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

In This Issue:

Next Issue:

Tribal Water Rights

Critical Habitat: Bull Trout

Drinking Water

& More!

LAW OF THE RIO GRANDE

REPORT FROM THE 6TH ANNUAL CONFERENCE

by David Moon, Editor

On January 27-28, 2005, in Albuquerque, New Mexico, CLE International sponsored the 6th Annual "Law of the Rio Grande" Conference. The event featured several prominent speakers on water matters in the Rio Grande Basin, focusing primarily on New Mexico and Texas as areas of concern. Program Co-Chair Glenn Jarvis, Esq. of McAllen, Texas, began the conference by noting that the Law of the Rio Grande is constantly evolving and developing.

At the Pre-Conference Dinner, Senator Sue Wilson Beffort of the New Mexico State Legislature, presented "A Senator's View" of the Rio Grande River. Beffort emphasized "the amazing evolution of New Mexico's water law" which "has been painfully invigorating to witness." Beginning in the 1980's, New Mexico found itself faced with numerous challenges to its system. These challenges included losing a lawsuit with Texas over the Pecos River Compact, a declining aquifer under Albuquerque, "the silvery minnow fiasco," the US Bureau of Reclamation's challenge to ownership of Elephant Butte Reservoir, and finally a prolonged drought.

Senator Beffort said that the "most exciting" update of New Mexico's water law system was the "effort to retool the system so that various stakeholders can manipulate and maneuver the system so that expeditious access to water is now possible."

BEFFORT RECOUNTED OTHER KEY REFORMS:

- State water plan and regional water plan authorization
- Water banks established by community ditch associations, certain irrigation districts and "acequias" (historical organizations in New Mexico: a community ditch or acequia is a public entity that functions to allocate and distribute irrigation water to landowners/members),
- Special water users' associations created with the authority to lease water from members of certain irrigation districts
- Development of a statewide watershed restoration program
- Water conservation encouragement based on the protection of conserved water rights from forfeiture
- Encouraging municipalities/counties to develop comprehensive water conservation and drought management plans
- Dedicating 10 percent of severance tax bonding capacity annually to water projects
- Creating a water trust board to coordinate planning and funding of water projects
- Funding development of the State Engineer's water administration technical resource system (WATERS program) to digitize documents and records for web-based access
- Phyreatophyte (high water-use plants) removal programs instituted throughout the state
- Adjudication support provided for water rights determination
- Permitting the residential use of gray water

Rio Grande

Compact

Treaty of 1906

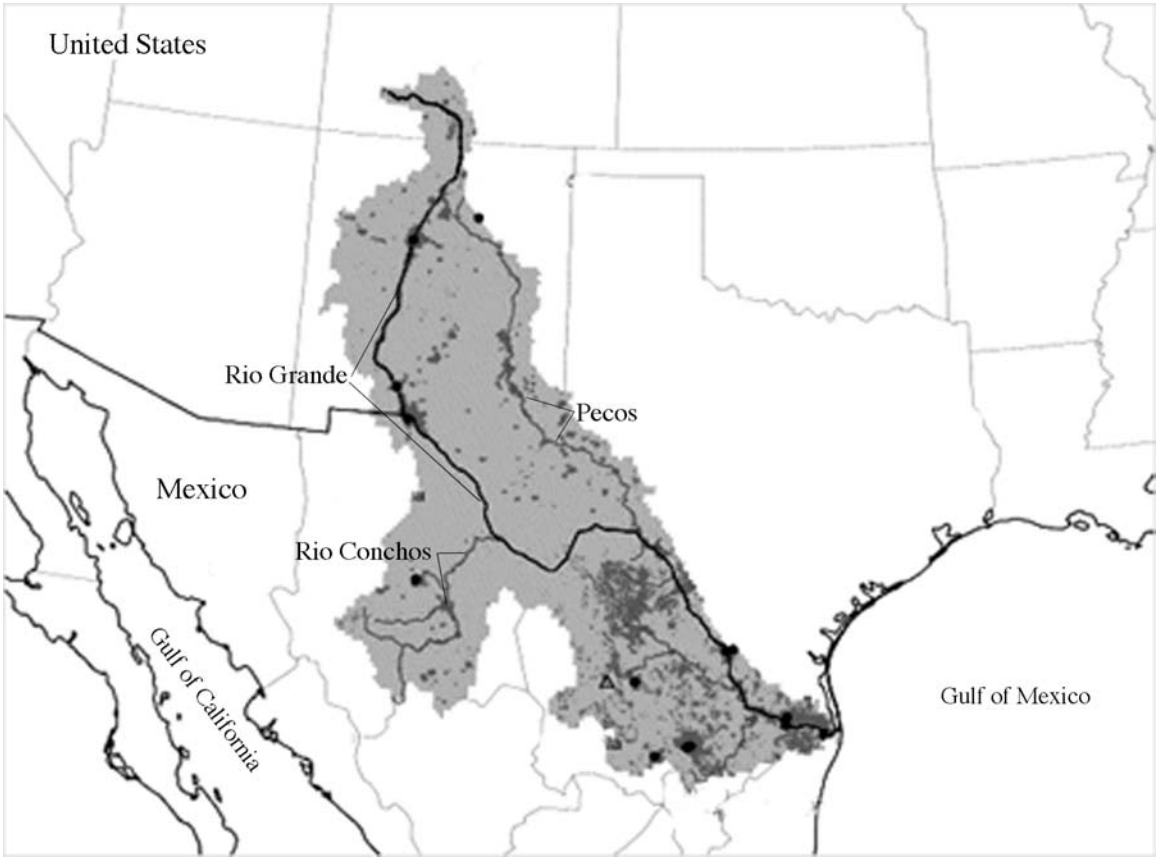
Elephant Butte

Return Flow

The first speaker of the conference, Dr. J. Phillip King of New Mexico State University's Department of Civil Engineering, provided a thorough introduction to the Law of the Rio Grande. The Law of the River is the Rio Grande Compact, adopted in 1938 among Colorado, New Mexico and Texas. The Compact covers the use of water of the in the Rio Grande basin above Fort Quitman, Texas. The Rio Grande Compact Commission was established to manage water flows from the headwaters in Colorado to Fort Quitman. The Commission consists of one representative from each state, plus a representative of the United States.

King explained that one needs to go back even earlier to fully understand the Rio Grande. The 1890's were a time of drought when it was "better to be upstream with a shovel, then downstream with a water right." Eventually, complaints and claims from Mexican users downstream led to the Treaty of 1906, with all Mexican claims being settled with an obligation to provide 60,000 acre-feet (AF) per year in perpetuity to Mexico. This amount, however, is reduced according to the Treaty during periods of drought such as 2003 and 2004.

An early US Bureau of Reclamation (Bureau) project — the Rio Grande Project — resulted in the construction of Elephant Butte Reservoir (completed in 1916). A drainage system was added as part of the system in 1920, forming an important component since the "flow through system" is highly dependent on recharge from the drainage, King noted. Another speaker, Christopher B. Rich (Solicitor's Office, US Department of the Interior), explained the importance of "return flow" to the system by noting that the "usual amount of water released from Elephant Butte Reservoir of 790,000 AF turns into approximately 960,000 AF of diversions. The system only works if the return flow comes back to the river." Caballo Dam was completed downstream from Elephant Butte in 1939 to supplement storage, permit year-round power generation at Elephant Butte Dam, and provide flood control.



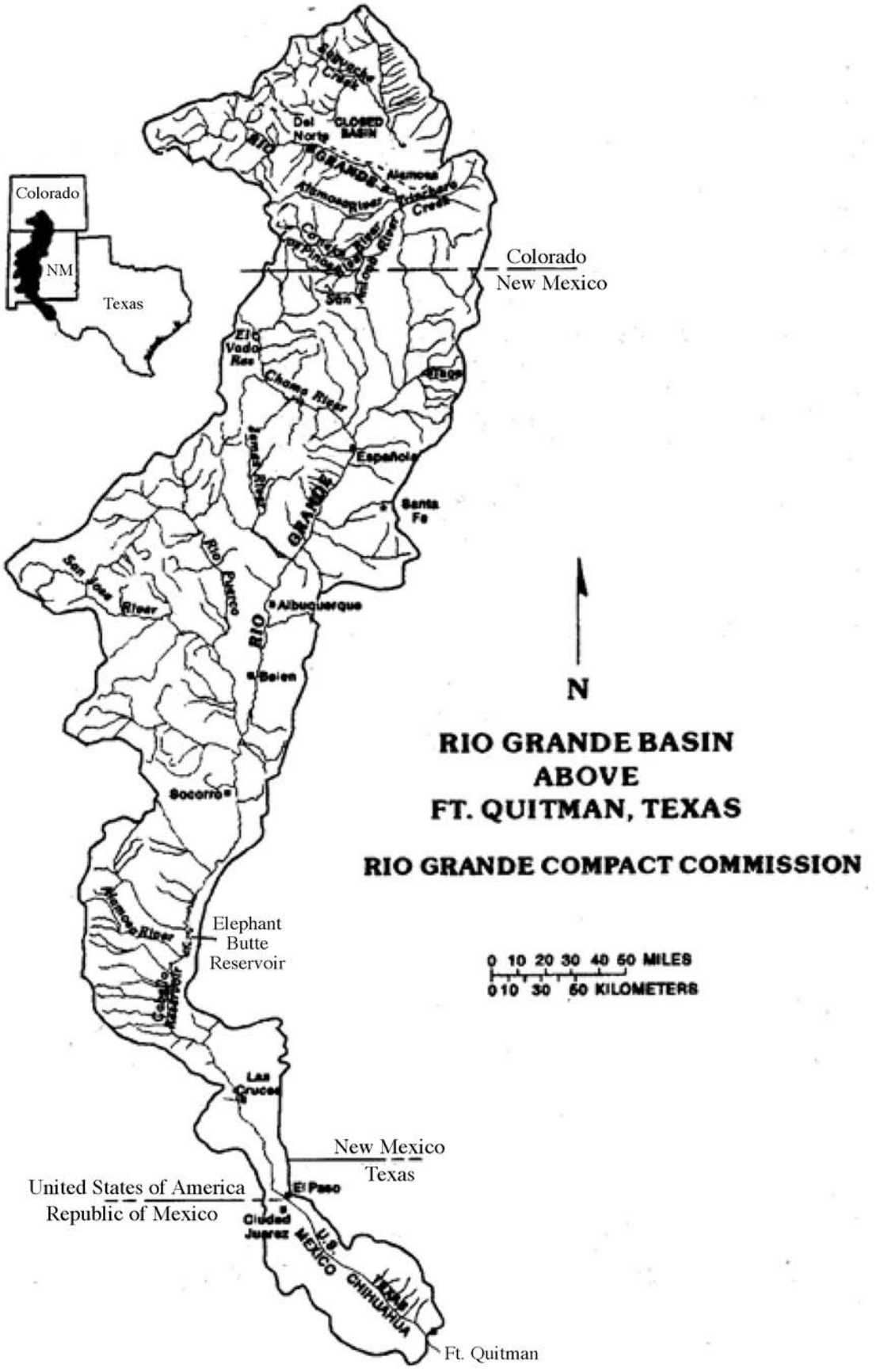
Map of the Entire Rio Grande River Basin, including the Pecos and Rio Conchos Riviers

The Water Report (ISSN pending) is published monthly by Envirotech Publications, Inc.
260 North Polk Street, Eugene, OR 97402
Editors: David Light & David Moon **Phone:** 541/ 343-8504 **Cellular:** 541/ 517-5608
Fax: 541/ 683-8279 **email:** thewaterreport@hotmail.com **website:** www.thewaterreport.com
Subscription Rates: $249 per year; Multiple subscription rates available.
Postmaster: Please send address corrections to The Water Report, 260 North Polk Street, Eugene, OR 97402

Rio Grande

Rio Grande Compact of 1938

- Researched and negotiated among Colorado, New Mexico, and Texas 1925 - 1938
- Explicitly divided the surface water of the Rio Grande among the states, and provided for delivery to Mexico
- Sliding scale dependent on supply
- Capped depletion in upstream states
- Accounting rules and obligations allow flexibility within each state



Map adapted from the "*Report of the Rio Grande Compact Commission*, 2000" showing the extent of the area covered by the Rio Grande Compact of 1938

Rio Grande

Until 1978, the Bureau managed the Project as one big unit. In 1978, the irrigation district finished paying off the construction loans and divided itself into two farmer-owned irrigation districts, Elephant Butte Irrigation District (EBID) and El Paso County Water Improvement District No. 1 (EPCWID).

The Compact of 1938 specifically divided the surface water of the Rio Grande, providing a sliding scale of water available for use depending on the actual supply for the year. While the Compact placed a depletion limitation on upstream states, it also provides flexibility for water use within each state. So long as downstream obligations are met, the Compact does not dictate water uses or diversion amounts within the states themselves.

Sliding Scale

The flow obligations of each state to the next state downstream are set by formulas based upon the flow of the Rio Grande and its tributaries at designated gauging stations above the state lines plus certain adjustments to account for upstream reservoirs. The formulas were well explained in King's written material. The basic setup of the delivery obligations from state-to-state also includes a modification during periods of low flow — with the upstream state getting a higher percentage of the available supply when the available supply is low. As the supply increases, the downstream state gets an increasing percentage of flow, until each AF of additional flow at the index point results in an AF of required delivery at the state line (or the actual measuring point nearby).

