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TRIBAL ISSUES IN OKLAHOMA

WATER POLICY IN THE FORMER INDIAN TERRITORY: CHICKASAW, CHOCTAW, AND OKLAHOMA AT A CROSSROADS OVER SARDIS RESERVOIR

by Stephen H. Greetham, Chickasaw Nation's Special Counsel

INTRODUCTION

EMERGING STATE-TRIBAL WATER CONFLICT IN OKLAHOMA

David Moon's October 15, 2010, cover story spotlighted an emerging conflict that centers on Sardis Reservoir — a federal storage facility located in the heart of the Chickasaw and Choctaw Nations' southeast Oklahoma tribal treaty territory. Like all such matters, the Sardis conflict has a long history that has given rise to a complex of social, economic, and cultural issues that, in turn, give life to conflicting use-values. Moon's article provides an excellent discussion of contextual detail at the more *current* end of this matter; this article explores more broadly the deeper legal history and framework of the Chickasaw and Choctaw Nations' occupancy of their treaty homelands. As Ninth Circuit Judge William Canby has noted: "a knowledge of historical context is perhaps more important to the understanding of Indian law than any other legal subject," AMERICAN INDIAN LAW 1 (3rd ed. 1998). That observation applies with particular force in Oklahoma — a state that was built on what was Indian Territory, *i.e.*, the Louisiana Purchase lands to which several American Indian tribal nations were forcibly removed so that a young United States could expand into their aboriginal homelands.

This article, however, is not *about* history. The current conflict is instead about the future of diverse Oklahoma communities. Looking west from here, one can see the adverse legacy of generational water resource conflicts — conflicts in which interests and positions did not come into actionable focus until resource supplies had already been fully developed (if not grossly *over*-appropriated), thus fostering community polarization and the suppression of needed economic development. In such contexts, conflict management can be extremely expensive and socially difficult, but Oklahoma presents a different dynamic: water resources here remain virtually untapped (and certainly undermanaged), and communities and infrastructure are integrated in a manner that is not typical to traditional state-tribal water fights. As the urban metroplexes of central Oklahoma and north Texas continue to expand, they increasingly target the unadjudicated water resources of the largely rural Chickasaw-Choctaw treaty territory, and conflicts are now ripening that will test the abilities of leadership, policy makers, and community planners. How stakeholders frame and pursue their interests within the legal framework here will determine, among other things, the future health and sustainability of *all* the affected communities — tribal and non-tribal, rural and urban. This article is meant to provide, from the perspective of a tribal water attorney, a view of that legal framework and the current issues arising within it.

For an excellent aggregation of news coverage on the conflict, refer to the Journal Record (Oklahoma City's) regularly updated special report on the subject (http://journalrecord.com/2010/06/28/oklahoma-water-wars/). For a brief but fairly current update, *see* www.news9.com/Global/story.asp?S=13449393.

Oklahoma Tribal Issues

Indian Removal Act

Unique Treaties

Protections Granted

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HISTORICAL, NATURAL RESOURCE, & LEGAL LANDSCAPE

Chickasaw and Choctaw Removal to Indian Territory

Until their forced removal by the federal government in the 1830s, the peoples of the Chickasaw and Choctaw Nations occupied lands in what is now the southeastern United States. The first recorded European contact with these peoples dates to about 1540, when Hernando de Soto led his exploration of the lower Mississippi River; throughout their subsequent contacts with Europeans, the Chickasaw and Choctaw earned a reputation as fierce warriors, successful traders, and adept regional power brokers. Throughout the colonial period and up through the American Revolutionary War, the Tribal Nations were active in the international relations of the various colonial powers, and almost immediately upon its independence, the new United States entered formal treaty relations with both of them. Treaty of Hopewell (Choctaw), 7 Stat. 21 (Jan. 3, 1786); Treaty of Hopewell (Chickasaw), 7 Stat. 24 (Jan. 10, 1786). In short, the Tribal Nations' history runs deep in American history.

