

EDITOR'S NOTES

by Chris Pitre, Golder Associates Inc

It is amazing how much the world of water resource management has changed in the last few years. Earlier this decade, acquiring a water right was almost a matter of routine, and municipalities sometimes applied for permits with no problem even after sources were already on line. As users of water, including nature, increasingly came into conflict with one another, the courts have played a greater role in the allocation process. The old rules don't apply anymore (see articles by Rachael Pascal and Tom Pors) and this has created uncertainty. Water users must take the initiative and learn to operate in an active, flexible, and open-minded way if they are to continue to operate at all. Laid out below are what I believe are major factors to consider.

- The proposed Endangered Species Act (ESA) listing of the Chinook has motivated and focused much effort. Chinook are relatively big fish and their freshwater habitat is principally the main stems of rivers. Coho and cutthroat trout are expected to be proposed for listing at the end of this year. These fish are smaller than the Chinook and their habitat extends into the smaller tributaries, thereby making the coverage of the state by ESA listings more complete. These listings are expected to significantly change the way we do everything, including a makeover in land use and activity permitting processes.
- Most changes in water regulations are occurring through the legal system. Given the scale of the issues that have to be dealt with, costs for water resource projects have gone up dramatically. Expenses are derived from technical support for applications, legal services, and the additional costs of mitigation measures. There is also the time and cost of engagement, ranging from meeting with your neighbor, to meeting with people across the valley (watershed planning). All of this places a significant burden on smaller entities with limited resources.
- Regionalization of water resource management

may alleviate these burdens, allow a more holistic and coordinated response to ESA, and possibly improve the chances of meeting growth demands on water supply. Balancing these benefits is the need for individual entities to be assured of what degree of security is being provided, for what degree of self determination is being relinquished in return for their commitment of participation. Also, restrictions to the interbasin transfer of water are inconsistent with regional water resource management.

- Finding that simple applications are not successful, application packages are being submitted that include supporting technical documentation, such as aquifer characterization and basin-scale water use inventories, in an effort by applicants to facilitate processing. Proposed mitigation measures are a feature in some of the few successful applications. Ecology is encouraging this with recent rule-making that allows prioritization of applications that include benefits to the environment.

- Mitigation efforts so far have been "in kind and in place" (i.e. restoring quantities to impacted streams). An important Pollution Control Hearings Board appeal decision on July 16, 1998, determined that Ecology must at least consider riparian zone enhancement that was proposed as a mitigation measure by an applicant. This opens the door to considering the whole of the natural system, rather than simply the volume of water affected when designing mitigation measures.

The awareness and expectations of the direction that resource management is taking varies widely. It might be better if that direction were more deliberate instead of being established on a legal case-by-case basis. For now, the best approach for individuals is to conduct the science, develop a strategy, and, if necessary, resort to a legal defense. As water resource management continues to evolve, we will be limited only by our creativity and openness to come up with new and better ways of responsibly managing our water resources. ☁

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<http://earth.golder.com/waawra/>

Rule of Beneficial Use: Ecology v. Theodoratus

by Rachael Pascal, Director of the Center for Environmental Law and Policy

“Use it or lose it,” one of western water law’s more colorful rules, continues to guide Washington as a standard for measuring water rights. Formally known as the doctrine of beneficial use, on July 2nd the state Supreme Court invoked the doctrine to decide the matter of Department of Ecology v. George Theodoratus, a case involving water rights for a public water supplier. Given recent precedent, the ultimate outcome is not surprising. Nonetheless, the strength of the Court’s opinion and its implications for all water suppliers, extends its reach far beyond the boundaries of the Skagit County property at issue in this case.

In 1973, George Theodoratus decided to construct Wilderness Village, a residential subdivision near Concrete, Washington designed to include 253 single family lots plus recreational vehicle sites. Water supply for the development was to be served by wells located within the subdivision, and Mr. Theodoratus received his water permit from the Department of Ecology in 1976.

Water permits typically contain a construction schedule requiring the permittee to submit proof of water use before Ecology will issue a certificate (the final document in the water permitting process). For various reasons ranging from land use and business litigation to a less-than-robust housing market, Mr. Theodoratus could not complete construction of his water system by the original deadline of 1980. He sought and received several extensions of the construction schedule. Currently his permit requires that he put his water to use by the year 2001.

The crux of the Theodoratus case involves how his water right will be measured when Ecology issues the water certificate. As the Supreme Court stated, “the primary issue is whether a final certificate may be issued based upon the capacity of a developer’s water delivery system, or may be obtained only in the amount of water actually put to beneficial use.” This conflict is sometimes described as the “pumps and pipes” versus “homes built” standard of measurement. The Supreme Court ruled that the beneficial use doctrine requires that “homes built,” or actual use, is the proper measure of a public supply water right.

A Change in Policy

Prior to 1994, it was Ecology’s practice to issue water rights in theoretical quantities. Public water suppliers would build or merely plan their systems and, based on system capacity, Ecology would issue certificates for quantities of water projected but not actually in use. This was the “pumps and pipes” standard.

Ecology referenced the pumps and pipes standard in the original Theodoratus permit. The Report of

Examination (the findings that precede the water permit), instructed Mr. Theodoratus to submit his proof of appropriation only after “a mainline system capable of delivering the recommended quantity of water to an existing or proposed distribution system” had been constructed. This language indicated that Ecology would issue a certificate to Mr. Theodoratus in a quantity that was based on potential rather than actual use.

Home sales were slow. In 1994, when Mr. Theodoratus applied for his fourth extension, Ecology imposed a new condition on the permit. The new permit stated that “groundwater withdrawal meter data shall provide the basis for determining” the quantity of water to be granted in the certificate. In other words, actual consumption of water by residents of the subdivision was to be the measure of the right.

Ecology’s use of this new “homes built” method was significant. Mr. Theodoratus had subdivided Wilderness Village into 235 lots, had built a water system to serve 93 lots, had sold 68 lots, but had built only 28 homes. There would be a significant difference between quantities of water allocated for 93 lots versus water for 28.

