The Water Report™

Water Rights, Water Quality & Water Solutions in the West

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REGULATING URBAN RUNOFF

by Paul N. Singarella, Esq, Latham & Watkins, LLP (Orange County, CA)

In 1987, Congress amended the federal Clean Water Act (CWA) defining Municipal Separate Storm Sewer Systems (MS4s) to be "point sources" — i.e., sources of discharges subject to National Pollutant Discharge Elimination System (NPDES) permits. Municipalities throughout the United States have been brought into the NPDES program under the amendment's implementation schedule. The 1987 enactment includes a Maximum Extent Practicable (MEP) compliance standard. The MEP standard has proven contentious in numerous jurisdictions, where some regulatory agencies and certain public interest groups are arguing that municipal discharges should be required to meet water quality standards without regard to practicability.

The MS4 NPDES permits in the Southern California region have been highly controversial since 2001, when a permit issued for the San Diego region seemed to require compliance with water quality standards. It is clearly infeasible – probably impossible – to capture and treat to the standards all urban runoff from such a large area.

In December 2004, a California Court of Appeal held that the San Diego permit was not limited by the MEP standard. However, it did not reach the issue of compliance with water quality standards, finding that that issue was not ripe for judicial review.

This article argues that the Court of Appeal's decision that MEP is a subordinate federal standard is contrary to the unambiguous intent of Congress, and presents policy rationales for measuring permit compliance with maximum practicable efforts (as opposed to compliance with water quality standards). Further, the Court's misgivings as to whether water quality standards "would ever be imposed" and the rejection of a "strict compliance" approach to those standards by the California State Water Resources Control Board during administrative review of the San Diego permit, signal to MS4 permit writers that permit provisions regarding water quality standards should reflect what is attainable.

Subsequent to the San Diego decision, the California Supreme Court in a seperate water quality case held that permit writers must consider economics in issuing permits, when the State's requirements for water quality exceed federal requirements.

A strong argument can be made that future MS4 permits (to be issued in 2006 and 2007) must respect continuing fiscal and technical challenges in controlling urban runoff. These permits cannot direct compliance with water quality standards absent an economic analysis and reasonableness assessment of how such compliance may be achieved.

URBAN RUNOFF: A CHRONIC WATER QUALITY CHALLENGE

Urban runoff in Southern California is in a chronic state of non-compliance with water quality standards. While urban runoff from any particular new development may meet the standards, on a regional basis where runoff also comes from a vast expanse of urban and suburban land developed over many decades, non-compliance is systemic. This condition is driven only in part by the sources of pollution affecting urban runoff quality. The fact that water quality standards were generally not developed with urban runoff in mind can make their application to municipal stormwater problematic, particularly when they are applied to locations upstream of open waters — including storm drains.

Urban Stormwater "Reasonable"

Significant Pollution

Large Runoff Events

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260 North Polk Street, Eugene, OR 97402
Editors: David Light & David Moon
Phone: 541/ 343-8504
Cellular: 541/ 517-5608
Fax: 541/ 683-8279
email: thewaterreport@hotmail.com
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Each of these aspects of the current situation make it unwise to measure compliance with MS4 permits against water quality standards, as no municipality has a reasonable opportunity to render all urban runoff compliant with these standards, nor is it necessarily a wise policy choice to require stormwater in the public storm drain itself – at times far upstream of open waters – to meet these standards. Under these circumstances, the more prudent approach is to demand reasonable improvement in the quality of urban runoff, by requiring municipalities to make MEP efforts. This alternative provides municipalities with a compliance opportunity and an incentive for running good stormwater programs.

Urban Runoff: Witch's Brew?

Urban runoff in Southern California frequently is characterized in press reports as a "witch's brew" of various pollutants. It has been identified by the Natural Resources Defense Council as "the biggest source of pollution in California's coastal waters, rivers, streams and lakes"(see endnote: (1)). There is little doubt that runoff from this massive, urbanized region (home to 20.7 million people) transports a significant pollutant load to receiving waters.

In fact, stormwater runoff from built-out urban areas in Southern California consistently fails to meet water quality standards. Even stormwater runoff from undeveloped, natural land adjacent to urban areas often fails to meet the standards due to pollutant contributions both from natural sources (e.g., indicator bacteria from wildlife and sediments, **p**olycyclic **a**romatic **h**ydrocarbons (PAHs) and metals from forest fires) and from other sources (e.g., atmospheric deposition of metals, PAHs, and other pollutants). In many cases, pollutant concentrations measured in stormwater runoff (and even some drinking water) in Southern California are far higher than the levels specified by water quality standards.

Southern California is an arid region with steep topography. Storms in this region often release large amounts of water in a very short period of time, which combine with the topography to produce very large, episodic runoff events. Treatment methods and Best Management Practices (BMPs) can be used to reduce the concentrations of pollutants released by these events. However, both the high volume and high flow rate of many storm flows make it extremely unlikely that storm flows will ever meet water quality standards at all times, in all receiving waters. The fiscal constraints are considerable; at present, no city or county in a heavily urbanized area has available to it the technology or the resources to ensure that all stormwater consistently meets all water quality standards.

The San Diego permitting agency acknowledges that it will require decades to close the gap between existing urban runoff quality, on the one hand, and water quality standards on the other. The agency concluded that urban runoff from each jurisdiction subject to the permit (except for one it had not studied), "[c]ontributes to a violation of a water quality standard or is a significant contributor of pollutants."(2) The San Diego permit promised "to slow down the ongoing degradation of our receiving waters."(3) However, actual improvement in water quality (which was not guaranteed) would require "at least 10 to 20 years."(4) Clearly the agency understood that, even with the myriad of programs imposed on municipalities pursuant to MS4 permits, excursions of water quality standards will persist for decades. However, for reasons explained below, the San Diego permit does not reflect that reality.

Los Angeles Storm Drain

The Public Storm Drain: Waters of the US?

Rendering urban runoff compliant with water quality standards is complicated by the fact that the permitting agencies frequently treat public storm drains as "navigable waters of the United States." This designation can result in the application of water quality standards in surprising places. The definition of "waters of the United States" contained in the San Diego permit states that: "a Municipal Separate Storm Sewer System (MS4) is always considered a Waters of the United States."(5) The San Diego agency defines MS4s to include all "roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, natural drainage features or channels, modified natural channels, man-made channels, or storm drains."(6) Thus, under this agency's view, the entire municipal storm drain starting at the curb and gutter should be regulated as "navigable waters of the United States."(7)

Urban Stormwater

Recreational Use?

In another example, many of Los Angeles' storm drains are enumerated expressly in the region's water quality control plan, including a vertical-walled, concrete-lined box culvert that runs three miles from downtown Los Angeles to Culver City (shown in the accompanying photo, previous page). Such listed storm drains historically have been regulated as if they were suitable for body-contact recreational uses, defined as follows:

> "Uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, white water activities, fishing, or use of natural hot springs."

The Los Angeles regional water quality control board (the "regional board") rejected its own staff's recommendation to modify the recreational use designation for the drain shown in the photo. Last year, however, the California State Water Resources Control Board (SWRCB) restored some common sense to policy by amending this designation..

"Tributary Rule"

In other cases, the regional boards have extrapolated water quality standards upstream into storm drains pursuant to the so-called "Tributary Rule" (the Tributary Rule is contained in many of California's regional water quality control plans).(8) Under the Tributary Rule, these agencies improperly assume that storm drains and other upstream drainages automatically have the same water quality standards as the downstream waters into which they drain. For example, the Tributary Rule in the Los Angeles water quality control plan states:

> "Those waters not specifically listed (generally smaller tributaries) are designated with the same beneficial uses as the streams, lakes, or reservoirs to which they are tributary. This is commonly referred to as the 'tributary rule.'"

Application v. Reality

The Tributary Rule is being used to regulate municipalities as if they are discharging to waters that constitute a source of public water supplies, or a place in which to swim, or a habitat for fisheries. The reality — known to the agencies — is demonstrably to the contrary.

For example, on the basis of the Tributary Rule, Vacaville, a small city in the Central Valley of California, is being held to treatment standards for its wastewater plant based on protection of public water supplies and cold water fisheries. The reality is that the discharge is to a hydrologically modified creek dominated by treated wastewater and agricultural tailwater. Although regional board "staff considered the uses and concluded that they did not exist and were highly unlikely to exist in the future,"(9) on the basis of the Tributary Rule the agency applied these beneficial uses because of open waters many miles downstream of the plant's discharges.(10)

Culvert Standard

Similarly, in 2001, drinking water and swimming standards for Newport Bay in Orange County were extrapolated upstream to a vertical-walled, fenced-off concrete box culvert draining downtown Santa Ana. Since the standards were not met within the box culvert, the regional board recommended the culvert be slated for a Total Maximum Daily Load ("TMDL" — a CWA-derived pollutant load allowance). Fortunately, in February 2003, SWRCB rejected the regional board's TMDL recommendation. However, these examples reflect the tendency of the MS4 permit writers to improperly assert jurisdiction and standards to inland storm drainage structures.

Unintended Consequences

Review of the administrative record for the Los Angeles region water quality control plan reveals a major problem with applying the water quality standards to urban runoff. In short, the primary economic analysis by the agency to assess compliance costs was performed in the early 1970s — well before it was contemplated that urban runoff would be subject to the standards. In fact, urban runoff was purposely left out of the 1970s' economic analysis on the basis that it was an "uncontrollable nonpoint source," and was "impractical to attempt to treat."(11) At that time, the California agencies considered urban runoff to be "nonpoint" in nature and thus not subject to the NPDES permitting required for point sources.

THE LOS ANGELES REGIONAL BOARD STATED IN PERTINENT PART:

> "With respect to uncontrollable nonpoint sources, such as urban . . . runoff, there may be certain things that the public can accomplish to lessen the impact, even though much of the effect is unavoidable. No specific nonpoint source control facilities are proposed . . . It is impractical to attempt to treat runoff generally. . . No specific financial provisions are considered for the control of nonpoint sources of pollution."

Economic Analysis

After Congress in 1987 directed that urban runoff be subject to NPDES permitting and control, the regional board did not undertake a meaningful economic analysis of what it would take to render urban runoff compliant with water quality standards. In general, regional boards typically assert that the BMPs specified in MS4 permits will somehow bring about compliance with water quality standards. However, there never has been a study identifying BMPs actually capable of rendering all urban runoff, or even a substantial portion thereof, consistently compliant with the standards.

Urban Stormwater

Estimated Costs

Professors at the University of Southern California (USC) attempted to fill the economics void by evaluating the costs of rendering urban runoff in compliance with water quality standards on a region-wide basis. Their study found that advanced treatment of storm flows likely would be required. The principal study case contemplates building plants to capture and treat a large percentage of regional stormwater to most of the standards. Such an undertaking was estimated to include capital costs ranging from $43.7 billion (treating flows from about 70% of the historical average annual storm events) to $283.9 billion (for 97% of the expected storm flows). Long-term operating costs would add to the bill. Over 20 years, the present value cost to the small city of El Monte (population 115,965) would range from $399 million to $2.56 billion; $492 million to $3.17 billion for Inglewood (population 112,580); $737 million to $4.66 billion for Pasadena (population 133,936); $321 million to $2.2 billion for Pomona (population 149,473); and $1.2 billion to $7.7 billion for Torrance (population 137,946). The 20-year present value cost to each L.A. County household for these stormwater facilities ranges from about $6,670 to treat 70% of storms, to $41,760 to treat 97% of storms.(12)

Mixed Message

These engineering estimates approach the staggering and clearly put such facilities beyond the present financial capability of local government. The regulators, meanwhile, continue to deliver a mixed message. One the one hand they insist such capture and treat facilities will never be required. On the other, they insist their goal is to render urban runoff compliant with CWA standards. Regulators have not stepped forward with an alternative approach that holds any reasonable assurance of reaching such compliance in any meaningful timeframe.

MS4 PERMITTING APPROACHES IN SOUTHERN CALIFORNIA

As will be described below, the San Diego regional board purposefully subordinated the MEP-based approach (i.e, controlling urban runoff through practicable BMPs) to overarching permit requirements based on water quality standards.

Regional Differences

However, it should be recognized that other regional boards are following a different course with respect to the federal MEP standard. For example, the currently operative MS4 permit for central Orange County (issued in 2002) states in pertinent part: "The purpose of this Order is to require the implementation of best management practices to reduce, to the *maximum extent practicable*, the discharge of pollutants from the MS4 in order to support *reasonable further progress* towards attainment of water quality objectives."(13)

LA & MEP

The Los Angeles permit also appears to employ this prudent approach, stating in pertinent part: "This permit is intended to develop, achieve, and implement a timely, comprehensive, cost-effective storm water pollution control program to reduce the discharge of pollutants in storm water to the Maximum Extent Practicable (MEP) from the permitted areas in the County of Los Angeles to the waters of the U.S."(14) However, the Los Angeles regional board has refused to acknowledge a "safe harbor" (i.e., protection from enforcement actions and third-party law suits) based on MEP efforts. Also, the board has not clarified the role of water quality standards provisions in its permit.

MEP Subordinated

In contrast, San Diego's approach explicitly disables MEP as a substantive standard. During the judicial challenge to San Diego's permit, Carol Squire, lead agency counsel, drove this point home: THE HEARING TRANSCRIPT READS (IN PART):

> JUSTICE HALLER: Can you, under this permit, sanction them for their failure to meet . . . the water quality standard, even though every scientist in the world says it's impossible to meet that?
>
> . . .
>
> CAROL SQUIRE: [T]here is a provision in the permit that says the Regional Board retains its authority to enforce if it so chooses.
>
> JUSTICE HALLER: So that means that even if every scientist in the world says there is no way to meet this standard, the permittees can be sanctioned?
>
> CAROL SQUIRE: Theoretically yes. . . .
>
> . . .
>
> JUSTICE HALLER: [W]e want an answer to the question: Do you have the authority under this permit to sanction someone to meet a water quality standard that from a technology standpoint they cannot meet?
>
> CAROL SQUIRE: . . . [T]he answer is yes. .
>
> . .

The San Diego permit is a five-year NPDES permit for urban runoff covering the County of San Diego, eighteen cities in the San Diego region, and the Port of San Diego. It also covers various non-municipal urban sources, including: runoff from all major new development; runoff from existing homes; and runoff from commercial and industrial sources.(15) MS4 permits are issued for all other major

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MEP Deficient?

metropolitan and suburban areas throughout California and across the US. These permits are significantly greater in scale and complexity than most other water quality permits. They cover discharges that are truly massive in volume, which commingle runoff from innumerable sources.

The San Diego permit broke the nexus between water quality obligations and MEP. It rejected the prior policy approach that, "implementation of best management practices is the 'functional equivalent' of meeting water quality standards."(16) It rejected the sufficiency of MEP as a compliance standard, finding MEP to be deficient.(17) The permit repeatedly claims the authority to require — in addition to MEP —"whatever else is needed" to meet water quality standards.(18) This uncoupling had the effect of subordinating MEP compliance to water quality standards compliance, in effect replacing the "practicable" with the virtually unattainable.

Permit Strictures

The San Diego permit placed the municipalities in an untenable position.

CONSIDER, THE PERMIT:

- First, declares that municipalities are the major source of water quality problems in the region (19)
- Second, acknowledges that, even with the permit, these problems would persist for decades (20)
- Third, prohibits permittees from discharging water that may contribute to violations of standards, at any time during the lifetime of the permit (2001-2006) (21)

The permittees were being ordered to not contribute to a situation the agency had identified as a chronic long-term problem, not capable of improvement for "at least 10 to 20 years." The permittess cannot stop the rain from falling and carrying at least some pollutants to the region's waters. Many sources of pollutants are beyond the municipalities' control.

THE CHALLENGE TO THE SAN DIEGO PERMIT
SWRCB Approves Permit's Subordination of MEP
SCALES BACK OTHER PERMIT PROVISIONS

SWRCB Review

NPDES permits issued by California regional boards may be appealed to SWRCB for administrative review.(22) The Building Industry Association of San Diego County (BIA) brought such an appeal regarding the San Diego permit, resulting in a precedential decision issued in November 2001.(23) Although SWRCB held the San Diego regional board was not limited by MEP – the key issue in the subsequent litigation – SWRCB overturned certain other extreme features of the San Diego permit, and limited the permit's application of water quality standards.

"Waste Per Se"

The San Diego permit as promulgated by the regional board contained a finding that all rainfall runoff in the metropolitan San Diego area was "waste *per se*," regardless of content. This sweeping finding ignored the potentially beneficial aspects of rainfall runoff, especially in an arid region. The finding was rejected by SWRCB which, alternatively, focused on whether specific drainage contains "harmful concentrations of materials."(24)

"Into" Provision

The San Diego permit as promulgated specified that the point of compliance was where urban runoff entered the public storm drain (defined to include the curb, street and gutter, and catch basins). This so-called "into" provision discouraged approaches to reduce pollutants in stormwater after it entered the collection system, where they might more efficiently and cost-effectively be controlled. SWRCB held the "into" provision, "too broadly restricts all discharges 'into' an MS4, and does not allow flexibility to use regional solutions, where they could be applied in a manner that fully protects receiving waters."(25)

The San Diego permit as promulgated defined the entire public storm drain system to be "waters of the United States." This prompted concern that water quality standards would be asserted as applicable throughout the MS4. SWRCB limited this definition, observing, "there may be instances where MS4s use 'waters of the United States' as part of their sewer system"— arguably leaving the issue to a case-by-case determination.

SWRCB Interpretation

Regarding the 1987 federal MEP standard, SWRCB interpreted *Defenders of Wildlife v. Browner* (9th Cir. 1999) 191 F.3d 1159, *rehg. den*., 197 F.3d 1035, as granting regional boards federal law authority to reject a BMP-based approach limited by MEP. Although SWRCB acknowledged that "*Browner* allows the issuance of municipal storm water permits that limit their provisions to BMPs that control pollutants to the maximum extent practicable (MEP), and which do not require compliance with water quality standards," SWRCB considered this approach optional, concluding, "we decline to adopt that approach." Importantly, SWRCB proceeded to characterize the San Diego permit as not requiring "strict compliance with water quality standards." Instead, it viewed the permit as incorporating an "iterative approach, which focuses on timely improvement of BMPs," seeking "compliance over time." SWRCB contrasted the San Diego approach with one requiring strict compliance with numeric effluent limitations for stormwater discharges.

Urban Stormwater

***BIA* Appeal**

Browner

Industrial v. Municipal

"Impossibility"

CWA Scope

Intent

Court Of Appeal Ruling

CONGRESS SPECIFIED MEP, BUT RELIEVED AGENCIES OF OBLIGATION TO FOLLOW IT

After the SWRCB blessed the regional board's untethering of the MS4 program from the realm of practicability, BIA, joined by the City of San Marcos and others, pressed for MEP-based relief in state court. Following an unfavorable trial court ruling, the forum shifted to the court of appeal.

