



The Water Report™

Water Rights, Water Quality & Water Solutions in the West

In This Issue:

**Oklahoma Water
Transfer — Tribes
and Others Object 1**

**Hydraulic
Fracturing:
New EPA Study 10**

**EPA Construction
Permit Update 15**

**EPA Pesticides
Regulation 16**

**Water Resources:
The View from DC 18**

Water Briefs 21

Calendar 26

Upcoming Stories:

**Tribal Environmental
Protections**

**Colorado
Groundwater**

& More!

❧ OKLAHOMA STORAGE TRANSFER CONTROVERSY ❧

TRIBAL NATIONS & LOCAL INTERESTS OPPOSE THE TRANSFER AGREEMENT

by David Moon, Editor

INTRODUCTION

Depending on one's point of view, a recent water storage decision by the Oklahoma Water Resources Board (OWRB) amounts to either wise water planning to deal with regional water supply needs or a fast-track, closed-door, water grab that ignores local and tribal water needs in the basin of origin. In the September issue of *The Water Report* (#79), we reported on the Sardis Lake transfer agreement that was approved by OWRB at its June 11, 2010 meeting despite significant opposition. The controversy over the transfer of storage rights at Sardis Lake, a US Army Corps of Engineers project in southeastern Oklahoma, is far from over. Certain aspects of this controversy mirror water management issues being debated throughout the American West, including: out-of-basin transfers; tribal water rights; and water storage contracts — though particular Oklahoma water right procedures also play a part.

Oklahoma City (City) has had its sights on southeastern Oklahoma water for some time. In order to provide for future municipal water supply, the City already uses water rights from a number of sources in southeastern Oklahoma, including Atoka Reservoir.

The City's website references a "Resolution of Intent" adopted by the Oklahoma City Water Utility Trust (OCWUT) in November of 2007 to "join forces with nine other communities to evaluate options for purchasing water storage rights and raw water from southeastern Oklahoma." Acquiring water storage rights in Sardis Lake was specifically mentioned as part of that Resolution, as was the piping of water from southeast Oklahoma to cities throughout central Oklahoma.

More recently, the *Regional Raw Water Supply Study for Central Oklahoma* (March 4, 2010, Camp, Dresser & McKee), was presented at a public water forum hosted by the City of Norman. All of the alternative water sources under discussion were located in southeastern Oklahoma.

This article briefly summarizes the numerous complex issues and salient facts surrounding the transfer of storage water from Sardis Lake.

BACKGROUND

THE SARDIS LAKE PROJECT

To understand the present controversy, a review of past legal disputes between the United States and the State of Oklahoma with regard to the State's substantial financial obligations for Sardis Lake water storage will be helpful.

In 1974, the Water Conservation Storage Commission of the State of Oklahoma (the legal predecessor to OWRB), entered into a contract with the United States (acting through

Oklahoma Water Transfer

1974 Contract

Payment Dispute

2009 Settlement

the US Army Corps of Engineers (Corps)) for the building of Sardis Lake. This “1974 Contract” provided that the Corps would build Sardis Lake for both “present use” and “future use” water supply storage. Sardis Lake was deemed operational on January 6, 1983. The lake has a total capacity of 274,000 acre-feet (AF) and a water supply “dependable yield” of 156,000 AF (dependable yield is the amount of water expected to be available in every year except for a specified percentage of years). The 1974 Contract splits the designation of this 156,000 AF annual storage capacity into “present use water storage” (47.678 percent) and “future use water storage” (52.322 percent). Article 1(b), p. 2. The State of Oklahoma was obligated to pay for present use water storage from the time the lake was first filled in 1983. Future use water must be paid for when its use begins or by no later than 2032. The 1974 Contract also provides that the Corps reserves the right to maintain at all times a minimum downstream release of four cubic feet per second (Article 1(c), p. 2).

OWRB’s predecessor agreed to repay the Corps for building the lake in fifty consecutive annual payments and to pay future operating costs of the lake. These payments became the subject of an extended legal dispute between the federal government and OWRB.

OWRB made six annual payments under the contract (1983-1988) for approximately \$2.8 million. However, after 1988 payments became irregular and after September of 1997 OWRB did not make any payments. The US ultimately sued OWRB for breach of contract in 1998, resulting in a decision in favor of the US by the federal district court in May of 2005.

The district court’s decision was upheld by the US Tenth Circuit Court of Appeals in 2006. *United States of America v. State of Oklahoma; Oklahoma Water Resources Board*, No. 05-5098 (June 12, 2006; unpublished). The Tenth Circuit affirmed the district court’s holding that the 1974 Contract was valid and enforceable under federal law, and that OWRB was legally required to perform its contractual obligations.

The Tenth Circuit also held that the district court’s injunctive order — which required OWRB to make all future payments within 90 days of receiving notice that a payment was due (as originally specified in 1974 Contract) — did not impermissibly force the Oklahoma legislature to appropriate monies to make the annual payment. The Tenth Circuit pointed out that OWRB had the authority to acquire funds from at least one source other than legislative appropriations — i.e., by selling its water storage rights. Oklahoma filed a Petition for Certiorari review with the US Supreme Court in October of 2006 that was denied on January 8, 2007.

Despite the federal court decision, OWRB did not make any further payments to the US. This led to another federal legal action to enforce the judgment. In September 2009, the parties (US, State of Oklahoma, and OWRB) settled the dispute and presented the court with a Consent Decree. The Decree resulted in the court’s Opinion and Order (Order) — which is binding on all parties to the Settlement — setting forth the times and amounts of payments necessary to meet the State’s obligations under the 1974 Contract. *United States of America v. State of Oklahoma, et al.*, No. 98-CV-00521 (N.D. Okla., September 11, 2009). The Order stated that Oklahoma was past due in payments in the amount of \$21,783,809.49 and set up a payment schedule to bring past due payments for “present use water storage” up to date. The Order set an initial payment of \$2.6 million. Among other payments, the State was obligated to pay just over \$5.2 million by July 1, 2010. The State was also given the option, in lieu of some future payments, to pay roughly \$27.8 million by July 1, 2010, to cover the outstanding indebtedness, interest due, and the “obligation to pay for all present use water supply storage” — though the State would still remain obligated to pay annual operation and maintenance (O&M) costs. Order, §4, pp. 3-4.

The Order goes on to detail other payments (in addition to the \$27.8 million) that are due based on the 1974 Contract:

...the State of Oklahoma shall pay as required by the Contract for future use water supply storage space investment costs when billed by the United States. As of July 31, 2009, the United States estimates that those costs are currently \$38,202,796.83. The State shall also pay interest on that amount which shall accrue until such payment is made.

Annual O&M costs on the “future water supply storage” also continue to be due after the “future use water supply investment costs are paid in full.” Order, §5, p. 4.

It is important to note that the federal district court retained jurisdiction and control over the parties to enable them to apply to the court at any time for any additional order or relief that might be necessary to enforce the Consent Decree. Order, §7, p. 4. The court also provided that the 1974 Contract “shall remain in full force and effect subject only to the specific provisions of this Order.” Order §8, p. 5.

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STORAGE CONTRACT TRANSFER AGREEMENT

NEGOTIATIONS AND APPROVAL

The Sardis Lake “Storage Contract Transfer Agreement” (Agreement) was approved by the Oklahoma City Water Utilities Trust (OCWUT) on Monday, June 7, 2010. The Agreement was similarly approved, with minor modifications, by OWRB at a special meeting held on Friday, June 11, 2010. The Agreement covers the transfer of the State of Oklahoma’s water storage rights at Sardis Lake to Oklahoma City, subject to federal approval. The Agreement also transfers the State’s Sardis Lake financial obligations under the 1974 Contract. In addition, OCWUT agreed to pay the State \$15 million to reimburse the State for past Sardis water storage payments and costs.

On June 28, Oklahoma City electronically transferred the \$27.8 million payment to the Oklahoma State Treasurer’s Office to cover the “in lieu” payment option discussed above. The Treasurer’s Office, after receiving instructions from the Corps, electronically transferred payment to the US, before the court ordered July 1 deadline.

Although it was well known that Oklahoma City was interested in Sardis Lake water storage, most people in Oklahoma were apparently not aware that a deal was imminent between the State of Oklahoma and City officials. That changed when a letter from State Treasurer Scott Meacham to James Couch, City Manager for Oklahoma City, dated November 13, 2009 (Meacham letter), came to light. The Meacham letter essentially laid out the general terms of an agreement for Oklahoma City “to purchase water storage contract rights in Sardis Lake” from the State of Oklahoma. Meacham’s letter stated that during an October 21, 2009 meeting, Couch had “verbally indicated the City and the Water Trust [OCWUT] would increase the cash amount of the offer to \$15 million.” That “cash amount” of \$15 million is in addition to all the payment obligations under the 1974 Contract with the US, which the City and OCWUT agreed to assume. Meacham also noted that the City’s offer had been reviewed by “the Governor, President Pro Tempore of the Senate, Speaker of the House and Secretary of the Environment, who in turn consulted with the Oklahoma Water Resources Board (‘OWRB’).” Meacham closed the letter by stating, “If you find the terms of this proposed sale to be acceptable, please indicate by return letter and I will have the attorneys for the OWRB start drafting the actual contract for sale in conformity with these terms.”

Opposition to the proposed transfer resulted in letters being sent to Oklahoma Governor Brad Henry and Attorney General Drew Edmonson on April 21, 2010, by a new citizens group, Oklahomans for Responsible Water Policy (ORWP). Their communications expressed concerns about the plan to transfer the water storage rights and its “attempt to give...the exclusive authority to determine how Sardis Lake storage for drinking water will be drawn and used” to Oklahoma City and the Central Oklahoma Water Resources Authority. The ORWP letter went on to note concern over the plan “being executed quickly, without any notice to the public, and without taking the interests or concerns of Southeastern Oklahoma into account.” ORWP asked the Governor and the Attorney General to not rush the “under the radar” plan through and instead to “establish a transparent, public process that provides a way for understanding the plan, creating an equitable solution, and reducing future legal conflict.”

ORWP also claimed that Meacham’s proposal made “an unprecedented and questionable assurance” concerning the permit application to be submitted by Oklahoma City to OWRB to divert water from Sardis Lake. All of the City’s payment obligations are “expressly made subject to the requirement” that OWRB grant the City’s water diversion permit for use of Sardis Lake, according to ORWP.

Although the Transfer Agreement does not guarantee that OWRB will grant the necessary water user permits for use of the storage water, OWRB is placed in the position of being both the decision-maker on a necessary permit application and party to an agreement with the permit applicant that is worth millions of dollars.

OCWUT’s plans for the water from Sardis Lake will require construction of a pipeline to convey the water to central Oklahoma. It has been estimated that the pipeline could cost as much as \$2 billion. The Agreement states that OCWUT may use the storage water to supply public water supply entities throughout Oklahoma, including but not limited to southeast and central Oklahoma, assuming that OCWUT obtains a water user permit from OWRB (Agreement, Section 2.6, p. 8).

The Agreement limits Sardis Lake water to in-state use: “The OCWUT and City agree that water from Sardis Lake storage may be sold for use, or may otherwise be used, within the State of Oklahoma.” Agreement, Section 2.6 c., p. 9.

Another interesting Agreement provision (criticized by opponents) places a strict limitation on OWRB’s normal permitting authority. Agreement Section 2.6 b. concerns the cost and use of 20,000 AF of water that is the “local use administrative set-aside from Sardis Lake storage.” This section both limits how much OCWUT can charge for this water and states that “OWRB will not issue permits for more than a cumulative total of 20,000 acre-feet of consumptive use of water from Sardis Lake storage, inclusive of

Oklahoma
Water
TransferAgreement
AdoptedTreasurer
Meacham’s
LetterOWRP
OppositionUse Permit
DecisionCentral
Oklahoma UseIn-State
Limitation

Oklahoma Water Transfer

Consent Provision

Tribal Offer To Pay

State Water Plan

the Subcontract, without written consent of the City of OCWUT.” *Id.* at 8-9. J. D. Strong, OWRB’s Interim Executive Director, noted in OWRB’s June 11 press release that as “a critical facet of the agreement, 20,000 acre-feet of water is reserved for both current and future water needs in the Sardis Lake region. OWRB believes that this set-aside, coupled with a requirement for a lake level management plan, will help ensure that Sardis Lake continues to provide important flood control, recreation, water supply, and related benefits to the local area.”

TRIBAL CONCERNS

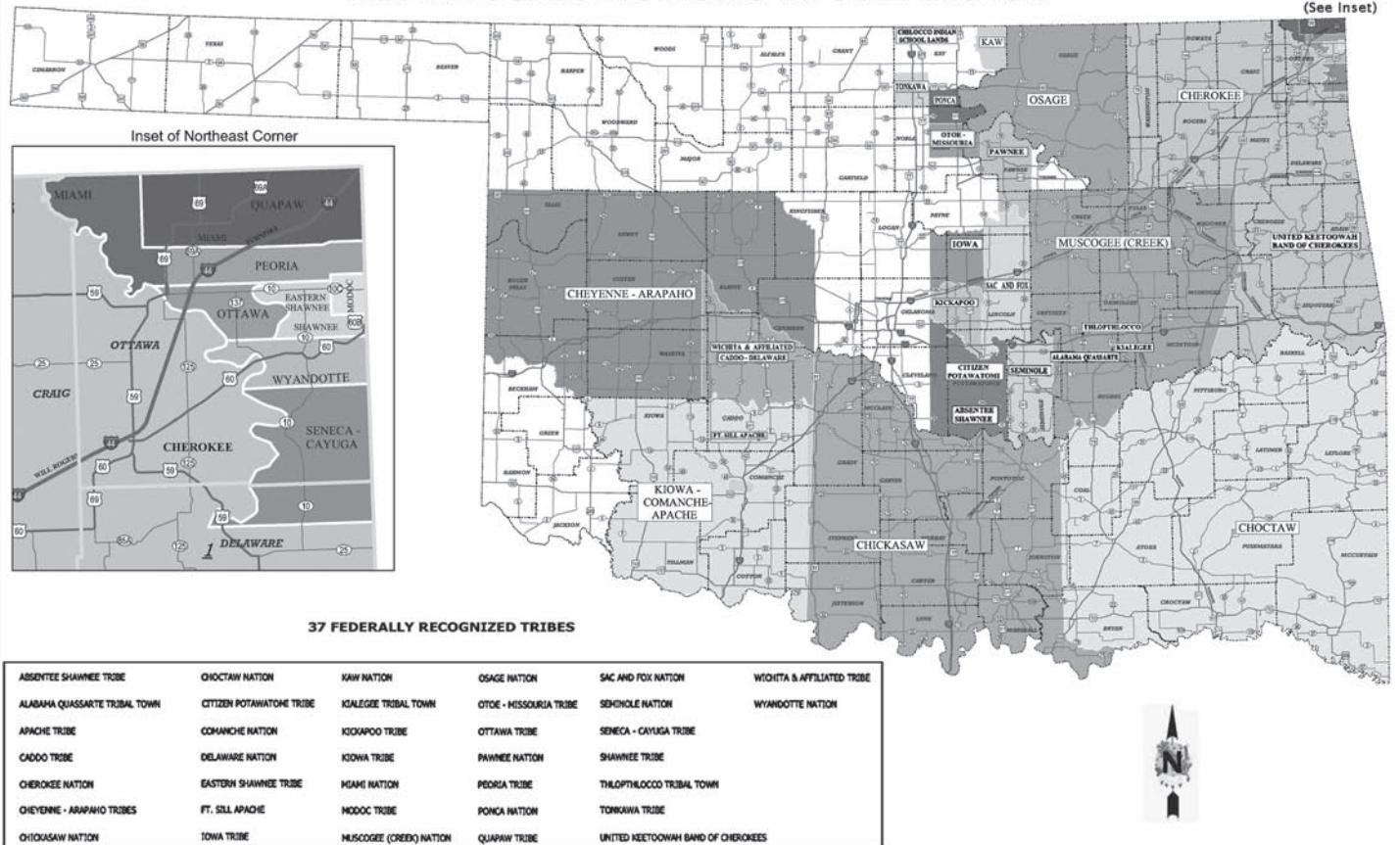
HISTORICAL TRIBAL RIGHTS

Prior to OWRB’s action on June 11, 2010, the Chickasaw and Choctaw Nations (Tribes) urged OWRB to reject the proposal to transfer Sardis Lake storage rights to Oklahoma City. The Tribes also offered to pay the \$5.2 million July 1st payment that was coming due, in order to give the State of Oklahoma time to reconsider its proposed action without incurring a default on its obligation to the US. In addition, the Tribes made it clear that they were also willing to negotiate on “how to handle the *entire* obligation” and, thus, Oklahoma City was not “the only viable option for management of the State’s long overdue Sardis debt obligation.” (emphasis in original; June 7 Letter to OWRB Chairman). The Tribes asserted that a long-range solution should be reached *after* comprehensive water and environmental studies were completed, evaluated by experts, and reviewed by the public. Their position was summarized near the end of their joint June 7th Letter to OWRB Chairman (emphasis in original):

As to Oklahoma City’s future water needs, we are not, in any manner, adverse to the genuine needs of central Oklahoma, but we think it would be premature to act until *real needs* and the *impacts associated with such a massive transfer* are better understood. We think it would be far more prudent to opt for a path forward that would provide for the completion of necessary studies before precipitous, unnecessary, and likely illegal actions are taken.

