Provided as available to walk-ins)</i>	
1:00	Regulatory and Economic Impacts	<i>Moderator – Chris Pitre Golder Associates</i>
	How Will the ESA and the Clean Water Act Work Together? Will ESA Require Changes in the Growth Management Act? Economic Viability of Restoring Salmon - How Far Are We Willing To Go? Can ESA and Treaty Rights Co-Exist?	<i>Bill Derry, CH2M HILL</i> <i>Steve Wells, Dept of Comm. Trade & Econ. Dev.</i> <i>Sam Anderson, Master Builders Association</i> <i>Steve Parker, Yakama Indian Nation</i>
3:00	Break	
3:15	ESA and Water Resource Planning	<i>Moderator – Fran Solomon King Co. Dept. of Nat. Res.</i>
	The Role of Watershed Planning in Salmon Recovery Modification of Utility Operations in Response to ESA Tribal Initiatives in Intergovernmental Cooperation	<i>Joe Williams, Washington Department of Ecology</i> <i>John Kirner, City of Tacoma</i> <i>Merle Jefferson, Lummi Indian Tribe</i>
4:45	Concluding Remarks / Adjourn	

The annual meeting of the Washington Section of the American Water Resources Association will immediately follow the adjournment of the conference.

ANNUAL GENERAL MEMBERSHIP MEETING

Election of Board of Directors

The Washington Section's annual general membership/business meeting will be held at 5:00 p.m., after the Fall Conference on November 12th at the Seattle Art Museum. Included on the agenda will be an election for the 1999 Board of Directors. A slate of nominees has been prepared by the Nominating Committee; however, please add to this list as appropriate. Self-nominations are acceptable.

Short biographical sketches of each candidate will be available at the Fall Conference. Members current at the time of the meeting are invited to attend and participate in the election.

1999 AWRA Washington Section Board of Directors – NOMINATION BALLOT

Please nominate one person for each position. Write-in candidates (current 1998 members only) will be considered..

President:	Teresa J. Platin, <i>CH2M HILL</i>	<input type="checkbox"/>
	Other: _____	<input type="checkbox"/>
Vice-President:	Peter Sturtevant, <i>CH2M HILL</i>	<input type="checkbox"/>
	Other: _____	<input type="checkbox"/>
Secretary:	Fran Solomon, <i>King County Dept. of Natural Resources</i>	<input type="checkbox"/>
	Other: _____	<input type="checkbox"/>
Treasurer:	Mike Wert, <i>Shapiro & Associates</i>	<input type="checkbox"/>
	Other: _____	<input type="checkbox"/>
Editor:	Chris Pitre, <i>Golder Associates</i>	<input type="checkbox"/>
	Other: _____	<input type="checkbox"/>
Director-East:	Stan Miller, <i>Spokane County Planning & Engineering</i>	<input type="checkbox"/>
	Other: _____	<input type="checkbox"/>
Directors-West:		
	Grant Bailey, <i>Jones & Stokes</i>	<input type="checkbox"/>
	Chris Cleveland, <i>Brown & Caldwell</i>	<input type="checkbox"/>
	Logan Harris, <i>Northwest Indian Fisheries Commission</i>	<input type="checkbox"/>
	Steve Hirschey, <i>Department of Ecology</i>	<input type="checkbox"/>
	Erin Nelson, <i>University of Washington</i>	<input type="checkbox"/>
	Rod Sakrison, <i>Department of Ecology</i>	<input type="checkbox"/>
	Ingrid Wertz, <i>Taylor Associates</i>	<input type="checkbox"/>
	Other: _____	<input type="checkbox"/>
	Other: _____	<input type="checkbox"/>
	Other: _____	<input type="checkbox"/>

Thank you for mailing this page in before November 4 to:

Teresa J. Platin
CH2M HILL
P.O. Box 91500
Bellevue, WA 98009-2050

King Co. 1998 Surface Water Design Manual

by Teresa J. Platin, Water Resources Engineer, CH2M HILL

In September 1998, the King County Department of Natural Resources issued the Final Draft of the 1998 Surface Water Design Manual. This manual, a completely new document that replaces the 1990 manual, will be an official rule at the end of October, but is already being used to implement new codified drainage standards that became effective Sept. 1, 1998. Projects that follow King County standards and are vested after September 1, will have to meet the standards contained in the new manual. The document is available for purchase (\$125.00, plus tax and shipping) from King County Water and Land Resources Division (WLRD, 206.296.6519. Although this is a Draft, it will become the official copy by issuance of errata sheets.

