



The Water Report™

Water Rights, Water Quality & Water Solutions in the West

In This Issue:

**ESA Influences on
CWA Programs 1**

**Aging Dams &
Mitigation Credits14**

**Army Corps
Dredging Authority:
“Tulloch II” Ruling ... 20**

**ESA Incidental Take
Ruling 21**

Water Briefs 23

Calendar 27

Upcoming Stories:

**Water Management
and Valuations in
Texas**

**Conservation and
Western States
Initiatives**

**California Water Fees
Dispute**

& More!

ESA & CWA

ESA INFLUENCES ON EPA’S CWA PROGRAMS

THE WASHINGTON STATE EXAMPLE

by John Palmer, Senior Endangered Species Act & Clean Water Act Policy Advisor
US Environmental Protection Agency, Region 10 (Seattle WA)

INTRODUCTION

The federal Endangered Species Act (ESA) listings of salmon and bull trout in the Pacific Northwest have had a significant influence on the US Environmental Protection Agency’s (EPA’s) implementation of federal Clean Water Act (CWA) programs. Section 7 of the ESA imposes responsibilities on EPA, as with all federal agencies, to protect and conserve threatened and endangered species. This article summarizes how the ESA has influenced EPA in carrying out its CWA duties with regard to two recent actions in the State of Washington.

WASHINGTON’S WATER QUALITY STANDARDS

Overview/Background

In July 2003, the State of Washington Department of Ecology adopted revised water quality standards in part to provide added protection for salmon and bull trout species. In March 2006, EPA disapproved parts of the 2003 revised standards and specified to Ecology needed changes to meet CWA and ESA requirements. In November 2006, Ecology revised its standards to address EPA’s disapproval.

Clean Water Act Requirements

Section 303(c) of the CWA requires all states in the United States (states) to develop water quality standards applicable to all water bodies or segments of water bodies that lie within a state’s boundaries.

WATER QUALITY STANDARDS INCLUDE:

- designated uses for waters of the United States
- criteria sufficient to protect the designated uses
- an antidegradation policy to protect waters currently of higher quality than the criteria (See EPA’s water quality regulations at 40 CFR Part 131)

When a state designates the uses for its waters, it must be consistent with the CWA Section 101(a)(2) goal to provide, wherever attainable, water quality for the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water. All states must review their water quality standards once every three years to ensure the CWA requirements are being met and revise their standards as necessary. When a state adopts or revises its water quality standards, it must submit them to EPA for approval or disapproval. EPA must ensure that a state’s revised water quality standards meet the requirements of the CWA. After EPA approval, the standards go into effect for CWA regulatory purposes (e.g., used to establish effluent limits for CWA National Pollution Discharge Elimination System (NPDES) permitted facilities). If EPA disapproves the standards, a state can modify its standards and re-submit them to EPA or, if the state chooses not to, EPA is required to issue federal water quality standards for the state.

ESA & CWA**Section 7
Consultation****BiOps****FERC
Licenses****Non-Point****TMDLs****Endangered Species Act Requirements**

EPA's approval of a state's water quality standard is a federal action that triggers the requirements of Section 7(a)(2) of the ESA. These requirements direct EPA to insure its approval does not jeopardize the continued existence of threatened or endangered listed species or destroy or adversely modify their critical habitat. EPA must make this determination in consultation with the National Marine Fisheries Services ("NMFS" — which is responsible for ocean-traveling (anadromous) salmon species) and/or the US Fish and Wildlife Service ("USFWS" — which is responsible for bull trout and other non-anadromous listed species). If adverse effects to listed species are likely, the Services must provide EPA a **biological opinion** (BiOp) on whether or not EPA's approval is likely to jeopardize listed species or adversely modify their critical habitat.

CWA Water Quality Standards

Water quality standards set the water quality goals for specific water bodies (river segments, lakes, bays, etc) and serve as the basis for various CWA regulatory activities. The discharges from wastewater treatment plants and industrial facilities are limited in NPDES permits to ensure water quality standards are met. Operators of private hydroelectric projects must obtain a CWA Section 401 certification from any CWA-authorized state, confirming the project complies with water quality standards when it receives an operating license from the Federal Energy Regulatory Commission (FERC). Federal dams are required to comply with water quality standards. Additional regulatory and non-regulatory programs for non-point sources, such as forest harvest and agricultural practices, are also implemented by the states in order to meet water quality standards. When monitoring indicates that a river segment exceeds a water quality standard, it gets listed on a state's 303(d) list of impaired water bodies. Any CWA-authorized state must then develop a Total Maximum Daily Load (TMDL) for those water bodies that are on the impaired list to determine what sources are contributing to the exceedance(s) and how much reduction is needed to attain the standards.

CWA Water Temperature Standards

Water temperature standards set the maximum allowable temperature for a river in order to protect the established beneficial uses for the river. Salmon (including steelhead) and bull trout need cold water temperatures to survive and sustain a healthy population. Warm rivers impair the growth of salmon and bull trout, make them more susceptible to disease, and cause them to be out-competed by fish that prefer warmer temperatures. Warm rivers also reduce the success of eggs to emerge from the gravel.

Human-caused warming of river temperatures has been identified by NMFS and USFWS as a key contributor to the decline and a major limiting factor in the recovery of salmon and bull trout in the Pacific Northwest. Past land uses, including timber harvests, clearing of land for agriculture, and urban development have resulted in: 1) the loss of riparian trees to shade rivers and keep them cool in the summer; and 2) sediment loading, which fills-in cool pools and makes rivers shallower and more susceptible to warming. Dams, levees, water withdrawals, and point source discharges also contribute to river warming.

CWA programs to maintain and reduce temperatures to attain standards are important to assist in the recovery of ESA-listed salmon and bull trout. Thus, it is important to ensure the temperature criteria for rivers and streams used by salmon and bull trout are set at levels that are fully protective of these species.

Washington's 2003 Water Quality Standard Revisions

In July 2003, the State of Washington's (State's) Department of Ecology (Ecology) revised its water quality standard regulations and submitted them to EPA for approval. This was the most significant revision to the State's water quality standards in more than a decade.

ECOLOGY'S WATER QUALITY STANDARDS REVISION FOCUSED ON:

- a) updating the designated uses for rivers and streams
- b) adopting new temperature criteria to protect salmon and bull trout
- c) adding new antidegradation provisions

Ecology modified its designated use system and temperature criteria for rivers and streams to focus more specifically on protecting salmon and bull trout. A new Char (bull trout) spawning and juvenile rearing designated use was established for mountainous headwater streams where these ESA-threatened fish occur. A maximum 12°C temperature criterion was established to protect this new Char use. Two new salmon spawning, rearing, and migration designated uses were established to replace the old "Class" use

The Water Report

(ISSN pending) is published
monthly by
Envirotech Publications, Inc.
260 North Polk Street,
Eugene, OR 97402

Editors: David Light
David Moon

Phone: 541/ 343-8504
Cellular: 541/ 517-5608
Fax: 541/ 683-8279
email:
thewaterreport@hotmail.com
website:
www.TheWaterReport.com

Subscription Rates:
\$249 per year
Multiple subscription rates
available.

Postmaster: Please send
address corrections to
The Water Report,
260 North Polk Street,
Eugene, OR 97402

Copyright© 2007 *Envirotech
Publications, Incorporated*

ESA & CWA**Designated Uses**

system, which was less fish focused. One use was a “Salmon Spawning, Core Rearing, and Migration” use (“Core” use) with a 16°C maximum temperature criterion, and a second use was a “Salmon Spawning, Non-Core Rearing, and Migration” use (“Non-Core” use) with a 17.5°C maximum temperature criterion. Ecology also adopted special 13°C and 9°C criteria to be applied on a case-by-case basis to protect salmon and bull trout spawning, respectively.

Problems with the 2003 WQ Revisions

After Ecology submitted the 2003 water quality standard revisions to EPA for approval, EPA began ESA consultation with NMFS and USFWS. EPA also concurrently consulted with affected Native American Tribes in Washington. Three major problems emerged as part of EPA’s review and consultation. Each of these problems were similar in that the maximum temperature criteria Ecology adopted for certain river segments did not protect all the fish life stages (e.g., spawning) that were known to or likely to occur in these segments. EPA relied on the *EPA Region 10 Guidance for Pacific Northwest State and Tribal Water Quality Standards* to aid in judging what temperatures are protective of certain salmon and bull trout life stages [available at: www.epa.gov/r10earth/temperature.htm].

Fish Life Stages

The first problem arose from Ecology designating some rivers as a “Non-Core” use with a 17.5°C temperature criterion where fish distribution information from the Washington Department of Fish and Wildlife (WDFW) indicated a “Core” use occurred and thus the 16°C temperature criterion was needed to protect salmon in these rivers.

“Core” Use

The second problem was that Ecology designated some rivers as a “Core” use with a 16°C temperature criterion where USFWS documents (e.g., draft recovery plans and critical habitat designations) and WDFW data indicated a “Char” use was likely to occur and thus the 12°C temperature criterion was needed to protect the bull trout in these rivers.

“Char” Use

The third problem was that, even though Ecology adopted a special salmon spawning and egg incubation criterion of 13°C, where and when the criterion applied was not defined in the standards. After review of WDFW’s spawning and egg incubation timing information for various salmon populations, EPA determined there were many rivers in Washington where spawning or egg incubation occurred in the summer months and would not be protected by the applicable 16°C or 17.5°C maximum temperature criterion. In these cases, 13°C needed to be applied to ensure salmon spawning and egg incubation was protected.

Summer Temperature

When Ecology developed its 2003 standard revisions, it decided to first revise the new salmon and char use designations and temperature criteria, and then in a future standard revision, analyze the fish distribution information on a river-by-river basis to adjust the use designations and apply the special spawning criteria. Ecology also noted that this river-by-river examination would take time, which it did not have in the 2003 rulemaking process. EPA acknowledged the time involved to do such a review, but determined that it could not follow this “two-step” approach because it had available information showing that the maximum temperature criteria for certain river segments in the 2003 standards were too warm and could cause adverse effects to salmon and bull trout. EPA decided it could not approve these standards and rely on a future standard revision to fix these problems.

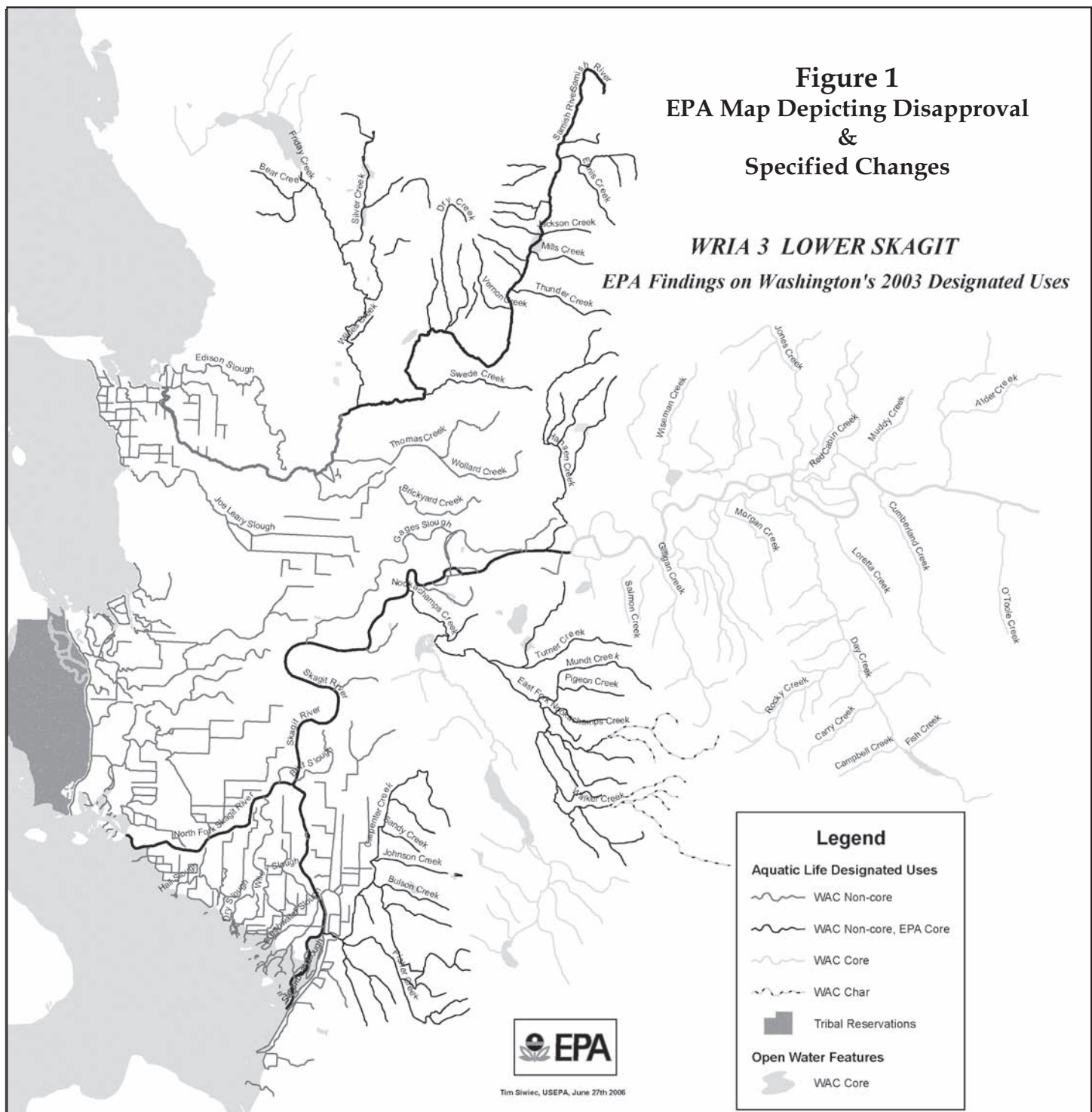
“Two-Step” Approach Rejected**EPA Partial Disapproval of the 2003 WQ Revisions**

On March 22, 2006, EPA disapproved the designated uses and temperature criteria that were not protective of salmon and bull trout in the 2003 standards. The disapproval covered approximately 10,000 miles of rivers and streams. EPA’s disapproval was unprecedented in the degree of detail it contained. EPA’s disapproval was in the form of GIS maps for each major watershed in the State depicting where the uses should be changed and more protective temperature criteria applied. EPA spent over a year working with State, federal, and tribal biologists, including NMFS and USFWS, to review fish distribution information to develop the GIS maps. EPA also made the draft GIS maps available to public stakeholders for comment, which EPA is not required to do nor typically does when it approves or disapproves a water quality standard.

