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WETLANDS & THE CLEAN WATER ACT

US SUPREME COURT HEARING IMMINENT

RAPANOS, CARABELL, AND THE LIMITS OF FEDERAL JURISDICTION

by Howard Bleichfeld, Sam Collinson, and Christopher S. Mills of Van Ness Feldman, PC

INTRODUCTION

On Tuesday, February 21st, the United States Supreme Court is scheduled to hear oral argument on two cases concerning the scope of federal jurisdiction under the federal Clean Water Act (CWA). The two cases, *Rapanos v. United States*, 376 F.3d 629 (6th Cir. 2004), *cert. granted* (U.S. Oct 11, 2005) (No. 04-1034) and *Carabell v. U.S. Army Corps of Engineers*, 391 F.3d 704 (6th Cir. 2004), *cert. granted* (U.S. Oct 11, 2005) (No. 04-1384), which have been consolidated for review by the Supreme Court, involve landowners who filled wetlands distant from "traditional" navigable waters. By "traditional" navigable waters we mean those waters that comprise the "highways of commerce," and have been regulated for over 100 years by the US Army Corps of Engineers (Corps). They are defined in Corps regulations as "those waters of the United States which are subject to the ebb and flow of the tide, and/or are presently used, or have been in the past, or may be susceptible for use to transport interstate or foreign commerce." 33 C.F.R. § 329.4 (2005). In reviewing the decisions of the US Court of Appeals for the 6th Circuit in the *Rapanos* and *Carabell* cases, the Supreme Court may clarify the boundaries of federal CWA jurisdiction which have remained unclear since the Court's 2001 decision in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* ("*SWANCC*"—531 U.S. 159 (2001)).

The limits of federal jurisdiction are important to developers, irrigation districts, state and local governments, utilities and any other entity seeking to plan and build a project affecting wetlands. The wetlands permitting process under section 404 of the CWA is time consuming, expensive, and controversial. Once jurisdiction under the program is claimed, it is all too easy for the sponsor of a project to lose control over its timing and design. Moreover, application for a CWA section 404 permit often triggers extensive consultation with the US Fish and Wildlife Service under section 7 of the federal Endangered Species Act. In addition, because the Court's decision will apply to the entire CWA, the jurisdiction of other programs also could be affected, including the National Pollutant Discharge Elimination System (NPDES) Program under CWA section 402, and the Oil Pollution Act.

CASE OVERVIEWS

In the *Rapanos* case, contractors were hired to prepare three sites in Bay County, Michigan, including 54 acres of wetlands, for development. The wetlands on one of the sites were 20 miles from the Kawkawlin River, a traditional navigable water. The wetlands on the site were connected intermittently to the Kawkawlin by a manmade ditch and a non-navigable creek. On another site, surface runoff from wetlands flowed into similar non-navigable tributaries and eventually to traditionally navigable waters. The US

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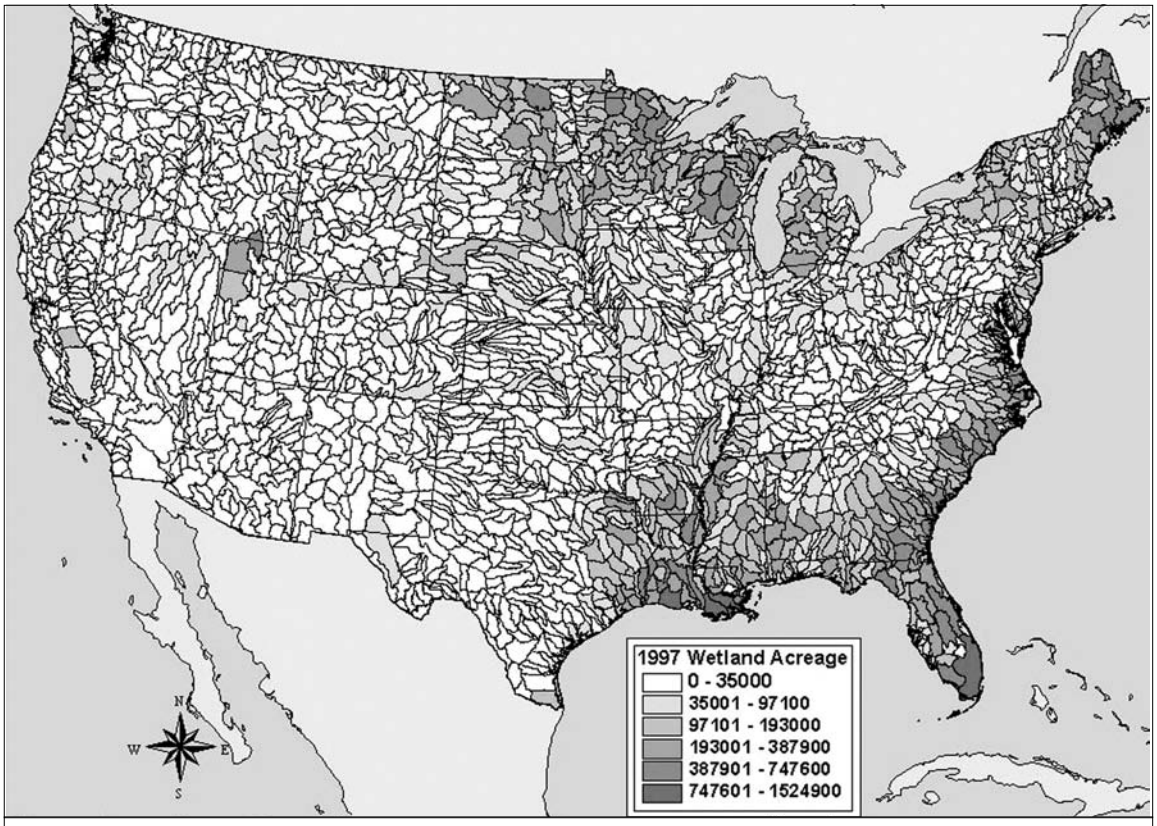
Wetlands

US Wetlands (1997)



Wetland Acreage. Shaded areas indicate 1997 acreage of wetlands within 8-digit hydrologic boundaries. Source: National Resource Inventory, revised December 2000.

Environmental Protection Agency (EPA) asserted that the work on the site involved the unauthorized filling of jurisdictional wetlands in violation of section 404 of the CWA. EPA ordered Rapanos to stop all work and restore the sites to their original condition. Rapanos refused, believing that the CWA does not apply to non-navigable, intrastate wetlands far removed from traditional navigable waters. In 1994 the EPA brought criminal charges against John Rapanos. Mr. Rapanos was convicted in 1995 and fined $185,000. The trial judge refused to sentence Mr. Rapanos to prison for "mov[ing] some sand from one end [of his property] to the other." *U.S. v. Rapanos*, 235 F.3d 256, 259-260 (6th Cir. 2000). Simultaneously in 1994, the civil suit that is now before the Supreme Court was filed.

The property at issue in *Carabell* is a 19.6 acre site in Macomb County, Michigan lying about a mile from Lake St. Clair. The property, which contains wetlands, is separated from a ditch by manmade berms. The ditch connects to a drain, which in turn empties into a creek, which empties into Lake St. Clair. According to the petitioners, the berms prevent any surface or ground water connection between Carabell's property and the ditch or any other water. Nevertheless, the EPA asserted jurisdiction over the property on grounds that the wetland was adjacent to a navigable water of the United States. The Corps subsequently denied a permit submitted by Carabell to develop the property. In both the *Rapanos* and *Carabell* cases, the US Court of Appeals for the 6th Circuit held that federal jurisdiction attached to the wetlands.

BACKGROUND

The CWA prohibits discharges of pollution into "navigable waters" except in accordance with the various provisions of the Act. "Navigable waters" are defined in the CWA as the "waters of the United States, including the territorial seas." The CWA does not further define the term "waters of the United States." The two agencies that share responsibility for implementing the CWA — EPA and the Corps — have defined the term broadly to include not only traditional navigable waters, but all other waters, including intrastate lakes, rivers, streams and wetlands if their use, degradation, or destruction could affect interstate commerce, as well as tributaries of such waters. In addition, the regulations assert federal jurisdiction over wetlands that are "adjacent" to any of these waters (see 33 C.F.R. 328.3(a) and (c); and 40 C.F.R. 230.3(s)(1) (EPA).

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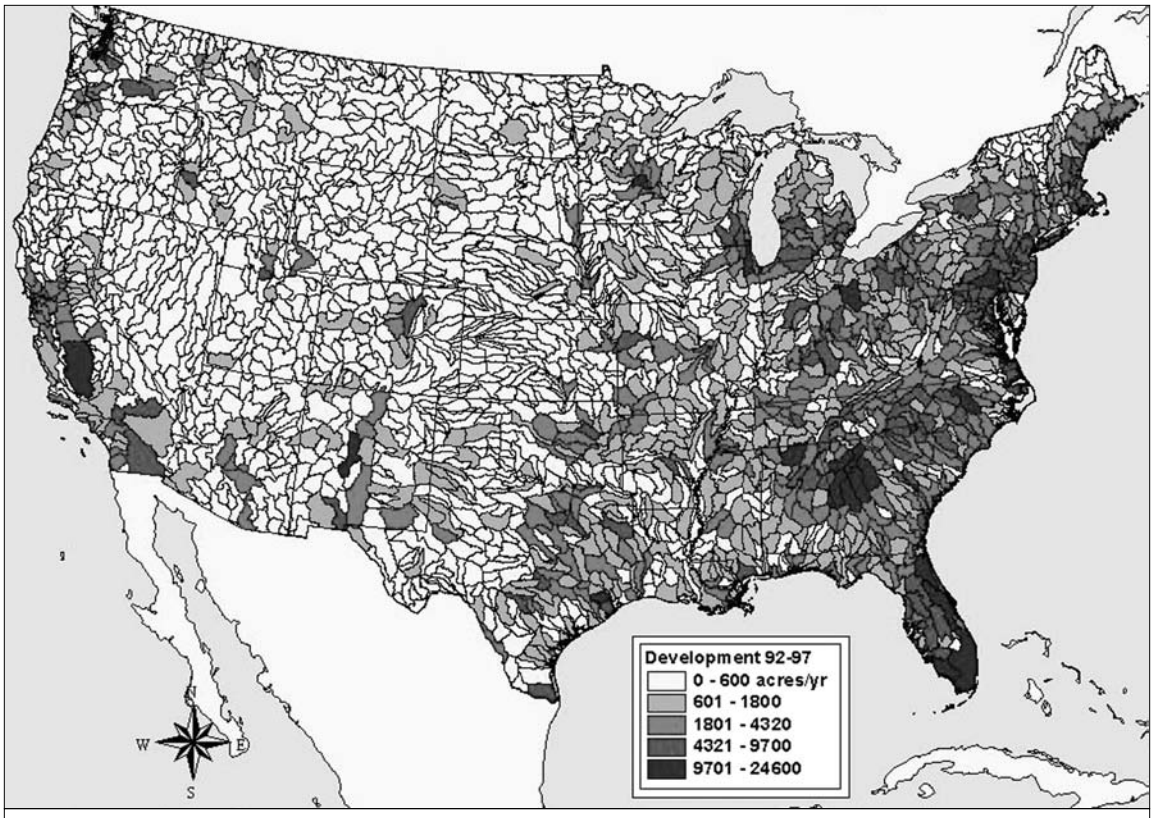
Wetlands

US Development Rate



Annual Development Rate. Shaded areas indicate annual rate of development 1992-97 within 8-digit hydrologic boundaries. Source: National Resource Inventory, revised December 2000.

Riverside Bayview Homes

Federal Jurisdiction

"Adjacent" Wetlands

The *Rapanos* and *Carabell* cases mark the third time the Supreme Court has addressed the extent of federal jurisdiction over wetlands and other waters under the section 404 wetlands permitting program. In its 1985 opinion in *United States v. Riverside Bayview Homes*, 474 U.S. 121 (1985), the Court addressed whether the assertion of jurisdiction over "adjacent" wetlands was a valid exercise of agency authority under the CWA. There, Riverside Bayview Homes owned 80 acres of wetlands abutting Black Creek, a traditional navigable waterway near Lake St. Clair in Macomb County, Michigan. When the company placed fill material on the property without a federal permit, the Corps asserted jurisdiction over the property as an "adjacent" wetland and obtained an injunction from the district court. The Supreme Court upheld federal jurisdiction, reasoning that Congress intended the term "navigable waters" to include at least some waters that would not be deemed "navigable" under the traditional understanding of that term (474 U.S. at 133). The Court found that because the wetland in question "actually abuts on a navigable waterway," the Corps' judgment that it was "inseparably bound up" with the "waters of the United States" and therefore subject to federal regulation was reasonable (*Id*. at 134-135).

SWANCC

"Migratory Bird Rule"

Isolated Wetlands

Six years later the Supreme Court addressed the question of federal jurisdiction over waters and wetlands not adjacent to any navigable waterway. The Solid Waste Agency of Northern Cook County (SWANCC) sought to fill several small ponds in two counties in Illinois for use as a municipal solid waste disposal site. The ponds, which had formed on a site formally used for sand and gravel mining, were non-navigable and hydrologically isolated from other waters. The Corps asserted jurisdiction over the ponds on the basis of the so-called "Migratory Bird Rule," which authorized federal CWA jurisdiction over any waters that could be used by migratory birds.

In the *SWANCC* decision, the Supreme Court held that isolated, non-navigable, intrastate waters and wetlands are not jurisdictional "waters of the United States" under section 404 of the CWA where the sole basis for asserting jurisdiction is the use of such waters by migratory birds (*SWANCC v. U.S. Army Corps of Engineers*, 531 U.S. 159 (2001)). Corps regulations define "isolated waters" as those non-tidal waters of the United States, including wetlands, that are (1) not part of a surface tributary system to interstate or navigable waters; and (2) not adjacent to such tributary waterbodies (33 C.F.R. § 330.2(e) (2005)). The Court found that there is a difference between giving the term "navigable" limited effect, as

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Wetlands

Significant Nexus

Commerce Clause

Inconsistent Application

6th Circuit Findings

Hydrological Connection (*Rapanos*)

Adjacency (*Carabell)*

in *Riverside Bayview Homes*, and giving the term no effect at all. The Court in *SWANCC* held that the agencies' expansive definition of the term "waters of the United States" was so broad that the word "navigable" was effectively eliminated from the statutory term "navigable waters." The term "navigable," according to the Court, demonstrates that in enacting the CWA, Congress had in mind "its traditional jurisdiction over waters that were or had been navigable in fact, or which could reasonably be so made." The Court explained that its decision in *Riverside Bayview Homes* was based on Congress' clear intent to regulate wetlands that "actually abutted on a navigable waterway" (531 U.S. at 167). The Court stated in *SWANCC* that it was the "significant nexus between the wetlands and 'navigable waters' that informed our reading of the CWA in *Riverside Bayview Homes.*" *(Id.)* In contrast, the CWA does not allow jurisdiction over "ponds that are *not* adjacent to open water" (531 U.S. at 168; emphasis in original).

The Court grounded its decision in *SWANCC* in its analysis of the CWA, but stated that the Corps' assertion of jurisdiction over isolated waters raised "significant constitutional questions." The Court noted that twice since 1995 it has "reaffirmed the proposition that the grant of authority to Congress under the Commerce Clause, though broad, is not unlimited," and stated further that allowing the Corps and EPA to claim jurisdiction over isolated waters would result in a "significant impingement of the State's traditional and primary power over land and water use." *Id.* at 173 and 174.