There are substantial changes in the 1998 Manual. A quick glance will show an improved layout for facilitated use. Some chapters are not where they used to be, some sections look different, the graphics are more clear, and two appendices are bound for use as separate documents. More significantly though, many important changes have been made to the technical material and requirements in the Manual. Examples of these changes include: new small site and targeted drainage review processes; a new hydrologic model; and new water quality designs and methodology.

King County WLRD is offering training courses for the 1998 Manual, targeted to design engineers and reviewers. The following courses began in late August and several will be offered through mid-November at Bellevue Community College (call Adele Becker at 425.641-2232). WLRD also plans to offer a second round of instruction in 1999.

- **Introduction to the New Manual** – overview and specific details of the new Manual, highlighting changes from the 1990 Manual.
- **Designing Water Quality Facilities** – overview and design specifics of the water quality menu structure that satisfies Core Requirement Eight (water quality) and Special Requirement Five (oil control).
- **Introduction to KCRTS** - basic continuous modeling techniques using the "Runoff Files" methodology and KCRTS computer program. This is a computer lab course.
- **Advanced KCRTS** – advanced continuous modeling techniques using KCRTS. This is a computer lab course.
- **Introduction to the Backwater Program** – introduction to the updated King County Backwater program features and analytical techniques. This is a computer lab course. ☞

Agreement Sets Course to Keep Puyallup River Healthy

(excerpted from WaterTalk, published by EPA, Region 10)

In an agreement believed to be the first of its kind in the country, more than 20 parties in Pierce County, Washington representing industry, Indian tribes, citizen and environmental groups, local governments, and state and federal environmental agencies – have set a course that allows future growth in the Puyallup River watershed while protecting water quality.

According to Phil Millam, EPA's regional water director, "The agreement strikes a balance between growth in the Puyallup watershed and the need for a healthy river. The parties to the agreement have individually committed themselves to actions that collectively will make sure wastewater discharges won't overload the Puyallup with effluent that would cause violations of state water quality standards."

"Almost as important as the agreement itself is the process by which it was reached," said Bob Duffy of Ecology's water quality program. "The grounds that produce pollution were asked to devise their own plan – state and federal agencies did not tell them how to do it."

The agreement, over a year in the making, focuses on pollutants commonly discharged by municipal sewage treatment plants and industries: ammonia and other substances which create a biochemical

oxygen demand (BOD). Ammonia can have a toxic effect on fish and other aquatic wildlife. Substances that place a BOD on the river deplete the water of oxygen needed to support fish.

Although the Puyallup River currently meets state water quality standards for dissolved oxygen and ammonia, a 1994 Ecology water quality study of the river identified the potential for future problems. As a result, Ecology set limits on the river's "reserve capacity" for handling BOD and ammonia. The agreement sets forth a plan allocating the reserve capacity so it will never be exhausted and the river's health will be protected well into the future.

Participants in the agreement represent a broad cross-section of interests. Cities have a stake because their wastewater treatment plants' discharges and runoff from their streets affect the river. Industries are involved due to the large amounts of water they discharge. The Puyallup Indians Tribe and the Muckleshoot Indian Tribe were included because of their land ownership and their regard for protecting natural resources. Also, the Puyallup Indian Tribe has been delegated federal Clean Water Act authority to administer water quality standards in the Puyallup river within its reservation. ☞