GIS Maps

EPA specified more protective standards for all major rivers that drain into Puget Sound, such as the Nooksack, Skagit, Stilliguamish, Snohomish, Cedar, Green, Puyallup, and Nisqually Rivers as well as other rivers in the State used by salmon and bull trout. EPA’s disapproval documents, including the GIS maps where EPA specified more protective standards, can be viewed at www.epa.gov/r10earth/washington-wqs.htm. *Figure 1 (next page) is an example of EPA’s GIS map depicting its disapproval and specified standard changes for the Lower Skagit River watershed.*

Detailed Disapproval



Editors Note: As is often the case, the maps accompanying this article have been simplified and otherwise modified to fit the format of The Water Report. More detailed color maps and other related documents can be accessed from the following websites:

Washington State Department of Ecology Stormwater Coverage Maps website:

• www.ecy.wa.gov/programs/wq/stormwater/municipal/maps.html

US Environmental Protection Agency Maps showing changes required to fisheries uses designated in Washington website:

• <http://yosemite.epa.gov/R10/WATER.NSF/Water+Quality+Standards/WA+WQS+App+A>

EPA website containing all of their disapproval materials regarding initial Washington State Water Quality Standards:

• <http://yosemite.epa.gov/R10/WATER.NSF/Water+Quality+Standards/WA+WQS+EPA+Disapproval>

ESA & CWA**Ecology
Revision****ESA
Consultation****ESA Influence
on CWA****EPA Approach****Washington's 2006 WQ Revision**

As noted previously, when EPA disapproves a state's water quality standard, that state has the opportunity to fix its standards and re-submit them to EPA. Ecology elected to do that, and proposed revised standards to address EPA's disapproval in July 2006. Ecology adopted the revised standards on November 20, 2006, and submitted them to EPA for approval on December 6, 2006. The 2006 revised standards reflect all the designated use and temperature criteria changes specified by EPA in its disapproval, except for one stream reach which Ecology adjusted based on public comment. The 2006 standards and associated rule-making documents can be viewed at www.ecy.wa.gov/programs/wq/swqs/index.html. *Figures 2 and 3 (pages 6 & 7) shows where and when the new 13°C spawning criteria apply in the Puyallup and Snohomish watersheds, respectively.*

EPA is currently proceeding with its review of the revised 2006 standards along with provisions in the 2003 standards that EPA has yet to take action on. As part of this process, EPA is conducting its ESA consultation on those standards it proposes to approve. EPA will complete its action after NMFS and USFWS provide EPA with their biological opinions on EPA's proposed action.

Summary

EPA's disapproval of the 2003 standards was a CWA action based on EPA's CWA Section 303(c) authorities. However, the ESA has influenced EPA's review of revised standards under the CWA. Prior to ESA listing of salmon and other aquatic species in the Northwest, EPA reviewed revised water quality standards to determine whether they protected aquatic life in general. With the ESA listings, EPA now specifically examines the extent to which listed species are protected. EPA's disapproval of the 2003 standards is an example of how EPA reviewed a revised water quality standard to specifically examine the effects on listed species. EPA then used CWA authorities to minimize potential adverse effects and avoid jeopardizing the listed species continued existence or adverse modifications to their critical habitat.

In this case, EPA also decided to take its disapproval action prior to completing ESA consultation on the 2003 standards. Through early consultation with the Services, it was apparent that NMFS and USFWS would likely conclude that EPA's approval of the 2003 standards would result in jeopardy/adverse modification biological opinions. EPA elected to avoid this possible outcome and instead used its CWA authorities to disapprove and seek revision to the Washington water quality standards. EPA expects to complete ESA consultation and take final action on the revised Washington standards later this year.

WASHINGTON'S MUNICIPAL STORMWATER PERMITS**Overview/Background**

On January 17, 2007, Ecology issued NPDES permits for cities and counties in western Washington to control stormwater runoff from streets, parking areas, and developments. The permits apply to about 90 cities and counties in western Washington. For the cities of Seattle and Tacoma, and the unincorporated areas of King, Pierce, Snohomish, and Clark counties, the new permit is the first renewal of the original 1995 permit. For the other cities and counties, this is the first NPDES stormwater permit that they are required to meet. (See Water Briefs, TWR #36 and Tupper, TWR #32)

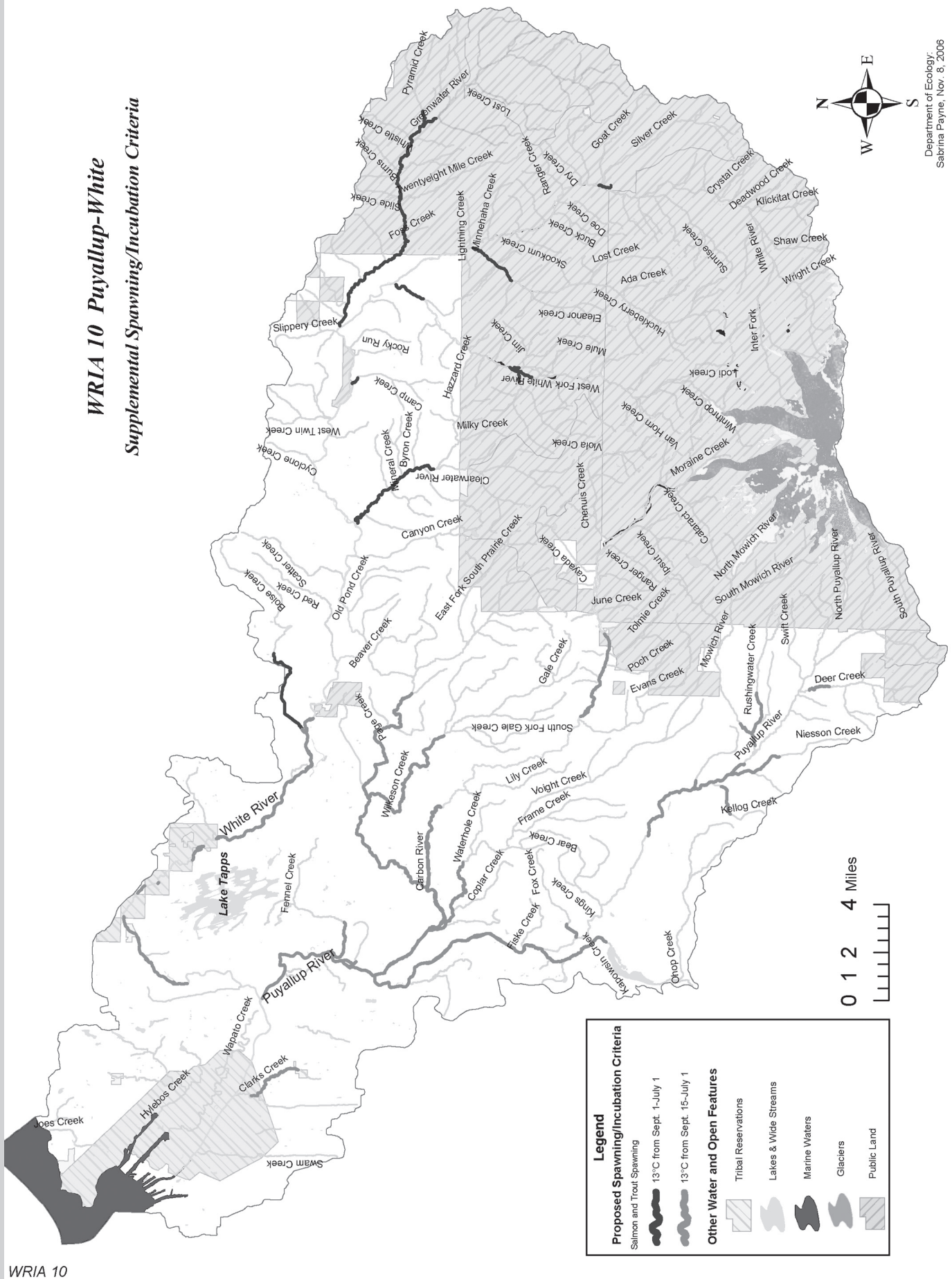
Stormwater runoff into rivers and Puget Sound is considered the most significant source of pollution from urban areas in western Washington. Stormwater runoff can carry a host of toxic chemicals, nutrients, and sediments that can be harmful to aquatic organisms. Uncontrolled peak runoff during heavy rains can scour stream channels destroying salmon spawning and rearing habitat. Cleaning up stormwater runoff from urban areas and minimizing stormwater impacts from new developments is considered a high priority in efforts to recover ESA-listed salmon and restore the Puget Sound.

CWA Requirements

In 1987, Congress amended the CWA to regulate specific sources of stormwater under the NPDES permit program. EPA developed regulations to implement the NPDES stormwater program for municipalities in two phases. 40 CFR Part 122. The Phase I regulations adopted by EPA in 1990 established the NPDES program for **municipal separate storm sewer systems (MS4s)** generally serving populations of more than 100,000 people. The Phase II regulation adopted by EPA in 1999 established a largely similar program for MS4s of smaller communities in Urban Areas defined by the US Census Bureau. These regulations require cities and counties to develop stormwater management programs and obtain NPDES permit coverage from the permitting authority for their stormwater discharges into rivers, lakes, and marine waters. The regulations also define the minimum elements of a municipality's stormwater management program.

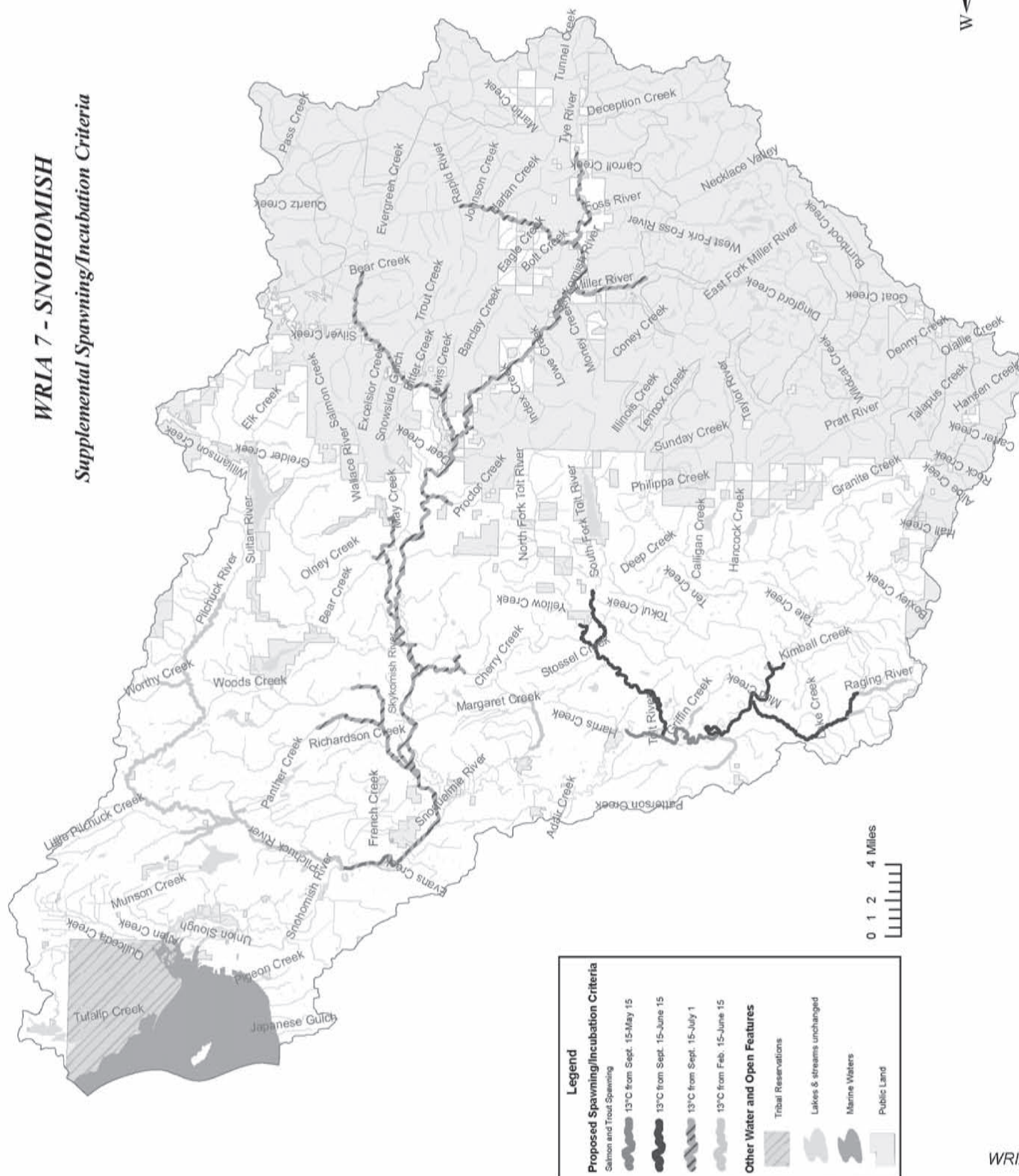
Phase I**Phase II****NPDES
Stormwater
Permits**

Figures 2 & 3: Application of Spawning Temperature Criteria in the Puyallup & Snohomish Watersheds



Department of Ecology
Sabrina Payne, Nov. 8, 2006

WRIA 7 - SNOHOMISH Supplemental Spawning/Incubation Criteria



Department of Ecology
Sabrina Payne, Nov. 8, 2006

WRIA 7

ESA & CWA**EPA Oversight****“Federalize”****Permit Issuance
Not Fed Action****MOA: on
Coordination****Draft Permit
Review****New General
Permits****Stormwater
Runoff****Phase II
Distinctions****Habitat
Degradation**

Ecology is the NPDES permitting authority in the State because EPA authorized Ecology to administer the NPDES program in 1973. Ecology, therefore, is responsible for issuing the stormwater NPDES permits consistent with minimum measures required by the EPA regulations.

Under the CWA, EPA continues to have oversight authority for any CWA-authorized state's NPDES program even after the program has been state-delegated. Part of that oversight includes the discretion to review and object to a draft NPDES permit proposed by a state if it is not consistent with CWA requirements. If a state does not sufficiently address EPA's objections, the EPA has the discretion to “federalize” the permit — meaning EPA would issue the permit.

ESA Requirements

NPDES permits issued by a state — such as Ecology's municipal stormwater permits — are not viewed by EPA to be a federal action that triggers the consultation and “no jeopardy” requirements of Section 7(a)(2) of the ESA. This view was recently upheld by the US District Court in Oregon in *Oregon Natural Resources Council, et al, v. Stephanie Hallock, et al*, No. 02-1650-CO, (D.Or.)(Nov. 29, 2006) where plaintiffs unsuccessfully argued that EPA failed to comply with ESA Section 7(a)(2) consultation requirements when the Oregon Department of Environmental Quality issued an NPDES permit to the Klamath Irrigation District (see Morford & Ginsberg, TWR #34).

However, Section 7(a)(1) of the ESA requires all federal agencies (including EPA) to utilize their authorities to carry out programs for the conservation of threatened and endangered species. Consistent with EPA's obligations under 7(a)(1), the *Memorandum of Agreement between the EPA, Fish and Wildlife Service and National Marine Fisheries Services Regarding Enhanced Coordination Under the Clean Water Act and Endangered Species Act* (MOA) was established which includes interagency coordination procedures regarding issuance of state-issued permits [available at: www.epa.gov/waterscience/standards/factmoa.html].

The MOA defines the process EPA, NMFS and USFWS will follow when reviewing draft permits issued by the state. If NMFS or USFWS have concerns that a draft permit will cause detrimental effects to listed species, they can request EPA to coordinate with the state to ensure the permit complies with all CWA requirements in order to minimize any potential detrimental effects. If EPA determines the draft permit will likely have more than minor detrimental effects, EPA may object to the permit consistent with its CWA authorities, and if necessary, federalize the permit.

Ecology's Draft Stormwater Permits

Ecology issued draft stormwater NPDES permits for Phase I and Phase II western Washington municipalities on February 15, 2006. The permits included all the minimum measures required by the EPA municipal stormwater regulations at 40 CFR 122. The renewal of the Phase I permit applied to the cities of Seattle and Tacoma, and to counties of King, Pierce, Snohomish, and Clark. The new Phase II permit applied to all portions of the cities located within an Urban Area defined by the US Census Bureau as well as county areas that are: 1) Urban Areas; or 2) adjacent to cities that are designated urban growth areas under the State's Growth Management Act.