Post-*SWANCC* Inconsistency

Unfortunately, the Court's opinion in *SWANCC* did not result in clearer jurisdictional boundaries under the federal wetlands permitting program. Instead, administrative actions and lower court decisions following *SWANCC* have created further inconsistency in the operation of the program. A report issued in March, 2004 by the General Accounting Office concluded that jurisdictional decisions made by the Corps are made inconsistently across the country by Corps district offices. The report found that the inconsistency was greatest when the Corps considered jurisdiction over: 1) adjacent wetlands; 2) tributaries; and 3) ditches and other man-made conveyances. That same year, the Administration canceled a rulemaking drafted to provide specific guidelines to field personnel who make the day-to-day determinations of federal jurisdiction over wetlands and other waters. Meanwhile, the federal courts have adopted differing interpretations of the *SWANCC* decision. Some courts have interpreted *SWANCC* to exclude from CWA jurisdiction not only all isolated waters, but all waters except traditionally navigable waters and their adjacent wetlands. The majority of federal courts have interpreted *SWANCC* more narrowly, thereby retaining expansive federal CWA jurisdiction. The Court now has the opportunity to clarify federal jurisdiction in this area.

THE *RAPANOS* & *CARABELL* CASES

In adjudicating the *Rapanos* and *Carabell* cases, the US Court of Appeals for the 6th Circuit interpreted *SWANCC* to mean that isolated, intrastate wetlands are not subject to jurisdiction under the CWA. However, the court held in *Rapanos* and *Carabell* that the subject wetlands were not "isolated." The court found a connection between the wetlands and the ditches and, ultimately, traditional navigable waters, sufficient to establish federal jurisdiction. In contrast, the court noted, the seasonal ponds at issue in *SWANCC* had "no hydrological connection to other waterways." *U.S. v. Rapanos*, 339 F.3d 447, 452 (6th Cir. 2003).

In *Rapanos,* the court of appeals found that contamination of the wetlands could affect the drain, which could affect the creek, which in turn could affect traditional navigable waters. The court stated that *SWANCC* "requires a 'significant nexus' between the wetlands and 'navigable waters' for there to be jurisdiction" under the CWA. "Because the wetlands are adjacent to the Drain and there exists a hydrological connection among the wetlands, the Drain, and the Kawkawlin River, we find ample nexus to establish jurisdiction." According to the panel, the protection of the wetlands on Rapanos' land is a "fair extension of the Clean Water Act." *United States v. Rapanos*, 339 F.3d 447, 453 (6th Cir. 2003).

The court in *Carabell* deferred to the Corps' interpretation of its regulation that defined "adjacent" wetlands to include wetlands separated from a tributary of navigable waters by a berm or man-made barriers. Corps regulations provide that the term "adjacent" means "bordering, contiguous, or neighboring. Wetlands separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes and the like are 'adjacent wetlands'" (33 C.F.R. § 328.4(c) (2005)). The court then reasoned that the adjacent wetlands contained a "significant nexus" with traditional navigable waters sufficient to establish federal jurisdiction under the CWA. According to the court, such a nexus was established between the "wetlands on the Carabell's property and the adjacent non-navigable ditch abutting their property, a ditch that flows one way or another into other tributaries of navigable waters of the United States." 391 F.3d at 710.

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Wetlands

Constitutional Questions

Remote Connections

Petitioner's Positions

Federal Position

Hydrologic Connection

Too Broad?

Tributary Regulation

ISSUES BEFORE THE SUPREME COURT

In addition to the extent of the agencies' statutory authority under the CWA, these two cases present important constitutional questions that were raised, but not ruled on, in *SWANCC.*

First, with respect to the agencies' authority under the CWA, the *Rapanos* case presents the question of whether the statutory term "navigable waters" extends to wetlands that "do not even abut" a traditional navigable water (see Petition for Writ of Certiori). In *Carabell*, the statutory question presented is whether the CWA extends to wetlands that are "hydrologically isolated" from any of the navigable waters of the United States.

Second, the *Rapanos* case presents the constitutional question of whether "extension of Clean Water Act jurisdiction to every intrastate wetland with any sort of hydrological connection to navigable waters, no matter how tenuous or remote the connection, exceeds Congress' constitutional power to regulate commerce among the states?" (see Petition for Writ of Certiori). *Carabell* questions similarly whether Congress has the power under the Commerce Clause of the Constitution to regulate wetlands that are "hydrologically isolated" from any of the navigable waters of the United States.

ARGUMENTS BEFORE THE SUPREME COURT

Collectively, the petitioners in *Rapanos* and *Carabell* challenge the Corps' assertion of jurisdiction over the wetlands on their properties on several grounds. They argue initially that assertion of jurisdiction under the CWA violates the "significant nexus" test that the Supreme Court articulated in *SWANCC*. Petitioners in *Carabell* argue that a wetland that is hydrologically distinct from a navigable waterway lacks a "significant nexus," even if it geographically abuts a non-navigable tributary of that waterway. Petitioners in the *Rapanos* case argue that the "significant nexus" between a navigable waterway and a wetland must involve more than the mere presence of a hydrologic connection. The nexus must at least involve a direct physical abutment of a traditional navigable water. Petitioners also argue that the language and legislative history of the CWA suggest that the Corps' broad interpretation of the CWA is not entitled to deference. Finally, they argue that the Corps' interpretation presents serious constitutional concerns, necessitating that the Court interpret the CWA narrowly.

The Government, on behalf of the Corps and EPA, argues that neither direct physical abutment nor a demonstrated hydrologic connection is necessary to assert CWA jurisdiction over wetlands. Rather, all wetlands that might, as a class, potentially affect traditional navigable waters possess a "significant nexus" with the navigable water sufficient to trigger federal jurisdiction. The Government also argues that the Corps' interpretation of the CWA is consistent with the language, history, and purpose of the Act. Finally, the Government argues that the Corps' interpretation of the CWA is consistent with Congress' constitutional authorities.

The "Significant Nexus" Test

Carabell asserts that a fundamental premise behind the finding of jurisdiction in *Riverside Bayview* was the existence of a hydrologic connection between the wetland and navigable waterway. Carabell maintained that on his property the berm prevented any hydrologic connection between the wetland and the water — hence, there is no "significant nexus" and the wetland cannot be said to be "inseparably bound up" with the navigable water.

Rapanos contends that a mere hydrologic connection is insufficient to meet the "significant nexus" test. Beyond a simple hydrologic connection, a wetland must physically abut a traditional navigable water as in *Riverside Bayview*, and as clarified in *SWANCC*, in order to be "inseparably bound up" with the water and create the required "significant nexus." Otherwise, any water source that might eventually make its way into a traditional navigable waterway will be subject to federal jurisdiction, including water flowing over a public street into a storm drain, or a lawn that drains to the street.

The Government's view of what constitutes a "significant nexus" is far more broad. The Government argues that such a nexus exists whenever the water or wetland in question could effect traditional navigable waters. A "significant nexus" clearly exists between navigable waters and their non-navigable tributaries because "[w]ater moves in hydrologic cycles and it is essential that discharge of pollutants be controlled at the source" [*Riverside Bayview*, 474 U.S. at 133 (quoting S. Rep. No. 414, 92d Cong., 1st Sess. 77 (1971))]. If CWA jurisdiction did not extend to tributaries, then many sources of pollution, including discharges of toxic waste and sewage, would be beyond federal regulation, no matter their impact on downstream navigable waters, even if the impact of such pollution is felt in another state. According to the Government, the Court in *Riverside Bayview* based its holding not on an understanding of "adjacency" that is limited solely to geographic proximity, but on the acknowledgement of a broader notion of the potential impact that filling wetlands has on downstream waters, consistent with the goals of the CWA.

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Wetlands

"Navigable Waters"

Deference?

Intent

Tributaries Included

***SWANCC* Interpretation**

"Historic Only Waters"

Agency Expertise

Deference Findings

The Language and Legislative History of the Clean Water Act

Carabell and Rapanos argue that the CWA defines "navigable waters" as "waters of the United States, including the territorial seas" (33 U.S.C. § 1362(7)). The plain meaning of this definition is clear because the term "navigable waters" has a specific meaning that has previously been judicially defined to denote those rivers, lakes, streams, and other bodies of water that were used for navigation in interstate commerce, or could reasonably be made navigable (s*ee, e.g., United States v. Appalachian Elec. Power Co.*, 311 U.S. 377, 407-08 (1940)). "When Congress codifies a judicially defined concept, it is presumed, absent an express statement to the contrary, that Congress intended to adopt the interpretation placed on that concept by the courts" (*Davis v. Michigan Dep't of Treasury*, 489 U.S. 803, 813 (1989)). Because the meaning of "navigable water" and "waters of the United States" are clear, and because the Corps' interpretation is contrary to this clear meaning, the Corps interpretation is not entitled to deference.

In response, the Government argues that, although earlier versions of the CWA included the word "navigable" within the definition of "waters of the United States," the version enacted by Congress deleted the word, thereby expressing the intent of Congress to broaden the scope of federal water protection legislation. The Court in *Riverside Bayview* noted that, by defining "navigable waters" to mean "the waters of the United States," "Congress evidently intended to repudiate limits that had been placed on federal regulation by earlier water pollution control statutes" (*Riverside Bayview* at 133).

Moreover, the Government argues, section 404(g)(1) of the CWA provides that a state may administer its own permit program to cover the discharge of material into navigable waters "*other than* those waters which are presently used, or are susceptible to use in their natural condition or by reasonable improvement as a means to transport interstate or foreign commerce" (33 U.S.C. 1344(g)(1) (emphasis added)). If the term "navigable waters" means nothing more than waters that are now, or are susceptible to being used for commerce, the clause "other than" would be rendered meaningless. Given that Congress intended at least some additional waters to be subject to the CWA, non-navigable tributaries are the most obvious candidates. The Government asserts that if tributaries of navigable waters are covered by the CWA, then the wetlands adjacent to them are as well, as the Court held in *Riverside Bayview*.

However, the Court in *SWANCC* appeared to reject the expansive notion of "navigable waters" asserted by the Corps. According to the Court, section 404(g) does not determine the meaning of "waters," particularly when the term "navigable waters" is defined specifically in section 502(7). The Court in *SWANCC* also stated that nothing in the legislative history of the CWA "signifies that Congress intended to exert anything more than its commerce power over navigation" (*SWANCC*, 531 U.S. at 168 n.3. (internal citation omitted)).

It should be noted that CWA section 404(g)(1) does provide for transfer to the states of certain "other" traditional navigable waters regulated under section 10 of the Rivers and Harbors Act and section 404 of the CWA. Known as "historic only waters," such waters often extend far upstream beyond those waters that cannot be transferred under section 404(g)(1). Moreover, the Corps has issued a streamlined nationwide permit (NWP 24) to provide CWA section 10 authorization for such transferred section 404 waters. Accordingly, the clause "other than" is not rendered meaningless in section 404(g)(1) under the construction of the statute advocated by Rapanos.

The Question of Deferring to the Federal Agencies' Interpretation of the CWA

According to the Government, although Rapanos argues that the CWA cannot extend to all non-navigable tributaries of a navigable waterway (including remote ditches and drains), the text of the CWA does not distinguish among different non-navigable tributaries; therefore that task fell to the EPA and the Corps. Making the determination of what classes of water bodies are likely to affect downstream water quality is a task best suited to the administrative expertise of the agencies, rather than judicial resolution. For example, the agencies' judgment that "adjacent" wetlands, as a class, are likely to affect water quality in navigable waters, is based on substantial evidence because extensive studies indicate that berms, even concrete dams, do not stop all water flow. Thus, even if a wetland lacks a surface connection to another adjacent water body, a subsurface connection is likely to exist. Geographical adjacency serves as a reasonable, readily identifiable proxy for the existence of a hydrologic connection. The Government therefore contends that the agencies' determination is entitled to deference.

Carabell and Rapanos argue that judicial deference is unwarranted. They point to *SWANCC*, in which the Court refused to defer to the agencies, reasoning that "[w]here an administrative interpretation of a statute invokes the outer limits of Congress' power, we expect a clear indication that Congress intended that result" (531 U.S. at 172). The Court noted its "assumption that Congress does not casually authorize administrative agencies to interpret a statute to push the limit of congressional authority" (*Id.* at 172-173). Moreover, this "concern is heightened where the administrative interpretation alters the federal-state framework by permitting federal encroachment upon a traditional state power" (*Id*. at 173).

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Wetlands

According to Rapanos and Carabell, there is no clear statement of congressional intent to warrant judicial deference. The Court should refuse to defer to the agencies in this case because their interpretation of the CWA encroaches significantly on the states' traditional authority to regulate local development.

Federal and State Power Sharing: Federalism Concerns

State/Local Authority

CWA Intent

Rapanos and Carabell assert that regulation of the entire tributary system of any navigable waterway, as well as adjacent wetlands, impinges on the State's traditional power over land and water use. The expansive jurisdiction claimed by the Corps gives the federal government veto power over tens of thousands of land use projects annually. This usurps the traditional power of state and local governments to regulate land and water use (*e.g., Oregon ex rel. State Land Bd. v. Corvallis Sand & Gravel Co.*, 429 U.S. 363, 375-376 (1977)). This is particularly troubling because the CWA clearly acknowledges and gives precedence to the states' traditional control over water regulation — "It is the policy of the Congress to recognize, preserve, and protect the primary responsibilities and rights of States to . . . plan the development and use . . . of land and water resources." (33 U.S.C. § 1251(b)). Congress intended that under the CWA, water pollution downstream would be addressed at the federal level, but regulation of upstream areas would be reserved to the states, a balance of federal and state power sharing recognized in *SWANCC* (531 U.S. at 166-167).

Regulatory Reversal?

Carabell cites the permitting process involving its property as a prime example of federal usurpation of state power over land use. Before the federal government became involved, the Michigan Department of Environmental Quality (MDEQ) evaluated how filling of the wetlands on Carabell's property might affect the Lake St. Clair watershed. The MDEQ recommended issuing a permit, concluding that the filling would have no effect on flood control, or any other state interests; indeed, MDEQ stated that the nearly four acres of wetlands that were to be enhanced as mitigation under the development plan were likely to provide more water filtration than the current wetlands. In contrast, the Corps focused more on whether the proposed condominium development was necessary for the local economy than on any potential adverse environmental effects. The result was a kind of regulatory reversal, in which the federal agency served a role normally reserved for the states – zoning, in effect – and the state agency functioned more like a body concerned with pollution protection. Such regulatory behavior illustrates the concerns over the appropriate balance of federal and state power. According to Carabell, the Constitution simply does not give federal agencies the authority to engage in such local decision-making.

Commerce Clause Concerns

Constitutional Issues

Another important issue before the Court is whether the agencies' assertion of federal jurisdiction over the wetlands at issue exceeds the limits of federal authority under the United States Constitution. The federal government may exercise only that power granted to it in the Constitution; all other power is reserved to the states. All federal statutes and regulatory activities pursuant thereto must be grounded in one of the powers granted to the federal government by the Constitution. Most federal environmental laws, including the CWA, are enacted pursuant to Congress' power to regulate interstate commerce. Article I, Section 8, Clause 3 of the Constitution, the "Commerce Clause," reserves to the Congress the power to regulate commerce among foreign nations, the states and the Indian tribes.