Debits & Credits

The Compact also developed a system of "debits" and "credits" since it is virtually impossible for one state to precisely meet its delivery obligation to the downstream state. The debit or credit is calculated at the end of the year, depending on under-delivery or over-delivery of water downstream, and is carried-over to the next season. Limitations on storage in the upstream states apply if Colorado's or New Mexico's accrued debits reach a certain amount, and both states are limited to a maximum annual credit of 150,000 AF. If a state has an accrued debit balance, one of the downstream states may call for the release of upstream stored water at the beginning of the year.

Reservoir "Credits"

Elephant Butte Reservoir is critical for the Compact's operation, particularly since the upstream states (Colorado and New Mexico) have the ability to store water in the reservoir and thereby receive "credits" to meet future downstream obligations in dry years. Credits for Colorado and New Mexico, however, are cancelled if a spill occurs from Elephant Butte Reservoir.

Evaporation Losses

One interesting feature of the way New Mexico's obligation to Texas is calculated is that the *burden* of evaporative and seepage losses from Elephant Butte Reservoir — a considerable sum — falls on New Mexico. Thus, even though New Mexico may have stored a certain quantity of water in the reservoir and have accumulated "credits" to meet its obligation to Texas, much of that balance may by lost to the vagaries of the weather.

Current Storage

King lamented that the drought is not over — the water level at Elephant Butte Reservoir is the best indicator and "it is still pitiful." The reservoir has a 2,023,358 AF capacity and as of January 20, 2005 the actual storage amounted to only 223,755 AF, according to Herman Settemeyer of the Texas Commission on Environmental Quality (TCEQ). After the above normal precipitation of the last few months, the reservoir is still far from being full (although the Bureau's website shows storage has increased to 282,160 AF as of February 22; see http://137.77.133.1/uc/elpaso/water/Reservoirs/index.html, then click on "Elephant Butte Storage"). King said he had "no idea how long it will take to fill the reservoir," while John D'Antonio, New Mexico's State Engineer, pointed out that it would take four to five years of above average precipitation to get out of drought-scenario management.

Drought Management

The three states are currently operating under Article VII of the Rio Grande Compact, the section that addresses management and accounting when "Project Storage" is very low. [See the Rio Grande Compact at http://wrri.nmsu.edu/wrdis/compacts/Rio-Grande-Compact.pdf] Such a situation impacts reservoir storage in Colorado and New Mexico since under the Rio Grande Compact, storage in Elephant Butte must exceed a certain level before upstream reservoirs are allowed to store Rio Grande water.

2005 Allocation

Allocations for water users from the Rio Grande Project as of January 26th was estimated at a 19.72% allocation for 2005, Settemeyer of TCEQ said, with the possibility that it "may move up to 50%-60% with the good snowpack."

New Habitat for Listed Species

The Rio Grande Compact of 1938 has developed a few loose ends, according to King. Endangered species in the river, for example, were not anticipated. An odd effect of the extended drought is that an endangered species, the southwestern willow flycatcher, has taken up residence in the trees that have grown up in the exposed bed of Elephant Butte Reservoir. King said that their new habitat might result in reducing the useable storage capacity of the reservoir if the habitat is protected under the Endangered Species Act. A latter speaker, Herman Settemeyer of the Texas Commission Environmental Quality, felt that the situation "may be on a collision course if the reservoir moves back to filling to capacity." Settemeyer said that a "significant portion of the existing population is within the potentially inundated area of the Elephant Butte Reservoir pool."

Rio Grande Irrigation Districts

Another loose end is the division of the Rio Grande Project into two irrigation districts. Kathleen Hartnett White, Chairman of TCEQ, said that the division has resulted in a "struggle to find an operating agreement that the states and two irrigation districts can live with." She stated her opinion that the "litigation alternative is not good and it is very important for the two states to resolve" the conflict. On a hopeful note, White commented that there is "renewed interest in Texas to make it happen."

TEXAS ADJUDICATION SUCCESS

Lower Valley Adjudication

The Rio Grande Project essentially ends at Fort Quitman Dam in Texas (see map, page 3). From Fort Quitman Dam upstream to the Texas-New Mexico state line, the current focus in the area is the adjudication of water rights, according to Austin attorney Timothy L. Brown. An earlier adjudication in Texas in the Lower Rio Grande Valley had "economically drained the water users to be quiet" due to the huge costs of the litigation. The four counties at the end of river where it meets the gulf were embroiled in a case with over 3,000 claimants where the trial and appeals lasted about 10 years (see *State of Texas v. Hidalgo County Water Control and Improvement District No. Eighteen et al.*, 443 SW 2d 728 (Tex.Civ. App.-Corpus Cristi 1969, writ ref'd n.r.e.). That adjudication process, however, had been preceded by litigation that began in the early 1950's, including *State v. Valmont Plantations*, 346 SW 2d 853, aff'd 355 SW 2d 502 (Tex.1962). *Valmont* held there were no common law riparian rights for irrigation under the Spanish-Mexican colonial system.

1967 Act

People familiar with the Lower Valley litigation decided there had to be a better way to adjudicate the remaining Rio Grande rights, so changes were made to the process. The "Water Rights Adjudication Act" was passed in 1967 (see Texas Water Code, Chapter 11, Subchapter G, §§11.301 though 11.341 (Vernon 2000)).

Adjudication Process

THE 1967 ACT PROVIDED FOR THE FOLLOWING ADJUDICATION STEPS:

1) Claims for water use were required to be filed by September 1, 1969 and failure to file a claim extinguished any future claim to the water right. (TEX. WATER CODE §11.303);
2) Manageable stream segments to adjudicate are designated by the state agency; Executive Director of TCEQ is required to conduct an investigation to gather "relevant data and information" to gain an understanding of the claims of water rights involved; a map or plat is required to be prepared showing all aspects of water impoundments and water use;
3) Water users within the stream segment file another detailed claim that specifically articulates the nature and extent of the water use – akin to an answer in a lawsuit (TEX. WATER CODE §11.305);
4) Hearings by administrative law judges result in recommendations to the TCEQ regarding each claim; TCEQ then prepares "Preliminary Determinations" which are made available for review by all water users in the basin (expansion beyond the stream segment);
5) The Right to Contest is limited to "any water right claimant" affected by the preliminary determination, specifically including any water right claimant within the river basin even if they are outside the stream segment under adjudication; the right to contest requires a written, verified contest "stating with reasonable certainty the grounds" for the contest (TEX. WATER CODE §11.313);
6) Hearing on the Contest;
7) A "Final Determination" is made by TCEQ; Rehearings are permitted (TEX. WATER CODE §11.316);
8) A certified copy of the "Final Determination" is filed in the District Court of any county in which the stream or stream segment is located (with some exceptions);

Exceptions to District Court

9) Exceptions to the Final Determination must state, with a reasonable degree of certainty, the grounds for the exceptions "and must specify the particular paragraphs and pages of the determination to which the exception is taken." (See TEX. WATER CODE §11.318.) Note that the court is *precluded* from considering any exceptions that were not brought to the attention of the commission (even questions of fact);
10) The case then proceeds like any civil matter before the District Court, resulting ultimately in a Final Decree.

Brown explained that the Texas process "is one of constantly narrowing of the issues. You start with the claimant and narrow his issues down, then add in the remaining part of the basin and narrow those issues down. This makes the adjudication a basin wide 'in rem' [i.e., all users against all users] proceeding. Then you go to court to deal with any issues that were not satisfactorily nailed down in the administrative process. The result: a speedy, efficient and economical adjudication."

Rio Grande Claimant Assistance

Upper Rio Grande (Texas)

Responding to a question from The Water Report representative at the conference, Brown said that another major reason for the successful, quick adjudication was that in Texas the Commission assisted unrepresented ranchers and farmers in a very positive way. "There was no vindictiveness and the Commission bent over backwards to assist" the claimants. Brown noted that there were minimal appeals, due, in his opinion, to the foresight of the administrative process.

Brown's presentation also dealt with the on-going El Paso area adjudication (aka "Upper Rio Grande Adjudication"). That adjudication has an interesting geographical aspect due to the fact that the primary water supply reservoir (Elephant Butte Reservoir) is located some 120 miles upstream in New Mexico. The nature and extent of the role and water rights of the United States also present significant legal issues in that case. Brown pointed out that the "big five" — i.e., the El Paso County Water Improvement District No. 1 (EPWID #1), Hudspeth County Conservation and Reclamation District No. 1 (Hudspeth), the United States (on behalf of the Bureau of Reclamation and the Federal Corrections Institute), and the City of El Paso — are in a holding pattern. Negotiations are continuing.

Douglas G. Caroom, a partner in Bickerstaff, Heath, Smiley, Pollan, Kever & McDaniel of Austin Texas, spoke on "Water Rights Adjudications - Texas Style." Caroom said that Texas' ability to quickly adjudicate its water rights was due to several notable differences in the Texas process.

Texas Distinctions

IN TEXAS:

- No claims were adjudicated for domestic or livestock use (TEX. WATER CODE §11.307(a)); note that livestock use in Texas includes the ability to store up to 200 AF on one's property
- Irrigation districts, rather than individuals, own most of the water rights in Texas: since only water right owners were involved in the adjudication (not individual farmers or ranchers), the number of participants was reduced significantly
- Groundwater rights were not included

Caroom discussed the "Upper Rio Grande" adjudication in Texas, which is adjudicating the segment of the river from Ft. Quitman, Texas up to the Texas/New Mexico state line. "Upper" and "Lower" in Rio Grande nomenclature depends solely on who one is talking to, as opposed to actual geography. Caroom noted that there were only *four* major players involved (US, EPWID #1, Hudspeth and El Paso). In the week before the conference, evidentiary hearings before the administrative law judge had just been completed so a "Preliminary Determination" will be forthcoming. Caroom included in his conference materials a draft "Certificate of Adjudication" that is the outcome of a stipulation among the four major claimants as to what the water rights should be. He expects the "end product" to be approximately six-to-eight months from reality.

Stipulation

Post-Degree Control

An interesting issue that was left unclear in this adjudication is the precise extent of post-decree supervisory power that will be held by the state of Texas over the United States' water rights, Caroom pointed out. The stipulated agreement simply says that there is to be no increase or decrease in anyone's authority. This issue is all the more interesting since the adjudication by a Texas court ostensibly controls the storage and distribution of water from a reservoir located 120 miles away in the state of New Mexico. Caroom believes that the potential issue of Texas jurisdiction over reservoirs in New Mexico is "not really that big a deal" because the irrigation districts (EBID and EPWID) are working on an operating agreement.

A "very impressive water right" is involved in the adjudication, Caroom said, with the United States on the verge of being authorized to impound 2,638,860 AF of water in Elephant Butte and Caballo Reservoirs.

TEXAS' PERSPECTIVE ON THE RIO GRANDE

Two Rivers

Kathleen Hartnett White, Chairman of TCEQ provided Texas' perspective on the "jillion laws of the Rio Grande" and its amazing legal complexity. White remarked that the river is legally managed as two rivers — the Rio Grande above Fort Quitman, Texas and the Rio Grande below Fort Quitman (see maps, pages 2 and 3). Above Fort Quitman, the Rio Grande Compact controls water use, along with the 1906 Treaty with Mexico that provides for 60,000 AF to be delivered to Mexico for irrigation. The American Diversion Dam is located on the Rio Grande two miles northwest of El Paso, immediately above the point where the river becomes the international boundary line. It is operated by the American Section of the International Boundary and Water Commission to regulate delivery of water to Mexico in accordance with the 1906 Treaty provisions. Below Fort Quitman, the 1944 Treaty with Mexico is administered through the International Boundary and Water Commission. The 1944 Treaty requires Mexico to deliver an annual average minimum of 350,000 AF of water to the US from the Rio Conchos River and some smaller tributaries (see maps).

Mexico's Obligation

Rio Grande
Texas Plan

White addressed the problems relating to water use, especially in light of the issues of growth and the "significant legal changes spawned by drought and fiercely competing needs." Texas completed its State Water Plan three years ago. The Plan projected water demands in 2050, with Texas' population expected to double. The projection found that the demands will exceed existing resources, resulting in a 38% water supply shortfall in 2050.

"Bottom Up"

Texas has adopted a "bottom up process" according to White – the State is divided into regions and the regions themselves decide how to meet the future challenges of drought and water shortages. "Water conservation and efficiency have to drive the policy and the decisions in the future. Water law and management must not impede efficiencies or water transfers that are needed." White cited the work of Texas' Conservation Task Force, which includes a 266 page guide to 120 Best Management Practices for different user groups (see website: www.twdb.state.tx.us/assistance/conservation/taskforce.asp).

Conservation BMPs

"Texas must have greater efficiency of water use and conservation must occur to sustain growth. Savings in irrigation efficiencies alone could provide for future municipal use," White said, while pointing out that implementing those efficiencies is projected to cost approximately $200 million.

El Paso Success

Chairman White congratulated the City of El Paso for implementing innovative ways to reduce consumption (down to 139 **g**allons **p**er **c**apita per **d**ay (gpcd) consumption from a high of 230 gpcd in 1977). "Tremendous improvement by El Paso has occurred without the need for mandates from the state." Ed Archuleta, General Manager of El Paso Water Utilities, also spoke at the conference about the changing approach to water policy in Texas. Archuleta discussed El Paso's mandatory water conservation measures, use of reclaimed water, and its 29 million gallon per day desalinization plant, among other issues.