The California Court of Appeal relied on authority earlier rejected by the United States Ninth Circuit Court of Appeal as having any relevance to the MS4 program, and marginalized congressional design by limiting the impact of the urban runoff provision to a paperwork reduction enactment. *See*, *Building Industry Association of San Diego et al., v. State Water Resources Control Board et al.* 124 Cal.App.4th 866 (2004).

Specifically, the Ninth Circuit in *Browner* had severed the 1987 urban runoff provision [i.e., CWA 402(p)(3)(B)] from the earlier-enacted Section 301(b)(1)(C) — (endnote 26). This severance is critical: Section 301(b)(1)(C) is the seminal CWA provision relied upon by permit writers to impose water quality standards. Failing to recognize this severance, the Court of Appeal in *BIA v. SWRCB* cited to Section 301(b)(1)(C) to support the proposition that in 1987 Congress did not eliminate the discretion to enforce water quality standards. Nor did the Court of Appeal appreciate that the plaintiffs, BIA, et. al., were not arguing for the elimination of that discretion — rather, they argued the discretion was informed by MEP.

Forced to explain why Congress went to such lengths in 1987 to set up separate permitting requirements for industrial stormwater (governed by Section 402(p)(3)(A)) and municipal storm water (Subsection (B) of 402(p)(3)), the Court of Appeal found that Congress' "primary point" was to eliminate the procedural burden of having to secure separate permits for each storm drain pipe in each public storm drain system. Never explained by the Court was why Congress bothered including the MEP provision at all, since a preceding provision (Section 402(p)(3)(B)(i)) dealt with the administrative issue, allowing MS4 permits to be issued on a "system- or jurisdiction-wide basis."

Notwithstanding its holding that federal law grants permit writers discretion to include "appropriate" — but non-MEP — provisions in MS4 permits, the Court of Appeal reserved for later determination whether compliance with water quality standards was possible in particular circumstances. It found that BIA's impossibility arguments were premature.

THE COURT STATED IN PERTINENT PART:

> "We question whether many of Building Industry's 'impossibility' arguments are premature on the record before us. . . . [T]he Permit allows the Regional Water Board to enforce water quality standards during the iterative process, but does not impose any obligation that the Board do so. Thus, we cannot determine with any degree of certainty whether this obligation would ever be imposed, particularly if it later turns out that it is not possible for a Municipality to achieve that standard."

The Court of Appeal decision certainly should not be interpreted as settling to what extent, or even whether, federal law allows permit writers to go beyond MEP in urban runoff permits. The Court blessed extra-MEP provisions in an abstract sense, but did not find any particular permit provisions as exceeding MEP. The decision affects only a handful of MS4 permits, and should not encourage other permit writers to similarly disregard clear congressional purpose.

THE 1987 CLEAN WATER ACT AMENDMENTS & MEP

CONGRESS ACTED TO PREVENT FINANCIAL HARM TO MUNICIPALITIES

CWA Section 402(p), the 1987 legislative provision regulating stormwater, was preceded by controversy and uncertainty. The US Environmental Protection Agency (EPA) originally had taken the view that most stormwater was not within the scope of CWA jurisdiction (27) — a view challenged in the United States Court of Appeal, District of Columbia Circuit.(28) EPA was directed by the D.C. Circuit to promulgate regulations dealing with stormwater. (29) Subsequent draft regulations were challenged as well.(30)

Ultimately, Congress spoke directly on the subject, amending the CWA by enacting the Water Quality Act of 1987, adding Section 402(p). Section 402(p) reflected a sensitivity to the enormous challenges and difficulties faced by municipalities in regulating stormwater. Referring to the controversy regarding municipal stormwater, Congressman Rowland (31) stated during the House debates that application of the pre-1987 NPDES program to urban runoff, "would be financially devastating to many of our local governments."(32) Regarding the new approach of Section 402(p)(3)(B), Congressman Roland explained:

> "The conference agreement, which includes a provision exempting certain storm water runoff from the NPDES permitting process takes a giant step toward reducing the immense regulatory burden being proposed by the EPA. As a result, the cost to local governments for complying with the act will be

Urban Stormwater

Legislative History

restrained. Under current law, municipalities would be required to obtain permits for each of the millions of storm water discharge points across the country at a cost which would be almost impossible to meet per permit application. It does not take a whiz at math to realize that our cities and towns were facing massive capital outlays; the cost could have easily exceeded $8.5 billion in expenditures for compliance with the proposed EPA regulations for storm water discharge." [132 Cong. Rec. 31968 (Oct. 15, 1986)]

The Court in *BIA v. SWRCB* would have one believe that the "cost . . . per permit application" that would be "almost impossible to meet" corresponded to the paperwork involved in the permit application. This interpretation ignores the fact that the legislative history refers to billions of dollars in "capital outlays" that needed to be "restrained" — not just administrative processing costs. Congress made the policy choice in 1987 to grant relief to municipal permittees by differentiating between the regulation of urban runoff, on the one hand, and industrial stormwater, on the other. Congress subjected the latter to pre-existing CWA water quality standards-based provisions, while specifying a new practicability standard for municipal stormwater.

Section 402(P): Practicability For Municipal Discharges

Feasibility

In enacting the 1972 CWA, Congress was relying on the future "invention [of] new and imaginative developments that will allow us to meet the objectives stated in our bill."(33) The CWA was a "tough bill" designed to "press the technological threshold of invention."(34)

Section 301(b)(1)(C), the core CWA technology-forcing provision, requires whatever "stringent limitation[s]" are "necessary to meet water quality standards" — without any express reference to technological or economical feasibility. Prior to 1987, Section 301(b)(1)(C) applied to all NPDES permits, without exception.(35) When in 1987 Congress added stormwater to the NPDES permitting program, Congress specified that Section 301(b)(1)(C), applied only to *industrial* stormwater.

Municipal Standard

SECTION 402(P)(3)(A) STATES IN PERTINENT PART:

"Permits for discharges associated with industrial activity shall meet all applicable provisions of this section and section 1311 [Clean Water Act Section 301] of this title."(36)

However, Section 402(p)'s standard for *municipal* stormwater is different from the one specified for *industrial* stormwater, and makes no mention of Section 301.

RATHER, SECTION 402(P)(3)(B) STATES IN RELEVANT PART:

"(B) Municipal discharge Permits for discharges from municipal storm sewers . . . (iii) shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or State determines appropriate for the control of such pollutants."(37)

The structure of Section 402(p) is clear: Congress continued the pre-existing technology-forcing approach for industrial stormwater, but mandated an alternative, MEP-based approach for municipal stormwater.

Technology-Forcing

Agency Discretion To Impose Technology-Forcing On Municipalities Not Created

Technology-forcing is a "drastic remedy" "designed to force regulated sources to develop pollution control devices that might at the time appear to be economically or technologically infeasible."(38)

Because technology forcing is such a "stiff requirement,"(39) courts have recognized it only when the statute and legislative history are uncommonly explicit, such as where the "statutory scheme and legislative history . . . demonstrate irrefutably" that "economic or technological infeasibility" are *not* to be considered.(40) Applying these principles to the 1987 urban runoff provision, there is nothing on the face of Section 402(p)(3)(B), nor is there anything in the legislative history, to the effect that agencies may impose technology-forcing through MS4 permits.

Rules of Grammar

The "Such Other Provisions" Clause Of Section 402(p)(3)(B)(iii) CLAUSE IS MODIFIED BY MEP

The San Diego agency claimed it was free to impose technology forcing – no matter how "financially devastating" or impossible to achieve – under the last clause of Section 402(p)(3)(B)(iii).—(endnote 41) This clause allows the imposition of "such other provisions as the Administrator or State determines appropriate for the control of such pollutants." However, the "such other provisions" clause of Section 402(p)(3)(B)(iii) unambiguously is modified by that section's practicability standard.

After the MEP phrase of Section 402(p)(3)(B)(iii), Congress continues, putting in the participle "including" for the purposes of laying out various kinds of MEP controls. Everything following the participle "including," under basic rules of grammar, must be modified by what precedes it, which is the MEP phrase.

Urban Stormwater

MEP

THE GRAMMATICAL PARSING OF SUBSECTION(B)(III) IS AS FOLLOWS:

Permits for discharges from municipal storm sewers —

(iii) shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including:

(1) management practices,
(2) control techniques and system, design and engineering methods, and
(3) such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.

SENATOR DURENBERGER TWICE PARSED SECTION 402(P)(3)(B) INTO TWO SENTENCES AS FOLLOWS:

"Permits issued under this section . . . shall require controls to reduce the discharge of pollutants to the maximum extent practicable. Such controls include managements practices, control techniques and systems, design and engineering methods, and such other provisions, as the Administrator determines appropriate for the control of pollutants in the storm water discharge."(42)

Court's Conclusion

This parsing unequivocally shows that "such other provisions" is tethered to "such controls" — those controls being the ones that reduce pollutant discharges to this MEP. The Court of Appeal's conclusion that "such other provisions" is a second direct object of the verb "require" stands in stark contradistinction to this legislative history, which severs "such other provisions" from the verb "require."

Statutory Rewrite?

The Court of Appeal violated the rules of grammar by, in effect, erasing the third of the three participial modifiers and setting it up as a stand-alone subsection. Under the Court of Appeal's reading, MEP would be an alternative requirement for municipal dischargers, which could be replaced, in the sole discretion of the agencies, to require municipal permittees to meet Section 301(b)(1)(C) itself — that is, water quality standards — regardless of practicability. Such a constructive rewriting of the statute ignores the important difference Congress spelled out between the requirements imposed on industrial dischargers — subject to Section 301(b)(1)(C) — and the protective practicability standard for municipal dischargers.

NINTH CIRCUIT UPHOLDS THE PRIMACY OF THE MEP STANDARD

The Ninth Circuit has interpreted Section 402(p)(3)(B) three times, each time indicating that MEP is the exclusive federal standard governing municipal stormwater permits — as opposed to a minimum floor, above which agencies are free to impose standards regardless of practicability. The most important of these cases is the Ninth Circuit's *Browner* decision.(43)

***Browner* Holding**

The *Browner* Court had before it MS4 permits from Arizona, where, based on "inclusion of . . . 'best management practices,' the EPA determined . . . the permits ensured compliance with state water-quality standards."(44) Importantly, the referenced BMPs primarily were pre-selected by permittees, *prior* to permit issuance; the permits basically required permittees to implement their own proposals.(45)

The Court emphasized that, "Petitioners raised *only* the legal question whether the Clean Water Act (CWA) requires numeric limitations to ensure strict compliance with state water-quality standards."(46) The Court summarized, "[f]or the reasons that follow, we deny the petition."(47)

The *Browner* petitioners argued that the Water Quality Act of 1987 is ambiguous regarding whether Congress intended municipalities to comply strictly with water quality standards. The Court rejected this argument, holding, "the Water Quality Act unambiguously demonstrates that Congress did not require municipal storm-sewer discharges to comply strictly with 33 U.S.C. § 1311(b)(1)(C) [Clean Water Act Section 301(b)(1)(C)]."(48)

Separate Requirements

The Court based its analysis on the separate requirements imposed on industrial and municipal dischargers. It concluded that Congress chose not to include a provision requiring compliance with water quality standards for municipal stormwater, and instead replaced Section 301 with the MEP standard.

THE COURT HELD:

"Congress' choice to require industrial storm-water discharges to comply with 33 U.S.C. § 1311, but not to include the same requirement for municipal discharges, must be given effect. When we read the two related sections together, we conclude that 33 U.S.C. § 1342(p)(3)(B)(iii) does not require municipal storm-sewer discharges to comply strictly with 33 U.S.C. § 1311(b)(1)(C)."(49)

Since the Court held that numeric limitations were not required — the singular issue raised by the *Browner* petitioners — the case was effectively over. However, the Court proceeded in *dicta* (50) to address a contention raised by the municipal intervenors to the effect that not only is compliance with water quality standards not required, it is not permitted under Section 402(p)(3)(B).

Dicta : EPA Authority

Responding to that contention, the Court noted Congress reserved discretion for EPA to determine what controls in municipal stormwater permits are appropriate. "Under that discretionary provision, the EPA has the authority to determine that ensuring strict compliance with state water-quality standards is necessary to control pollutants. The EPA also has the authority to require less than strict compliance with state water-quality standards."(51)

Urban Stormwater

Limited Agency Discretion

Burbank Challenge

Economics Review

Section 13241 Factors

Had a set of facts where an agency required strict compliance with water quality standards been before the *Browner* Court, undoubtedly the Court would have addressed the outer bounds of discretion reserved under that last modifying clause of Section 402(p)(3)(B)(iii). However, the Court did not do so, as the only question presented was the validity of the permits in the case at hand, which did not contain numeric limits. Having already disposed of that question, it was unnecessary for the Court to address what factors would inform and limit the hypothetical exercise of the discretion that the Court recognized in the last modifying phrase of Subsection (iii).

Does EPA or the State have discretion pursuant to the last modifying phrase of this key provision to require compliance with water quality standards? The *dicta* in *Browner* states it does. The question is, under what circumstances? The answer consistent with *Browner* is clear. The last clause in the section is not a grant of discretionary authority intended to consume the basic standard of Section 402(p)(3)(B) itself. Rather, in circumstances where an agency can demonstrate that compliance with water quality standards will be met with MEP, the agency may require such compliance. This interpretation is the *only* interpretation of the *Browner dicta* that preserves Congress' intent to assure relief to municipalities.

THE CALIFORNIA SUPREME COURT

NEW LIFE FOR ECONOMIC ANALYSIS AND REASONABLE MS4 PERMITS

The *BIA v. SWRCB* Court held that permit provisions which require more than MEP are discretionary — not mandatory — under federal law. Thus, provisions more stringent than MEP must conform with state law. Importantly, the Court of Appeal rejected the State's argument that the San Diego permit was sustainable under state law.

In *Burbank vs. State Water Board*, 35 Cal. 4th 613, (2005) the Cities of Los Angeles and Burbank challenged a regional board permit they claim will require them to super-clean water already being released from water recycling plants to the Los Angeles River. The current level of treatment renders the water clean enough to irrigate crops, to swim in, and apparently even to drink. But the Los Angeles regional board is concerned it may not be clean enough for the Los Angeles River, a large portion of which is a concrete-lined channel.

The cities claimed they would need to spend $175 million to super-clean the water beyond the recycling standards, and argued in Court that the highly speculative benefits are not worth the public expense. The agency refused to consider economics and cost-effectiveness, arguing it had done so years before in setting the standards being applied in the permit. However, when the standards were set, no one anticipated the agency would demand the super-cleaning of water at extraordinary expense to protect a marginal ecosystem at theoretical risk.

The California Supreme Court unanimously held the regional board must look at economics, and the "cost of compliance" unless federal law proscribes such an analysis, as state law makes affordability and achievability important concerns. Justice Brown chastised the agency for playing a game of "gotcha" with the public purse, by refusing to look at economics at permitting when it matters, on the basis that economics were looked at long before, when no one could foresee, or assess the economics of, the future permit. She also said the agency had failed to keep its standards current, putting those who pay the compliance costs to meet the standards at great risk of spending funds to meet outdated standards. These twin, strong rebukes and the unanimous decision indicate the Supreme Court will look hard at regulatory action to ensure that water quality decision making is well informed, respects the scarcity of public funding and the concomitant need to put those funds to effective use.

In the MS4 context, *Burbank* sets a powerful precedent as permit writers have argued throughout three MS4 permit cycles that the statutory factors of California Water Code Section 13241 were irrelevant to MS4 permits. The Section 13241 factors include: "[w]ater quality conditions that could reasonably be achieved," "economic considerations," "the need for developing housing," and water supply and recycling. Under *Burbank*, all MS4 permit provisions that are more stringent than MEP would be subject to the scrutiny of the Section 13241 factors.

CONCLUSION

The Southern California MS4 permits are slated to expire, and subsequently be reissued, in 2006 and 2007. It seems apparent that water quality standard excursions in urban runoff will persist for future permit cycles. A record of this reality needs to be made during the permit re-issuance proceedings. The actual efficacy and reasonable potential of using BMPs to address these water quality concerns should be studied and documented.

The regulated community and the regulators could forge common ground by having a frank exchange on the issue of what reasonably can be accomplished during the next permit cycle. If the agencies have no intent to insist on capture and treat, large-scale urban runoff plants, they should prescribe permit conditions that provide a compliance opportunity through BMPs. (continued)

The author wishes to acknowledge the contributions on technical subjects from **Dr. Susan Paulsen** Flow Science, Inc, Pasadena, CA 626/ 304-1134

To date, most regional boards have been unwilling to recognize a safe harbor based on the limits of what is practicable and economically feasible in addressing the chronic water quality problem posed by urban runoff. Water quality would benefit if the municipal permittees were given a meaningful compliance opportunity, one that would reward good programs, and build trust that blame will not be placed for water quality conditions beyond municipal control.

FOR ADDITIONAL INFORMATION, CONTACT: PAUL SINGARELLA, Esq, Latham & Watkins, LLP (Costa Mesa, CA), 714/ 540-1235 or email: paul.singarella@lw.com

Paul Singarella has worked on water quality issues for 25 years, with experience across the country in both state and federal courts and numerous local state and federal agencies.