As the United States developed, the Tribal Nations found themselves increasingly at the center of a conflict between federal policies that simultaneously (and contradictorily) guaranteed the protection of tribal rights and occupancy while encouraging the expansion of non-tribal settlement. *See generally*, *e.g.*, *Cherokee Nation v. Georgia*, 30 U.S. (5 Pet.) 1 (1831) and *Worcester v. Georgia*, 31 U.S. (6 Pet.) 515 (1832). This conflict culminated in Congress's passage of the Indian Removal Act of 1830, the Tribal Nations' cession of their aboriginal homelands, and the federal government's forcible removal of their tribal citizens — along with those of the other "Five Civilized Tribes" — to new homelands in the Indian Territory, a parcel of land that today generally comprises the eastern and southern portions of the State of Oklahoma. This removal was accomplished through treaties that are unique in the history of federal-tribal relations for, among other things, their provision of: (a) comprehensive protection of tribal government; and (b) federal-tribal conveyance of lands in full sovereign fee, in stark contrast to the United States' traditional reliance on establishing tribal land tenure systems based on reservation and establishment of mere *beneficial* tribal title**.**

The protections for tribal government are well prefaced by the preamble to the Chickasaw Nation's Treaty of Pontitock Creek:

> The Chickasaw Nation find themselves oppressed in their present situation; by being made subject to the laws of the States in which they reside…Rather than submit to this great evil, they prefer to seek a home in the west, where they may live and be governed by their own laws. And believing that they can procure for themselves a home, in a country suited to their wants and condition…they have determined to sell their country and hunt a new home.

7 Stat. 381 (Oct. 20, 1832).

This recognized tribal right to "live and be governed by their own laws" was further recognized, affirmed, and enacted in the Treaty of Dancing Rabbit Creek, which provides at art. IV:

> The Government and people of the United States are hereby obliged to secure to the said Choctaw [and Chickasaw] Nation[s] of Red People the jurisdiction and government of all the persons and property that may be within their limits west, so that no Territory or state shall ever have a right to pass laws for the government of the Choctaw [or Chickasaw] Nation[s] of Red People and their descendants; and that no part of the land granted them shall ever be embraced in any Territory or State; but the U.S. shall forever secure said Choctaw [and Chickasaw] Nation[s] from, and against, all laws except such as from time to time may be enacted in their own National Councils, not inconsistent with the Constitution, Treaties, and Laws of the United States; and except such as may, and which have been enacted by Congress, to the extent that Congress under the Constitution are required to exercise a legislation over Indian affairs.

7 Stat. 333 (Sept. 27, 1830).

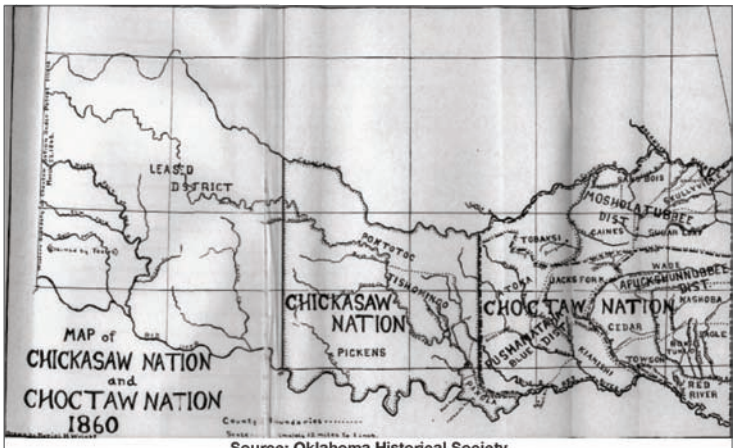
The Chickasaw Nation became a party to this treaty pursuant to the Treaty of Doaksville, 11 Stat. 537 (Jan. 17, 1837), *see generally*, *e.g.*, *Johnson v. Riddle*, 240 U.S. 467, 395-96 (1916).