Ecology’s decision to change the measurement standard resulted from growing recognition that the “pumps and pipes” method violated the state water code. Supreme Court decisions in 1993, particularly Ecology v. Grimes, re-articulated with ringing clarity that beneficial use is the standard for measuring water rights. Ecology’s practices would have to change accordingly.

Mr. Theodoratus, along with “friends of the court” Washington Water Utility Council, Building Industry Association of Washington, and Washington Association of Realtors, argued that such a significant shift was “arbitrary and capricious” and violated state law governing administrative procedures. The Court rejected these arguments.

The Court explicitly acknowledged that Ecology had used the “pumps and pipes” standard for 40 years as a basis for measuring hundreds of permits. Nevertheless, it held that Ecology was “utilizing an unlawful system capacity measure of a water right” and that its switch to the beneficial use standard was legal and appropriate. The Court also noted that Ecology must retain the authority to amend water permits, particularly to correct unlawful conditions, before the right is issued as a certificate.

Beneficial Use: the Power and the Duty

As a result of the Supreme Court’s ruling, when Ecology issues a final certificate to Mr. Theodoratus, he will not receive water to serve lots upon which no homes are built, even if the pipes have been laid. This seemingly harsh result reflects the importance of the beneficial use doctrine, and it may be instructive to review why beneficial use is the cornerstone of state water law.

The Supreme Court has discussed the law of beneficial use at least five times since 1993. Beneficial use is often described as the “basis, measure and limit” of a water right, and thus several meanings attach to the term. First, water must be utilized for a beneficial purpose. This prong of the doctrine was not at issue in Theodoratus, as use of water for group domestic supply is clearly a beneficial purpose.

More fundamentally, beneficial use requires that water be used, period. This “use it or lose it” policy is grounded in the fact that water is a scarce, economically important resource. A water user who “hoards” paper water, failing to put it to actual use, deprives others who may be denied water rights because of limitations on availability. The requirement that water right holders actually utilize their water promotes economic development, prevents speculation in water rights, and provides certainty in management of the resource.

It is true that the “use it or lose it” rule can lead to wasteful use of water. In Washington, the antidote to this problem is found in the third prong of beneficial use: the “limit” of a water right. As the Court held in Ecology v. Grimes, water must be used with “reasonable efficiency,” or users risk losing the wasted portion of their rights. While Ecology has yet to define efficiency in water use, the Grimes rule provides the mechanism to prevent waste of water.

Mr. Theodoratus argued that Grimes and other recent beneficial use cases involved agricultural water use, and that public water supply permits should be treated differently. The Court refused, noting that because of the rule of prior appropriation (i.e., first in time, first in right), beneficial use requirements keep unused water available to satisfy increasing demands. Competition for water exists whether rights are held by irrigators or public water systems.

Thus, the beneficial use doctrine provides a comprehensive and integrated system for water allocation. Mr. Theodoratus argued that little competition for water exists in his locale, and that the policy of beneficial use -- to ensure rational, productive allocation -- was unnecessary. Yet that policy is very much needed in watersheds throughout Washington where permits have been denied for lack of availability. Faced with a request to adopt a new method of quantification, based on theoretical use, the weight and logic of existing law caused the Supreme Court to refuse.

Related Issues

Two major issues are raised by the Theodoratus decision. First, how much time should be given to a water permittee to put water to use? This is known as the “due diligence” test, and the answer is variable depending upon the type of water use involved as well as the circumstances of a given applicant.

Ecology’s practice has been to grant extensions liberally. This issue was not before the Court, and there is opportunity now for the agency to establish guidelines on appropriate time limits for water permit construction schedules. It should be noted that other western states leave permits open until construction is complete, even if it takes twenty years for a public water supplier to build out the system.

A second issue involves application of the Theodoratus rule to municipal water suppliers. The Court noted that the water code distinguishes between municipal and private water developers. However, it also noted that Governor Locke’s veto of SSB 5783 in 1997, which proposed a system capacity measure for municipal water rights, was strong evidence that “pumps and pipes” is not the measure of any water right under current law. Many water utilities may possess claims or certificates for quantities of water they do not actually use. The Theodoratus interpretation of beneficial use suggests that these documents do not represent legal reality.

From a public interest perspective, this case is a significant development. Surface water flows in many of Washington’s rivers are inadequate to support fisheries and other instream uses. The ability of water right holders to expand into presently unused quantities represents a very real threat to the health of aquatic ecosystems. That ability appears to be limited by the Theodoratus holding.

Whither Now?

Mr. Theodoratus has two and one-half years in which to build out his development. On January 1, 2001 he must “prove up” or seek another extension. If denied, he may apply for another permit and obtain a priority date which will put him in line behind others in the watershed who have sought water since 1973. This result is based on the prior appropriation system, embraced by water users throughout the West as protection for their rights.

The Department of Ecology must face up to its illegal practices of the past. The agency has issued permits for unused water in many places where, more recently, permits have been denied for lack of availability. Those who possess the paper, but have not used their water, must move over to make room for those who would put the water to use now.

The law of beneficial use has developed out of recognition that water is an extremely valuable resource. But in Washington we have taken our water for granted for a very long time. It is not surprising, as realization of water scarcity permeates our headlines and our culture, that law and policy should evolve to reflect the true value of water, and the need to manage it with integrity and restraint. ☪

(Note: Links to the court majority and dissenting decisions are available on www.earth.golder.com/waawra/.)

Supreme Court Invalidates “Pumps and Pipes” Method of Water Right Certification

by Thomas M. Pors, Foster Pepper & Shefelman PLLC

The Washington Supreme Court issued a decision in an intensely watched water rights case on July 2, 1998. The Court's 7-2 decision in Department of Ecology v. George Theodoratus, 1998 Wash. LEXIS 474, upheld Ecology's condition on a water rights permit that will limit a public water system's water rights certificate to the quantity of water actually put to use by homes built and connected to the system. The decision concludes that Ecology's practice for the last 40+ years of issuing water rights certificates to public water systems based on constructed water system capacity (the “pumps and pipes” method) was invalid. The decision calls into question hundreds of existing water rights certificates issued to private and public water utilities for water supply to growing communities.