1999 National AWRA Annual Conference

Watershed Management to Protect Declining Species

Dec. 4th to 9th, 1999 Sheraton Towers, 6th and Pike Street, Downtown Seattle

The Washington State Section of the American Water Resources Association (AWRA) is pleased to announce that Seattle will be the site of the AWRA 1999 National Conference. The Conference will be held in the Seattle Sheraton Hotel and Towers, next year from December 4th through 9th. The Seattle area is second to none in terms of scenic splendor; however, one of our most important aquatic-based resources, salmon, is in decline. Reductions in water flow and stream habitat have been a major cause for this decline. Here, as along most of the West Coast, salmon are being proposed or designated for the Federal List of Threatened and Endangered Species. It is fitting that the Theme of the 1999 conference will be *Watershed Management to Protect Declining Species*. In addition to sessions highlighting this economically and culturally vital fish, sessions will be presented on marine and aquatic endangered species in several other regions of the United States will be presented. Emphasis will be placed on regional water management strategies that are being instituted to recover these species. Additional sessions will focus on the latest research on watershed topics, water quality management, conservation and other vital water resources issues.

Planning efforts for the Conference are moving full-steam ahead. The Local Organizing Committee has already held several planning sessions, coordi-

nating as necessary with the National Section of AWRA. On September 15, the Organizing Committee convened an advisory group of distinguished water resources professionals from the Pacific Northwest representing government, tribes, consultants, academia and business. These advisors participated in a half-day workshop designed to elicit innovative and interesting approaches to conduct the conference. "We are looking for ways to liven up this conference, assuring that attendees take home useful information," stated Pete Sturtevant, Conference Co-Chair. "For instance, debates on topical issues and daily general sessions are ideas we hope to try. Also, several of the technical tours will directly relate to one or more technical sessions."

The ideas generated during the workshop will be instrumental in the Organizing Committee's refinement of the theme, format, topics, key speaker selection and the development of technical and social activities to complement the 4-day conference.

If you have questions, would like further information, or want to volunteer to help, contact one of the Conference Co-Chairs: Rod Sakrison (rsak461@ecy.wa.gov); or Pete Sturtevant (psturtev@ch2m.com). Look for the 1999 National Conference link on the State Section's website (<http://earth.golder.com/waawra/>). ❧

Fishing Extended at 6 E. Washington Lakes Due For Treatment

Eastern Washington will offer some special fishing opportunities in the next few weeks. Catch limits have been lifted at six lakes for October in anticipation of upcoming rotenone treatments. Rotenone, a natural chemical that kills fish, will be applied to the lakes to rid them of an over-abundance of undesirable fish species that compete with trout. Seasons and catch limits are being liberalized to allow anglers to harvest trout and other species before the rotenone is applied.

After the fall rotenone treatments, the lakes will be re-stocked with hatchery trout next spring. Trout will be planted in the lakes next spring. The lakes are: Big Meadow (Pend Oreille County); Fish and Hog Canyon (Spokane County); Fishtrap (Lincoln and Spokane Counties); Leader (Okanogan County) and Mudget (Stevens County). All the lakes except Leader are open without limits through Oct. 25. Leader is open through Oct. 31.

In central Washington, the Washington Department of Fish and Wildlife (WDFW) is planting thousands of pan-sized trout. Included are 20,000 rainbows and 12,000 brown trout in the following Yakima County lakes and ponds: Clear, Myron, Mud, Wenas, Rotary, Interstate 82 ponds 3, 4 and 6, Sarge Hubbard Park and Tims ponds. Fio Rito and Mattoon lakes and Hanson and McCabe ponds in Kittitas County also will receive trout plants.

Hundreds of 6-to 12-pound steelhead are being planted in Railroad Pond and Dalton lakes in Franklin County; Mattoon Lake in Kittitas County; Myron, Mud and Rotary lakes and Sarge Hubbard Park Pond in Yakima County; and Columbia Park Lagoon in Benton County. ❧

(Excerpted from:
www.wa.gov/wdfw/do/weekendr/weekendr.htm) ❧

Meetings/Conferences

[Editor's note: Announcements of other organizations are included here. To include your announcement, contact cpitre@golder.com. Links to these organizations and further details are provided through our web page at <http://earth.golder.com/waawra/>.