At the June 11th OWRB meeting, tribal representatives as well as others vehemently maintained that it made no sense to move forward with the transfer agreement before the comprehensive planning effort — already underway to produce Oklahoma’s State Water Plan — was completed. State Water Plan adoption is scheduled to be formally considered by OWRB in October 2011 (see OWRB website: www.owrb.ok.gov/supply/ocwp/ocwp.php). “It is wholly premature for the Oklahoma City Water Utilities Trust and the state

TRIBAL JURISDICTIONS IN OKLAHOMA



Oklahoma Water Transfer

Permit Proceedings

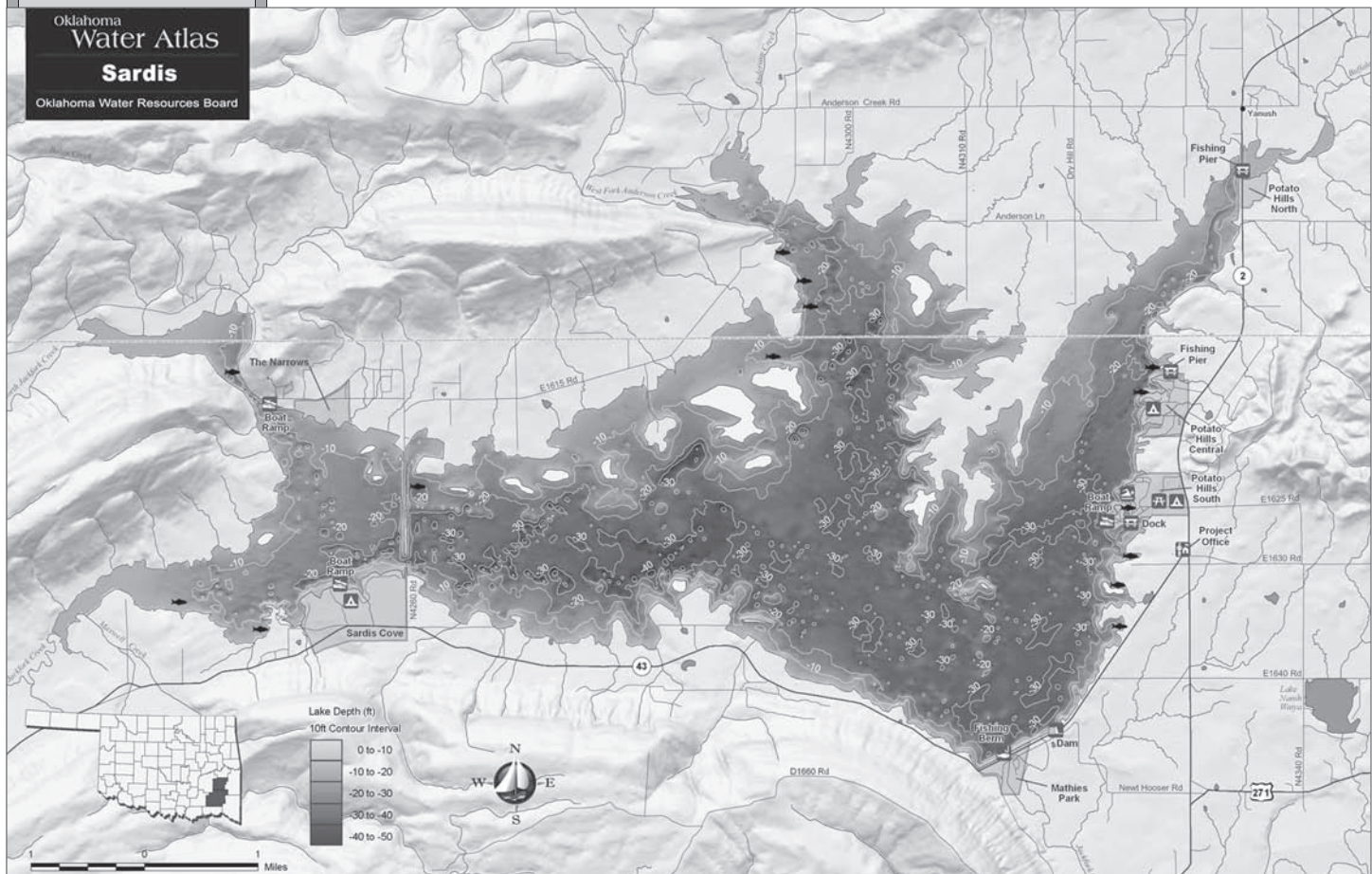
Tarrant Agreement

to be engaged in these kinds of negotiations when no one has all the necessary information to make the right long-term decisions,” Chief Pyle of the Choctaw Nation asserted. “Further, it is essential before any decisions are made that the Choctaw and Chickasaw tribes, which have historical rights to the water, and representatives of the Southeastern Oklahoma community are a part of any such discussions relating to the future of Sardis Lake.” (Choctaw Nation, Press Release, June 10, 2010).

OWRB stated a different view of the assertion that the State Water Plan should be completed before moving forward. OWRB’s Press Release, June 11, 2010, states:

Through a separate public hearing process, the OWRB will address Oklahoma City’s permit application for the right to use water from the basin. “As with all applications for surface water, the OWRB will hold formal public proceedings to ensure that sufficient water is available and existing rights are not impaired,” added Strong [J. D. Strong, OWRB’s Interim Executive Director]. Preliminary information compiled as part of the ongoing Comprehensive Water Plan process suggests that Oklahoma City’s request can be met without impacting other uses or projected future needs in the area, but all data and information will be thoroughly examined before a final decision is made by the OWRB.

Oklahomans for Responsible Water Policy (ORWP), meanwhile, sees OWRB’s position as inconsistent with OWRB’s position as asserted in the *Tarrant* case. *Tarrant* involves applications by the Tarrant Regional Water District to divert water in Oklahoma for use in Texas. See Briefs, *TWR* #58. The application at issue in that case resulted in legislation by Oklahoma that placed a moratorium on out-of-state water sales. One of the reasons cited by Oklahoma for the ban was that it was necessary in order to *finish* the comprehensive study of state-wide water resources. On July 16, 2010, Oklahoma Attorney General Drew Edmondson issued a press release stating that his office “has successfully rebuffed another bid by a Texas entity to take Oklahoma water. The U.S. District Court for the Western District of Oklahoma today granted Edmondson’s motion to dismiss a Tarrant Regional Water District lawsuit that attempted to claim Oklahoma water law is unconstitutional.” Edmondson also said that he expected an appeal to the Tenth Circuit Court of Appeals from the decision. Tarrant was seeking to divert more than 400,000 AF of water from tributaries of the Red River in Oklahoma in what Edmondson’s website describes as a Texas “water grab.” *Tarrant Regional Water District v. Rudolf John Herrmann, et al.*, Case No. CIV-07-0045-HE, W.D. Okla. (July 16, 2010).



Oklahoma Water Transfer

BIA Requests Deferral

Tribal Trust Issue

Chief Pyle has continued to assert the Choctaw Nation's position on Sardis Lake. At his Labor Day "State of the Nation" address he said, "By treaty, the tribe's water has never been given up. This is still our water, and we will fight for the protection of this natural resource for all of southeastern Oklahoma, even though it may take years to resolve."

In addition to those requests to deny or delay action on the agreement submitted by the Choctaw and Chickasaw Nations and the Oklahomans for Responsible Water Policy, OWRB also heard from Assistant Secretary for Indian Affairs Larry Echo Hawk (US Department of the Interior). Echo Hawk, in his capacity as Assistant Secretary, oversees the Bureau of Indian Affairs. Echo Hawk wrote a letter dated June 11 asking OWRB to "defer any final action of the proposed transfer pending consultations with the Chickasaw and Choctaw Nations and with appropriate Federal officials." The Assistant Secretary's letter noted that "the proposed transfer and related permitting actions implicate not only the need for necessary Federal approvals under the 1974 contract, but also issues involving the rights and interests of the Chickasaw and Choctaw Nations."

The Assistant Secretary followed up his request to OWRB with a personal visit to Sardis Lake on August 10, where he met with Chief Pyle of the Choctaw Nation and others, to discuss the situation. Echo Hawk was accompanied by Senior Advisor to the President on Indian Affairs Kim Tee Hee. According to a press release from the Choctaw Nation, Assistant Secretary Echo Hawk reiterated his request to OWRB that any final action of the proposed transfer of water be deferred pending consultations with appropriate federal officials, as well as both the Choctaw and Chickasaw Nations. Chief Pyle took the opportunity to state that, "It is the sincere commitment of the tribal nations to protect water of Oklahoma. This is a Tribal Trust issue and we appreciate the Assistant Secretary's help and involvement in this aspect."

Tribal Water Rights

THE TYSON CASE

Tribal interests throughout the country, and especially in Oklahoma, will undoubtedly be paying attention to whatever eventually happens concerning Sardis Lake. Central to this controversy are assertions of "Tribal Trust" issues and impacts to Choctaw and Chickasaw tribal water rights.

The general issue of tribal water rights recently received attention in federal district court in an unrelated case where the State of Oklahoma sued poultry processors in Arkansas for upstream pollution of the Illinois River — which flows into Oklahoma. Opinion and Order, *State of Oklahoma v. Tyson Foods, Inc., et al.*, Case No. 05-cv-329-GSF-PJC, N.D. Okla., (July 22, 2010). See also *TWR* #20, #27, #46 and #66. In that case, Judge Gregory Frizzell ruled that the Cherokee Nation was a required, "indispensable party" with respect to Oklahoma's claims for damages under the Federal Rules of Civil Procedure (Rule 19, which requires all indispensable parties to be included for an action to go forward). To reach that decision, the Judge recognized the Cherokee Nation's substantial interests in lands, water and other natural resources located in the Illinois River Watershed. Noting the "increasing importance of water rights in this country," Judge Frizzell pointed out that the Cherokee "Nation's Principal Chief has recently stated that the Cherokee Nation will protect the water quality interests within the Nation's jurisdiction." *Id.* at 18.

The Judge's opinion also stated that the "claimed interests of the Cherokee Nation in the water rights portion of the subject matter of this action are substantial and are neither fabricated nor frivolous." The Opinion and Order includes a reference to *Winters* rights, established in the seminal case of *Winters v. United States*, 207 U.S. 564 (1908), that first established reserved water rights for Indian reservations that the federal government set aside in trust. The court then cited Taiawagi Helton, Comment, *Indian Reserved Water Rights in the Dual-System State of Oklahoma*, 33 Tulsa L.J. 979, 993 (1998): "If the land held by or for Indian tribes in Oklahoma is equivalent to formal reservations, then that land also has reserved water rights." *Id.* at 10-11.

Potential tribal claims to surplus water were also discussed in *Tyson*. "In addition to *Winters* rights, the Cherokee Nation appears to have an arguable, non-frivolous claim it owns much of the surplus water within its historic boundaries." *Id.* at 11. The Order and Opinion goes on to discuss an approach known as the "Five Tribes Water Doctrine" whereby a "presumption" is created based on the Indian Territory set aside for the Five Tribes that "surplus water is the property of the tribes rather than the state." *Id.* at 11-12, citing Helton, 33 Tulsa L.J. at 995. The "Five Tribes" were five Native American nations in the area: the Cherokee, Chickasaw, Choctaw, Creek, and Seminole Nations. Under the Five Tribes Water Doctrine, a "court would have to determine what fraction of the land is owned by the state and attach that same fraction of the region's water." *Id.* at 12. Judge Frizzell then points out: "Suffice it to say that, because the IRW [Illinois River Watershed] is a 'checkerboard' area of both tribal and non-tribal lands, the Cherokee Nation continues to claim a real and substantial interest in some as-yet undetermined portion of the waters of the Illinois River." *Id.*

Tyson Decision

Water Quality Interests

Reserved Water Rights

Surplus Water

"Five Tribes" Doctrine

Oklahoma Water Transfer

Out of Basin Transfer

Transfer Subject to Contract

Storage v. Use Rights

Contract Requirements

Best Interests of the US

Although one could argue that much of the federal district court's discussion concerning tribal rights was "dicta" (establishing no legal precedent), it nevertheless provides a cogent view of water rights that might be held by Oklahoma tribal nations. Moreover, the court's determination that the Cherokee Nation was an "indispensable party" based on the Tribe's substantial interests, is of obvious precedential value.

The Sardis Lake Transfer Agreement essentially transfers 136,000 AF (156,000 AF dependable yield less 20,000 AF reserved for local use) out of the basin where Sardis Lake is located. One can assume that the Choctaw and Chickasaw Nations are not likely to acquiesce to such a proposal when their own water rights have yet to be determined.

CONTRACT ISSUES & THE US ARMY CORPS OF ENGINEERS

The US Army Corps of Engineers also weighed in *prior* to OWRB's June 11 decision via a letter sent by the Corps to Oklahoma Governor Brad Henry on May 20.

It is not clear exactly what storage rights the parties are considering transferring. We find it prudent to remind you that any transfer is subject to the provisions of Article 10 of the contract between the United States and the Oklahoma Water Resources Board which was the subject of the litigation... [see *U.S. v. State of Oklahoma, et al.*, No. 98-C-521-E (N.D. Okla., September 11, 2009)].

The Corps' letter points out significant issues that, at the very least, present substantial hurdles to a smooth implementation of the Transfer Agreement (Corps Letter, May 20, 2010):

Article 10 of the contract prohibits the transfer or assignment of any of the State's rights and responsibilities under the Contract of April 9, 1974, without the approval of the Secretary of the Army. Accordingly, no purported assignment would be legally proper or permissible until such approval is obtained. To date, no request to approve any transfer or assignment has been provided to the United States. In addition, we believe it is appropriate to point out that a transfer of storage would not convey any water rights. Article 2 of the contract makes it clear that the user of the storage space has full responsibility to acquire, in accordance with State laws and regulations, any and all water rights needed for utilization of the storage provided under the contract. Please be advised that in the absence of prior approval by the Assistant Secretary of the Army...the Army Corps of Engineers will not recognize any transfer or assignment of water storage rights in the Corps' Sardis Lake nor any transfer or assignment of the responsibilities set forth in the State's water supply storage contract. In addition, since the proposal between the State and the City includes the transfer of the State's payment obligations under the United States District Court Order dated September 3, 2009, that assignment would be subject to approval by the District Court for it to be valid.

The Corps' letter thus highlighted three important areas of potential conflict:

- Assignment of the 1974 Contract to a new "User" requires approval of the Secretary of the Army
- Use of water from storage requires that the "User" obtain the necessary water use permit from the State of Oklahoma (note that OCWUT and the City are not the "User" under the 1974 Contract until the assignment is approved)
- Assignment of the 1974 Contract is also subject to the approval of the federal district court due to its continuing jurisdiction

Shortly following the June 11th OWRB decision, J.D. Strong, Interim Executive Director of OWRB, wrote a letter dated June 20th to John Roberts of the Corps. John Roselle, District Council for the Corps, responded on July 13th with the Corps' position on certain requirements and the decision on the "approval of a transfer and assignment" of the 1974 Contract:

- Decision Based on Best Interests of the US: The Corps reiterated that the decision would be made by the Assistant Secretary of the Army and that the "decision-making process will take into account all available information to determine whether approval of a transfer is in the best interests of the United States."
- Subject to the Order of the US District Court: "An issue that is unique to this circumstance is that the Storage Agreement is currently subject to the Order of the United States District Court issued September 3, 2009...certain extra-contractual obligations exist between the parties and the Court

Oklahoma Water Transfer

Use Permit Required

Assignment of Contract

City Commitments

"Permanent Right" to Storage

Amended Application

Water Use Separate

Out of Basin Rules

continues to retain jurisdiction. Accordingly, involvement of the Department of Justice and the District Court and a modification of the Court Order may be necessary prior to, or in conjunction with, any action on a request for approval of transfer and assignment in order to protect the rights of the parties and ensure compliance with the agreements set forth in the Order."

- Valid Water Rights Permit: "...it will be necessary for the OCWUT and OKC to provide a valid water rights permit for the storage at Sardis Lake *before* we will be able to transmit a request for approval of a transfer and assignment of the Storage Agreement to the ASA (CW)." (emphasis added)
- Litigation Involved: Since the matter has involved litigation, the Corps ask that all future contact go through the Office of Counsel, Tulsa District.

TRANSFER AGREEMENT CONDITIONS & RISKS

There is no doubt that Oklahoma City envisions the storage at Sardis Lake as extremely valuable and an asset that is required for their future growth. OCWUT and OWRB acknowledged in the Transfer Agreement that the Corps must approve the "transfer of the 1974 Contract rights...under Article 10" of the 1974 Contract, yet the Agreement states in the next sentence that "USACE approval is not a condition precedent to the effectiveness of this Agreement between the OWRB and OCWUT, and OCWUT assumes all responsibility and costs to obtain USACE approval under Article 10 of the 1974 Contract." Section 2.2, p. 5. OCWUT and OWRB in the Transfer Agreement also acknowledged that Oklahoma City must obtain a permit to use the water from the storage that is owned by the Corps (Section 2.7, p. 9). Under Oklahoma water law, as in most western states, a water right must be obtained to use water, separate from the right to store water.