The draft permits required these cities and counties to develop, implement, and enforce a stormwater management program that reduces discharges of pollutants to the maximum extent practicable and uses all known, available and reasonable methods to prevent and control pollution. Among other things, the permits required a city or county's stormwater program to control runoff from new development, redevelopment, and construction sites consistent with *Ecology's 2005 Stormwater Management Manual for Western Washington*. [available at: www.ecy.wa.gov/programs/wq/stormwater/tech.htm].

There were a number of differences between the draft Phase I and Phase II permits reflecting differences between federal Phase I and Phase II stormwater regulations and the fact that the Phase II municipalities have less developed stormwater programs. For example, Ecology's draft Phase II permit did not require: (1) run-off controls for new development and redevelopment sites that were less than one acre; (2) programs to control stormwater from already developed areas; or (3) stormwater discharge monitoring.

NMFS and USFWS Comments on Draft Permits

NMFS and USFWS notified EPA and Ecology during the public comment period that it had concerns that the draft municipal permits would lead to effects detrimental to ESA-listed salmon and bull trout. NMFS and USFWS were concerned that the draft permits would allow for continued degradation of salmon habitat associated with new development activities, and that the draft permits required too little of municipalities to improve stormwater problems in urban areas that currently have degraded habitat.

NMFS and USFWS expressed multiple concerns in their comment letter to Ecology on the draft

ESA & CWA

Basin Plans

New
DevelopmentLow Impact
Techniques

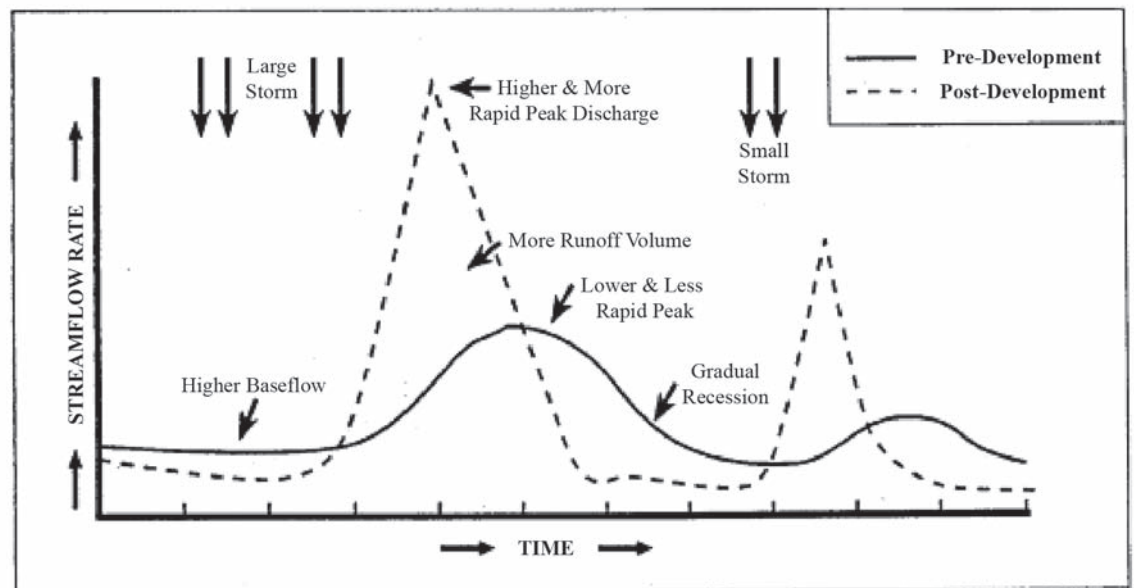
FIGURE 4

permits [available at: www.ecy.wa.gov/programs/wq/stormwater/municipal/index.html]. A primary concern was the draft permits did not include a requirement to conduct basin plans at the watershed scale that included such things as: 1) zoning changes to protect important natural areas; and 2) prioritization of areas for stormwater improvements. NMFS and USFWS were concerned that the traditional stormwater control methods required in the permit (e.g., stormwater ponds to control runoff) would not be sufficient to avoid the negative impacts to streams as new development occurs and that land use protections were also needed. NMFS and USFWS cited several studies that show streams are negatively impacted when the forest cover in a watershed drops below 65 percent and impervious surface area exceeds 10 percent. This demonstrates the importance of land use planning and stormwater management at the watershed scale.

OTHER NMFS AND USFWS CONCERNS INCLUDED:

- the Phase II permit exempted run-off controls at development sites less than one acre
- the Phase II permit did not require a control program to address existing stormwater problems
- both permits relied too heavily on traditional stormwater practices and did not require or emphasize low impact development techniques (e.g., on-site infiltration systems and permeable pavement)
- both permits' monitoring requirements were insufficient to aid in adaptive management of stormwater programs
- the Phase II permit did not fully apply to some western Washington areas that have important salmon habitat and are likely to experience future development

STORMWATER EVENTS & STREAMFLOW



EPA Review and Comment Letter

EPA reviewed the draft municipal stormwater permits and the NMFS and USFWS joint comment letter to Ecology. Although EPA believed that NMFS and USFWS expressed valid concerns with respect to past and future detrimental effects to ESA-listed species associated with urban development, it did not exercise its CWA authority to object to Ecology's draft permits. Rather, EPA provided a comment letter to Ecology on October 27, 2006, that included a set of recommendations.

EPA indicated in its letter that the draft permits contained all the basic elements specified in EPA's stormwater regulations and represented a significant step forward in stormwater management in western Washington. EPA also noted that in a number of respects, Ecology's permits were among the best in the nation (i.e., the requirement for new development and redevelopment to control stormwater runoff at a rate equal to the predevelopment condition). Additionally, EPA noted that there were CWA and State programs beyond the scope of the permits that were also important for effective stormwater management that could address some of the issues raised by NMFS and USFWS (e.g., State Growth Management Act requirements to contain growth and protect critical areas). Accordingly, EPA did not object to Ecology's draft permits.

EPA's comment letter did, however, include a list of actions it believed Ecology should take to minimize the impacts of stormwater on ESA-listed salmon and bull trout and aquatic resources. EPA's recommended actions included: (1) some changes to the draft permits; and (2) changes to programs Ecology could implement related to stormwater mitigation which are, however, beyond the scope of the permits.

Predevelopment
ConditionEPA
Recommends

ESA & CWA**EPA
Recommends****EPA'S RECOMMENDED CHANGES TO THE DRAFT PERMITS INCLUDED:**

- Expand the coverage of the Phase II permit to include the whole watershed (6th field HUC) if the watershed included an urban growth area. Additionally, include a petition process and decision criteria to consider candidate areas that may be covered under the permit in the future.
- Remove the one-acre threshold exemption in the Phase II permit and require the same thresholds as in *Ecology's 2005 Stormwater Management Manual for Western Washington*.
- Strengthen the Phase I and Phase II permit to actively promote low impact development.
- Add a basin planning requirement to the Phase I permit to aid in land use decisions.

**Ecology
Authority**

EPA believed Ecology had the authority to include the above recommendations in the permits. In particular, although EPA's stormwater regulations establish minimum permitting requirements, permitting authorities also have broad authority to ensure the municipal stormwater management programs reduce pollutants to the "maximum extent practicable" and "protect water quality."

EPA also made the above permit recommendations in recognition that the permits must be revised every five years. Therefore, if Ecology did not include these recommendations in these final permits, they should be fully considered when the permits are reissued in five years.

EPA'S RECOMMENDATIONS REGARDING PROGRAMS RELATED TO STORMWATER MANAGEMENT WHICH ARE BEYOND THE SCOPE OF THE PERMITS INCLUDED:**Beyond Permit
Scope**

- Develop of a comprehensive stormwater monitoring program for Puget Sound to guide municipal stormwater management programs.
- List urban and urbanizing streams on the State's 303(d) list of impaired waters based on biological and toxic parameters to spur the development of TMDLs in urban watersheds.
- Support local governments and developers to implement low impact development techniques.
- Support local governments to develop stormwater basin plans to inform land use decisions.

EPA believed these programs and initiatives were important to supplement the municipal stormwater permits to minimize detrimental effects to salmon and bull trout from urban development. EPA recommended that Ecology along with local, state, and federal partners move forward in the near term on these programs.

Final Permits**Municipal
Stormwater
Permits**

Ecology issued the final municipal stormwater permits for western Washington on January 17, 2007. The re-issuance of the Phase I permit and the issuance of the new Phase II permit concludes a long and involved process to develop these permits. Ecology received extensive comment on the draft permits from about 70 parties. The final permits and supporting documents are available on Ecology's website [available at: <http://www.ecy.wa.gov/programs/wq/stormwater/municipal/index.html>]. *Figures 5 and 6 depict the area covered by the permits for the Bellingham area and the Pierce County area, respectively.*

**Ecology
Changes**

Ecology made two specific changes to the draft permits in response to the comments and recommendations provided by EPA, NMFS, and USFWS. First, Ecology included a requirement in the Phase II permit that if a local government is currently regulating stormwater runoff at sites less than one acre they must continue to do so. This is significant because many local governments that must comply with the Phase II permit have already adopted ordinances to control stormwater at a more stringent level. Thus, the permit would not allow a relaxation of requirements. Second, the Phase II permit included the process by which any person or organization may petition Ecology to require a municipality's stormwater system to obtain coverage under the permit. Ecology also established petition criteria it will use to make its decision when petitioned, which includes consideration of sensitive waters such as those designated as critical habitat for ESA-listed species.

Petition Process

Ecology provided a response to comment document as part of the final permit package [available at: www.ecy.wa.gov/programs/wq/stormwater/municipal/index.html]. In this document, the other issues raised by EPA, NMFS, and USFWS are addressed along with the multitude of other issues raised by others. EPA's comments, however, are not specially noted in this document because EPA submitted its comments after the public comment deadline. With respect to basin planning, Ecology indicated that it agrees that basin plans can be a valuable tool to identify ways to reduce existing stormwater impacts, prevent future impacts, and inform land use decisions. However, Ecology continued its position that basin planning be supplementary to the permit, not a permit requirement. With respect to low impact development (LID), Ecology asserted that the requirement to remove barriers to LID in the permits is an important step to promote LID, but that it did not believe it was appropriate to require LID because LID may not be appropriate for some sites. Ecology also noted that LID credits can be used to meet the flow control requirements in the permits, which serves as an incentive for LID.

Basin Planning**Low Impact
Development**

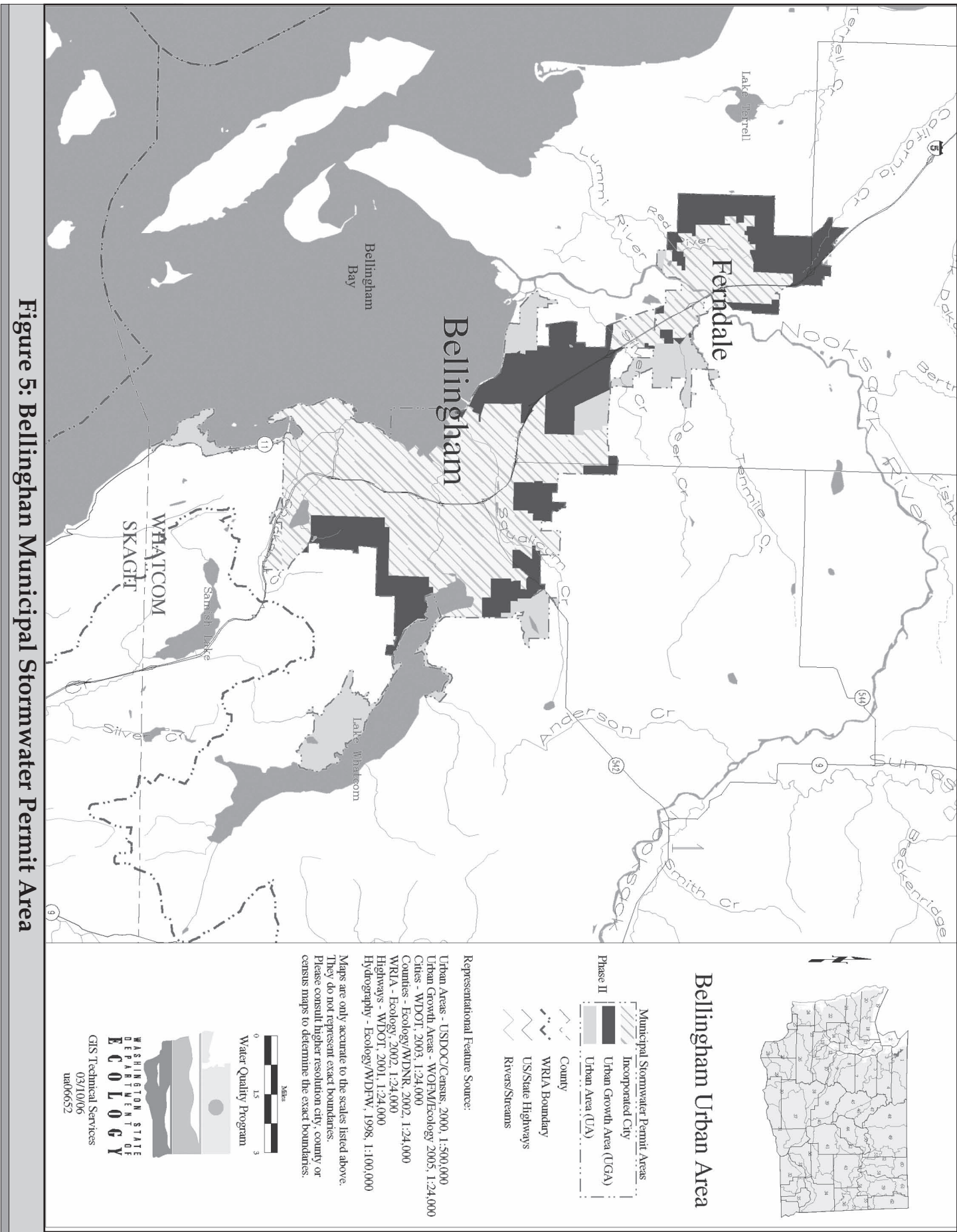


Figure 6: Pierce County Municipal Stormwater Areas



ESA & CWA**Permits
Appealed****Puget Sound
Partnership
Recommends****MOA Process**

The final municipal stormwater permits remain controversial. In February, 2007, seven parties appealed the Phase I permit, and five parties appealed the western Washington Phase II permit, to the State's Pollution Control Hearings Board. The parties to the appeals include cities, counties, and environmental groups [Appeals can be viewed at: www.ecy.wa.gov/programs/wq/stormwater/municipal/municipal_stormwater_permit_appeals.html].

At this time, it's too early to provide a status on any Ecology initiatives to address EPA's recommendations regarding stormwater related programs beyond the scope of the permits. However, the Puget Sound Partnership, in its December 2006 report to Governor Gregoire, recommended actions to control stormwater runoff that are complementary to the NPDES permits [available at: www.pugetsoundpartnership.org/]. The recommendations include a coordinated monitoring program, promotion of low impact development, and basin planning. The Washington State Legislature is currently considering legislation funding the recommendations of the Puget Sound Partnership.

Summary

Although EPA periodically reviews state-issued NPDES permits as part of its ongoing oversight of a state's NPDES program, the ESA has influenced EPA's level of involvement in reviewing state-issued permits that may pose detrimental effects to listed species. In particular, the MOA between EPA, NMFS and USFWS has established a process to address potential detrimental effects. The NMFS, USFWS, and EPA's involvement and review of Ecology's draft municipal stormwater permits is an example of this process.