ENDNOTES

1) *Natural Resources Defense Council, Inc. v. Costle*, (D.C. Cir. 1977) 568 F.2d 1369.
2) *Draft Fact Sheet/Technical Report, San Diego Regional Water Quality Control Board Order* No. 2001-01 (Oct. 11, 2000).
3) *Reporter's Transcript of Proceedings*, San Diego Regional Water Quality Control Board Order 2001-01, Agenda Item 5 (Dec. 13, 2000).
4) *Id.*
5) *San Diego Regional Water Quality Control Board Order No. 2001-01*, (Feb. 21, 2001).
6) *Id*. page D-4.
7) *Id.*
8) California is split into nine regions, each with a regional water quality control board, and each with a US EPA-approved water quality control plan containing local water quality standards for that region.
9) *State Water Resources Control Board Order WQO 2002-0015, 29-30* (Oct. 3, 2002).
10) *Id*. at page 4.
11) Susan C. Paulsen, E. John List, Environmental Defense Sciences, *A Review of the Los Angeles Basin Plan Administrative Record* (Feb. 2003).
12) *Id.*
13) *Santa Ana Regional Water Quality Control Board Order No. R8-2002-0010*, NPDES No. CAS618030 (emphasis added).
14) *Los Angeles Regional Water Quality Control Board Order No. 01-182*, NPDES No. CAS004001 (Dec. 13, 2001) (emphasis added).
15) *San Diego Regional Water Quality Control Board Order No. 2001-01* (Feb. 21, 2001).
16) *Fact Sheet/Technical Report, San Diego Regional Water Quality Control Board Order No. 2001-01*, (Nov. 6, 2001). In contrast to the San Diego permit, the Arizona permits at issue in Browner found pre-selected BMPs to be the "functional equivalent" of meeting water quality standards. See discussion, infra, Section IV.C.
17) Draft Response to Comments, *San Diego Regional Water Quality Control Board Tentative Order No. 2001-01.*
18) *Id.*
19) The agency found that "urban runoff is the leading cause of water quality impairment in the San Diego Region," and "directly causes or contributes to all of the known receiving water quality impairments in the San Diego Region." *Id. Fact Sheet/Technical Report*, supra note 17. The agency also found that, at permit issuance, each permittee except one already "[c]ontributes to a violation of a water quality standard or is a significant contributor of pollutants. . ." *Draft Fact Sheet/Technical Report supra note 3.*
20) Regional Water Quality Control Board staff candidly disclosed what the San Diego permit would achieve, and what it would not achieve, finding "this permit has the ability to slow down the ongoing degradation of our receiving waters . . . ." *Reporter's Transcript of Proceedings*, supra note 4 (repeating findings of *Staff Report for Standard Urban Storm Water Mitigation Plans (SUSMPs) and Numeric Sizing Criteria for Best Management Practices*). Nowhere did staff conclude that the permit would reverse ongoing degradation or restore compliance with standards for the receiving waters. Staff indicated that the permit had the "potential to actually improve the quality of our receiving waters," but stressed to the board, "I want to make sure you understand that I don't mean overnight," concluding "we're talking at least 10 to 20 years." *Id.*
21) E.g., the permit states that, "[d]ischarges from MS4s which cause or contribute to exceedances of receiving water quality objectives for surface water . . . are prohibited." *San Diego Regional Water Quality Control Board Order No. 2001-01*(Feb. 21, 2001). The permit's "cause or contribute" prohibition is the overarching permit requirement, repeated throughout the permit.
22) Cal. Water Code § 13320 (2005).
23) *State Water Resources Control Board Order WQ 2001-15* (2001).
24) [Cite to WQO.]
25) [Cite to WQO at 10.]
26) *Defenders of Wildlife v. Browner*, (9th Cir. 1999) 191 F.3d 1159.
27) 38 Fed. Reg. 13527, 13530 (1973) (codified at 40 C.F.R. § 125.4(f) (1974)).
28) *Natural Resources Defense Council, Inc. v. Costle* (D.C. Cir. 1977) 568 F.2d 1369.
29) *Id.*
30) *Natural Resources Defense Council, Inc. v. United States EPA* (9th Cir. 1992) 966 F.2d 1292, 1296 (describing post-*NRDC v. Costle* challenges).
31) Congressman Rowland, "drafted and introduced the stormwater runoff program . . . ." 133 Cong. Rec. H515 (daily ed. Feb. 3, 1987).
32) *Id.*
33) Remarks of Senator Montoya, 117 Cong. Rec. 38808 (Nov. 2, 1971)
34) *Id.*
35) Reviewing the 1972 Clean Water Act, the Seventh Circuit observed that, "[i]t is clear from §§ 301 and 510 of the Act, and the legislative history, that the states are free to force technology . . . , even at the cost of economic and social dislocations caused by plant closings." *United States Steel Corp. v. Train* (7th Cir. 1977) 556 F.2d 822, 838.
36) 33 U.S.C. § 1342(p)(3)(A) (2005).
37) 33 U.S.C. § 1342(p)(3)(B) (2005).
38) *Union Electric Co. v. EPA* (1976) 427 U.S. 246, 256-57 (addressing technology-forcing provisions in Clean Air Act).
39) *Id.* at 258.
40) *Id.* at 269-70 (Powell, J., concurring).
41) The San Diego permit is technology-forcing than Congress as Congress took seriously the question as to whether the technology would arrive some day. While describing Congress as "betting on the come" by "relying on our citizens in the near future to develop complex technology," Justice MacKinnon, concurring in *NRDC v. Costle*, said U.S. EPA "has shown that it takes a realistic view of . . . the task of meeting the difficult requirements and objectives of the [Clean Water] Act." *Natural Resources Defense Council, Inc. v. Costle,* (D.C. Cir. 1977) 568 F.2d 1369, 1383. There is no similar "realistic view" reflected in the agencies' deliberations in the instant case.
42) 132 Cong. Rec. 32400 (Oct. 16, 1986); 133 Cong. Rec. S752 (daily ed. Jan. 14, 1987).
43) See also *NRDC v. U.S. EPA* (9th Cir. 1992) 966 F.2d 1292,1308 (no "specified level of reduction of any pollutants" required under Section 402(p)(3)(B)(iii); and Environmental Defense Ctr., Inc. v. EPA, (9th Cir. 2003) 344 F.3d 832, 854 ("the plain language of § 402(p) . . . expresses unambiguously Congress's intent that EPA issue no permits to discharge from municipal storm sewers unless those permits 'require controls to reduce the discharge of pollutants to the maximum extent practicable.'").
44) *Browner,* supra, 191 F.3d at 1161.
45) *Fact Sheet, NPDES Permit No. AZS000003* City of Phoenix Municipal Separate Storm Sewer System, dated January 15, 1997.
46) *Browner*, supra, 191 F.3d at 1161 (emphasis added).
47) *Id.*
48) *Browner*, supra, 191 F.3d at 1164.
49) *Browner*, supra, 191 F.3d at 1165.
50) Court of Appeal agrees this portion of the *Browner* case is dicta. See, Opinion, p. 28 [add cite].
51) *Browner*, supra, 191 F.3d at 1166.

Water Banking

INTERSTATE WATER BANKING

EVOLVING COLORADO RIVER SYSTEM AGREEMENT

by James H. Davenport, Chief, Water Division, of the Colorado River Commission of Nevada
& Special Deputy Attorney General of the State of Nevada

Introduction

In late 2004, two milestone agreements involving water agencies in Arizona, Nevada and California constituted a second chapter in the development of interstate water banking transactions for the Colorado River system. The agreements have established a larger experience base from which to contemplate the elements of future interstate water transactions.

This article reviews salient features in the evolution of this multi-state water banking system from initial enabling efforts in the 1990s through to the present.

Chapter One: Offstream Banking

Water banking on the Colorado River system involves the concept of forbearance of diversions from the Colorado River in favor of allowing the same volumes of water to accumulate elsewhere, either in the Colorado River's reservoirs or off the river in underground storage. This approach was contemplated by the State of Arizona's 1996 amendments to Title 45 of Arizona Revised Statutes. Arizona Laws of 1996, ch. 308, section 16 (see LaBianca, Margaret Bushman, "*The Arizona Water Bank and the Law of the River*" 40 Arizona Law Review 659, 663 (1998)). In 1992, water purveyors in California and Nevada executed an early agreement authorizing a "demonstration project" for offstream banking (*Agreement Between the Central Arizona Water Conservation District and the Metropolitan Water District of Southern California for a Demonstration Project on Underground Storage of Colorado River Water*, October 15, 1992, as amended December 1, 1994).

Demo Project

On November 1, 1999, the Secretary of the Interior (Secretary) published "Offstream Storage Regulations" defining the procedure for lower division states of the Colorado River system to engage in interstate offstream storage agreements. (See *Offstream Storage of Colorado River Water and Development of and Release of Intentionally Created Unused Apportionment in the Lower Division States*: 43 C.F.R. Part 414.) The regulations are premised on the authority of the Secretary pursuant to 5 U.S.C. § 553, 43 U.S.C. § 391, 485, and 617, 373 U.S. 546, and Article II (B)(6) of the Decree in *Arizona v. California,* 376 U.S. 340 (1964).

US Interior Regulation

Arizona v. California Decree

ARTICLE II(B)(6) OF THE DECREE PROVIDES:

> (6) If, in any one year, water apportioned for consumptive use in a State will not be consumed in that State, whether for the reason that delivery contracts for the full amount of the State's apportionment are not in effect or that users cannot apply all of such water to beneficial uses, or for any other reason, nothing in this decree shall be construed as prohibiting the Secretary of the Interior from releasing such apportioned but unused water during such year for consumptive use in the other States. No rights to the recurrent use of such water shall accrue by reason of the use thereof.

On July 3, 2001, pursuant to the regulations established earlier by the Secretary, the Southern Nevada Water Authority (SNWA), the Colorado River Commission of Nevada (CRCN), and the Arizona Water Banking Authority (AWBA) entered into an Agreement for Interstate Water Banking. In that agreement, AWBA committed to use its best efforts to create "long-term storage credits" in an initial amount of 1,200,000 acre-feet for SNWA, to be held in an SNWA interstate account established with the Arizona Department of Water Resources and, on request of SNWA, to recover those credits and cause the development of "intentionally created unused apportionment" (ICUA) of Colorado River water for SNWA. SNWA agreed to reimburse AWBA for its costs on an annual basis. Colorado River water would be moved through the aqueduct of the Central Arizona Project and stored underground in central and southern Arizona. The water stored underground in existing aquifers would later be used directly by irrigation districts instead of ground water, thereby creating ICUA. (See Arizona Revised Statutes Annotated, 45-2423; also, *Agreement for Creation of Intentionally Created Unused Apportionment between the Arizona Water Banking Authority and the Central Arizona Water Conservation District*, December 28, 2002.)

Storage Credits

"ICUA"

Underground Storage

On December 18, 2002, the United States, acting through the Secretary of the Interior, AWBA, SNWA, and CRCN entered into a Storage and Interstate Release Agreement (SIRA), again pursuant to the Secretary's Offstream Storage Regulations. In the SIRA, the Secretary committed to release ICUA developed by AWBA in accordance with the request of SNWA, the terms of the SIRA, and certain specified determinations of the Secretary.

Water Banking

Agreement Amended

Purposes

New Agreement

Current Year Use

Delivery Liability

Chapter Two: Evolution of Interstate Water Banking

The Nevada and Arizona parties to the 2002 offstream banking agreements in December 2004 reorganized the transaction so as to strengthen the resource value of the agreement for the Nevada parties and establish a more secure funding source for Arizona water banking. This was accomplished with an Amended Agreement for Interstate Water Banking. In that agreement, approved on December 16, 2004, the parties amended and restated the previous agreement in its entirety with the purpose of establishing:

- Specific commitment by AWBA to have long-term storage credits credited to the SNWA interstate account in an aggregate amount, including those credited under the demonstration project and the initial agreement, totaling 1,250,000 acre-feet
- Commitment by AWBA, on request of SNWA, to recover such credits and to develop ICUA for SNWA's benefit up to a specified annual maximum (credits need only be in place in time to meet the recovery schedule)
- Specified payments to be made by SNWA in consideration of AWBA's commitments respecting the crediting of those long-term storage credits

The amended agreement restates the objective of mutual benefits for the citizens of the States of Arizona and Nevada and recognizes that it is entered as an act of comity (courtesy and respect between the states), and with the understanding that interstate banking of Colorado River water among the States of the Lower Division must be undertaken in accordance with express authority granted under each state's law.

Also in late 2004, SNWA and CRCN entered a SIRA with the Metropolitan Water Department of Southern California (MWD) and the United States (acting through the Secretary), pursuant to the Secretary's Offstream Storage Regulations. As in the Arizona case, the SIRA provided the means by which water would be made available to SNWA in subsequent years through the creation of "Intentionally Created Unused Apportionment" (ICUA) by MWD. An "Operational Agreement," contemporaneously executed between SNWA, CRCN and MWD, contained the business details. Unlike the Nevada-Arizona agreement — which contemplated the potential storage of water from either Nevada's or Arizona's Colorado River water apportionments — this agreement contemplated storage of water only from Nevada's apportionment. Also unlike the Nevada-Arizona agreement — which anticipates that water will be stored underground — the Nevada-California agreement permits *current* year use of the banked water in California and the creation of a delivery liability attached to water otherwise-stored in California storage reservoirs controlled by MWD. For example, Nevada could inform MWD that it wants to "bank" 10,000 AF in 2005, by taking 10,000 AF less than it is entitled to. The Secretary of the Interior is notified and the banking occurs. In that same year, MWD is allowed to take that 10,000 AF from Lake Mead and use it in 2005 (or move it into MWD's own storage system for later use). MWD would later, say in 2010, need to leave 10,000 AF in Lake Mead for Nevada's use when Nevada calls for the water it had banked. The agreement provides for recovery of water in amounts not greater than 30,000 acre-feet per year after 2006, unless otherwise agreed. All costs other than the Secretary's administrative expense is borne by MWD.

Infiltration Gallery

The two 2004 transactions evidence the beginning of an evolution in the means and possibilities of interstate Colorado River

Water Banking

Secure Agreement

Storage for $

Flexibility

Repayment Liability

water transactions. They begin to stretch the paradigm of offstream banking, through agreed alteration of detail, to more greatly enhance the fungibility (i.e., legal interchangeability) of water supplies. Several aspects of the offstream banking paradigm are worth noting.

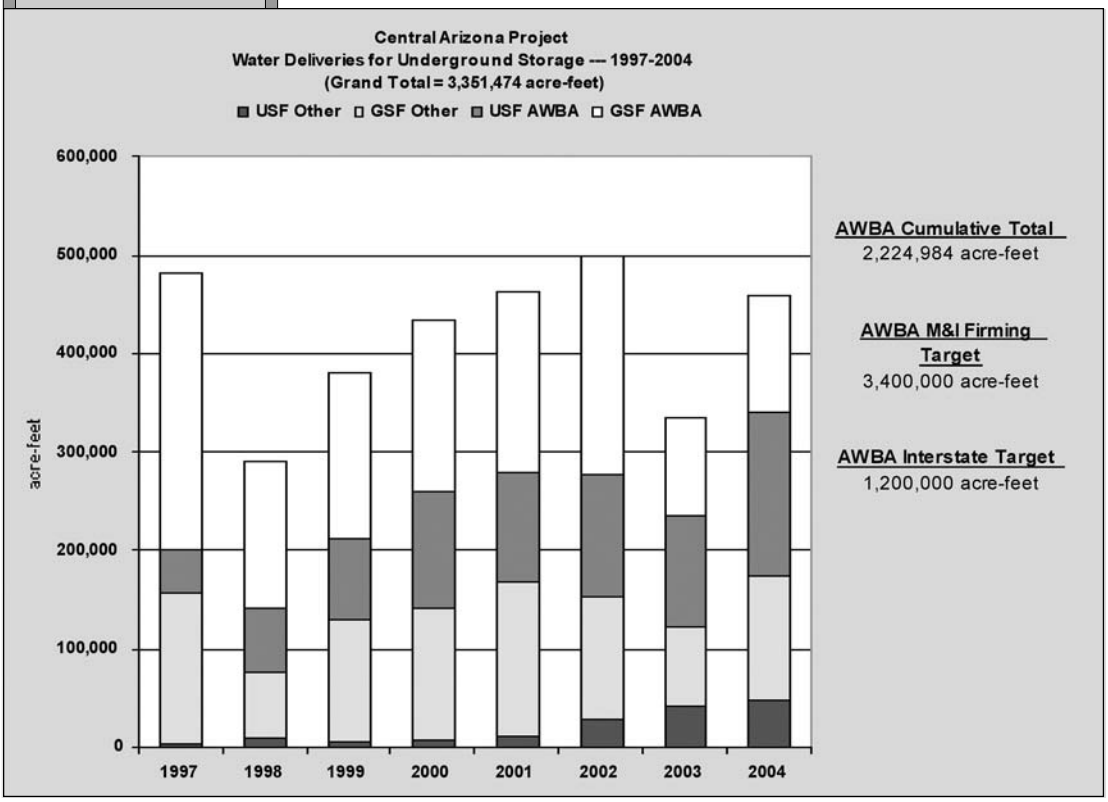
Security of the Banked Water Resource

Because of the Secretary's responsibility under the Article II (B)(6) of the Decree in *Arizona v. California*, and his or her obligation to ascertain that unused Colorado River apportionment exists in one state prior to permitting users in another state to use that apportionment, that unused apportionment must be secure. In the first iteration of the Nevada-Arizona agreement, this security was established through the sequential process of first identifying available water and actually placing it underground in the storage year, thereby creating storage credits. The storage credits were then redeemed by securing substitute non-Colorado River water use and certifying the concomitant nonuse of Colorado River water to the Secretary in the recovery year. Recovery could not occur without the security of the water in the ground (bank) first being established.

In the second iteration of the Nevada-Arizona agreements, the security is much simpler. Storage credits are created in direct consideration for the payment of money. The recovery of storage credits is pursuant to a contractually established schedule. The bank thus assumes the risk that sufficient alternative nonuse of Colorado River water will be available so as to meet the established recovery schedule, and its obligation to the Secretary to certify that the ICUA has been created in the recovery year; the consideration paid under the amended Arizona-Nevada agreement therefore contains a risk premium. However, because the banking entity is not constrained under this type of agreement by the actual date by which the water must be stored in order to meet its obligations, it may realize more economic opportunities to obtain the water it needs to meet those obligations, including those opportunities which exist when surplus water exists in the Colorado River system. The "bank" therefore now may operate more like a commercial bank, garnering opportunity based on its transactional position between its depositing and borrowing customers.

Constructive Storage / Fungible Water Resources

Where the storing entity possesses water already in storage at the time of the banking transaction, the operational question arises whether to place the new water into storage while taking the previously banked water out of storage for delivery to consumers, or alternatively to deliver the new water directly to consumers, leaving the previously stored water in place. If the two water supplies are fungible, then the latter may be accomplished. Under the 2004 Nevada-California agreement, the latter management alternative is possible. However, by so managing the "stored" water, the storing entity has necessarily imposed a future repayment liability on its otherwise-stored water supply. As with the 2004 Nevada-Arizona agreement, the bank has now assumed a risk that its stored water supply will be adequate to meet its future obligations. In the Nevada-California instance, consideration for the assumption of this risk is in the value of the water quality components of the new water, as compared with the stored water, for purposes of blending with water from other sources. Fungibility has its value.



"Authorized Entity" 43 C.F.R. 414.2

The Secretary's Offstream Storage Regulations limit the field of parties who may be engaged in interstate transactions

Water Banking

Definitions

under those regulations. Those parties must reside either in a "storing state," or a "consuming state" and must be "authorized entities" in those states.

DEFINITIONS INCLUDE:

- "STORING STATE" means a Lower Division State in which water is stored off the mainstream in accordance with a Storage and Interstate Release Agreement for future use in that State. 43 C.F.R. 414.2.
- "CONSUMING STATE" means a Lower Division State where ICUA will be used. 43 C.F. R. 414.2.
- "AUTHORIZED ENTITY" means: (1) An entity in a Storing State which is expressly authorized pursuant to the laws of that State to enter into Storage and Interstate Release Agreements and develop ICUA ("storing entity"); or (2) An entity in a Consuming State which has authority under the laws of that State to enter into Storage and Interstate Release Agreements and acquire the right to use ICUA ("consuming entity"). See 43 C. F.R. 414.2

Authority Standard

As can be seen, the definitions differ as between storing states and consuming states. The conclusion has previously thus been that some greater specificity in authorizing statues must exist in order to empower authorized entities in storing states than in consuming states. The 2004 Nevada-California agreement alters this conclusion. Whereas once it was thought that an express statutory mention of authority to enter agreements pursuant to 43 C.F.R. Part 414 was required to create "authorized entity" status in a storing state, a more general "necessary and proper" authority may be sufficient.