As written, the Transfer Agreement appears to create a considerable amount of uncertainty and risk for Oklahoma City. The City must obtain the Corps' and the federal district court's approval to assign the 1974 Contract. The City must also obtain a water use permit from OWRB for water use — an action that is certain to draw opposition from the Tribes and ORWP as currently proposed. Yet, the City is already committed to tremendous monetary obligations and has already made a payment of nearly \$28 million with no guarantees that the assignment will be approved or the water use permit will be received. Nonetheless, they have committed the City to the deal: "OCWUT will make the payments...regardless of whether USACE [Corps] approves the transfer of the 1974 Contract." Agreement, Section 2.2, p. 5. Those payments include an additional \$38 million, plus annual operation and maintenance costs of nearly \$1 million. The City would not actually receive a "permanent right" to the Sardis Lake storage from the Corps until all the payments due under the 1974 Contract have been made (Article 8, 1974 Contract). Operation and maintenance costs continue and the "User" also bears any costs related to necessary "reconstruction, rehabilitation or replacement of Project features which may be required to continue satisfactory operation of the Project." *Id.* at Article 8(a) and (b).

WATER USE PERMIT APPLICATION

In March 2010, OCWUT filed an amended Application to Use Surface or Stream Water with OWRB "consistent with this agreement to obtain the water use permit required to use the water rights." Martha Slaughter, General Manager of OCWUT, June 7, 2010 Memo to Trustees, OCWUT. The reference to "this agreement" was to the Transfer Agreement that was approved by OCWUT on June 7. Note that OCWUT filed the amended application in March, prior to receiving approval for the Transfer Agreement from their own Trustees on June 7, and also before OWRB approved the Agreement on June 11.

Thus, OCWUT filed the amended application to use water from Sardis Lake storage, even though they hadn't received (nor even officially asked for) approval for assignment of the 1974 Contract from the Corps or the federal district court.

It is important to note that, under Oklahoma water law, storage rights and water use rights (from storage) are dealt with separately. Having storage rights does not necessarily guarantee that one will later obtain water rights to use the stored water — particularly where as here, a complicated out-of-basin transfer of the water will be required to enable Oklahoma City to use the water for its municipal purposes. The Transfer Agreement and the 1974 Contract deal with the transfer of storage rights — not water rights. Article 2 of the 1974 Contract, for example, states specifically that the storage contract does not deal with water rights or water use regulation.

Oklahoma City must apply for a water use permit from OWRB, as specifically set out in the Transfer Agreement. In such a permit proceeding, state statutes and rules governing proposals to transport water outside the basin of origin will apply — with the intent to protect potential local uses. See 82 O.S. Sec.

Oklahoma Water Transfer

ORWP Demand

Assertions

Auction Required

Veto Authority

High Stakes

105.12(A)(4) and (B). See also 82 O.S. Sec. 1086.1(A) regarding the policy of the state to protect people residing within the area where excess and surplus water originate. Public hearings before a hearing examiner will be scheduled and will provide the opportunity to present evidence relative to Oklahoma City's permit application for use of the water.

NOTICE OF DEMAND

"QUI TAM ACTION"

On June 25, ORWP sent a Notice of Demand letter pursuant to what is known as a "Qui Tam action" in Oklahoma (62 Okla.Stat. Ann. § 373). The Demand alleges that the "proposed sales are not only unauthorized, unlawful and illegal but are a gross mishandling of public resources and taxpayer money." A Qui Tam action (also referred to as a "private attorney general action") is designed to allow citizens to step into the shoes of the state attorney general to take action when the state fails to do so.

The Demand is a prerequisite to legal action. It makes several legal assertions to back up its general claim that an action is necessary to "protect Oklahoma's water resources and to prevent the illegal expenditure of taxpayer and ratepayer dollars."

The assertions made by ORWP include the following:

- OWRB did not follow procedural requirements that apply to the sale of water storage contracts — the storage rights have not been perfected by the completion of payments to the Corps
- Closed-door negotiations for the sale of Sardis storage rights violated state law: this valuable asset (storage rights) was required under state law to be auctioned off and sold to the highest bidder, having been unused for ten years
- The obligation to pay \$15 million as a condition precedent to the issuance of a permit by OWRB "is tantamount to offering a bride for a water permit"
- OWRB did not obtain the approval of the Corps to transfer or assign the Contract before entering into the Transfer Agreement
- the Agreement illegally delegates veto authority to OWCUT over any current or future water permit applications that are for "more than a cumulative total of 20,000 acre feet" from Sardis Lake

Finally, the Demand is made that the "Agreement be rescinded, and all money and property returned, or we will commence litigation." Demand Letter, p. 4.

Amy Ford, Executive Director of ORWP, informed The Water Report that ORWP is holding off on the litigation for now in order to first ascertain whether the Tribes and the Governor can reach a satisfactory resolution.

CONCLUSION

At this point it is impossible to predict the outcome of this controversy. Important water rights issues and the ultimate question of who will eventually control storage and use rights from Sardis Lake remain to be decided. The stakes are extremely high due to the huge amount of water involved. Negotiation among the various parties is expected for now, but litigation threats clearly loom. The issues will not be easily resolved.

The Sardis Lake controversy may provide us with a model of how to settle a complicated legal and factual situation that takes into account the basin of origin, tribal water rights, and Army Corps storage issues — or it may provide water users with a blueprint for how *not* to approach regional water supply planning.

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Hydraulic Fracturing

Exempt From Regulation

Shale Gas "Plays"

HYDRAULIC FRACTURING

THE ROAD TO EPA'S NEW "FRACKING" STUDY

by Adam Orford, Marten Law (Portland, OR)

INTRODUCTION

For over two decades, a debate has raged over hydraulic fracturing (“fracking”), a method of increasing production at natural gas wells in coalbeds, shale formations and other unconventional, underground, gas-bearing sources by delivering increased fluid pressure via drilled wellbores to open or extend fractures in the formations.

Fracking is exempt from federal drinking water regulations, but stands accused of threatening water supplies across the country. It has recently become the focus of intense scrutiny and widespread media attention as interest has increased in shale development and natural gas production has expanded toward the Atlantic seaboard. The US Environmental Protection Agency (EPA) has reopened its investigation into fracking's potential environmental impacts — an initial series of contentious public scoping meetings for the study wrapped up in September. As EPA contemplates the task ahead, this article explains how the agency arrived at this point and why it matters.

NATURAL GAS IN SHALE

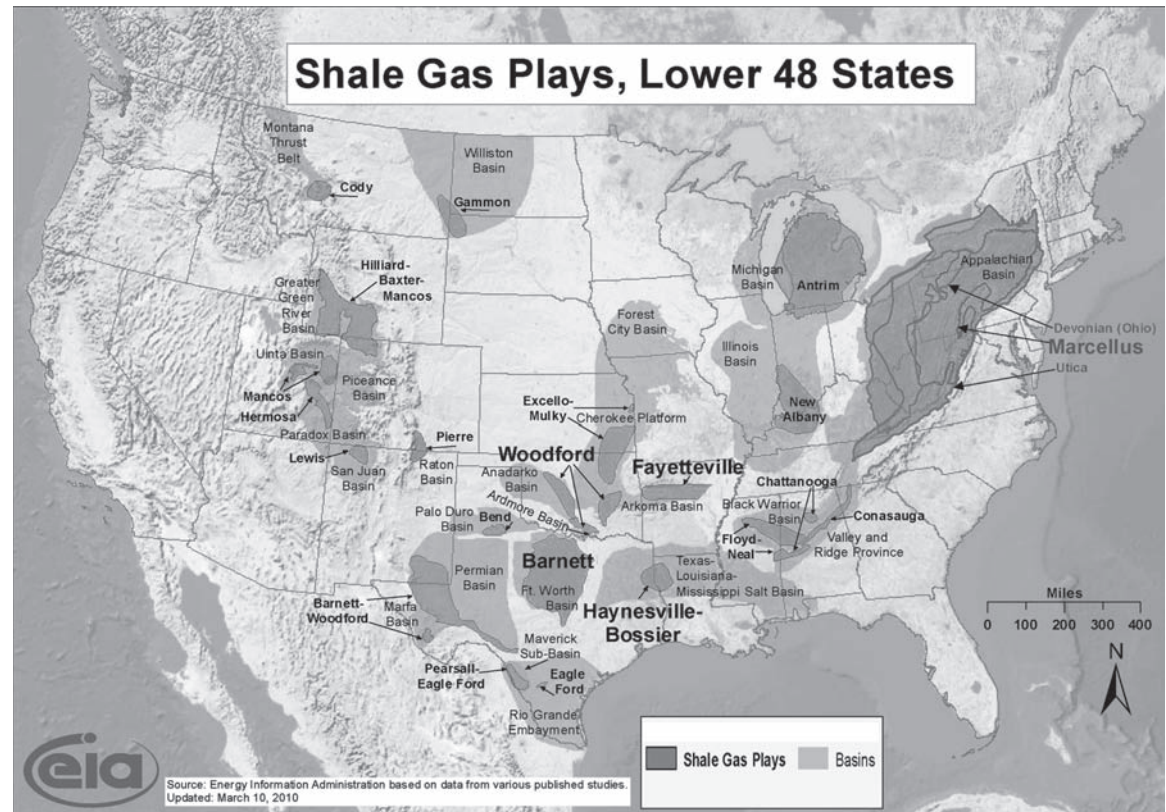
A STUDY IN PRESSURES

Although the environmental risks claimed to be associated with fracking are in the headlines today, such risks can be evaluated only in the context of the activity's purpose: natural gas extraction in the face of finite resources and rising demand.

Lithostatic Pressure: Shale Gas Formation

Shale gas formations underlie a number of areas in the United States. Shale gas “plays” are those areas where it has been determined that shale gas may exist in quantities sufficient to make extraction economically feasible (see map).

Shale is a fissile sedimentary rock, occurring anywhere that fine sedimentary particles were left to accumulate undisturbed over geologic time — under lakes and lagoons, in river deltas, and on deep ocean shelves. Today's formations are the result of deposits laid down several hundred million years ago, eventually buried and compressed under subsequent sedimentary layers. Where the sediments accumulated in anaerobic conditions (often deep waters), organic matter falling from shallower depths would have



Hydraulic Fracturing

Natural Gas Reserves

Gas Demand

Extraction Technique

Fracturing Process

mixed into the sediments without decaying. Over time, as pressure from the overlying strata increased, pressure would have heated the rich mixture and pyrolysis (thermochemical decomposition of organic material at elevated temperatures in the absence of oxygen) would have achieved what oxygen had not: the organic material decomposed into gaseous hydrocarbons — natural gas. Trapped in the rock, the gas would remain widely diffused throughout the shale's pore spaces and, as the land shifted over geologic time, become concentrated in countless vertical fractures throughout the formation.

The result is vast reserves of natural gas deep underground in “low permeability” geologic formations — i.e., rock that does not allow gas or fluid to pass through it easily. Shale gas formations are believed to be one of the largest potential sources of natural gas in the United States.

Economic Pressure: Natural Gas Development

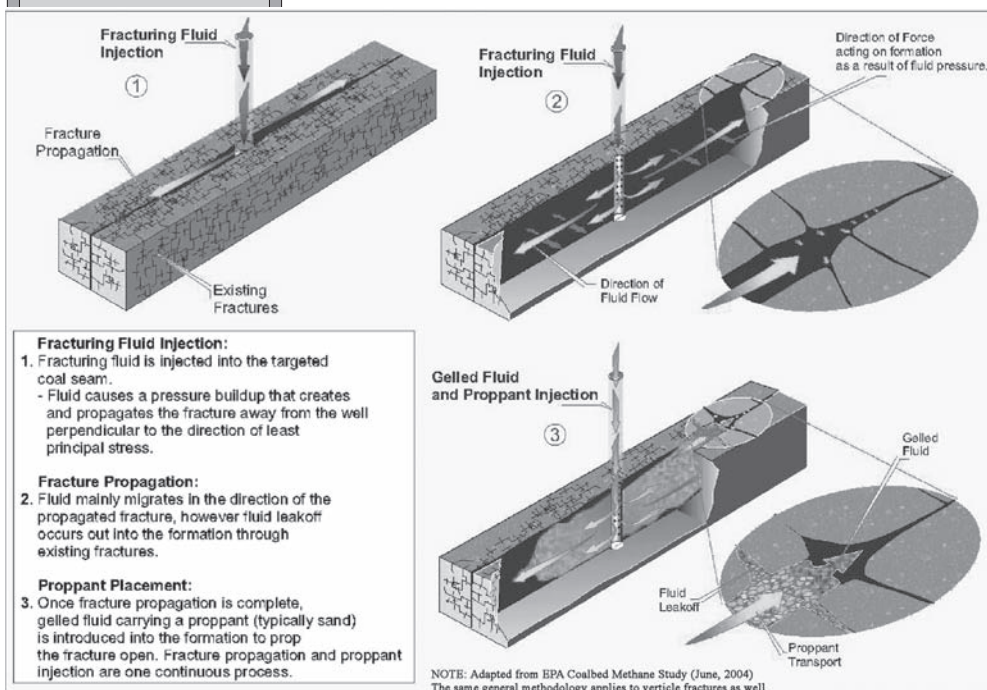
Fast forwarding to the present, natural gas has become an important and extremely valuable fuel. In recent years, the United States has consumed about 23 trillion cubic feet (TCF) of natural gas per year (source: US Energy Information Administration (EIA)). Of that, on average about 19 TCF were produced domestically, and four TCF were imported. Although these levels have declined in the immediate past, eventual economic recovery is expected to lead to steadily increasing US natural gas consumption over the coming decades. Due to its relatively low carbon content, changes in energy policy — particularly a national regulatory regime for carbon — have the potential to very quickly drive US natural gas demand much higher.

The stability or fluctuation in natural gas prices is a function of the ability of the US to replace those natural gas reserves consumed through production and consumption with new reserves, through exploration and development. In recent years, exploration and new production technologies have kept pace. For example, in 2007-2008 (an unusually good year), the US proven natural gas reserves (237.7 TCF) were diminished by 20.5 TCF production, but replenished by 29.5 TCF total discoveries. (EIA)

But the low-hanging fruit has largely been plucked, at least for conventional technologies. While easily accessible natural gas still is being discovered, the lion's share of new proven reserves (including those added in 2007-2008) result from applying innovative extraction technologies and techniques to recover previously known resources that were uneconomical using conventional production methods. Over the last decade, this has led to increased focus on extracting gas and oil from “unconventional” deposits — diffuse accumulations in low-permeability formations such as sandstones, chalks, coal beds, and shales. Hydraulic fracturing is one such technique.

Hydraulic Pressure: Shale Gas Extraction through Fracking

Shale does not give up its natural gas easily. Most of the recoverable natural gas resides in the shale's fractures (“joints”). These joints are roughly vertical. Consequently, a traditional, vertical well necessarily intersects very few of them. The shale's low permeability means that gas does not flow into the well from adjacent, unconnected joints. As a result, vertical wells have not been notably productive for these types of deposits.



To increase well productivity, well operators have needed to increase the network of fractures that the well can access. To get those fractures, they apply pressure by pumping large volumes of hydraulic fracturing fluid into an isolated well section. The pressurized mixture of water and chemicals permeates the rock, fracturing the fissile shale. This fluid carries with it a “proppant” — generally sand or ceramic beads — that lodges in the fractures, “propping” them open after the fracking fluid is pumped back out. With the fluid gone and the fractures opened, the shale gas escapes into the well.

Fracking is not a new technique, and has been used with particular success over the last two decades in shallower coalbed formations. Now, advances in directional drilling have allowed wells to be aligned within deep,

Hydraulic Fracturing

2005 Exemption

semi-horizontal shale layers, perpendicular to the shale joints, maximizing each well's interface with the shale and increasing the number of intersected fractures. These advances have finally made it economically feasible to extract natural gas from previously undeveloped sources — such as the country's shale beds. No other technique shows such promise for meeting the US demand from domestic natural gas resources so economically.

Fracking and the Environment — Twenty Years of Political Pressure

Allegations of water quality impacts associated with hydraulic fracturing date back to at least the early 1990s, but hard evidence has been scarce. In 2004, EPA concluded that there was no credible evidence of environmental risks from fracking to extract coalbed methane (study discussed below). Although fracking opponents challenged the scientific soundness of EPA's conclusion, Congress went on to exempt fracking from federal drinking water regulation the next year, and shale gas production has expanded rapidly since then.

That expansion has brought fracking into the public eye like never before. As states have adjusted to the influx of the industry, conflicting policies of caution and expansion have made for a lively news cycle. Confusion and concern about the potential effects of fracking in different regions has spread. As one result, Congress has urged EPA to conduct a “study on the relationship between hydraulic fracturing and drinking water.” As EPA moves forward, environmental interests say the study does not go far enough, while industry argues that the study has become a juggernaut far exceeding Congress's intent.