In Theodoratus the appellant obtained a water right from Ecology to serve a residential development near the Skagit River. After numerous delays, he obtained an extension to the water right permit from Ecology in 1992, subject to several new conditions. The critical condition provided that a vested water right would be determined based upon actual application of water to beneficial use, not on the constructed capacity of the water system. On appeal, the Pollution Control Hearings Board (“Board”) struck the conditions concluding that the “pumps and pipes” method of quantifying water rights certificates based on installed capacity correctly expressed the application of water to a beneficial use in the context of public water systems. The Superior Court of Thurston County reversed, holding that Ecology had discretion to condition the permit extension by providing that the final water rights certificate would be issued in the amount of water actually put to beneficial use. The Court further held, however, that reasonable use may include a recognition that the capacity of a public water system's completed delivery system may beneficially use water for a normal increase in population within a reasonable period of time. Both parties appealed the Superior Court's decision.

The Supreme Court cited a body of case law involving water rights for irrigation that water rights are perfected only upon the beneficial use of water, and found no reason to view public water systems differently than water rights issued for irrigation. Appellants contended, and the Board agreed, that public water systems put water to beneficial use in a different manner than irrigators, by constructing water system capacity required for planned growth in a community. Appellants, supported by *amicus curie* briefs from the Washington Water Utilities Council and the Washington Association of Realtors, argued that this means of perfection is necessary to finance water system infrastructure and to provide certainty for lot owners to be connected to public water systems. The Supreme Court, however, did not find a distinction in Washington's water rights statutes between private residential develop-

ments or irrigation uses in the manner in which water is perfected or put to beneficial use.

While the Court declined to address the same issue in the context of municipal water suppliers, its decision provides little hope that municipal water rights are subject to a different rule. The Court noted that the Governor vetoed 1997 legislation that would have allowed for a system capacity measure of a water right for public water supplies fulfilling municipal water supply purposes. (Substitute Senate Bill 5783, 55th Legislature, Section 4(2) (1997)). The Court found that the Governor's veto message was strong evidence of intent that system capacity is not the measure of a water right under current statutes.

It is troubling that the Court would use a veto of an entire bill as evidence of legislative intent because it elevates the Governor's interpretation of law ahead of the legislature's. It could put a chilling effect on future attempts by the legislature to resolve water rights issues if every time the Governor vetoes a bill the Court will resolve the issue in the opposite way the legislature hoped to resolve it. This may violate the separation of powers doctrine.

A dissenting opinion by Justice Sanders noted contrary precedent in the State of Colorado and several water rights doctrines which could have justified the use of the pumps and pipes method of certifying water rights for public water systems, including the progressive growth doctrine and the growing communities doctrine accepted in other Western states.

As a result of this case, cities, water districts and other public water systems with existing water rights in permit status will have to continue seeking extensions of the construction schedules of their permits or risk losing the ability to expand their beneficial use of water. Utilities with water rights certificates issued under the pumps and pipes method will have far less certainty in their ability to continue perfecting these rights. The case could also prompt a dramatically increased workload for Ecology if communities determine they must continue to apply for new water rights in order to use their existing water system capacity. If the decision is read literally, every time a community receives a water rights certificate its water rights will be capped at current usage and it will have to have another water right permit to add any additional users to its system.

Due to the near impossibility of obtaining water rights permits for new sources to serve growth needs in Washington State, communities have sought increased flexibility to share their unperfected or “inchoate” water rights with neighboring communities. Added flexibility among public water suppliers could avoid the need to develop new sources of supply that would impact instream flows required to recover dwindling salmon populations. However, the Supreme Court's recent decisions in Theodoratus and Okanogan Wilderness League v. Twisp, may have eliminated the ability to transfer or expand the place of use

of inchoate municipal water rights. If municipal water rights can only be transferred to the extent that they have already been used, they probably won't because they are needed for existing water users.

Unless additional flexibility can be found for communities with inadequate water rights to serve growth needs, there will be a widening growth gap between communities that have inchoate water rights (and can continue to grow at least within their current boundaries) and those without inchoate rights who will end up with moratoria against new

hookups. State and federal agencies may find it difficult or impossible for local communities to provide adequate water supply and water quality for salmon recovery before their own water needs can be met through expansion or increased flexibility in their water rights. A new paradigm in water resource management must evolve soon to avoid a train wreck between the health of our ecosystems and the health of our communities.

For additional information about the Theodoratus decision and municipal water rights issues, please contact Tom Pors at (206) 447-2916. ☛

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This newsletter is a publication of the Washington Section of the American Water Resources Association. It is published bi-monthly. 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.

Submissions are welcome for the October/November/December newsletter. The submittal due date is October 8, 1998. The editor reserves the right to make changes for reasons of length, grammar, legality or clarity. Contact Chris Pitre at (425) 883-0777, or send submittals directly via:

Internet Mail: cpitre@golder.com

(most document/graphic formats are acceptable)

Recent newsletters are available on: <http://earth.golder.com/waawra/>

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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, and underwriting of a special meeting in the late spring hosted by the student chapter and other subsidies.

Interorganizational support is fostered with local, interstate 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 a **Fall Conference** in November which is the principal funding vehicle for many Section activities, including providing financial support to the Section's Student Fellowship program.

A **dedicated board** of 15 members meet regularly to plan, organize and facilitate events.

The Washington Chapter has been selected to host the **1999 National AWRA Conference**.

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 in the side board to the left.