THE 2004 NEVADA-CALIFORNIA SIRA PROVIDES THAT:

> The Metropolitan Water District of Southern California (MWD) was incorporated on December 6, 1928 pursuant to the Metropolitan Water District Act of the State of California. In accordance with the provisions of that act, MWD is expressly authorized to exercise such powers as are necessary and proper to carry out the objects and purposes of the district, including the acquisition of water rights within and without the state, and the storage and transport of water. (West's California Water Code Appendix §§ 109-120 and 109-130.) California law authorizes MWD to contract with any public or private corporation for the purpose of carrying out any of its powers (California Public Contract Code § 21562)
>
> In accordance with the authority granted by California law, MWD is expressly granted sufficient authority pursuant to which it may enter into Storage and Interstate Release Agreements and develop Intentionally Created Unused Apportionment (ICUA) as an "authorized entity" pursuant to 43 C.F.R. 414.2 (1). MWD has a contract with the Secretary entered under section 5 of the Boulder Canyon Project Act for the storage and delivery of Colorado River water.

Interior's Acceptance

The Secretary's acceptance of this expression of transactional authority, through acceptance of the 2004 Nevada-California SIRA as a party, confirms that "necessary and proper" authority derived from other express authority is sufficient. The import of this acceptance is the potential involvement of additional storing state parties in Colorado River interstate water transactions.

Chapter Three: The Future

The future of interstate water transactions in the lower basin of the Colorado River is, as with all futures, yet to be seen. That there will be transactions in the future is certain. That the future will include growing demand for a limited resource is also certain. Flexibility, fungibility and transactional opportunity, within the constraints of governmental systems requiring security, continuity and protection of the public interest, are essential to enhancement of the Colorado River resource's meeting that demand. Innovation in the use of the Secretary's Offstream Banking Regulations may turn out to be a more valuable tool in realizing that objective than first we hoped.

FOR ADDITIONAL INFORMATION: JAMES DAVENPORT, 702/ 486-2689, or email: jdavenport@crc.nv.gov

COLORADO RIVER COMMISSION OF NEVADA WEBSITE: http://crc.nv.gov/water.htm

James Davenport is the Chief, Water Division, of the Colorado River Commission of Nevada; Special Deputy Attorney General of the State of Nevada. He received his law degree from Willamette University in 1977 and is a member of the Nevada and Washington Bar Associations. Mr. Davenport is the author of *Nevada Water Law* (2003), a compendium of Nevada cases and statutes. He specializes in water, energy, nuclear materials, and real property law.

Fish & Farms

Editor's Note: The US District Court decision regarding the operation of Friant Dam was widely hailed by environmental groups as a victory for the fishery of the San Joaquin River. The author of this article is a member of the law firm Best Best & Krieger, whose client is the Friant Water Users Authority. Throughout the article, references are made to "waste" or "wasteful" practices. The reader should keep in mind that "waste" is a term of art in western water law. Under western water law, water is allowed to be put to "beneficial use"— but the manner and extent of such use must be "reasonable." Unreasonable, excessive, or inefficient use is deemed "waste"— and not allowed.

FISHERIES RESTORATION

SAN JOAQUIN RIVER: REASONABLE REMEDIES?

by Christopher H. Calfee, Best Best & Krieger LLP (Sacramento)

Many people have never heard of Friant Dam, and even fewer could point to it on a map. Despite its modesty, however, Friant Dam is now the backdrop of one of the major controversies in western water law. Can historic fisheries be restored on a river that has for decades been devoted to supply domestic and irrigation water without inflicting severe hardship on the people and economies that developed in reliance on its flows?

On August 27, 2004, the US District Court in the Eastern District of California concluded that fish come first. *Natural Resources Defense Council v. Patterson*, 333 F.Supp.2d 906 (E.D.Cal. 2004). Specifically, the court held that California Fish and Game Code Section 5937 requires the United States to restore the historic fishery below Friant Dam. Having determined that the US is liable, the court ordered the parties to proceed to the remedies phase of the litigation to determine how to make that restoration happen.

The cliché instructs that the devil is in the details and that is where this case becomes very interesting. The parties will now spend the next six months in discovery gathering experts, deposing witnesses, and developing their versions of how such restoration can, or cannot, happen. Whether restoration is physically possible is a fascinating issue in its own right. That question, however, must be answered within the context of the California Constitution, the Central Valley Project Improvement Act (CVPIA), and basic equitable principles that require the court in this case to fashion a remedy that is *reasonable*.

This article will show that arriving at a reasonable remedy is no small undertaking. First, a historical background of the controversy surrounding Friant Dam is presented. Second, the court's August 27, 2004, ruling is briefly explained. The focus of this article, however, is the challenges that the Friant water users believe will make such restoration a much more complex task than simply releasing water from the Friant Dam.

Introduction to the Friant Service Area

Friant Dam is part of the federal Bureau of Reclamation's (Bureau) Central Valley Project. As described by the United States Supreme Court, the Central Valley Project:

> "is a gigantic undertaking to redistribute the principal fresh-water resources of California. Central Valley is a vast basin, stretching over 400 miles on its polar axis and a hundred in width, in the heart of California. Bounded by the Sierra Nevada on the east and by coastal ranges on the west, it consists actually of two separate river valleys which merge in a single pass to the sea at the Golden Gate. Its rich acres, counted in the millions, are deficient in rainfall and must remain generally arid and unfruitful unless artificially watered…When it is sought to make these streams yield their wasting treasures to the lands they traverse, men are confronted with a paradox of nature; for the Sacramento, with almost twice the water, is accessible to the least land, whereas about three-fifths of the valley lies in the domain of the less affluent San Joaquin."
>
> *United States v. Gerlach*, 339 U.S. 725, 728 (1950)

Water Uses

Friant Dam lies in the less water-affluent, but highly productive San Joaquin Valley. The area served by Friant Dam encompasses approximately one million acres on the eastern side of the San Joaquin Valley. The Friant Service Area includes the top three agricultural counties in the nation and about 15,000 small family farms. Its water provides forty percent of the City of Fresno's water supply, a majority of the supply for the City of Lindsay, and nearly all of the water for the City of Orange Cove. In all, the Friant water supply consists of 1.7 million acre-feet (MAF) average annual runoff with 1.4 MAF annual delivery. Average river delivery is 100,000 acre-feet (AF) and approximately 200,000+ AF average flood release.

Dam Development

History of Friant Division - Development of San Joaquin River Water Supplies

Friant Dam may be one of the largest structures on the San Joaquin River, but it was not the first. Beginning in the mid-19th Century, the river began to be developed as a source of irrigation water. By 1929, there were at least four dams affecting salmon. (G. H. Clark, Fish Bulletin No. 17, *Sacramento-San Joaquin Salmon (Oncorhynchus tschawytscha) Fishery of California*, Division of Fish and Game of California (1929), NOAA 1706-1736 at p. 1725.) Among them was "Sack Dam" that was put in place across the river each year at Temple Slough, more than 80 miles downstream of Friant Dam. The Sack Dam diverted the *entire flow* of the San Joaquin River for months at a time, (generally starting in June or

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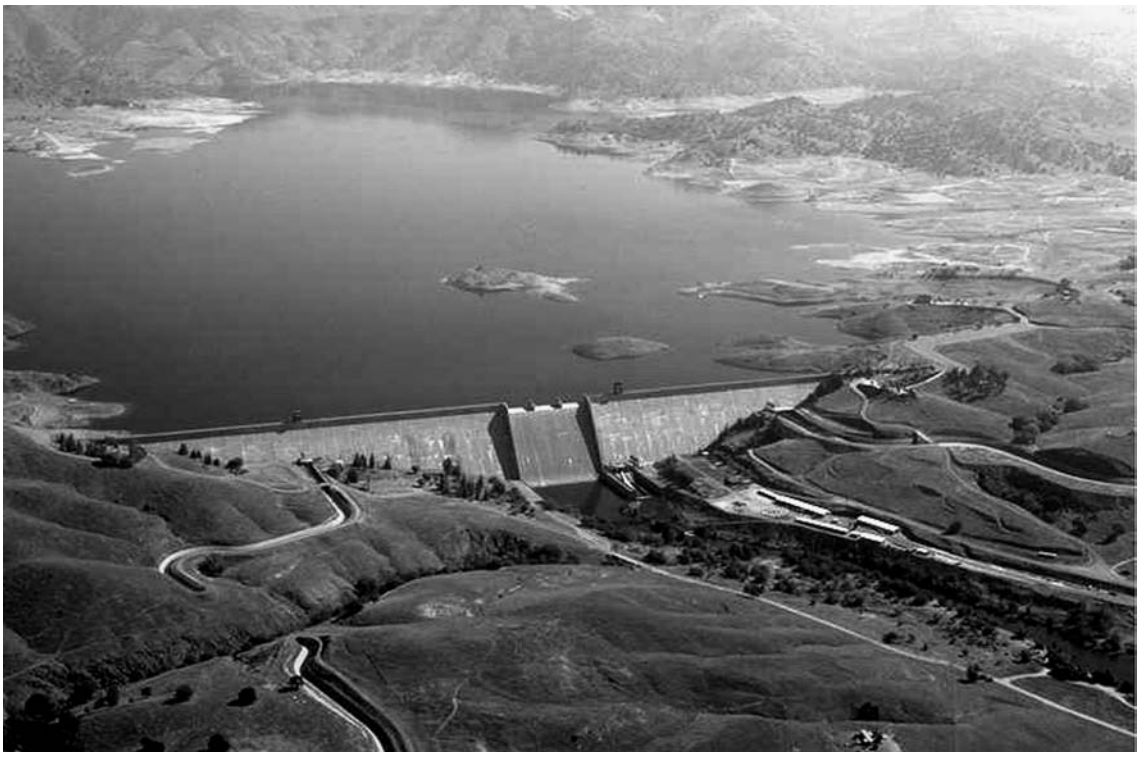

FRIANT DAM

Mendota Dam

July, but in some years as early as February) leaving a dry river bed until it washed away in late fall. About 60 miles downstream from Friant, a thirty-foot high, 200-foot long concrete dam known as the "Mendota Dam" was operated for many years without a fish ladder and took much of the flow of the river for Miller & Lux lands downstream from Friant. (Fish Bulletin No. 17, NOAA at 1725.)

Factors of Decline

Long before Friant Dam was built, diversions of water for irrigation on the Valley floor, the droughts of the 1920s and 1930s, and extensive overfishing, all took their toll on the salmon runs in the San Joaquin River. Contemporaneously with the decline of salmon, agriculture on the east side of the San Joaquin Valley faced ruin. Almost no eastside farmers had ever drawn from the San Joaquin River for their water supplies. Instead, they relied upon local groundwater to augment inadequate surface water. Those local water supplies were nearing exhaustion, however.

Water Crisis

In the 1920s, the California Legislature responded to California's water crisis by directing the Division of Water Resources to formulate a plan to develop additional water resources. In 1931, as a result of the rapid development of irrigated agriculture in the San Joaquin River Basin, local water supplies had become insufficient for irrigation "particularly in the southern or upper portion of the valley south of the Chowchilla River" – i.e., the present Friant Division Service Area (State Division of Water Resources Bulletin 29 (1931), at 33.) Although reservoirs had not been built, the streams of the upper San Joaquin River Basin had "long since" been fully used for irrigation. *Id.*

Central Valley Project

The State Water Plan (SWP) proposed Friant Dam as one of the original major features of the Central Valley Project. SWP contemplated that, after completion of the Madera and Friant-Kern canals and the initial buildup of agricultural water use, practically the entire flow of the San Joaquin River would be diverted at Friant Dam. No provision was made in SWP for the release of water from Friant Dam to provide flows to maintain salmon runs or other fish.

In 1933, the Legislature acted on the SWP by passing the Central Valley Project Act of 1933 (1933 Stats., Ch. 1042), later adopted by the people of California as a referendum measure. California, suffering from the Great Depression, was unable to fund its own CVP so the state turned to the federal government. In 1935, President Roosevelt approved a Feasibility Report calling for federal construction of the CVP and Congress subsequently made appropriations of hundreds of millions of dollars for the Friant Division's development. The Bureau obtained assignment of pending applications to the predecessor of California's State Water Resources Control Board to appropriate San Joaquin water at Friant. By 1939, a Purchase Contract and an Exchange Contract were executed to make water from the Friant Division available for appropriation. Construction on Friant Dam began in 1939. By the late 1930's and early 1940's, salmon counts at the Mendota fish ladder were down to 3,000-5,000 salmon per year.

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Section 5937

AG's Opinion

Applicability of Section 5937 to the Friant Division

In the 1950s, a battle erupted between CDFG and the Department of Public Works about whether California Fish and Game Code Section 5937 applied to Friant Dam, and how. Section 5937 states that: "The owner of any dam shall…allow sufficient water to pass over, around or through the dam, to keep in good condition any fish that may be planted or exist below the dam." The agencies ultimately agreed to let the California Attorney General decide. In 1951, the Attorney General issued a formal opinion ruling that Section 5937 does *not* require release of water otherwise needed for irrigation. Instead, because the State CVP Act was more specific, it prevailed over the more general requirement of Section 5937.

Operation of Friant Dam

Friant Dam supplies water for irrigation and municipal users. Municipal users include the cities of Fresno, Orange Cove, and Lindsay, plus Fresno County Water Works District No. 18, and the County of Madera. The water used for municipal and industrial purposes within the Friant Service Area cannot be reduced significantly because the water demand is relatively inflexible and does not vary from year-to-year according to hydrological or climatic conditions.

Inelastic Demand

The demand for irrigation water is similarly inelastic. In many of the districts in the Friant Service Area, nearly all of the irrigated acreage is devoted to permanent crops such as orange groves, vineyards, and orchards. Permanent crops take a number of years to mature before generating a return on investment and require a significantly greater initial investment. The districts that have a majority of acreage planted to permanent crops thus have less flexibility in water demand than districts with more annual crops. With permanent crops a farmer cannot consider the availability of water each year and decide what crops to plant. Even in the driest years, farmers must irrigate their permanent crops. Loss of irrigation water for even a year or two will result in the destruction of orchards or vineyards.

Bureau Releases

Despite the significant municipal and irrigation needs for Friant water, water is released from the dam. As part of the agreement with downstream property owners which allowed the Bureau to divert water for irrigation purposes at Friant, the Bureau agreed to release enough water from Friant Dam to maintain, at all times, a flow of at least 5 cubic feet per second (cfs) measured at Gravelly Ford (37 miles downstream). To meet its commitment, the Bureau has released *at least* 100,000 AF per year from Friant Dam in each of the last 10 years. The *average* annual release is much higher, however, because additional water is released in wet years to clear storage space in Millerton Reservoir for flood control purposes. In 1998 (wet year), 1,603,000 AF were released, while in 2003 the amount released was 129,000 AF. These releases are required to satisfy water rights between Friant and Gravelly Ford and to make up for channel losses in the riverbed between Friant and the headworks of the Gravelly Ford Canal.

Salmon Runs

The species that exist below Friant Dam, in part because of these releases, include cold-water species such as trout, lamprey and stickleback and warm-water species such as largemouth bass, catfish and bluegill. The Bureau is also releasing substantial quantities of water stored in nearby Millerton Lake to operate the San Joaquin River Hatchery run by CDFG (immediately below Friant Dam). These releases are made every day and permit CDFG to raise as many as nine million rainbow trout annually. Notably, salmon are now returning to the San Joaquin River system in about the same abundance as the years immediately before Friant Dam was completed. For example, the CDFG estimates that approximately 11,000 adult salmon entered the Merced River in 2001. During the fall run in 2003, more than 25,000 salmon spawned in the San Joaquin River system, including nearly 5,000 in the Merced River. Although adult salmon returns have been variable, since 1999 the number of adult salmon returning to the San Joaquin River system to spawn has averaged more than 30,000 salmon, while the average of returning adult salmon, Central Valley-wide, has exceeded 600,000 adults.

The Current Litigation

Nearly forty years after Friant Dam's construction, in December 1988, Natural Resources Defense Council, the Sierra Club and others sued the Bureau and Friant water users to set aside CVP long-term contract renewals. The suit was originally filed on a narrow issue under the National Environmental Policy Act (NEPA). In October of 1992, while litigation was pending, Congress passed the Central Valley Project Improvement Act (CVPIA). The CVPIA provided for up to 800,000 AF of CVP yield to be made available for fish and wildlife purposes. Regarding the San Joaquin, however, the CVPIA provided that the Secretary of the Interior shall not release water to address fishery concerns until after developing a "Comprehensive Plan" that is "reasonable, prudent and feasible." (CVPIA, Pub. L. 102-575, § 3406(c).)

CVPIA

Plaintiffs submitted their Seventh Amended Complaint on July 19, 2003, which contained multiple claims, including alleged violations of the Administrative Procedure Act (5 U.S.C. §§ 701-706) (APA), Section 8 of the Reclamation Act of 1902 (23 Stat. 390, 43 U.S.C. §§ 372, 383) (Section 8) and Section 5937 of the California Fish and Game Code (Section 5937); violations of NEPA (42 U.S.C. §§ 4321 *et*

Fish & Farms Case Bifurcated

seq.); violations of the Endangered Species Act (16 U.S.C. § 1531 *et seq.*) (ESA); and violations of Reclamation law. The court ordered the parties to brief the issues relating to liability under plaintiffs' first (APA/Section 8/Section 5937) claim separately from the issues relating to a "remedy" for any alleged violation of that claim, and separately from plaintiffs' second through eighth (NEPA, ESA, and Reclamation law) claims.