1990 TO 2005: ROAD TO THE FRACKING EXEMPTION

Underground Injection Control

The federal Safe Drinking Water Act (SDWA) was enacted by Congress in 1974 (42 U.S.C. § 300f et seq.). Part C of the SDWA established the Underground Injection Control (UIC) program (42 U.S.C. § 300h et seq.). Under this program, EPA issues regulations establishing minimum requirements for states to follow, and, if requested, reviews proposed state UIC programs for compliance with these minimum requirements. States may also choose not to regulate, in which case EPA runs the program.

The UIC program prohibits any “underground injection” (defined as the “subsurface emplacement of fluids by well injection”) that endangers underground drinking water sources. Underground injection “endangers drinking water sources if such injection may result in the presence in underground water which supplies or can reasonably be expected to supply any public water system of any contaminant, and if the presence of such contaminant may result in such system's not complying with any national primary drinking water regulation or may otherwise adversely affect the health of persons.” (42 U.S.C. § 300h(d)(2)).

Drinking Water Sources

UIC Limit

EPA policy into the 1990s was that this law did not apply to hydraulic fracturing because, EPA maintained, the UIC program applied only to operations where the “principal function” of an injection was the placement of fluids and the principal function of fracking is resource recovery (see, *Legal Envtl. Assistance Found., Inc. v. U.S. E.P.A.*, 118 F.3d 1467, 1471 (11th Cir. 1997)). States, therefore, were left to regulate fracking under their own laws as they saw fit.

This interpretation stood unchallenged until the early 1990s, when Alabama citizens living near a coalbed methane operation that used hydraulic fracturing reported contaminants in their drinking water wells and petitioned EPA to require Alabama to regulate fracking under its UIC program. Over objections from these landowners, EPA approved Alabama's UIC regulations, which did not govern fracking, and the residents appealed EPA's decision. In 1997, the Eleventh Circuit overruled EPA's interpretation, instructing the agency to begin requiring states to regulate fracking under the SDWA. *Id.*, 118 F.3d at 1478

Although the Eleventh Circuit would limit its ruling in 2001 (*Legal Envtl. Assistance Found., Inc. v. U.S. E.P.A.*, 276 F.3d 1253 (11th Cir. 2001), cert. denied, 537 U.S. 989 (2002)) — the seeds of regulatory uncertainty had been sown. Two very different political pressures were quickly brought to bear: on the one hand, by those concerned with potential environmental impacts of a widespread and largely unregulated industrial practice; on the other, by those concerned that unnecessary government oversight would cripple energy development. The former wanted fracking's environmental impacts studied, the latter wanted the practice exempted from environmental regulation.

Both sides had some initial success. EPA began studying the environmental impact of hydraulic fracturing during coalbed methane production to determine whether the practice posed risks to drinking water. Around the same time, newly elected President George W. Bush convened the National Energy Policy Development Group (“Energy Task Force”), lead by Vice President Dick Cheney, to make recommendations on the Administration's energy policy.

The Energy Task Force released its final report in May 2001. Although it did not go into much

11th Circuit Decision

Political Pressures

Cheney Task Force

Hydraulic Fracturing

EPA 2004 Fracking Report

Safe Drinking Water Exemption

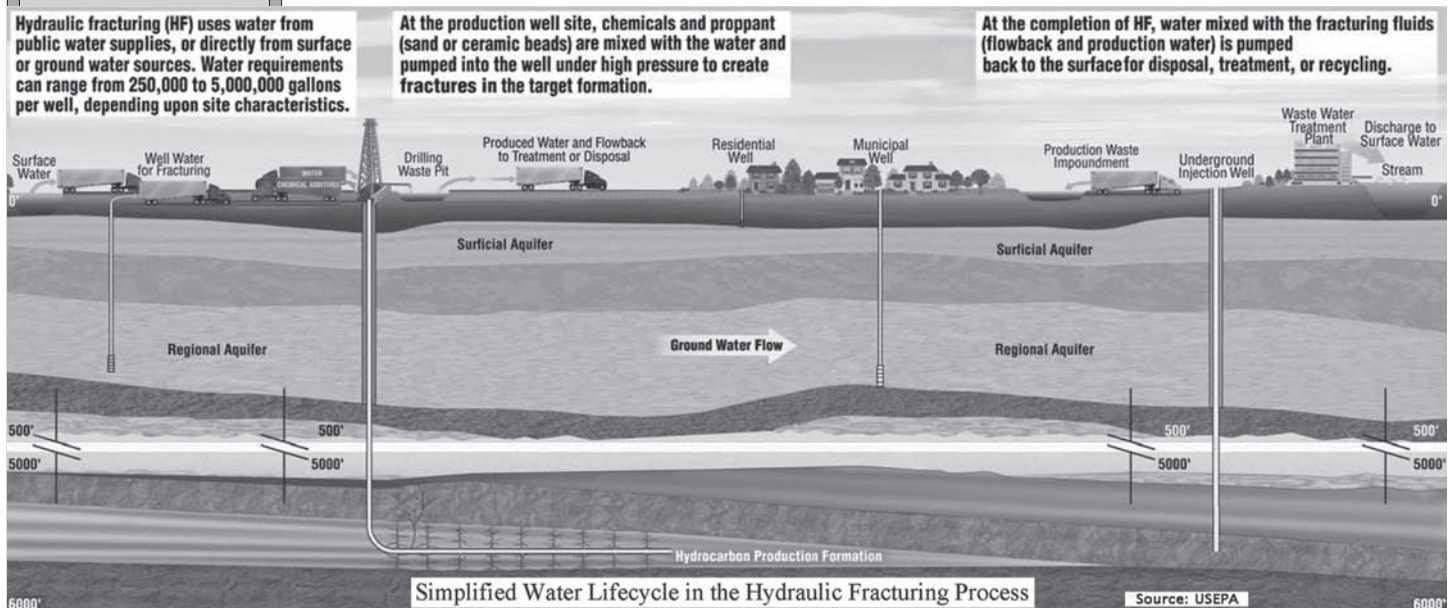
No Federal Regulation

detail, the report did briefly discuss fracking, stressing the importance of the technique and mentioning the possibility of increased environmental regulation (*Report of the National Energy Policy Development Group: National Energy Policy*, pp 5-6 (May 2001)). But the report was more significant for what it did not say. Fracking had been the subject of debate among the report's authors and EPA. Initial drafts had portrayed hydraulic fracturing as essential to energy development, and recommended that fracking be exempted from the SDWA. EPA officials had requested several times that the report caveat its conclusions in light of EPA's ongoing fracking study, and drop the recommendation for exemption. The resulting language appears to have been a compromise: there was no legislative recommendation, but likewise no reference to the ongoing environmental investigation (see T. Hamburger & A. Miller, *A Changing Landscape: Halliburton's Interests Assisted by White House* (L.A. Times, Oct. 14, 2004)).

EPA's final report on fracking arrived in July 2004 (*Evaluation of Impacts to Underground Sources of Drinking Water by Hydraulic Fracturing of Coalbed Methane Reservoirs*, EPA 816-R-04-003 (2004)). For those that had been following the issue, its conclusion was a bombshell: "injection of hydraulic fracturing fluids into coalbed methane wells poses little or no threat to [underground sources of drinking water] and does not justify additional study at this time . . . EPA did not find confirmed evidence that drinking water wells have been contaminated by hydraulic fracturing fluid injection into coalbed methane wells." *Id.* at 7-5 While the report vindicated the industry position, it quickly drew criticism. In October 2004, an EPA environmental engineer in Denver named Weston Wilson sent a letter and report to his Congressional representatives in Colorado, particularly concerned that fracking activities in coalbeds could impact aquifers that are drinking water sources (W. Wilson, *Letter to Wayne Allard, Nighthorse Campbell and Diana DeGette* (Oct. 8, 2004)). Wilson called the EPA fracking report "scientifically unsound" and accused members of the report's peer review panel of conflicts of interest. Such criticisms resonated with similar criticisms of Bush Administration science policy made during the same period (see, e.g., Union of Concerned Scientists, *Scientific Integrity in Policy Making* (2004)) and were widely heralded by the environmental community as proof that the EPA's study could not be relied upon.

Meanwhile, the idea of exempting fracking from the SDWA — unmentioned in the 2001 national policy report but not forgotten — had taken root and gained traction in Congress. The first draft of what would eventually become the Energy Policy Act of 2005 (EPA 2005) had been introduced in the House in early 2002. That bill, among many other things, proposed exempting hydraulic fracturing from SDWA regulation. The fracking exemption would become one of the many points of negotiation as Congress spent the next several years arguing over energy reform. When EPA issued its analysis in late 2004, Congress was already reaching the end of its long deliberations over energy reform. One might speculate that with the legislation nearing the finish line, the EPA report greatly simplified the debate over the fracking issue.

On July 29, 2005, the Senate approved a conference version of EPA 2005. The law included an amendment to the SDWA, exempting from its scope "the underground injection of fluids or propping agents (other than diesel fuels) pursuant to hydraulic fracturing operations related to oil, gas, or geothermal production activities." 42 U.S.C. § 300h(d)(1) Fracking (unless using diesel fuel) would not be federally regulated; states were free to continue to regulate as they saw fit.



2005 TO 2010: ROAD TO THE NEW EPA STUDY

Hydraulic Fracturing**Chemicals Used****Disclosure Legislation****Diesel Additive MOA****Air Impacts****Groundwater Contamination****Moratorium Lifted****New EPA Study**

Most of the above action regarding fracking occurred largely outside the perception of the mainstream public. Fracking was not making headlines. In the wake of the EPA study and EAct 2005, as natural gas exploration and development moved forward, fracking opponents began to raise the debate's public profile.

The most prominent element of the campaign was to demand detailed disclosure of the chemicals used in fracking. Industry assured regulators that fracking fluids were fairly benign and, in any event, would be contained underground or handled carefully on the surface, but balked at disclosing precise chemical formulas on the grounds that they are proprietary intellectual property. Opponents pointed out that: some chemicals used in fracking operations were known to be toxic; that increased use could lead to increased risk of spills; and that regulators would not know what to test for and medical professionals would not know what to look for if the chemicals remained secret. Disclosure bills have been proposed repeatedly at the local, state and federal level ever since (e.g., the current Fracturing Responsibility and Awareness of Chemicals (FRAC) Act (S. 1215) (H.R. 2766)). Most recently, disclosure language was attached to the Senate's legislative response to the Gulf Oil Spill (Clean Energy Jobs and Oil Company Accountability Act of 2010 (S. 3663), Title XLIII.).

Some in the industry fueled the chemical exposure debate by continuing to use diesel as an additive to enhance proppant delivery, despite having agreed not to do so in 2003. In late 2003, EPA and several development companies entered into a Memorandum of Agreement to end the practice in coalbed methane wells near underground sources of drinking water. *Memorandum of Agreement between the United States Environmental Protection Agency and BJ Services Company, Halliburton Energy Services, Inc., and Schlumberger Technology Corporation: Elimination of Diesel Fuel in Hydraulic Fracturing Fluids Injected into Underground Sources of Drinking Water During Hydraulic Fracturing of Coalbed Methane Wells* (Dec. 12, 2003). Continuing diesel use also ran counter to its exclusion in EAct 2005, which subjects such injections to regulation. In February 2010, the House Energy & Commerce Committee reported that two signatory companies had continued to use diesel through at least 2007. Although the companies involved have said that the diesel was used by mistake and it was not clear that the incidents occurred at locations covered by the MOA or the SDWA, the controversy has kept the disclosure question front and center.

Particularly in the Mountain West and Southwest, opponents have also focused on possible air impacts associated with the drilling operations themselves. Fracking requires pressure, pressure requires pumps, and pumps require fuel to burn — with associated air impacts. Concerns also have been raised that the fracking process itself may release air pollutants. Emissions from drilling operations, consequently, have been under fire (see, e.g., Greenwire, *EPA Weighs Tougher Air Pollution Rules on Drillers* (Aug. 5, 2010)).

More than anything else, fracking opponents have sought EPA recognition of solid evidence that fracking pollutes groundwater, as has often been claimed. In August 2009, EPA discovered chemicals used exclusively in fracking operations in several groundwater wells near natural gas operations in Pavillion, Wyoming. The Pennsylvania travails of Cabot Oil & Gas (fined for a several spills of fracking fluids) came to light around the same time and were widely publicized, as was a natural gas well blowout that occurred at the same time as the Deepwater Horizon blowout was being repaired. Fracking issues continue to receive widespread national attention (see C. Bateman, *A Colossal Fracking Mess* (Vanity Fair, June 21, 2010)).

Fracking, therefore, has suffered from its own successes. In July 2008, Pennsylvania lifted a five-year moratorium on new drilling in state lands to allow access to the Marcellus shale. At almost the same time, New York streamlined its own leasing process to meet the sudden rise in interest. Fracking quickly moved into the back yards of a major portion of mid-Atlantic states, an extremely populous area unused, in recent times, to resource extraction industries. Combined with the above incidents fueling concern over the practice, this expansion has generated a large political backlash. Most recently, on August 3, 2010, the New York State Senate approved a moratorium on new drilling permits in the Marcellus Shale through May 15, 2011 — though this moratorium must also pass the state's lower legislative body before becoming law.

Amid all of this, the number of studies focused on the environmental impacts of fracking have remained small, and so the evidence still sparse. To remedy this situation, on October 8, 2009, Congress adopted a conference report for EPA's funding bill that:

urge[d] the [EPA] to carry out a study on the relationship between hydraulic fracturing and drinking water, using a credible approach that relies on the best available science, as well as independent sources of information . . . to be conducted through a transparent, peer-reviewed process that will ensure the validity and accuracy of the data.

The 2004 fracking study would be reopened.

Adam Orford is an attorney in the Portland office of Marten Law, a law firm focusing exclusively on environmental and energy matters. His practice focuses include environmental litigation, impact review of energy projects, defense of state and federal environmental permits, investigation and remediation of contaminated sites, and environmental diligence in corporate transactions. He is admitted to practice in Oregon and New York. An earlier version of this article appeared in Marten Law's *Environmental News* newsletter.

CONCLUSION

All eyes are now focused on EPA. In its conceptual model circulated for public comment, EPA identified a number of potential transport pathways into groundwater for contaminants that it believes may merit further review, including: infiltration from natural fractures or fractures created during fracking operations deep in the well; leakage from higher in the well, either during or after operations, due to improper construction, damage, abandonment, etc.; and surface leaching from storage pits and spills.

According to industry, there is limited risk from deep injections because the majority of fracking fluids are withdrawn from the well after injection and handled pursuant to state and federal waste management regulations, while what is left is isolated deep underground, separated from drinking water supplies by impermeable strata.

Environmental interests argue that more fluid remains underground than industry claims, and that recent incidents show a need for stricter federal oversight. They are urging EPA (over industry objections) to expand the study's scope into air and other impacts.

EPA's Hydraulic Fracturing website (see below) states that the agency intends to complete the draft study design this month (October 2010). EPA expects to initiate the Hydraulic Fracturing Study in early 2011 and to have the initial study results available by late 2012.

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EPA'S HYDRAULIC FRACTURING WEBSITE:

<http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/index.cfm>

UPDATE

EPA CONSTRUCTION STORMWATER RULE

SEVENTH CIRCUIT CLARIFIES RULING

by Tom Lindley and Jessica Hamilton, Perkins Coie LLP (Portland, OR)

Issue #79 of **The Water Report** (September, 2010) reported the status of EPA's Final Rule entitled "*Effluent Limitations Guidelines and Standards for the Construction and Development Point Source Category*" (Final Rule) 74 Fed. Reg. 62,996 (Dec. 1, 2009) following a ruling in the Seventh Circuit Court of Appeals in a case captioned *Wisconsin Builders Association v. EPA*, No. 094113 (filed Dec. 28, 2009). The court has since filed a new order vacating its previous order. (Order on Petitioners' Unopposed Motion for Clarification or Reconsideration of the August 24, 2010 Order, filed 9/20/2010). This was in response to the Petitioners' motion seeking clarification of the relief granted in the court's August 24, 2010 order, which remanded the case to EPA for further proceedings. Petitioners specifically sought to have the numeric turbidity effluent limit vacated, based on EPA's admission that it improperly interpreted the data, and that therefore the existing administrative record was no longer adequate to support the 280 NTU effluent limit. The Seventh Circuit, on September 20, 2010, ordered that the administrative record was remanded to EPA, but that the request for the court to vacate the effluent limit was denied. The court further ruled that "The EPA may make any changes to the limit it deems appropriate, as authorized by law." The court granted the request to hold the case in abeyance.

As a result of the court's ruling, the 280 NTU effluent limit is still in effect until EPA acts further.