FOR ADDITIONAL INFORMATION: JOHN PALMER, EPA Region 10 Office of Water and Watersheds, 206/ 553-6521 or email: palmer.john@epa.mail.epa.gov

While Mr. Palmer serves as a senior policy advisor for EPA Region 10, the views expressed in this article are Mr. Palmer's and not necessarily the positions of EPA or the United States.

John Palmer is a Senior Policy Advisor for Clean Water Act - Endangered Species Act issues for EPA Region 10's Office of Water and Watersheds. He coordinates EPA actions under the Clean Water Act to ensure the agency meets its responsibilities under the Endangered Species Act. John led the development of and was the primary author of the EPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards. He has been with the EPA for 21 years in several different positions and programs. John has a Masters in Public Administration from the University of Washington and a B.S. in Environmental Science from Washington State University.

Clean Water & Stormwater Conference

March 19 & 20 — Seattle, Washington

Agenda Includes:

Washington Department of Ecology's New Stormwater Monitoring Report
 Managing Stormwater to Meet the Goals of the Puget Sound Partnership
 Metals in Runoff: Implications for Salmon Health and Stormwater Permitting
 Puget Sound Partnership and Water Initiative
 Army Corps of Engineers New Proposed Nationwide Permit
 Building a Defensible Record for 404/401 Permits
 Intermittent and Ephemeral Waters: Post-Rapanos Guidance
 Comprehensive Look at Enforcement
 Compliance with FIFRA requirements; NPDES permitting;
 Tribal Water Quality Regulation
& More!

Michael P. O'Connell, Stoel Rives — James A. Tupper, Jr, Mentor Law Group — Program Co-Chairs

For info: Barb Smith, Law Seminars International, Senior Program Coordinator
 800-854-8009; 206/ 567-4490 or email: bsmith@lawseminars.com or website: www.lawseminars.com

Dams

AGING DAMS & MITIGATION CREDITS

CONVERTING FIXED LIABILITIES INTO LIQUID ASSETS

by James G. Workman, Confluence (San Francisco, CA)

Introduction

Dams are mortal and, in many cases, their days are numbered. As dams age, their structures reveal physical weaknesses — rot, cracks, leaks — that require evermore frequent and expensive care to keep them safely functional. The American Society of Civil Engineers (ASCE) has set the average dam's "lifespan" at 50 years. In less than two decades, 85 percent of this country's National Inventory of Dams (NID) will have exceeded this ASCE-determined lifespan — a number that works out to be 66,935 dams. The NID contains information on approximately 79,000 dams throughout the US that are more than 25 feet high, hold more than 50 acre-feet of water, or are considered a significant hazard if they fail.

While the vast majority of these deteriorating dams are smaller, simpler and often neglected, many substantial projects are also included. In addition, thousands of the largest, most complex and best-maintained hydropower dams — many in the American West — are now coming due for relicensing by the Federal Energy Regulatory Commission (FERC). This relicensing process involves federal Endangered Species Act and Clean Water Act legal obligations that are placing increasingly expensive demands on dam operators. (See Moon, TWR #31 and Glick, TWR #28; FERC's "Citizen's Guide — Hydropower Licensing" at: www.ferc.gov/for-citizens/citizen-guides/hydro-guide.asp).

This article provides an overview of the interlinked physical and competitive forces at work in reducing the utility, economic value, and relative usefulness of many dams. It will discuss how watershed development and "dam maintenance -v- dam demolition" decisions can be linked through a nascent market-based mitigation brokerage that can ensure the preserved dams' safety, utility and environmental soundness. It will argue that considering the many upcoming dam decisions as market-based business opportunities within a mitigation framework can be both economically and environmentally beneficial.

Financial Burden of Ongoing Upkeep

Aging dams have a great deal going against them. Seismic shifts shake from below; water pressures scour from behind. Sediment fills in upstream; uninsured lives and property fill in downstream. The sun evaporates more than cities can drink. Recently, scientists have demonstrated how dam releases and reservoirs emit methane, thus accelerating climate changes that some argue have already resulted in "drought and deluge" cycles on a scale unanticipated when the dams were designed.

However, for many dams the "day of reckoning" can be delayed — perhaps indefinitely. Public and private owners can and do choose to invest millions in required fish ladders, costly repairs, and perpetual upkeep. In fact, due to good maintenance, the oldest dam in the NID record (built in 1677 in Newington, Connecticut) still stands.

Yet many more dams lack the necessary funds required for upkeep and the federal government isn't currently coming to the rescue. The public subsidies for dam construction have not materialized for dam upkeep and repair. The ASCE estimated in 2005 that, nationwide, repairing non-federal dams that threaten human life would cost \$10.1 billion (see ASCE's *2005 Report Card for America's Infrastructure* at: www.asce.org/reportcard/2005/index.cfm). The Association of Dam Safety Officials placed the cost of repairing all non-federally owned dams in the country at \$36.2 billion. Congress recently failed to pass legislation authorizing even an obviously inadequate \$25 million a year for five years to address these problems.

Cash-strapped budgets of states generally don't even allow dam safety officials to perform their jobs adequately. The ASCE *2005 Report Card* emphasized that few state dam safety programs are adequately funded or staffed. "On average nationwide, there are 268 state-regulated dams per full-time equivalent (FTE) staff. In 13 states, this number exceeds 500, and four report more than 1200 dams per FTE staff." (ASCE, see above). State inspectors, like their dams, are set up to fail.

More than half of America's dams are privately owned. Health, safety and environmental compliance costs continue to escalate. Both increased government regulation and third party litigation have substantially increased the costs of doing business. Some dam owners simply walk away. The number of abandoned, obsolete, orphaned or "deadbeat" dams keeps rising. Today, 12 percent of America's inventoried dams are classified as being of indeterminate ownership.

"Lifespan"

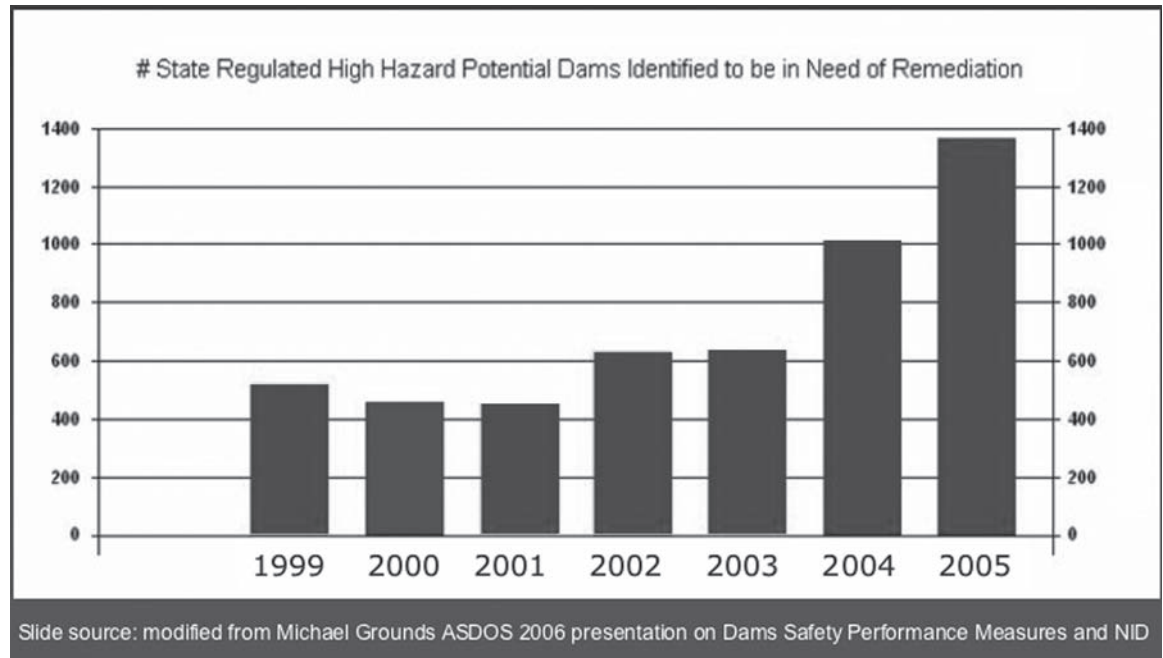
FERC
RelicensingMitigation
Framework

Repair Costs

Inadequate
Safety

Dams

High Hazard Dams



Costs, Benefits & Diminishing Returns

According to the World Commission on Dams (WCD), the world has invested two trillion dollars in dams over the past six decades. Whether public or private, individual or institutional property, and no matter the size, every dam represents a significant financial investment. The WCD discovered that during the last century, leaders weighed the options and made the decision — 45,000 times worldwide — that investing in a large dam would provide economic and social benefit in excess of its cost. For some time dams did just that. Dams helped turn water mills and allowed barge transport. Dams absorbed flood surges and provided storage for irrigation. Dams stored drinking water, generated power and provided recreation. Dams helped modernize cities and nations.

Cost/Benefit Analysis

Yet surprisingly, when it comes to dams, cost/benefit analysis has rarely been conducted in a systematic, comprehensive manner. Until the WCD reported in 2000, there was very little specific information as to the return on this investment. Questions regarding just who was benefiting and just who was bearing what costs remained unanswered, and detailed analysis of dam “devaluation” over time remained absent.

Devaluation

Unfortunately, the WCD also discovered how the capital, dividends and yields of dam investments invariably diminished — often rapidly. Similar to a car sale, the devaluation in a dam’s net worth begins the moment a dam is commissioned. As the hidden costs become manifest and are added onto the ledger, there are clearly cases where the dam’s value on the market shifts from black ink “asset” to red ink “liability.”

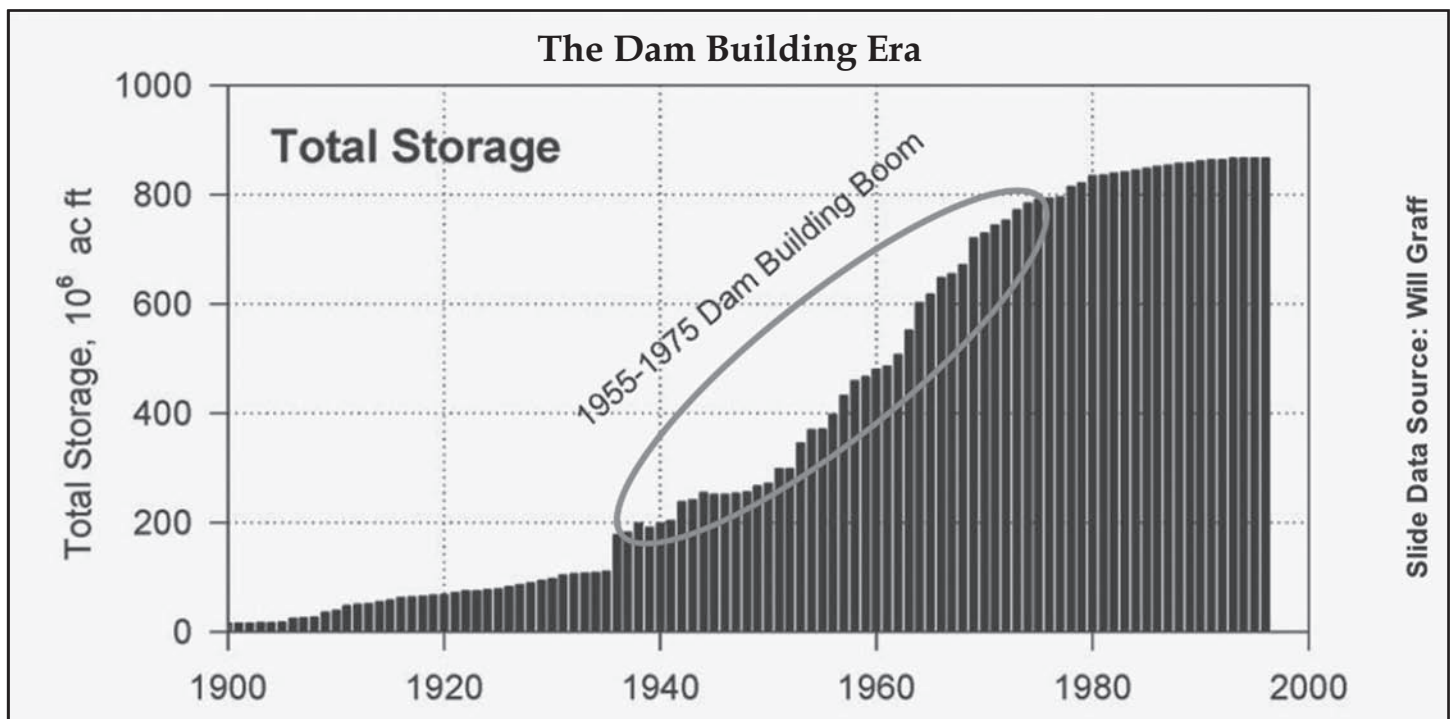
Many of the reasons behind this market devaluation of dam properties are well known to civil engineers. Dams trap sediment, at a global average increase of .5 to more than 1 percent annually. Removing trapped sediment can cost upwards from \$3 per cubic meter. Nelson Mandela’s Water Minister, the 2000 winner of the Stockholm Water Prize and WCD chair, Kader Asmal, warned that “there is no practical, physical means of removing the vast quantities of existing sediment. The effects are irreversible...as long as the structures remain in place.”

Evaporation Impacts

Another perpetual threat to surface water storage is the sun. While sediment build up reduces reservoir storage from below, evaporation reduces the remaining from above. While evaporation rates vary from dam-to-dam and year-to-year, on average global evaporation consumes between 5-to-15 percent of stored freshwater supplies each year. In areas of rising heat and shrinking rainfall, such rising losses may prove intolerable. Today more irrigators pump groundwater than tap into dammed reservoirs. In arid landscapes water is more securely stored in cool, clean aquifers than on hot, polluted surfaces.

Dam Failures

The third major threat that devalues dams is structural integrity. America’s engineers have put a premium on safety, and the record over time looks sound. Yet the total number of dam failures and lives lost to that failure continue to rise not just abroad but also in the United States. Between 1876 and 2006 the US Association of State Dam Safety Officials (ASDO) reported 5,128 known deaths to dam failures.



Flood Potential

The 1989 “Johnston Report” on flood plain management cautioned that while flood damages may be reduced by storage, “the damage potential remains if a flood of greater than design capacity occurs or if the dam should fail.” Seventeen years later, as hundreds of thousands more people have moved into floodplains, as dams further aged, and as a warming climate altered the patterns of rainfall and drought to new extremes, the situation has not improved. Looking only at mild rainstorms in October 2005 and May 2006, three states reported 408 over-toppings, breaches and damaged dams.

ASDSO’s Michael Grounds warned last year that the recorded number of high-hazard dams in need of remediation continues to increase significantly (due to age, more dams, and better inspections). Worse, only half the nation’s high hazard dams currently have Emergency Action Plans. Among the Western states lacking such plans are: Oregon, Washington, Colorado, Texas, Nebraska, the Dakotas, Montana and Wyoming.

Market Pressure

On top of the physical stresses of aging and devaluation, new and existing dams face a powerful market pressure: competition. Like any factory or farm, the goods and services produced by dams are bought and sold in the marketplace. Over the decades since many a dam’s inception, a dynamic economy has evolved in the dam’s surrounding watershed. Old mills have become shopping malls; transport canals have become freeways; farms have become subdivisions. The power generated from wind, sun, wave energy and geothermal sources is always cleaner, and sometimes cheaper than that from warm, stagnant reservoirs.