Regulation Categories

In the case of *United States v. Lopez*, 514 U.S. 549 (1995), the Supreme Court held that authority to regulate under the Commerce Clause encompasses three categories of activities. First, Congress may regulate the *channels* of interstate commerce. Second, Congress may regulate the *instrumentalities* of interstate commerce, including persons and things in interstate commerce. Third, Congress may regulate activities that *substantially affect* interstate commerce (*Id*. at 558-559). The third category of Commerce Clause power is the broadest. The parties in *Rapanos* and *Carabell* disagree both with respect to the appropriate category of Commerce Clause power, and the extent of that power.

Logical Extension?

Rapanos contends that the Commerce Clause power over the channels of interstate commerce is inapplicable, because wetlands are not now navigable, and are not reasonably capable of being made navigable. As such, the Government can only claim in this case that federal jurisdiction extends to the filling of wetlands under the third *Lopez* category. Yet Rapanos argues that the mere presence of a hydrologic connection does not satisfy the "substantial effects" test articulated in *Lopez* because a hydrologic connection that is tenuous and remote, as is the case with the wetlands on the Rapanos property, may have little or no effect. Rapanos cites the Court's statement in *SWANCC* that "twice in the past six years we have reaffirmed the proposition that the grant of authority to Congress under the Commerce Clause, though broad, is not unlimited." *SWANCC*, 531 U.S. at 173 According to Rapanos, the agencies' assertion of authority over any wetland with a hydrological connection to a traditional navigable water contains no logical stopping point, and converts the commerce power into a general police power like that retained by the states. The same limitless commerce power was claimed under the Migratory Bird Rule and was rejected by the Court in *SWANCC*. For its part, Carabell points out that the

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Wetlands

Corps' Position

Substantial Effects

***SWANCC* & Ecological Connection**

Aggregate Effects

Rational Basis

Broad "Wetlands" Definition

Expansive Jurisdiction

effect on interstate commerce is even more obscure when there is no hydrologic connection to a navigable waterway. With no hydrologic connection between the wetland and the navigable water, whether there is a physical abutment or not, it is difficult to discern how any navigable waterway involved in interstate commerce might be affected.

The Government responds that the Corps' exercise of jurisdiction over wetlands, even those that do not have a hydrologic connection or directly abut a tributary of a navigable waterway, is justified under both the first and third categories under *Lopez*. The Corps' interpretation is justified under the first prong of *Lopez* because harm to wetlands can have an effect on the channels of interstate commerce – the traditional navigable waters. In the aggregate, pollutant discharges into wetlands adjacent to tributaries can have substantial effects on navigable waters downstream. Pollution from non-navigable tributaries and waters adjacent to them not only can impede navigation, but also can impact fish, plants, wildlife, and recreation in the navigable water. Jurisdiction under the CWA stems from the fact that adjacent wetlands *as a class* have a significant impact on navigable waters. That an individual wetland may have no effect on navigable waters does not affect jurisdiction because the Corps may simply grant a permit to allow the wetland to be developed.

In the *SWANCC* litigation, however, the Government advanced a similar argument. In that case the Corps contended that migratory birds created an ecological connection between an isolated wetland and a navigable waterway sufficient to support commerce clause jurisdiction. The Court rejected this interpretation and held that such an ecological connection was insufficient to establish a "significant nexus" (*SWANCC*, 531 U.S. at 171-172).

The Government argues that the exercise of jurisdiction over wetlands with a hydrologic connection to tributaries of navigable waters also is a permissible exercise of Congress' authority to regulate classes of activities that substantially affect commerce, thus satisfying the third prong in *Lopez*. Rapanos' argument that there is no actual proof that a discharge into their wetlands reaches traditional waterways is irrelevant to the issue of jurisdiction because it has already been established that Congress may decide that the aggregate effect of all of the individual instances of discharge justifies regulating each of them, and such a decision will be upheld in court so long as there is a rational basis for concluding that the regulated activity substantially affects interstate commerce (*Lopez*, 514 U.S. at 557). According to the Government, if the Corps were required to prove that any particular discharge will impact a navigable waterway before asserting federal jurisdiction, the entire regulatory scheme would be stymied.

Due Process Concerns

Rapanos argues that, given the civil and criminal penalties associated with violations of the CWA, the agencies' broad interpretation of federal jurisdiction raises constitutional "due process" issues. The definition of "wetlands" is broad, covering any area "inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." 33 C.F.R. § 328.3(b) (2005). Under this definition and implementing guidance, areas that are wet for only one or two weeks per year are often subject to federal jurisdiction. Individuals have been subject to criminal penalties, including time in prison, for placing clean fill on dry land (see e.g. *United States v. Mills*, 816 F. Supp. 1546 (N.D. Fla. 1993). The Corps' shifting and expanding definitions of "adjacent," "tributary," and "navigable waters," are also problematic. Not only do the Agency's definitions constantly change, but Corps districts, and even individual staff members within a single Corps district, differ in how they interpret and implement the regulatory program. When these vague, shifting, and overly broad definitions are used to impose severe civil and criminal penalties on landowners, due process concerns are implicated. In order to avoid such problems, the expansive jurisdictional claims of the agencies should be rejected.

POSSIBLE IMPLICATIONS

In *Rapanos* and *Carabell*, the Government claims that the *potential* effect on traditional navigable waters of filling the wetlands on Rapanos' and Carabell's property creates a "significant nexus" between the wetlands and those traditional navigable waters that justifies federal jurisdiction over the wetlands. The Government's claim of jurisdiction based on its interpretation of the "significant nexus" test is sweeping. If the Court were to uphold the Government's view of its jurisdiction, the implications for property owners and project sponsors would be significant indeed.

For example, in addition to man-made ditches, the following might provide the connection to tributaries or traditional navigable waters necessary to create federal jurisdiction:

- *Ephemeral areas*, which are those erosion features and areas that drain only rainwater
- *Sheet flow*, which is the simple (un-channeled) flow of water over upland
- *Groundwater*;
- *Underground stormwater drainage systems*

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Wetlands

Biological Connection

Ecological Connection

Congressional Fix?

Moreover, *biological* connections between a wetland and a tributary of a traditional navigable water or the navigable water itself could also be used to satisfy the "significant nexus" test. Such a biological connection might involve salamanders that migrate from a wetland to a tributary or traditional navigable water, for example. Unless modified or overturned in *Rapanos* or *Carabell*, however, the *SWANCC* decision would prevent the potential use of a wetland or water by migratory birds from being used to establish the requisite "significant nexus" with a navigable water to establish federal jurisdiction.

Ecological connections between wetlands and waters have also been suggested by the Government as a means for establishing federal jurisdiction under the "significant nexus" test. Should the Government prevail before the Court, the requisite "significant nexus" could be established not just between wetlands that are contiguous, or actually abut, a tributary or a traditional navigable water, but also between such waters and any wetland.

Such changes would actually trigger an expansion of jurisdiction over pre-*SWANCC* limits. It is questionable whether the Court, just four years after its decision in *SWANCC*, which curbed CWA jurisdiction, will approve the sweeping jurisdictional claims advanced by the Government. After all, the Court in *SWANCC* stated that "[t]he term 'navigable' has at least the import of showing us what Congress had in mind as its authority for enacting the [CWA]: its traditional jurisdiction over waters that were or had been navigable in fact or which could reasonably be made so." *SWANCC*, 531 U.S. at 174.

RENEWED DEBATE IN CONGRESS ANTICIPATED

The Court's decision, which is expected early this summer, may reinvigorate the debate in Congress on the limits of the federal wetlands regulatory program. Whatever the ruling, those who disagree may well turn to Congress to enact legislation to "correct" the Court's decision. In particular, a ruling for more limited federal jurisdiction may trigger an aggressive effort by those who seek the broadest possible federal regulatory role to force a vote to overturn the Court's ruling before the November elections.

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Adjacency — Jurisdiction

NINTH CIRCUIT: ***BACCARAT FREMONT DEVELOPERS, LLC V. US CORPS OF ENGINEERS***

Editor's Note: Another case that undoubtedly will be raised before the Court is *Baccarat Fremont Developers, LLC v. United States Army Corps of Engineers*, Case No. CV-02-03317-CW (Oct. 14, 2005). Decided just three days after the Court agreed to hear *Rapanos* and *Carabell*, the *Baccarat* case dealt with many of the same issues. The Ninth Circuit held that the Corps had jurisdiction to regulate "adjacent wetlands" regardless of whether such wetlands have a "significant hydrological or ecological connection" to navigable waters. Like *Carabell*, the case involved wetlands that were separated from surface water by a man-made berm. In *Baccarat*, the site at issue contained 7.66 acres of wetlands which were 65-70 feet from flood control channels flowing to San Franscisco Bay, at their closest point. Baccarat argued that after the Supreme Court's decision in *Solid Waste Agency of N. Cook County v. United States Army Corps of Engineer*s, 531 U.S. 159 (2001) ("*SWANCC*"), adjacency is no longer sufficient to establish the Corps' jurisdiction under the CWA.

The Ninth Circuit explained its ruling upholding the Corps' jurisdiction, clearly differentiating between the initial jurisdiction issue and the later (potential) permitting issue. "The text of the CWA and the implementing regulations promulgated by the Corps give no indication that a significant hydrological or ecological connection is a condition of Corps jurisdiction over adjacent wetlands. Baccarat relies on the Supreme Court's decision in *SWANCC* to support its contention that adjacent wetlands must be hydrologically or ecologically connected to waters of the United States. *SWANCC*, however, did not address the Corps' adjacency jurisdiction. Rather, it invalidated the Corps' Migratory Bird Rule." Slip Op. at 14104. The Ninth Circuit explained in the opinion that the issue of "adjacency" concerned *jurisdiction* for Corps regulation, as opposed to whether a permit to allow development should be granted. "According to the Supreme Court, when the Corps is confronted with adjacent wetlands that are not 'significantly intertwined' with the ecosystem of adjacent waterways, it 'may . . . allow development. . . simply by issuing a permit.'" Slip Op. at 14106, citing *United States v. Riverside Bayview Homes, Inc*., 474 U.S. 121, 135 n.9 (1985).

For Additional Information: The complete case is available at http://caselaw.lp.findlaw.com/data2/circs/9th/0316586p.pdf

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WQ Trading

WATER QUALITY & TEMPERATURE TRADING

REGULATORY INNOVATION IN THE TUALATIN BASIN

by Bruce Cordon, Water Resources Analyst, Clean Water Services, Hillsboro, Oregon

Introduction

LOOKING BEYOND THE END OF THE PIPE

Traditional Limitations

Water quality regulation has long emphasized the end-of-pipe approach, which did much to clean up the nation's waterways during the 1970's and 1980's. This article refers to the end-of-pipe approach as "the traditional approach." Despite its successes, the traditional approach has several well-known drawbacks, including a lack of economic efficiency, a limited scope that ignores many complex ecological relationships, and a failure to address nonpoint sources, which most agree are the next frontier in water quality management. The traditional approach also has political drawbacks: its prescriptive orientation may represent inflexible government mandates and be accompanied by unnecessarily high compliance costs. Water quality regulation may soon undergo a sea change, however. Mindful of the practical, economic and political limitations of the traditional approach, policy makers are beginning to experiment with new ideas that may lead to positive outcomes for both the environment and the economy. In this article these ideas are collectively called "the watershed approach" — although, admittedly, the word "watershed" captures only a portion of what they involve.

Watershed Approach

CHARACTERISTICS OF THE WATERSHED APPROACH INCLUDE:

1) using a watershed scale as a geographic frame of reference
2) recognizing the relationships between the various organisms and activities, both human and natural, that occur within a watershed
3) acknowledging the contribution of ecosystem services to human well-being
4) emphasizing incentives rather than mandates as inducements for desired behavior
5) recognizing the role markets can play in bringing about environmental improvements
6) emphasizing public-private and regulated-nonregulated entity partnerships
7) being flexible concerning the ways regulated entities can meet regulatory goals.

In this manner, the watershed approach takes aim at both point and nonpoint pollution sources and seeks to protect and even enhance private property rights. It also seeks to improve the economic efficiency of regulatory compliance, and to improve the environmental outcomes of regulation.

New NPDES Approach

This article concerns one of the first instances where features of the watershed approach appear in a National Pollutant Discharge Elimination System (NPDES) permit and the programs developed to comply with it (NPDES permits are issued to point sources under the federal Clean Water Act). The article discusses these features and how the programs have fared since being implemented. It concludes with an overview of some of the challenges the watershed approach will face as it continues to evolve.

The Watershed-Based Permit

The permit that is the focus of this article was issued by the Oregon Department of Environmental Quality (ODEQ) to Clean Water Services in 2004. Clean Water Services (the District) is a local government agency that provides sanitary sewer and storm and surface water management services to the urban portion of Washington County, Oregon. Its service area includes the cities that comprise most of the western suburbs of Portland and is located in the Tualatin River watershed.

Section 303(d) of the federal Clean Water Act (CWA) requires that all streams that fail to meet water quality standards be identified. Total Maximum Daily Loads (TMDLs) are subsequently established to address identified problems.

Temperature TMDL

Because the Tualatin River had been placed on ODEQ's 303(d) list, ODEQ established TMDLs for the River in 1988, and last updated them in 2001. The 2001 update includes a TMDL for temperature. The temperature TMDL assigns a thermal load allocation to the District's' Durham and Rock Creek wastewater treatment facilities. The thermal load produced by these facilities far exceeds the allocation.

Cooling Costs

The District knew that the thermal load allocation would become a requirement of its 2004 NPDES permit. Faced with the enormous task of cooling fifty million gallons of effluent per day, the District pondered the available traditional options: either install refrigeration equipment at the treatment facilities or build a new pipeline to transfer the effluent to the much larger Willamette and Columbia Rivers. The cost of either approach, in excess of a hundred million dollars, was prohibitive, and each had the added burden of requiring enormous amounts of electricity. Fortunately, ODEQ and the District were willing to consider nontraditional options, and were assisted in this respect by a grant from the US Environmental Protection Agency (EPA). The grant helped fund the development of the 2004 permit, which was the first

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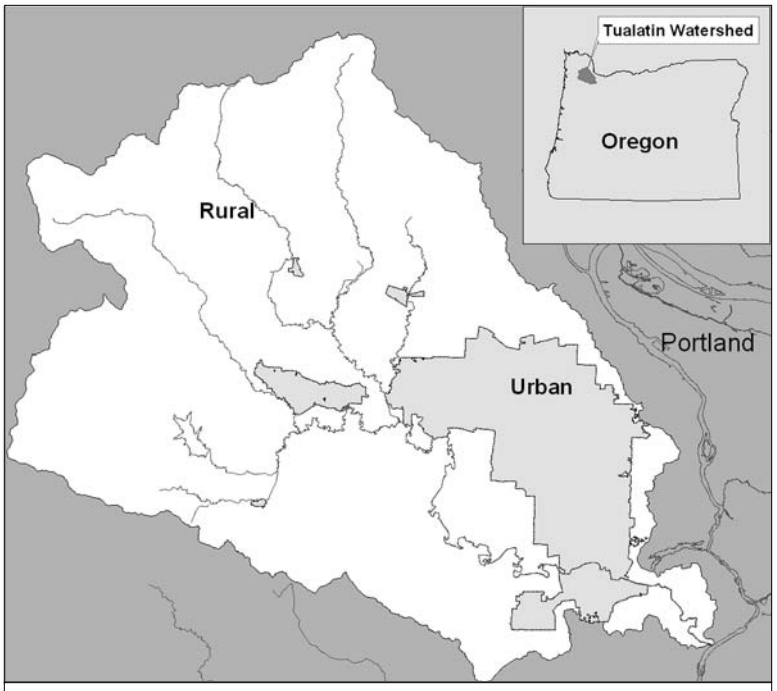
Temperature Trading

in Oregon to allow water quality trading and the first in the nation to allow temperature trading. The permit expressly provides for water quality trading as a means of complying with permit requirements. More specifically, it allows the District to offset the excess thermal loads of its wastewater treatment facilities by planting trees to increase the amount of shade along streams. Shade reduces the extent to which the sun heats stream water during the summer.