WATER REUSE UPDATE

by Adam Gravley, Preston Gates & Ellis

The Washington Departments of Ecology and Health have recently undertaken activities concerning the State's reclaimed water program. First, the agencies convened a meeting of the reuse advisory committee on June 3rd to update stakeholders and receive salmon strategy input. Second, a draft "State Salmon Strategy Report, Instream Flows – Reuse Element" was issued on July 10th. The agencies intend to finalize the report for the Salmon Team later in the Summer.

At the advisory committee meeting, Health and Ecology reported that there are currently 18 water reuse pilot projects, of which 11 may be completed by the end of the year (see sidebar). Also, the agencies have issued treatment and use standards for all uses allowed under the Reclaimed Water Act (Ch. 90.46 RCW). Health and Ecology also distributed an issues paper that sets out draft principles and key water rights issues that remain after the 1997 amendment of the Act. The most difficult issues involve the rights and obligations of a reclamation project relative to downstream interests in the freshwater discharge context.

The salmon strategy views water reuse as a leading option for increasing upstream flows, but specific proposals have yet to emerge. The draft report finds that "up to 300 million gallons per day" of potential water resources exist from waste discharges to Puget Sound alone. The draft report notes that shortfalls in agency resources, financial assistance to local governments, and technical assistance represent impediments to greater implementation of reclaimed water.

The draft report for the State salmon team offers some significant policy and regulatory recommendations:

- Require the use of reclaimed water for non-potable water applications (e.g., golf course, park irrigation).
- Authorize local governments to require the use of reclaimed water for appropriate uses and to refuse potable water service for non-potable uses.
- Provide financial assistance through tax incentives or grant funding, particularly where instream flow augmentation results.

Reclaimed Water Pilot Projects

Completed Projects:

1. King County – Boeing Chiller project (cooling);
2. King County – City of Renton (landscape irrigation);
3. King County – West Point Treatment Plant (irrigation, process);
4. Holmes Harbor Water District (golf course irrigation).

Projects Under Construction:

1. City of Sequim (irrigation, stream flow enhancement, groundwater recharge);
2. City of Yelm (100% reuse project);
3. City of Snoqualmie (golf course irrigation);
4. Sunland Water District (golf course irrigation);
5. City of Ephrata (groundwater recharge);
6. Royal City (groundwater recharge);
7. City of Medical Lake (stream flow augmentation).

For information about the State's reclaimed water program and salmon strategy regarding water reuse, contact George Schlender in the Spokane office of the Department of Health, (509) 456-2490 or GSS0303@hub.doh.wa.gov

1998 Washington AWRA Fall Conference

Working Title: **“Fish, Farms & Folks – Where is the Balance”**
November 12th, 1998 at the Seattle Art Museum

This year's conference will focus on the impacts of the Endangered Species Act (ESA) to the Northwest and what these and related issues could mean to our water management practices. This is more than salmon; recent successes with the ESA have increased awareness and importance of these programs. However, the issues for the Northwest are more complex; this is the first potential ESA listing that will directly apply to and impact urban areas. How does this influence growth management policies and water resource availability? Who should pay for protection of endangered species protection? What are the economic drivers and how we mitigate the impacts? Is the Northwest the venue for debating our commitment to species protection and the ability to sustain urban development? Can we reach a balance?

Be a part of the program! We welcome your input and thoughts in preparation of the conference relating to this subject. If you know of a topic or speaker that would make this subject and our conference more meaningful we appreciate you input. Please email your comments and suggestions to:

Gwenn Maxfield at gmaxfield@woodinvillewater.com

or,

Chris Cleveland at ccleveland@brwncald.com

Ecology Closes Water Rights Claims Registry

by Paula Smith, Washington Department of Ecology

Washington's residents who have used surface water since at least 1916, or groundwater since at least 1944, had an opportunity to file a water right claim during the 1997 Claims Registry Reopening that ended at midnight June 30, 1998. The Department of Ecology's Lacey, Bellevue, Yakima, and Spokane offices stayed open until midnight on the 30th to accept claim forms and to help people determine if they needed to apply.

From September 1, 1997, when the claims registry reopened, through the June midnight deadline, Ecology talked to over 24,600 people who wanted to know who qualified under this claims registry reopening. Many were interested in the status of an existing water right permit, certificate or claim. In a majority of these cases, people were currently using less than 5,000 gallons of groundwater per day and were exempt from both the water right permit process, as well as the claims registry process. In addition to personal contacts, Ecology sent out nearly 23,000 informational packets and re-searched over 5,300 existing water right documents (claim, certificate, or permit). Many people expressed their appreciation of Ecology's timely responses.

"One of the primary questions people were asking us was, 'so what will happen if I don't file a claim?'" said Keith Phillips, Ecology's manager for the Wa-

ter Resources Program. "The answer is you may be using water illegally and through court adjudications or Ecology enforcement actions, you may be deemed an illegal water user and directed to stop using that water source."

Approximately 3,500 claims were received by Ecology during this, the fourth, water rights claims registry opening. Ecology estimates that between 1700 to 2000 of those will meet the criteria set up under SHB 1118 and will be registered. About 1,000 claims have been processed (accepted or rejected) as of July 7, 1998. Staff are making every effort to respond to the over 2500 claims received in the last week of the filing period.

Now that the registry has closed, the public will need to file a water right permit application to use most water in our state if they do not currently have a water right document. Prior to the claims registry opening, Ecology had about 6,000 water right applications awaiting decisions. Ecology expects to see an increase in the backlog that directly relates to the 1997 water right claims registry opening. With 165,000 water right claims on file from previous filing periods, much of the water in Washington has already been claimed.

Anyone seeking information about the status of the claim they filed should call 1-800-468-0261 and leave their name and telephone number. ☎

1999 National AWRA Annual Conference

Working Title: **"Watershed Management to Protect Declining Species"**

Seattle, WA, December 4th to 9th, 1999

Sheraton and Towers, Sixth and Pike Street, Downtown Seattle

The Washington Section has been selected to host the national conference of the American Water Resources Association. This is a wonderful opportunity for this region to display our commitment to the preservation, protection and wise management of our precious water resources. We are proud to serve as host and we are confident that we can put on a tremendous conference. However, we can't do it without your help.