Options

FUTURE ACTIONS WHITE RECOMMENDS INCLUDE:

- Quantify targets in conservation plans: how much is beneficially needed for a particular use
- Eliminate invasive species that consume water (Bureau/Texas study planned regarding salt cedar removal)
- Facilitate transactions or marketing of water rights to meet changing needs and changing uses; Certainty of water rights is needed so that the markets can work (benefit of finishing adjudication of rights); the "Prior Appropriation Doctrine can evolve" White assured the conference
- Better enforcement of water rights may be necessary — Texas has a closely scrutinized system to ensure beneficial use of water with some 24,000 site investigations conducted each year by the watermaster staff on the Rio Grande below Fort Quitman (note that water right holders compensated the TCEQ for all watermaster costs: $533,000 for FY05)

Watermaster Reimbursement

Texas Issues

Chairman White discussed several water issues that Texas is continuing to grapple with. First, there is no international or interstate regulation of groundwater use. Texas also has no instream flow requirements for the Rio Grande River. A focus the last few years has been Mexico's failure to address its water "debt" with Texas under the 1944 Treaty obligations. White said that now is a "critical time for Mexico to address its debt...Texas is negotiating with Mexico and this year provides an opportunity to reduce the debt [due to additional water availability]."

"Takings" Under NAFTA

White briefly alluded to a "novel legal challenge" that has arisen from Mexico's failure to meet its treaty obligations. A "takings" lawsuit has been filed against Mexico under Chapter 11 of the North American Free Trade Act (NAFTA), which allows individuals to sue a country for the loss of property. The Texas water users are claiming a "takings" against Mexico for depriving them of their irrigation water rights. The lawsuit is based on Mexico's obligations under the Treaty of 1944 to deliver an annual average of 350,000 AF to the US from the Rio Conchos and some smaller tributaries [Editor's note: The takings case was filed by the law firm of Marzulla & Marzulla, a Washington D.C. firm that recently gained notoriety for its success in the *Tulare* takings case. [See Moon, TWR #11.] In the Texas case, farmers are seeking $500 million in damages from Mexico].

CONFLICT AND CHANGE - CONJUNCTIVE MANAGEMENT OF WATER NEEDED

Conjunctive Need

"Change is the common denominator in the current management of western river basins," according to Dr. F. Lee Brown, an economic consultant from Albuquerque. With the "...relatively new combination of full appropriation and continuing growth in the demand for water" Brown asserts that water users must do more with conjunctive management of groundwater and surface water. In the Rio Grande, these issues first came to a head in 1956 when then New Mexico State Engineer Steve Reynolds "declared" the Rio Grande ground water basin underlying Albuquerque. The "Order Declaring Rio Grande Underground Water" required that all parties subsequently initiating or expanding pumping from this hydrologically connected aquifer offset the effect of their pumping on the Rio Grande by retiring surface rights. While

Rio Grande

viewing the 1956 declaration as a leading innovation, Brown argued that New Mexico has since lost its leadership role in innovating improved conjunctive management practices and that there are "lessons" to be learned from innovations in the Colorado and Pecos basins.

Lesson A: Treat Ground Water Principally as a Reserve

Arizona Bank

Arizona's novel idea to recharge some of its aquifers as the "beneficial use" for their Colorado River water allocation is a "truly innovative step since it demonstrates the robustness of conjunctive management as a means of ensuring stable water supplies in the future." The Arizona Banking Authority uses Central Arizona Project (CAP) water to bank otherwise unused surface water for future use rather than consuming it in the present. The groundwater provides a reserve against annual fluctuations in surface flow.

New Mexico Purchases & Augmentation

New Mexico increased its reliance on conjunctive management due to the need to increase state line streamflows of the Pecos River by an average of 10,000 AF/year, required by the 1988 Supreme Court decision in *Texas v. New Mexico* (462 U.S. 554). New Mexico's consensus plan utilizes a combined program of purchasing and retiring existing rights (many of which are ground water rights), and establishing an augmentation well field to supplement surface flows. In 2002, New Mexico's legislature appropriated $30 million for the program. [See Water Briefs, TWR #5.]

Aquifer Storage

Dr. Brown brought up a "provocative point," suggesting that another potential solution would be to store water in the aquifer under Albuquerque rather than using Elephant Butte Reservoir for storage. Brown believes that one could save up to 250,000 AF/year or more by avoiding the evaporation that occurs from Elephant Butte Reservoir (as noted earlier, New Mexico bears the burden of evaporative losses when its delivery obligations to Texas are concerned).

Evaporation Avoidance

Another groundwater recharge program mentioned by Dr. Brown is the Hieroglyphic Mountain Recharge Project. With a cost of $5.47 million, the project is designed to provide a recharge of 35,000 AF/year for the next 20 years. Again, a major advantage in addition to lower capital costs compared to surface water reservoirs is the lack of evaporation loss that will occur.

Lesson B: New Interpretations of the Law of the River Through Political Consensus

Nevada "Savings"

The Las Vegas metropolitan area obtains 88% of its water supply from the Colorado River via Lake Mead and Nevada's allocation under the Colorado River Compact is only 300,000 AF/year. Rapidly approaching that limit, the search was on for every conceivable water supply. The Southern Nevada Water Authority recently entered into an agreement with the Arizona Water Banking Authority (December 2004) that establishes a 1.25 million AF "savings account" in Arizona aquifers from an "intentionally created unused allocation" (ICUA) of Central Arizona Project water. A political consensus allowed an innovative interpretation of the US Supreme Court decision in *Arizona v. California* (376 U.S. 340) to occur, thereby modifying the Law of the Colorado River. By doing so, Nevada has basically "found" a new water source and the new term — "intentionally created unused apportionment" — has been added to the lexicon of the Law of the Colorado, Brown said. Using this approach, Nevada banked in excess of 111,000 AF of water by the end of 2004.

"ICUA"

Regulation v. Innovation

Even though Article IX of the Pecos River compact specifically says that New Mexico "shall in all instances apply the principle of prior appropriation within New Mexico" to maintain streamflow to Texas, New Mexico chose not to simply apply the Prior Appropriation Doctrine to regulate off surface water users to increase flows to Texas. Instead, as noted above, New Mexico used a combination of water right purchases and an augmentation well field to supplement surface water flows. New Mexico's Interstate Stream Commission did a study that found that utilizing regulation under the Prior Appropriation Doctrine as a solution would be prohibitively expensive. Brown noted that the solution chosen "deliberately and elaborately avoids" the priority system, yet a district court judge in New Mexico dismissed a challenge to New Mexico's solution based upon the Compact language.

Lesson C: Interstate Transfers Should Not Be Rejected

Speculation?

Dr. Brown also stated his belief that interstate transfers of water "should not be rejected out of hand." Brown recognizes that "unbridled water markets" can be problematic and lead to speculation in water. He cited the market-driven rush to "water ranching" that occurred in Arizona after it passed the Arizona Groundwater Act in 1980. Benefits of the recent interstate transfer agreement with Nevada (described above) via the Arizona Water Banking Authority were made possible by making a state agency

Rio Grande

Market Impacts

Water Values

Drivers

Compact Interface

Colorado Struggle

responsible for the terms and enforcement of the transfer. Using this authority, Brown stated "Arizona has established the capacity to 'internalize' whatever adverse consequences might otherwise occur and charge a premium for them."

Brown said that Utah has expressed interest in the possibility and the state has an unused allocation of Colorado River water. The specter of draining water from less-developed states and devastating local economies may very well make such action impossible to implement. "There are frequently large differences among the states in their respective abilities and willingness to pay for water, and the more slowly developing states see themselves at a serious disadvantage in that regard."

Lesson D: Resolution of Endangered Species Issues Become Difficult as Market Value Rises

Dr. Brown discussed the recent example where an existing reservoir is being expanded in the Yampa River basin in Colorado to provide for endangered species needs [see Water Briefs, TWR #12]. Brown noted that this was possible due to the fact that the Yampa still had unused allocations of water versus the all too often situation of fully appropriated stream systems. "From a market perspective, water is not yet highly valued in the Yampa...because Colorado has not exercised its full entitlement to water under the Upper Colorado River Compact." New Mexico still does not formally recognize instream flow rights, Brown pointed out. With the state of New Mexico becoming involved in water markets to satisfy its Rio Grande Compact obligations to Texas, prices are already on the rise.

Lesson E: "Preventive Diplomacy" and "Aggressive Consensus"

Dr. Brown ended his presentation by referring to the impetus for water solutions. Brown quoted Al Utton, a well-known New Mexico water practitioner, for his term "Preventive Diplomacy." Dr. Brown, however, believes that the true driving force is much more than Preventive Diplomacy and instead should be called "Aggressive Consensus." Oftentimes, the "voluntary" changes that occur begin with a strong push from state or federal authorities which compels the key players to grudgingly make changes that previously would have been settled in court.

CONJUNCTIVE MANAGEMENT

Conjunctive management of surface water and groundwater also drew the attention of other conference speakers. Christopher Rich of the Department of the Interior (Solicitor's Office) said that significant well development was occurring in Mexico along the Lower Rio Grande. Rich maintained that the groundwater use will impact water users in the US, endangering the amount of water that should arrive in Texas.

William A. Paddock of Carlson, Hammond & Paddock (Denver, Colorado) described Colorado's struggle since 1969 with conjunctive use as "remarkably unsuccessful." He mentioned the *Kansas v. Colorado* litigation (Colorado's violation of the Arkansas River Compact with post-compact well development) and how hard it has been for Colorado authorities to shut down groundwater users who are impacting surface water. Paddock said that in New Mexico, especially below Elephant Butte Reservoir, the same issues exist with new groundwater use taking surface water flows and the subsequent impact on deliveries of water from that reservoir to water users in New Mexico and Texas. With both Texas and New Mexico adjudicating water rights on the Rio Grande, Paddock believes that the next step in this process requires the integration of ground water uses into the priority system with surface water — "To do otherwise is often to allow junior water rights to divert water to which senior water rights are entitled... ." The efforts of the Colorado State Engineer to curtail well pumping has "uniformly met with substantial and sustained opposition in the form of protracted litigation" Paddock wrote.

FOR ADDITIONAL INFORMATION:
DAVID MOON, The Water Report, 541/ 485-5350 or email: thewaterreport@hotmail.com

CLE International hosted this impressive conference in Albuquerque with outstanding speakers on many aspects of the Law of the Rio Grande. It should be noted that much more was presented at the conference than was incorporated into the preceding article. An excellent compilation of the papers and materials from the conference is available and can be obtained by contacting CLE International by phone at 800/ 873-7130, or through their website: www.cle.com

Stormwater

STORMWATER MANAGEMENT

INCREASED CONSTRUCTION SITE SCRUTINY: AVOIDING ENFORCEMENT

by Carol L. Forrest, P.E., CPESC, CPSWQ; GeoSyntec Consultants

Lower Permit-Trigger

Stormwater regulations for construction sites, administered under the federal Clean Water Act's National Pollution Discharge Elimination System (NPDES) permit process, have been in place since 1990. However, once the "Phase II" regulations went into effect in 2003 and lowered the permit-trigger from five acres of disturbance to one acre of disturbance, there has been both increased litigation by environmental groups and expanded enforcement by regulators (see Stormwater Penalty Briefs, TWRs #2, #4, #5, & #12). As a result there is increased concern and some confusion in the regulated construction and development community regarding what exactly is required to stay in compliance and avoid fines and litigation in a way that is both feasible and cost-effective.

State Standards

Most state general NPDES construction permits now require that an "effective combination of erosion and sediment control measures" be implemented on a construction site at all times. What does that mean? What are effective erosion and sediment control measures and what is an effective combination of erosion and sediment control measures?

We know what "effective combination" doesn't mean. We know that only running silt fence around the perimeter of a site, as used to be commonly done, is no longer enough. We also know that the regulators are well-informed and understand the functional difference between erosion control and sediment control measures and expect both to be effectively deployed on a site.

Primary Protection

Erosion Control / Sediment Control

AS A QUICK RECAP:

EROSION CONTROL is any practice that protects the soil surface and prevents the soil particles from being detached by the actions of wind or water. Erosion control, therefore, is a source control that treats the soil as a resource that has value and should be kept in place.

SEDIMENT CONTROL is any practice that traps soil particles after they have been detached and moved by wind or water. Sediment control measures are usually passive systems that rely on filtering or settling the particles out of the wind or water that is transporting them.

Which type of control is more effective? Erosion control measures are preferred because they keep the soil in place and enhance protection of the site resources. When possible, erosion control measures should be used as the primary protection with sediment controls as the secondary system.

Prevalent Problems

Our experience with construction site stormwater control measures allows us to identify a number of commonly occurring erosion problems.

PREVALENT PROBLEMS INCLUDE:

- Inappropriate Best Management Practice (BMP) selection or design
- Improper BMP installation
- Inappropriate or inadequate BMP maintenance
- BMP failure (although this is rare)
- Poor vegetation growth
- Unforeseen climatic conditions

BMP Combinations

In combining BMPs for optimal performance to avoid these problems, it is important to include BMPs in every key category: erosion control practices; sediment control practices; drainage control practices; tracking control practices; wind erosion control practices; and non-stormwater pollution control practices.

Planning & Design

Operational BMPs

Informed planning and design should be used as your initial BMP. There are now a range of new and old erosion and sediment control technologies available, as well as new performance data to employ in making good decisions (see Strecker, et al; TWR #6). Various controls should be combined for optimal performance (i.e. operational BMPs). Good erosion and sediment control planning results in an effective combination of erosion and sediment control measures.