The permit also allowed other forms of trading and additional means of offsetting excess temperature loads, but these are not addressed by this article.



Tualatin Watershed, Oregon

Assessing Shade

The Temperature Management Plan

The details of how the District would use shade to meet permit requirements were worked out in a ODEQ-approved temperature management plan. From the outset, it was recognized that the plan would need to contain several departures from the traditional approach. First, given the nature of shade and its creation, permit compliance could not be expected immediately; nor could it be determined by simply measuring stream or treatment facility effluent temperature. It would take time to plant enough trees to provide the needed shade, and it would take even longer for the trees to grow high enough to produce it, much longer even than the five-year period that the permit would be in effect. Recognizing this, the plan gives the District five years to plant enough trees to meet permit requirements, and gives the District shade credit as soon as the trees are planted, based on an estimate of how much shade the trees will be producing twenty years later. The shade estimates are calculated using the Shade-a-Lator module of the Heat Source Model, which was developed by ODEQ staff. To compensate for the time lag between tree planting and tree maturity, the plan also requires the District to create twice as much shade as the Model indicates is necessary to offset the excess thermal load.

"7Q10"

Alternative Approach

The plan also contains other departures from the traditional approach. For example, in a traditional permit, a single "worst conditions" assumption would be used to determine the allowable thermal load for the wastewater treatment facilities. Regulators call this "7Q10," which means the worst conditions occurring over a seven day period during the prior ten years. The 7Q10 approach results in a much higher threshold for permit compliance, lacks flexibility, and ignores the fact that under nearly all actual circumstances stream conditions are more favorable for thermal inputs from wastewater discharges. Instead of taking the 7Q10 approach, the plan bases the allowable thermal load on actual daily temperature and flow conditions from July 1 through August 31 of each year.

Water Quality Trading

To create enough shade to offset the excess temperature load, the District needed to develop new programs that utilized water quality trading.

Trading Described

EPA HAS DESCRIBED WATER QUALITY TRADING AS FOLLOWS:

> Trading is based on the fact that sources within a watershed can face different costs to control the same pollutant. Trading programs allow facilities facing higher pollution control costs to meet their regulatory obligations by purchasing environmentally equivalent (or superior) pollution reductions from another source at lower cost, thus achieving the same water quality improvement at lower cost... [See "*Frequently Asked Questions about Water Quality Trading* (EPA website, March 15, 2004 ed.) (www.epa/gov/owow/watershed/trading/tradingfaq.html)].

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WQ Trading

Disparate Costs/Benefits

Incentives

Barriers

Rural/Urban Divide

Technical Assistance

Enhancing CREP

As indicated in EPA comments on the subject, the basis for trading is disparate control costs. The District could substantially lower its permit compliance costs by helping to fund landowner incentive programs aimed at creating stream shade in rural areas. Planting trees to produce shade would cost a small fraction of the cost of hard-engineered temperature control solutions, such as refrigeration or sending effluent to a larger river. Moreover, the trees would produce many additional environmental benefits, such as increased species habitat, removing pollutants from runoff, and helping to control erosion. This could not be said for the hard-engineered solutions, which, in addition to being expensive and narrowly focused, would cause increased pollution due to their substantial power needs. For example, the annual energy cost for the refrigeration alternative would be approximately $2 million. Portland General Electric, the supplier of energy to the District, receives nearly 40% of its power from coal-fired generation facilities.

The District faced several challenges in developing incentive programs for rural landowners. First, it looked as though it would be prohibited from establishing programs for farmers. One of the cardinal rules of trading is that the pollution control measures purchased in the marketplace be *in addition to* any measures that are legally required. Although most rural landowners such as farmers and small woodland owners were not required to have NPDES permits, many of them were subject to the State of Oregon's agricultural water quality management requirements. For the Tualatin Basin, these requirements stated that agricultural landowners must have vegetated buffers to separate farmed land from streams. At first, this seemed like a barrier to trading, since farmers were legally required to have the buffers. Upon further analysis, however, it was determined that farmers were not required to actively manage the growth of stream buffer areas. Instead, they could merely stop farming areas near streams and let buffers grow naturally. It takes far longer to grow a buffer using the "natural" approach, however, especially when, as in the Tualatin Basin, invasive species will almost surely be the initial colonizers. This difference in growth rates provided the basis for trading: farmers could be paid to grow actively managed buffers because they were not required to do so. The necessary "additionality" was provided by the faster relative pace of buffer growth.

Another challenge concerned the cultural difference between the District and the rural community. The District was a provider of urban services. As such, it did not have an established relationship with the farm or forestry communities, and did not have staff with a working knowledge of farm or forestry issues. It knew, however, that buy-in from these communities would be essential for program success, and that having community representatives help develop the programs would be the best way to obtain community support. Accordingly, the District asked a local farmer to chair the committee that was charged with developing the programs. The committee included a second farmer, three representatives from the local chapter of the Small Woodlands Association, and other representatives from various stakeholder interests. For technical assistance, the committee included staff from the local offices of the US Department of Agriculture (USDA) and the soil and water conservation district. Virtually all committee decisions were made on a consensus basis, and all programs were evaluated by the committee using an extensive list of criteria.

Tualatin River Riparian Area (With Trees)

The Enhanced Conservation Reserve Enhancement Program

The first program the committee developed was a modified version of the USDA's Conservation Reserve Enhancement Program (CREP).

Before discussing the changes to the program, some background is in order. CREP had been available to farmers in the Tualatin Basin since the late 1990's, but no farmers had

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WQ Trading

Needs Studied

Increased Payments

Buffer Maintenance

Program Staffing

Program Specifics

SWCD Management

Scaled-Back Option

signed up for it. This was unfortunate, as plenty of federal and state money had been allocated to the program, and its central focus was the creation of vegetated stream buffers, which were as scarce in many areas as they were valuable. Although the program had achieved some popularity in other parts of the state, for the most part it had fallen woefully short of its goals. This prompted two studies to determine what was needed to increase its popularity [see Viatella, Kathy, and Rhee, Donna, "*The Oregon Conservation Reserve Enhancement Program: An Opportunity for Achieving Healthy Watersheds*" (2002); Oregon Department of Agriculture and Oregon Association of Conservation Districts, "*Evaluation of the Conservation Reserve Enhancement Program*" (2002)].

The committee reviewed the studies, sounded out the local farm community, and looked at how CREP had been modified in other states to make it more successful. On the basis of this information, four things became abundantly clear. First, the annual per-acre payments to farmers for farmland converted to buffer areas were too low, especially in areas like the Tualatin Basin, with highly productive land. Second, farmers were not compensated enough to maintain buffer areas after the site clearing and planting work was completed. Most farmers received less than ten dollars per acre per year for maintenance, but the actual cost, especially during the first five years, could be several hundred dollars per acre. Third, there was insufficient agency staff available to market the program and process enrollment applications. Finally, in recognition of the fact that no two farmers have the same needs, the program needed to offer several enrollment options rather than taking a one-size-fits-all approach.

In designing the new program, called "Enhanced CREP for the Tualatin Basin" (Enhanced CREP), the committee made changes that reflected the information it had collected. First, it boosted the annual payments. Most soil rental rates, a primary component of the annual payments, were doubled. A farmer who converted irrigated cropland to stream buffer would receive $393 per acre per year instead of $265 per acre per year. The committee also gave the program several optional benefits. These included payment for the temporary instream lease or permanent transfer of water rights, payment for 20-year, 30-year or permanent conservation easements, and the option to have all site clearing, planting and maintenance work performed and paid for by someone else. Finally, the task of marketing and managing the program was assigned to the local Soil and Water Conservation District (i.e., the Tualatin "SWCD"), which hired two additional employees to help with the effort. A small portion of the Basin is also within the service area of the West Multnomah SWCD, which is managing Enhanced CREP for that area. There were several reasons why it was appropriate to have the local SWCD manage the program. In a sense, the local SWCD was the farmers' own agency.

Its board of directors was entirely made up of farmers and small woodland owners, and its staff worked closely with these landowner groups on a daily basis. The SWCD also shared office space with local USDA staff. Under Enhanced CREP, the USDA retained many of the responsibilities it had under CREP. The shared office promoted coordination between those with a hand in operating the program. Finally, while the District would support the program financially and perform a general oversight function, as an urban services provider it was ill-suited to marketing and managing a program intended for the farm community.

Tualatin River Riparian Area (Receiving Trees)

VEGBACC

The next program the committee developed was called VEGBACC (Vegetated Buffer Areas for Conservation and Commerce). The idea for a program that would pay fewer benefits to farmers, but would also require fewer farmer obligations, was suggested by a local farmer. The rationale was that some farmers, by virtue of prior experience, political views, or both, would be loathe to

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WQ Trading

Local Program

"No-Strings"

Marketing Options

Upland Options

Eligibility Requirements

enroll in a program that involved significant paperwork, interaction with federal officials, and restrictions on land use — even if the program promised healthy benefits to enrollees. Moreover, the fact that no one in the local area had signed up for CREP in the past, and that there were no guarantees that Enhanced CREP would fare much better, was a sobering reminder that a more simple, no-strings-attached alternative would be a good idea. Under VEGBACC, a farmer would receive a planting plan and planting materials such as trees, shrubs, and plant protection tubes free of charge. The farmer could also opt for the water rights and conservation easement options available under Enhanced CREP, and could elect to have someone else be responsible for the maintenance work and fifty percent of the maintenance costs during the first five years. Unlike under Enhanced CREP, however, the farmer would receive no annual payments, and would be responsible for performing the site clearing and planting work. VEGBACC would be a strictly local program — the federal and state governments would have no role in funding or managing it.

It is important to note that VEGBACC's "no-strings" character was designed to preserve a working landscape, hence the word "commerce" in the program name. Unlike Enhanced CREP, which would prohibit most economic uses of stream buffer areas during the time land was enrolled in the program (10-15 years), VEGBACC would place no restrictions on use following the planting of trees and shrubs. In fact, although the committee hoped farmers would not do so, they would be free to clear at least a portion of the buffer area (provided they didn't violate state agricultural water quality management requirements) and grow crops again at any time. The longer trees and shrubs are in the ground, however, the more expensive conversion to cropland becomes, and the District hoped this simple fact would deter most farmers from changing their minds.

VEGBACC would also contain an element designed to promote economic returns from a restored buffer. Any enrollee in the program who also provided a conservation easement would be eligible for a contract to sell cuttings from native species that grew in the buffer. There were several fast growing species that could be propagated from cuttings, and cuttings could be taken annually from a given area without harming the buffer. Under the contract, the cuttings would be purchased by the local SWCD at prevailing wholesale market prices for use in buffer restoration programs throughout the Tualatin Basin. The committee estimated that a farmer could gross $500 per acre per year from such a contract. The committee also hoped that farmers would make use of other business opportunities that could be pursued within buffer areas without harming their environmental functionality, including agroforestry, fee-based hunting and fishing, mushroom cultivation, and the sale of cones, conifer boughs and other items for the crafts trade.

+Upland Forest

After VEGBACC, the committee turned its attention to upland areas that lie between the mostly agricultural valley floor and mountainous areas dominated by forests. Much of this mid-elevation region was cleared for farming during the early days of European settlement, but farming was later discontinued when it was found to be too difficult.

Later, these areas were often used as pasture or left alone, in which case they were frequently over-run by Himalayan blackberry and other invasive species. Because they contained hills with moderate slopes, these areas often had narrow floodplains, which limited opportunities to enroll in VEGBACC or Enhanced CREP because both programs were restricted to floodplain areas. A landowner with a floodplain that was 35 feet wide or less on either side of the stream would be limited to enrolling only a 35-foot wide area (on each side of the stream) in either program. In many cases, a buffer of this width would be inadequate to protect water quality, and most landowners would probably not consider program enrollment worthwhile if they were limited to 35-foot buffers. An additional program was needed.

The new program was named "+Upland Forest." The "+" sign signified that all enrollees would enroll floodplain areas or the first 35 feet from the stream, whichever was greater, in either Enhanced CREP or VEGBACC, and the upland area beyond that in +Upland Forest. In developing the program, the committee was conscious of the need to tie the program in with the creation of stream shade and other water quality benefits. It is axiomatic that the further from a stream a tree is planted, the less benefit it provides to water quality. In light of this, the committee decided to require that to be eligible for the program, some portion of the upland area must provide significant stream shade. As a further precaution against subsidizing the planting of trees that would provide few water quality benefits, and as a necessary source of funding, program enrollment was made subject to the ability of the applicant to receive a grant from the Oregon Watershed Enhancement Board (OWEB) Small Grants Program, and funding from the federal Environmental Quality Incentives Program (EQIP). Both programs awarded funding on a competitive basis, and both gave relative benefit to water quality significant weight during the selection process.

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WQ Trading

Options

Habitat-Based Easement

Forestry Options

Enrollments

Farmers' Concerns

To simplify the program and make the dividing line between land enrolled in Enhanced CREP or VEGBACC and land enrolled in +Upland Forest as seamless as possible, most of the benefits offered under the first two programs were carried over to adjacent land enrolled in +Upland Forest. For example, if a landowner who enrolled a narrow floodplain area in Enhanced CREP elected to have a someone else be responsible for site clearing, planting and maintenance, the landowner could also choose to have them perform these functions on adjacent +Upland Forest-enrolled land. +Upland Forest also added a program option not available for land enrolled exclusively in one of the two other programs: the habitat-based conservation easement. Although conservation easements would be available under all three programs, those available under Enhanced CREP and VEGBACC would allow limited commercial uses such as those described above to be made by the landowner. Because +Upland Forest would be offered to some landowners who had not and did not intend to make commercial use of their land, the committee added the habitat-based easement, which would prohibit all uses not intended to improve the environmental value of the land.

Like VEGBACC, +Upland Forest was intended to protect water quality while allowing non-conflicting commercial uses (unless a landowner chose the habitat conservation easement option). Land enrolled in the program could be managed for commercial timber production as long as all management activities complied with the Oregon Forest Practices Act. Although the Forest Practices Act was controversial in some quarters, it contained several measures intended to protect water quality, including mandatory buffers along most streams. The committee's decision to allow timber production was based in part on the assumption that the Act adequately protected water quality, but also on other considerations. For example, to comply with the "additionality" requirement described previously in this article, land from which trees have been harvested for commercial sale, and which is therefore required by the Forest Practices Act to be reforested, would not be eligible for the program. With working forest lands excluded, eligibility would fall to lands that were currently not working and not forested — but which could be. The committee assumed that a working forest is better for water quality than land that has been ignored for decades and is over-run with invasive species. The committee also assumed that many landowners would decide to establish a working forest if given some help. Of course, the program would also be open to landowners who sought to plant forests on their properties for other reasons and had no intention of harvesting trees some day.