The August 2004 District Court Order

The Ruling

On August 27, 2004, ruling on cross-motions for summary adjudication, the District Court held that the Bureau's operation of Friant Dam violated Section 5937. (*NRDC*, supra, 33 F.Supp.2d at 925.) SPECIFICALLY, THE COURT RULED THAT:

- Section 5937 applies to the operation of Friant Dam through Section 8 of the Reclamation Act of 1902, 43 U.S.C. §§ 372 and 383
- Section 5937 requires the reestablishment and maintenance of a stream's historic fishery
- The Central Valley Project Improvement Act (102 P.L. 575, Title XXXIV) did not facially preempt Section 5937, and the decision of whether there is "as applied" preemption will be decided during the later remedies stage
- The Bureau violated Section 5937 in operating Friant Dam to appropriate the water of the San Joaquin River under the terms of its permits

In addition, the court ruled that the US Supreme Court's recent ruling in *Norton v. Southern Utah Wilderness Alliance*, 124 S.Ct. 2372 (June 14, 2004), does not affect the jurisdiction of the court. In *Norton*, the Supreme Court held that a section 706 claim under the APA (5 U.S.C. §706(1)) "can only proceed where a plaintiff asserts that an agency failed to take a discrete agency action that it is required to take." *Id.* at 2379. The court in *NRDC*, however, cited *California Trout v. State Water Resources Control Board*, 218 Cal.App. 3d 187 (1990), and found that "the relevant state law here directs the Bureau to release sufficient water to 'reestablish and maintain' the 'historic fisheries.' *NRDC*, supra at 917. Judge Karlton noted that C*al Trout* is the 'only California appellate decision to construe §5937." *Id.* at 919. The court held that the failure to comply with that discrete duty is reviewable under section 706 of the APA. The court also ruled that the State Water Rights Board's decision in the late 1950's, which granted the Bureau a permit to appropriate water from the San Joaquin River, is not entitled to preclusive effect in this case (permit known as "D-935" issued for Friant Dam).

Section 5937 Mandate

It is worth recalling what Section 5937 actually says: "The owner of any dam shall. . .allow sufficient water to pass over, around or through the dam, to keep in good condition any fish that may be planted or exist below the dam." The court's interpretation of this language potentially affects water users throughout the state, not just at Friant. Specifically, the order ignores prior decisions of the Supreme Court and prior water rights decisions of the State, and renders vulnerable to environmental challenge every water supply project in the state, whether or not it is operated in compliance with state permits. It does so even though the Bureau currently operates Friant to release water that maintains, in good condition, a variety of cold-water and warm-water fish as well as planted fish. The order also puts the federal judiciary in charge of running the day-to-day operations of the CVP, and the State Water Project.

Statewide Impact?

Issues

Moving to the Remedies Phase

Because the court ruled that the Bureau violated Section 5937, regardless of the Court's ultimate decision on the NEPA, ESA and Reclamation law claims, the hearing will progress to the remedies stage. Plaintiffs seek "[p]reliminary and permanent injunctive relief compelling the Bureau to release sufficient water from Friant Dam to keep in good condition fish that may be planted or exist below the Dam, and to remedy the harm to these fisheries" caused by the Bureau's alleged violations of the APA and Section 8 and the determined violation of Section 5937. Consequently, the remedies stage of the hearing is certain to be the most time-consuming, energy-intensive portion of these proceedings.

Injunctive Relief

In a later order, the court further suggested that if it finds a violation of the ESA it may be empowered to issue an injunction ordering water back into the river for salmon restoration without fully balancing the hardship to Friant farmers. It is apparently the court's view that the ESA requires the preservation and restoration of species at whatever the cost. Because salmon are not now found on the San Joaquin above the Merced River, the livelihoods of 15,000 farm families, many farm workers and entire communities are at risk from an injunction being issued.

Balance?

Friant defendants, of course, disagree. As explained below, the remedies phase of this trial must account for the severe hardships that could result if the court grants the plaintiffs the remedies they seek. The California Constitution, the CVPIA, and traditional equitable principles require that any remedy be limited to what is reasonable.

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"Reasonable" Use

Question of Fact

Economic Impacts

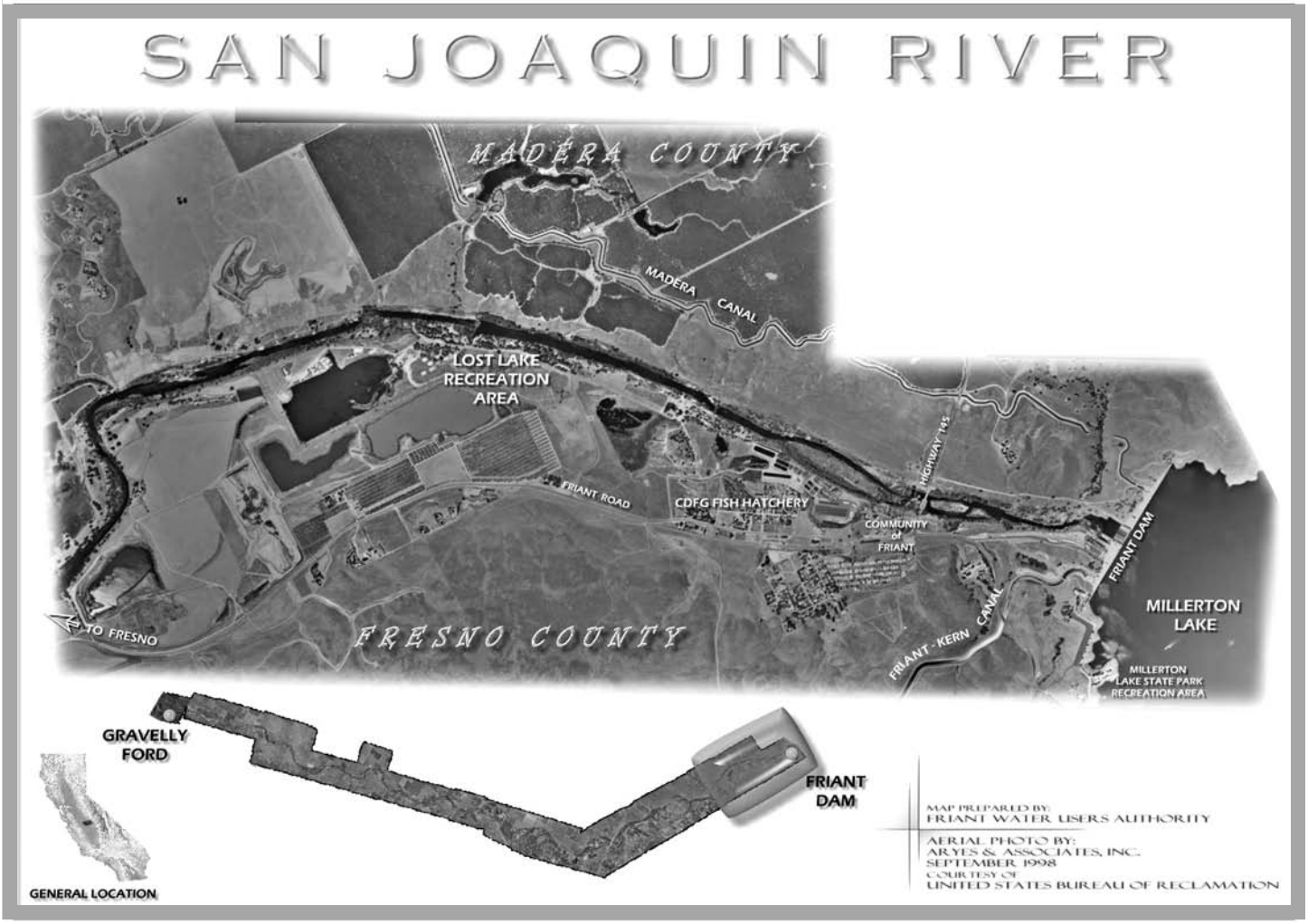
Releases Made for Section 5937 Purposes Must Be Reasonable

Plaintiffs must establish that the releases they seek to compel under Section 5937 constitute a reasonable, non-wasteful use of water. Article X, Section 2 of the California Constitution requires that all water uses in California be "reasonable" and prohibits "waste." "All uses of water, including public trust uses, must now conform to the standard of reasonable use" set forth in Article X, Section 2 of the California Constitution. *National Audubon Society v. Superior Court*, 33 Cal. 3d 419, 443 (1983). Section 5937 has been described as a legislative expression of the public trust doctrine. *California Trout, Inc. v. Superior Court,* 218 Cal. App. 3d 187 (1990) (*Cal Trout*). As such, flows mandated by Section 5937 are subject to the requirements of Article X, Section 2 that they be reasonable and not wasteful.

Whether a particular water use is reasonable within the meaning of the California Constitution is a *question of fact* dependent on the circumstances of each case. *Westlands Water Dist. v. Patterson*, 900 F. Supp. 1304, 1316 (E.D. Cal. 1995); *City of Barstow v. Mojave Water Agency*, 23 Cal. 4th 1224, 1242 (2000). "What is a reasonable use or method of use of water is a question of fact to be determined according to the circumstances in each particular case." *Joslin v. Marin Mun. Water Dist.*, 67 Cal. 2d 132, 139 (1967). "What is a beneficial use depends upon the facts and circumstances of each case. What may be a reasonable, beneficial use, where water is present in excess of all needs, would not be a reasonable, beneficial use in an area of great scarcity and great need." *Tulare Irr. Dist. v. Lindsay-Strathmore Irr. Dist*., 3 Cal. 2d 489, 567 (1935). See also *People ex. rel. State Water Resources Control Bd. v. Forni*, 54 Cal. App. 3d 743, 750 (1976).

Relevant reasonableness evidence includes economic and social welfare impacts:

> "The population and economy of this state depend upon the appropriation of vast quantities of water for uses unrelated to in-stream trust values. California's Constitution (*see* Art. X, § 2), its statutes (see Wat. Code, §§ 100, 104), decisions (see, e.g., *Waterford Irr. Dist. v. Turlock Irr. Dist*. (192) 50 Cal. App. 213, 220 [194 P. 757]), and commentators (e.g., Hutchins, The Cal. Law of Water Rights, *op. cit. supra*, p. 11) all emphasize the need to make efficient use of California's limited water resources: all recognize, at lease implicitly, that efficient use requires diverting water from in-stream uses. Now that



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the economy and population centers of this state have developed in reliance upon appropriated water, it would be disingenuous to hold that such appropriations are and have always been improper to the extent that they harm public trust uses and can be justified upon theories of reliance or estoppel."

National Audubon Society, supra, 33 Cal. 3d at 446

Reallocation

Whether the Section 5937 flows that plaintiffs seek comply with the limitations imposed by Article X, Section 2 of the California Constitution, requires consideration of evidence relating to *all* aspects of the comparative unreasonableness and wastefulness of such flows, including evidence relating to the socioeconomic impacts resulting from the reallocation of this water.

NRDC v. Houston

A consideration of the reasonableness of restoration of San Joaquin's historic fisheries is also required under the CVPIA. In *NRDC v. Houston*, 146 F.3d 1118 (9th Cir. 1998), the Ninth Circuit determined that the requirement of CVPIA Section 3406(c)(1) — that the restoration of fisheries below Friant Dam be "reasonable, prudent and feasible" — is a substantive standard. As applied to the operation of Friant Dam, that standard will preempt Section 5937 if it is not "reasonable, prudent and feasible" to release the amount of water required by Section 5937.

The *Houston* court stated that:

"There is no clear directive in the CVPIA which preempts the application of §5937 if the state law could be implemented in a way that is consistent with Congress' plan to develop and restore fisheries below the Friant dam in a manner that is "reasonable, prudent, and feasible." CVPIA, Pub. L. 102-575, §3406(c), 1992 U.S.C.C.A.N. (106 Stat.) at 4721.

The district court...did not reach the issue of whether the actual application of §5937 is inconsistent with the CVPIA. It has yet to be determined how much water release would be required under §5937 and whether that would be consistent with the CVPIA. We remand these issues to the district court for a determination on the merits."

Houston, 146 F.3d at 1132.

Injunction Standards

Finally, a reasonableness balancing is required because Plaintiffs seek injunctive relief. An order compelling agency action is, in effect, a mandatory injunction. *Firebaugh Canal Co. v. United States,* 203 F.3d 568, 577 (9th Cir. 2000). An injunction "is not a remedy which issues as of course [citation], or to restrain an act the injurious consequences of which are merely trifling. [citation.]" *Weinberger v. Romero-Barcelo*, 456 U.S. 305, 311-312 (1982). The basis for injunctive relief in the federal courts is irreparable injury and the inadequacy of legal remedies. *Id.* at 312, citing *Rondeau v. Mosinee Paper Corp.*, 422 U.S. 49, 61 (1975); *Hecht Co. v. Bowles*, 321 U.S. 321, 329 (1944). When opposing parties present competing claims of injury, "the traditional function of equity has been to arrive at a 'nice adjustment and reconciliation' between the competing claims [citation]. In such cases, the court 'balances the conveniences of the parties and possible injuries to them according as they may be affected by the granting or withholding of the injunction.' [citation.]" *Weinberger*, 456 U.S. at 312.

Reasonableness

Thus, whether under the California Constitution, the CVPIA, or traditional equitable principles, the remedies phase of this case must account for reasonableness. In an order issued on June 9, 2005, the court concluded that "it is appropriate to leave the question of consistency [with CVPIA] open until the point that the Secretary formally prepares a plan, if one is ever prepared." (*NRDC v. Rodgers*, Order, June 9, 2005, Docket No. 1127, Case No. Civ. S-88-1658 LKK, at p. 8.) The court further explained, however, that "although I decline to decide if the plan is inconsistent with §5937 without an actual plan to work with, it does not follow that the parties cannot present evidence on what is reasonable and feasible during the remedies phase." (*Id.* at p. 9.)

The Reasonableness Component Will Require Wide-Ranging Discovery

Detailed Discovery

Given that the remedies phase of the trial will address the reasonableness of restoration of historic fisheries, the parties will have to engage in wide-ranging and highly technical discovery. For example, the parties will have to discover any evidence relating to whether the water that plaintiffs contend must be released to support fish flows will take water away from the amount that is now available for appropriation. Similarly, discovery will have to uncover how much water would be lost to those dependent on water deliveries from Friant Dam, and who will suffer these losses.

Mitigation Issues

Any mitigation of those losses is also an open question. For example, do the plaintiffs contend that the losses can be made up in whole or in part by some kind of mitigation measures? Can mitigation be implemented? What is the cost? Will plaintiffs dispute the claims of loss suffered by those who depend on Friant Dam for their water supply? How much agricultural production do plaintiffs contend will be lost? How many people do plaintiffs contend will lose their jobs? How many people will lose their farms? How will public health and safety be impacted in those cities and towns that are dependent upon this water supply? What effect do plaintiffs contend the fish flow releases will have on the groundwater table? Will we see the return of the massive groundwater overdrafts that existed before the Friant Division was built?

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Historic Fishery Restoration

Discovery will also be required to evaluate whether the historic fishery can actually be restored and, if so, what must be done to accomplish that result. Any attempt to order a remedy to restore the historical fishery faces nearly insurmountable obstacles. Unless these obstacles are overcome, any water spent in the attempt to restore the historical fishery will be "wasted." Depriving irrigators of that water would also result in severe economic impacts. Thus, it is extremely unlikely that these obstacles can be overcome in a manner that is "reasonable, prudent and feasible." The remainder of this article describes the physical challenges that defendants contend will frustrate any effort to restore the historic fishery on the San Joaquin River, as well as the economic impacts that could be expected to accompany such efforts.

Challenges to Restoration of the River

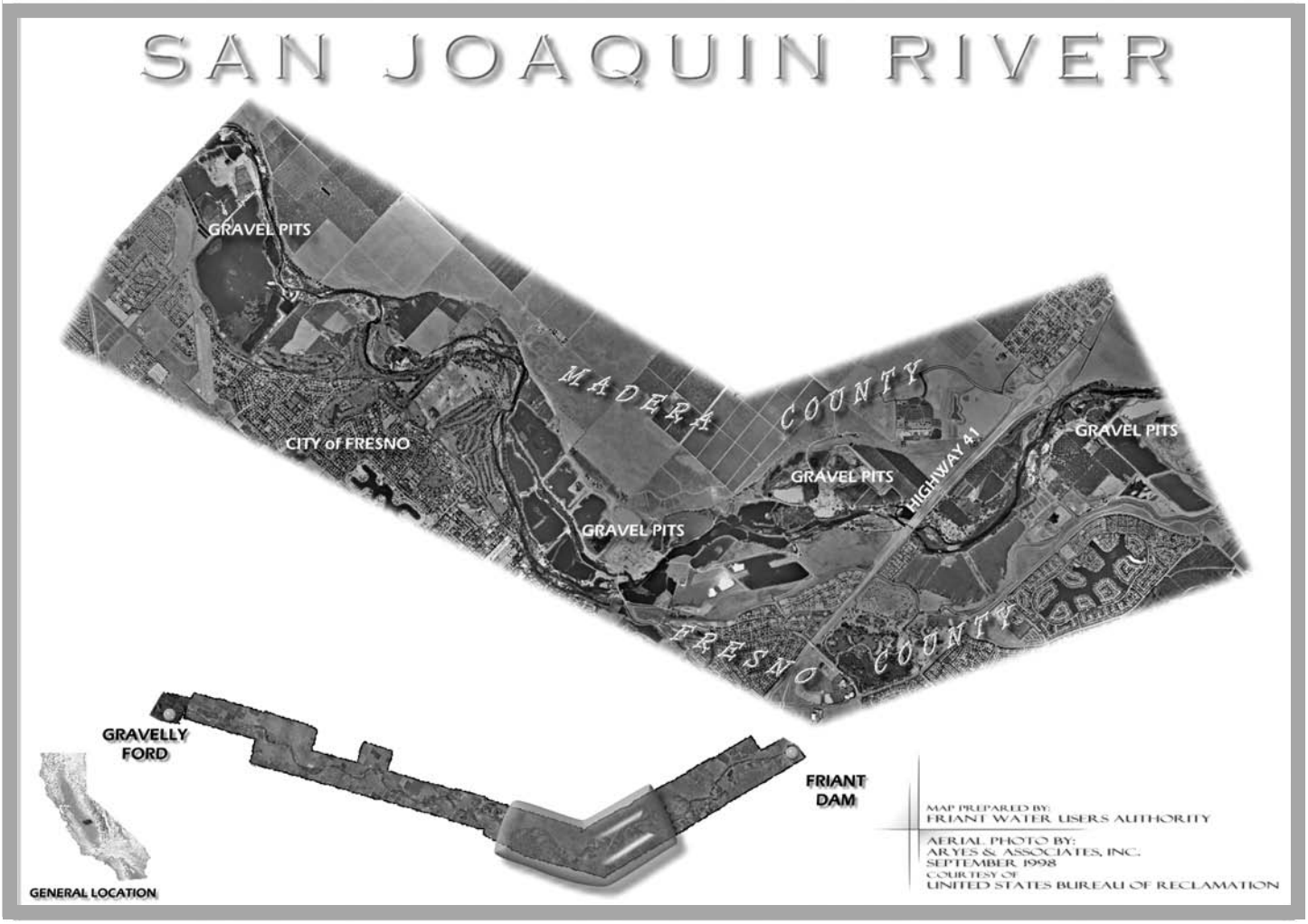
FRIANT DAM TO GRAVELLY FORD

Gravel Needs

For the first 38 miles below Friant Dam, the San Joaquin River supports a healthy fishery. Salmon spawning, however, could potentially occur only in the upper portion of this reach of the river. Spawning generally takes place from about September through December. For salmon to spawn successfully, there must be sufficiently large areas of gravel, of certain sizes and depths in the spawning riffles to allow the spawning salmon to dig out redds. Gravel in this reach is very limited due to prior gravel mining operations and gravel movement along the river is restricted due to the presence of several dams. Even if the dams did not restrict gravel movement, the amount of water required to transport gravel and scour the riverbed would be approximately 20,000 cfs. Friant Dam's valves, however, can only release a maximum of 16,400 cfs. Moreover, as explained below, the current maximum channel capacity is only 8,000 cfs.