Developing an effective **e**rosion and **s**ediment **c**ontrol **p**lan (ESCP) involves a number of important aspects.

Stormwater

Effective Plans

THESE INCLUDE:

- Adapting BMPs to the resources available
- Fitting BMPs to the existing terrain
- Planning that is realistic, practical, easily understood, and easily implemented
- Plans should be cost-effective and consider all relevant criteria
- Plans should combine BMPs to provide "layers of insurance"

During design, the plan developer should consider that the BMP system should have:

- Flexibility to change as site conditions change
- Effective maintenance program
- Monitoring of BMP performance and off-site impacts

Site Visit

Above all, one should avoid "cookie cutter" ESCPs. We frequently talk to engineers who prepare plans without ever visiting the site. This can lead to major problems. A plan that was effective on one site will not necessarily be effective on another site because every site is different. Crucial site differences may include: different soils; different topography; different rainfall; different drainage patterns; different receiving waters; and different critical areas. One must understand these site-specific conditions in order to prepare an effective plan.

Effective Combination of Control Measures

Hypothetical examples using common scenarios can illustrate what we mean by an effective, condition-specific combination of control measures.

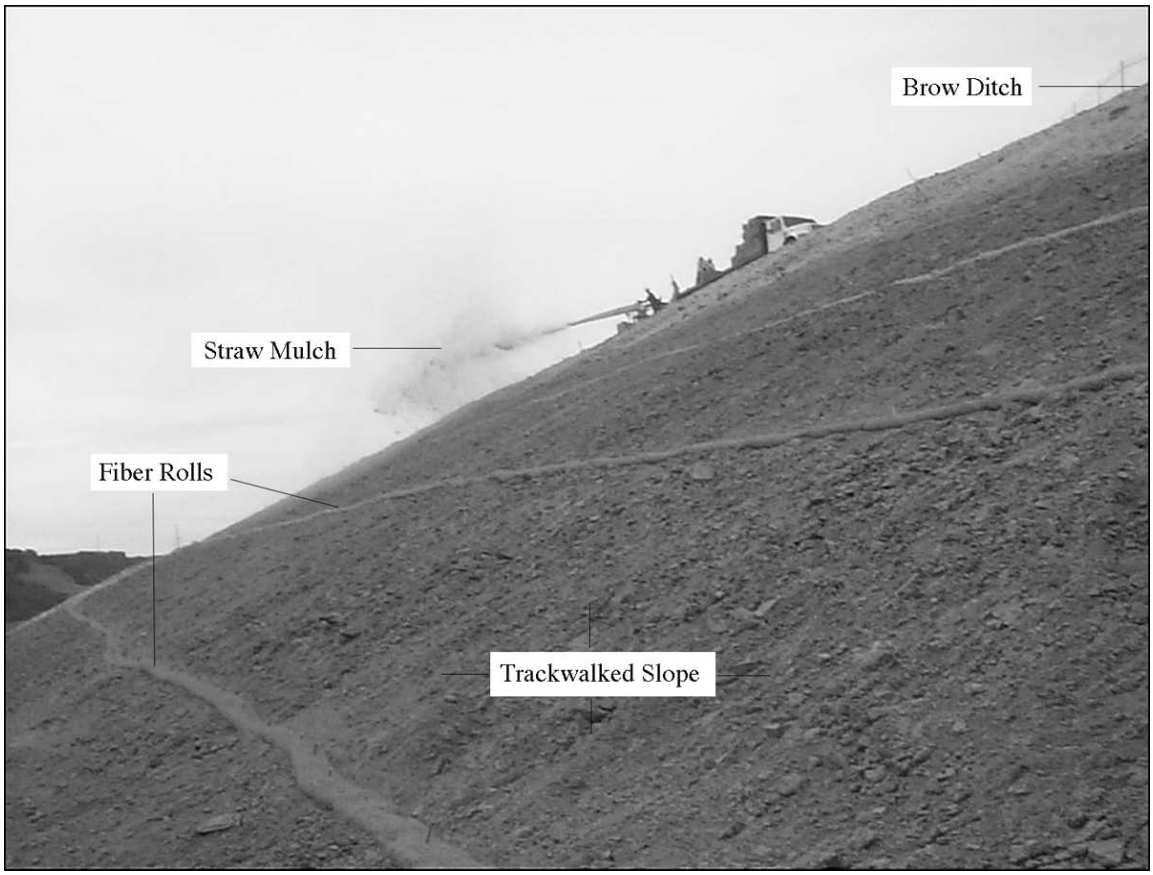
Examples

Example 1: High Embankment Slope

A new, high embankment (fill) slope will be constructed to support a road during the rainy season. BMPS SHOULD INCLUDE:

- "Track walking" the slope. Track walking involves running a tractor up and down (as opposed to across) the slope, which allows the indented tracks to provide soil roughness — thus slowing runoff.
- Installing fiber rolls on contours to reduce the slope length
- Applying blown straw mulch or other source controls to protect the slope surface
- Constructing a brow ditch at top of slope to prevent gullying
- Installing a sediment control barrier at bottom of slope to trap sediment

High Embankment Slope



Stormwater

Examples

Example 2: Clay Soils

Erosion control is necessary at a site where clayey soils predominate.

BMPs SHOULD INCLUDE:

- Relying on source controls to keep the soil in place
- Stabilizing the construction entrance and limiting vehicular entrance, exit, and pathway
- A tire wash facility, if appropriate
- Regularly sweeping or vacuuming impacted streets
- Installing inlet protection (e.g., filtration devices in or around catch basins)
- Utilizing erosion control measures along the site's perimeter

Example 3: Retaining Wall - Sensitive Creek

A retaining wall is being constructed along a road that parallels a sensitive creek.

BMPs SHOULD INCLUDE:

- Identifying and protecting the environmentally sensitive areas
- Installing perimeter control or vegetative buffer between the creek and construction site
- Temporarily diverting the creek, if appropriate
- Stabilizing disturbed areas promptly with blown straw mulch or other source control

Example 4: Fire Aftermath

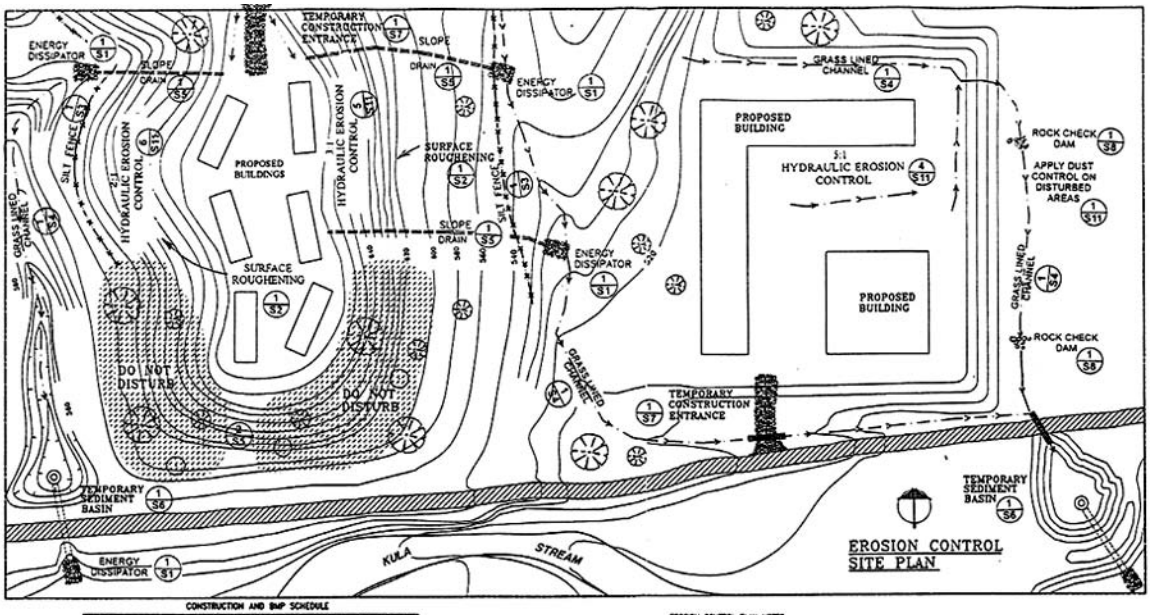
Vegetation has been removed as the result of fire. Homes and storm drains have survived but are vulnerable to high sediment loads.

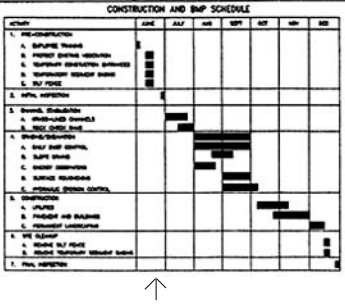
BMPs SHOULD INCLUDE:

- Inlet protection
- Toe of slope protection
- Slope interrupter devices to slow runoff
- Erosion control measures to hold soil in place until vegetation recovers
- Temporary check dams to slow flow in concentrated drainages
- Highly effective erosion control and buffers to protect sensitive areas and values at risk

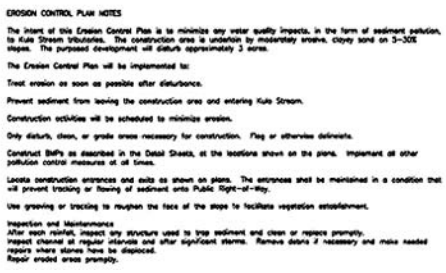
Sequenced BMP Combinations

Sample Site Plan





Sequenced BMPs



Stormwater Internal Review

Tools

Template

Consistency

BMP Manual

Lot Design

Subcontractor Guidelines

Enforcement Issues

Internal Audits & Other Tools

There are additional tools and techniques that can be used to enhance cost-effective compliance with the NPDES construction regulations. One tool that is being increasingly utilized is the Internal Compliance Audit. These audits consist of performing an internal, independent review of compliance to: identify vulnerabilities on construction sites; provide recommendations for rainy season preparedness; and provide for consistency within and among sites.

OTHER TOOLS TO CONSIDER INCLUDE:

- Template Storm Water Pollution Prevention Plan (SWPPP) or ESCP and Guidance Document for Users
- Standardized BMPs
- Standardized BMP Lot Designs
- Tradesheets

TEMPLATE PLANS

The Template SWPPP or ESCP is not intended to preclude the engineer or plan preparer from using good judgment or original thought. Instead, it is intended to provide appropriate language and elements that will withstand legal challenges and regulatory scrutiny. We frequently find plans that are missing a key component, and a Template SWPPP or ESCP helps to preclude this from happening.

STANDARDIZED BMPS

The standardized BMPs are intended to provide consistency to contractors in BMP specifications and details. For example, the Oregon Department of Environmental Quality (ODEQ), under a grant from the US Environmental Protection Agency (EPA), will soon be making a new statewide BMP manual available on CD for use throughout Oregon. The purpose of the manual is to present standardized, comprehensive erosion and sediment control BMPs for use throughout the state, and guidelines for the construction industry, inspectors and other interested parties to facilitate effective implementation of erosion and sediment control measures and reduce construction-related water quality impacts. Additionally, the manual will include non-stormwater pollution control BMPs and soil bioengineering techniques for erosion control and stream stabilization. ODEQ has sponsored a series of training workshops throughout the state targeted to local governments, state inspectors, building contractors, and site development engineers. [Contact: Kevin Masterson, ODEQ, 503/ 229-5615 or email: masterson.kevin@deq.state.or.us]

STANDARD BMP LOT DESIGNS

Some developers are generating Standard BMP Lot Designs as a tool to gain consistency among sites. The standard BMP lot designs are based on stage of construction, type of construction, and geographic location. They are simple, 8-1/2 x 11 plans that are easily understood.

TRADESHEETS

Another tool to consider is the use of Tradesheets. Tradesheets are water quality protective performance guidelines designed for the various specific subcontractor trades that are active on a construction site, particularly during vertical construction. These work-practice guidelines target: framers; roofers; painters; stucco appliers; landscapers; and any other construction trades who have a high turnover of personnel on the site and a high potential to pollute stormwater runoff. The tradesheets should be simple (one page), bilingual as appropriate, and enforceable by being included in the contract documents.

Regulatory "Hot Buttons"

Audits of hundreds of construction sites across the country have disclosed the most common problems leading to regulatory enforcement actions.

REGULATORY "HOT BUTTONS" INCLUDE:

- Inadequate documentation
- Inadequate combination of erosion and sediment control measures
- Tracking off site
- Trash and debris on site
- Poorly managed washouts (concrete, paint, and stucco)
- Poorly placed and managed sanitary facilities (porta-johns)
- Inadequate BMP maintenance

INADEQUATE DOCUMENTATION

Inadequate documentation includes the SWPPP or ESCP not being kept up-to-date with current site activities/conditions; inspections and repairs not documented; and training not documented.

Stormwater Map Progress

The contractor should keep a progress map on the wall of the construction trailer that shows the current state of BMP deployment that is dated and color-coded. Notations should be made if a BMP is temporarily removed or an alternative BMP is substituted. Supplementing the progress map with timely photographs (both ground and aerial) can help the contractor provide visual back-up to enforcement personnel of his stormwater pollution prevention activities.