ASCE Guidelines

The American Society of Civil Engineers produced a committee report, *Guidelines for Retirement of Dams and Hydroelectric Facilities* (1997), that presents information for use in considering the retirement of dams and hydroelectric facilities. The purposes of these guidelines include: 1) identifying types of data options to be considered; 2) describing available engineering, environmental, and economic methods for assessing, quantifying and implementing retirement; and 3) identifying types of techniques for comparing and evaluating retirement costs and benefits. It specifically covers data collection and analysis, studies of retirement, engineering and environmental assessment, sediment management, and review of selected case studies. See ASCE’s website: www.asce.org/bookstore/book.cfm?book=3118.

Public Subsidies

Political Currents & Economic Currents

In the past, dam building was often characterized as a nation-building enterprise unquestionably worthy of public subsidy. Public financial support was not limited to just the large dams — the Hoovers, Glen Canyons, Grand Coulees and Flaming Gorges. The construction of tens of thousands of smaller dams and weirs in the West, became economically feasible only through market-distorting subsidies to those individuals, collectives, bureaus and municipalities who constructed, owned and operated them.

Dams

An examination of national records regarding the pace of new dam construction reveals a strikingly consistent curve spanning the last century. The rate of dam building initially rose rapidly, then slowed, and then more-or-less ground to a halt.

Sites Available

What is behind this slowdown? One common answer is physics, i.e. "All the best dam sites have been taken." However, this answer is not convincing. International Hydropower Association maps show hundreds of gigawatts of exploitable energy in river currents just waiting for hydroelectric dams to reap the bounty. In fact, the head of the International Commission on Irrigation and Drainage recently argued that the world needs 45,000 *more* new large dams in order to double our global stockpile.

Economics Changing

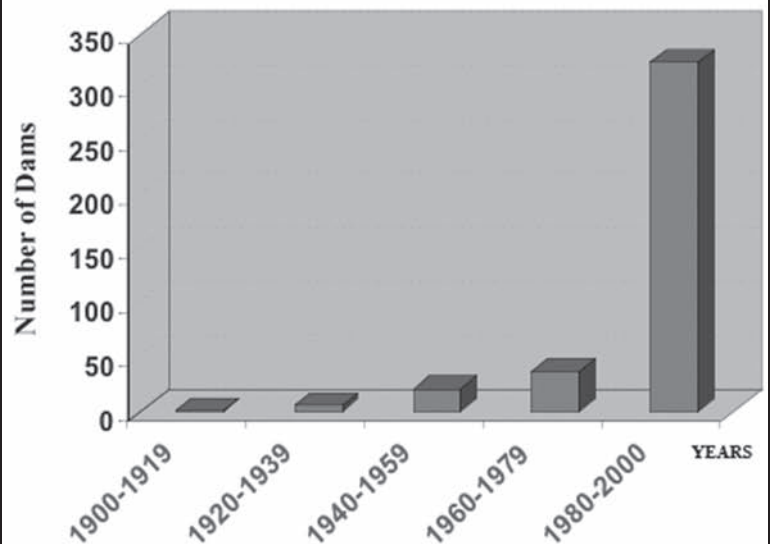
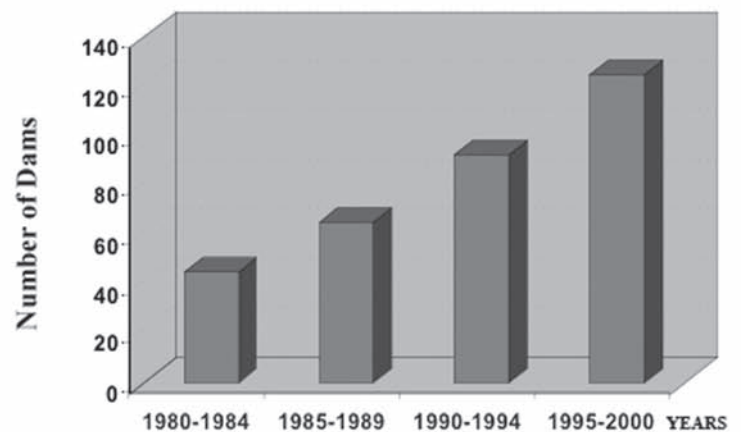
At the case-by-case level, five words tip the scales against dams: marginal costs exceeded marginal benefits. This circumstance was in part brought about due to dynamic and evolving economic and political changes. As society diversifies beyond industrial resource extraction (mining, logging, smelting, farming) into more profitable urban service and knowledge work (Nike, Starbucks, Intel, iPod), dams are no longer the underlying foundation for growth.

Politics Shifting

By the mid-1990s, the politics of dams was shifting. Many a reporter noted Interior Secretary Bruce Babbitt's attempts to "free rivers" from obsolete dams. A "Dam-Busting Tour" criss-crossed the country from Edwards Dam on the Kennebec River in Maine to Glines Canyon Dam on the Elwha River in Washington. Energy CEOs welcomed demolition of Quaker Neck and later Marines planted explosives at Cherry Hospital Dams, both on the Neuse River in North Carolina. Jackson Street Dam on Bear Creek in Medford, Oregon went down for urban revitalization. Taking out Matilija Dam on the Ventura River in southern California has been touted for the potential to release beach-replenishing sand to coastal communities. Dissolving McPherrin Dam on Butte Creek in northern California united irrigation farmers and salmon fishermen.

Following the change in administration, George W. Bush's Interior Secretary Gale Norton actually *accelerated* the dam-busting juggernaut. In 2002 alone 63 dams were terminated — i.e. a third of the number occurring in Babbitt's eight-year tenure.

The reasoning behind this shift in politics is not hard to discern. Since on average the transaction costs of removal are a fraction the cost of repair, the choice may be (economically) obvious. Logic dictates that when faced with a hefty price tag for adding required environmental features or fixing what has become a public nuisance, dam owners — whether a farmer, a utility, or a county executive — will seek the most affordable exit strategy. On the Baraboo River in Wisconsin, for example, a dam's repair was pegged at \$694,000; by contrast removal set locals back \$214,000. Scaling up, repairing the unsafe, high-hazard 72-year-old Birch Run Dam in Pennsylvania would have cost \$20-30 million versus \$2.1 million to remove.

Transaction Costs**Dam Removals in America: 20th Century****Dam Removals in America: 1980 - 2000**

Modified from Stanford University National Dams Project Data

Dams**Removal
v.
Repair**

True, most American dam removal experience to date has accrued in the East — i.e. the wet side of the Mississippi. The arid West, however, is learning quickly. Montana officials visited Midwestern and Eastern states in advance of its historic decision to remove Milltown Dam at the confluence of the legendary Clarks Fork and Blackfoot Rivers. One rule of thumb they learned is that dam removal proves on average to cost one-third the price of repair.

However, although relatively lower, the price for dam removal is seldom negligible. Costs escalate with each vertical foot rise of concrete, each acre-foot of water, and each cubic yard of silt (sediment). Pacificorp, owners of 125-foot-tall Condit Dam on the White Salmon in Washington State would have needed \$40 million to upgrade to qualified energy licensing standards, but still requires \$17.5 million for its removal. Restoration of Matilija Dam will cost upwards of \$150 million or more due to sediment clogged behind it (see Water Briefs, TWR #2). Contemplating the biggest dam removal project in history — the 108-foot-tall Elwha and 210-foot-tall Glines Canyon dams in Washington State — is as exciting as the \$185 million restoration cost is sobering.

The individual large dams mentioned above comprise just the tip of the stockpile of aging dams in the American West, a region which itself represents less than one-twentieth of the global stockpile.

Development Mitigation in Action**New
Approach?**

As noted above, even where dam removal is clearly the least expensive, safest, most beneficial option — the price tag for removal is still considerable.

Thus far, most of the cash has come from government coffers and deep-pocketed philanthropists. However, experience shows these sources can prove sporadic, erratic, and fickle. There needs to be a way to efficiently and systematically lower transaction costs. Development mitigation can provide for just such a system.

**Mitigation
Credits**

Before business interests start any new development, they must by law complete an environmental impact assessment to show how their proposed action will result in no net loss for the public or the environment. For every acre of wetland that developers drain, for example, they need to restore two or more acres of wetlands elsewhere. Likewise, sulfur emissions from new coal burning must be offset by reductions in emissions elsewhere. The permitted damage or “pollution rights” can increasingly be certified, quantifiable, transferable, and transparent in the environmental impact assessment. The proof of corrective offsetting becomes a credit. Until a credit is approved by the government, the development sits on hold — perhaps driving up project costs by millions. Non-compliance leaves business interests liable for additional fines or lawsuits, with the potential for bankruptcy or foreclosure.

To avoid these before-or-after costs, businesses seek out credits generated by third party projects for environmental services in advance of their proposed development — and are willing to pay handsomely for them. As readers of The Water Report know, a lucrative national market is emerging for those credits in many areas of the environment, such as: water rights exchanges; endangered species habitat conservation plans; wetlands mitigation banking; emissions trading; and water quality and water temperature trading credits.

Currently, demand for such credits outstrips supply. One reason is that it has proven both expensive and ecologically challenging to “manufacture” a functional artificial wetland (or carbon sink, or salmon habitat) where nature never put or intended one in the first place. The credits market rewards restoration and re-creation of healthy wetlands, fresh air, reliable flows and spawning grounds where they thrived during the pre-dam millennia — in other words, exactly those environmental benefits resulting from dam removal.

Removal Value

That’s why the average obsolete dam may be worth far more broken up than left intact. The benefit accruing from the sum of its removed parts — i.e. cold water, more water, cleaner water and air, and more habitat — are worth more than the dam kept whole. “Busting” the dam could release a net gain in legitimate, measurable economic value which can be brought to market and sold to willing buyers who need them, including new dam builders.

**New Dam
Tie-In****Current Examples**

The marketing of “environmental credits” has given rise to some understandable skepticism. After all, it may involve exchanging costs and benefits in terms of aquatic life. It advocates buying and selling dams as if they no different from real estate, commodities, stocks and bonds. Yet early efforts have already reaped substantial benefits.

Dams

Credit
MarketingNew Dam
Construction
Options

SUCCESSFUL ENVIRONMENTAL CREDIT MARKETING MODELS INCLUDE:

- In North and South Carolina, two innovative engineers at Restoration Systems Inc. who qualified for wetlands credits have begun to make money off dam removal through restoration and wetlands mitigation business.
- When FERC required the removal of dams in Maine on the Kennebec River the cost of destruction was financed in large part by upstream industrial interests and dams as part of their mitigation for environmental compliance. Environmentalists are expanding on that model throughout the northeast.
- In northern Wisconsin, the regional power company bought and removed two weak dams in exchange for a 25-year operating license to operate three healthier ones on the same watershed. Other utilities in the West have taken notice of the precedent, and planned their relicensing strategies accordingly.
- Funds generated by the Bonneville Power Administration for the Columbia River basin in Oregon and Washington are being used to pay for dam removals on its tributaries within the watershed.
- In Oregon buyers and sellers of water rights are including dam removal as part of the exchange packages they are negotiating.

Conclusions

The American West already leads the country and the world in terms of tradable water rights, carbon credits and exchanges in Endangered Species Act credits. However — perhaps due to our century-old reliance on dams — this market-orientation gets tripped up at the mention of dams.

Be that as it may, there is arguably today no market in the West more bloated, neglected, and inefficient than our aging stockpile of tens of thousands of dams. In economic terms, those dams are closely analogous to bonds. They once generated robust yields and high-grade investment ratings. Most still do. But some have devalued and deteriorated to the status of “junk” — representing legal and financial fixed liabilities. “Junk bonds” that can’t compete in the current market get liquidated. A similar outcome has begun to emerge in existing water infrastructure.

Moreover, expanding mitigation markets can efficiently link dam *construction* with dam *destruction* in ways that actually result in net gains in free flowing rivers. First, let us assume from the evidence that time’s ravages and market competition mean the supply of aging, obsolete dams will continue to rise. Likewise, let us assume from equally undisputed trends that growing in-migration, thirst, energy needs and population pressures in the West will increase demand for new growth — including a few dams. Through the sales of mitigation credits, new dam construction could end-up paying for old dam destruction.

Aging dams require the teeth of the market to ensure their own fitness. They need a brokerage house to convert decadent “fixed liabilities” into fresh “liquid assets.” The overall stockpile of earth-fill or concrete “bonds” may shrink, but those that remain will adapt to changing currents. They’ll grow progressively stronger, tighter, healthier and more vigorous. They’ll *evolve* with the river’s economy to which all dams belong.

FOR ADDITIONAL INFORMATION: JAMES WORKMAN, Confluence , 415/ 728 3494 or email: jgworkman@hotmail.com

James G. Workman has developed policy and communications strategies on controversial water, dams and natural resources issues for: heads of state like Nelson Mandela; businesses like Bechtel; and NGOs like The World Economic Forum and The World Conservation Union. For six years as Special Assistant to US Secretary of the Interior Bruce Babbitt he pioneered dozens of consensus-based dam removals. He then became Senior Advisor to the World Commission on Dams where he synthesized the words and experiences of a global spectrum of competing interests. His Botswana-based *Confluence* developed comprehensive watershed-based strategies in southern Africa, western India and Southeast Asia. He has edited *Tsodilo Hills: Mountain of the Gods*, and is currently writing *Heart of Dryness: A true story about the end of water*. He works in San Francisco where he is establishing DamBroker, a business founded on the principles described here. He welcomes questions and comments.

Dredging

"Tulloch II"
RuleDischarge of
Dredged
Materials

Exceptions

Tulloch II

"Incidental
Fallback"

Issues

Implications

CORPS DREDGING REGULATION

DISTRICT COURT STRIKES DOWN TULLOCH II DREDGING RULE

by Steve Richardson and Sam Kalen, Van Ness Feldman (Washington, D.C.)

On January 30th, the US District Court for the District of Columbia (DC Circuit) found that two federal environmental agencies had exceeded their statutory authority and invalidated the "Tulloch II" rule. The rule presumed that the use of "mechanized earth-moving equipment" would result in the discharge of dredged or fill material into waters of the United States and thus would require a permit pursuant to section 404(a) of the Clean Water Act (CWA). *National Ass'n of Home Builders v. U.S. Army Corps of Engineers*, No. 01-0274 (D.D.C. 2007). The district court also enjoined the US Environmental Protection Agency (EPA) and US Army Corps of Engineers (Corps) from enforcing and applying the Tulloch II rule. The ruling makes clear that not all uses of mechanized earth-moving equipment may be regulated under the CWA. As noted by the district court, "[T]his suit is the most recent manifestation of a longstanding legal dispute about just what constitutes the discharge of dredged material." Memorandum at 2.

Background

Section 404(a) of the CWA authorizes the Corps to issue permits for the discharge of "dredged or fill material" into the waters of the United States. Between 1986 and 1993, the Corps expressly excluded "de minimus, incidental soil movement occurring during normal dredging operations" from its definition of the discharge of dredged material.

In 1993, the Corps issued the "Tulloch I" rule eliminating the de minimus exception, thereby including in the definition of "discharge" incidental material (sometimes called "fallback material") pushed or dropped into "waters of the United States" by mechanical excavating devices. In 1998, the US Court of Appeals for the DC Circuit invalidated the Tulloch I rule, explaining that the Corps had exceeded its statutory authority by asserting jurisdiction over incidental fallback. *National Mining Assoc. v. U.S. Army Corps of Engineers*, 145 F.3d 1399 (D.C. Cir. 1998). The DC Circuit ruled that incidental fallback could not be regulated under the CWA, because it represents a net withdrawal, not an addition, of material, and as such is not a "discharge." The court noted that it was not prohibiting the regulation of any redeposit, and suggested that the agencies modify the rule to draw a "bright line" between incidental fallback, which cannot be regulated under the CWA, and other redeposits, which can.