Program Generates Significant Interest

Enhanced CREP and VEGBACC were implemented at the end of January of 2005 and have received significant interest from landowners. As of December 1 of 2005, twelve landowners were either enrolled or about to enroll in Enhanced CREP and three had enrolled or were about to enroll in VEGBACC. This represents approximately 130 acres and 24,000 feet (4.5 miles, both sides equivalent) of restored stream buffer. (Because streams are often the dividing line between properties, several landowners enrolled land on only one side of the stream. The figure provided above divides the stream frontage measurement for these enrollments by two to produce a "both sides equivalent" number.) +Upland Forest was implemented during November of 2005. As of December 1 of 2005, several landowners had expressed an interest in the program, and SWCD staff was determining eligibility. Given the level of interest in the programs, along with the progress made on its own buffer re-vegetation projects within its service area, the District is on track to meet the shade benchmark established in its temperature management plan for the 2005 NPDES permit year.

Observations / Lessons

Experience thus far with the programs has generated some notable observations. First, VEGBACC has not caught the attention of farmers who wish to give up benefits for flexibility. All interested farmers who are eligible for Enhanced CREP have signed up for it. Farmers who have signed up for VEGBACC did so because they were not eligible for Enhanced CREP. Second, there has been little interest in conservation easements. So far, only one farmer has elected to provide an easement. This is not because the amount offered for easements is too little. Rather, farmers who have commented on the subject indicate they do not want to encumber their land. The same goes for water rights. Although the federal rules that govern the Enhanced CREP require that all water rights appurtenant to irrigated cropland be leased instream for the duration of enrollment in the program, no farmers have voluntarily chosen to provide leases of greater duration or to sell their water rights, despite there being financial incentives to do so. The lesson taught by these observations seems to be that farmers are willing to receive financial help with environmental improvements, even if bureaucracy and paperwork are involved, but they are unlikely to encumber their lands or trade away long term management options.

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WQ Trading

Watershed Perspective

Market Establishment

Reverse Auction

Conservation Credits

Prioritizing

Ecosystem Payments

Looking to the Future: Challenges

It is clear that the District's 2004 NPDES permit and the landowner incentive programs it spawned are a departure from traditional regulation, and contain many of the elements of the watershed approach, including water quality trading, public-private partnerships, economic incentives, regulatory flexibility, and a watershed perspective on water quality management. If Enhanced CREP, VEGBACC, and +Upland Forest are successful in helping the District meet its permit obligations, they will also show that the watershed approach can be more economically efficient than the traditional approach.

It is instructive, however, to look at the permit and the programs in light of some of the challenges the watershed approach will need to face if it is to continue to evolve.

First, consider the fact that the level of annual payments under Enhanced CREP was established by committee decision, rather than the marketplace. The same can be said for the other benefits. While it is true that the committee had help in establishing the payment and benefits levels, including input from the farm community, the results of surveys, and data concerning farm prices and overhead, no one knows for sure whether the payment and benefit levels offered are adequate, too little (although enrollment thus far has been healthy) or too much. The only way to know for sure is to use a market to establish prices. Healthy, functioning markets are difficult to establish, however, absent numerous buyers and sellers. Given the fact that the District and its partners constitute the one-and-only buyer, it would be impossible to establish a functioning market in the traditional sense. An alternative, which would at least use a competitive process to set prices, would be a reverse auction. Under this approach, landowners would submit bids for program enrollment, and those whose bids constitute the highest environmental benefit for the dollars spent would be selected for the programs. Auctions of this sort can be difficult to administer however, and may not be the best choice for an altogether new program, the success of which may depend on considerable outreach, marketing and a helping hand.

Another possible approach to creating a market would be to implement similar programs elsewhere, and to allow trading among buyers and sellers over a larger geographic area.

Last November, "The Willamette Partnership"— a coalition of conservation, city, county, business, farm and scientific leaders – was awarded $779,000 in EPA "Targeted Watershed Grant" funds. The Partnership has also secured $800,000 in local matching resources, to enable a $1.6 million effort to create a "Willamette Ecosystem Marketplace." The Marketplace will establish a system of "conservation credits" as a form of environmental currency to assist in pooling and leveraging resources to pay for coordinated restoration and conservation projects designed to achieve the greatest environmental benefit. The initial focus of the Partnership will be establishing a "water quality trading" venue for reducing water temperatures in the Willamette River and its tributaries. (For info: David Primozich, Executive Director, Willamette Partnership, 503/ 434-8033 or email: primozich@verizon.net)

One of the pitfalls policy makers will need to wrestle with in expanding the geographic scope of trading programs, however, is the potential creation of what trading policy analysts call "hot spots" — which are areas that become degraded because the offsetting or remedial action occurs in a different location, such as a different watershed. For example, if the District were to create shade outside the Tualatin Basin, this would do nothing to mitigate the thermal impact of its effluent. The Tualatin Basin would then become a temperature hot spot. One way to deal with the hot spot issue would be to prioritize areas based on their environmental importance. Society would then need to accept the idea that certain areas, areas of comparatively low environmental value, will remain degraded for the foreseeable future. This would be a big change from current practice, given that virtually all streams are subject to the same regulatory requirements, and none are "written off" as a matter of policy.

Payment for ecosystem services is another area where the watershed approach faces big challenges. In accordance with the USDA's rules, CREP makes annual payments to farmers based on their opportunity cost of taking land out of farm production. This is why the CREP payments vary depending on the productivity of the land, and why farmers are prohibited from raising crops on land for which they are receiving payments. This is not the same as paying farmers for the ecosystem services produced by restored stream buffers. By contrast, the marginal increase in payments under Enhanced CREP is intended to pay farmers for producing stream shade, which is an ecosystem service. There are a number of other ecosystem services for which markets either have been or may some day be established. Some of these, including air and water purification, flood management, carbon sequestration, and habitat for crop pollinators, are produced by restored stream buffers. It is likely that on an individual basis, many ecosystem services will never generate enough income to be competitive with activities, such as land development, farming and timber production, which can degrade environmental resources. For example, at current prices for carbon, which as of this writing was trading on the Chicago Climate Exchange at less than $2.00 per ton, it is much more lucrative to raise trees for harvest than for carbon sequestration.

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WQ Trading

Maximizing Values

Managing land for its ecosystem services values will need to be competitive with other land uses if the watershed approach is to be successful. One way to ensure the maximum value of ecosystem services is to have a system where landowners can sell multiple ecosystem services generated by a single parcel [see: Keizer & Associates, "*Ecosystem Multiple Markets, A White Paper*" (Environmental Trading Network 2004); Hawn, Amanda, "*Stack 'em Up*" (Ecosystem Marketplace 2005)]. For example, an owner of forested land could sell the carbon sequestered over time in the trees and the soil, the air purification services provided by the trees' absorption of pollution and release of oxygen, and the water quality services provided by the interception of rainfall by the tree canopy, as well as the soil stabilization and water filtration services provided by the tree roots. In this manner, landowners may some day find that the sale of ecosystem services is as remunerative as other land uses, and perhaps even more so.

Finally, it should be noted that a market for multiple ecosystem services could foster natural area restoration projects that better duplicate the complexity and diversity of nature. For example, a forest planted for the sole purpose of sequestering carbon is likely to be a monoculture of the largest available species, since this would result in the most carbon sequestered. Add incentives for other ecosystem services and the forest is likely to be made more diverse. Carried to its logical conclusion, this line of thought suggests that if society could some day scientifically understand, measure, restore, and create markets for all ecosystem services, it would have a powerful tool for restoring nature to much of the landscape.

For Additional Information: Bruce Cordon, Clean Water Services, 503/ 681-3627 or email: CordonB@CleanWaterServices.org

Bruce Cordon is a water resources analyst at Clean Water Services, where he managed the development of the Enhanced CREP, VEGBACC and +Upland Forest stream buffer re-vegetation programs. He is currently working on a project to make local codes in the Tualatin Basin more supportive of habitat-friendly development.

WATER QUALITY LITIGATION

Oregon's "State-of-the-art" water quality standards challenged

Northwest Environmental Advocates v. US Environmental Protection Agency

by Richard M. Glick, Davis Wright Tremaine (Portland, Oregon)

Oregon Standards Challenged

On December 13, 2005, Northwest Environmental Advocates (NEA) filed a complaint for injunctive and declaratory relief against the US Environmental Protection Agency (EPA), the National Marine Fisheries Service (NMFS or NOAA Fisheries) and the US Fish & Wildlife Service (FWS) (collectively "the Services"), alleging violations of the federal Clean Water Act (CWA) and federal Endangered Species Act (ESA). The case seeks to invalidate EPA's approval of Oregon's water quality standards, require EPA to promulgate its own water quality standards in lieu of the existing ones and to vacate the biological opinions issued by the two fishery services. The premise is that the existing standards are not adequately protective of salmonids at all life stages, all the time. When approved by EPA in March of 2004, the extensive research, mapping and modeling effort that went into developing these standards resulted in EPA touting them as a national model (see Soscia, TWR #2).

National Model

This case is a continuation of a constant flow of litigation brought by NEA against federal environmental protection and resource agencies. The litigation history over Oregon's water quality standards is well summarized in the 71-page complaint, which will be more briefly summarized here. In 1996, the Oregon Department of Environmental Quality (ODEQ) submitted its revised standards for EPA review and approval, as required by CWA § 303(c) [see 33 USC § 1313(c)]. Because Oregon has several populations of salmon, steelhead and bull trout listed as threatened or endangered under the ESA, EPA initiated formal consultation with the Services under ESA § 7 [see 16 USC § 1536]. In 1999, NMFS issued its Biological Opinion (1999 BiOp), which agreed with EPA's assessment that the Oregon standards were "likely to adversely affect," but concluded that the standards would not pose jeopardy if certain conservation measures were implemented. EPA then approved the Oregon standards with the exception of the temperature criterion of 20°C for the lower Willamette River.

Standards Background

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WQ Litigation

Successful Challenge

NEA then filed suit, and on cross motions for summary judgment, the court ruled that EPA, NMFS and FWS had violated the CWA and ESA. *Northwest Environmental Advocates v. United States Environmental Protection Agency*, 268 F Supp 2d 1255 (D.Or. 2003). First, the court found that EPA had failed to perform a non-discretionary duty by not promulgating replacement temperature criteria for the lower Willamette. Second, EPA failed to replace an inadequate Oregon antidegradation policy implementation plan. Third, EPA had failed to require "time and place" use designations for temperature criteria. Fourth, EPA erred in approving Oregon's 6.0 mg/L **i**nter**g**ravel **d**issolved **o**xygen (IGDO) criterion as being unprotective of salmon. Fifth, Oregon's "alternate mixing zone" rule had not been properly submitted to the EPA for review and approval. Finally, the court rejected NMFS' acceptance of "unenforceable" conservation measures as a basis for the no-jeopardy 1999 BiOp.

Revised Standards

EPA and ODEQ then separately began developing revised Oregon water quality standards. EPA abandoned its efforts in favor of Oregon. ODEQ's revisions were released for public review in August 2003. The instant complaint alleges that ODEQ did not follow proper rulemaking procedures, which hindered the public's ability to meaningfully comment. The revised standards were submitted to EPA in December 2003, which EPA approved the following March.

Current Complaint Specifics

THE NEA COMPLAINT TAKES THE STANDARDS TO TASK ON SEVERAL GROUNDS, INCLUDING:

- Although Oregon proposed time and place use designations for temperature criteria, it removed certain designated uses without benefit of Use Attainability Analysis.
- Temperature criteria were established "at or above the upper temperature limits" and provided no margin of error. EPA's approval of these criteria was based on "faulty assumptions," for example, that upstream temperatures would be cool enough to help lower reaches achieve attainment. Complaint at 28.
- Using the seven-day average of the daily maximum (7DADM) metric is inadequate: "However, a seven-day average, rather than an instantaneous maximum, allows temperatures to exceed lethal levels without triggering a regulatory response." *Id*. at 29.
- EPA improperly relies on undefined cold water refugia in approving the 20°C salmon and steelhead migration criterion.
- EPA accepted the 18°C salmon and steelhead juvenile rearing and migration criterion, although it would be protective only at the "high end of a range of optimum temperatures." *Id*. at 29.
- Similarly, the 13°C criterion for salmon and steelhead spawning through emergence was set at the upper limit of recommended temperatures.
- Oregon made minimal use of the 16°C core cold water habitat criterion, though it was intended to have broad application.
- EPA improperly approved a single 12°C criterion for bull trout spawning and rearing, though both EPA and FWS recognize that figure is too high.
- Narrative temperature criteria and exemptions would have the effect of negating the standards.
- The spatial median IGDO criterion of 8.0 mg/L will allow IGDO levels below what is needed.

Antidegradation Policy

NEA also attacks Oregon's antidegradation policy as wholly inadequate. NEA states the policy does not provide protection for "existing" uses and allows exemptions for previously established mixing zones and other established sources of degradation that have not been subjected previously to antidegradation review. Finally, NEA argues that Oregon's antidegradation implementation plan is merely an:

> unenforceable, non-binding policy statement by ODEQ that attempts to explain how ODEQ will implement antidegradation review when it issues Section 401 water quality certifications and NPDES permits. The Antidegradation [implementation plan] does not apply to nonpoint sources. *Id.* at 37.

Environmental Baseline

NMFS is equally lacking in its implementation efforts, according to NEA:

> By purposefully assuming in its analysis that listed fish are exposed to waters achieving water quality standards, NMFS disregarded the environmental baseline and failed to account for the degraded state of salmon and steelhead habitat in Oregon. Thus, the 2004 NMFS BiOp's conclusion that EPA's approval of Oregon's water quality standards would not cause jeopardy to listed species or result in adverse modification of critical habitat is legally and factually unsupportable. *Id.* at 47.

A similar conclusion is reached as to FWS' performance in its 2004 BiOp on bull trout effects. *Id*. at 51.

Remedy Sought

The NEA pleading is a broad and comprehensive brief. Without assessing the merits of the case, even if it is successful, a few observations are in order.

First, NEA's remedy would be to force EPA to promulgate replacement standards, thus removing state discretion from the picture. This is contrary to Congress' intent that those states willing to develop standards be given the lead role, with EPA oversight to be sure. There is no particular reason to believe

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WQ Litigation

Assumptions

Federal Administration?

that EPA will more zealously or rigorously attempt new standards. There is a lot of criticism in the complaint about ODEQ's inadequate procedures and EPA's acquiescence. If that is the driving factor, then filing a state Administrative Procedures Act case in state court would have been the preferred approach.

Second, underlying NEA's allegations is the apparent belief that if ODEQ only sets the correct criteria, then water quality will improve. In other words, there is the assumption that ODEQ has it within in its power to restore watersheds everywhere. That is simply not the case. As NEA reports, "In 2000, Oregon identified 12,102 river and stream miles as impaired due to 'thermal modifications.'" *Id.* at 17. Most of those thermal modifications are caused by non-point sources over which ODEQ has no authority, regardless of standards. ODEQ's antidegration policies are a recognition of that.

Third, there is the apparent belief that micromanaging the agencies, or worse having the federal courts do it, will bring about better results for aquatic resources. It is a fact that the constant barrage of litigation against environmental and fishery agencies has become a major distraction and a drain of agency resources. Having to play defense against unrelenting attack is a poor way to make public policy.

The *NEA* case could finally undo Oregon's water quality standards and shift the core of the CWA regulatory program from the state to the EPA.

For Additional Information, Contact: Richard Glick, Davis Wright Tremaine (Portland, OR), 503/778-5210 or email: rickglick@dwt.com

Richard M. Glick is a partner in the Portland Office of Davis Wright Tremaine LLP, where he is head of the firm's Natural Resources Practice Group. His practice emphasizes water, environmental and energy law.