Stated another way, although EPA has conceded its numeric effluent limit is not supported, it remains an enforceable part of the Final Rule. If EPA does not otherwise act, the Final Rule would require construction sites that disturb twenty or more acres of land at one time to comply with the numeric turbidity limit by August 1, 2011 and construction sites disturbing ten or more acres at one time would be required to comply by February 2, 2014. In light of this, EPA is still considering its options and is expected to announce its path forward soon in order to provide guidance to states that are undergoing their own construction stormwater permit rulemaking processes.

Pesticides

NPDES
General PermitIncluded
Use PatternsHigh Quality
Waters

EPA Thresholds

Point Source
DischargesNational Cotton
Case

Stay Until 2011

PESTICIDES REGULATION

EPA CONCLUDES COMMENT PERIOD ON PROPOSED PESTICIDE GENERAL PERMIT
FINAL PERMIT ISSUANCE EXPECTED THIS DECEMBER

by Tom Lindley and Jessica Hamilton, Perkins Coie LLP (Portland, OR)

INTRODUCTION

On June 2, 2010, EPA released a draft National Pollutant Discharge Elimination System (NPDES) permit for point source discharges that would cover the application of pesticides to United States jurisdictional waters ("Pesticides General Permit" or "PGP"). The comment period for the draft permit has now closed. EPA received nearly 750 sets of comments; it anticipates issuing a final permit in December 2010, to go into effect in April 2011. Once in effect, the permit is anticipated to impact approximately 365,000 users performing nearly 5.6 million applications annually.

PERMIT ASPECTS

EPA's draft PGP regulates discharges to waters of the US from the application of: (1) biological pesticides; and (2) chemical pesticides that leave a residue. The use patterns included are: (1) mosquito and other flying insect pest control; (2) aquatic weed and algae control; (3) aquatic nuisance animal control; and (4) forest canopy pest control. The PGP does not authorize coverage for: (1) discharges of pesticides or their degradates to waters already impaired by these specific pesticides or degradates; or (2) discharges to outstanding natural resource waters, or "Tier 3" waters. "Tier 3" waters are defined as "high quality waters that constitute an outstanding National resource, such as waters of National and State parks and wildlife refuges and waters of exceptional recreational or ecological significance." 40 C.F.R. § 131.12(a)(3). It is left to each state or tribe to designate which waters fall into Tier 3. Discharges falling into these categories would require coverage under individual NPDES permits.

The PGP would impose effluent limitations, monitoring requirements and corrective action procedures on all dischargers. However, the draft permit includes a phased approach for coverage and compliance. Generally, dischargers meeting certain threshold amounts will be required to submit a Notice of Intent ("NOI") to obtain coverage under the PGP. The EPA is only requiring a NOI when the discharger will exceed an annual treatment area threshold for a covered use pattern.

The current thresholds for each use pattern are set at:

Use Pattern	EPA Threshold
Mosquito spraying	640 acres
Forest canopy	640 acres
Aquatic weed and algae control	20 linear miles of water's edge or 20 acres of open water
Aquatic nuisance animal control	20 linear miles of water's edge or 20 acres of open water

Any discharger below these thresholds but within one of the use pattern categories is automatically covered by the permit, but exempt from some permit requirements such as implementing integrated pest management practices. Any discharger with use patterns not covered by the PGP would need to obtain coverage under an individual permit or alternative general permit if those use patterns involve pesticide applications that result in point source discharges. Finally, any applications inconsistent with FIFRA labeling requirements relating to water quality would be a presumptive CWA violation.

This draft permit is in direct response to a decision by the Sixth Circuit Court of Appeals that vacated EPA's 2006 rule exempting discharges of pesticides from NPDES permitting requirements when those discharges occurred in compliance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). *National Cotton Council of America v. EPA*, 553 F.3d 927 (6th Cir. 2009). The Sixth Circuit held that the Clean Water Act (CWA) unambiguously includes biological and some chemical pesticides within its definition of "pollutant." The court further held that excess chemical pesticide and pesticide residue may be pollutants and noted at least two circumstances where excess pesticide or pesticide residue would be "chemical wastes" under the CWA. Those circumstances were: (1) where chemical pesticides were applied to land or air and the excess pesticide is subsequently deposited into U.S. jurisdictional waters; and (2) where pesticide residue remains following the direct application of chemical pesticides to U.S. jurisdictional waters. However, the court did issue a stay until April 9, 2011 to allow EPA and states time to develop and issue permits to authorize certain pesticide discharges under the CWA.

Tom Lindley, a Partner in Perkins Coie LLP and the National Chair of its Environment Energy & Resources Group, focuses on environmental counseling, compliance, and litigation, with particular expertise in the Clean Water Act (CWA), the Clean Air Act (CAA), the Resource Conservation & Recovery Act (RCRA), and Superfund or the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Tom is a member of the Oregon, Washington, Illinois State Bars; admitted to the U.S. Supreme Court; member, Environment, Energy and Resources, Torts and Insurance Practice, and Litigation Sections, American Bar Association; and chair, Water Quality and Water Resources Subcommittee. A frequent speaker and author on environmental regulation and liability issues and related real estate, business, and insurance issues, Tom is listed in Best Lawyers in America, Lawdragon, and Chambers USA.

Jessica Hamilton, is an Associate at Perkins Coie LLP in Portland, Oregon, and a member of its Environment Energy & Resources Group. Her practice focuses on environmental litigation and regulatory compliance, with a primary focus on issues involving CERCLA, state clean up laws, environmental remediation, and the CWA. Jessica works with clients on cost recovery and remediation issues, regulatory compliance, and release reporting. Jessica is admitted in Oregon and Washington. Jessica is a founding board member of Women in Environment (WIE) and is also on the Board of Directors of SOLV, an Oregon nonprofit focused on improving the environment through volunteer action. She is listed in Oregon Law and Politics as an "Oregon Rising Star."

REGULATING PESTICIDES UNDER THE CLEAN WATER ACT

The Clean Water Act provides the structure for regulating discharges of pollutants into the waters of the United States and regulating the quality standards for surface waters. The CWA makes it unlawful to discharge any pollutant from a point source into navigable waters unless a permit is obtained. 33 U.S.C. §1311(a). Under the CWA, point sources are regulated by the NPDES permit program. Point sources are discrete conveyances such as pipes or man-made ditches.

Regulating pesticide applications under the CWA may prove to be problematic. Just exactly what are jurisdictional waters remains unclear under the plurality decision in *Rapanos v. United States*, 547 U.S. 715 (2006). Whether EPA intends to categorize gullies, swales, ditches, upland conveyances or other irrigation features as jurisdictional waters remains an open question. Discharges of pesticides to irrigation ditches that are either waters of the United States or convey to waters of the United States would require NPDES coverage separate from the PGP. In addition, certain pesticide application activities may not be covered by the PGP but would require coverage through an individual permit. In those circumstances, those performing the applications would need to go through the time-consuming and difficult process of obtaining an individual permit. This may prove to be a costly and confusing endeavor for applicators.

REACTIONS AND IMPLICATIONS

EPA took comments on the draft general permit until July 19, 2010. In the comments filed with EPA, industry and the agricultural community have reacted by arguing that the proposed thresholds would put a great burden on pesticide sprayers when contrasted with other sources of pesticide pollution. In addition, they argue that the threshold for coverage is too low and would encompass the majority of pesticide sprayers, and would unduly burden small businesses. Another concern for industry is the outright prohibition on discharges of pesticides into Tier 3 waters. Instead, industry argues that discharges should only be limited if the specific pesticide in question contains one of the pollutants for which the body of water is impaired.

In contrast, environmental NGOs argue in their comments that the proposed thresholds are too high and capture too few sources. In addition, they argue that a complete ban on discharges of pesticides into Tier 3 waters that are impaired for pesticides generally is appropriate since otherwise there could be continued degradation of those ecosystems.

IMPACT ON STATES

Although the permit only directly applies to pesticide activities where EPA is the permitting authority, such as Idaho, EPA has been collaborating with states that have authority to implement the NPDES program to develop their own permits. These permits cannot be less stringent than those issued by EPA. Several states have already implemented general permits for pesticide applications. Washington, Oregon, California and Nevada each have implemented permits for the application of certain types of pesticides, such as pesticides to control aquatic weeds, algae, and mosquito larvae, largely in response to two Ninth Circuit Court of Appeals cases, *League of Wilderness Defenders v. Forsgren*, 309 F.3d 1181 (9th Cir. 2002) (holding point source discharge includes aerial pesticide application) and *Headwaters, Inc. v. Talent Irrigation District*, 243 F.3d 526 (9th Cir. 2001) (holding FIFRA did not preempt CWA, residual pesticide remaining in water after application was a pollutant, and requiring NPDES permit for applicator). Washington's Department of Ecology issued its new Aquatic Mosquito Control General Permit in May 2010. Oregon's Department of Environmental Quality has been working with the Oregon Department of Agriculture pesticides program and is developing a proposed permit for public comment in late fall 2010 and plans to issue the permit in early 2011. It is likely that Oregon's permit will closely mirror the EPA's PGP.

CONCLUSION

Although the comment period on the EPA general permit has passed, parties concerned with this issue may want to monitor activity at the state level and submit comments as appropriate. The EPA intends to finalize its permit in December 2010 and the permit would go into effect in April 2011. More information can be found at: <http://www.epa.gov/npdes/pesticides>.

FOR ADDITIONAL INFORMATION:

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Water Resources

Ryan's Background

Committee Jurisdictions

Political Impacts

Stimulus Infrastructure Projects

WATER RESOURCES AND ENVIRONMENT

A LEGISLATIVE UPDATE FROM WASHINGTON DC

Conversations with Ryan C. Seiger,
Staff Director for the US House Subcommittee on Water Resources and Environment

by Joan Card, Joan Card Consulting, LLC, Park City, Utah

INTRODUCTION

I am honored to have this opportunity to publish a summary of conversations with my friend, Ryan C. Seiger. After a number of years as a Congressional staffer and receiving his law degree from Catholic University of America in 1998, Ryan joined the US House of Representatives Committee on Transportation and Infrastructure as Democratic Counsel for the Subcommittee on Water Resources and Environment. During his tenure with the Subcommittee, Ryan has been responsible for oversight of the US Environmental Protection Agency's (EPA's) Clean Water Act, Oil Pollution Act, and Comprehensive Environmental Response, Compensation, and Liability Act (Superfund) programs, as well as the authorities of the US Army Corps of Engineers, Civil Works mission. At the outset of the 110th Congress, Ryan was promoted to Staff Director of the Subcommittee on Water Resources and Environment. During his time as Staff Director, Ryan has helped to enact the landmark Water Resources Development Act of 2007 and a reauthorization of the Great Lakes Legacy Act, among other things.

Ryan and I met in April 2008 during the House Transportation and Infrastructure Full Committee hearing on H.R. 2421, the Clean Water Restoration Act of 2007 (CWRA). The CWRA was introduced by the venerable Chairman James Oberstar to address the gaps in federal Clean Water Act jurisdiction created by the 2006 decision of the United States Supreme Court in the case known as *Rapanos*. More about this Committee effort appears below.

HOUSE COMMITTEE ON TRANSPORTATION & INFRASTRUCTURE

The House Committee on Transportation and Infrastructure (while often referred to as "T&I" this will use "the Committee") has jurisdiction over public works, rivers and harbors, dams and bridges, federal roads and highways, water power and pollution, registration of vessels, civil aviation, and public buildings, among other things. I asked Ryan if he could share some interesting trivia about the House Committee. He said Chairman Oberstar often tells stories of the great history and work of the Committee. Ryan noted that the predecessor of this Committee, in 1789 (the very first or second act of first United States Congress) authorized construction of lighthouses and beacons on Chesapeake Bay. He said the Chairman often speaks to the fact that federal development of vital infrastructure to ensure safe navigation, transportation, and commerce were among the founding principals and motivations of this Nation.

CURRENT POLITICAL SEASON

ECONOMICS & STIMULUS

Ryan and I then turned to our first topic of discussion — the current political season. As Ryan put it, and as is the case every two years, "everyone is brutally aware of the midterms." Ryan's team, the Democrats, hold the majority in this 111th Congress. For the Republicans to take over the Committee (indeed, all of the Committees) Democrats would have to lose more than 50 seats. (Predictions (or even speculation) about the November elections are beyond the scope of this article!)

Predictions aside, it seems safe to conclude that voters are going to the polls this season with the economy on their minds. Ryan pointed out that the Committee has always been good at authorizing projects that create good paying jobs that stay in the United States (the bridges, roads, water infrastructure, etc.). The American Recovery and Reinvestment Act of 2009 (Stimulus Package) included a number of significant projects authorized by the Committee, including a substantial \$4.6 billion for Army Corps of Engineers water projects. Another \$4 billion for EPA Clean Water State Revolving Fund projects also was recommended. Incredibly, and importantly, Ryan notes, all \$8.6 billion of it is "out the door." At a critical time, these authorizations created and saved construction and engineering jobs and met a significant number of the vital water quality and infrastructure operation and maintenance needs across the country. "We [the Democrats] need to be better at getting that message out," says Ryan, "so people understand government can positively move the economy and improve our quality of life."

COMMITTEE CLEAN WATER ACT WORK

HOLISTIC EXAMINATION

Our conversation then turned to the current work of the Committee. We started with the Federal Water Pollution Control Act, or Clean Water Act. As the Obama Administration came into office, the Committee began to examine the Nation's clean water challenges holistically. Ryan said, "We have learned a lot in last 25 years. The status quo is not sustainable because of the threats to water quality, water availability and the competing uses for that scarce resource." Ryan noted we have invested the last 50 years and more on water quality improvements and infrastructure. The Committee felt it should now look holistically at the Nation's progress or lack of progress in water quality. Ryan asked: "How can Congress advance the 'fishable,' 'swimmable' goals of the Clean Water Act? In 1971 one third of the Nation's waters met water quality standards and two thirds did not. Now that has reversed and only one third of the Nation's waters remain impaired. While that is real progress it means that we have cleaned up only half of the Nation's impaired waters." The Committee has held a number of hearings in this and the last session of Congress to take a "hard look at that and expose publicly the Nation's water quality challenges."

NONPOINT ISSUES

When I asked Ryan what can be done, he responded that "we need to get creative and tackle holistically nonpoint sources of pollution and stormwater."

For background, arguably the hallmark of the Clean Water Act is the section 402 National Pollutant Discharge Elimination System, which requires "point source" discharges of pollutants to operate under permits designed to ensure that water quality standards in surface waters are met, usually at the "end of pipe." Point sources, then, have been the subject of protective regulation over the last 25 years. In the 1987 Amendments to the Clean Water Act, Congress enacted section 319 provisions regarding nonpoint sources of pollution as a "placeholder" to use Ryan's term. Ryan says Congress "never came back." Why not progress? Ryan notes it is hard to tackle nonpoint source water quality problems holistically with regulations. "There's a recognition that we can't address nonpoint source pollution the same as we have point source pollution. By the same token, we need accountability and predictability to protect our waters from nonpoint source pollution."

Ryan believes there seems to be general agreement these are the challenges we need to face to attain the Clean Water Act's goals of fishable and swimmable waters. "But are we ready to have that conversation about accountability? Most in the nonpoint source category say 'no,'" he says. "Watershed tensions make it difficult." Point sources continue to take all the regulatory hits when no similar reductions from other sources are required. Ryan says there is an argument that federal law should address this because continuing to ratchet down on point sources to address water quality concerns is exponentially more expensive for only a small incremental improvement; we get "less bang for the buck." Ryan is also sensitive to and realistic about the politics on nonpoint source pollution, which can involve vast swaths of private land and agricultural enterprise.

Chesapeake Bay

Ryan says the Committee sees some hopeful signs. The Obama Administration's Chesapeake Bay Initiative might be a model. On May 12, 2009, President Barack Obama signed an Executive Order that "recognizes the Chesapeake Bay as a national treasure and calls on the federal government to lead a renewed effort to restore and protect the nation's largest estuary and its watershed." [See <http://executiveorder.chesapeakebay.net/page/About-the-Executive-Order.aspx>] Ryan says that President Obama's Executive Order brought everyone to the table early in his administration. In the initial months Chesapeake Bay states came together facing Clean Water Act citizen suits on point sources. EPA had been ordered by the courts to establish an effective Total Maximum Daily Load ("TMDL"—i.e. pollution budget) for the Bay. The regulators, the point sources, and the Committee recognized there is not enough money to reduce the point sources significantly. Nonpoint sources necessarily had to be at the table. Ryan says the Chesapeake Bay Initiative may not be ideal, but the effort is moving in a positive direction. What is Congress' role? Ryan says congressional action would be financial and investment in incentives not to pollute. He says while Congress may not be driving the Chesapeake Bay Initiative, it can hopefully provide the resources to help pay for clean up.