The Corps and EPA subsequently issued the Tulloch II rule in 2001. Under the Tulloch II rule, the agencies determined that the use of mechanized earth-moving equipment to conduct various excavation activities in the waters of the United States would result in a discharge of dredged material, unless project-specific evidence showed that the activity resulted in only incidental fallback. (codified at 33 C.F.R. § 323.2(d)(2)(I) and 40 C.F.R. § 232.2(2)(I)). The Tulloch II rule defined incidental fallback as follows: "Incidental fallback is the redeposit of small volumes of dredged material that is incidental to excavation activity in waters of the United States when such material falls back to substantially the same place as the initial removal. Examples of incidental fallback include soil that is disturbed when dirt is shoveled and the back-spill that comes off a bucket when such small volume of soil or dirt falls into substantially the same place from which it was initially removed." (codified at 33 C.F.R. § 323.2(d)(2)(ii) and 40 C.F.R. § 232.2(2)(ii)).

The parties first challenged the Tulloch II rule in 2001. The district court, however, initially dismissed the case in 2004 on the basis that it was not ripe for review. The DC Circuit subsequently overturned the dismissal order in 2006, sending the case back to the district court.

The Decision

The plaintiffs claimed that the Corps and EPA exceeded their authority under the CWA, specifically challenging two aspects of the Tulloch II rule: (1) the definition of "incidental fallback;" and (2) the statement of the Corp and EPA that the agencies "regard" that the use of mechanized earth-moving equipment to conduct various excavation activities will result in a discharge of dredged material unless project-specific evidence shows otherwise.

Although the district court's decision was a short one, the implications of the decision are significant. In granting the plaintiff's motion for summary judgment, the district court held that the definition of "incidental fallback" improperly included a volume requirement. The court explained that the

Dredging**Factors****New Definition****Guidance**

determination of whether a discharge is incidental fallback or redeposit, and thus subject to the CWA, should not be contingent on the quantity of material that is being disturbed. Rather, incidental fallback and redeposit should be distinguished by: (1) the time the material is held before being dropped to earth; and (2) the distance between the place where material is collected and the place where it is dropped. Memorandum, page 7-8.

The Court also ruled that when “the Corps rewrites its definition of incidental fallback” the agencies should reconsider the statement that they regard the use of mechanized earth-moving equipment as resulting in a discharge of dredged material unless project-specific evidence shows otherwise (Memorandum at 8-9). The court noted the “difficult task of distinguishing incidental fallback, which cannot be regulated under the Clean Water Act, from other redeposits, which can.” Judge James Robertson then chastised the agencies’ failure to act. “[B]ecause the Act sets out ‘no bright line’ separating one from the other, the court [Court of Appeals] suggested that ‘a reasoned attempt by the agencies to draw such a line would merit considerable deference.’ 145 F.3d at 1405. The agencies, however, have made no such attempt.” Memorandum at 9. The judge proceeded to state that “[A]lthough the agencies contend that a bright-line rule would not be ‘feasible or defensible,’ id. at 15, the Court of Appeals has made clear, and the government has acknowledged, that not all uses of mechanized earth-moving equipment may be regulated. The agencies cannot require ‘project-specific evidence’ from projects over which they have no regulatory authority.” Memorandum at 9.

FOR ADDITIONAL INFORMATION: STEVE RICHARDSON, 202/ 298-1806 or email: rsr@vnf.com

RULING WEBSITE: The DC Court Memorandum RE: Tulloch II dredging rule is available online at: www.cleanwaternet.org/files/tullochopjr.pdf

ESA/ITS**“Take”
Liability****Timber
Harvest****BiOp
Withdrawal****ITS & BiOps
Purposes**

ESA INCIDENTAL TAKE STATEMENTS

NINTH CIRCUIT RULING

by Matt Love, Van Ness Feldman PC (Seattle) & Sam Kalen, Van Ness Feldman PC (Washington DC)

On February 16th, 2007, the Ninth Circuit Court of Appeals issued an important Endangered Species Act (ESA) decision regarding Incidental Take Permits. See *Oregon Natural Resources Council v. Allen*, No. 05-35830 (9th Cir. Feb. 16, 2007). This decision could have significant consequences for entities that rely upon an ITS for protection from ESA section 9 take liability.

THE DECISION CLARIFIED:

- (1) the legal relationship between an incidental take statement (ITS) and a biological opinion (BiOp)
- (2) the factors that must exist for an ITS to include a surrogate measure for authorized incidental take instead of a specific numerical limit

Background

Oregon Natural Resources Council v. Allen arises from a challenge to a BiOp and ITS issued for timber harvests on federally-managed lands in the Pacific Northwest. In 2001, the US Fish and Wildlife Service (FWS) issued a “no jeopardy” BiOp, including an ITS authorizing the incidental take of all spotted owls associated with timber harvests occurring in suitable spotted owl habitat. The Oregon Natural Resources Council filed suit challenging the validity of the BiOp and ITS. Subsequently, as a result of the Ninth Circuit’s decision in *Gifford Pinchot* (invalidating the FWS’s definition of “destruction or adverse modification” of critical habitat used in the northern spotted owl section 7 consultation process), the FWS voluntarily reinitiated consultation on a portion of the proposed timber harvests. The FWS then withdrew portions of the previous BiOp without withdrawing or modifying the original ITS. Upon review, the district court upheld the ongoing validity of the ITS, not withstanding FWS’s partial withdrawal of the BiOp.

The Ninth Circuit’s Decision

The Ninth Circuit reversed and remanded the district court’s decision, concluding that the partial withdrawal of the BiOp invalidated the ITS because “Incidental Take Statements supplement BiOps, and were not meant to stand alone.” The court ruled that the purpose of a BiOp is to analyze the scope, purpose, and impact of the proposed action. Until the FWS performs this examination, the agency cannot determine whether the authorized take is “incidental” to the proposed action.

ESA/ITS**Numerical Cap
v.
Surrogate****Surrogate
Guidelines****ITS Dependency****Surrogate
Adequacy**

Next, the court invalidated the ITS because it did not contain a numerical cap on spotted owl take and did not adequately explain its use of a surrogate instead of a numerical cap. While acknowledging the legitimacy of using a surrogate in lieu of a numerical cap in an ITS, the court, recognizing Congress's preference for a numerical value, noted that where possible "the permissible level of take ideally should be expressed as a specific number." If, however, the FWS uses a surrogate, the agency must demonstrate that it could not "practically obtain" a numerical value. In this case, the court concluded that the FWS did not adequately demonstrate the impracticability of identifying a numerical value.

The court then continued to provide future guidance on the use of surrogates instead of numerical limits on take. The court stated that the surrogate must be able to perform the same functions as a numerical value. Specifically, the court opined that a surrogate must contain measurable guidelines that allow a determination of when the ITS is exceeded, thereby triggering reinitiation of section 7 consultation. Here, the court concluded that the FWS impermissibly established an ITS level of take coextensive with the scope of the project. By adopting an ITS of "all spotted owls" associated with the timber harvest, the FWS ensured that the permissible level of take would not be reached until after the proposed action was completed. In the court's opinion, this construction rendered the ITS and BiOp redundant, and circumvented the monitoring requirements of the ESA by effectively preventing the reinitiation of consultation.

Implications of the Court's Decision

The Ninth Circuit's decision could have significant implications for those entities that rely on the ESA protection afforded by an ITS in a BiOp. First, the court confirmed that the validity of an ITS is dependent upon its supporting BiOp, stating that an ITS "cannot stand alone." According to the Ninth Circuit, once the FWS withdrew the underlying BiOp, the ITS lacked a rational basis and was therefore no longer valid. Second, this decision clarifies the standard that must be met for surrogate measures to be used, in lieu of numerical values, for authorization of incidental take. Namely, the court held that an agency may adopt a surrogate measure only if it adequately demonstrates that the use of a numerical value is impractical. Further, where the use of a surrogate measure is required and appropriate, the authorized level of take must be sufficiently defined so that the action agency and the FWS can monitor take and reinitiate consultation to prevent the proposed action from jeopardizing the continued existence of a listed species.

FOR ADDITIONAL INFORMATION, CONTACT: Matt Love, Van Ness Feldman PC (Seattle) 206/ 623-9372 or email: mal@vns.com

Steve Richardson's practice focuses on administrative law and litigation with an emphasis in the fields of land, water, hydroelectric, energy, and environmental law. In his water practice, he represents electric utilities in hydroelectric licensing and irrigation districts in compliance and enforcement actions. Prior to joining Van Ness Feldman, Mr. Richardson served as the Chief of Staff for the Bureau of Reclamation from 1995-2000 and Deputy Director of the Bureau of Land Management from 1993-1995. During this seven year period, he was a principal policy advisor to Secretary of the Interior Bruce Babbitt. Mr. Richardson is admitted to practice in the District of Columbia and the State of Indiana.

Sam Kalen works to resolve complex legal issues involving the nation's environmental and natural resource laws and regulatory policy. Working in both the private and public sectors, Mr. Kalen has dealt with numerous cutting-edge matters involving endangered species, water quality, water rights, public lands, onshore minerals, and wetlands policy. Mr. Kalen rejoined Van Ness Feldman in 1996 after serving as an attorney in the Solicitor's Office at the Department of the Interior, working first as a special assistant to the Associate Solicitor for the Division of Energy and Resources and then as a special assistant to the Associate Solicitor for the Division of Land & Water. Mr. Kalen received his J.D. from the Washington University School of Law in 1984. He is admitted to practice law in the District of Columbia and the State of Illinois.

Matthew Love represents clients before federal and state courts and agencies in areas of natural resource, energy, and environmental law. He has experience representing clients on complex natural resource matters related to hydropower operations for the Columbia River, Missouri River, and Klamath River. Mr. Love previously served as an Assistant Attorney General in the Fish, Wildlife, and Parks Division of the Washington State Attorney General's Office. Mr. Love also served as a Trial Attorney with the Wildlife and Marine Resources Section of the U.S. Department of Justice. Mr. Love recently returned from a year in Ghana, West Africa where he served as a Fulbright Scholar, teaching environmental and natural resource law and public international law at Kwame Nkrumah University of Science and Technology in Kumasi, Ghana. Mr. Love received his J.D. with a certificate in Environmental and Natural Resource Law from Northwestern School of Law of Lewis and Clark College in 1995 and his B.A. from Evergreen State College in 1988.

WATER BRIEFS

FERC: NEW TECHNOLOGIES US

WAVE, CURRENT & INSTREAM PROJECTS

The Federal Energy Regulatory Commission (FERC) is seeking public comment on how to process preliminary permit applications for wave, current, and instream hydropower technologies in light of an increasing interest in these new technologies. FERC noted the concern about “site-banking” — where preliminary permit holders stake out potential sites for the new technologies without the ability to follow through on project development during the term of the preliminary permit. FERC is also seeking comment on how it should enforce permits once they are issued. Chairman Joseph T. Kelliher said: “These emerging new hydroelectric technologies have significant potential. However, these technologies present some challenges relating to reliability, environmental and safety implications, and commercial viability.”

FERC pointed to the surge in applications for preliminary permits to study such projects. FERC staff has issued 11 preliminary permits for projects of this type; three are for proposed tidal energy projects (in New York, Washington, and California), and eight are for proposed ocean current energy projects (off the coast of Florida). Over 40 preliminary permit applications for ocean projects are currently pending before the FERC, all of which have been filed since March 2006. These new technologies have significant potential. According to FERC, it has been estimated that the potential for wave and current power could be over 350-terawatt hours per year, which would more than double current hydropower production.

In a Notice of Inquiry, the Commission is seeking comment on the following alternatives for reviewing preliminary permit applications: (1) Maintain the standard preliminary permit review process currently in use. This process involves moderate scrutiny of applications and generally does not include specific requirements for project progress reports; (2) Provide stricter scrutiny of permit applications and limit the boundaries of the permits to prevent site-banking and promote competition. Additional scrutiny could include public outreach and agency consultations, development of study plans, and deadlines for filing a notice of intent to file a license application and a preliminary licensing document. This would also require that progress reports demonstrate compliance with specific milestones; or (3) Decline to issue preliminary permits for these new technologies altogether.

Until the Commission determines how it will review permit applications for these technologies, it will use the “stricter scrutiny” alternative approach, which addresses a significant number of issues raised at a technical conference the Commission held on December 6, 2006, to explore the environmental, financial, and regulatory issues associated with these new hydropower technologies. Comments on the notice are due 60 days after publication in the Federal Register.

In a related action, the Commission applied its interim approach for issuing preliminary permits for these new technologies for the first time to Reedsport OPT Wave Park LLC (P-12713) to study a proposed 50-megawatt project to be located in the Pacific Ocean off the coast of Oregon.

In addition to the typical six-month progress reports to the Commission by the permit holder, FERC is requiring the permittee to file, within 45 days of issuance of the order, a schedule of activities to be carried out under the permit and target dates for completion of these activities. In addition, consultations with the appropriate federal, state and local agencies as well as other interested parties must take place. If significant progress is not evident in the periodic reports, or the permit holder fails to comply with any other conditions, the permit may be canceled. A preliminary permit preserves the right of the permit holder to have the first priority in applying for a license for the project being studied. A preliminary permit, which typically is for three years, does not authorize construction and requires the holder of the permit to file progress reports with the Commission on a regular basis. The permit provides a potential license applicant three years in which to develop a formal application for a license, which is required to construct and operate a hydropower project.

For info: William Guey-Lee, FERC, 202/ 502-6064 or FERC website: www.ferc.gov/whats-new/comm-meet/2007/021507/H-1.pdf

TRANSFER STANDARD CO

WATER QUALITY IMPACTS

Legislation to consider water quality impacts when some transfers of water rights are proposed passed the Colorado Senate unanimously on February 22. Under the law, Colorado’s water court judges would consider decreases in water quality caused by a permanent change of use — from irrigation to another type of use of more than 1,000 acre-feet of water — before approving a transfer. Terms or conditions could be imposed on a transfer if a decrease in water quality is found. The law is not retroactive and will only be applicable to water rights applications that are filed on or after the effective date of the act. HB 1132 was sent to Governor Ritter for his signature on March 1.

The legislation essentially adds a specific new standard to Colorado’s “no injury” rule for transfers of water (see 37-92-305 (4) (a) (V), Colorado Revised Statutes). The law also requires that the change proposed must include a change in point of diversion to be applicable. The water quality decrease standard set forth in the law is that the “change would cause an exceedance or contribute to an existing exceedance of water quality standards...in effect at the time of the application, or, if ordered by the court, subsequently adopted by the Water Quality Control Commission prior to the entry of the decree, for the stream segment at the original point of diversion.” The scope of the law is further limited by language that states that “[U]nder any such term or condition, the applicant shall be responsible for only that portion of the exceedance attributable to the proposed change.”

The law was passed, at least in part, because of its limited scope. For the law to apply, the transfer proposed must be: (1) a permanent change; (2) of irrigation use to another use; (3) of 1,000 acre-feet or more; and (4) include a change in point of diversion.