Hot Buttons

Inadequate Combination of Control Measures

An inadequate combination of erosion control measures in readily apparent by reliance on sediment controls, or off-site discharges of sediment-laden stormwater runoff. An effective combination includes source control measures with sediment control barriers as the last line of defense before runoff leaves the site.

Tracking Off Site

Tracking off site is one of the biggest sources of public complaint about construction sites and can easily attract unwanted regulatory scrutiny. Keeping the construction entrance stabilized and clean is an on-going effort that pays off by giving an impression of good housekeeping on a site. Entrance/exit maintenance includes: limiting access points; stabilizing the entrance; using a tire wash where necessary; and sweeping the street.

Trash & Debris

Trash and debris needs to be continually controlled and picked up on the site. Adequate numbers, types, and locations of trash containers are important. Trash containers should be solid-bottomed and able to be covered.

Washouts

Washouts for concrete, paint, and stucco need to be provided throughout the site at appropriate locations (with signage) and properly maintained.

Sanitary Facilities

Sanitary facilities should be located off the street (for safety purposes) and provided with secondary containment. In areas of high winds, they should be secured to the ground.

Maintenance

Inadequate BMP Maintenance

Inadequate BMP maintenance is evidenced by: eroded soils; tattered silt fence; damaged inlet protection; and fiber rolls or gravel bags damaged by vehicles. Labor and materials should always be kept on site for rapid deployment, and repairs should be made within 48 hours of an inspection.

Training

Training & Awareness

Training and awareness for personnel on a construction site are key. Training should be formal and informal and occur on an on-going basis. All training should be documented.

Classroom training should include:

- How to Prepare an Effective ESCP or SWPPP, NPDES refresher training
- How to Install and Maintain BMPs
- Hands-on field training on proper BMP installation and inspection

Other good forums for water quality discussions and training include weekly tailgate or safety meetings. Every site should include informative and bilingual signage on adherence to NPDES regulations, location and use of washouts, and protection of BMPs from damage.

For Additional Information:

Carol Forrest, GeoSyntec Consultants (San Diego, CA), 619/ 297-1530 x204 or email: cforrest@geosyntec.com

Carol Forrest has more than 25 years of experience in urban runoff, stormwater quality, erosion control, and watershed management. She is a registered civil engineer, a registered geotechnical engineer, a Certified Professional in Erosion and Sediment Control (CPESC), and a Certified Professional in Storm Water Quality (CPSWQ). In addition, Carol has been very active in International Erosion Control Association, and has provided training to thousands of erosion control practioners across the county.

Permit Management

Issues

Agreement

River Trust

Goals

Regulatory Requirements

ESA Approach

STREAMLINING FEDERAL PERMITS IN PORTLAND

PORTLAND / FEDERAL AGENCIES COORDINATION

by Mike Reed, Federal Permits Compliance Manager, City of Portland

The City of Portland spans the lower Willamette River as it reaches the Columbia River in Oregon. Portland Harbor was declared a Superfund cleanup site in December 2000 and also provides passage for salmonids listed as threatened under the federal Endangered Species Act (ESA).

On February 14, 2003 the City of Portland and three federal agencies signed an agreement to establish a cooperative process for streamlining federal permitting of City projects including Section 7 consultations under the federal ESA. At the time of the signing this was the first such agreement between a municipality and federal agencies in the nation. Despite the demonstrable benefits, in the two years since this signing, the City of Portland has not become aware of another example of this type of agreement being established elsewhere. [A Copy of the *Endangered Species Act Section 7 Streamlining Agreement Between the City of Portland, NOAA Fisheries, US Army Corps of Engineers and US Fish and Wildlife*-2/14/03 (Agreement) may be accessed online from the City of Portland's ESA-related website: www.fish.ci.portland.or.us (>> "What's New" >>: *Streamlining Agreement*)]

The federal agency leaders signing the Agreement included Michael Tehan, Oregon State Director, NOAA Fisheries; Kemper McMaster, Oregon State Supervisor, US Fish and Wildlife Service (USFWS); and Colonel Richard Hobernicht, District Engineer for the Portland District of the US Army Corps of Engineers (Corps).

The federal agencies supporting the Agreement are part of the Portland River Trust, which was created to structure a more effective relationship between the City of Portland and the agencies making key decisions affecting the lower Willamette River. This effort to initiate a partnership with the regulatory agencies was itself part of the City's "River Renaissance Program" which was designed to integrate watershed health and environmental needs of the Willamette River with economic and social goals of Portland.

THE RIVER RENAISSANCE PROGRAM ESTABLISHED FIVE GOALS:

1) Ensure a clean and healthy river system for fish, wildlife and people
2) Maintain and enhance the City's prosperous working harbor
3) Embrace the river and its banks as Portland's front yard
4) Create vibrant waterfront districts and neighborhoods
5) Promote partnerships, leadership, and education

The Portland River Trust is considered a key arrangement for bringing these agencies together and achieving this vision.

Staff from the federal agencies and the City of Portland (City) began implementing the Agreement in September of 2003. The Team appointed to implement the Agreement included: John Barco, Corps; Nancy Munn, NOAA Fisheries; Greg Smith, USFWS; and Mike Reed for the City.

The following article describes how this Agreement came about, how it works, the range of issues covered and how it may evolve in the future.

Background

The City, like many other local jurisdictions, has a long history with federal laws like the Safe Drinking Water Act (SDWA) and the Clean Water Act (CWA) and in particular the CWA's National Pollutant Discharge Elimination System (NPDES) permits program. In recent years the City has had to respond to additional federal regulatory requirements, including: listings of steelhead and Chinook under the ESA; an amended stipulated and final order to reduce combined sewer overflows; and placement of the lower Willamette River on the National Priorities List pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund.

The City has been working to meet the obligations of these federal laws by implementing a variety of programs. In response to the Endangered Species Act listings the City Council adopted a resolution in 1998 that laid out a response to the listings

THE FOUR-PRONGED APPROACH TO THE ESA INCLUDED:

1) establishing a city-wide response that maximizes effectiveness and efficiency
2) taking a proactive approach and working in collaboration with NOAA Fisheries
3) integrating a City response with regional and state responses
4) enlisting the assistance of the City's citizenry in the response

Permit Management

ESA Framework

To meet the Council's intent, the City has been actively engaged in developing a watershed-based planning framework for integrating City activities (see the discussion of the *Framework for Integrated Management of Watershed Health* below). This effort has included conducting fish and habitat inventories in the lower Willamette River including its tributaries. The City has also developed programs to fit under the ESA's "4(d) rule" exclusions. [Editor: The ESA 4(d) rule allows concerned federal agencies to deem that certain activities or programs are being conducted in a manner protective enough to warrant easing ESA "take" prohibition requirements.] ESA 4(d) approval has been gained for both Portland Parks and Recreation vegetation management activities and for routine road maintenance activities performed by the Portland Department of Transportation and Bureau of Maintenance. The City recently completed a sub-basin plan of the Willamette Basin in coordination with other basin players as part of the larger Columbia basin planning efforts under the auspices of the Northwest Power and Conservation Council. The City is currently working with NOAA Fisheries to create a 4(d) rule limit for the Bureau of Environmental Services stormwater management services.

Stormwater BMPs

In response to the requirements of the NPDES permit, the City has created a variety of best management practices programs that includes the *Stormwater Management Manual*. The Manual requires stormwater treatment on all new developments and redevelopments (public and private) with over 500 square feet of impervious development within the City of Portland. The Manual provides developers and design professionals with specific requirements for reducing the impacts of increased stormwater runoff flow quantity and pollution based on stormwater management principles and techniques to help achieve Clean Water Act goals. [The City's *Stormwater Management Manual* is available online at: www.portlandonline.com/bes/index.cfm?c=35122]

Combined Sewer Overflows

Treating stormwater runoff has been seen as a means for meeting additional state and federal mandates. Stormwater left untreated can increase runoff during rainfall events, change the hydrologic cycle, and increase pollutant levels —potentially creating a complex combination of CWA, ESA and Superfund implications. Finding ways to keep stormwater out of the combined storm and sewer pipes has been an additional concern for the City as it works to meet an amended "Stipulated and Final Order" to reduce combined sewer overflows.

Watershed Approach

With the recent listing of the Portland Harbor as a federal Superfund site, the City saw that cleanup and restoration actions would need to be undertaken in a manner that was more closely coordinated with the ESA and CWA. The City initiated a process to look into a more strategic and comprehensive response to these mandates.

It was decided that — working through the River Renaissance strategy — the then fragmented effort could be replaced with a strong partnership among agencies working with the City. The City, with its partners, could develop a streamlined and comprehensive approach to lower Willamette River issues. Focussing on the recovery of watershed health was recognized as a means to integrate the CWA, ESA, SDWA and Superfund. The City created a *Framework for Integrated Management of Watershed Health* which describes a watershed planning process based on scientific principles and analytical tools that informs all City government activities affecting watershed health [The *Framework* is available from the City's website address: www.fish.ci.portland.or.us — select "Framework"]. The watershed approach also creates a foundation for integrating the City's responses to regional, state and federal environmental laws.

Streamlining Team

The first River Trust meeting was held in April of 2002. One of the outcomes of the meeting was identifying a range of opportunities for integrating efforts in the lower Willamette. An important recommendation included developing a process for streamlining ESA Section 7 consultations and permitting. The River Trust agreed to designate staff to develop a streamlining process. The process was to include the creation of a Streamlining Team consisting of agency and City representatives and an agreement that would guide this coordination. Furthermore, the Streamlining Team would have the authority to conduct Section 7 consultations, issue permits and write biological opinions. The agreement would spell out goals and procedures for streamlining ESA Section 7 consultations and as well as other state and federal regulatory requirements.

Authority

Nuts and Bolts of the Streamlining Agreement

Goals

GOALS OF THE AGREEMENT INCLUDE:

- ensuring that City projects are constructed and implemented in a timely manner
- improving coordination, communication and agreement on formal and informal consultations on ESA-listed and ESA-proposed species prior to project development;
- ensuring that activities do not jeopardize species listed or proposed-to-be-listed under the ESA, or result in the destruction/adverse modification of these species' designated critical habitat, or result

Permit Management
Monthly Meetings

in unauthorized "take" of these species during implementation of a project or activity
- supporting conservation and recovery of listed and proposed species

THE CITY AND FEDERAL AGENCY REPRESENTATIVES MEET ON A MONTHLY BASIS TO:
- Review early presentations of project conceptual designs
- Discuss information, documentation and timeframes for project designs and biological assessments
- Agree on the use of the *Programmatic Biological Opinion for Standard Local Operating Procedures for Endangered Species* (SLOPES) for projects requiring Department of Army permits [The Corps' Portland District uses SLOPES to guide its review of individual permit requests under section 10 of the Rivers and Harbors Act and section 404 of the CWA and if they are found to be within the range of effects considered in the June 14, 2002 Biological Opinion issued by NOAA Fisheries they are issued a permit with conditions. The SLOPES Programmatic Biological Opinions are found on NOAA's website: www.nwr.noaa.gov/1publcat/bo/]
- Develop strategies for complying not only with ESA but other state and federal regulatory requirements (For example, the Oregon Department of State Land's Removal-Fill law and Oregon Department of Environmental Quality's Section 401 Water Quality Certification. See the discussion below describing the state agencies role in the Agreement)

"SLOPES"

Early Review

Per project, a minimum of two meetings are held among City project proponents and the Streamlining Team to address the project at the conceptual stage and to identify specific permitting issues. The Team reviews project designs, specifies additional information needs and provides early calls on effects determinations concerning a project's possible effects on ESA-listed species. When a biological assessment is required, the effects call is presented and NOAA Fisheries, USFWS and the Corps determine if they can come to agreement on the effects determination. Permit application review schedules are also determined with the appropriate agencies.

Lastly, the Streamlining Team recognized there may be times when disagreements occur. When this happens the issue is elevated to an upper management team for resolution.

Elevating Issues

Elevated decision-making will occur if Team members cannot reach consensus on:
- The level of information needed to complete consultation on a project
- The determination of effects of the activity
- Differences in interpretation of regulations/missions/legal constraints prevent Team members from reaching a workable consensus

Thus far, it has not proven necessary to bump any decision making "upstairs."

State Actions

State Agency Participation

Due to the key role that several state agencies play in permitting these City activities, certain agencies have been asked to participate in the monthly Streamlining Team meetings. They include the Oregon Departments of State Lands (ODSL), Environmental Quality (ODEQ) and Fish and Wildlife (ODFW). ODSL provides early feedback and direction to City projects for Removal-Fill and General Authorization permit applications. ODFW provides additional guidance on ODSL permit applications as well as guidance for inwater work window extension requests, fish passage requirements and placement of wood in streams. ODEQ gives the City direction for meeting state water quality goals under Section 401 of the Clean Water Act. These Water Quality Certifications are later attached to the Corps Section 404 permit conditions.

The state agencies also participate with the City and federal agencies with early reviews of City projects and coordination with permit review and completion schedules. The City has plans to formally invite the state agencies to participate in the Streamlining Team meetings in the near future.