October 20-21, 1998: Conference on Agriculture and Water Quality in the Pacific Northwest: Understanding Each Other and Working Together for a Better Future: Sponsored by the USGS, Yakima, WA. Conference Mission: To provide a forum for agricultural interests, government, and environmentalists to come together in one place to discuss issues relevant to Agriculture and Water Quality. The intent is to present the different perspectives in a non-confrontational forum and to help each other see and understand the others' perspectives and points of view.

http://www.dwatcm.wr.usgs.gov/ccpt/ag_wq_conf98/call4present98.htm

October 20-22, 1998: Expo '98 Ninth Annual Environmental Forum for Business, Spokane, WA. Seven Exceptional Conference Tracks:

- * Alternative Energy for the Next Century: Innovative Technologies from the Northwest
- * River CPR: Washington State's New Volunteer Initiative for Fish Habitat Recovery
- * Fostering Sustainability: A National Forum for the US EPA Sustainable Development Challenge Grant Program
- * Sustainable Design & Construction: Visions for the Next Century
- * Investing for the Next Century: Socially and Environmentally Responsible
- * The Environmental Business Forum: Partners for Profit
- * Higher Education Challenge: Partnerships for Innovation Plus An Exciting Trade Show with the Latest in Environmental Technologies, Products and Services!

<http://www.environmentalforum.org/>

October 21, 1998, 6:30 p.m.: Mining Geochemistry. Washington Hydrologic Society. To be held in Olympia. Details will be posted when available.

October 28-30 1998 "**Ecosystem Restoration: Turning the Tide**", Society for Ecological Restoration-Northwest (SERNW) Chapter's conference and annual meeting Tacoma Sheraton Hotel, in Tacoma, Washington. Registration before Sept. 23 is \$185. Will address the issue of salmon recovery and the immediate need for broad-based restoration initiatives in the Pacific Northwest. Keynote speakers include, Charles Wilkinson, lawyer, author, and noted authority on natural resource law; Ted Strong, the Director of the Columbia Intertribal Fish Commission; Shirley Solomon, the former Director of the Northwest Renewable Resources and current Director of "Long Live the Kings" Salmon Project and a leading member of the Skagit Watershed Council; and David Marshall, Director of the Fraser Basin Council.

Sponsored by SERNW through Washington State University (WSU) Conferences and Institutes, in cooperation with: the Center for Environmental Education; WSU, Center for Streamside Studies; University of Washington, and Cascadia Quest and its affiliate, the King County World Conservation Corps. For more information e-mail Nancy Mack (WSU Conferences and Institutes) or Sono Hashisaki (SERNW). <http://www.halcyon.com/sernw/>

October 29-November 1, 1998: NWGS field trip to Eastern Washington, led by Eric Cheney. Direct inquiries to Steve Grupp. sgrupp@edcc.ctc.edu

November 12, 1998. "Economics, Salmon, and Agriculture - Where is the Water?" Washington Section AWRA annual fall conference. Seattle Art Museum. <http://earth.golder.com/waawra/>

November 28, 1998, 6:30 p.m.: "Washington State Salmon Recovery." Washington Hydrologic Society. To be held on Mercer Island. Details will be posted when available.

Nov. 29-Dec. 4, 1998: Northwest Mining Association Annual Conference, Spokane Convention Center, Spokane. <http://www.nwma.org>

December 16, 1998 6:30 p.m.: "Pesticides in Groundwater in Puget Sound Basin." Washington Hydrologic Society. To be held in Tacoma. Details will be posted when available.

TRIBAL VIEW OF THE ENDANGERED SPECIES ACT

by Peter Sturtevant, CH2M HILL and Chris Pitre, Golder Associates.

At the September AWRA Dinner Meeting, representatives from the Muckleshoot Indian Tribe presented the Tribal perspective of the Endangered Species Act. Alan Stay, Attorney for the Muckleshoot Tribe, was the featured speaker. Mr. Stay has represented Indian Tribe legal interests for more than two decades. He played a key role in the famous Boldt Decision in the early 1970s which spelled out tribal rights to half of all returning salmon. Joining Mr. Stay was Isabel Tinoco who serves as Director of the Fishery Division of the Muckleshoot Tribe.