WATER BRIEFS

WATER QUALITY & LOGGING CA

WATER AGENCY AUTHORITY

On January 30, 2006, the California Supreme Court issued an important decision dealing with overlapping agency authority. The court held that the state water quality agency has authority to address water quality issues that arise from logging operations, even when the Department of Forestry objects to that assertion of control. In *Pacific Lumber Company, et al. v. State Water Resources Control Board*, S124464 (January 30, 2006), the court addressed the question of "whether the Z'berg-Nejedly Forest Practice Act of 1973 (Pub. Res. Code, § 4511 et seq.) and its implementing regulations provide the exclusive mechanism through which the Regional Water Quality Control Boards and the State Water Resources Control Board (collectively, Water Boards) may address water quality concerns implicated by logging operations associated with a timber harvest plan." Slip Op. at 1.

The California Department of Forestry (CDF) had approved a timber harvest plan amendment submitted by Scotia Pacific Company LLC and Pacific Lumber Company (Pacific Lumber). The North Coast Regional Water Quality Control Board objected to the amendment, asserting that it contained insufficient safeguards to protect nearby waters potentially affected by the proposed logging activity. The CDF overruled the objection. The Regional Water Quality Control Board and the State Water Resources Control Board then issued orders directing Pacific Lumber to adopt a water quality monitoring program that had not been required by CDF. In the lawsuit, Pacific Lumber asserted that those orders were invalid because the Forest Practice Act prevents the Water Boards from compelling water quality monitoring related to logging already subject to an approved timber harvest plan.

The logging companies argued that the Forestry Practice Act gave exclusive control over timber harvesting to the CDF because "the Legislature could not have endorsed an allegedly duplicative and overtaxing regulatory scheme." The California Supreme Court rejected that position, stating that "[W]hile it may be the case that a streamlined process would claim certain advantages (and possible disadvantages) relative to a scheme contemplating overlapping jurisdiction, the Forest Practice Act's plain language dictates the result here." The court referred specifically to the Forest Practice Act's savings clause, finding that "In light of the Forest Practice Act's *express* disclaimer of any interference with agency responsibilities, and the absence of any irreconcilable conflict between the savings clause and other provisions of the Forest Practice Act, we cannot accept Pacific Lumber's argument that the act *implicitly* allocates to the Department of Forestry exclusive responsibility for protecting state waters affected by timber harvesting, in derogation of the Water Boards' statutory prerogatives." Slip Op. at 2 (emphasis by the court).

For info: The slip opinion of the case can be viewed in its entirety at http://california.lp.findlaw.com/ca02_caselaw/1_2006ca.html.

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WATER BRIEFS

ORCA ESA LISTING WA
INDUSTRY SUES

In November of 2005, NOAA Fisheries announced that a group of Puget Sound orca whales were entitled to protection under the Endangered Species Act (ESA) as an endangered species. NOAA originally found that the killer whales did not merit ESA protection, but following court challenges and a review of scientific information, it determined the Puget Sound group of orcas were at risk of extinction. Officially known as the "Southern Resident killer whales," the NOAA listing announcement noted that they experienced a 20% decline in the 1990's and that many members of the group were captured during the 1970's for commercial display aquariums. NOAA determined that the group continued to be put at risk from vessel traffic, toxic chemicals and limits on availability of food, especially salmon, with only a small number of sexually mature males. Because the population historically has been small, it is susceptible to catastrophic risks, such as disease or oil spills, NOAA found. The population peaked at 97 animals in the 1990s and then declined to 79 in 2001; it currently stands at 89 whales.

The Building Industry Association of Washington (BIAW) recently filed a 60-day notice declaring their intent to sue the government for the listing decision. The BIAW is opposing the listing due to its concern that the endangered species listing will result in severe restrictions on the development and use of property on or near the Sound. BIAW's notice states that because there are other orcas in the region — including Alaska, the Bering Sea and Russia — the Puget Sound killer whales don't merit special protection.

For info: Brian Gorman, NOAA, 206/ 526-6613

AQUIFER RECHARGE ID
WATER 2025 GRANT

The Idaho Water Resources Board was awarded a Water 2025 Western States Challenge Grant from the US Bureau of Reclamation (Reclamation) for $250,000 for the development of a pilot aquifer recharge project to store surface water from the Upper Snake River Basin in the Eastern Snake Plain Aquifer (ESPA) for later use. The total cost of the project is $519,126. The recharge project could receive an estimated 10,000 acre-feet of water annually. Conjunctive use of surface water and groundwater in Idaho in the ESPA has been the subject of significant regulatory activities by the Idaho Department of Water Resources (see Rassier, TWR #10 and Moon, TWR #15).

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. Idaho was one of six states receiving cost share funds in 2005. More information about the Water 2025 Program can be found on its website: www.doi.gov/water2025/.

For info: Chris Jansen Lute, Reclamation, 208/ 378-5319, or email: cjansen@pn.usbr.gov

WATER CONSERVATION ID
IRRIGATION IMPROVEMENTS

The Bureau of Reclamation has recognised the Owyhee Project's South Board of Control with the annual Commissioner's Water Conservation Award for its high achievement in executing water conservation measures in Idaho.

Commissioner John Keys hand delivered the award to OSBOC on January 25 at the Idaho Water Users Association Convention's awards luncheon.

OSBOC was selected for their superior efforts in making improvements to their irrigation water delivery system. The OSBOC operates and maintains irrigation facilities within the Gem and Ridgeview Districts of the South Division of the Owyhee Project. This system consists of about 158 miles of canals and laterals which provide water to over 40,000 acres in Idaho and eastern Oregon.

In an effort to conserve water, OSBOC replaced all or part of several open irrigation delivery laterals with nearly 19 miles of pipe. The piping reduced seepage and has also provided pressure delivery for irrigation sprinklers in some areas. The board has installed a telephone telemetry system at several canal locations that can monitor flows remotely and regulate flows, and an automated trashrack at the Gem Pumping Plant to control trash and debris. Further, OSBOC has implemented daily accounting of water deliveries to help users better plan their irrigation usage.

For info: John Redding, Reclamation, 208/ 378-5212

PESTICIDE BUFFERS CA/OR/WA
PETITION DENIED

The US Supreme Court recently rejected a petition for certiorari filed by CropLife America, a pesticide-industry trade group, that sought to overturn rulings by the Ninth Circuit Court of Appeals that had placed no-spray buffer zones around streams with threatened and endangered salmon for certain pesticides. The denial of the petition by the Supreme Court means that the stream-side buffers and consumer warnings will remain in place until the US Environmental Protection Agency (EPA) establishes rules governing the use of pesticides around the streams in question if needed to protect salmon.

After finding that the EPA had failed to consider the effect of pesticides on protected salmon, US District Court Judge John C. Coughenour of Seattle issued an injunction in January 2004 that imposed a 100-yard buffer for aerial

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spraying and a 20-yard buffer for ground application of three-dozen pesticides, from agricultural sprays to household weed killers. See Beale, TWR #4. The injunction followed Judge Coughenour's 2002 decision that found EPA out of compliance with the Endangered Species Act for failing to protect salmon from harmful pesticides. The judge ordered EPA to consult with NOAA Fisheries to establish permanent restrictions needed to protect salmon from 54 pesticides, with EPA to initiate consultations over a two-and-a-half year timeline. By the time Coughenour imposed the buffer zones, of the 54 pesticides originally at issue EPA had cleared 18 for use, and only 36 were affected.

For info: Erika Schreder, Washington Toxics Coalition, 206/ 632-1545 x119; EPA website: www.epa.gov/espp/wtc/qs-as.htm

PERCHLORATE CLEANUP US EPA GUIDANCE

On January 26, EPA issued new protective guidance for cleaning up perchlorate contamination, recommending a preliminary clean-up goal for perchlorate of 24.5 parts per billion in water. EPA's guidance is derived from the agency's reference dose for perchlorate, which, according to EPA's press release, is based on the 2005 recommendations and conclusions of the nation's foremost science advisory committee (National Academy of Sciences). EPA said that this preliminary goal is a starting point for an evaluation of site-specific conditions. Consistent with current practice, final clean-up determinations should take site-specific information into consideration. The action offers clear guidance to site managers to help ensure national consistency in evaluating perchlorate in light of widely varying state guidance. EPA further noted that this decision was based on the best available science and will be updated as new information becomes available.

Perchlorate has been detected in groundwater or drinking water at approximately 45 of the 1,500 sites on the EPA's National Priorities List. Perchlorate salts were first produced in the United States in the mid-1940s, primarily for use by the United States military for explosives and rocket propellants. Perchlorate salts also have been used in other applications, including pyrotechnics and fireworks, blasting agents, matches, lubricating oils, air bags and certain types of fertilizers.

It didn't take long for critics to come out in force against the new EPA guidance, noting that the proposed cleanup standard is four times weaker than the level proposed by California (6 parts per billion). "This standard fails to protect pregnant women, children and other vulnerable individuals from this dangerous health hazard," Sen. Barbara Boxer, D-CA., said in a written statement. "EPA's standard also ignores new and mounting evidence that this toxic chemical is more prevalent in food than previously thought." Perchlorate has been found in breast milk of nursing women, cow milk and lettuce.

Before the EPA guidance had even been issued, Senator Dianne Feinstein wrote letters dated January 10, 2006, to Secretary Donald Rumsfield, and other senators urging the Defense Department not to shirk its obligation to perform studies on the epidemiological impact of perchlorate contamination. Senator Feinstein's letter stated, "Nationwide monitoring has found that perchlorate has endangered the water supply of 34 States, including California. Most of the perchlorate contamination across the country is from Defense-related activities and as such the Department has a responsibility to the American people to clean up the groundwater and drinking water sources impaired by those activities."

For info: EPA guidance document available at EPA's website: http://epa.gov/newsroom/perchlorate.pdf; Kerry Humphrey, EPA, 202/ 564-4355, or email: humphrey.kerry@epa.gov; Howard Gantman of Senator Feinstein's office, 202/ 224-9629

INSTREAM FLOW PROGRAM PROPOSAL CRITIQUED TX

Variable river flow conditions in Texas combined with rapid population growth and competing demands from irrigators, recreationalists, conservationists, and municipalities spurred the creation of a statewide instream flow program in 2001. Texas Senate Bill 2 (2001) instructed three state agencies—the Texas Water Development Board (TWDB), the Texas Parks and Wildlife Department (TPWD), and the Texas Commission on Environmental Quality (TCEQ)—to develop a state program for instream flows to support a "sound ecological environment" on priority rivers by the end of 2010. In response, the agencies drafted a proposed instream flow program that is described in two documents: the Programmatic Work Plan (PWP; TPWD, TCEQ, and TWDB, 2002) and Technical Overview Document (TOD; TPWD, TCEQ, and TWDB, 2003). The PWP outlines the programmatic elements of the instream flow initiative, and the TOD details scientific and engineering methodologies for data collection and analysis.

The Texas agencies arranged for the National Research Council (NRC) to evaluate the Texas instream flow program, including the PWP and the methodologies in the TOD and other supporting documents. This critique of the Texas program has recently become available for review at The U.S. National Academies of Sciences website: http://dels.nas.edu/water/dynpages/1931dyn.shtml

For info: Ellen de Guzman, The U.S. National Academies of Sciences, 202/ 334-3422, or email: water@nas.edu

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WATER BRIEFS

ESA LISTING AVOIDED OR
NOAA WITHDRAWS PROPOSAL

Following a two-year collaborative process with the state of Oregon, the National Oceanic and Atmospheric Administration's Fisheries Service (NOAA Fisheries) announced on January 17th that Oregon Coast coho are not likely to become endangered and will not be listed under the federal Endangered Species Act (ESA). By taking this action, NOAA effectively withdrew its June 2004 proposal to list the species as threatened. According to NOAA's press release, an in-depth assessment by Oregon concluded that state actions to reform harvest and hatcheries had helped turn the coho population around, and that the population's ability to rebound from very low levels demonstrated that it is likely to persist into the future. NOAA Fisheries Service agreed with the Oregon analysis, although noted there are many uncertainties about what the future holds for the coho. Oregon and NOAA Fisheries Service will continue to monitor coho for population changes.

"I applaud the hard work of local agriculture, forestry, state, tribal and other federal partners to develop a solid plan for recovery," said Bob Lohn, NOAA Fisheries Northwest Regional Administrator. "This is an encouraging example of the diverse interests that can come together to improve conditions for salmon in the Pacific Northwest." The announcement follows a significant investment in studying and restoring coho. Between 2000 and 2004, NOAA provided more than $10 million through the Pacific Coastal Salmon Recovery Fund to the Oregon Watershed Enhancement Board, and nearly $600,000 to the Oregon coastal Coquille Indian Tribe and the Confederated Tribes of Siletz Indians for over 150 habitat protection, enhancement, research and monitoring projects to improve conditions for coho and other listed species along the Oregon coast. The NOAA Restoration Center also provided $950,000 for local restoration projects, including the Lower Columbia and Tillamook Estuary Partnerships, which benefit a variety of aquatic species including coho. Additionally, Oregon received $250,000 in federal funds to support scientific work on Oregon Coast coho.

Governor Ted Kulongoski pointed to Oregon's $20 million-$30 million annual investment since 1997 and the non-regulatory contributions of private forest and agriculture landowners, watershed councils, local governments and other organizations that partnered to improve coho populations along Oregon's coast, which ultimately helped lead to today's announcement. The Governor said that a state assessment of the coho population in the coastal watersheds found that the populations are viable, meaning they demonstrate sufficient abundance, productivity, distribution and diversity to be sustained and are likely to maintain their viability into the foreseeable future.

The assessment by Oregon found that past actions taken in harvest management and hatchery management have reduced the adverse impacts of these activities and led to increased and more strategic habitat protection and restoration throughout the geographic area of the coastal coho populations. The Governor's press release also noted that the Oregon Department of Fish and Wildlife has substantially reduced wild salmon harvest levels, marked all hatchery fish, improved hatchery management and implemented critical life-cycle monitoring for coastal coho salmon. In addition, local watershed councils, using hundreds of grants provided by the Oregon Watershed Enhancement Board, have undertaken projects for stream improvements and habitat restoration work and have prioritized restoration efforts to address watershed conditions and improve salmon stocks.

For info: Brian Gorman, NOAA, 206/ 526-6613, or NOAA's website: www.nwr.noaa.gov/ESA-Salmon-Listings/Salmon-Populations/Alsea-Response/Alsea-OCC.cfm; Oregon Plan for Salmon and Watersheds website: www.oregon-plan.org/OPSW/cohoproject/coho_proj.shtml

WATER PLAN UPDATE CA
FINAL UPDATE

The Final California Water Plan Update 2005 is now available in electronic form with printed copies expected to be available by March 2006. As noted by Director Lester Snow, "This is not just another update of the California Water Plan. Update 2005 represents a fundamental transition in how we look at water resource management in California. It also represents a fundamental transition in the way state government needs to be involved with local entities and interest groups to deal with water issues in the state."

The Water Plan provides a comprehensive source for water information and issues in California. It includes volumes entitled Strategic Plan, Resources Management Strategies, Regional Reports, Reference Guide and Technical Guide.