These comprehensive guaranties were so central to the removal compact that President Andrew Jackson emphasized them in his personal statements to Congress on the subject — noting, for example, that "as a Government we have as little right to control them as we have to prescribe laws for other nations."

Of similar importance, the Treaty of Dancing Rabbit Creek conveyed the Tribal Nations' new homeland by a mechanism unique in federal-tribal history. As provided at art. II of that treaty:

> The United States under a grant specially to be made by the President of the U.S. shall cause to be conveyed to the…Nation[s] a tract of country west of the Mississippi River, in fee simple to them and their descendants, to inure to them while they shall exist as a nation and live on it….

In other words, the Tribal Nations acquired their new lands by patented fee title, *not* reservation — the more traditional federal mechanism for securing tribal land occupancy. The reason for the difference was simple: the Tribal Nations had already witnessed the United States' failure to protect reserved tribal lands elsewhere, and with those lessons before them, their leaders insisted on a full sovereign-to-sovereign, homeland-for-homeland title conveyance — a transaction in line with the United States' acquisition from France of the Indian Territory, among other lands, via the Louisiana Purchase. They were not prepared to cede their aboriginal homes for anything less.



Source: Oklahoma Historical Society

Following the American Civil War, of course, the Tribal Nations were subsequently territorially reduced when, by treaty, the United States required them to cede to it all their Indian Territory lands west of the 98th Meridian, an area generally referred to as the "leased district." 14 Stat. 769, art. 3. This cession left the Tribal Nations' sovereign estate as bounded by the lines used today to illustrate their respective jurisdictional areas, *i.e.*, that area made up of all or part of the twenty-two counties that comprise the southeastern quadrant of Oklahoma — an area notable as the "wettest" of that state. In accord with a long line of judicial and administrative rulings, the Tribal Nations' share common title to the retained sovereign estate therein, with the Choctaw Nation holding a 75% interest and the Chickasaw Nation holding a 25% interest.

Oklahoma Tribal Issues

Indian Territory and Oklahoma Statehood

The removal process of the 1830s was physically, culturally, and economically brutal. Alexis de Tocqueville, a witness to the removal of the Choctaw Nation in 1831, offers a bleak description of what he personally witnessed:

> It is impossible to conceive the extent of the sufferings which attend these forced emigrations. They are undertaken by a people already exhausted and reduced; and the countries to which the new comers betake themselves are inhabited by other tribes which receive them with jealous hostility. Hunger in the rear, war awaits them, and misery besets them on all sides.

De Tocqueville, Alexis C.H.C., *Democracy in America* 320-21 (1835).

Tribal Governments

By the end of removal, approximately 3000 Chickasaw and Choctaw — a full 20% of their removed citizenries — were dead from dysentery, smallpox, and exposure. Such human toll posed a daunting existential challenge for the Chickasaw and Choctaw Nations; nonetheless, once in their new homeland, the removal-era generation quickly turned to re-establishing their governing systems under newly ratified tribal constitutions. Their new governments exercised, as a matter of federal law, near total sovereignty over their territory and the inhabitants residing therein. Indeed, as the US Supreme Court (Supreme Court) recognized a decade prior to Oklahoma statehood, the Indian Territory:

> stands in an entirely different relation to the United States from other territories, and that for most purposes it is to be considered as an independent country…Under the guaranties of [their treaties], the Indians have proceeded to establish and carry on independent governments of their own, enacting and executing their own laws, punishing their own criminals, appointing their own officers, raising and expending their own resources.

Atlantic & Pac. R. Co. v. Mingus, 165 U.S. 413, 435-36 (1897).

During this period, they relied on their territory's rivers and streams as the primary avenues of commerce, using those systems to transport goods produced within the territory to markets further abroad. The Tribal Nations also established and regulated ferry crossings, for purposes of managing their emerging road systems, and facilitated the development of water supply systems to support their combined populations. As the *Mingus* Court emphasized, Indian Territory tribal autonomy is without parallel within the federal territorial government structure.