Mr. Stay began his presentation by pointing out that ecological restoration has been a central focus of the Tribe's activity for a long time since fish and wildlife have always been a central focus of tribal culture. The treaty signed by the Muckleshoot Indian Tribe and the federal government in 1855 retained the right of the Tribes to continue to fish in their "usual and accustomed places" in perpetuity. As mentioned above, Courts have interpreted this to mean the right to half of the harvestable returning fish. Inherent within the right to harvest fish is the responsibility to limit harvests to maintain sustainable fish runs, a concept known as Conservation Limitation. Thus the Tribe has a right to review actions by others that may directly or indirectly reduce fish runs. As a result, the Tribe is a frequent participant or reviewer of major development and water resource projects.

Mr. Stay presented a very interesting concept regarding the 50/50 allocation of harvestable fish between the tribal and non-tribal communities. The Endangered Species Act (ESA) has defined the many forms of "takings." A taking is anything that reduces the viability or number of salmon, and may be in the form of harvest, decreased water quality, reduced habitat, dams, allowing harmful silt runoff from a construction site to enter a salmon stream, and many other forms. Given this definition, it might be argued that urban development has already taken the non-tribal 50% of the harvestable catch, and probably more, and that any remaining fish are rightfully due to the tribes. This also leaves open the question of how to correct the taking of greater than 50% by development.

It is the Tribe's perspective that through its existing treaty rights, the Tribe already possesses the protection needed to preserve a sustainable fishery. On the other hand, the ESA, although it contains some powerful enforcement tools, is viewed as a sort of minimalist statute. It is only invoked when a species is shown to face a very real threat of extinction. To the tribes, the ESA process comes into play far too late, at a threshold well below their treaty right to a harvestable fishery. The ESA basi-

cally requires that the recovery plan developed for a listed species achieves the objective of an assured, naturally reproducing population, and results in "museum" runs. In contrast, the Tribal treaty rights require a fishery sufficiently robust to sustain a substantial, harvestable resource.

Habitat Conservation Plans (HCPs) are being developed for approval by the National Marine Fisheries Service. Approval of an HCP allows a landowner or agency to continue operating with the assurance that the activities meet ESA requirements. This is sometimes referred to as the "no surprises" clause of the ESA. HCPs can have terms of 50 years or more.

Mr. Stay indicated that although an HCP may meet the requirements of the ESA, the activities granted under it may not necessarily pass muster with the Tribe. Simply gaining approval for an HCP from the National Marine Fisheries Service may not offer sufficient protection for an activity in the view of the tribes. Failure to involve the tribes has generally not worked, either locally or nationally, as a strategy for advancing projects.

The basic message is to involve tribes within the watershed in developing an HCP or other ESA compliance measure. Ms. Tinoco stated that the best way to initiate tribal involvement is to address a request directly to the Tribal Chairman, who will then pass it along to the appropriate tribal contact. It was acknowledged that due to staffing limitations, it may be difficult for the Tribe to respond to all requests. Therefore, to facilitate the process, it was recommended that requests be accompanied with directions to the specific points that are anticipated to need attention.

On other related issues, Mr. Stay commented that fish protection measures involve several other fronts besides habitat preservation and enhancement. Harvest limitations can be very effective. However, many of the Tribes feel that this approach has tended to discriminate against them, since it often focuses only on what are known as the terminal fishing areas within or near the river mouths, where the Tribes do most of their fishing. To be truly fair, harvest management must extend to the coastal and open ocean areas where much of the salmon are harvested. Another item of interest relates to House Bill 2514, the Watershed Planning Bill, which encourages water resource planning and implementation at the local level through the involvement of all stakeholders in a watershed. Mr. Stay indicated that the Muckleshoot Tribe had not yet reached a decision on participating in the Cedar-Green and Puyallup watershed planning processes. ~~~

1999 Membership Application / Change of Address Form

(please circle, as appropriate)

Annual membership in the state chapter costs \$25.

(If you attend the 1998 Fall Conference, you will be a member for 1999 – Welcome!)

Name _____ Position _____ Affiliation _____

Street Address _____ City _____ State _____ Zip _____

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

Check if you would like to be actively involved on a committee during 1999.
You will be contacted to determine what committee involvement you would like.

1999 Membership Dues (through October 1999): \$25.00. **Checks only.** Please make check payable to **AWRA Washington Section.**

Mail to: AWRA, Washington Section
c/o Mike Wert, Shapiro & Associates
101 Yesler Way, Ste. 400
Seattle, WA 98104

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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