For info: HB 1132 copy available at: [>>click on House Bills>>HB 1132](http://www.leg.state.co.us/)

WATER BRIEFS

STORMWATER FINE SD**EPA SETTLEMENT**

EPA has reached a settlement with Gil Haugan Construction, Inc. (Haugen) and Bethany Lutheran Home for the Aged (Bethany) for violations of the CWA's stormwater regulations. The settlement obtained penalties totaling \$34,900, with Haugan paying \$29,900 and Bethany paying \$5,000. In addition to the penalty, Haugan also agreed to pay penalties for the next year ranging from \$1,000 to \$6,000 per day for future violations of the stormwater program the company incurs.

Haugan was the general contractor for Bethany in building the Bethany Meadows senior living facility located in Brandon. The companies were cited for failure to obtain stormwater permit coverage for construction and failure to follow the provisions of the stormwater permit once one was obtained. The stormwater permit requires that specific environmental management practices are followed, such as installing and maintaining Best Management Practices to control pollutants in stormwater discharges. The Bethany Meadows construction site discharged to a tributary of the Big Sioux River.

Developers, contractors and other landowners who conduct construction activities disturbing one acre or greater of land should contact the South Dakota Department of Environment and Natural Resources (SDDENR) to obtain stormwater permit coverage.

For info: Callie Videtich, EPA, 303/312-6434 or email: videtich.callie@epa.gov; Stormwater requirements in South Dakota may be found online at: www.state.sd.us/denr/DES/Surfacewater/stormwater.htm

IRRIGATION 2025 GRANT CA**WATER CONSERVATION**

Bureau of Reclamation (Reclamation) Commissioner Robert Johnson presented a \$300,000 Water 2025 Challenge Grant Award to the Fresno Irrigation District (District) during a ceremony in Fresno on February 21. The grant will allow the District to construct a new control structure on the Enterprise Canal with automatic control gates, construct a

new spill structure with automatic control gates, replace the existing flume structure, and connect to the District's telemetry system. The project will allow water to be diverted to a conveyance system that can deliver water to the District's water banking facility and is estimated to save 6,000 acre-feet of water per year.

The District, which comprises some 245,000 acres, lies entirely within Fresno County and includes the rapidly growing Fresno-Clovis metropolitan area. The District operates approximately 800 miles of canals and pipelines with a total irrigated area exceeding 150,000 acres. The Water 2025 Challenge Grant program funds activities that will make more efficient use of existing water supplies through water conservation, efficiency, and water marketing projects.

For info: Donna Potter, Reclamation Public Affairs, 916/978-5103 or email: lpotter@mp.usbr.gov; Water 2025 website: www.doi.gov/water2025/

**MUNICIPAL WASTEWATER ID
PHOSPHORUS REDUCTION**

EPA has proposed to issue updated municipal wastewater discharge permits to the cities of Coeur d'Alene, Post Falls and the Hayden Area Regional Sewer Board. This action is part of a larger cooperative effort being mounted by Idaho and Washington to protect Spokane River water quality.

EPA officials assert that the new proposed permits, drafted by EPA under the federal National Pollutant Discharge Elimination System (NPDES), will significantly reduce the amount of phosphorus that each wastewater treatment plant will be able to discharge to the Spokane River. Excessive phosphorus supports algae growth, reduces the amount of dissolved oxygen in the water and generally degrades Spokane River water quality. Too much phosphorus in the river can affect both recreation and the well-being of fish and other aquatic life, according to EPA.

The action will be followed by additional permits for other direct dischargers in Washington, issued by the Washington Department of Ecology (Ecology) later this year. Together,

these permits and further phosphate reduction throughout the valley is expected to help restore the Spokane River.

EPA will consider all comments before reissuing the final permits. Those wishing to comment on the draft permits may do so by Tuesday, April 17, 2007. All comments must be in writing and addressed to: Brian Nickel, Mail Stop OWW-130, U.S. Environmental Protection Agency, 1200 Sixth Ave., Seattle, WA 98101. EPA has also scheduled a public workshop and hearing on April 4 in Coeur d'Alene. **For info:** Mike Lidgard, EPA, 206/553-1755; Draft permit and fact sheet available at Region 10 Water Permits website at: <http://epa.gov/r10earth/waterpermits.htm>

**BROWNFIELDS INCENTIVE US
EXPANDED TAX RELIEF**

The Tax Relief and Health Care Act of 2006, signed into law by President Bush on December 20, 2006, includes an extension and expansion of the Brownfields Tax Incentive. The Act renews the tax incentive and extends it until December 31, 2007. The new law allows deduction of cleanup costs in the year incurred instead of requiring the deduction to be spread out over time. It also expands the incentive's scope to include expenses of cleaning up petroleum products, i.e., crude oil, crude oil condensates, and natural gasoline. Such expenses had previously been ineligible. Entities seeking to take advantage of the incentive still must receive a certification of eligibility from their state cleanup program contacts. EPA is currently updating guidelines and other information resources to reflect changes made by the new law.

For info: EPA website: www.epa.gov/brownfields/bftaxinc.htm

**CERCLA TEST ND/SD/NE
"SUBSTANTIAL CONTINUITY"****SUCCESSOR LIABILITY RULING**

On January 4, 2007, the US Court of Appeals for the Eighth Circuit (8th Circuit) ruled that a district court incorrectly imposed successor liability on DeAngelo Brothers, Inc. in a contribution lawsuit under CERCLA

WATER BRIEFS

LAWS OF THE RIVERS

US

MAJOR INTERSTATE RIVERS

Laws of the Rivers is an excellent compendium of legal regimes of major interstate river systems in the United States. The report was commissioned and published by the Colorado River Board of Nevada in an effort to learn whether river management in other parts of the country might offer solutions to the problems facing the desert Southwest. The report includes a detailed collection of information about the laws and physical infrastructure of fourteen interstate river systems, including the: Alabama-Coosa-Tallapoosa (ACT); Apalachicola-Chattahoochee-Flint (ACF); Arkansas; Colorado; Columbia; Connecticut; Delaware; Great Lakes and St. Lawrence; Potomac; Rio Grande; Mississippi mainstem; Missouri; Susquehanna; and Tennessee-Cumberland. Information is included on uses, purpose, management and operational strategies, current issues and conflicts, as well as conflict resolution.

The report notes, "The legal regimes of major interstate rivers were mostly devised by political means and fragmented compromises, not by considering hydrology, uses, water supply or environmental impacts of an entire basin. The laws of the rivers were often adopted piecemeal by Congress and/or the states. There is a dominant federal role in each river system, resulting primarily from the expenditure of hundreds of millions of dollars to build infrastructure – dams, locks and other public works that have significantly altered the natural flow of the rivers."

The primary author of the report is Dan Seligman, an attorney with Columbia Research Corp., in Seattle, Washington under the supervision of Jim Davenport, Chief, Water Division, Colorado River Commission of Nevada (CRCN). Hard copies of the report, or a CD, are available from the CRCN.

For info: CRCN, 702/ 486-2670

Section 113 for response costs for the cleanup of a portion of the Armour Road Superfund site. *K.C. 1986 Limited Partnership v. Reade Manufacturing*, No. 05-2064 (8th Cir. Jan. 4, 2007).

The site was contaminated by herbicides produced there by several firms, including U.S. Borax. In 1986, the site was purchased by Habco, Inc., which was principally owned by Donald Horne. Contamination of the site continued under Habco, which sold its operating assets, but not the site, to a new company, Habco-Loram, Inc. Donald Horne remained involved with Habco-Loram, which subsequently experienced financial problems and sold him its assets. Horne then formed a new company, Habco International, Inc., which carried on many of Habco's and Habco-Loram's operations at a different location and did not own or lease the site. In 1997, DeAngelo Brothers purchased Habco International, which merged with DeAngelo Brothers in 1998. In January 2005, in a CERCLA contribution lawsuit brought by U.S. Borax, the district court, using the substantial continuity test, allocated 15 percent of past and future response costs for the site to DeAngelo Brothers as a successor corporation to Habco.

On appeal, the 8th Circuit stated that the "arm's length nature" of the transactions between Habco and Habco-Loram was only for a sale of assets (Habco-Loram's agreement to purchase Habco's assets expressly stated that it was not assuming Habco's liabilities). The Eighth Circuit stated that the assets acquired by DeAngelo Brothers never became "magically re-entangled" with the contaminated property that constituted the site. The court also stated that it did not have to address the issues of whether the substantial continuity test is still valid or if state law should have been applied to determine successor liability, because there was never a continuity of shareholders between Habco and Habco-International. Such continuity is a key element needed to find successor liability under either state corporate law or federal common law. The 8th Circuit reversed the district court's decision and remanded the case to allocate DeAngelo

Brother's liability to Donald Horne, who was held to be 40 percent liable by the district court based on his involvement in Habco.

For info: Clarence E. Featherson, EPA, 202/ 564-4234; complete case available at: [>>>click on K.C. 1986 Limited v. U.S. Borax, Inc.](http://caselaw.lp.findlaw.com/scripts/getcase.pl?court=8th&navby=year&year=2007-1)

CLEANUP DEADLINE FINE WA STIPULATED PENALTY OF \$358,000

EPA issued a \$358,000 stipulated penalty against the City of Tacoma on February 8. The action stems from the City's failure to meet a key deadline as part of the cleanup activities in the Thea Foss and Wheeler-Osgood Waterways. The site lies within greater Commencement Bay Nearshore/Tideflats Superfund Site.

"The City missed a critical berm construction deadline in the St. Paul Waterway," said Dan Opalski, EPA Environmental Cleanup office director. "The berm was needed to contain highly-contaminated sediments dredged from the Waterway, causing a 'domino effect' of delay. The result: several other construction deadlines were missed, meaning slower cleanup of a key part of Puget Sound." The City negotiated and agreed to stipulated penalties in its 2003 Consent Decree that required site cleanup. According to EPA, the City began missing construction deadlines on the \$97 million Thea Foss cleanup in 2004.

In September 2005, EPA and the City reached an agreement that gave the go-ahead to a revised cleanup schedule. As part of that agreement, EPA agreed to forgive over \$2 million in accrued stipulated penalties for a missed deadline. The agreement, however, explicitly reserved the right to later demand the \$358,000 in stipulated penalties for missing the deadline for completing work on the St. Paul Waterway confined disposal site. Missing this deadline delayed a significant amount of cleanup for nearly nine months.

For info: Commencement Bay cleanup EPA web site: <http://yosemite.epa.gov/r10/cleanup.nsf/sites/CBNT>

TRANSBOUNDARY POLLUTION US/CANADA

9TH CIRCUIT ORDER APPEALED

Teck Cominco Metals, Ltd. (Teck Cominco), a Canadian mining company that owns and operates a lead-zinc smelter in Trail, British Columbia, on the Columbia River just north of the US/Canadian border, filed a Petition for Writ of Certiorari (Petition) with the US Supreme Court on February 27 to overturn a decision of the 9th Circuit appellate court. In July 2006, the 9th Circuit ruled that the Canadian company can be held liable under US environmental law and upheld the lower court's decision to deny Teck Cominco's dismissal request.

The lawsuit began because Teck Cominco had disposed of hazardous substances at its facility in Canada and some of those substances were carried to the United States by the flow of surface water. Waste generated by the Trail Smelter — known as “slag” — was discharged into the Upper Columbia River for nearly a century (1895-1995), with up to 145,000 tons of slag discharged annually. The Confederated Tribes of the Colville Indian Reservation, which is located in Washington State, petitioned EPA in 1999 to conduct an assessment of hazardous-substances contamination of the Upper Columbia River and surrounding lands in northeastern Washington. (See DuBey, Rosenthal and Clark, TWR #15).

The 9th Circuit's decision dealt with the question of whether a “citizen suit” based on Teck's alleged non-compliance with an order issued by the US Environmental Protection Agency (EPA) was a domestic or an extraterritorial application of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. §§ 9601-9675. That court held, “that because CERCLA liability is triggered by an actual or threatened release of hazardous substances, and because a release of hazardous substances took place within the United States, this suit involves a domestic application of CERCLA. Further, we reject Teck's contention that it is not liable under § 9607(a)(3) because it disposed of the hazardous substances itself.” *Pakootas v. Teck Cominco Metals*, 452 F.3d 1066 (July 3, 2006).

Teck Cominco's Petition at page 9 sets out its reasons for granting the petition as follows: “The Ninth Circuit has decided that American environmental laws can be applied to the activities of a foreign company in a foreign country in compliance with that country's laws. That holding is based on a clear misreading of CERCLA and departs widely from this Court's interpretation of statutes. It also departs from the bilateral diplomacy that has traditionally marked U.S.-Canadian relations and threatens to disrupt our ties with Canada, a key military and economic ally. Moreover, the Ninth Circuit has held that “arranger” liability can attach to the unilateral acts of a company in the absence of any *arrangement*. In so doing, the court of appeals created a direct and acknowledged split with the First Circuit.” (Reference to *American Cyanamid Co. v. Capuano*, 381 F.3d 6, 24 (1st Cir. 2004).

The Petition also argues that the decision threatens to disrupt the foreign policy of the United States, going so far as to assert that the “...President's foreign policy goals may dictate the temporary subordination of environmental concerns so that other more pressing matters may be addressed. For example, the President might find it difficult to press the Canadian government to continue its military presence in Afghanistan if Canadians were preoccupied with the prospect of being sued by EPA and private U.S. parties in American courts for conduct that occurred in Canada and in compliance with Canadian law.” Petition at 22.

For info: Richard DuBey, Short Cressman & Burgess PLLC (Seattle, WA), 206/682-3333 or email: rdubey@scblaw.com (Attorney for Confederated Tribes of the Colville Reservation)

CWA AUTHORITY

NV

PYRAMID LAKE PAIUTE TRIBE

EPA recently announced its approval of an application by the Pyramid Lake Paiute Tribe, located outside Reno, to administer federal Clean Water Act programs on tribal lands. The Tribe is the 39th tribe out of 563 federally recognized tribes nationwide and the first tribe in Nevada with federally delegated authority from the EPA to administer water quality standards and a certification program. Under Clean Water Act requirements, the tribe must be federally recognized, have a governing body to carry out substantial governmental duties and powers, have jurisdiction to administer the programs within the boundaries of its reservation, and be reasonably capable of administering the program.

The Tribe will work with the EPA on a government-to-government basis to develop and adopt water quality standards which, once approved, will form the basis for water quality-based effluent limitations and other requirements for discharges to waters within the Tribe's jurisdiction. The Tribe is also authorized to grant or deny certification for federally permitted or licensed activities that may affect waters within the borders of their lands. The Pyramid Lake Paiute Tribe has a reservation, located 30 miles northeast of Reno, that encompasses Pyramid Lake, the largest water body on tribal lands in California, Arizona, or Nevada.