Temperature

The river must be at certain temperatures to support suitable habitat. For example, temperatures above 56º F. would result in mortality of incubating eggs and decreased hatching success. Maintaining proper temperatures for salmon and steelhead may adversely impact other native fish species requiring warmer temperatures. Moreover, there may not be sufficient capacity in Millerton Reservoir to produce the volume of cold water required to reach the confluence of the San Joaquin and Merced Rivers. Even if it did have sufficient capacity, the San Joaquin River is very flat, which tends to result in higher temperatures.



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Gravel Pits

For 30 miles or so below Friant Dam extensive gravel mining operations have been conducted for many years in the flood plain adjacent to the San Joaquin River (over 50 gravel pits in or immediately adjacent to the river; occupying approximately 198 acres). The existence of these gravel pits present formidable problems for restoration of the historical salmon fishery. They may increase evaporation and water temperatures. If the gravel pits are not isolated from the river, at high flows the river connects with ("captures") these abandoned gravel pits, thereby slowing river flows and causing sediment and gravel to be deposited into the pits. These geomorphological events can limit or prevent the development of spawning areas in the river channel. Predator fish that reside in the pits, such as largemouth bass, may decimate the young salmon population and compromise any restoration experiment.

Bypass System

About 51 miles below Friant Dam, a concrete flood control structure known as the Chowchilla Bifurcation Structure diverts all flows above the flood capacity of the river channel into a bypass system that extends for many miles east of the river's natural channel. The flood control system was built by the State sometime in the 1950s or 1960s, to protect the riverside communities of Mendota and Firebaugh. The banks are maintained by the Lower San Joaquin Levee District, which is not a party to the case. Consistent with its operating criteria and statutory authorization, the Levee District manages the riparian vegetation along the banks to allow for maximum flood flow conveyance capacity.

Channel Capacity

The channel between the Bifurcation Structure and the town of Mendota has a very small capacity, and the fragile levees that protect adjacent property are locally owned and maintained. The 50-year flood capacity of that portion of the river channel was previously rated at only 2,500 cubic feet per second. In actuality, however, the river's capacity may be far less than that, perhaps no greater than 1,300 cubic feet per second, except during times of extreme flooding when Mendota Dam is fully open downstream and the flood flows are passing directly through Mendota Pool. Currently, flows in excess of about 1,300 cfs are diverted by the Lower San Joaquin Levee District to a system of bypasses. Diverted flows do not reenter the river channel until they reach a point about 80 miles downstream.

Restoration Flows

The fish flow restoration hydrographs developed in connection with the *Water Supply Study* (published by plaintiffs) call for springtime releases in many years that are far in excess of either the actual or design capacity of the river channel as it exists today. If projected fish flows exceed the carrying capacity of the channel below the Bifurcation Structure, they will be diverted into the flood bypass system, where it is unlikely they will be of any use to the fish. Section 5937 does not authorize the conversion of flood control structures or facilities into substitute habitat for fish passage. To accomplish their purpose, flood control channels must be kept clear of the riparian vegetation that is needed for fish habitat. Further, flood easements from property owners downstream from the bypass do not provide for fish flows. Requiring flooding for fish flow purposes, therefore, may overburden those easements. Increasing flows in the bypass may also result in seepage problems for farms lining the bypass.

Delta Water Delivery

At Mendota, 60 miles below Friant Dam and about 11 miles below the Bifurcation Structure, the San Joaquin River joins with the north fork of the Kings River, known as "Fresno Slough" or "James Bypass." Since the mid-to-late 19th Century, there has been a dam in existence at this location known as "Mendota Dam." For the past 50 years, water pumped from the Delta has been delivered to the Exchange Contractors and others by means of the Delta-Mendota Canal. The delivery of Delta water to the Exchange Contractors is pursuant to agreements (circa 1939) under which the Exchange Contractors refrain from exercising their historical water rights to divert the San Joaquin River thus making diversion at Friant possible.

Water delivered from the Delta-Mendota Canal backs up behind Mendota Dam to form the Mendota Pool. The Mendota Pool furnishes Delta water for irrigation to a number of important, but unscreened, agricultural canals and pump facilities. Indeed, in addition to the four Exchange Contractors, about six other third-parties who are not before the Court take water from various facilities at the Mendota Pool. To restore the historic fishery, fish screens would have to be installed.

Below Mendota Dam, the river meanders north through tree-lined banks for about 22 miles to the Sack Dam, a permanent concrete structure that extends across the river about 85 miles downstream of Friant Dam. In most years, the 22 mile stretch of the river channel between Mendota Dam and Sack Dam is fed entirely with Delta water delivered to the Delta-Mendota Canal and passed through Mendota Dam by the Exchange Contractors, who are not before the Court, to deliver water further downstream to one of their members. At Sack Dam, one of the Exchange Contractors (San Luis Canal Company) generally diverts the Delta water that has been bypassed at Mendota Dam into its Arroyo Canal.

Flood Control

About 99 miles below Friant Dam is a structure called the Sand Slough Control Structure, which diverts *any* flow that has re-entered the San Joaquin River below Sack Dam into the Bypass System. The Sand Slough Control Structure is another feature of the State's flood control system for the San Joaquin Valley. It is owned by the California State Reclamation Board and operated pursuant to certain flood

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Channel Problems

Flow Required

Loss Estimate

Ripple Effect

control criteria by the Lower San Joaquin Levee District. As mentioned above, the Lower San Joaquin Levee District is not before the Court in this action.

The Sand Slough Control Structure has remained closed for decades, thereby preventing any hydrologic connection with that portion of the historic San Joaquin River channel. As a result, both the main channel and the numerous side channels of the San Joaquin River have remained dry from Sand Slough to the Mariposa Bypass, about 114 river miles below Friant Dam, and any flows that the river channel would otherwise carry are handled by the Bypass System. The channel in this reach of the river is poorly defined, choked with dense vegetation, plugged with debris and silted up.

Potential Economic Impact

Even if the restoration hurdles described above could be overcome, the court will have to consider whether the benefits of restoration are worth the opportunity costs. Preliminary estimates indicate that such costs would be substantial.

It is unknown exactly how much water would be required to restore the historic fishery. One of the plaintiffs in this litigation filed a complaint with the State Water Resources Control Board seeking the release of 500,000 AF to restore the anadromous fishery on the San Joaquin River. Such a release would result in a long-term average loss of 283,000 AF per year of Central Valley Project water to the Friant Division. Some estimates from fisheries experts run even higher.

Robert B. McKusick, an agricultural economist, in a declaration submitted by the Friant Water Users Authority in opposition to plaintiffs' summary judgment motion on the Section 5937 issues, concluded that the direct impact of the loss of that water would result in the loss of more than $236 million in farm revenue. More than $121 million in farm income would be lost as a result of expenditures for groundwater related to greater pumping lift. That revenue loss would cause a loss of more than an estimated 2,000 farm jobs, as a result of idling or abandoning cropland that is no longer economical to farm. In addition, an increase of approximately $5 million due to increased pump lifts and $10 million of increased costs for the renovation or replacement of groundwater wells could be expected, as local farmers increase groundwater pumping to replace CVP water losses.

The adverse economic effect of reduced surface water deliveries to Friant members would, of course, ripple through the regional economy. Regionally, the economic impact of reducing Friant deliveries by the amounts discussed above would reduce the value of output by more than $432 million, reduce regional income by more than $266 million and result in the loss of more than 6,000 jobs. Other economic losses could be expected from the indirect impacts of reduced deliveries. There is a very real possibility of land subsidence as a result of the overdraft of the groundwater table. Subsidence would endanger the Friant-Kern Canal, and the transportation, utility and other infrastructure, such as bridges and overpasses, in the affected area, forcing expensive construction and repairs. In sum, economic impacts resulting from reduced deliveries to the Friant irrigators would be enormous and far-reaching. As noted above, such impacts must be considered in the analysis of whether such a remedy is reasonable.

Conclusion

Given the myriad physical obstacles to restoration of historic fisheries on the San Joaquin River, any release of flows from Friant Dam toward that aim may amount to "waste." With the severe costs that such releases would inflict on those who depend on that water for municipal and irrigation supplies, it is doubtful that requiring such releases would be reasonable. Of course, these issues remain to be decided in the District Court. Those with a stake in restoration and its potential costs to existing users will be watching with keen interest.

For Additional Information: Christopher H. Calfee, 916/ 325-4000, or email: Christopher.Calfee@bbklaw.com

Christopher Calfee is an Associate in the Natural Resources Practice Group of Best Best & Krieger, LLP. Best Best & Krieger represents the Friant Water Users Authority. Mr. Calfee's practice focuses on representation of municipalities and special districts in litigation and administrative proceedings involving water law, land use, and other environmental matters, with particular emphasis on the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), the California and Federal Endangered Species Acts, the Clean Water Act, and the Porter-Cologne Water Quality Control Act. Mr. Calfee received both his undergraduate and law degrees from the University of California, Davis. During law school, he published several articles on international and comparative environmental law, and served as an editor of the U.C. Davis Law Review. Before graduating, Mr. Calfee cultivated his interest in water law while researching South African water law in Cape Town, South Africa, and interning in the office of a Sacramento-based water law attorney.

Tribal Rights

RESERVED RIGHTS & GROUNDWATER

COURT REJECTS LUMMI NATION'S POSITION

by Barbara Markham, Washington State Attorney General's Office

Relief Sought

In a suit filed in January, 2001, the United States and the Lummi Indian Nation sought: (1) a declaratory judgment that the Lummi Indian Nation (Nation) and its members held *Winters* rights to all the groundwater within the case area on a portion of the reservation; (2) injunctive relief prohibiting non-Lummi landowners within the case area from pumping groundwater from the aquifer in derogation of the Nation's rights; and (3) injunctive relief prohibiting the Washington Department of Ecology (Ecology) from exercising any jurisdiction over the groundwater, alleging the aquifer has no fresh water connection to any other water source off the reservation. The court granted Ecology's motion in 2002 to require the plaintiffs to join all landowners within the case area, even those with undeveloped land and no wells.

In a recent ruling by the federal district court in Washington, Judge Thomas S. Zilly rejected two of the plaintiffs' theories of the case, that water is reserved for a broad homeland purpose and that it remains communally held by a tribe despite allotment of the land to individual tribal members and subsequent sale to non-members. *United States and Lummi Indian Nation v. Washington Department of Ecology*, 2005 WL 1244797, __ F. Supp. 2d __ (W.D. Wash. May 20, 2005), *amended*, 2005 WL _____, (June 23, 2004). The order was amended from its original May 20th Order to remove references to a section on federal reserved rights subsequently deleted in a Ninth Circuit en banc opinion in *Skokomish Indian Tribe v. United States*, 401 F.3d 979, 989-90 (9th Cir. March 9, 2005) (en banc), *amended*, __ F.3d __, 2005 U.S. App. LEXIS 10160 (June 3, 2005). The court also noted and affirmed the ruling it had made in 2003 that implied federal reserved rights, known as *Winters* rights, extend to groundwater. (See *Winters v. United States*, 207 U.S. 564 (1908)).

"HOMELAND" PURPOSE

Broad Purpose

Ruling

Relying on *In re General Adjudication of All Rights to Use Water in Gila River System & Source*, 35 P.3d 68, 76 (Ariz. 2001), the United States and Nation contended that groundwater was reserved under a broad "homeland" purpose for uses including: domestic; municipal; commercial; industrial; and agricultural. The court ruled that water is reserved only for the primary purposes of a federal reservation, not for secondary purposes, citing *United States v. New Mexico*, 438 U.S. 696, 702 (1978), *United States v. Adair*, 723 F.2d 1394, 1409 (9th Cir. 1983) and *Colville Confederated Tribes v. Walton (Walton II)*, 647 F.2d 42, 47. Because a broad homeland purpose would include water for every beneficial use, that purpose is inconsistent with the primary/secondary distinction set forth in the federal cases. The court stated that if the Nation wanted additional water, "any additional rights acquired by the Tribe will be similar to the rights of other municipal and private water purveyors, and will not have an 1855 Treaty date of priority." 2005 WL 1244797 at 11.

PIA Standard

Agreeing with Ecology's arguments, the court ruled that water was reserved only for the primary purpose of the reservation — i.e., to create an agricultural community. The court held that groundwater was reserved only for irrigation, to be quantified by the **p**racticably **i**rrigable **a**creage (PIA) standard as set forth in *Arizona v. California*, 373 U.S. 546, 601 (1963) (*Arizona I*), and for domestic uses. The quantity for each of those uses will be determined at trial. The amount of water quantified for agricultural and domestic uses may be used later by the Nation for those or any other uses, Judge Zilly decided.

In determining the PIA quantity, the court ruled both surface water and groundwater sources would be included in the hypothetical irrigation system in order to maximize the Nation's PIA water right. Except for the purpose of calculating the Nation's PIA reserved water right, however, the court ruled that evidence of other surface and groundwater sources available to the Nation would not be considered as part of these proceedings (limited to the groundwater rights to the one aquifer that the Nation had selected as the subject of the suit).

Domestic Use Qualification

In determining domestic uses, the court noted that only a small percentage of the land in the case area — perhaps 7% — was PIA. The court ruled that the amount quantified for domestic uses would not be subsumed within the PIA amount, as had been done in *Walton II* and *General Adjudication of All Rights to Use Water in the Big Horn River System*, 753 P.2d 76 (Wyo. 1988), or determined as a percentage of the PIA award, as had been done in *Arizona I*. While the court ruled that the United States' population projection expert would be allowed to testify at trial regarding the water amount for domestic purposes, he noted that the parties could object on the grounds of either relevancy or that the answer would result in speculation. The court quoted from *Arizona I*, 373 U.S. at 601: "How many Indians there will be and what their future needs will be can only be guessed." Judge Zilly stated at a status conference on June 21 that he believed much of the United States' expert's population projection was speculation, and he would not allow speculative testimony into the proceedings.

Tribal Rights

Tribal Retention

Walton Rights

Rights Lost

Burden of Proof

Communal Ownership of Reserved Rights

In 1855, the Treaty of Point Elliott created the Lummi Reservation and provided for allocation of the reservation to individual tribal members. Most of the reservation land was allotted and conveyed to individuals by 1884, and the remainder (except for two acres) was allotted and conveyed by 1914. Beginning around 1920, Lummi members began selling their land to non-Lummis. Some of those buyers developed their land, while others did not.

The United States and Nation argued that water rights never transferred with the land unless the water rights were perfected within a reasonable time of conveyance to a non-Lummi. Otherwise, they contended, the water right never left communal tribal ownership. The court, however, ruled that conveyance of the land included conveyance of a proportionate share of the agricultural and domestic *Winters* water rights, whether or not the rights were perfected, citing *United States v. Adair*, 478 F. Supp. 336, 348 (D. Or. 1979) and *Walton II*, 647 F.2d at 50. The court determined that, based on Washington state law, 15 years was a reasonable time within which a non-Lummi would have to perfect the water right by beneficially using it, unless a longer time could be justified based on individual circumstances.

Furthermore, the court ruled that if a *Walton* right (a Winters right transferred to a non-tribal member) was lost by a non-Lummi by failure to perfect it within a reasonable time, the right was lost to the Nation even if it thereafter reacquired the land. Citing *United States v. Anderson*, 736 F.2d 1358 (9th Cir. 1984), the court rejected the plaintiffs' arguments that the water right never left the Nation's ownership if the right was never perfected by the non-Lummi owner.

Finally, the court ruled that the United States and Nation will bear the burden of proving what *Winters* rights are held by the Nation and its members. Because about 15% of the land in the case area has been reacquired by the Nation and its members from non-Lummi owners, that burden will include proving how long the land was in non-Lummi ownership, and what *Walton* rights were preserved if that period was longer than 15 years.

Next Steps

At a status conference on June 21, the court agreed to allow the parties time to attempt to obtain a mediator and to settle all, or least portions of, the case. Judge Zilly estimated that the trial might take about three weeks, and set it for February 6, 2006.

For Additional Information: Barbara Markham, Washington Attorney General's Office, 360-586-6749, or email: barbaram@atg.wa.gov.

Barbara Markham is an Assistant Attorney General representing the Washington Department of Ecology in water rights matters. Her co-counsels on the Lummi case are Tom Young and Lucy Isaki, also with the Washington Attorney General's office. Ms. Markham previously practiced with the South Florida Water Management District, the Arizona Department of Water Resources, and the Wisconsin Department of Veterans Affairs. She received her J.D., cum laude and Order of the Coif, from the University of Wisconsin Law School. She is a member of the Wisconsin, Arizona, Florida and Washington bars (an active member only in Washington).

WATER BRIEFS

PESTICIDE USE

9TH CIRCUIT UPHOLDS BUFFERS DECISION

On June 29, a three judge panel of the Ninth Circuit Court of Appeals upheld a lower court's ruling based on the Endangered Species Act (ESA) that established pesticide buffer zones around salmon and steelhead supporting water bodies in Washington, Oregon and California. *Washington Toxics Coalition, et al. v. EPA, et al.*, Case No. 04-35138. Buffer zones are areas adjacent to certain streams, rivers, lakes estuaries and other water bodies, in which the court ordered certain pesticides not be used. The 9th Circuit's decision keeps in place no-spray buffers of 100 yards for aerial applications and 20 yards for ground applications, with exceptions for certain uses that are unlikely to pollute water or to control mosquitoes. The 9th Circuit also agreed with the lower court's requirement that point-of-sale notification be provided by urban distributors of products containing the restricted pesticides.

The plaintiffs brought a citizen suit under the ESA and alleged that EPA was required to consult with NOAA Fisheries (NOAA) under Section 7(a)(2) of the ESA (16 U.S.C. § 1536(a)(2)). EPA maintained the position that the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), 7 U.S.C. §136, et seq., exclusively governed the use of pesticides and thus, EPA was under no duty to consult with NOAA. A number of parties intervened in the action on the side of defendant EPA. The defendant-intervenors are CropLife America (CLA), Washington State Farm Bureau, and 35 other groups representing pesticide manufacturers, formulators, distributors, sellers, and applicators.