Clean Water Restoration Act - Filling the *Rapanos* Gap

I asked Ryan about the Clean Water Restoration Act of 2007, which we worked on together, and its current form as H.R. 5088 ("America's Commitment to Clean Water Act"). Like the Clean Water Restoration Act before it, this legislation addresses the jurisdiction questions created by the Supreme Court's 2006 *Rapanos* decision. *Rapanos v. United States*; *Carabell v. United States*, 126 S.Ct. 2208 (2006). The purpose of the legislation is to turn back the clock to a pre-*Rapanos* state of Clean Water Act jurisdiction. The *Rapanos* decision arguably has narrowed considerably the scope of CWA jurisdiction to

Water
ResourcesWater Quality
StandardsNonpoint
Sources

Executive Order

Investment
in
IncentivesJurisdiction
Issues

Water Resources

Isolated Wetlands

CWA Jurisdiction

exclude certain headwater and ephemeral streams (RE: *Rapanos* see: Bricker, TWR#29; Watson, TWR#30; and MacDougal TWR#47). Ryan notes that this gap in jurisdiction has the potential to undermine progress on clean water going forward. If small and upper watershed streams are allowed to degrade, the implications for downstream water quality are obvious. Ryan questions whether we could ever get that back. “As we know, pollution prevention is much cheaper than clean up.”

Moreover, Ryan doesn’t see the states stepping in to fill the *Rapanos* gap. After another Supreme Court decision that narrowed the scope of jurisdiction to exclude certain isolated wetlands, the Solid Waste Agency of Northern Cook County, or SWANCC decision (*Solid Waste Agency of Northern Cook County v. Army Corps of Engineers*, 531 U.S. 159 (2001)(SWANCC), only one or two states stepped up to protect the waters that were no longer included in the Clean Water Act’s jurisdiction. Ryan knows of no similar effort by the states to fill the *Rapanos* gap. He recognizes that there may even be a decline in state interest in protecting the broader scope of waters traditionally covered by the CWA. He says the political difficulty with H.R. 5088 is in providing proof of this situation. “Rivers are not on fire, lakes are not pronounced dead — but if you’re protecting fewer waters water quality can only decline.” Ryan says that candid conversations suggest that people think H.R. 5088 is a logical bill from a water quality perspective. “The difficulty with the bill is that the opposition is very good at the message the feds are taking over all waters, including puddles on private property, and that there is no real harm from *Rapanos*.” Ryan notes that for 25 years prior to *Rapanos* people built homes and infrastructure and communities flourished and that a return to the same jurisdictional scope, as would be put in place by H.R. 5088 similarly will not stop development. He says we’re “not yet beyond the politics to get to the policy” of Clean Water Act jurisdiction.

WATER RESOURCE DEVELOPMENT ACT

Water Projects

Then we turned to the Water Resource Development Act, or WRDA, which has long been an effort of the Committee. WRDA typically authorizes specific water projects throughout the Nation — navigation, flood control, water resources and environmental restoration. Ryan said historically the Committee approached WRDA as a bipartisan effort in the regular course of the Committee’s business. He said the WRDA of 2007 was a good example of that and it addressed a seven-year backlog of water resources and infrastructure challenges. After that excellent effort there was a commitment to move a WRDA bill every year or two. However, Ryan said this year is “more complicated” because the House Republican conference has taken the position that WRDA projects are earmarks. In fact, Ryan said, some Republican members who had submitted projects for consideration were required to withdraw those projects after the minority took that position. Ryan said the Chairman takes a different view. He believes the members are elected to meet needs of their constituents and that water projects authorized in WRDA meet those needs whether or not they are called earmarks. Nonetheless, Democrat members have requested projects and the Chairman hopes to move new WRDA legislation on to the President.

OIL POLLUTION ACTS

Oil Spill Liability Cap

The Oil Pollution Act of 1990 (OPA) was enacted in response to the Exxon Valdez oil spill in Prince William Sound off Alaska. Among other things, OPA addressed the liability for releases of oil from vessels to the Nation’s waters. OPA required financial responsibility and provided the authorizing scheme for oil spill response. OPA also included caps on liability for damages caused by oil spills. While many have long considered OPA liability caps to be far too low, the law was generally considered successful until the BP Deepwater Horizon oil spill disaster in the Gulf of Mexico earlier this year. Ryan says this disaster caused many in Congress and the Administration to reexamine OPA.

Dispersants

“Was the 1990 OPA enough? Did it keep pace with risk of oil development and transport? Not with respect to subsurface drilling in the Gulf,” Ryan says, “Exploration and development technology have far outpaced cleanup and disaster response technology.” The response, or National Contingency Plan (NCP) that developed out of OPA was based on vessel spills with known quantities of oil. Ryan points to the use of dispersants on the Deepwater Horizon spill as an example of the pitfalls of the 1990 law. “The use of dispersants generally is allowed by the NCP to address spills. But in response to this spill we were using dispersants in massive volumes and in very deep water without fully understanding the impacts.” Similarly, he said, the 1990 OPA liability caps simply do not make sense in the context of a deep water disaster that spills unknown and unprecedented volumes of oil.

OPA Legislation

The Committee worked “to bring OPA to the modern age,” as Ryan said. H.R. 5629, the Oil Spill Accountability and Environmental Protection Act of 2010 passed the Committee. In summary, Ryan says this bill addresses the main failings of OPA by lifting the arbitrary liability caps, addressing oil spills that may result from exploration, development and on-shore transmission, in addition to vessels, and requires responsible agencies to ensure proper response plans are designed for catastrophic oil spills like the Deepwater Horizon. H.R. 5629 merged into H.R. 3534, the Consolidated Land, Energy, and Aquatic Resources Act, which, among other things reorganized the Minerals Management Service in response to the lessons learned from the Deepwater Horizon spill. This consolidated and comprehensive legislation passed the House in July 2010. The bill has not moved in the Senate, but, Ryan says, “there is always hope.”

Joan Card is the principal of Joan Card Consulting, LLC. She is an experienced former government attorney and administrator who previously held senior management positions at the Arizona Department of Environmental Quality. Joan also held positions at the US Department of the Interior Phoenix Field Solicitor's Office and the Office of the Arizona Attorney General. Joan provides freelance services in the fields of environmental regulatory affairs and government agency relations.

CONCLUSION

Ryan says the Committee and staff recognize that the clean water issues under its jurisdiction are controversial and that people have passionate views about how the Committee should or should not act. He says the Committee recognizes it should be ready to compromise to address the Nation's ongoing and future needs for clean water and water resource infrastructure. Ryan says that Chairman Oberstar "grew up" in the clean water world and also understands the necessity of infrastructure investments. Ryan says it is an honor to work for the Chairman because he understands the interrelations of clean water, water resources and infrastructure development, operations and maintenance and the political realities. Despite the difficult work of the Committee, after fourteen years Ryan seems to see the bright side, "It's not always easy, but it's usually interesting."

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WATER BRIEFS

COASTAL LOGGING PRACTICES OR

WATER QUALITY LAWSUIT IMPACTS STATE LOGGING PRACTICES - ENFORCEABLE NONPOINT LIMITS TO BE ESTABLISHED

On September 28, US Magistrate Judge Paul Papak issued a court order that will compel Oregon to change its logging practices in coastal areas or risk losing substantial federal funds. The lawsuit, filed by the Portland, OR-based Northwest Environmental Advocates (NWEA), sought to force federal agencies in charge of federal funding to comply with a law that requires protection of coastal water quality. *Northwest Environmental Advocates v. Locke, et al.*, Civil No. 09-0017-PK

NWEA sued the National Oceanic and Atmospheric Administration (NOAA) and EPA on January 6, 2009 for violations of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA), which requires certain states to develop and implement coastal nonpoint source pollution control programs and requires EPA and NOAA to withhold a percentage of Clean Water Act (CWA) and Coastal Zone Management Act (CZMA) grant funds from states that fail to submit approvable programs that protect water quality. NWEA argued that EPA and NOAA had repeatedly found that Oregon had failed to submit an approvable coastal nonpoint program but failed to disapprove Oregon's program or withhold funds by "conditionally" approving an otherwise unapprovable program.

Since EPA and NOAA first found Oregon's program deficient, Oregon has received over \$50 million in federal grant funding. The Oregon Department of Environmental Quality (ODEQ), the EPA-delegated state agency for CWA programs, receives approximately \$3 million annually.

In 1998, EPA and NOAA granted conditional approval of Oregon's Coastal Nonpoint Program and established conditions that required compliance by January 13, 2001. In their 1998 findings, EPA and NOAA stated that Oregon's "tools are inadequate to ensure that water quality standards are attained and maintained and beneficial uses protected. . . . Oregon has a number of aquatic species, in particular anadromous salmonids, that are endangered, threatened, or otherwise seriously at risk, due in part to forestry activities that impair coastal water quality and beneficial uses, including salmon spawning, rearing, and migration habitat. . . . Oregon will need to adopt additional management measures . . ." In 2004 and 2008, the federal agencies again found Oregon's plan deficient because Oregon Department of Forestry (ODF) logging practices were causing unsafe water pollution. In 2008, EPA and NOAA concluded Oregon's program did not satisfy the conditions for additional management measures for forestry, stating "Oregon still lacks adequate measures for protecting riparian areas of medium, small and non-fish bearing streams, high risk landslide areas, and for addressing the impacts of legacy roads."

In the settlement, EPA and NOAA have agreed to make a final decision on Oregon's coastal plan by May 15, 2014. If the final decision is a disapproval, the federal agencies have agreed to immediately begin withholding grant funds from Oregon.

On July 2, 2010, the Oregon Attorney General sent a legal opinion to the federal agencies that describes a new approach to developing CWA-required Total Maximum Daily Loads (TMDLs) which will include making TMDLs enforceable against nonpoint sources — setting a national precedent.

The legal opinion addresses whether ODEQ has legal authority over logging given the state Forest Practices Act which puts the Oregon Department of Forestry (ODF) in charge of logging practices. The legal opinion states that ODEQ is authorized to establish its own requirements to the extent required by the CWA and to the extent ODEQ deems the ODF practices inadequate to implement the TMDL.

IN ADDITION, OREGON HAS AGREED TO:

- Identify specific nonpoint sources, including logging, in each TMDL
- Identify the logging practices necessary to meet the TMDL load allocations
- Issue the load allocations as enforceable orders to significant land owners and agencies
- Provide a schedule (March 2011) for developing coastal TMDLs with the new approach
- Develop the Mid-Coast TMDLs by June 30, 2012 using the new approach in order to demonstrate that ODEQ can and will use TMDLs to control water pollution from logging.

NWEA was represented in this case by Paul Kampmeier of the Washington Forest Law Center and Allison LaPlante of the Pacific Environmental Advocacy Center.

For info: Nina Bell, J.D., Executive Director, NWEA, 503/295-0490 or nbell@advocates-nwea.org or www.NorthwestEnvironmentalAdvocates.org

WATER BRIEFS

ILLEGAL USE OF WELL NM**COMMERCIAL USE OF DOMESTIC WELL**

Doña Ana County District Court (Court) Judge Jerald Valentine imposed a \$2,000 fine on a local water user for illegally irrigating a large pecan orchard for commercial use by diverting water from a domestic well. Floyd Johnson of Las Cruces was named in a court order to stop illegal diversions of water on his property and to have his well disabled with the assistance of law enforcement officials to prevent further groundwater diversions until he complies with the New Mexico State Engineer's compliance order. Johnson was cited previously and did not appear before the Court on August 24, 2010, as scheduled.

"He was given ample time to either transfer a valid water right into the well or find another source of water for his orchard," said Daniel Rubin, attorney for the State Engineer. "Our goal is to work with people to bring them into compliance. He not only refused to work with us, but ignored our compliance orders and disabled his meter." State Engineer John D'Antonio added, "This is the exception rather than the rule. It was important to stop this one bad actor from stealing water. Our goal is to protect senior water right holders in the area."

The Court also ordered Mr. Johnson to meter his well, consistent with the State Engineer's metering program. The metering program is part of the Active Water Resource Management initiative, which was launched in January of 2004. Metering helps the State Engineer manage and administer waters of the Lower Rio Grande stream system by putting in place tools to effectively manage the state's variable water supply. The information provides an improved picture of water supply and groundwater pumping in the Lower Rio Grande, according to the State Engineer's Office (SEO).

Meters are now required on all wells in the Lower Rio Grande, except for single-family domestic wells and small livestock wells. There are now a total of 2,494 metered wells in the Lower Rio Grande Water Master District. The SEO estimated that 90 percent of the larger, active wells are

now in compliance. Well owners are also required to provide meter readings to the SEO. Reporting compliance for 2009 was 88 percent. This data was augmented by meter readings obtained during Water Masters' field visits.

For info: Karin Stangl, SEO, 505/ 699-4923 or www.ose.state.nm.us/

SCIENTIFIC INTEGRITY US**INTERIOR ORDER ESTABLISHING POLICY**

Secretary of the Interior Ken Salazar issued a Secretarial Order on September 29 establishing a new policy to ensure the integrity of the science and scientific products used in the Interior's decision-making and policy development. "The American people must have confidence that the Department of the Interior is basing its decisions on the best available science and that the scientific process is free of misconduct or improper influence," Salazar said. "This policy clearly defines the roles and responsibilities of all department employees, including career staff and political appointees, in upholding principles of scientific integrity and conduct." The new policy, which will be codified in the Departmental Manual to ensure compliance by all employees, clearly affirms that Interior employees, political and career, will never suppress scientific or technological findings or conclusions. Further, it ensures scientists will not be coerced to alter or censure scientific findings, and employees will be protected if they uncover and report scientific misconduct by career or political staff.

The policy covers all departmental employees when they engage in, supervise or manage scientific activities, analyze and/or publicly communicate information resulting from scientific activities, or use this information or analyses in making agency policy, management or regulatory decisions. It also covers all contractors, cooperators, partners, volunteers, and permittees who assist with scientific activities.

For info: Kendra Barkoff, Interior, 202/ 208-6416; Policy available at: www.doi.gov/news/pressreleases/index.cfm

CWA COMPLAINT ID**FISH FARM VIOLATIONS**

Under a complaint filed by EPA on September 27, Lynn Babington and ARK Fisheries, Inc. could face a maximum penalty of up to \$177,500 for allegedly violating the federal Clean Water Act over a five year period. The violations occurred at the ARK Fisheries Tunnel Creek facility in Buhl, Idaho. From October 2005 through July 2010, EPA observed numerous violations of ARK Fisheries' National Pollutant Discharge Elimination System (NPDES) permits including: discharging pollutants without a permit for at least two months in 2005; failing to submit timely and/or complete Discharge Monitoring Reports from October 2005 through July 2010; failing to report quarterly sampling during the third quarter of 2006; failing to submit annual reports for 2008 and 2009; and exceeding permit limits for phosphorus during the months of October 2008 and January 2010.

Fish processing waste from the ARK Fisheries facility runs into Pospesel Drain, a tributary of the Snake River. Both Pospesel Drain and Snake River are considered "navigable waters" and waters of the US under the Clean Water Act. ARK Fisheries has projected that it could raise up to 275,000 pounds of trout and 80,000 pounds of sturgeon annually at their Tunnel Creek facility.

"EPA has provided assistance to ARK Fisheries on numerous occasions over several years to help them comply with their permit," said Kim Ogle, EPA's NPDES Compliance Manager in Seattle. "Unfortunately, the Tunnel Creek facility continues a trend of incomplete or late reports, instances of non-reporting, and discharge permit violations."

For info: Chris Gebhardt, NPDES Compliance, Officer (EPA), 206/ 553-0253 or gebhardt.chris@epa.gov

WATER BRIEFS

CLEANUP AGREEMENT AZ/NM**TRIBAL LANDS - URANIUM CONTAMINATION**

The U.S. Environmental Protection Agency (EPA) entered into two enforcement settlements during the week of September 13, both of which will contribute towards cleaning up uranium contamination at the Navajo Nation and Hopi Reservation. In one settlement, Rio Algom Mining LLC, a subsidiary of Canadian corporation BHP Billiton, has agreed to control releases of radium (decay product of uranium) from the Quivira Mine Site (Site), near Gallup, New Mexico. In addition, the company is to conduct a comprehensive investigation of the levels of contamination at the site. The total cost for this work is estimated to be approximately \$1 million. Rio Algom will pave a portion of Red Water Pond Road close to the Site, minimizing the spread of low-level contaminated dust. The company will also minimize erosion from the Site, and repair fencing to prevent human and animal exposure to a large waste pile. Rio Algom has agreed to reimburse EPA for oversight costs. The Navajo Nation EPA will work with EPA in overseeing the work and reviewing the results of the investigation.

Under the terms of a separate settlement, the US Department of Interior, Bureau of Indian Affairs (BIA), will begin a comprehensive investigation of the levels of uranium and other contaminants in the waste, soils and groundwater at the Tuba City Dump Site (Dump Site) in Arizona. They will also evaluate the feasibility of a range of cleanup actions. The Dump Site near Tuba City, Arizona is about four miles from a former uranium mill. It covers approximately 30 acres and includes parts of both the Hopi Reservation and Navajo Nation. In 1998, BIA undertook various activities to close the Dump Site, including stabilization, fencing and posting of signs to restrict access. To date, BIA has spent over \$4.5 million to investigate and address environmental conditions and estimates it will spend an additional \$1.5 million to complete the remedial investigation and feasibility study.