We need your assistance in planning for this major conference. Are you able to help:

- *Define the final theme for the conference?*
- *Identify potential speakers that are experts in their field?*
- *Identify others that can help in organizing?*
- *Help with the logistics, field trips? etc.*

We need your help in defining the themes of the conference and putting together a technical program that addresses priority issues. We need your help to identify the major subjects for the concurrent sessions.

Keyword Topics: Salmon Recovery, ESA, Watershed Planning, Tribes, Habitat Restoration, Fish Management, Water Quality, Non-point Sources, Urbanization, Agriculture, Forestry, Stormwater, Water Policy, Water Rights, Instream Flows, Hatcheries, Harvest, Hydropower, Fish Passage, Wetlands, Innovative Solutions, Reclaimed Water, Ground Water Recharge, Interties, Municipal Water Supply, Water Demands, Water Conservation, Water Rates, Watershed Councils.

Contact Rod Sakrison, Ph.D., Conference Chair, at (425) 649-7140, or e-mail RSAK461@ecy.wa.gov

Endangered Salmon: “What to Expect from the Feds”

by Rodney Sakrison, Ph.D., Department of Ecology, with the assistance of Bill Derry, CH2M HILL and Mark Pedersen, Shapiro and Associates.

Will Stelle, Northwest Regional Director for the National Marine Fisheries Service (NMFS) addressed the proposed Endangered Species Act (ESA) salmon listings before a broad-based group in Seattle on July 9, 1998. The discussion was hosted by the Washington Federation for the Environment with the assistance of CH2M HILL and the law firm of Preston Gates & Ellis. In attendance were equal numbers of private sector, governmental and environmental groups all sharing an interest in arguably the most far-reaching issue facing this region.

Stelle began by saying he wouldn't talk about ocean conditions or harvest because they are out of our control. What is in our control is fresh water habitat. He provided an overview of the complicated life cycle of the Pacific salmon and how that involves so much of the region in the recovery effort. The area affected by the proposed fish listings stretches along the entire West coast and into Idaho and Montana. His point was that salmon use all the significant parts of our aquatic habitat: the ocean, estuaries, major rivers and tributaries, lakes, and wetlands; each of these water bodies must be addressed in the recovery plan.

Three significant programmatic areas were identified: water quality, water resources management, and cross-program coordination. Stelle pointed out that past efforts of the states to improve water quality have had limited success due to a focus on maintaining chemical and physical water quality parameters. This has been inadequate to preserve and restore aquatic habitats, which are complex ecological frameworks. He referred to new techniques that broaden water quality concerns to the biological health of habitats and more fully understanding ecological functions and properties. Stelle suggested that water quality efforts need to focus more on salmon recovery.

In regard to water resources management, he recognized that the management and allocation of water is essential to salmon recovery. Water resources management is based on an antiquated law and must be revised. Waste is encouraged by the existing water rights system.

Cross-program management and coordination is a big future issue that the federal government has already begun addressing. ESA, the Clean Water Act and the Superfund program must be coordinated. Cross-program coordination and compliance under ESA should be used to meld water quantity, water quality and clean-up investments.

Three areas impacting fresh water habitats were identified as being important for restoring salmon populations. Forestry management practices have

undergone remarkable improvements in the last five to ten years. These changes have mostly occurred in Federal forests, but are now focusing on state and private forest lands.

The second area involves agriculture where changes in management practices are slower to occur. Stelle admitted that the Feds don't have a good model for addressing the effects of agriculture on fish, and that the states and local governments haven't found ways to educate and enforce improvements in management practices. For agriculture the main challenges are to address riparian set-backs, runoff quality, and water use.

The final area of fresh water habitat issues was the effect of urbanization and the associated replacement of the historical salmon habitats with impervious surfaces and channelized waterways. This point was made clear by the stunning backdrop of the event in the Columbia Tower. Stelle theorized that urbanization is a principal cause for the plight of salmon in western Washington. Even though the discussion of how urban areas will contribute to the salmon recovery has just begun, there is widespread belief that the destruction of habitat by urban growth would be considered a “take” under ESA and will not be allowed to continue.

A number of other perplexing issues critical to salmon recovery haven't been clarified. The relationship of treaty rights and the federal statutory trust responsibility is still an open question that will require creative interpretation. Development of new ecological science will be needed. Success will depend on the degree science leads to solutions. It should focus on risk assessment with attention to cumulative effect assessment, and defining the relationship between habitat quality and abundance of fish. In the recovery effort there needs to be a determination of which genetic salmon populations are the most vital drivers.

Stelle closed with the statement that ESA will be a driver in the current paradigm shift. He believes that in five years the aquatic environment will be unimaginably changed compared to today, but a much better place. ☺



Watershed Planning Grants Awarded

by Laura Lowe, Department of Ecology

Background The Legislature passed Engrossed Substitute House Bill 2514 (ESHB) at the close of the 1998 legislative session. This law amends RCW 90.82 and, provides Ecology with \$5 million to implement watershed management in Washington State. The funds were split into a \$1.1 million pool for state agency staff (Ecology, Fish and Wildlife, Health) and \$3.9 million for grant funding. The \$3.9 million was further divided into \$1.4 million to be disbursed before June 30, 1998, and \$2.5 million to be disbursed before June 30, 1999. Ecology was permitted to use 1%, or \$39,000 of the grant funds to defray administrative expenses.

Ecology ran one competitive grant cycle for all funding, rather than two consecutive processes. Informational materials were mailed, and public workshops were held in all four regions of the state. Ecology held training sessions for internal staff to coordinate with the workshops. Interested applicants had about four weeks to prepare applications and send them to Ecology by June 1, 1998.