Benefits

Examples of the Agreement at Work

A range of City activities and projects have benefited from the Agreement in the year and a half that it has been in place. The Agreement has helped the City acquire permits more quickly and work through some very complex issues. Among the notable examples is a restoration project on Kelley Creek (a tributary to Johnson Creek) designed to reconnect floodplains to the channel to increase flood storage and off-channel opportunities for fish and wildlife as part of a larger basin-wide effort to reduce nuisance flooding. Permits for this project were acquired from the Corps and ODSL, a Water Quality Certification from ODEQ and a biological opinion from NOAA Fisheries in a record 53 days. This is remarkable given it can easily take up to 120 days to acquire a Corps Section 404 permit as well as a ODSL Oregon Removal/Fill permit. A Section 7 consultation with NOAA or USFWS can take up to 135 days to issue a biological opinion with terms and conditions that are applied to the Corps Section 404 permit.

The Agreement has also proven capable of helping the City and the resource agencies work through

Permit Management

Sediments

some complex permitting issues involving contaminants. A recent City project involved a proposed maintenance dredge in contaminated sediments in the lower Willamette River. The City's Fireboat Station 6 (located near the Fremont Bridge) proposed to remove sediment buildup beneath the fireboat docking area and boathouse that were impeding moorage of fireboats during low flows. The City was concerned that loss of fireboat access to Station 6 could significantly reduce emergency responses in the lower Willamette River.

To secure permits to remove the sediment, the City and agencies were required to follow the Dredged Material Evaluation Framework (DMEF) process to characterize the material proposed to be dredged and to determine the appropriate disposal methods, locations and capping requirements. The DMEF was drafted in 1998 by a Regional Management Team ("RMT"— consisting of the US Environmental Protection Agency (EPA), ODEQ and the Corps) to provide input on dredge projects using the DMEF. Unfortunately some key agencies were not party to this earlier version including NOAA Fisheries and USFWS (A revised version is currently in the works incorporating concerns of a broader range of players such as NOAA Fisheries and USFWS referred to as the "Regional Sediment Evaluation Team").

Issues

The Streamlining Team was faced with a range issues including: an earlier EPA recommendation to the Corps not to issue a permit for dredging; a second round of sampling; and a NOAA Fisheries request to expand the number of contaminants to be included in the amended required sediment analysis. Through increased coordination and communication with members of the RMT, the Team was able to ensure that contaminated sediments and the exposed dredged surface were adequately addressed and that state and federal compliance requirements were met. The Fireboat Station 6 maintenance dredge was able to occur.

Public-Private

Finally, while the Agreement was not designed to work with privately sponsored projects, a unique public-private permitting effort in the early stages of the Streamlining Agreement is worth mentioning. In this case developers for the South Waterfront urban renewal project located on the Willamette River were interested in using state-of-the-art stormwater and riverbank treatments but were unwilling to take on the potential risks associated with obtaining multiple state and federal permits. Their original plan was to follow a more predictable path that included sending stormwater through existing pipes to an outfall — a path considered less effective by the City and the developers for protecting water quality, more expensive to maintain over time and one that did not include restoration actions.

Results

The City and developers chose to partner on the project using the streamlining process to acquire the permits. The end result was a project that added more than 200 feet of bank restoration and a more effective stormwater quality treatment facility (vegetated bioswale). Total project costs were also less than had been budgeted for the pipe-based project.

Next Steps for the River Trust and Agreement

Future Projects

The Streamlining Team will be addressing a range of City projects in the near future including: the repair of exposed sewer lines in the Willamette River and in Johnson Creek; a restoration project to connect floodplain wetlands in the lower Columbia Slough funded by a NOAA Community Based Restoration Grant; and a joint public-private effort to daylight a stream in a headwater tributary to Tryon Creek in conjunction with an affordable housing development.

For the future, a maintenance dredge is planned for the seawall in the lower Willamette River to continue to allow access for deep draft ships such as US Navy ships, Canadian ships, and cruise liners. Traditional activities at Portland's annual Rose Festival includes the Navy sending in ships to bolster the event. One reason the City is very interested in assisting with the maintenance dredge permits is that the Rose Festival brings in an estimated $80 million dollars annually to the downtown business community.

Next Step

Future River Trust meetings will continue to explore the development of a comprehensive federal/ state/local jurisdictional watershed approach in the lower Willamette River. The City will be seeking to expand the River Trust by formally inviting state agencies to play a role in the Trust and Streamlining Agreement. The City is also exploring what a coordinated City/agency streamlining effort might look like for privately sponsored projects, whether that would include an expansion of the current process in place or the creation of something entirely different.

For Additional Information:
Mike Reed, City of Portland Federal Permits Compliance Manager, 503/ 823-3399 or email: MichaelR@BES.CI.PORTLAND.OR.US

WATER BRIEFS

GROUNDWATER HOLDING - NEBRASKA

CONJUNCTIVE USE ISSUE

On January 21, the Nebraska Supreme Court issued its decision in an important case involving interference with surface water rights by groundwater use. Spear T Ranch sued upstream groundwater irrigators, alleging that their groundwater use had depleted the water flowing in Pumpkin Creek due to the hydrologic connection, thereby preventing Spear T's use of surface water. The Supreme Court held that Spear T Ranch can proceed with its suit against the groundwater users, holding that the lower court should have allowed Spear T to amend its complaint to properly state a tort claim (liberally allow amendments where justice requires). The court, however, limited the scope of its decision on several crucial points.

The court first recognized the interrelationship between groundwater and surface water, finding that "Hydrologically, ground water and surface water are inextricably related. Ground water pumping can cause diminished stream-flows." *Spear T Ranch v. Knaub, et al.*, 269 Neb. 177, 183 (2005). The court, however, then went on to explain why conjunctive use (integrated system of groundwater and surface water) is not applicable in this case. "But Nebraska water law ignores the hydrological fact that ground water and surface water are inextricably linked. Instead of an integrated system, we have two separate systems, one allocating streamflows and the other allocating ground water. Under constitutional and statutory provisions, streamflows are allocated by priority in time. See Neb. Const. art. XV, § 6. Ground water, in contrast, is governed by a common-law rule of reasonableness and the GWMPA [Ground Water Management and Protection Act]. Moreover, the lack of an integrated system is reinforced by the fact that different agencies regulate ground water and surface water. The Department of Natural Resources regulates surface water appropriations. See Neb. Rev. Stat. § 61-201 et seq. (Reissue 2003 & Cum. Supp. 2004). In contrast, under the GWMPA, ground water is statutorily regulated by each Natural Resources District (NRD)." Id. at 183-184.

The principle that groundwater should be regulated according to the Prior Appropriation Doctrine that governs surface water rights ("first in time, first in right") was rejected by the Supreme Court, based on some interesting logic. "First, an application of surface water priorities to ground water requires this court to agree with a legal fiction that considers the ground water to be an 'underground stream.' We take as true that the water is hydrologically connected, but water rarely runs in a true underground stream. See Richard S. Harnsberger & Norman W. Thorson, *Nebraska Water Law & Administration* § 1.07 at 13-14 (Butterworth Legal Publishers 1984). Adherence to such a view ignores reality. Second, no statutory or case law authority supports applying surface water appropriations to groundwater. We recognize that most legislatures in western states have developed comprehensive appropriation systems overseen by administrative agencies. See Restatement (Second) of Torts, Ch. 41, topic 4 (1979). But in Nebraska, the Legislature has not developed an appropriation system that addresses direct conflicts between users of surface and ground water that is hydrologically connected. Finally, the prior appropriation rule that Spear T advocates would give first-in-time surface water appropriators the right to use whatever water they want to the exclusion of later-in-time ground water users. This could have the effect of shutting down all wells in any area where surface water appropriations are hydrologically connected to ground water. Richard S. Harnsberger et al., *Groundwater: From Windmills to Comprehensive Public Management*, 52 Neb. L. Rev. 179, 248 (1973) ("[i]f the doctrine of prior appropriation [was] carried to [its] logical conclusion, all Nebraska wells would be shut down"). This would unreasonably deprive many ground water users. Accordingly, we decline to apply the statutory surface water appropriation rules to conflicts between surface and ground water users." Id. at 184-185.

The Supreme Court also rejected Spear T's assertions for claims based on a "conversion" of property or trespass, finding that "Because Spear T does not have a property interest in its surface water appropriation and only has a right to use, it cannot state a claim for conversion or trespass." This finding runs counter to Supreme Court holdings in many states throughout the West that explicitly have held that water rights, though limited to "usufructary" or use rights, are nevertheless, considered to be constitutionally protected property rights.

The court then focused on various doctrines concerning groundwater use and torts law, while relying heavily on Richard S. Harnsberger & Norman W. Thorson, *Nebraska Water Law & Administration* § 5.27 (Butterworth Legal Publishers 1984) and a law review article, Richard S. Harnsberger et al, *Groundwater: From Windmills to Comprehensive Public Management*, 52 Neb. L. Rev. 179, 248 (1973). The court also cited court cases from three states in 1974, 1982 and 1984 that do not follow the Prior Appropriation Doctrine (see *Spear T Ranch* at 186-194). The court noted it is following a "modern trend," referring to the three cases from 1974, 1982 and 1984 that adopted the Restatement of Torts. The court's citations to cases and sources over 20 years old is interesting in light of the huge strides that have been made recently in the understanding of groundwater resources and the increasing attention on conjunctive use in water law.

The court set a standard for recovery for a "common-law claim for interference with surface water by a user of hydrologically connected groundwater" (Id. at 193) by adopting language directly from the Restatement (Second) of Torts § 858(1)(c) at 258 (1979): "A proprietor of land...who withdraws groundwater from the land and uses it for a beneficial purpose is not subject to liability for interference with the use of water of another, unless...the withdrawal of the groundwater has a direct and substantial effect upon a watercourse or lake and unreasonably causes harm to a person entitled to the use of its water."

Justice Connolly went on to state that "Whether a groundwater user has unreasonably caused harm to a surface water user is decided on a case-by-case basis. In making the reasonableness determination, the Restatement, supra, §805A, provides a valuable guide, but we emphasize that the test is flexible and that a trial court should consider any factors it deems relevant."

WATER BRIEFS

While noting that the issue was not before them (dicta), the Supreme Court added a caveat concerning remedies that can be applied when interference due to groundwater use is at issue. "Because the recharge of a stream that has dried up because of well pumping could take years, an injunction against pumping might only serve to deprive everyone in a water basin. Such a remedy would be unreasonable and inequitable," Justice Connolly wrote.

The court also addressed the assertion that the Nebraska Legislature, by passing the Ground Water Management and Protection Act had eliminated any right of recovery by Spear T Ranch. The court found: "Thus, we determine that the GWMPA does not show either an express or implied abrogation of the common law. Although we believe the GWMPA is a step toward reducing future conflicts through general regulation and not an attempt to replace a common-law claim with a system of administrative adjudication, we do not intend to discourage the Legislature from acting in this area. Ideally, the Legislature would develop a comprehensive administrative appropriation system, including procedures and remedies, to adjudicate direct conflicts between ground water and surface water users in Nebraska. This would be consistent with how most legislatures in western states have addressed conflicts between water users." Id. at 201.

The ruling also noted that the case was not controlled by Nebraska's new water policy law passed last year governing surface water and groundwater use (LB 962) because those laws are not retroactive. Id. at 201. (See LB 962 - 2004 Legislature: Nebraska DNR website at http://www.dnr.state.ne.us/LB962/LB962Implementation.html). Those laws were passed specifically to address the integrated management of surface water and groundwater (see Report of Water Policy Task Force, December 2003: www.nrdnet.org/2004%20Legislative%20Updates/FinalReport1-02-04.pdf).

A companion case will undoubtedly also impact Nebraska water law and the regulation of groundwater. The second Spear T lawsuit, seeking more than $4 million in damages from the state, is pending before the Nebraska Supreme Court. Spear T in that case maintains that the state granted too many groundwater permits along Pumpkin Creek, thus leading to the depletion in surface flow. The State Claims Board rejected the claim which then led to the lawsuit. The same judge who dismissed the suit against the groundwater irrigators, also dismissed the claim against the state, on the basis that the state had no duty to regulate groundwater use.

Another lawsuit is pending before the Nebraska Supreme Court which also involves the issue of groundwater interference with surface water. The Central Nebraska Public Power and Irrigation District (CNPPID) sued the Nebraska Department of Natural Resources (DNR) to assert that the agency should have stepped in to protect surface water users when their rights are depleted by use of hydrologically connected groundwater. DNR denied the claim on the basis that DNR's authority only exists over surface water, while groundwater use is controlled by Natural Resources Districts.

For info: Case available for review, website: http://caselaw.lp.findlaw.com/data2/nebraskastatecases/sc/jan21/s03-789.pdf.

US SECOND CIRCUIT HOLDING

EPA'S CAFO RULES

The US Court of Appeals for the 2nd Circuit issued a decision February 28 on EPA's 2003 rule concerning the Clean Water Act (CWA) and regulation of concentrated animal feeding operations (CAFOs) in *Waterkeeper Alliance, Inc., et al. v. EPA*. CAFOs are the largest of the nation's 238,000 agriculture operations where animals are kept and raised in confinement. On February 12, 2003, EPA promulgated its Final CAFO Rule (CAFO Rule or Rule). See 40 C.F.R. §§ 9, 122, 123, 412; and Preamble to the Final Rule at 7176. The federal appellate decision produced a mixed result, ruling in favor of the "Farm Petitioners" and "Environmental Petitioners" on different issues in the case, with a major rewrite of the rule likely following the ruling. The challenges considered by the court can be divided into three general categories: (1) challenges to the permitting scheme established by the CAFO Rule; (2) challenges to the types of discharges subject to regulation under the CAFO Rule; and (3) challenges to the effluent limitation guidelines established by the CAFO Rule.