For info:

Maggie Witt, EPA, 415/ 972-3370
or email: witt.maggie@epa.gov;
EPA's Tribal Water Program (Pacific Southwest region) website: www.epa.gov/region09/water/tribal/

March 16 CO

3rd Annual Water Users Meeting, Pueblo, Occihiato Student Center Building, CSU-Pueblo, 8:30am-2:30pm. Sponsored by Southeastern Colorado Water Conservancy District. For info: SECWCD, 719/ 948-2400 or website: www.secwcd.org

March 16 CA

Delta Vision Workshop, Suisun City, Joseph A. Nelson Community Center, 611 Village Drive, 9am-5pm. For info: Water Education Foundation, 916/ 444-6240, or website: www.water-ed.org/DeltaworkshopflyerMarch16.pdf

March 16-17 CO

The Climate of Environmental Justice: Taking Stock, Boulder, University of Colorado Law School. RE: Environmental Justice and the Consequences of Climate Change. For info: Maxine Burkett, Natural Resources Law Center, 303/ 492-3720, or website: www.colorado.edu/law/centers/nrlc/Climate_Justice_Conference.pdf

March 19 OR

Environmental Cleanup, Portland. For info: Holly Duncan, Environmental Law Education Center, 503/ 282-5220, email: hduncan@elecenter.com or website: www.elecenter.com/

March 19-20 WA

Clean Water & Stormwater, Seattle. For info: Law Seminars Int'l, 800/ 854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

March 19-21 CA

Low-Cost Remediation Strategies for Contaminated Soil and Ground Water, San Francisco. For info: National Ground Water Association, 800/ 551-7379, email: customerservice@ngwa.org, or website: www.ngwa.org

March 21 WEB

NALGEP WebCast: Low Impact Development and Watershed Management. RE: Low Impact Development Strategies & Stormwater Management Programs, County & Regional Watershed Scales. For info: NALGEP, 202/ 393-2866, or website: www.nalgpep.org/calendar/Index.cfm?Page=1&EventsID=4888

March 20-23 WA

Fifth Climate Prediction Applications Science Workshop, Seattle. For info: Diana Perfect, NOAA-National Weather Service, 301/ 713-1970 x 132, email: diana.perfect@noaa.gov, or website: www.cses.washington.edu/cig/outreach/workshopfiles/cpasw07/

March 21 CA

2007 Legislative Symposium, Sacramento, Sacramento Convention Center. Sponsored by: Association of California Water Agencies. For info: www.acwa.com/events/acwa_events.asp

March 21-23 OH

Principles of Ground Water: Flow, Transportation, and Remediation, Dublin. For info: National Ground Water Association, 800/ 551-7379, email: customerservice@ngwa.org, or website: www.ngwa.org

March 21-23 GA

Paying For Sustainable Water Infrastructure, Atlanta, Hilton Atlanta Hotel. RE: Creative Methods to Pay for Sustainable Water Infrastructure. Sponsored by EPA & EFA. For info: Kelly Kunert, EPA, email: kunert.kelly@epa.gov, or website: <http://www.payingforwater.com/index.cfm>

March 22 WEB

Risk-Based Remediation, WEB. Sponsored by American Bar Association Environmental Sciences. RE: Limitation of Risk-Based Remediation & Science, Agency Guidance & Regulations. For info: ABA website: www.abanet.org/environ/programs/environsci07/

March 22 OR

Environmental Challenges to Reproductive Health and Fertility, Portland, Multnomah Athletic Club (1849 SW Salmon), 6-8pm. RE: Environmental Contaminants, Science & Implications for Public Health, Reproductive Health. Sponsored by Oregon Environmental Council. For info: Cheryl, NEBC, 503/ 222-1963 x100, email: cheryl@oeonline.org, or website: www.nebc.org

March 22-23 CA

First Western Forum on Energy & Water Sustainability, Santa Barbara, Bren School of Environmental Science & Management. For info: website: www.regonline.com/114693

March 26-27 NE

Fourth Annual Water Law, Policy, and Science Conference: "The Future of Water Use in Agriculture," Lincoln, Embassy Suites Hotel. Sponsored by the University of Nebraska-Lincoln. For info: UNL, 402/ 472-3305 or website: <http://snr.unl.edu/waterconference/>

March 26-27 TX

Texas Wetlands, Austin. For info: CLE Int'l, 800/ 873-7130 or website: www.cle.com

March 26-28 DC

Federal Water Seminar, Washington, DC. For info: NWRA, 703/ 524-1544, email: nwra@nwra.org, website: www.nwra.org/meetings.cfm

March 29 CA

Town Hall Meeting on the "California's Water" Series, Concord. Sponsored by Contra Costa Water District, Dublin San Ramon Services District, East Bay Municipal Utility District, San Francisco Public Utilities Commission & Santa Clara Valley Water District. For info: Tiffany Giammona, Associated California Water Agencies, 916/ 441-4545 or website: www.acwa.org

March 29 MA

Urban Rivers Conference: "The Promise & Challenge of Urban Rivers," Boston, Federal Reserve Bank, 600 Atlantic Avenue. RE: Contaminated Sediments, Stormwater, Public Access, Urban Land Conservation, Environmental Justice, Urban Hydrology & Riverfront Design. For info: Trish Garrigan, EPA, 617/ 918-1583, email: garrigan.trish@epamail.epa.gov, or EPA website: www.epa.gov/ne

March 29-30 CA

NEPA, San Francisco. For info: CLE Int'l, 800/ 873-7130 or website: www.cle.com

March 29-30 CO

Coal in the West, Denver. For info: Law Seminars Int'l, 800/ 854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

March 30 WA

Bringing Brownfields Home, Seattle. For info: Law Seminars Int'l, 800/ 854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

April 2-3 CA

International Water Technology Conference 2007, Fresno, California State University. RE: Water Supply & Reuse, Irrigation Water Technology, antimicrobial Ozone: Agri-foods. For info: <http://guest.cvent.com/EVENTS/Info/Summary.aspx?e=5d77076f-66c2-43a0-8cab-3de15665cb25>

April 2-5 MT

"Back to the Basics," Association of Montana Floodplain Managers Conference, Bozeman, Holiday Inn. For info: AMFM email: conf2007@mtfloods.org or website: www.mtfloods.org/

April 3-5 OR

Pathways to Resilience: Sustaining Pacific Salmon in a Changing World, Portland. RE: Concept of Resilience & Application to Ecosystem Management. Sponsored by Oregon Sea Grant. For info: Sea Grant website: <http://oregonstate.edu/conferences/resilience/>

April 4 ID

Municipal Discharge Permits Hearing, Coeur D'Alene, Lake City Senior Center, 1916 Lakewood, 5-9pm. RE: Municipal Wastewater Discharge Permits for Coeur d'Alene, Post Falls & Hayden Area Regional Sewer Board. Comments accepted until April 17. For info: Mike Lidgard, EPA, 206/ 553-1755 or website: <http://epa.gov/r10earth/waterpermits.htm>

April 4-5 CA

Long-Term Stewardship Roundtable and Training, San Diego, Omni San Diego. RE: Post-Construction Activities at Federal, State, Tribal, Local & Private Party Cleanup Sites. For info: Terry Jeng, EPA, email: jeng.terry@epa.gov

April 5 WEB

Bio-Remediation, WEB. Sponsored by American Bar Association Environmental Sciences. RE: Technical & Scientific Aspects of Bio-Remediation (Contaminated Soils & Groundwater). For info: ABA website: www.abanet.org/environ/programs/environsci07/

April 9 MA

Sustainable Waters in a Changing World: Research to Practice, Amherst. Sponsored by the Massachusetts Water Resources Research Center. For info: MWRRRC, 413/ 545-2842, email: wrrc@tei.umass.edu, or website: www.umass.edu/tei/wrrc/WRRRC2004/Conference2007/CallForPapers.htm

April 9-11 CO

2007 State of the Rockies Conference, Colorado Springs, The Colorado College. RE: Water Sustainability, Agriculture to Urban Transfers, Forest Health, New Urbanism. For info: CC website: www.StateoftheRockies.com

April 11-13 AZ

"Connecting the Dots" Climate Change/ Variability and Ecosystem Impacts in Southwestern Riparian Areas, Casa Grande, Hotel Casa Grande. For info: Cindy Zisner, Arizona Riparian Council, email: Cindy.Zisner@asu.edu or website: <http://azriparian.asu.edu/>

April 12 OR

Health Costs of Pollution: Is an Ounce of Prevention Worth a Pound of Cure? Portland, Multnomah Athletic Club (1849 SW Salmon), 6-8pm. RE: Economic Costs of Environmental Disease & Prevention. Sponsored by Oregon Environmental Council Healthy Environment Forum Series. For info: Cheryl, NEBC, 503/ 222-1963 x100, email: cheryl@oeonline.org, or website: www.nebc.org

April 12-13 CA

California Water Law, San Francisco. For info: CLE Int'l, 800/ 873-7130 or website: www.cle.com

April 12-13 CO

Arkansas River Basin Water Forum, Rocky Ford, Gobin Building. RE: Water Allocation & Management in the Arkansas River Basin. For info: Lower Arkansas Valley Water Conservancy District, 719/ 254-5155 or Forum website: www.arbwf.org/

April 13 WA

Mitigation Banking, Seattle. For info: Law Seminars Int'l, 800/ 854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

April 13 OR

Endangered Species Act: Law & Science, Portland. For info: For info: Holly Duncan, Environmental Law Education Center, 503/ 282-5220, email: hduncan@elecenter.com or website: www.elecenter.com/

April 16-17 IL

Wetlands, Chicago. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net/

April 17 OR

Global Warming Part 2, Portland. For info: Holly Duncan, Environmental Law Education Center, 503/ 282-5220, email: hduncan@elecenter.com or website: www.elecenter.com/

April 17 OR

OSU Water and Health Conference, Corvallis. Sponsored by the Institute for Water & Watersheds (IWW) at Oregon State University. RE: Global Water Issues & OSU's Outreach, Research & Education. For info: IWW website: http://water.oregonstate.edu/news/2007_water/index.htm

(continued from previous page)

April 17-21 CA
2007 Annual Meeting of the American Association of Geographers, San Francisco. RE: Land Use Impacts on Hydrology, Channel Morphology and Dynamics, and Aquatic Habitat in Mountain Watersheds. For info: John Faustini, OSU Dept. of Fisheries & Wildlife, 541/ 754-4581, email: faustini.john@epa.gov, or AAG website: www.aag.org/

April 18 WA
Remedies at Chlorinated Solvent Contaminated Sites, Seminar, Richland, Hanford Site Consolidated Information Center, 2770 University Drive. USDOE Office of Environmental Management Office of Groundwater and Soil Remediation and the Savannah River National Laboratory Presentation. Monitored Natural Attenuation for Chlorinated Solvents Transferable to Metals and Radionuclides. Ahead of the Curve Upcoming Technical Regulatory Guidance by the Interstate Technology Regulatory Council. For info: Karen Vangelas, USDOE-Savannah Lab, 803/ 725-5223 or email: 803/ 725-5223

April 19-20 DC
Climate Change Regulation, Washington, D.C. For info: Law Seminars Int'l, 800/ 854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

April 19-20 OR
Oregon Environmental Quality Commission Meeting, Location TBA. For info: Helen Lottridge, ODEQ, 503/ 229-6725, or website: www.deq.state.or.us/about/eqc/EQCagenda.htm

April 23-24 TX
Texas Water Law, Houston. For info: CLE Int'l, 800/ 873-7130 or website: www.cle.com

April 24 OR
NEBC Energy Conference: Making Renewable Energy Projects Happen, Portland. RE: Create Connections: Product and Service Providers to Potential Customers, Strengthen the Sector, & Build a Cluster Identity, Project Sophistication & Efficiency. For info: Cheryl, NEBC, 503/ 222-1963 x100, email: cheryl@oeonline.org, or website: www.nebc.org

April 25-27 Croatia
Second International European Water Association Conference: "Waters in Protected Areas," Dubrovnik. RE: Water Management in National Parks, Threats to Island & Coastal Zones, Water & Wastewater Infrastructure, Conservation and Rational Use of Precious Resources, Safeguarding Ecosystems. For info: Croatian Water Pollution Control Society, +385-1-6307-677, fax +385-1-6118-570, email: hdzv@voda.hr, or website: www.hdzv.hr/about_us.htm

April 26-27 NV
Colorado River: Conflicts, Concerns & Challenges, Las Vegas, Tuscany Suites & Casino. Sponsored by the Colorado River Commission of Nevada. For info: CRCN, 702/ 486.2670 or website: www.crcn.nv.gov

April 26-27 WY
Wyoming Water Law, Cheyenne. For info: CLE Int'l, 800/ 873-7130 or website: www.cle.com

April 29-May 3 NM
2007 Ground Water Summit, Albuquerque. RE: Groundwater Science, Technology & Policy. For info: National Ground Water Association, 800/ 551-7379, email: customerservice@ngwa.org, or website: www.ngwa.org

May 1-2 ID
NOTE: Conference moved to May 24-25 — Water Law, Boise. For info: Law Seminars Int'l, 800/ 854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

May 1-3 WA
Sixth Washington Hydrogeology Symposium, Tacoma, Greater Tacoma Convention Center. RE: Environmental Forensics, Age-Dating Groundwater, Impacts of Climate Change on Water Resources & More. For info: Kelly Newell, Washington State University, 509/ 335-4247, email: knewell@wsu.edu or website orwww.ecy.wa.gov/events/hg

May 2-4 SD
Spring Council Meeting, Western States Water Council, Sioux Falls, Sheraton Sioux Falls Hotel, 1211 N. West Avenue. For info: Cheryl Redding, WSWC, 801/ 561-5300, email: credding@wswc.state.ut.us or website: www.westgov.org/wswc/meetings.html

May 3-4 NE
Nebraska Water Law, Lincoln. For info: CLE Int'l, 800/ 873-7130 or website: www.cle.com

May 3-4 CO
Colorado Wetlands, Denver. For info: CLE Int'l, 800/ 873-7130 or website: www.cle.com

May 6-9 DC
National Clean Water Policy Forum, Washington, DC, Renaissance Washington. Sponsored by the National Association of Clean Water Agencies. For info: NACWA, 202/ 833.2672, email: info@nacwa.org, or website: www.nacwa.org/meetings/#07winter

May 7-9 MT
2007 Water Summit, Dupuyer, Boone & Crockett's Theodore Roosevelt Memorial Ranch. Sponsored by the Montana Department of Environmental Quality, The Boone and Crockett Club, and the Sun/Teton Watershed Groups. RE: Water Conservation & Challenges for Montana Water Supplies. For info: Ted Sedell, Montana Watercourse, 406/ 994-6317 or email: Edwin.sedell@montana.edu

May 7-10 LA
2007 National Environmental Partnership Summit, New Orleans. RE: Local Actions & Global Results, Practical Tools, Managing Environmental Impacts, Policy Strategies & Innovations, Measurement, Metrics & Indicators, Research & Technology, Environmental Futures Forecasting. For info: Beverly Updike, OECA's Office of Compliance, 202/ 564-7142, or Summit website: www.environmentalsummit.org

May 8-11 CA
2007 Spring Conference & Exhibition, Sacramento, Hyatt Regency & Sheraton Grand Hotels. Sponsored by: Association of California Water Agencies. For info: www.acwa.com/events/acwa_events.asp

May 8-11 NV
New MODFLOW Course, Las Vegas. For info: National Ground Water Association, 800/ 551-7379, email: customerservice@ngwa.org, or website: www.ngwa.org

May 9 MT
Design Your Monitoring Plan & Data Management Workshop, Dupuyer, Boone & Crockett's Theodore Roosevelt Memorial Ranch. Sponsored by the Montana Department of Environmental Quality, The Boone and Crockett Club, and the Sun/Teton Watershed Groups. For info: Ted Sedell, Montana Watercourse, 406/ 994-6317 or email: Edwin.sedell@montana.edu

May 10 CA
California Hydroelectric Projects, San Francisco. For info: The Seminar Group, 800) 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net/

May 10-11 DC
Wetlands Law & Regulation, Washington D.C., Marriott at Metro Center. Sponsored by ABA Section of Environment, Energy,& Resources and Environmental Law Institute. For info: ABA website: www.ali-aba.org/aliaba/CM094.HTM



260 N. Polk Street • Eugene, OR 97402

PRSRT STD
 US POSTAGE
 PAID
 EUGENE, OR
 PERMIT NO. 459