Ecology received 30 applications, covering 40 of Washington's 62 Water Resource Inventory Areas (WRIAs). Applicants requested a total of \$8.3 million, more than double the available funding. Ecology offered 22 grants for this biennium. The wide interest in watershed planning may encourage the Legislature to provide a significantly larger amount of grant funding next biennium (beginning July 1, 1999). Those wanting to pursue a grant, and who were not able to complete an application or were not successful this year, should work with Ecology staff to prepare for next biennium's grant funding.

Scope of Watershed Management Under 2514

ESHB 2514 requires designated lead agencies to address specific water quantity issues. They may also elect to address water quality, instream flow and habitat issues. There are 3 phases of grant awards. The first phase provides up to \$50,000 to a single WRIA, or up to \$75,000 for a multi-WRIA effort, to organize a planning unit. The second phase provides up to \$200,000 per WRIA for watershed assessment work, including the mandatory water quantity analyses, and optional instream flows, water quality, and habitat issues. The third phase is the actual development of a watershed plan. Up to \$250,000 for this final phase is provided, for a maximum of \$500,000 per WRIA.

Goal of Watershed Management Planning

Watershed management (or planning) is not a new concept, but it will be used in a new way to answer some of Washington's most critical water problems. This is a tool for collaborative input into water issues like water availability and use, instream flows, and strategies to increase water supplies. Watershed planning units may also look at water quality issues

such as recommendations to implement TMDLs, water quality standards, surface and groundwater recharge, as well as habitat issues. It is an equally important tool for supporting salmon recovery in Washington State. When we can successfully balance the competing demands on our water supplies, we will be able to provide water for people, farms, economic growth, and fish.

Some of the specific solutions include water resource management through the watershed planning process, and development of a new set of water management policies. The watershed planning process will enable local communities to build a sustainable environment for current and future water needs. It is an opportunity to build relationships among all the water users in the community – business, agriculture, tribal governments, environmental interests, and others. Successful efforts must focus on integrated watershed management, and a higher efficiency of water use. Water policies must evolve along with watershed planning. A discussion of some of the key policy elements of an improved water management process follows.

Water allocation must address responsible, planned growth. Water supply planning and growth management must be better integrated to achieve this goal. Ecology needs to provide clarity in municipal water rights law, certainty about availability for future growth, and some operational flexibility.

Water allocation must also address the needs of fish. Fish require cool, clean, abundant water to survive. Existing instream flows, where sufficient, must be protected. In other streams, an adequate amount of water must be restored to instream use to support fish recovery.

We also need to establish incentives for efficient water use. Conservation goals and water consumption standards must be linked to demand projections and demand management methods.

Water reuse must also be considered as part of water allocation. Policies and incentives must be created to encourage the use of reclaimed water where appropriate.

The watershed or regional scale should be used for water allocation decisions. Existing instream and off-stream uses that are efficient and beneficial should be protected, while future interests are accommodated through transfers, water reuse, and the development of partnerships between various water interests.

Watershed management will provide the state with the information and the vehicle to make reasoned decisions about water use. By working together and collaborating on water efficiency strategies, this state's water supply can provide clean water for people, industries, and farms, and support a healthy fish population. ☺

Regional (Tri-County) Planning Response to ESA Listings

Dave Galvin, King County's Endangered Species Act Coordinator

Peter Hahn, Snohomish County Public Works Director

reviewed by Fran Solomon, Ph.D., Senior Ecologist, King County Department of Natural Resources

On June 24, attendees at the AWRA dinner meeting were treated to an informative, thought-provoking overview of the coordinated response by Snohomish, King, and Pierce Counties to the federal Endangered Species Act (ESA) and the proposed listing of Puget Sound wild Chinook salmon as "threatened." The speakers were Dave Galvin, who is the ESA Coordinator for King County, and Peter Hahn, who is the Public Works Director for Snohomish County.

Dave Galvin began his presentation with a description of the decline in Chinook salmon runs and sizes. Chinook (king) salmon is the largest salmon species. Historically some Chinook salmon weighed more than 100 pounds, but currently a 30-pound fish is considered large. Chinook salmon are found in six Puget Sound watersheds: Skagit, Stillaguamish, Snohomish, Cedar-Sammamish, Duwamish-Green, and Puyallup-White. The Skagit River run is the largest Chinook run in the Puget Sound Basin, but all Chinook runs have declined during the past 15 to 20 years. Escapement goals (number of fish that escape being harvested and return to their natal streams to spawn) have consistently not been met.

The ESA of 1973 states that endangered and threatened species cannot be "taken." The concept of "take" is defined very broadly. Section 4 of the ESA includes the determination of endangered species and threatened species. Section 7 addresses interagency coordination, i.e. federal agencies such as the U.S. Army Corps of Engineers must consult with the National Marine Fisheries Service (NMFS) before issuing a permit for a project occurring in an environmentally sensitive area. Section 9 outlines prohibited acts, i.e. acts defined as "taking." Section 10 indicates exceptions such as development of Habitat Conservation Plans (HCPs).

Dave emphasized that salmon recovery decisions need to be science-based and encouraged the audience to discuss how we can be involved, individually and collectively, as AWRA members. He recommended two key documents for more background on ESA issues: "An Ecosystem Approach to Salmonid Conservation" (Management Technology, 1996) and "Factors for Decline" (NMFS, 1996). More understanding is needed of the basic biology of wild Chinook salmon in Puget Sound, their use of the nearshore marine environment, factors causing their decline, and what constitutes ideal habitat conditions. NMFS wants a salmon recovery plan that has substance, commitments for implementation, and monitoring. The plan will be organized at the Water Resource Inventory Area (WRIA) level.

In addition to Puget Sound Chinook salmon, bull trout (native char) are now proposed for listing.

Therefore, it will be necessary to examine habitat factors for this species. Dave also pointed out that Coho salmon and sea-run cutthroat trout are likely to be proposed for listing by NMFS at the end of this year. Habitat factors for these species are even more complicated than for Puget Sound Chinook.