Environmental groups complained that the Rule created an "impermissible self-regulatory permitting regime." The court agreed with the Environmental Petitioners that the CAFO Rule is unlawful because first, it allowed NPDES authorities to issue permits to Large CAFOs in the absence of any meaningful review of the nutrient management plans the CAFOs themselves developed. Secondly, the Rule failed to require that the terms of the nutrient management plans be included in the NPDES permits. The court found that "the CAFO Rule does not adequately prevent Large CAFOs 'from misunderstanding or misrepresenting' their specific situation and adopting improper or inappropriate nutrient management plans, with improper or inappropriate waste application rates." Slip Opinion at 21. The court also ruled that nutrient management plans must be made available for public comment, overturning a portion of the rule that effectively prevented the public from viewing the plans. "More specifically, the CAFO Rule prevents the public from calling for a hearing about - and then meaningfully commenting on - NPDES permits before they issue. See 33 U.S.C. §§ 1342(a), 1342(b)(3). The CAFO Rule also impermissibly compromises the public's ability to bring citizen-suits, a 'proven enforcement tool' that Congress intended [to be used...] to both spur and supplement government enforcement actions." Id. at 27.

The Farm Petitioners successfully challenged the permitting scheme established by the CAFO Rule. The court ruled that EPA exceeded its statutory jurisdiction by requiring all CAFOs to either apply for NPDES permits or otherwise demonstrate that they have no potential to discharge pollutants: "...in the absence of an actual addition of any pollutant to navigable waters from any point, there is no point source discharge, no statutory violation, no statutory obligation of point sources to comply with EPA

regulations for point source discharges, and no statutory obligation of point sources to seek or obtain an NPDES permit in the first instance." Id. at 29.

The court also dealt with runoff from agricultural fields where CAFO waste has been applied. The court noted that "...the Rule, like the Clean Water Act itself, carves out an exception [from NPDES requirements] where the discharge in question is 'an agricultural storm water discharge,'... any 'precipitation-related discharge of manure, litter, or process wastewater from land areas under the control of a CAFO' where the 'manure, litter or process wastewater has [otherwise] been applied in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization.' 40 C.F.R. § 122.23(e). 7." Id. at 32-33. The court held that the exception for agricultural run-off is proper under the CAFO Rule: "...discharges from land areas under the control of a CAFO can and should generally be regulated, but where a CAFO has taken steps to ensure appropriate agricultural utilization of the nutrients in manure, litter, and process wastewater, it should not be held accountable for any discharge that is primarily the result of 'precipitation.'" Id. at 36.

Regulation of "uncollected" discharges were also addressed by the court. The Farm Petitioners contended that the CAFO Rule violates the CWA since it regulates "uncollected" discharges from land areas under the control of a CAFO; they asserted that runoff from land application areas, unless "collected" or "channelized" at the land application area itself, does not constitute a point source discharge. The court rejected that view, ruling instead that "regardless of whether or not runoff is collected at the land application area, itself, any discharge from a land area under the control of a CAFO is a point source discharge subject to regulation because it is a discharge from a CAFO." Id. at 38. "We believe, however, that the Act not only permits, but demands, that land application discharges be construed as discharges 'from' a CAFO to the extent that they are not otherwise agricultural stormwater." Id. at 39.

The court agreed with environmentalists' arguments regarding EPA's decision to allow new facilities to discharge in the event of a "100-year, 24-hour rainfall event." EPA's proposed rule imposed a "total prohibition" on discharges. In the final rule, however, EPA incorporated language allowing discharges in the event of a 100-year storm without public comment. The court held that action violated the CWA's public participation requirements.

The 2nd Circuit also remanded other aspects of the CAFO Rule to EPA for further clarification and analysis, directing EPA to: "(1) definitively select a BCT standard for pathogen reduction; and (2) clarify - via a process that adequately involves the public - the statutory and evidentiary basis for allowing Subpart D CAFOs to comply with the new source performance standard by either: (a) designing, constructing, operating and maintaining production areas that could contain all manure, litter and process wastewater including the runoff and the direct precipitation from a 100-year, 24-hour rainfall event; or (b) complying with alternative performance standards that allow production area discharges, so long as such discharges are accompanied by an equivalent or greater reduction in the quantity of pollutants released to other media. Additionally, we direct the EPA to clarify the statutory and evidentiary basis for failing to promulgate water quality based effluent limitations for discharges other than agricultural stormwater discharges, as that term is defined in 40 C.F.R. § 122.23(e), and also direct the EPA to clarify whether states may develop water quality based effluent limitations on their own." Id. at 65.

For info: Case available at website: http://caselaw.lp.findlaw.com/data2/circs/2nd/034470p.pdf

WATER QUALITY DATABASE

EPA's Office of Water has released the first-ever interactive database of state water quality assessment data, providing the public with easy Web access to water quality information at the state and local levels. The 2002 reporting cycle was a transition period between traditional 305(b) water quality reporting, and integration of 305(b) with reporting of impaired waters under section 303(d) of the Clean Water Act, as outlined in EPA guidance in November 2001. EPA is continuing to call for integrated reporting of 305(b) and 303(d) information. States are participating in an extensive review and approval of the 2002 data. This initial Web release of the 2002 National Water Quality Database summarizes electronic data for 32 States. The remaining States should be added by March 31st. National summary water quality statistics will then be available.

For info: Cary McElhinney, EPA, email: mcelhinney.cary@epa.gov, or website: www.epa.gov/305b/2002report

BYPASS FLOWS **CO**

USFS POLICY CHANGE

The US Forest Service (USFS) in mid-January committed to discontinue its practice of demanding a portion of water rights (to use as bypass flows for fishery purposes) when a water user applied for renewal of a USFS permit for existing diversion structures or ditches on National Forest land. Senator Wayne Allard (CO) and other policymakers had been pushing USFS to stop the practice of demanding that water users relinquish part of their water rights when they applied for a renewal of their special use permits from USFS. Disputes between water users and USFS concerning this issue on National Forest lands have been going on since 1992. [See Israel, TWR #8; Water Briefs, TWRs #4 and #10]

The commitment to change the policy was contained in a letter that Senator Allard received from Mark Rey, Under Secretary of Agriculture for Natural Resources and the Environment. According to a press release from Senator Allard, the letter states that recent agreements between Colorado and USFS, as well as the state's in-stream flow law and findings of the Federal Water Rights Task Force, are sufficient to meet Forest Service environmental needs, so there is no longer a need to require bypass flows. Review of Rey's letter shows

WATER BRIEFS

that the caveat "unless such requirements [bypass flows] are necessary to satisfy the Endangered Species Act" remains.

Senator Allard stated "This question remains of paramount importance to Colorado and the West. The Department of Agriculture has acknowledged, in writing, for the first time, the historic water rights of Colorado's farmers, ranchers and municipalities that date back to the 19th century." Senator Allard has long maintained the position that conditioning permit approval on securing water bypass flows was an illegal taking and a violation of state and federal water law.

Eric Kuhn, General Manager of the Colorado River Water Conservation District (CRWCD), discussed the change in a recent editorial. "Previously, the Forest Service could require Colorado water right owners to forgo a significant portion of their historical water supply simply to renew an existing permit to continue operating historical water diversion structures located on Forest Service land. While defending the environment is a sound mission, doing so by taking water from cities, farms, ranches, and other historical water users is not." Kuhn applauded USFS' decision to cooperate, rather than act unilaterally through regulation.

Whether USFS will apply the same policy to similar situations in other states in the West remains to be seen. "Even though this letter is specific to our situation in Colorado, it is a significant landmark in the protection of state water law and private property rights," Senator Allard said. "It provides farmers, ranchers, municipalities, water storage companies - and nearly 1,000 ditch-bill permit applicants whose applications are currently pending before the Forest Service in Colorado - with absolute assurances that the federal government will play by the rules and follow the law, just like everyone else, when it comes to obtaining water rights." Rey's January 19 letter to Senator Allard is directed to Colorado's situation, citing Colorado's instream flow program and a specific Memorandum of Understanding dated April 16, 2004, between USFS and Colorado. Water users in other states can look to Rey's letter for guidance: "We remain prepared to work closely with you and your colleagues to further improve Departmental policies and, if necessary, seek improvements to existing law to more fully integrate federal management of water resources into the framework of state law, particularly in states, like Colorado, that have established instream flow programs."

For info: Angela de Rocha, Senator Allard's Office, 202/ 224-5944; Eric Kuhn, CRWCD, 970/ 945-8522

INCIDENTAL TAKE PERMITS WA

WA FOREST PRACTICES

The Washington Department of Natural Resources has submitted applications to NOAA Fisheries Service and the US Fish and Wildlife Service for incidental take permits under Section 10 of the Endangered Species Act. Issuance of these permits would provide assurances that all forest practices activities in compliance with the state forest practices rules will satisfy ESA requirements for endangered species of Pacific salmon. Written comments on the conservation plan, implementation agreement and draft Environmental Impact Statement will be accepted until 5pm Pacific time on May 12, 2005.

For info: NOAA Northwest Regional website: ww.nwr.noaa.gov/1habcon/habweb/hcp/hcp.htm

PERCHLORATE US

EPA REFERENCE DOSE

EPA has established an official reference dose (RfD) of 0.0007 mg/kg/day of perchlorate. This level is consistent with the recommended reference dose included in the National Academy of Science's January 2005 report. A reference dose is a scientific estimate of a daily exposure level that is not expected to cause adverse health effects in humans.

EPA's reference dose, which assumes total intake from both water and food sources, is appropriate and protective for all populations, including the most sensitive subgroups. The selected reference dose contains a ten-fold uncertainty factor to protect the most sensitive population — fetuses of pregnant women who might have hypothyroidism or iodide deficiency. This uncertainty factor also covers variability among other human life stages, gender and individual sensitivities, protecting not only adults, but also premature neonates, infants and developing children.

Perchlorate exposure has the potential of blocking iodide uptake to the thyroid gland. NAS identified the non-adverse effect of the inhibition of iodine uptake as the key biochemical event that precedes the occurrence of all potential adverse effects of perchlorate exposure. EPA's RfD is designed to prevent the occurrence of any biochemical changes that could lead to adverse health effects.

EPA's reference dose for perchlorate will be posted on the agency's online IRIS database, which contains risk information on possible human health effects from exposure to chemical substances.

EPA's new RfD translates to a Drinking Water Equivalent Level (DWEL) of 24.5 ppb. This level is the concentration of a contaminant in drinking water that will have no adverse effect — plus a margin of safety. Because there is a margin of safety, exposures above the DWEL are not necessarily considered unsafe.

EPA's Superfund cleanup program plans to issue guidance based on the new RfD.

Perchlorate has been used in various items, including missile and rocket propellants, munitions and fireworks, flares, automobile airbags and pharmaceuticals. It may also occur naturally and has been found in some fertilizer. Perchlorate has been detected in drinking water in some systems around the country, as well as in certain foods.

EPA IRIS WEBSITE: www.epa.gov/iris and at: http://www.epa.gov/perchlorate

For info: Cynthia Bergman, EPA, 202/ 564-9828 or email: bergman.cynthia@epa.gov

CALENDAR

March 15-17 OR
Northwest Power and Conservation Council, Draft Committee Meetings and Council Meeting, Portland, Council Central Offices, 851 SW 6th Ave., Ste.1100. For info: NWPCC, 503/ 222-5161 or website: www.nwcouncil.org

March 16-17 OR
Oregon Board of Agriculture Meeting, Salem, Oregon Dept. of Forestry, Tillamook Conference Room, 2600 State Street, Bldg. C. For info: Sherry Kudna, ODA, 503/ 986-4552

March 17-18 OR
Oregon Fish & Wildlife Commission, Coquille, 8 am. For info: Cristy Mosset, ODFW, 503/ 947-6044, www.dfw.state.or.us/Comm/schedule.htm

March 18 CA
California EPA – State Water Resources Control Board Meeting, Sacramento, Cal/EPA Building, 1001 I Street, 10am. For info: Debbie Irvin, Clerk to the Board, 916/ 341-5600; email: dirvin@waterboards.ca.gov; website: www.swrcb.ca.gov/wksmtgs/schedule.html

March 18 CO
Western Water Rights and Water Engineering, Denver, University of Colorado at Denver (Health Sciences Center), 10am–5pm. For info: CU Denver Engineering, 303/ 556-4907, website: www.cudenver.edu/engineer (click on Continuing Education, then Course Information)

March 21-22 WA
Clean Water/Stormwater Conference, Seattle, Renaissance Seattle Hotel. RE: Legislation, Permitting Compliance, Recent Developments. For info: LSI, 800/ 854-8009, website: www.lawseminars.com

March 22-24 WA
Wetland Science and Delineation Course, Seattle, Mountaineers Conference Center, 300 Third Avenue West, 8:30am - 5pm All 3 Days. For info: NW Environmental Training Center, 206/ 762-1976 or email: info@nwetc.org

March 23-26 OR
Northwest Scientific Association 2005 Annual Meeting, Corvallis, Oregon State University. For info: NWSA website: www.vetmed.wsu.edu/org_NWS/NWSci_Home.htm

March 28-April 1 WV
2005 Watershed Protection Institute, Shepherdstown, US Fish & Wildlife National Conservation Training Center. RE: Tools for Site Planning Roundtables, Watershed Plans, Watershed Protection and Community Organization. For info: Rebecca Winer (Center for Watershed Protection) email: rrw@cwp.org, website: www.cwp.org/calendar.htm