“Uranium mining has left a toxic legacy, and we are working as partners with the Navajo Nation, the Hopi Tribe and other federal agencies to clean up contaminated homes, mines and water supplies,” said Jared Blumenfeld, Regional Administrator for EPA’s Pacific Southwest Region. “These actions are just one part of a coordinated plan that has already resulted in the replacement of 14 homes, the assessment of more than 200 mines, and funding for water systems that will serve over 3,000 people with clean water.”

From 1944 to 1986, nearly four million tons of uranium ore were extracted from Navajo lands. Today the mines are closed, but the legacy of uranium contamination from more than 500 abandoned uranium mines, homes built with contaminated mine waste, and contaminated water wells remains.

For info: Rusty Harris-Bishop, EPA, 415/ 972-3140, harris-bishop.rusty@epa.gov or www.epa.gov/region9/necr

NPDES MANUAL US**PERMIT WRITERS’ MANUAL RELEASED**

The NPDES Permit Writers’ Manual (EPA-833-K-10-001) provides a comprehensive overview of the framework of the NPDES program and serves as one of the principal training tools to help permit writers develop legally defensible and enforceable NPDES permits. Its primary purpose as a technical resource is to guide new state and EPA permit writers through the basic steps of permit development and issuance. However, the manual also is intended to serve as a resource for others (e.g., stakeholders, the regulated community) interested in the NPDES permitting process. The Manual, released in September 2010, is available at EPA’s website listed below.

For info: http://cfpub.epa.gov/npdes/writermanual.cfm?program_id=45

SAN JOAQUIN REGS**FISH RESTORATION REGS STREAMLINED**

On September 24, legislation authored by Senator Dave Cogdill, SB 1349, was signed by Governor Schwarzenegger that is designed to

streamline regulations for salmon restoration on the San Joaquin River. The bill will help farmers, ranchers and other water users adhere to one set of standards by conforming state law with federal law for efforts to restore salmon to the San Joaquin River.

The measure originated from a 2006 settlement that ended almost twenty years of litigation regarding salmon runs on the San Joaquin River. See Dunning, *TWR* #33. Wildlife agencies will begin reintroducing salmon to the river in 2012. The legislation deals with discrepancies between state and federal law that have created a problem for water users complying with the settlement.

For info: www.gov.ca.gov/press-release/16065/

REGIONAL WATER SUPPLY WA**ECOLOGY APPROVES WATER RIGHTS**

The Washington Department of Ecology’s (Ecology) approval of a water rights package on September 16 gives Cascade Water Alliance (Cascade) authority to use a portion of water in Lake Tapps as a future drinking water source. This will be the first regional water supply to come on line in the Puget Sound area in many years, assuring a long-term source of drinking water for communities in eastern King County. The decision also guarantees summer recreation levels for one of Pierce County’s most popular lakes and robust flows in the White River that support healthy habitat and salmon runs while improving the river’s water quality.

Cascade is a consortium of eight municipalities and provides drinking water to nearly 400,000 residences and more than 22,000 businesses in eastern King County. The finalization of these rights completes a decade-long effort to identify and develop a way to preserve Lake Tapps from drying up. Lake Tapps is a reservoir created in 1911 as part of a hydroelectric project on the White River. When Puget Sound Energy announced in 1999 it might not have the ability to continue operating the system, concerns arose about the lake’s future. Lake Tapps community homeowners

WATER BRIEFS

and others who enjoy the lake were particularly worried about maintaining appropriate lake levels for swimming, boating and other recreational activities.

Proposals emerged in the early 2000s to save the lake by turning it into a drinking water supply. Puget Sound Energy ended the hydroelectric operations in 2004 but agreed to keep the lake filled while negotiations to sell the lake were ongoing. Cascade purchased Lake Tapps from Puget Sound Energy in December 2009. The work to secure four new water rights and to transfer another has been a lengthy and complex process, requiring thorough environmental scrutiny. It involved negotiations with many stakeholders, including Cascade, the Muckleshoot and Puyallup Tribes, the Lake Tapps Community Council and four other neighboring cities.

Ecology's decision gives Cascade the right to eventually divert up to 48 million gallons of water daily from Lake Tapps to serve its customers. Cascade agreed to prioritize specific flows in the White River and summer recreation levels in Lake Tapps *ahead* of taking water for municipal use. Cascade doesn't plan to develop this regional water supply for decades, and will still have to build water treatment and delivery systems. Ecology's decision is final pending any appeals which must be filed within the next 30 days.

For info: Kim Schmanke, Ecology, 360-407-6239 or www.ecy.wa.gov/programs/wr/swro/ltappshome.html

RAIN GARDENS

OR

RAIN GARDEN GUIDE RELEASED

The Oregon Rain Garden Guide, produced by Oregon Sea Grant at Oregon State University, is the state's first stormwater management resource for both novices and expert landscapers. An increasing number of Oregonians are disconnecting downspouts, building rain collection barrels and planting rain gardens to harvest water from their businesses, schools and front yards, according to co-author Robert Emanuel, an Oregon Sea Grant Extension specialist. The need for an

uncomplicated, step-by-step guide for stormwater management motivated Emanuel and a team of experts.

Rain gardens are sunken beds that absorb and treat stormwater runoff from rooftops, driveways and other paved surfaces. Runoff does not soak into the ground; instead it flows directly into sewers, streams, or lakes. Landscaped rain gardens intercept runoff to reduce floods, recharge drinking water — and filter oil, garden chemicals and other pollutants.

The award-winning 44-page publication is available through Oregon Sea Grant for \$4.95, but is also available for free online.

For info: Guide available at: <http://seagrant.oregonstate.edu/sgps/onlinepubs.html>

STORMWATER TREATMENT WA
PCBS & BOEING FIELD AGREEMENT

On September 29, EPA signed an agreement with The Boeing Company to construct a new stormwater treatment system at North Boeing Field in Seattle. The treatment system will greatly reduce the amount of toxic polychlorinated biphenyls (PCBs), which are an on-going source of pollution to the Duwamish River. The North Boeing Field storm drain system carries stormwater to the Duwamish River through more than seven miles of catch basins, drains, inlets, and oil-water separators. Studies by the Washington State Department of Ecology (Ecology), the City of Seattle, and Boeing showed the North Boeing Field storm drain system is the biggest source of PCBs to the river sediments in Slip 4, one of the most highly contaminated sites on the lower Duwamish waterway.

PCBs are toxic pollutants that stay in the environment for a long time and can build up in fish and shellfish. PCBs are found at unsafe levels in the sediments and fish of the Lower Duwamish River. Concerns about PCBs in fish prompted the state to issue a health advisory warning people not to eat any crab, shellfish, or fish (except salmon) from the Lower Duwamish River.

With the installation of this stormwater treatment system, cleanup of Slip 4 — one of several hot spot cleanups on the waterway — will proceed in 2011. Several acres of contaminated sediments in Slip 4 will be cleaned up under an EPA settlement agreement with the City of Seattle and King County. The initial system began operating in late September treating stormwater from the most highly contaminated areas of North Boeing Field. The initial system will be managed under the agreement, and over the course of the next year, a long-term system will be put in place at the site. The stormwater treatment agreement enables the cleanup of Slip 4 to proceed while Ecology's overall site investigation and cleanup continues at North Boeing Field.

For info: Mark MacIntyre, EPA, 206/553-7302, macintyre.mark@epa.gov or <http://yosemite.epa.gov/r10/cleanup.nsf/ldw/slip+4>

DELTA FLOW CRITERIA CA
DRAFT ADVISORY REPORT RELEASED

The Sacramento-San Joaquin Delta (Delta) is the largest estuary on the west coast of North America. The California Department of Fish & Game (CDFG) released a draft advisory report on Delta flow criteria on September 21 — "Quantifiable Biological Objectives and Flow Criteria for Aquatic and Terrestrial Species of Concern Dependent on the Delta." CDFG is required by California Water Code section 85084.5 to develop quantifiable biological objectives and flow criteria for species of concern dependent on the Delta. These objectives and criteria are to be submitted to the Water Board by November 2010.

This document presents the recommendations, rationale, and justification for: (1) biological objectives to protect aquatic and terrestrial species of concern that are dependent on the Delta; and (2) flow criteria that would benefit aquatic species of concern. The report contains sections describing: background on the decline of fish populations, planning efforts, and legal mandates; methodology for developing

WATER BRIEFS

the biological objectives and flow criteria; rationale for the biological objectives and flow criteria; findings; and a summary list of biological goals and objectives and a range of flow criteria for the Delta.

The recommendations in the 162-page report represent the current understanding of the needs of the individual species identified in light of current conditions and the objectives described. The tentative timeline for the process includes a comment period that closes on October 15 with the final document submitted to the State Water Resources Control Board (SWRCB) on November 22. SWRCB, by December 31, 2010, is supposed to submit to the Legislature a prioritized schedule and estimate of costs to complete instream flow studies for the Delta and for high priority rivers and streams in the Delta watershed by 2012, and for all major rivers and streams outside the Sacramento River watershed by 2018. **For info:** DFG's website. www.dfg.ca.gov/water/water_rights_docs.html

NEW MEXICO WATER NM

ANNUAL STATE/COMMISSION REPORT

A review of key accomplishments and challenges faced by the New Mexico Office of the State Engineer/ Interstate Stream Commission during fiscal year 2008-2009 is documented in the 2008-2009 Annual Report, released on September 15. The report highlights key legislation, public outreach associated with updating the State Water Plan, the status of adjudications, and important basin-specific activities. New Mexico state statute (NMSA 1978, Section 72-2-5) requires that the annual report be produced each year.

The Annual Report notes that considerable progress has been made on the state's Active Water Resource Management initiative (AWRM). AWRM refers to a broad range of activities that emphasize permitting transfers, monitoring and metering diversions, and limiting diversions and consumptive use of water to the amount authorized by existing water rights. Progress was made on three Indian water right settlement agreements this

year — the Navajo Nation Settlement, the Taos Settlement, and the Aamodt Settlement.

The State Engineer also pointed out the steps being taken "to ensure the State of New Mexico continues to control its own water destiny by making major progress on the implementation of the Pecos River Settlement Agreement. A joint declaration was filed in June among all parties to the settlement agreement that conditions for implementation have been substantially met... Under terms of the settlement, the Interstate Stream Commission purchased 4,498 acres of land in the Carlsbad Irrigation District, and as of June 2009 had purchased water rights associated with 7,248 acres of land in the Roswell Artesian Basin. Additionally, the Commission purchased more than 1,000 acres of water rights in the Fort Sumner Basin and developed two augmentation well fields capable of delivering 15,750 acre-feet of water to the Brantley Reservoir."

For info: Julie Maas, OSE, 505/ 383-4095 Annual Report available at www.ose.state.nm.us/ >> Publications >> Annual Report

ENVIRONMENTAL FLOWS US

FLOW POLICIES & GUIDELINES

The release of a new report by World Wildlife Fund and The Nature Conservancy was announced on October 5. Entitled "The Implementation Challenge: Taking Stock of Government Policies to Protect and Restore Environmental Flows," the report takes stock of international progress toward achieving effective environmental flow policies and conveys the emerging lessons, illustrated by stories from around the world. The report presents a brief synopsis of environmental flow policies enacted to date, describes the three major challenges to implementing those policies, and offers nine guidelines for overcoming the obstacles and moving forward to full implementation.

For info: Eloise Kendy, TNC, 406/ 495-9910 or ekendy@tnc.org; Report available at: <http://sn137w.snt137.mail.live.com/?rru=inbox>

WATER INFRASTRUCTURE US

EPA SUSTAINABILITY POLICY

On October 4, the U.S. Environmental Protection Agency (EPA) issued a Clean Water and Drinking Water Infrastructure Sustainability Policy with the goal of increasing the sustainability of water and wastewater infrastructure in the United States. Communities across the country are facing challenges in making costly upgrades and repairs to their aging water infrastructure, which include sewer systems and treatment facilities. Making this infrastructure last longer while increasing its cost-effectiveness is essential to protecting human health and the environment, and maintaining safe drinking water and clean water bodies. The new policy is part of EPA Administrator Lisa P. Jackson's priority to protect America's waters.

The policy emphasizes the need to build on existing efforts to promote sustainable water infrastructure. The policy also focuses on working with states and water systems to employ comprehensive planning processes that result in projects that are cost effective over their life cycle, resource efficient, and consistent with community sustainability goals. The policy encourages effective utility management practices to build and maintain the level of technical, financial, and managerial capacity necessary to ensure long-term sustainability.

The policy represents a collaborative effort between EPA and its federal, state, and local partners to develop guidance, provide technical assistance, and target federal, state and other relevant federal financial assistance in support of increasing the sustainability of America's water infrastructure.

For info: James Horne, EPA, 202/ 564-0571, horne.james@epa.gov or <http://water.epa.gov/infrastructure/sustain/Clean-Water-and-Drinking-Water-Infrastructure-Sustainability-Policy.cfm>

The Water Report

CALENDAR

October 11-15 AK

Alaska Tribal Conference on Environmental Management, Anchorage. For info: <http://www.atcemak.com/>

October 13 CA

Groundwater Law & Hydrology Course, Davis. Da Vinci Bldg., 1632 Da Vinci Ct. For info: UC Davis Extension, 800/752-0881 or www.extension.ucdavis.edu/landuse

October 13 OR

Growing Green Chemistry in Oregon Seminar, Portland. U of O White Stag Bldg. For info: Oregon Environmental Council, 503/222-1963 or www.oeconline.org

October 13-14 WY

Natural Resource Decision-Making in Communications Course, Jackson. For info: www.uwyo.edu/enr

October 13-14 CA

San Joaquin River Restoration Tour (Field Trip), San Joaquin Valley. For info: Water Education Foundation, 916/444-6240 or www.watereducation.org/toursdetail.asp?id=845&parentID=821

October 13-14 OR

Northwest Power & Conservation Council Meeting, Portland. For info: www.nwcouncil.org/

October 14 MT

DEQ Product Stewardship Task Force Meeting, Portland. Location/Time TBA. RE: Program Elements Including: Financing; Convenience Standards for Collection; Disposal Bans. For info: www.deq.state.or.us/lq/sw/prodstewardship/stakeholdergroup.htm

October 14 OR

Balancing Cleanup vs. Future Use - The McCormack & Baxter Story Lunch, Portland. Governor Hotel, 614 SW 11th Ave. For info: Sue Moir, NEBC, 503/227-6361, sue@nebc.org or www.nebc.org

October 14-15 MT

Rivers of Change: Science, Policy & the Environment - Montana AWRA Annual Conference, Helena. Colonial Inn. For info: <http://water.montana.edu/awra>

October 15 OR

Water Quality Conference, Portland. For info: Holly Duncan, Environmental Law Education Center, 503/282-5220, hduncan@elecenter.com or www.elecenter.com

October 15-17 WA

4th Graduate Climate Conference, Seattle. Pack Forest Conference Ctr. For info: <http://staff.washington.edu/smbush/GCC/Home.html>

October 16-17 CA

EPA's Second Water Laboratory Alliance Security Summit, San Francisco. Grand Hyatt Hotel. For info: www.thetestportal.com/wlasummit

October 18-21 PA

Assoc. of State Drinking Water's Annual Conference, Pittsburgh. Hilton Hotel. For info: www.asdwa.org

October 19 CA

Blue Tech: Is Water's Dry Spell Over? Event, Palo Alto. Stanford Business School. Sponsored by MIT/Stanford Venture Lab & Imagine H2O. For info: www.vlab.org/events.html

October 19 DC

Addressing 21st Century Problems With 20th Century Law: ELI-Keare Policy Forum, Washington. Omni Shoreham Hotel. For info: Environmental Law Institute: www.eli.org/Dinner/policy_forum.cfm

October 19-20 CA

Water & Climate Change Symposium, Long Beach. Hyatt Regency. For info: Water Education Foundation, 916/444-6240 or www.watereducation.org/

October 20 WA

Climate & Water Meeting: 2011 Water Year, Vancouver. Heathman Lodge. Climate Impacts Group Annual Fall Meeting. For info: <http://cses.washington.edu/cig/>

October 20 DC

2010 Environmental Law Institute Fall Practice Update, Washington. Omni Shoreham Hotel. For info: Environmental Law Institute: www.eli.org/Dinner/practice_update.cfm

October 20 MT

Basins of Relations: Thinking Like A Watershed Lecture, Missoula. UM Gallagher Business Bldg. Rm. 122. Sustainability Lecture Series. For info: Dr. Vicki Watson, 406/243-5153, vicki.watson@umontana.edu or www.cas.umt.edu/evst/sustainability_lectures.htm

October 20-21 MT

5th Tribal Water Rights Conference, Polson. KwaTaqNuk Resort. For info: Center for Water Advocacy: www.wateradvocacy.org

October 20-22 OR

Land Conservation & Development Commission Meeting, Grants Pass. For info: Lisa Howard, LCD, 503/373-0050 x271 or www.oregon.gov/LCD/meetings

October 21 MT

Farmer's Canal: Urban Development & Agriculture in the Gallatin Watershed Tour, Bozeman. For info: Sharlyn Izurieta, 406/219-3739, info@greatergallatin.org or www.greatergallatin.org/