Peter Hahn began his presentation by explaining the origin of the tri-county response for salmon recovery. On October 30, 1997, the Snohomish, King, and Pierce County executives met with Washington Department of Ecology Director Tom Fitzsimmons to discuss watershed management and environmental bills that would be introduced in the state legislature in 1998. The three county executives were encouraged to show leadership with respect to ESA and salmon habitat issues. On February 26, 1998, NMFS announced that it would propose the listing of Puget Sound Chinook salmon as a threatened species. The proposed listing occurred on March 9, 1998. In follow-up, the three counties started to develop a coordinated strategy for salmon recovery.

The salmon recovery plan must contain a description of site-specific management actions necessary for recovery; objective, measurable criteria which when met will allow delisting of the species; and time and cost estimates to implement the recovery measures. Habitat, harvest, hatcheries, and hydroelectric power all need to be considered in the development of the plan. Native-American tribes need to be included as co-managers of the salmon. The Governor's Salmon Strategy and the Washington Department of Fish and Wildlife's Wild Salmon Policy will be consulted in the process. All regulations (e.g. Shoreline Management Act) need to be reviewed to determine if they are good enough and revised if they are not. Some types of projects that may be recommended in the salmon recovery plan include culvert replacement, habitat restoration, and acquisition of estuarine wetlands.

The organizational framework for the tri-county response includes a large tri-county general assembly, an executive committee comprised of 10 people per county and four at-large members, a staff group, and work groups. (See the May/June 1998 newsletter for an organizational chart, available from www.earth.golder.com/waawra.) The primary purpose of the General Assembly is to ensure that the individual WRIs within the tri-county region are planning and implementing salmon recovery efforts in a cooperative, coordinated manner. The General Assembly meets at least quarterly to review decisions and actions of the Executive Committee and Staff Group and to provide guidance for the overall tri-county effort.

The Executive Committee serves as the primary working committee to guide and oversee the salmon recovery planning efforts within the WRIs and their respective counties. This committee is empowered to develop and finalize a comprehensive work plan, ap-

ply for state and federal funding, assign and manage staff to complete work plan elements, oversee scientific research, inventory watershed projects and needs, and prepare the ESA response submittal for state and federal review. The Executive Committee includes elected officials from county and city government as well as representatives from ports, Native-American tribes, environmental groups, businesses, and universities.

The Staff Group, which reports directly to the Executive Committee, consists of designated representatives from the General Assembly and Executive Committee. The primary purpose of the Staff Group is to develop, staff, coordinate, and recommend specific actions of the individual work groups within the tri-county organizational structure. At present, there are work groups on existing salmon recovery programs, plans, and policies, urban area issues, funding, science panels, public involvement, water supply planning, habitat, and economic impacts.

A first step in the proposed ESA response process is an inventory of current county programs, plans, policies, and actions that may impact salmon, either positively or adversely. Other key milestones

for the development of the salmon recovery plan are:

- Individual ESA assessments by counties/WRIAs, e.g. What are salmon needs? How are you impacted by salmon needs? What are the limiting factors? What has been done already? What are the potential improvements? What is the existing salmon production capacity? Is more capacity needed?
- Development of a tri-county/WRIA/HCP ESA approach by July 1999 to address ESA and salmon protection, e.g. land use protection measures, habitat protection and restoration, fisheries enhancement, institutional framework (science/funding), cost/benefit analysis, and funding of actions.
- WRIA implementation, e.g. implementation of protection measures, ongoing analysis and modification to maximize benefits, funding and regulatory commitments, monitoring implementation, and monitoring results.

In August 1999, NMFS will make a final decision regarding the listing of Puget Sound Chinook salmon. Snohomish, King, and Pierce counties hope that some of their current actions will be referenced as "fish friendly." The tri-county salmon recovery plan will be part of the overall Puget Sound response. Funding for implementation of the plan will come from state and local agencies and will be considered by the Washington State legislature during their 1999 session. ☪

1998-99 FELLOWSHIPS OFFERED

The Washington State Section of the American Water Resources Association (AWRA) is seeking nominations for the 1998-99 academic year. Two fellowships each in the amount of \$1500 will be awarded. One fellowship will be awarded to a member of an organized Student Chapter of AWRA in the State of Washington. The other is available to any full-time graduate student enrolled at an accredited college or university in Washington State.

Fellowships are offered to full-time students completing advanced degrees in an interdisciplinary Water Resources subject. In addition to the \$1500 cash award, each fellowship includes a one year membership in both the State Section and National AWRA, a one-year subscription to the *Journal of the American Water Resources Association*, and admission to the Washington State Section Fall Conference.

The general criteria for selection of winning applications include:

- **The interdisciplinary nature of the course of study and research;**
- **The effectiveness of the response in communicating research objectives; and**
- **The potential application of the work to current needs in water resources management.**

Information on how to apply for the fellowship will be mailed to Department Heads of graduate programs that offer degrees likely to involve topics acceptable for the award during the last week in April. The application deadline is September 15, 1998. Most financial aid offices will also receive the information. Alternatively, individuals may request information on the award directly from the fellowship committee chair:

Stan Miller
1329 S. Ferris Court
Spokane, WA 99202

Phone: (509) 456-3604
FAX: (509) 456-4715
e-mail: smiller@spokanecounty.org

A "Fishy" Approach to Education?

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

Take a bunch of 3rd grade kids, an overcast Seattle day, a jump rope, orange traffic cones, sugar wafers, and a large playing field, and what do you get? If you said "a lesson on Salmon Migration," you've either been working too hard, or you've read Activity Number 13 in the *W.A.T.E.R. Activities Book*.

W.A.T.E.R. (Water Activities That Encourage Responsibility) is a compilation of fun activities related to, what else... WATER! The intent of the book is to bring an appreciation for natural resources to elementary-school-aged children, through 28 hands-on activities. Some of the lessons involve outdoor play, while others are geared towards indoor projects, demonstrations and/or discussions.