March 29 CA
ACWA 2005 State Legislative Symposium, Sacramento, Sacramento Convention Center. RE: Key Issues in State Legislative Arena; Meet Legislators and Staff. For info: Association of California Water Agencies website: www.acwanet.com/events/acwa_events.asp

March 29-April 2 NV
"WQA Aquatech USA 2005," Water Quality Association Exhibition and Convention, Las Vegas, RE: Process Water, Drinking Water, UltraPure and Wastewater Uses, Water Management, Business Operations & Marketing. For info: WQA website: www.wqa.org

March 30 OR
Water Rights Sales & Transfers, Salem, Phoenix Inn North, 1590 Weston Court Northeast. RE: Markets in Salmon Recovery, Overcoming Obstacles to Create Efficient Water Markets, Water Rights Audits and Due Diligence, Conserved Water, Current Policy Debates. For info: Lorman, 888/ 678-5565, website: www.lorman.com

March 30-31 CA
Long-Term Monitoring Optimization for Groundwater, Sacramento, California EPA, 1001 I Street. Sponsored by US EPA, California EPA, US Army Corps of Engineers, US Navy. For info: Ellen Rubin, EPA/OSRTI, 703/ 603-0141, email: rubin.ellen@epa.gov

March 30-April 1 CA
Environmental Industry Summit 2005, San Diego, Coronado Island Marriott Resort. RE: Governor Schwarzenegger's Environmental Policies; Bush Administration Policies; Changes at EPA, DOE, DOD; Remediation, Insurance, Reverse Auctions, Technology Commercialization, and More. For info: Environmental Business International Inc, 619/ 295-7685 x10

March 30-April 2 CA
23rd Annual Salmonid Restoration Conference-"Thinking Like a Watershed: From the Headwaters to the Sea," Fortuna. RE: Water Conservation Planning and Implementation, Instream Flow Requirements, Estuary Restoration, Funding and Permitting Porcesses. For info: Salmon Restoration Federation, 707/ 923-7501, email: srf@northcoast.com, website: www.calsalmon.org

March 30-April 2 CA
Third International Conference on Irrigation and Drainage, San Diego, Marriott Mission Valley, 8757 Rio San Diego Drive. RE: Water District Management and Governance, Management of Groundwater Supplies for Agricultural, Industrial and Municipal Users, Information Systems, District Financing, Regional Water Quality Issues, Water Management and Water Rights, Emerging Issues in District Governance, Modernization & More. For info: US Committee on Irrigation and Drainage, 303/ 628-5430, email: stephens@uscid.org, website: www.uscid.org

March 31 WA
Permitting Strategies Seminar, Seattle, Washington State Convention & Trade Center, 800 Convention Place, 9am-5pm. For info: The Seminar Group, 206/ 463-4400 or website: www.theseminargroup.net

March 31 NM
Rio Grande Compact Commission 66th Annual Meeting, Santa Fe, Morgan Hall, New Mexico State Land Office, 310 Old Santa Fe Trail, 9am. For info: Herman Settemeyer, TCEQ, 512/239-4707 or TCEQ website: www.tnrcc.state.tx.us/permitting/waterperm/wrpa/riogrande.html

March 31-April 1 TX
The Changing Face of Water Rights in Texas (6th Annual), Dallas, CityPlace Conference Center, 2711 N. Haskell. For info: Texas Bar, 800/ 204-2222 x1574, website: www.TexasBarCLE.com

March 31-April 2 AZ
19th Annual Arizona Riparian Council Meeting, Parker, Blue Water Resort & Casino. RE: Lower Colorado River and the Multi-Species Conservation Plan, Restoriation Workshop and Field Trips. For info: Cindy Zisner, Arizona Riparian Council International Institute for Sustainability, 480/ 965-2490, email: Cindy.Zisner@asu.edu, website: http://azriparian.asu.edu

April 1 CA
"The Future of E-waste Management," San Francisco. RE: California's E-Waste Law and Other States' Solutions, Regulatory Schemes, Liabilities for Product Manufacturers and Retailers, Fee Collection. For info: Karen Fox, Law Seminars International, 800/ 854-8009; email: registrar@lawseminars.com; or website: www.lawseminars.com/seminars/05EWASTCA.php

April 1 CO
Western Water Rights and Water Engineering, Denver, University of Colorado at Denver (Health Sciences Center), 10am–5pm. For info: CU Denver Engineering, 303/ 556-4907, website: www.cudenver.edu/engineer (click on Continuing Education, then Course Information)

April 3-6 DC
National Hydropower Association Annual Conference, Washington, D.C. For info: NCI Publications, 816/ 931-1311, email: nha@hcipub.com

April 3-8 WA
Pacific Fishery Management Council Meeting, Tacoma, Sheraton Tacoma Hotel, 1320 Broadway Plaza. For info: PFMC, 866/ 806-7204, website: www.pcouncil.org

April 4-8 WA
Sustainability and Restoration: A Practical Partnership for the 21st Century (2005 Regional Conference), Seattle, Washington State Convention and Trade Center. For info: 866/ 791-1275, email: uw-epp@engr.washington.edu, website: http://www.engr.washington.edu/epp/ser/index.html

April 5 WY
Wyoming State Water Forum Meeting, Cheyenne, State Engineer's Conference Room, Herschler Building 4E, 10am, Invited Guest: John Lawson (US Bureau of Reclamation), Discussion Item: Water Forecast. For info: State Engineer's Office, website: http://seo.state.wy.us/forum.aspx

April 5 OR
Forum for Business & Environment "New Technology & Market-Based Solutions to Stormwater Pollution," Portland. Presented by Oregon Environmental Council. For info: Cheryl, 503/ 222-1963, x100 or email: cheryl@orcouncil.org, website: www.orcouncil.org/events.htm

April 6 WA
Mitigation Banking: Wetland, Habitat, ESA & NRD, Seattle, Renaissance Seattle Hotel. For info: Law Seminars International, 800/854-8009, website: www.lawseminars.com

April 6 AZ
"Water and the Environment: The Role of Ecosystem Restoration" Arizona WRRC Annual Conference, Tucson, RE: Environmental Enhancement Projects, Field Experience, Verde Watershed, Legal Tools for Policy, Colorado River Multi-Species Conservation Plan. For info: WRRC, email: wrrc@ag.arizona.edu, website: www.cals.arizona.edu/azwater/

April 6 UT
Utah Water Quality Board Meeting, St. George, Dixie Center. For info: Utah DEQ, 801/ 538-6146, website: www.deq.utah.gov

April 7-8 NE
Water Law, Science and Policy Conference (2nd Annual): "Water Management and Policy in the Great Plains: Implications of Drought and Climate Change," Lincoln, University of Nebraska-Lincoln. For info: Steve Ress, Water Center/School of Natural Resources, 402-472-9549, website: http://snr.unl.edu/waterconference/

April 7-8 NV
Tribal Energy in the Southwest, Las Vegas. RE: Tribal Energy Development, Energy Legislation, New Licensing Issues, Investments with Tribes, Structuring Energy Projects, Rights-of-Way, Financing, Renewable Options, Energy Partnerships, Transmission Issues, Practical Tips for Tribal Utilities. For info: LSI, 800/ 854-8009

April 8 TX
National Environmental Policy Act: Definitive and Practical Guide (2nd Annual), Austin, Four Seasons Hotel. For info: CLE Int'l, 800/ 873-7130, website: www.cle.com

April 11-12 CA
California Water Law and Policy, San Francisco, Fairmount Hotel. RE: Environmental Laws and Other Regulation of Water - Pushes and Pulls and California Water Supplies. For info: CLE Int'l, 800/ 873-7130, website: www.cle.com

(continued from previous page)

April 11-12 WY

Wyoming Water Law: Facing Growth in the Equality State - Are There Equitable Solutions to Our Water Shortage? (3rd Annual) Cheyenne, Little America. RE: Sharing A Resource, Temporary Water Use Statutes, Ethical Considerations, Water Transfers, Beyond Beneficial Use, Growth Issues for Cities, Wyoming History of Water Use, Coalbed Methane-Watershed Based Permitting, Board of Control Actions, Wyoming Water Project (Trout Habitat), Interstate Issues for Marketing and Transfers, Rural Ecosystems. For info: CLE Int'l, 800/ 873-7130, website: www.cle.com

April 11-13 Portugal

Water Resources Management 2005- Third International Conference, Algarve. Organized by: Wessex Institute of Technology and UK University of Coimbra, Portugal. For info: www.wessex.ac.uk/conferences/2005/waterresources05/index.html

April 11-14 IL

2005 National Environmental Partnership Summit, Chicago, RE: Annual Meetings of the National Pollution Prevention Roundtable, Compliance Assistance Community and the Performance Track Participants Association. Topics include: Partnering Across Programs & Organizations, Environmental Program Integration & Innovation, Delivering Environmental Assistance, Creating Business Value While Protecting the Environment, Fostering Sustainability, Measuring Environmental Results & Managing Information, Understanding the Current State of the Environment, Assessing Environmental Research, Science & Technology. For info: EPA website: www.environmentalsummit.org

April 12 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

April 12-14 TX

2005 Rio Grande Basin Annual Conference, Alpine, Espino Conference Center, Sul Ross State University. RE: Joint Project Conference for the three Rio Grande Basin Initiatives, Sponsored by the Texas and New Mexico Agricultural Experiment Stations and Cooperative Extension, Texas State University System and the University of Texas. For info: Ellen Weichert, Texas Water Resources Institute, 979/ 845-8572 or email: e-weichert@tamu.edu

April 12-14 ID

Northwest Power and Conservation Council Meeting, Boise. For info: NWPCC website: www.nwcouncil.org

April 12-14 WA

5th Washington Hydrogeology Symposium, Tacoma, Tacoma Sheraton Convention Center, Sponsored by Pacific Northwest National Laboratory, USGS, Washington Ecology and the Washington Hydrologic Society. For info: Dr. Philip E. Long, Symposium Chair, 509/ 372-6090, email: Philip.Long@pni.gov, website: www.ecy.wa.gov/events/hg/index.htm

April 14-15 OR

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

April 15 CO

Colorado Section of the American Water Resources Association, "Colorado Water Supply Status and Sustainability," Denver, Mt. Vernon Country Club. For info: Chris Sanchez, 303/ 806-8952, email: csanchez@bbawater.com, website: www.awra.org/state/colorado/symposium.htm

April 15 OR

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

April 17-20 TX

2005 Ground Water Summit, San Antonio, Hyatt Regency San Antonio, Sponsored by the National Ground Water Association, RE: Developing Countries Appropriate Technology, Sustainability & Self-Sufficiency, Bioremediation of DNAPLs, GW Tracers, Recycling Remediation Technologies, Geophysics, Water Supply and GW Resource Management, Technical and Economic Aspects of Treatment Trains, Strategies in Arid Environments, Detection, Transport and Health Impact of Pathogens, Ground Water Law, Policy and the Tragedy of the Commons, Microbiology, Arsenic Removal, Mass Flux Determination and Use, Emerging Contaminants & More. For info: NGWA, 800 551.7379 , website: www.ngwa.org

April 21-22 OR

Oregon Environmental Quality Commission Meeting, Portland, DEQ Rm 3A, 811 SW 6th Ave. For info: Mikell O'Mealy, Office of DEQ Director, 503/ 229-5301, website: www.deq.state.or.us/

April 20-22 ID

Western States Water Council Meeting, Boise, The Grove Hotel, 245 South Capital Blvd. For info: WSWC, 801/ 561.5300, website www.westgov.org/wswc/meetings.html

April 22 CA

California EPA – State Water Resources Control Board Meeting, Sacramento, Cal/EPA Building, 1001 I Street, 10am. For info: Debbie Irvin, Clerk to the Board, 916/ 341-5600; email: dirvin@waterboards.ca.gov; website: www.swrcb.ca.gov/wksmtgs/schedule.html

April 22 KS

Clean Water Act Permitting and Compliance, Kansas City, RE: Overview of the Clean Water Act (CWA) and the National Pollutant Discharge Elimination System (NPDES). Developing Permitting Strategies. For info: Trinity Consultants, 800-613-4473 or website: www.trinityconsultants.com

April 27-29 CA

Natural Attenuation for Remediation of Contaminated Sites, San Francisco. RE: Remediation Alternative for Petroleum Hydrocarbons, Chlorinated Solvents, Other Contaminants in Ground Water. For info: National Ground Water Association, 800/ 551-7379, website: www.ngwa.org

April 28-29 NE

Nebraska Water Law: Facing Dramatic Changes in Our State, Lincoln, Embassy Suites Hotel. RE: Hydrology, Platte River Cooperative Agreement, COHYST Model, Republican River Settlement I, II and III, Spear T Ranch Case, Stream Challenges, Water Policy Task Force, Water Leasing and Marketing, Drought and Water Conservation, LB962. For info: CLE Int'l, 800/ 873-7130, website: www.cle.com

April 29-30 UT

Utah Board of Water Resources Meeting, Salt Lake City, Location TBA. RE: Tour MWD Salt Lake City and Sandy. For info: Molly Waters, 801/ 538-7230, email: mollywaters@utah.gov, website: www.water.utah.gov/board/2004SCHED.asp

The Water Report
Water Rights, Water Quality & Water Solutions in the West
260 N. Polk Street • Eugene, OR 97402