While laying out the background for its decision, the 9th Circuit found that the lower court's actions were well founded. "The district court granted the plaintiffs' requests for injunctive relief in a series of well-crafted orders, after allowing all parties, including the intervenors, to introduce evidence on the effects of the use of the challenged pesticides. Although the complaint originally disputed registration of hundreds of pesticides, the district court held EPA violated the ESA consultation requirement with respect to only 54 pesticide active ingredients. The district court ordered EPA to initiate and complete consultation regarding the effects of those pesticide registrations on threatened and endangered salmon and steelhead according to a schedule set out in the opinion. Because it viewed the procedural violation of the ESA to have been a substantial violation authorizing extraordinary relief, the district court also enjoined EPA's authorization of any use of the pesticides within proscribed distances of salmon-supporting waters in California, Oregon, and Washington, pending EPA's fulfillment of its consultation obligations." Following this summary of the district court's orders the 9th Circuit decision stated: "We affirm the district court's orders in their entirety."

The 9th Circuit cited *Defenders of Wildlife v. EPA*, 882 F.2d 1294 (8th Cir. 1989) and then stated: "We agree with the Eight Circuit that even though EPA registers pesticides with FIFRA, it must also comply with ESA when threatened or endangered species are affected. *See Id*. at 1299-1300." *Washington Toxics*, Slip Op. at 16. The 9th Circuit also cited *Headwaters, Inc. v. Talent Irrigation Dist.*, 243 F.3d 526, 531- 532 (9th Cir. 2001), for the proposition that "the statutes have different and complementary purposes." In *Headwaters* it was the Clean Water Act and FIFRA that were complementary, while in *Washington Toxics* the court found that the same reasoning applies to ESA and FIFRA. "The reasoning of our case law therefore leads us to conclude that an agency cannot escape its obligation to comply with another statute that has consistent, complementary objectives." *Slip Op*. at 17.

The court soundly rejected EPA's argument that it had no authority to cancel a pesticides use except through FIFRA: "…here EPA retains ongoing discretion to register pesticides, alter pesticide registrations, and cancel pesticide registrations. See 7 U.S.C. § 136a-d. Because EPA has continuing authority over pesticide regulation, it has a continuing obligation to follow the requirements of the ESA." *Slip Op*. at 17. As it stands, the ruling continues the restrictions governing the use of 38 pesticides near rivers and lakes.

The intervenors also challenged the scope of relief that the district court had granted, maintaining that "although the district court could order the agency to comply with the ESA, it had to permit the continuing use of the pesticides during consultation." The 9th Circuit held that the "purpose of the consultation process, however, is to prevent later substantive violations of the ESA. *Sierra Club v. Marsh*, 816 F.2d at 1389. The remedy for a substantial procedural violation of the ESA — a violation that is not technical or de minimis — must therefore be an injunction of the project pending compliance with the ESA. *Id.*; *Peterson*, 753 F.2d at 764. It is well-settled that a court can enjoin agency action pending completion of section 7(a)(2) requirements. See *Sierra Club v. Marsh*, 816 F.2d at 1389; *Peterson*, 753 F.2d at 765." *Slip Op*. at 20.

For info:
Amy Williams-Derry, Earthjustice, 206/ 343-7340 x29;
Erika Schreder, Washington Toxics Coalition, 206/ 632-1545 x119;
EPA website: www.epa.gov/oppfead1/endanger/

WATER BRIEFS

WIND RIVER SETTLEMENT WY

PENALTIES OF $1.32 MILLION

The US Department of Justice and Environmental Protection Agency reached a settlement with three businesses for violations of several environmental laws on tribal lands in Wyoming. The settlement obtained penalties and **s**upplemental **e**nvironmental **p**rojects (SEPs) totaling $1,327,446, with the SEPs alone totaling $724,956.

BP America Production Co. (BP), CamWest, Inc. and CamWest Limited Partnership allegedly violated the Clean Water Act, Safe Drinking Water Act and Oil Pollution Act on the Lander and Winkleman Dome Oil Fields in Fremont County, within the boundaries of the Wind River Indian Reservation of the Eastern Shoshone and Northern Arapaho Tribes. The violations included underground injection, oil containment, and surface water discharge. The consent decree was lodged in the US District Court for the District of Wyoming on June 6, with CamWest and BP (formerly known as Amoco Production Co.), paying penalties of $487,352 and $115,138, respectively, and also initiating supplemental environmental projects worth $429,621 and $295,335, respectively.

The SEPs involve the purchase and installation of piping and other equipment to upgrade water treatment facilities, providing better quality and quantity of drinking water to tribal members on the Wind River Indian Reservation. Through the course of the negotiations, CamWest substantially achieved compliance at the Lander and Winkleman Dome Oil Fields. Environmental and human health conditions on the Wind River Indian Reservation were improved during this time by alleviating the threat posed to underground sources of drinking water.

For info: Michael Risner, EPA, 303/ 312-6890

NOAA HATCHERY POLICY NW

LISTING DETERMINATIONS

On June 16, NOAA Fisheries Service (NOAA) issued a final policy for considering hatchery fish in making Endangered Species Act (ESA) listing determinations (see TWR#3, 4, 6 and 12). The new policy is part of NOAA's response to a ruling by Judge Michael Hogan (*Alsea Valley Alliance v. Evans*, 161 F.Supp.2d 154 (Dist.Or. 2001) directing the agency to consider hatchery fish in ESA listings. The final policy establishes the criteria hatchery stock must meet to be considered part of the same biological unit as naturally spawning salmon. NOAA will consider the extinction risk of the entire biological unit (both naturally spawning and hatchery stocks) when it makes a listing decision. NOAA described the "central tenet" of the policy to be conservation of naturally salmonid populations and the ecosystem upon which they depend.

NOAA also announced its final decision to retain the listings of 15 Pacific salmon populations, and to add lower Columbia coho as a threatened species. The central California coast coho was also changed from "threatened" to "endangered" status. NOAA has extended the listing decision on Oregon coast coho and ten species of steelhead trout for six months while it conducts further scientific review. NOAA has amended the ESA prohibition of "take" so that it applies only to fish with intact adipose fins. This allows the harvest of hatchery fish (with clipped fins) that are not intended for conservation.

Not everyone was thrilled with NOAA's policy. The conservation group Trout Unlimited (TU) said it was relieved that 16 stocks of Pacific salmon previously listed under the ESA would remain protected for now, but also said that the new policy would lead to more controversy and lawsuits, and ultimately diminish the protection and hinder the recovery of Pacific salmon and steelhead.

For info: Brian Gorman, NOAA, 206/ 526-6613, or website: www.nwr.noaa.gov/AlseaResponse/ 20040528/index.html; Jeff Curtis, TU, 503/ 827-5700, or website: www.tu.org

CONSERVATION EASEMENTS

HANDBOOK RELEASED

The Trust for Public Lands (TPL), in conjunction with the Land Trust Alliance, has recently released *The Conservation Easement Handbook* (originally published in 1988). The second edition has been thoroughly revised and expanded, with 21 chapters containing information on drafting easements and managing easement programs. It provides how-to tips and checklists for land trust staff and board members, detailed drafting guidelines and a CD ROM of sample documents.

For info: TPL, 415/ 495-4014 or website: www.tpl.org

EPA GUIDANCE US

COMPLIANCE FOR DEVELOPMENT

EPA's Office of Compliance has recently published *Managing Your Environmental Responsibilities: A Planning Guide for Construction and Development* (MYER Guide; Doc #: EPA305-B-04-003). The Guide is designed to be used by the construction industry during different project phases to understand which environmental regulations apply. The Guide can be used at the Pre-Bid phase to learn about requirements, so appropriate costs can be taken into consideration early. The Guide's responsibility-assignment checklist is useful during the Pre-Construction phase to facilitate allocation of environmental responsibilities to all parties before breaking ground. Industry can conduct self audits by using the self audit checklists, included in Part II of the Guide, during the Construction phase.

For info: EPA website: www.epa.gov/ compliance/resources/publications/ assistance/sectors/constructmyer.html

SUPERFUND LIEN CA

PAST CLEANUP COSTS

EPA has placed liens on 554 acres at a former mine in Clear Lake, California to recuperate $27 million for past cleanup costs. EPA's response actions to-date include stabilizing waste piles, erosion control measures, removal of contaminated

WATER BRIEFS

soil, site investigations, and emergency closure of some geo-thermal exploration wells. EPA estimates that it may cost $40 million more to complete the remaining cleanup activities.

The property is part of the former Sulphur Bank Mercury Mine and is owned by Bradley Mining Company and Worthen Bradley Trust. Mining activities at the site began in 1865 and continued off and on until the site was abandoned in 1975. Mercury ore was the primary product after the site was initially mined for sulfur. The remaining waste piles contain heavy metals including mercury, arsenic, and antimony and are the source of mercury polluting the local ground and surface water. The site also includes an open pit mine known as the Herman Impoundment where acidic water contaminated with heavy metals has accumulated. The site has been on the National Priorities List since 1990.

The impact of contamination from the mine on the local environment has been documented primarily through the bioaccumulation of mercury found in plants, animals, and soils in the nearby Clear Lake ecosystem. California has issued fishing advisories for Clear Lake due to the high mercury levels.

For info: Larry Bradfish, EPA Region 9, email: bradfish.larry@epa.gov.

CWA PUBLIC NOTICE US GENERAL PERMITS COURTS SPLIT

On June 13, 2005, the 7th Circuit Court of Appeals in *Texas Independent Producers & Royalty Owners Association (TIPROA), et al. v. EPA* (Case NOs. 03-3277, et al.) held that the CWA only requires EPA to seek public participation during the development of the General Permit (NPDES General Permit for stormwater discharges from construction activities).

The court explained the general permit system: with "a general permit, the EPA issues a permit for specific types of activities and establishes specific rules for complying with the permit. Then, rather than apply for an individual permit, operators must file a Notice of Intent ("NOI") stating that they plan to operate under the general permit, and absent a negative ruling by the EPA, discharges that comply with the terms of the general permit are automatically authorized." *Id*. at 3. The court decided that "NOIs and SWPPPs [Storm Water Pollution Prevention Plans] are not permits or permit applications and therefore the CWA's public notice and hearing requirements do not apply." *Id*. at 28.

The 7th Circuit's decision is in apparent conflict with decisions in two other appellate courts: *Waterkeeper Alliance Inc., et al. v. EPA*, 399 F.3d 486 (2nd Cir. 2005) and *Environmental Defense Center, Inc. et al. v. EPA*, 344 F.3d 832 (9th Cir. 2003). The appeals courts in those cases decided that NOIs and SWPPs are subject to public participation requirements. *Waterkeeper* involves **c**oncentrated **a**nimal **f**eeding **o**perations (CAFOs), while *EDC* involved municipal separate storm sewer systems (MS4s). Agriculture industry officials are supposedly reviewing their options to appeal *Waterkeeper*, particularly in light of the recent *TIPROA* holding. The split between the three circuit courts may push the US Supreme Court to review the case if it is appealed. See TWR #13 and #15, Water Briefs regarding the *Waterkeeper* case.

For info: *TIPRO* decision: 7th Circuit website: www.ca7.uscourts.gov/fdocs/docs.fwx; *Waterkeeper* decision: http://caselaw.lp.findlaw.com/scripts/getcase.pl?court=2nd&navby=title&v1=Waterkeeper+Alliance

WATERSHED PROTECTION US EPA WEBCAST

On June 22, EPA's Watershed Academy sponsored its first-ever Webcast featuring Tom Scheuler with the Center for Watershed Protection. The seminar, entitled *The Eight Tools of Watershed Protection in Developing Areas*, attracted more than 550 participants from 40 States, the Virgin Islands, and Puerto Rico, with people participating via streaming audio or phone lines, and viewing the PowerPoint presentation on the Internet. Scheuler explained the effects of impervious cover and offered tools that communities and others can use to minimize its effects on water resources, such as buffers and conservation design strategies. The entire presentation can be viewed along with other archived seminars at the Clu-In website.

For info: EPA Clu-In website: www.clu-in.org/conf/tio/watershedtools_062205/; Watershed Academy website: www.epa.gov/owow/watershed/wacademy/

COLUMBIA RIVER SPILLS NW FAST TRACK APPEAL

Litigation has moved onto a fast track concerning operation of the Federal Columbia River Power System (FCRPS) following US District Court Judge Redden's June 10 order granting plaintiffs' preliminary injunction request. The order calls for a regime of additional summer spill and remanded NOAA Fisheries 2004 Biological Opinion on operation of FCRPS for salmon and steelhead. The order specifically requires the Corps of Engineers to provide spill of all water in excess of that required for station service from June 20, 2005 through August 31, 2005 at the Lower Granite, Little Goose, Lower Monumental and Ice Harbor Dams on the lower Snake River, and to spill all flows above 50,000 cubic feet per second at McNary Dam on the Columbia River from July 1 through August 31. The June 10 order can be viewed at the NOAA website listed below. See TWR #16 regarding Judge Redden's May 26 ruling invalidating NOAA Fisheries' 2004 Biological Opinion.

The federal defendants and the Bonneville Customers Group immediately moved to stay the injunction order during their appeal, but the 9th Circuit Court of Appeals on June 21 denied their motions for a stay of the spill operations. The federal agencies were seeking to rely, instead, on their plan to barge salmon downstream below the lowest dam on the system, rather than relying on spill.

The federal defendants are proceeding with an appeal of the decision. The 9th Circuit's June 21 order set a briefing schedule for the

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appeal of Judge Redden's spill order — the parties have only 10 calendar days to file. The 9th Circuit also noted that the consolidated appeals would be scheduled as expeditiously as possible in a future order.
For info: NOAA website: www.nwr.noaa.gov/1hydrop/hydroweb/fedrec.htm; and www.salmonrecovery.gov/

KLAMATH WATER BANK OR

The water bank requirement for 2005 is 100,000 acre-feet of water. The Bureau of Reclamation (Bureau) announced selections for all water bank programs on March 16 and has executed all contracts for 2005. Contracts were signed for approximately 40,000 acre-feet (AF) from land idling and 64,000 to 84,000 AF from paying farmers to use groundwater.

The Bureau received 258 applications for land idling, representing 43,400 acres. 159 applicants were selected, representing about 25,500 acres, to produce 40,000 AF from land idling. 38 applications were received to substitute groundwater for surface water, equivalent to reserving approximately 17,300 acre-feet of Project water for the water bank. 22 applications were selected, equivalent to about 13,900 acre-feet. In addition, the Bureau contracted with three groups of well pumpers to produce from 50,000 to 70,000 AF of groundwater for the water bank. The Lower Klamath National Wildlife Refuge is also storing 15,000 acre-feet of water that is intended for water bank use.

Application and contract examples for dryland and groundwater situations are available from the Bureau website.
For info: www.usbr.gov/mp/kbao/pilot_water_bank/index.html

CWA PENALTY NV
EPA SETTLEMENT

Kinder Morgan recently agreed to pay a $26,300 penalty as part of a settlement with the US Environmental Protection Agency to resolve alleged Clean Water Act violations discovered at the company's Sparks, Nevada facility last July. The company also agreed to purchase emergency response equipment for the Truckee, California Fire Protection District to enable it to respond quickly to any spills of potentially hazardous chemicals.

The EPA cited the company for failing to conduct at least 10 emergency notification drills – required quarterly – over the past five years. Kinder Morgan also failed to conduct two annual oil spill response drills requiring the use of emergency equipment. The EPA also emphasized the importance of spill response training, noting that over the past two years several oil spills have occurred at Kinder Morgan's facilities in Arizona and California. Last November, a pipeline near Baker, CA, was shutdown after the discovery of a gasoline leak. Last April, more than 100,000 gallons of oil spilled into a marsh near Suisun, CA from a ruptured pipeline. In 2003, roughly 32,000 gallons of oil was released near Tucson, AZ from a corroded pipeline.
For info: Dean Higuchi, EPA, 808/ 541-2711

SAFE DRINKING WATER US
$277 BILLION INVESTMENT

The nation's water utilities will need to make an estimated $277 billion in investments over the next 20 years, according to EPA's third Drinking Water Infrastructure Needs Survey and Assessment. This large national need reflects the challenges confronting water utilities as they deal with aging infrastructures that were constructed 50 to 100 years ago in many cases. The Safe Drinking Water Act (SDWA) requires EPA to conduct the assessment every four years. This report to Congress, which reflects data collected in 2003, documents anticipated costs for repairs and replacement of transmission and distribution pipes, storage and treatment equipment, and projects that are necessary to deliver safe supplies of drinking water.

The total infrastructure need nationwide is $276.8 billion for the 20-year period of January 2003 through December 2022. Transmission and distribution projects represent the largest category of need, with $183.6 billion needed over the next 20 years. This result is consistent with the fact that transmission and distribution mains account for most of the nation's water infrastructure. The other categories, in descending order of need, are: treatment, storage, source, and a miscellaneous category of needs called "other" that includes such items as security needs.

Approximately $45.1 billion (16.3%) of the total national need is attributable to SDWA regulations. Most of these funds, $35.2 billion, are needed to address existing SDWA regulations (including the arsenic rule effective January 2006). Projects to address microbiological contamination account for 86 percent, or $30.2 billion, of the needs to meet existing SDWA regulations. The regulatory need also includes $9.9 billion in costs associated with proposed or recently finalized regulations. These costs, which were taken from economic analyses prepared as part of each rule-making, include $3.2 billion to address acute contaminants under the final Long Term 1 and proposed Long Term 2 Enhanced Surface Water Treatment Rules (LT1 and LT2), the proposed Ground Water Rule, and the final Filter Backwash Recycling Rule. $6.7 billion is needed to meet requirements related to regulations for chronic contaminants, which include the final Stage 1 and proposed Stage 2 Disinfectants/Disinfection Byproducts Rules (Stage 1 and Stage 2 DBPR), the proposed Radon Rule, and the final Radionuclides Rule.