For info: California Department of Water Resources website: www.waterplan.water.ca.gov/cwpu2005/

TRIBAL WQ GRANTS US
GUIDELINE PUBLISHED

On January 17, EPA published guidelines in the Federal Register for awarding Clean Water Act Section 319 grants to Indian Tribes in FY 2006 for the purpose of assisting them in implementing their approved nonpoint source management programs. EPA awards non-competitive base grants to Tribes to support a range of activities including conducting nonpoint source education programs, training, and developing watershed-based plans. A portion of the funding is also awarded on a competitive basis to support on-the-ground watershed projects and development and implementation of watershed-based plans designed to protect unimpaired waters and restore nonpoint source impaired waters. EPA intends to award a total of $7 million and proposed work plans from eligible Tribes are due March 1.

For info: EPA website: www.epa.gov/owow/nps/tribal.html

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WATER BRIEFS

HANFORD SETTLEMENT WA/OR

GROUNDWATER ANALYSIS REQUIRED

US Secretary of Energy Samuel Bodman announced on January 9 that the Department of Energy (DOE) and the State of Washington have entered into a settlement agreement that will lead to a final order and the dismissal of the challenge to Hanford's Solid Waste Environmental Impact Statement (EIS) in the lawsuit *Washington v. Bodman*. DOE, with Washington State as a cooperating agency, will prepare a new EIS that will include an updated, site-wide groundwater analysis. See Moon, TWR #23 (Interview of Ecology Director Manning) and Niles, TWR #23 (Hanford Update).

Another important part of the settlement emphasized by the state of Washington is that DOE will not import four categories of radioactive and hazardous waste to Hanford at least until it completes the additional environmental review required by the settlement. The four categories are low-level waste, mixed low-level waste, transuranic waste, and mixed transuranic waste.

In 2003, Washington filed *Washington v. Bodman* in the United States District Court for the Eastern District of Washington (Yakima) challenging a decision by DOE to bring transuranic (TRU) and mixed transuranic (TRUM) waste to Hanford for interim storage. The federal district court issued a preliminary injunction prohibiting DOE from making further shipments. In 2004, DOE issued the Hanford Solid Waste EIS, which evaluated potential environmental impacts of the storage, treatment and disposal of low-level, mixed-low level and transuranic waste at the Hanford Site. The state then amended its complaint to also challenge the delivery of low-level and mixed low-level waste to Hanford for permanent disposal. The state argued that DOE's existing environmental impact statement was inadequate, and groundwater modeling in the document was unreliable for making waste management decisions at Hanford. The federal court issued another injunction against shipments of these waste types to allow the state a chance to gather additional information about DOE's environmental impact statement.

In July 2005, as part of the discovery process related to the 2003 lawsuit, DOE was informed by its support contractor, Battelle Memorial Institute, of discrepancies in the EIS data related to the impacts of waste disposal on Hanford's groundwater. DOE notified the Federal Court, the State of Washington, and Congress of the discrepancies in the data, and initiated a review to identify additional quality assurance issues. DOE's review is complete and a report publicly available (EIS Quality Assurance Review). The discovery of the discrepancies led the parties to begin settlement discussions. "Although I'm disappointed we had to file a lawsuit to get this result, this is a great outcome for a long and contentious case," said Washington's Attorney General Rob McKenna. "Had we not filed this suit, the Department of Energy would have gone ahead and disposed of radioactive and hazardous waste based on an environmental analysis that all sides now agree is not trustworthy."

The settlement calls for DOE to prepare a new, expanded, comprehensive EIS that will combine the scope of the 2004 Solid Waste EIS and the ongoing Tank Closure EIS (process to include public meetings and input). The EIS will contain a comprehensive groundwater analysis that examines both the closure of Hanford's single-shell tanks and the management of other wastes at Hanford, including the disposal of low-level radioactive and mixed hazardous wastes. DOE will not import waste from other sites pending the completion of the new, comprehensive EIS, except in certain limited instances to which the State has previously agreed (listed in the Settlement Agreement). The State of Washington will have a significant role in establishing key analytic parameters for the new EIS, resolving issues, participating in reviews, and giving overall input as a cooperating agency. The current Solid Waste EIS will remain in place to ensure that ongoing cleanup operations continue. When completed, the new EIS will replace the existing Solid Waste EIS.

DOE announced in the Federal Register February 2, 2006 its intent to prepare the *Tank Closure and Waste Management Environmental Impact Statement for the Hanford Site, Richland, Washington* (TC & WM EIS).

In addition to the analysis of alternatives that is currently being conducted for the preparation of the *EIS for Retrieval, Treatment and Disposal of Tank Waste and Closure of the Single-Shell Tanks at the Hanford Site, Richland, Washington* (TC EIS), the TC & WM EIS will also address concerns regarding the analyses of Hanford's solid waste management operations conducted for the Final Hanford Site Solid (Radioactive and Hazardous) Waste Program EIS, Richland, Washington (HSW EIS).

To implement the Settlement Agreement, the TC & WM EIS will provide a single, integrated analysis of groundwater at Hanford for all waste types addressed in the HSW EIS and the TC EIS. In order to provide an integrated presentation of currently foreseeable activities related to waste management and cleanup at Hanford, DOE plans to include the ongoing *Fast Flux Test Facility Decommissioning EIS* (FFTF EIS) in the scope of the new TC & WM EIS.

"This settlement agreement ensures that the state will have meaningful input into developing the EIS, which will enhance our ability to protect Hanford groundwater and make better waste-management decisions," said Ecology Director Jay Manning. "I'm very pleased the Department of Energy has agreed to re-examine the impacts of waste disposal at Hanford so we have greater confidence that future waste disposal will not increase the threat to the Columbia River."

For info: Both the Settlement Agreement and the results of the EIS Quality Assurance Review are available at www.em.doe.gov; Joye Redfield-Wilder, Ecology, 509/ 575-2610, or website: http://www.ecy.wa.gov/programs/nwp/index.html; Mike Waldron, DOE, 202/ 586-4940

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WATER BRIEFS

INSTREAM FLOW OR IRRIGATION SEASON SHORTENED

The Oregon Water Trust (OWT) recently announced a water transaction with Pat and Hedy Voigt, third-generation ranchers on the Middle Fork of the John Day River, which shortens their normal irrigation season to provide instream flows. In exchange for a payment from OWT, the Voigts permanently shortened their irrigation season by 40% to leave water instream in late summer when fish need it most. Beginning on July 21st of every year, 10 cubic feet per second (cfs) of additional water — nearly 6.5 million gallons a day — will be flowing in the Middle Fork, enough to benefit its entire 70-mile reach. Two other tributaries to the Middle Fork, Vinegar Creek and Clear Creek, were also involved.

The specifics of the transaction reflect an innovative approach to protecting instream flows. The landowners filed with the Oregon Water Resources Department (OWRD) to voluntarily diminish the season of use for eight of their water rights. OWRD then issued new water right certificates limiting the irrigation season to April 1- July 20. The landowners also recorded a legal document with the county to prevent any future landowner from irrigating the land after July 21st. Andrew Purkey, of the Columbia Basin Water Transactions Program, and Steve Parrett of OWT, explained this process to The Water Report. The approach was feasible to provide instream flows in this case due to the layout of the streams involved and the needs and priorities of other water rights in the area. "Abandonment [voluntary diminishment] as a means to protect instream flow obviously won't work in every situation," Purkey said. No new water rights can be issued during the time period involved, because OWRD has determined there is no water available, thus the water left instream by the diminishment will remain instream to help satisfy relatively junior instream water rights, Parrett noted.

Funding comes from the Bonneville Power Administration through the Columbia Basin Water Transactions Program, the Bureau of Reclamation and an OWT water mitigation fund received from Three Mile Canyon Farms. "We think we'll be running about 20% fewer cattle, but that still works for us economically. At the same time, we're putting a significant amount of water back instream to do something for the resource," said Pat Voigt, who also serves as president of the Soil and Water Conservation District in Grant County.

For info: Steve Parrett, OWT, 503/ 525-0141, or website: www.owt.org; Andrew Purkey, Columbia Basin Water Transactions Program, 503/417-8700 x24

CONTAMINATED SEDIMENT US NEW REMEDIATION GUIDANCE

In December 2005, EPA released "Contaminated Sediment Remediation Guidance for Hazardous Waste Sites," a document intended to provide technical and policy advice for selecting remedies at contaminated sediment sites. The guidance is primarily directed at project managers and management teams responsible for conducting feasibility studies and selecting remedies at Superfund sites where there are contaminated sediments, though there is also some technical information that may be helpful for RCRA sites. The document includes factors to consider when conducting remedy investigations or feasibility studies, or selecting a remedy. It gives technical information about three remedies commonly used to address contaminated sediments — monitored natural recovery, in-situ capping, and dredging and excavation— and lists the advantages and limitations of each. The document also provides suggestions for developing a monitoring plan for long-term monitoring.

For info: Leah Evison, EPA, email: evison.leah@epa.gov; Guidance is available on OSWER's Contaminated Sediments in Superfund website: www.epa.gov/superfund/resources/sediment/guidance.htm

CRITICAL HABITAT WEST BULL TROUT DESIGNATION SUIT

Alliance for the Wild Rockies (AWR) and Friends of the Wild Swan (FWS) conservation organizations filed a formal lawsuit against the US Fish & Wildlife Service (FWS) and the Department of the Interior on January 5th in US Federal Court in Portland, Oregon. The Montana-based groups are challenging the final critical habitat designations for the threatened Bull Trout in its five-state range. The organizations objected to the blanket reductions that cut the final critical habitat designations by approximately 82% from what was proposed by the agency's professional field biologists. The proposed critical habitat covered more than 20,000 miles of rivers and streams and over a half million acres of lakes and reservoirs in Montana, Idaho, Washington, Oregon and Nevada. The final designations encompass just 3,828 miles of streams and 143,218 acres of lakes and zero acres of reservoirs. See Montgomery, TWR #14.

Among other bases for the lawsuit, the organizations maintain that the Fish and Wildlife Service relied on a biased economic analysis that only considered the costs of critical habitat designation and totally ignored the benefits of cleaner drinking water, healthier populations and increased recreational opportunities. The FWS cut a 56-page section analyzing these benefits from their report and proceeded with a "costs only" economic analysis (see Amended Complaint, page 19). A pdf of the complaint is available on the website noted below.

For info: Michael Garrity, AWR, 406/ 459-5936, or website: www.wildrockiesalliance.org/issues/bulltrout/index.html; Arlene Montgomery, FWS, 406/ 886-2011

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WATER BRIEFS

STREAMFLOW BENEFITS HI
USGS STUDY

A new USGS report documents effects that varying levels and amounts of streamflow restoration would produce more habitat availability for native stream fauna (fish, shrimp, and snails) in northeast Maui streams. Relations between streamflow and habitat availability for five native aquatic species (alamoo, nopili, nakea, opae, and hihiwai) are described for 21 streams. Water from most of these streams has been diverted for many years to support sugar cultivation.

Models based on hydrology, stream morphology, and habitat preferences were used to simulate habitat/discharge relations for various species and life stages. The models were also used to indicate habitat changes over a range of streamflows relative to natural (undiverted) conditions. In general, the models show a continuous decrease in habitat for all species as streamflow is decreased from natural conditions. For diverted conditions, the habitat at the majority of the studied stream sites is 27 to 57 percent of sustainable natural habitat. Relations between streamflow and habitat availability indicate that restoring even a small amount of water to a diverted stream can have a significant effect on the amount of habitat available. For example, restoring 10 percent of the median baseflow to a stream that is dry owing to diversion would provide about 40 percent of the expected natural habitat.

The report is part of a study conducted by the USGS in cooperation with the Hawaiian agencies and the Commission on Water Resource Management (CWRM). The study was done to assist CWRM in determining equitable, reasonable, and beneficial instream and off-stream uses of the surface-water resources in northeast Maui. Information from this report will be used by CWRM to determine instream flow standards for that part of Maui, and ultimately be used to allocate surface water resources in the area between several conflicting parties.

Scientific Investigations Report 2005-5213 titled "*Effects of Surface-Water Diversions on Habitat Availability for Native Macrofauna, northeast Maui, Hawaii*" by Stephen B. Gingerich and Reuben H. Wolff is available on the internet at USGS's Pacific Islands Water Science Center web page: http://hi.water.usgs.gov/

For info: Stephanie Hanna, USGS, 206/ 331-0335 or email: shanna@usgs.gov

WATER CONSERVATION KS
RECLAMATION AWARDS GRANT

The Bureau of Reclamation awarded a $230,720 Water 2025 grant to the state of Kansas for water conservation efforts in the Republican River Basin.

The Kansas Department of Agriculture will install flow meter data logging equipment and remote monitoring equipment on about 100 diversions in the Republican River Basin. The real-time monitoring of the diversions will enhance administration of water rights, improve water management, and expand water marketing opportunities between senior and junior water rights holders. Irrigators in the basin have had to curtail diversions in five of the six previous water years. The total project will cost $495,698, with a Water 2025 grant contribution of $230,720.

Kansas is one of six western states awarded a total of about $1 million in grants to help fund water conservation/ water management projects. Proposals had to include and/or address at least one of the following: water conservation management and planning studies, demonstration of innovative technologies for water management activities, or implementation of water conservation measures. To leverage the money and resources available, state grant recipients provide at least a 50 percent match of the Federal funds provided.

Water 2025 Challenge Grants for Western States is a new program, introduced in 2005. It is similar to the regular Water 2025 Challenge Grant Program implemented in 2004 which is open to local government, municipal and private irrigation districts, water associations and tribal water authorities.

For info: Judy O'Sullivan, Reclamation, 308/ 389-5307
WATER 2025 GRANT WEBSITE: www.doi.gov/water2025.

STREAM THREATS US
EPA DIAGNOSIS TOOL

EPA has released a new web-based tool, the Causal Analysis/ Diagnosis Decision Information System (CADDIS), which simplifies determining the cause of contamination in impaired rivers, streams and estuaries. An impaired body of water does not meet the state or federal water quality standards for one or more pollutants.

Many US water bodies have been identified as impaired, and in many cases, the cause is unknown. There are many possible sources of pollution such as industrial waste, municipal sewage, agricultural runoff, naturally occurring minerals in rock and sand, and biological materials. Before restorative or remedial actions can be taken, the cause of impairment must be determined. CADDIS provides a standardized and easily accessible system to help scientists find, use and share information to determine the causes of aquatic impairment. Causal analyses look at stressor-response relationships, meaning the effect of a specific substance or activity (stressor) on the environment. Typical water stressors include excess fine sediments, nutrients, or toxic substances. The version of CADDIS recently released is the first of three. Future versions will include modules to quantify stressor-response relationships, and databases and syntheses of relevant literature on sediments and toxic metals.

For info: Suzanne Ackerman, EPA, 202/ 564-4355 or email: ackerman.suzanne@epa.gov
EPA CADDIS WEBSITE: www.epa.gov/caddis

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WATER BRIEFS

GROUNDWATER DEPLETION AZ

"REASONABLE USE"

The Ninth Circuit Court of Appeals held on December 27, 2005, that pecan farmers whose business depended on use of the groundwater aquifer were not entitled to sue for damages caused by illegal pumping of groundwater by their neighbor. The Ninth Circuit relied on the Arizona Supreme Court's interpretation of the common law "doctrine of reasonable use." The Ninth Circuit held that "the Arizona Supreme Court explained that the doctrine of reasonable use permits the extraction of groundwater 'so long as it is taken in connection with a beneficial enjoyment of the land from which it is taken. If it is diverted for the purpose of making reasonable use of the land from which it is taken, there is no liability incurred to an adjoining owner for a resulting damage.'" *Bristor v.Cheatha*m, 255 P.2d 173, 180 (Ariz. 1953).