October 21-22 NV

Tribal Water Law Seminar, Las Vegas. Monte Carlo Resort. For info: Law Seminars Int'l, 800/854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

October 21-22 CA

Habitat Restoration: Intensive Workshop, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, 800/752-0881 or www.extension.ucdavis.edu/landuse

October 21-22 UT

Utah Water Law Conference, Salt Lake City. Marriott Downtown. For info: CLE International, 800/873-7130 or website: www.cle.com

October 21-22 OR

Oregon Environmental Quality Commission Meeting, Portland. For info: Stephanie Clark, DEQ, 503/229-5301, stephanie@deq.state.or.us or www.deq.state.or.us

October 21-22 FL

Water, Energy & Climate Change Conference, Deerfield Beach. Hilton. For info: CLE International, 800/873-7130 or website: www.cle.com

October 21-22 TX

Texas Irrigation Expo, Mercedes. Rio Grande Valley Livestock Show Grounds. For info: Leslie Anderson, 512/463-7855, www.texasirrigationexpo.org

October 22 AZ

Liberty Water: A Framework for Implementing Water Conservation Plans Brownbag, Tucson. Water Resources Research Ctr.. For info: Jane Cripps, 520/621-2526 or jcripps@cals.arizona.edu

October 23 WA

Washington Water Trust's 5th Annual Benefit, Dinner & Auction, Willows Lodge. For info: Lea Whitehill, WWT, 206/675-1585 x102, lea@washingtonwatertrust.org or www.washingtonwatertrust.org

October 24-26 TX

2010 National Flood Workshop, Houston. Hotel ZaZa. For info: Water Research Center, 713/529-3076, wrc@wxresearch.org or www.wxresearch.com/nfw/

October 24-27 NV

Association of Metropolitan Water Agencies Annual Meeting, Henderson. Green Valley Ranch Resort. For info: www.amwa.net/cs/conferences/future

October 24-28 TX

2010 International Water Conference, San Antonio. Crowne Plaza Riverwalk Hotel. For info: www.eswp.com/water

October 25-26 WA

Environmental Civil & Criminal Enforcement Conference, Seattle. For info: Law Seminars Int'l, 800/854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

October 25-26 NC

Water & Health: Where Science Meets Policy Symposia, Chapel Hill. UNC at Chapel Hill. Sponsored by the Water Institute at UNC and UNC's Institute for the Environment. For info: www.ie.unc.edu/content/news_events/symposia.cfm

October 25-29 CA

Wetlands Training Course: Jurisdictional Delineation of Waters of the US - Legal & Ecological Protocols for Diverse & Changing Landscapes, Moss Landing. Elkhorn Slough Coastal Training Program. For info: Greg Hayes, Elkhorn Slough, 831/274-8700, grey@elkhornslough.org or www.elkhornslough.org

October 26-27 OK

Governor's Water Conference (Oklahoma), Norman. Embassy Suites Conf. Ctr. For info: Oklahoma Water Resources Board website: www.owrb.ok.gov

October 27 CA

Groundwater Resource Management Seminar, Sacramento. For info: The Seminar Group, 800/574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

October 27 OR

Oregon Water Rights Seminar, Oregon City. Sponsored by Clackamas Co. Farm Bureau. For info: Helen Moore, Water for Life, 503/375-6003, helen.moore@waterforlife.net or www.oregonfb.org/download/water_bootcamp.pdf

October 27-29 CA

Western States Water Council Fall Meeting, San Diego. Doubletree Hotel Downtown. For info: Cheryl Redding, WSWC, 801/685-2555, credning@wswwc.state.ut.us or www.westgov.org/wswc/

October 27-31 NM

Forests & People - A Watershed Event, Albuquerque. Society of American Foresters Nat'l Convention. For info: www.safnet.org/natcon10/index.cfm

October 28 WEB

Split-Feed Nanofiltration Treatment Plant Webinar, WEB. For info: American Membrane Technology Ass'n, <https://video.webcasts.com/events/pmy001/viewer/index.jsp?eventid=33008>

October 28-29 CO

National Environmental Policy Act Institute, Denver. Grand Hyatt. Sponsored by Rocky Mt. Mineral Law Foundation. For info: Mark Holland, RMLLF, 303/321-8100 x106, mholland@rmlf.org or www.rmlf.org

October 28-29 CA

Salmonid Ecology Course, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, 800/752-0881 or www.extension.ucdavis.edu/landuse

November 1-4 PA

AWRA Annual Water Resources Conference, Philadelphia. Loews Hotel. For info: AWRA website: www.awra.org/

November 1-4 DC

2010 National Training Conference on Toxics Release Inventory & Environmental Conditions in Communities, Washington. For info: www.chemicalright2know.org

November 2-3 ID

EPA's New Unified Guidance: Statistical Analysis of Groundwater Monitoring Data Course, Boise. Red Lion Downtown Boise. For info: NWETC, 206/762-1976 or www.nwetc.org

November 2-4 CA

31st Annual International Irrigation Show, San Diego. For info: Irrigation Assn, website: www.irrigation.org

November 2-5 NV

Floodplain Management Ass'n Annual Conference, Henderson. Loews Lake Las Vegas Resort. For info: www.floodplain.org/conference.php

November 3 OR
Civil & Criminal Environmental Enforcement: Perspective of EPA, Portland. Port of Portland, 7200 NE Airport Way. OSB Environmental & Natural Resources Section (Free-RSVP Required). For info: Kathy Kudrna, kkudrna@gordonrees.com

November 3-4 OR
Oregon Water Law 19th Annual Seminar, Portland. Oregon Convention Ctr. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

November 3-4 CA
2010 Water Quality & Regulatory Conference, Ontario. Doubletree Hotel. For info: Jo McAndrews, 951/ 787-9267, sayhijo@empire.net or www.watereducation.org/conferences

November 3-4 DC
American Water Summit, Washington. Dulles Westin Hotel. For info: www.americanwatersummit.com

November 3-4 OK
North American Lake Management Society's 30th International Symposium - The Water Cycle, Oklahoma City. Cox Convention Ctr. Hosted by Oklahoma Clean Lakes & Watersheds Assoc. For info: www.nalms.org/nalmsnew/nalms.aspx?id=116

November 3-6 MO
Dividing the Waters National Conference, St. Louis. Hilton at the Ballpark. For info: National Judicial College, www.judges.org/news/news082810.html

November 4 WA
Hydropower in the Northwest Seminar, Seattle. Mayflower Park Hotel. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

November 4-5 OR
Oregon Board of Forestry Field Tour & Meeting, TBA. Out of Town. 11/4 Field Tour; 11/5 Meeting. For info: Dept. of Forestry, 503/ 945-7200 or www.odf.state.or.us

November 4-5 OR
Business & Sustainability International Conference, Portland. For info: www.sba.pdx.edu/sustainabilityconference10/

November 4-5 TX
Ocean Management in the Gulf Conference, Houston. For info: Law Seminars Int'l, 800/ 854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

November 7-9 OR
Transboundary River Governance in the Face of Uncertainty: Columbia River Treaty 2014 Symposium, Corvallis. OSU, 200 LaSells Stewart Ctr. 2nd Annual Symposium. For info: http://columbiarivergovernance.org/

November 7-11 OR
Society for Environmental Toxicology & Chemistry: Bridging Science with Communities Conference, Portland. SETAC Annual Meeting. For info: http://portland.setac.org/

November 8 OR
Sediment: Air, Water & Health Conference, Portland. World Trade Center, 121 SW Salmon. For info: Holly Duncan, Environmental Law Education Center, 503/ 282-5220, hduncan@elecenter.com or www.elecenter.com

November 8-10 TX
Water Infrastructure Needs & Strategies Conference, San Antonio. St. Anthony Hotel. For info: Cheryl Redding, WSWC, 801/ 685-2555, credding@wsac.state.ut.us or www.westgov.org/wswc

November 9 OR
DEQ Product Stewardship Task Force Meeting, Portland. Location/Time TBA. RE: Program Elements Including: Financing; Convenience Standards for Collection; Disposal Bans. For info: www.deq.state.or.us/lq/sw/prodstewardship/stakeholdergroup.htm

November 9 CA
Solar Power Project Development Seminar, San Diego. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

November 9-10 WA
Washington Future Energy Conference, Seattle. Conference Ctr. At Convention Place. For info: www.FutureEnergyConference.com

November 9-10 WA
Developing Wind Power in the NW Seminar, Seattle. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

November 9-10 OR
Northwest Power & Conservation Council Meeting, Portland. For info: www.nwccouncil.org/

November 10-12 LA
Water Efficiency Conference: Corporate Water Risk Management, New Orleans. For info: www.waterefficiencyconference.com/Event.aspx?id=371732

November 12 CO
Shale Plays in the Intermountain West: Legal & Policy Issues Symposium, Denver. Sponsored by Natural Resources Law Center (CU Law School). For info: NRLC, 303/ 492-1286, nrlc@colorado.edu or www.colorado.edu/law/centers/nrlc/events/upcoming.html

November 13-17 TX
5th National Conference on Coastal & Estuarine Habitat Restoration, Galveston. Galveston Island Conv. Ctr. For info: National Office, 703/ 524-0248 or website: www.estuaries.org

November 14-17 MD
TMDL 2010: Watershed Management to Improve Water Quality Conference, Baltimore. Hyatt Regency. Sponsored by American Society of Agricultural & Biological Engineers. For info: www.asabe.org/meetings/TMDL2010

November 14-17 CA
The Behavior, Energy & Climate Change Conference, Sacramento. For info: www.becccconference.org

November 15-17 Australia
Water Reuse & Desalination Conference, Sydney. Dockside Conf. Ctr. For info: www.watereuse.org

November 15-17 OR
2010 Oregon Watershed Enhancement Board (OWEB) Conference, Pendleton. Pendleton Convention Ctr. For info: www.healthywatersheds.org/conference

November 17 WA
Water Rights: Investing in 21st Century Water Management Conference, Seattle. Seattle University. Presented by AWRA Washington Section. For info: http://earth.golder.com/waawra/ASP/2008Conference.asp

November 17 AZ
Findings from the Arizona Water Meter Brownbag, Tucson. Water Resources Research Ctr.. For info: Jane Cripps, 520/ 621-2526 or jcripps@cals.arizona.edu

November 17-19 NM
Developments in Clean Water Law Seminar, Santa Fe. Inn at Loretto. For info: National Assoc. of Clean Water Agencies, 202/ 833-2672 or www.nacwa.org/

November 18-19 WA
Growth Management Act Seminar, Seattle. For info: Law Seminars Int'l, 800/ 854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

November 18-19 MT
Hydropower in Montana Seminar, Missoula. Wingate by Wyndam. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

November 18-19 CA
Energy & Water Seminar, San Francisco. For info: Law Seminars Int'l, 800/ 854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

November 28-Dec. 1 CA
National Water Resources Assn Annual Conference, San Diego. Hotel del Coronado. For info: NWRA, 703/ 524-1544, email: nwra@nwra.org, website: www.nwra.org

November 30-Dec. 3 CA
Assn of California Water Agencies Fall Conference & Exhibition, Indian Wells. Renaissance Esmeralda & Hyatt Grand Champions. For info: ACWA, 916/ 441-4545 or website: www.acwa.com

November 30-Dec. 3 OR
OWRC Annual Conference & Water Seminar, Hood River. Hood River Inn. For info: Oregon Water Resources Congress, 503/ 363-0121 or www.owrc.org

December 1 CA
Habitat Conservation Plan Implementation Course, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, 800/ 752-0881 or www.extension.ucdavis.edu/landuse

December 1-2 CA
Modeling Human Health Risks: Practical Approaches to Estimating Risk & Developing Site Specific Cleanup Levels Conference, Oakland. Oakland Professional Development & Conference Center. For info: NWETC, 425/ 270-3274 or www.nwetc.org

December 1-3 OR
Land Conservation & Development Commission Meeting, Salem. For info: Lisa Howard, LCDC, 503/ 373-0050 x271 or www.oregon.gov/LCD/meetings

December 2 WA
Solar Electric Installation: Getting on the Grid Seminar, Seattle. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

December 2-3 OR
Oregon Land Use Law Conference, Portland. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

December 3 OR
Oregon Fish & Wildlife Commission Meeting, Portland. For info: Director's Office ODFW, 503/ 947-6044, odfw.commission@state.or.us, or www.dfw.state.or.us

December 3 WA
Solar Power: Projects & Permitting Seminar, Seattle. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

December 5-7 TX
32nd Annual International Irrigation Show, San Antonio. For info: Irrigation Assn website: www.irrigation.org

December 5-8 AZ
Irrigation Symposium, Phoenix. For info: ASABE website: www.asabe.org/meetings/index.htm

December 6 OR
2010 Legislative Symposium: Meeting Oregon's Water Needs, Salem. Convention Ctr. Sponsored by Oregon Water Utilities Council. For info: Niki Iverson: nikii@ci.hillsboro.or.us

December 6-7 PA
Development Issues in the Major Shale Plays Institute, Pittsburgh. Westin Hotel. For info: Mark Holland, RMMFLF, 303/ 321-8100 x106, mholland@rmmflf.org or www.rmmflf.org

December 6-7 OR
Northwest Environmental Conf. & Trade Show, Portland. Red Lion Hotel at Jantzen Beach. Presented by Associated Oregon Industries, Oregon DEQ, Northwest Environmental Business Council & Washington Ecology. For info: Sue Moir, NEBC, 503/ 227-6361, sue@nebc.org or www.nebc.org

December 6-8 France
International Conference on Transboundary Aquifers: Challenges & New Directions, Paris. Unesco HQ. For info: www.isam.net/publications/325



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CALENDAR

(continued from previous page)

December 6-9 **AZ**
ACES 2010: A Community of Ecosystem Services Conference, Phoenix. Gila River Indian Community. For info: www.conference.ifas.ufl.edu/aces/

December 7 **CA**
Instream Flow Assessment Workshop, Davis. UC Davis Guehler Alumni & Visitor Ctr. For info: <http://johnmuir.ucdavis.edu/events>

December 7-8 **NV**
Western Governors' Association Winter Meeting, Las Vegas. For info: WGA, www.westgov.org/

December 7-10 **NV**
NGWA Ground Water Expo & Annual Meeting, Las Vegas. Las Vegas Conv. Ctr. For info: Cliff Treysen, NGWA, 800/551-7379, email: ctreysen@ngwa.org or website: www.ngwa.org

December 8 **CA**
Low Impact Design Approach to Stormwater Management Course, Davis. Da Vinci Bldg., 1632 Da Vinci Ct. For info: registrar@lawseminars.com, or website: www.extension.ucdavis.edu/landuse

December 8 **MA**
Stormwater Regulation in New England Conference, Boston. For info: Law Seminars Int'l, 800/ 854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

December 9-10 **OR**
Oregon Land Use Law Seminar, Portland. Benson Hotel. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

December 9-10 **CO**
Water Marketing Seminar, Beaver Creek. Ritz-Carlton. For info: CLE International, 800/ 873-7130 or website: www.cle.com

December 14-16 **OR**
Northwest Power & Conservation Council Meeting, Portland. For info: www.nwcouncil.org/

January 12 **WA**
State Environmental Policy Act Seminar, Seattle. For info: Law Seminars Int'l, 800/ 854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

January 12 **HI**
Financing, Developing & Permitting Renewable Energy Projects in Hawaii Seminar, Honolulu. Hilton Waikiki Prince Kuhio. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

January 13-14 **HI**
Hawai'i Land Use Law Seminar, Honolulu. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

January 20-21 **FL**
Natural Resource Damages in the Gulf, Miami. For info: Law Seminars Int'l, 800/ 854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com
January 20-21 **CA**
Green Building Seminar, Santa Monica. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

January 21 **AK**
Permitting Strategies in Alaska Seminar, Anchorage. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

January 23-27 **WA**
Second Conference on Weather, Climate & the New Energy Economy, Seattle. Sponsored by American Meteorological Society. For info: www.ametsoc.org/meet/annual/

January 24-26 **TX**
2011 Underground Injection Control Conference, Austin. Radisson Hotel. Sponsored by Ground Water Protection Council. For info: www.gwpc.org/meetings/uic/uic.htm

January 26 **OR**
Biomass as a Renewable Energy Source Seminar, Portland. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

January 27-28 **WA**
Endangered Species Act Conference, Seattle. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

January 27-28 **DC**
Environmental Impacts on Energy Development Conference, Washington. For info: Law Seminars Int'l, 800/ 854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

February 1-3 **WA**
10th Annual Stream Restoration Design Symposium, Stevenson. Skamania Lodge. For info: www.rnw.org/pageview.aspx?id=32242

February 1-4 **FL**
National Assoc. of Clean Water Agencies Winter Conference, Ft. Lauderdale. Hyatt Regency Pier 66. For info: National Assoc. of Clean Water Agencies, 202/ 833-2672 or www.nacwa.org

February 2 **OR**
Solar Power Seminar, Portland. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

February 3-5 **OR**
Implementing the Human Right to Water in the West Conference, Salem. Willamette University College of Law. For info: Tom Dimitre, Willamette University, tdimitre@willamette.edu