Results from the Survey and Assessment are used to develop a formula to distribute Drinking Water State Revolving Fund grants. Since the program began in 1997, EPA has made available nearly $8 billion to states for infrastructure projects to help utilities provide safe drinking water. States supplement their EPA grants by matching funds and with bonds, repayments and interest earnings.
For info: Dale Kemery, EPA, 202/ 564-4355, email: kemery.dale@epa.gov, or website: www.epa.gov/safewater/needssurvey/

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

July 13-15 WA
Western States Water Council Meeting (WSWC 40th Anniversary), Seattle, Red Lion Hotel on Fifth Avenue, 1415 Fifth Avenue. For info: WSWC, 801/ 561.5300, website www.westgov.org/wswc/meetings.html

July 14-15 NM
Energy in the Southwest Conference, Santa Fe, Eldorado Hotel. Leading Energy Professionals Discuss Rnewables, Nuclear Power; Gas Supplies and Coal; Reliability Requirements, Cyber Security Standard 1300; New Transmission Connections; Resource Adequacy, Tribal Interests, Recent Litigation & More. For info: Law Seminars International, 800-854-8009 or website: www.clenews.com/LSI/05/05bsenm.htm

July 14-16 WA
North American Rainwater Harvesting Conference, Seattle, RE: Latest Techniques in Rainwater Management. For info: Website: www.arcsa-usa.org

July 15 WY
2005 Water Resources Education Tour (Wyoming Water Association), Afton, RE: Dam Rehabilitation, Periodic Spring, Palisades Reservoir Wetland, Water Control Structures. For info: WWA, 307/ 631-0898, or email: wwa@wyoming.com, or website: www.wyomingwater.org

July 15 UT
Utah Water Quality Board Meeting, Salt Lake City, Cannon Health Bldg., Rm125, 9:30am. For info: Utah DEQ, 801/ 538-6146, website: http://waterquality.utah.gov/wq_board/wq_board.htm

July 17-20 FL
American Society of Agricultural Engineers Annual Meeting, Tampa. RE: Environmental Engineering. For info: ASAE, 269/ 429-3852, or website: www.asae.org/meetings/index.html

July 18 FL
StormCon 2005: 4th Annual North American Surface Water Quality Conference and Exposition, Orlando, For info: www.fedcenter.gov/Events/index.cfm?id=1538

July 18 WA
Water Resources Advisory Committee (WRAC) Meeting, Lacey, Ecology Hdqrters, 300 Desmond Drive. RE: Water Resource Management and Strategies (Agenda Varies). For info: Curt Hart, Ecology, 360/ 407-7139, email: char461@ecy.wa.gov, or website: www.ecy.wa.gov/programs/wr/wrac/wrachome.html

July 18-22 TX
Waterpower XIV, Austin, Hilton Austin. For info: Waterpower website: www.hcipub.com/wp/index.asp

July 19 OR
Drinking Water Advisory Committee Meeting, Salem, Public Utility Commission Office, For info: Diane Weis, DHS, 503/ 731-4010 or email: diane.weis@state.or.us

July 19-22 VA
2005 Watershed Management Conference, "Managing Watersheds for Human and Natural Impacts: Engineering, Ecological and Economic Challenges," Williamsburg, RE: Computer Modeling, Field Monitoring, Watershed Science, Government Policy & Regulations, Watershed Hydrology. For info: American Society of Civil Engineers, 800/ 548-2723, or website: www.asce.org/conferences/watershedmanagement2005

July 20-23 MT
Water and the West: When Water Quality, Water Quantity and the Environment Collide, Big Sky, Huntley Lodge. Sponsored by National Water Resources Association. RE: Conflicting Water, Energy & Environmental Needs. For info: NWRA, 703/ 524-1544, email: nwra@nwra.org, website: www.nwra.org/meetings.cfm

July 21-22 CA
Water Law & Policy Briefing, San Diego, RE: Major Water Policy Issues and Legal Action (California and Western States), Sponsored by Water Education Foundation. For info: Diana Farmer, WEF, 916/ 444-6240, or website: www.water-ed.org/eventsdetails.asp?id=25

July 21-22 MD
2005 NGWA Ground Water and Environmental Law Conference, Baltimore, Wyndham Inner Harbor. RE: Ground Water Contamination Litigation, Permitting Issues, Emerging Contaminants, and Risk Assessments. For info: Bob Masters (NGWA), 800/ 551-7379, email: rmasters@ngwa.org, website: www.ngwa.org/education/

July 21-23 OR
51st Annual Rocky Mountain Mineral Law Institute, Portland, Hilton Portland. RE: Conservation Easements, Challenges of Water for the Future, Transboundary Pollution, Planning for Drought, Federal Land Exchanges, Federal Land Use Plans Challenge, Evidence in Natural Resources Lititgation & More. For info: RMMLF, 303/ 321-8100, email: info@rmmlf.org, or website: www.rmmlf.org

July 27-29 CO
30th Colorado Water Workshop, Gunnison, Western State College. RE: National Forest Idea, Evolving Federal Role in Western Water, Maturing Metropolis, Quality/Quantity Challenge, Conservation, Building Consensus, Interbasin Compacts, Reclamation to Sustainability, Storage and Delivery, Aquifer Storage & Recovery. For info: George Sibley, Conference Director, 970/ 943-2055, email: water@western.edu, or website: www.western.edu/water

July 28-29 OR
Oregon Water Resources Commission Meeting, Salem. For info: Cindy Smith (OWRD), 503/ 986-0876, website: www.wrd.state.or.us/commission/index.shtml

July 28-29 FL
Endangered Species Act, Tampa. For info: CLE Int'l, 800/ 873-7130, website: www.cle.com

August 3 OR
Oregon Water Quality, Portland, The Benson Hotel, 309 Southwest Broadway. RE: Statutory & Regulatory Authority-Clean Water Act, Water Permitting: NPDES, Ground Water Appropriation & Wetlands, Recent Developments & Decisions. For info: National Business Institute, 800/ 930-6182 or website: www.nbi-sems.com

August 3-5 AZ
Tri-University Water Conference, Flagstaff, Sponsor: Center for Sustainable Environments (CSE), Northern Arizona University. RE: Water Sustainability, Climate Change, Water Management, Ecosystems, Agricultural & Resource Economics, Urban Growth & Water Conservation. For info: CSE, 928/ 523-0637 or website: http://environment.nau.edu

August 5 OR
Oregon Fish & Wildlife Commission, Salem, 8 am. For info: Cristy Mosset, ODFW, 503/ 947-6044, www.dfw.state.or.us/Comm/schedule.htm

August 7-9 OR
23rd Annual College and University Hazardous Waste Conference, Portland. For info: CUHWC, 541/ 346-3537, email: cuhwc@continue.uoregon.edu, or website: www.cuhwc.org/

August 9 OK
Oklahoma Water Resources Board Meeting, Oklahoma City, 3800 N. Classen Blvd., 9:30 am. For info: OWRB, 405/ 530-8800, website: www.owrb.state.ok.us/news/meetings/board/board-mtgs.php

August 10-12 CA
MTBE & TBA: Comprehensive Site Assessment and Successful Groundwater Remediation, San Francisco, EPA Office, 75 Hawthorne Street.. RE: Contaminated Groundwater: Chemical, Physical and Biological Characteristics, Characterization, Site Assessment, Remediation Technologies, Case Studies. For info: Joe Hass, Interstate Technology and Regulatory Council, 631/ 444-0332, email: jehaas@gw.dec.state.ny.us, or website: https://weborcl8.wpi.biz/itrc/mtbe200508/regform.htm

August 11-12 WA
Renewables & Energy Efficiency Conference, Seattle, Renaissance Seattle Hotel. Program Co-chairs: Robert D. Kahn, Ed.D., Robert D. Kahn & Company, and Peter D. Mostow, Esq., Stoel Rives LLP. For info: Law Seminars International, 206/ 567-4490 or 800-854-8009 or website: lawseminars.com

August 13 UT
Utah Board of Water Resources Meeting, Cedar/Beaver Basin Area, Location TBA. For info: Molly Waters, 801/ 538-7230, email: mollywaters@utah.gov, website: www.water.utah.gov/board/2004SCHED.asp

CALENDAR

August 14-17 CA
Energy 2005: 8th Annual National Energy Management Workshop and Trade Show, Long Beach. For info: JoAnn Stirling, 800-395-8574 or email: joann@fsec.ucf.edu or website: www.energy2005.ee.doe.gov

August 15 WA
Water Resources Advisory Committee (WRAC) Meeting, Lacey, Ecology Hdqrters, 300 Desmond Drive. RE: Water Resource Management and Strategies. For info: Curt Hart, Ecology, 360/ 407-7139, email: char461@ecy.wa.gov, or website: www.ecy.wa.gov/programs/wr/wrac/wrachome.html

August 15-16 NM
New Mexico Water Law, Santa Fe. For info: CLE Int'l, 800/ 873-7130, website: www.cle.com

August 16 NM
New Mexico Water Research Symposium, "Advances in Hydrology: Methods and Instruments, Socorro. RE: Water Quality & Security, Geomorphology, Water Management & Policy. For info: New Mexico Water Resources Research Institute, Catherine Ortega Klett, 505/ 646-1195, or website: http://wrri.nmsu.edu/conf/confsymp.html

August 17 WA
Safe Drinking Water Act Conference, Seattle. For info: Law Seminars International, 800/854-8009, website: www.lawseminars.com

August 18-19 AZ
Arizona Water Law SuperConference, Phoenix. For info: CLE Int'l, 800/ 873-7130, website: www.cle.com

August 18-19 OR
Environmental Quality Commission Meeting, Eugene/ Springfield, Exact Location TBA. For info: Day Marshall, DEQ Director's Office, 503/ 229-5990; website: www.deq.state.or.us/

August 18-19 CA
"Petroleum Hydrocarbons and Organic Chemicals in Ground Water: Prevention, Assessment, and Remediation," Costa Mesa. RE: Site Characterization and Monitoring, Natural Attenuation Processes, and Remediation Technologies & More. For info: National Ground Water Association, 800/ 551-7379, website: www.ngwa.org

August 19 UT
Utah Water Quality Board Meeting, Salt Lake City, Cannon Health Bldg., Rm125, 9:30am. For info: Utah DEQ, 801/ 538-6146, website: http://waterquality.utah.gov/wq_board/wq_board.htm

August 23-24 CO
Assessing Riparian Condition Workshop, Grand Junction. RE: Values of Riparian/Wetland Areas, Methods to Assess Conditions, Assistance Options. Sponsored by the Colorado Riparian Training Cadre (interagency, interdisciplinary team). For info: Jay Thompson, Colorado Riparian Cadre Coordinator, 303/ 239-3724 or email: jay_thompson@co.blm.gov

August 23-24 OR
Oregon Brownfields Conference, Portland, Hilton Hotel. RE: Managing Liability, Public Involvement, Federal/State Assistance, Redevelopment Approaches (Small & Rural), Understanding Phase I Reports, Phase II & Remediation Design/ Implementation. For info: Cara Bergeson (NEBC), 503/ 227-6361 or website: www.nebc.org

August 25-26 OR
Contaminant Chemistry and Transport in Soil and Groundwater Course, Portland, Ecotrust Conference Center, 721 NW 9th Avenue, 8:30am- 5pm. Instructor: Erick McWayne, Northwest Environmental Training Center For info: Northwest Environmental Training Center, 206/ 762-1976or email: emcwayne@nweec.org or website: www.nweec.org

August 28-31 CA
2nd Joint Specialty Conference for Sustainable Management of Water Quality Systems for the 21st Century - Working to Protect Public Health, San Francisco, Sponsored by the Water Environment Federation. For info: www.wef.org/conferences/Wastewater_Technology2005.jhtml

August 28-31 MO
White House Cooperative Conservation Conference, St. Louis. For info: www.conservation.ceq.gov/agenda.html.

August 31-September 2 MO
Animal Agriculture and Processing: Managing Environmental Impacts, St. Louis, Hyatt Regency. RE: CAFOs, Management Principles & Technology, Strategies & Solutions, Regulatory & Policy Developments. For info: Air & Waste Management Association website: www.awma.org/events/confs/Animal/default.asp

September 7-9 MT
11th Annual Water Information Management Systems Workshop, Missoula. Sponsored by Western States Water Council. For info: Tony Willardson, WSWC, 801/ 561-5300, email: twillards@wswc.state.ut.us, or website: www.westgov.org/wswc

September 8-9 OR
Oregon Fish & Wildlife Commission, Tillamook, 8 am. For info: Cristy Mosset, ODFW, 503/ 947-6044, www.dfw.state.or.us/Comm/schedule.htm

September 8-9 WA
Biotechnology Conference, Seattle. For info: Law Seminars International, 206/ 567-4490, website: lawseminars.com

September 8-9 CO
Colorado Watershed Assembly Conference: "Plannning for the Future," Glenwood Springs, Hotel Colorado. For info: Chuck, CWA, 970/ 259-3583, email: cwa@coloradowater.org, or website: www.coloradowater.org/assembly.htm

September 8-11 CA
National Environmental Convention & Expo - Sierra Club, San Francisco, The Moscone Convention Center. For info: Sierra Club, 301/ 694-5243, or website: www.sierrasummit2005.org/

September 11-14 NM
Rocky Mountain Section Annual Conference: American Water Works Association, Albuquerque. RE: Colorado, New Mexico and Wyoming. For info: Website: www.rmwea.org/rmwea/committees/annual_conference/annual.htm

September 11-15 AK
American Fisheries Society 135th Annual Meeting, Anchorage, RE: "Creating A Fisheries Mosaic: Connections Across Jurisdictions, Disciplines, and Cultures." For info: Bill Wilson, Planning Committee Chair, 907/ 271-2809, email: bill.wilson@noaa.gov, or website: www.wdafs.org/Anchorage2005/index.htm

September 12-13 DC
River Lobby Day 2005, Washington, DC, RE: Lobbying on Capitol Hill on River Health; Lobby Training on 9/12. For info: Jamie Mierau, American Rivers, 202/ 347-7550, email: jmierau@americanrivers.org or website: www.riverlobbyday.org

September 13 OK
Oklahoma Water Resources Board Meeting, Oklahoma City, 3800 N. Classen Blvd., 9:30 am. For info: OWRB, 405/ 530-8800, website: www.owrb.state.ok.us/news/meetings/board/board-mtgs.php

September 13-15 Canada
10th Annual International Specialist Conference on Watershed and River Basin Management, Calgary, Telus Convention Center. RE: Water Resources, Impact of Climate Change On Water Resources, Sustainable Urban Drainage, Pollution Sources and Control, Monitoring and Modelling. For info: Charlene Roth-Diddams, 403/ 257-2151 or Email: croth-diddams@shaw.ca

September 14-15 ID
Getting in Step With Phase II: Workshop for Stormwater Program Managers, Boise, Sponsored by EPA (limited to first 100 participants). For info: EPA website: http://cfpub2.epa.gov/npdes/outreach.cfm?program_id=0&otype=1

September 14-16 ID
Symposium on the Settlement of Indian Reserved Water Rights Claims, Moscow, University Inn & Conference Center. Sponsored by Western States Water Council and Native American Rights Fund. For info: Tony Willardson, WSWC, 801/ 561-5300, email: twillards@wswc.state.ut.us, or website: www.westgov.org/wswc/meetings.html

September 14-16 CA
Basin Yield & Overdraft: Scientific & Legal Perspective, Pasadena, Hilton Pasadena. Sponsored by Groundwater Resources Association of California and International Association of Hydrogeologists. RE: Hydrologic Trend Analysis, Evaluating Groundwater Basin Yield, Perennial & Safe Yield, Subterranean Streams, Surface Water/Groundwater Interactions, Sustainable Management, Field Trip: Raymond Basin on 9/14. For info: GRAC, 916/ 446-3626, or website: http://www.grac.org/

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September 14-16 SD
South Dakota Section Annual Conference: American Water Works Association, Brookings. For info: American Water Works Association, 303/ 347-0804, South Dakota Section website: www.sdawwa.org/

September 14-16 KS
Kansas Section Annual Conference: American Water Works Association, Salina, Salina Holidome. For info: American Water Works Association, 303/ 347-0804, Kansas Section website: www.ksawwa.org/

September 15-16 NV
Western Water Law 12th Annual, Las Vegas, Riviera Hotel. RE: Municipal, Regional and International Issues from Water Shortages, Strategies for Maintaining Water Quantity and Quality. For info: CLE Int'l, 800/ 873-7130 or website: www.cle.com

September 18-21 CO
"Water Reuse & Desalination: Mile-High Opportunities" WateReuse Symposium, Denver, Sponsored by American Water Works Association and Water Environment Federation. For info: WateReuse Association website: www.WateReuse.org

September 18-21 MD
2005 National Forum on Contaminants in Fish, Baltimore. RE: Chemical Contaminants, Assessing and Managing Health Risks, Bioaccumulation, Updates from EPA and FDA, Risk Communication, Federal and State Monitoring Programs, Updates on Selected Chemicals including PBDEs, Mercury, PCBs, and Dioxin. For info: Jeff Bigler, EPA, (202) 566-0389, email: bigler.jeff@epa.gov, or website: www.epa.gov/waterscience/fish/

September 18-23 OR
Pacific Fishery Management Council Meeting, Portland, Embassy Suites Hotel Portland Airport, 7900 NE 82nd Avenue. For info: PFMC, *866/ 806-7204, website: www.pccouncil.org*

September 18-23 WA
20th Annual Hazardous Materials Management Conference on Household & Small Business Waste, Tacoma. For info: North American Hazardous Materials Management Association, 913/ 381-4458, or website: www.nahmma.org/2005conference/

September 19 WA
Water Resources Advisory Committee (WRAC) Meeting, Lacey, Ecology Hdqrters, 300 Desmond Drive. RE: Water Resource Management and Strategies (Agenda Varies). For info: Curt Hart, Ecology, 360/ 407-7139, email: char461@ecy.wa.gov, or website: www.ecy.wa.gov/programs/wr/wrac/wrachome.html

September 19-20 TX
Texas Water Law 15th Annual, Austin, Hyatt Regency. RE: "Water in the 79th Legislature," Updates on Groundwater, Surface Water, Water Supply and Development, Takings Litigation and Vested Rights, Edwards Aquifer and Guadalupe River Basin. For info: CLE Int'l, 800/ 873-7130 or website: www.cle.com

September 19-20 WA
13th Northwest On-Site Wastewater Treatment Short Course, University of Washington, Seattle. National Experts Discuss Latest Information on Small-Scale Systems. For info: Engineering Professional Programs, 866-791-1275 or 206/ 543-5539

September 21-24 AZ
"Conservation and Innovation in Water Management" - 18th Annual Arizona Hydrological Society Symposium, Flagstaff, Radisson Woodlands Hotel. RE: Southwest Water Issues, Regulation, Water Resource Development & Management, Drought Management, Conservation, Stream-Aquifer Interactions, Watershed Impacts, Flow & Transport Modeling. For info: AHS website: www.azhydrosoc.org/symposia.html

September 22-23 AZ
Environmental Law on the Reservation, Phoenix. For info: CLE Int'l, 800/ 873-7130 or website: www.cle.com

September 22-23 MT
Montana Section Symposium: American Water Resources Association, Bozeman, Holiday Inn. For info: MT.AWRA, 406/ 994-6690 or website: http://awra.org/state/montana/

September 23-24 UT
Utah Board of Water Resources Meeting, Ruby's Inn, Location TBA. RE: Tour Escalante/Boulder Area. For info: Molly Waters, 801/ 538-7230, email: mollywaters@utah.gov, website: www.water.utah.gov/board/2004SCHED.asp

September 24-28 OR
2005 Annual Forum: Ground Water Protection Council, Portland, DoubleTree-Lloyd Center. For info: GWPC, 405/ 516-4972, or website: www.gwpc.org/

September 26 UT
Utah Water Quality Board Meeting, Salt Lake City, Location TBA. For info: Utah DEQ, 801/ 538-6146, website: http://waterquality.utah.gov/wq_board/wq_board.htm

September 26-27 UT
Principles of Desalting Brackish and Seawater, Salt Lake City, Hilton Salt Lake City Airport. For info: American Water Works Association, **800/ 926.7337** or website: www.awwa.org/education/seminars/

The Water Report
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