The particular lesson mentioned above is called "Hooks and Ladders," and it is a tag-game that teaches kids about the difficulties faced by migrating salmon. Most of the kids begin the game as "salmon." They quickly encounter their first obstacle, twirling jump ropes representing turbines at dams. Soon after, "fishermen" are waiting upstream to catch the "salmon," meanwhile, a "bear" (one of the more popular roles) limits the kids' chances of making it through, and of course a "fish ladder" with predators on either end seals the fate of most of the "salmon." Usually, only a few kids make it through the obstacles, providing a good basis for the group leader's follow-up discussion.

Other activities focus on such topics as the water cycle, the importance of wetlands, and how people can conserve water in their households. Still others explore groundwater transport, the necessity of beach clean-ups, how water quality impacts us – and the list goes on!

The W.A.T.E.R. project was sponsored by a Centennial Clean Water Grant and the Coalition of

Pierce County, facilitated by the Nature Center at Snake Lake (Metropolitan Park District of Tacoma). I volunteered to assist as a technical resource, and to help organize and lead a group of 14 school teachers, scout leaders and other community group volunteers in a quest to find meaningful activities to meet the grant objectives. Our group worked for many months compiling existing activities from a vast array of sources, performing field-tests and evaluations, and finally selecting the ones included in the book.

There is an activity index in the beginning of the book that helps activity leaders select age-appropriate, activity- or discussion-oriented projects for the time constraints that they will have. The book is subdivided into the following 6 sections, each one prefaced by an introduction to the scientific concepts (helpful for group leaders without a technical background):

- Watersheds and the Water Cycle
- Water Supply
- Wetlands, Ecology and Wildlife
- Water Quality and Pollution
- Conservation and Clean-up
- Field Explorations

If you are interested in obtaining a copy of this activity guide (called W.A.T.E.R., edited by Teresa J. Platin and Kelly Newbrey, November 1997), please contact the Nature Center at Snake Lake in Tacoma (253) 591-6439. Supplies are limited, but as of this newsletter's press-time, there were still several free copies available. 🐟

Advancing Water Resources Research and Management

Message from the President, Earl Spangenberg - AWRA President, June 1998
(reprinted from <http://www.awra.org/~awra/prezmsg.html>)

As you read this, we have just come off a successful Specialty Conference on Rangeland Management and Water Resources in Reno. We're entering final preparations for the Third International Symposium on Tropical Hydrology and Fifth Caribbean Islands Water Resources Congress in San Juan, Puerto Rico.

The success of these programs, as well as the success of the rest of AWRA's activities depends on the hard work of a lot of people. When you get a chance, be sure to pass your thanks on to the organizers and presenters at these meetings. You should also take the time to say "Thanks" to the staff at AWRA HQ for all the work they put into these affairs.

But we can't always ride on the hard work of others. Just for a minute, imagine - this time it's up to you.

Now, realize it's not your imagination.

Keeping AWRA alive and healthy is your job. If you don't contribute time and effort to make meetings work, and to developing new ideas for working with colleagues, who will? And if no-one does - where's AWRA?

Your most effective way of making a difference in AWRA is to take an active part in forming and contributing to Technical Committees.

Technical Committees are the place where work gets done.

Right now, we would like you to think about forming technical committees with the specific objective of pulling together papers for annual conferences and specialty conferences. If we had groups of people committed to soliciting and reviewing sets of four or eight presentations on particular technical subject, we could develop conferences to speak more di-

rectly to your professional concerns. Conferences will always be open to general calls for papers, but Technical Committee participation will make conference development that much easier.

Committee chairs and members don't have to develop the presentations - although they may. What they need to do is make use of their professional contacts to encourage participation.

Forming a Technical Committee is easy. Contact me or AWRAHQ with your interests and your goal in forming the committee. If you have all of the people you need to do the job, great - go for it. If you want to recruit committee members, we can

help you do that. AWRAHQ will provide all the technical assistance we can. At a minimum, we can do mailings for you, and we can set up an e-mail listserve for electronic communications.

Think about it folks, AWRA is what you make it. Put your shoulder to the wheel!

Regards,
Earl Spangenberg
President, AWRA, 1998
e-mail: espangen@uwsp.edu



Meetings/Conferences

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

August 4-7, 1998: Cross Currents in Water Policy in Hood River, Oregon. Universities Council on Water Resources conference. www.uwin.siu.edu/ucowr.

October 8-10, 1998: Saving Salmon in an Urban Setting: The Science and the Politics of Preserving the Puget Sound Chinook. Leadership Conference '98 to address Salmon Recovery Plan: William D. Ruckelshaus (former Administrator of U.S. EPA) and Attorney General Christine Gregoire serve as the co-chairs of the 1998 Leadership Conference, which will take place in Vancouver, B.C.. The conference will focus on the decline of the Puget Sound Chinook, their proposed listing under the Endangered Species Act, and the effect on our region's economic outlook and quality of life. From constraints on building permits to retrofitting of sewers, storm drains, and culverts, from higher water bills and construction costs to more costly transportation projects, the effect on residents of Puget Sound will be considerable. The conference will explore the science and the politics of forging a regional salmon-recovery plan. For more information, contact Patricia Boles at (206)389-7320 or patriciab@seattlechamber.com.

October 20-21, 1998: 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. Phone: (509) 838-6653 E-mail: farwest@ior.com.

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 from 800-942-4978 or 509-335-3530 or e-mail wsuconf@wsu.edu and <http://www.halcyon.com/sernw/>

Conferences and Institutes Contact: Nancy Mack
Washington State University
nmack@wsu.edu
509-335-4097

ER Contact: Sono Hashisaki
W Vice Pres. of Programs
hashiso@halcyon.com
206-545-1117

1998 Membership Application / Change of Address Form

(⅂ please circle, as appropriate ↗)

Annual membership in the state chapter costs \$25.

(If you attended the 1997 Fall Conference, you are already a member for 1998 – 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 1998.
You will be contacted to determine what committee involvement you would like.

1998 Membership Dues (through October 1998): \$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.

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