In 1997, Abbott Laboratories (Abbott) sought to expand its manufacturing facilities and began excavation to build a large underground storage structure. Abbott applied for and received an emergency de-watering permit from the Arizona Department of Water Resources (ADWR). In its permit application, Abbott sought approval to remove a total of 2.07 acre-feet of groundwater from the aquifer underneath its property. The permit specified that Abbott was to pump the groundwater into an on-site retention basin where it could eventually re-absorb into the aquifer. ADWR also required Abbott to report its de-watering activity on an annual basis.

The Ninth Circuit explained what happened next:

> "Once work began, Abbott quickly encountered more water than expected. Abbott expanded its pumping activity in order to keep the excavation free from water during construction, but failed to seek a permit to extract additional groundwater. As a result of Abbott's additional pumping, Abbott's on-site retention basins filled to capacity and Abbott then channeled the excess groundwater into a ditch that ran off the property. While there is some dispute regarding how much water was discharged into the ditch, it is undisputed that Abbott did not transport any of the groundwater off its property for use on other land. Abbott's pumping ended around March, 1998, at which point Abbott had extracted in excess of 122 acre-feet of groundwater.
>
> Abbott acknowledges that it violated the scope of its de-watering permit by removing approximately 122 acre-feet of groundwater. Abbott also admits that it incorrectly reported its de-watering activity to the ADWR by listing no de-watering activity in 1997 or 1998, and failing to file a report in 1999. In order to settle its violations with the ADWR, Abbott agreed to pay a fine of $6,508.50 to the ADWR." Slip Op. at 16817.

Abbott's de-watering activity lowered the water table from 16 to 32 feet below the surface, depriving the orchard of water, and ultimately killed the pecan trees. Once the pecan farmers (married couples Ernest and Marrita Brady, and James and Flossie Brady) learned of Abbott's de-watering activity, they commenced the action for negligence and nuisance.

The Ninth Circuit held that the doctrine prevents a suit for damages despite unquestioned interference with the neighbors' use of groundwater and despite the fact that Abbott had violated its permit with ADWR. "The court [Arizona Supreme Court] noted that the doctrine does not 'prevent any reasonable development of [one's] land by mining or the like, although the underground water of neighboring proprietors may thus be interfered with or diverted. *Id* . [at 180].' " *Id.* at 16819.

The court did distinguish factual situations where the groundwater was extracted and used for a the benefit of off-site land, holding that in such case, the groundwater use "is not a permitted reasonable use." Slip Op. at 16819. In this case, because Abbott simply let the extracted groundwater run off the property in a ditch the court determined that the groundwater had not been used for the benefit of other off-site land. "Rather, Abbott withdrew the groundwater for the purpose of expanding its manufacturing facilities, which was an improvement of the land from which the water was withdrawn; therefore, it was a permitted beneficial use under Arizona law. *See Bristor*, 255 P.2d at 180; *see also Evan*s, 47 P.2d at 987. While some of the groundwater was channeled off of Abbott's property, this is immaterial because Arizona law does not require that the withdrawn water be 'used,' so long as it is extracted for the reasonable beneficial use of Abbott's land." Slip Op. at 16820.

For info: The case can be viewed at http://caselaw.lp.findlaw.com/data2/circs/9th/0415257p.pdf

CALENDAR

Please Note: An extended Calendar containing ongoing updates now appears on The Water Report's website: www.thewaterreport.com. Subscribers are encouraged to submit calendar entries, email: thewaterreport@hotmail.com

February 15 WA

Natural Resource Damage Litigation, Seattle, Renaissance Seattle Hotel. For info: Law Seminars Int'l, 800/ 854-8009, website: www.lawseminars.com/seminars/06NRDWA.php

February 15-17 WA

Pacific Salmonid Recovery Conference, Seattle, Mountaineers Conference Center, 300 Third Avenue West. Regional Conference includes Speakers and Participants from Alaska, B.C. Canada, California, Idaho, Montana, Oregon, and Washington. Best Available Fisheries Science, Regulatory Updates, and Innovative Strategies. Sponsored by the National Marine Fisheries Service's (NMFS/NOAA Fisheries') Northwest Fisheries Science Center. For info: Conference website: www.nwetc.org/bio-500_02-06_seattle.htm

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CALENDAR

February 16-17 GA
Wetlands Permitting & Water Law, Atlanta. RE: Permitting Issues, Development, Current Rules & Regs, Applications & Tools. For info: The Seminar Group, 800/ 574-4852, or website: www.theseminargroup.net

February 16-20 MO
2006 AAAS Annual Meeting: "Grand Challenges, Great Opportunities," St. Louis. Sponsored by the American Association for the Advancement of Science. RE: 196 Symposia on Sustainability, Health, Energy, Agriculture, Integrity of Science, Risk/Risk Trade-offs & More. For info: AAAS website: www.aaasmeeting.org/

February 17 OR
Water Quality Conference, Portland, World Trade Center Auditorium, 25 SW Salmon, RE: TMDLs, Water Quality Monitoring, Data Management; Federal & State Water Programs; Litigation, Appeals, Regulations, Permitting; Watershed Planning; Water Quality Standards; Use Attainability Analysis; Turbidity; Toxics & Water Quality Permits; Temperature Standard; Mixing Zones; Wetlands Regulation; Stormwater Permits & More. For info: Holly Duncan, ELEC, 503/ 282-5220 or email: hduncan@elecenter.com or website: hduncan@elecenter.com

February 17 AZ
Innovations in Arsenic Management for Water Providers, Tucson. Sponsored by University of Arizona Water Sustainability Program. For info: Louise McDermott, WSP, 520/ 626-0592, or email: louisem@sahra.arizona.edu, or website: http://uawater.arizona.edu

February 20-22 KS
Kansas Dam Safety Conference 2006, Wichita, Radisson Hotel. For info: Kansas Division of Water Resources, 785/ 296-3710, website: www.ksda.gov/Default.aspx?tabid=173

February 20-23 CA
International Erosion Control Association Annual Conference, Long Beach, Long Beach Convention & Entertainment Center. For info: Kate Nowak, IECA Director of Conferences and Meetings, 970/ 879-3010 or website: www.ieca.org/Conference/Annual/LongBeach06.asp

February 22-25 CA
24th Annual Salmonid Restoration Conference, Santa Barbara. "Rediscovering Urban Creeks and Creating Healthy Watersheds" For info: Dana Stolzman, Salmonid Restoration Federation, 707/ 923-7501 or email: srf@calsalmon.org or website: /www.calsalmon.org/

February 23-24 CA
24th Annual Water Law Conference (ABA), San Diego, Hotel Del Coronado. For info: ABA website, www.abanet.org/environ/committees/waterresources/home.html

February 27-28 TX
Texas Wetlands, Austin. For info: CLE Int'l, 800/873-7130, or website: www.cle.com

February 27-28 WA
Harvesting Clean Energy Conference, Spokane. RE: Bringing Together the Agriculture and Energy Industries. For info: website: www.harvestcleanenergy.org/conference

February 28 ID
Water Rights Sales and Transfers, Boise, Holiday Inn Boise Airport. RE: Historical Basis of Current Water Law, Status of Adjudication, Enforcement of Water Rights. Obtaining a New Right and Changes, Practitioner Tips on Transactions/Transfers. For info: Lorman Business Center, Inc., 866/ 352-9539, or website: www.lorman.com

February 28 WA
Yakima River Basin Conservation Advisory Group Meeting (Yakima River Basin Water Enhancement Project), Yakima, Bureau of Reclamation Office, 1917 Marsh Road, 9am-4pm. RE: Structure, Implementation, and Oversight of the Yakima River Basin Water Conservation Program. For info: James Esget, Reclamation, 509/ 575-5848, x267

February 28-March 2 DC
State/Tribal/Federal Coordination Workshop: Federal and State Wetland Programs in Transition: Opportunities and Challenges, Washington, D.C. RE: Opportunities for Restoring, Protecting & Enhancing Wetlands, Supreme Court Challenges, Funding, Federal and State Rule-Making, Program Integration, Wetland Status and Trends Analyses, Mapping, & Wetland Water Quality Standards. For info: Association of State Wetland Managers, email: laura@aswm.org or website: www.aswm.org

March 1-3 CA
Fourth Annual Environmental Industry Summit, Coronado, Coronado Island Marriott Resort. RE: The West Coast's Annual Gathering of Environmental Industry Professionals. For info: Environmental Business Journal website: www.ebiusa.com/summit2006/

March 2-3 NV
Family Farm Alliance 2006 Annual Meeting and Conference, Las Vegas, Monte Carlo Resort & Casino. For info: Jane, Family Farm Alliance, 707/ 998-9487 or email: ffameetomg@aol.com, or website: www.familyfarmalliance.org/

March 2-5 OR
Public Interest Environmental Law Conference, Eugene, University of Oregon School of Law. RE: Forest Protection & Ecological Restoration, Grazing & Mining Reform, Labor & Human Rights, Air & Water Pollution, Native American Treaty Rights, Globalization & "Free" Trade, Environmental Justice, Corporate Responsibility, Marine Wilderness, International Environmental Law, Water Rights & Dam Removal, Oil & Gas Litigation, Genetic Engineering, & Urban Growth. For info: PIELC, 541/ 346-3828, website: www.pielc.org/about.html

March 3 TX
NEPA: Rules, Regulations & More, Austin, Omni Hotel. For info: CLE Int'l, 800/873-7130, or website: www.cle.com

March 3 AK
Brownfields Redevelopment, Anchorage, Sheraton Anchorage Hotel. RE**:** Liability Protections, Funding Opportunities & New Enforcement Provisions. For info: Law Seminars International, 800/ 854-8009, or website: www.lawseminars.com/

March 5-10 WA
Pacific Fishery Management Council Meeting, Seattle. RE: Issues Related to Salmon, Pacific Halibut, Coastal Pelagic Species, Groundfish, Highly Migratory Species, Marine Protected Areas, & Essential Fish Habitat. For info: Dr. Donald O. McIsaac, 866/ 806-7204, or website: www.pcouncil.org/events/2006/pfmc0306.html

March 6-7 CO
Colorado Water Law, Denver. For info: CLE Int'l, 800/873-7130, or website: www.cle.com

March 6-7 WA
Advanced Real Estate Purchases & Sales, Seattle, Renaissance Seattle Hotel. RE: Latest Developments in Structuring, Negotiating, & Documenting Major Commercial Property Sales. For info: Law Seminars Int'l, 800/ 854-8009, website: www.lawseminars.com/seminars/

March 7 WY
Wyoming Water Forum Meeting, Cheyenne, State Engineer's Conference Rm, Herschler Bldg. 4E, 10am. RE: NHD and FEMA Map Mod Projects with Paul Caffrey (WY Geographic Information Science Center). For info: Wyoming State Engineer's Office website: http://seo.state.wy.us/forum.aspx

March 7-10 Mexico
7th Specialised Conference on Small Water and Wastewater Systems, Merida, Hotel Fiesta Americana. RE: Decentralised Systems for Water Supply & Wastewater Treatment. For info: Dr. Simon Gonzalez, International Water Association, 52-55-5623-8662, email: small2006@pumas.iingen.unam.mx, or website: http://pumas.iingen.unam.mx/small2006

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(continued from previous page)

March 8 **CA**
Association of California Water Agencies Legislative Symposium, Sacramento. For info: ACWA website: ww.acwa.com/events/LegislSymp2006/agenda.asp

March 8-11 **FL**
The 12th Annual Public Interest Environmental Conference: "In Fairness to Future Generations," Gainesville, University of Florida Levin College of Law. For info: National Association of Environmental Law Societes, website: www.naels.org/resources/conferences/2006.htm

March 9-11 **NM**
11th Xeriscape Conference & Expo, Albuquerque, Convention Center. For info: www.xeriscapenm.com

March 9-12 **CO**
35th Conference on Environmental Law (ABA), Keystone, Keystone Resort & Convention Center. For info: ABA website, www.abanet.org/environ/programs/keystone/2006/

March 13-16 **CA**
16th Annual AEHS West Coast Conference on Soils, Sediments and Water, San Diego, Mission Valley Marriott. For info: Brenna Lockwood, 413/ 549-5170, or website: www.aehs.com/conferences

March 17 **CA**
NEPA: Turning Complexities Into Strategies, San Diego, Marriott San Diego Hotel & Marina. For info: CLE Int'l, 800/873-7130, or website: www.cle.com

March 20-21 **WA**
Clean Water and Storm Water, Seattle. For info: Law Seminars International, 800/ 854-8009, or website: www.lawseminars.com/

March 20-22 **CA**
International Symposium on Site Characterization for CO2 Geological Storage (CO2SC 2006), Berkeley. Sponsored by EPA with the International Assoc of Hydrogeologists, American Institute of Hydrology, Ground Water Protection Council, and International Assoc of Hydraulic Engineering and Research. RE: Site Characterization & Site Selection - Geologic Storage of CO2, Proposed Technology to Reduce Atmospheric CO2 Concentrations. For info: website http://esd.lbl.gov/CO2SC/

March 20-23 **CO**
2006 Joint Services Environmental Management Conference, Denver, Colorado Convention Center. RE: Transformation Initiatives, Comprehensive Asset Management, Global Basing, Base Realignment and Closure, & Business Management Modernization Program. For info: Veronica Allen, CMP, Associate Director, 703/ 247-2570, or email: vallen@ndia.org

March 23 **OR**
Water Rights Sales and Transfers in Oregon, Salem, Black Bear Inn Conference Center. RE: Water Marketing, Due Diligence, Agricultural to Municipal Transfers, Klamath Water Bank, Legal Barriers, Transfer Injury Test, Trading: Solution or Exploitation & Alternatives to Purchases. For info: Lorman Education Services, 866/352-9539, or website: www.lorman.com

March 27-29 **DC**
Western States Water Council Meeting (150th Meeting and Water Policy Seminar), Washington DC, Holiday Inn Capitol. For info: Tony Willardson, WSWC Associate Director, 801/561-5300, email: twillards@wswc.state.ut.us, or website: www.westgov.org/wswc/meetings.html

March 28-April 2 **IL**
Aquatech USA 2006, Water Quality Association Conference & Trade Show, Chicago, Donald E. Stephens Convention Center. RE: Showcase of International Water Technology. For info: Jeannine Collins, WQA, 630/ 505-0160 or email: jcollins@mail.wqa.org

March 29-31 **BC**
GLOBE 2006: 9th Biennial Trade Fair & Conference on Business and the Environment, Vancouver. RE: New Climate Change Agreements; Energy Policy; Carbon Trading Regimes; Environmental Technologies and Capital Markets; Meeting Shareholder Demands, Lots More. For info: Website: http://www.globe2006.com

April 2-5 **DC**
Hydropower 2006: Powering the Future (National Hydropower Association Annual Conference), Washington, DC, Capital Hilton Hotel. RE: Incentives for Upgrades and Development, Mandatory Conditions & Energy Legislation, Electricity Reliability, New FERC Rule on Relicensing, Security, R&D Initiatives, Compliance, Collaboration/Negotiation Techniques, Settlements, Plant Improvements, Dam Removal & Decommissioning, Environmental Concerns & More. For info: NHA, 816/ 931-1311 x105, or email: nha@cipub.com.

The Water Report
Water Rights, Water Quality & Water Solutions in the West
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