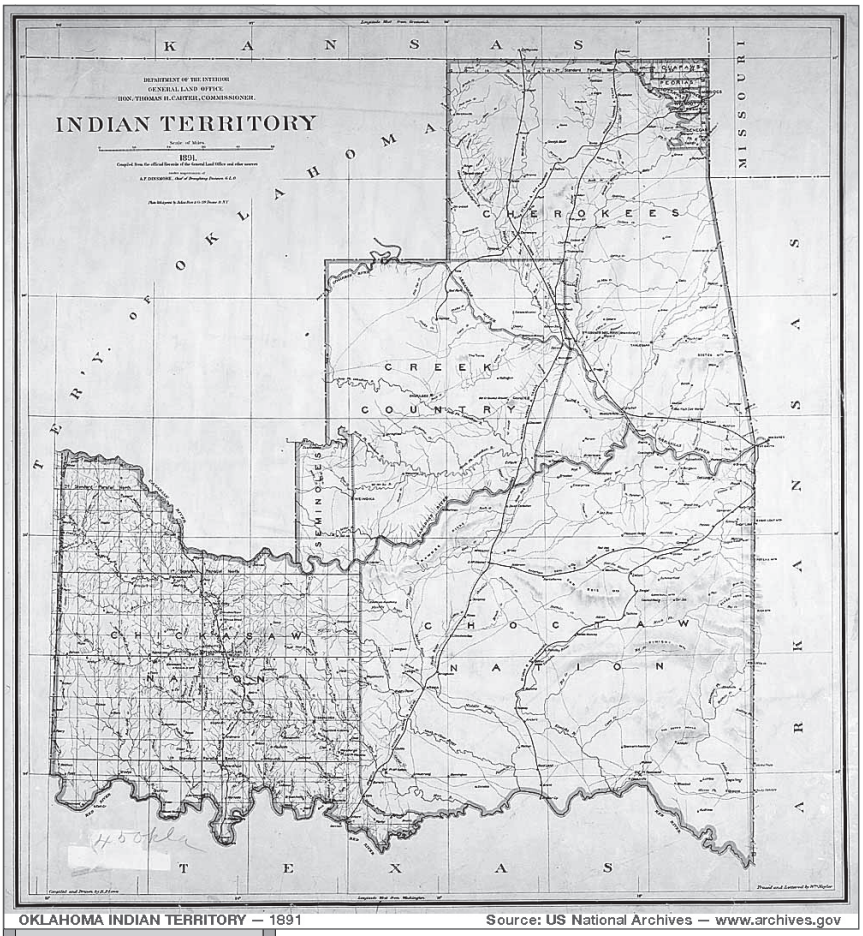
Coerced Allotment

Nonetheless, the Tribal Nations were soon subject to a renewed hunger for their territory, particularly in the decades following the American Civil War. This new hunger culminated in the coerced allotment of their lands and — approximately seventy years after removal — the State of Oklahoma's 1907 entry to the Union. In preparation for Oklahoma statehood, the federal government aggressively stripped tribal political systems of authority and took direct and comprehensive control of tribal governments, property, education systems, and even the definition of who was and was not a citizen of the Indian Territory tribal nations.

Much has been written about this period, but a few excerpts can provide useful illustration. For example, the front page of the *Daily Ardmoreite* recorded on the eve of Oklahoma statehood that:

> The Chickasaw Indians, like the children of Israel, have ceased to be a nation, and the last session that will in all probability be held by that body, closed its sessions Saturday when the two houses, both the senate and legislature, sang "Days of Auld Lang Syne." Like the children of Israel they must seek a livelihood and mingle with the white man who has come in their midst to carve an empire state — the heritage of the Indian.
>
> The body up to a few years ago held full sway in this section of the country and enacted laws and legislation to govern both the Indian and the white man, who sojourned with them. Those laws protected the natives and new comers alike, and it was with much reluctance that the Chickasaw Indians gave up their individuality as a nation.

"Last Indian legislation, Chickasaw Legislature has held last session," *Daily Ardmoreite* 1 (Sept. 16, 1907).



OKLAHOMA INDIAN TERRITORY — 1891 Source: US National Archives — www.archives.gov

Likewise, Oklahoma historian Angie Debo offered a stark 1951 perspective on the then-contemporaneous status of tribal peoples in the new state: "These Indians, who less than fifty years ago owned half of what is now the state of Oklahoma, live in appalling poverty." She went on to describe the former Cherokee Nation lands, "[t]he whole beautiful region east of the Grand River," as "one vast slum." Angie Debo, *The Five Civilized Tribes of Oklahoma, A Report on Social and Economic Conditions* 4 (1951). Debo forcefully indicted as responsible for these conditions the implementation of federal allotment and assimilation policies — policies that sought to force a tribal shift from communal estates to privately held title:

> [O]wnership of individual farms by fee simple title subjected [tribal citizens] to mortgages, sales, tax liens, long term leases, and other forms of alienation, all completely outside their experience. As [state] citizens they were protected theoretically by laws and courts, which they did not understand and could not use; actually the whole legal system of Eastern Oklahoma was warped to strip them of their property. Misrepresentation, power of attorney, forgery, kidnaping [sic], even murder were employed to obtain their land, or they were placed under guardianship and plundered through the probate courts. *Id.*

The harm caused during this era could not have been intended, but it was plainly the result.

Oklahoma Tribal Issues

Federal Takeover

Chickasaw and Choctaw Twentieth Century Renewal

As already noted, the federal government's prelude to Oklahoma statehood was to wrest from tribal hands the direct control of tribal governing systems. For example, pursuant to the Act of April 26, 1906, 34 Stat. 137, the United States suspended Chickasaw and Choctaw Nation elections — so that tribal chief executives could be appointed instead by federal fiat — and prohibited their legislatures from taking formal action without direct approval of the United States President. Furthermore, the government seized all tribal property — real and personal, from lands and leases down to the desks and pencils — and placed it under direct federal control. This remained the state of Chickasaw and Choctaw tribal affairs from statehood until 1983, at which time — following Civil Rights Era tribal agitation for the reinstatement of tribal self-governance, Congress's enactment of the Principal Chiefs Act of 1970, and subsequent litigation that affirmed the continued legal force of the pre-statehood Chickasaw and Choctaw tribal constitutions — the Chickasaw and Choctaw Nations reformed and reestablished their respective tribal governments in accord with newly amended and ratified tribal constitutions. See generally*Harjo v. Kleppe*, 420 F. Supp. 1110 (D.D.C. 1976) (concerning Creek Nation constitutional dispute); *Morris/Cravatt v. Watt*, 640 F.2d 404 (D.C. Cir. 1981) (concerning Chickasaw and Choctaw Nation constitutional disputes).

Revitalization

Endeavoring to move past this (second) dark period, the Tribal Nations have since (and again) focused on the re-institutionalization of tribal governing systems and, as a result of those efforts, are now in the midst of strong political, economic, and cultural revitalizations. Together, the Tribal Nations are their region's largest employer, and particularly with their successful development of tribal gaming, they have fundamentally altered and boosted the regional and state economy. For example, this past reporting year alone, the Tribal Nations' respective 2004 gaming compacts with Oklahoma generated $56 million for state education programs. State-tribal compacts on motor fuel and tobacco taxes have generated additional monies for Oklahoma and tribal government programs, while tribal initiatives — which include hospitals, schools, roads and other infrastructure programs, and a newly opened Chickasaw Cultural Center in Sulphur, Oklahoma — directly employ more than 20,000 workers. On the ground, the Tribal Nations regularly seek to engage with local and municipal actors in support of sustainable growth and development throughout the treaty territory, and these combined activities have benefited the entire region, tribal and non-tribal alike.

Oklahoma Tribal Issues

Value of Water

All the same, the Tribal Nations' ongoing revitalization has, so far, been able only to *begin* to remediate the legacy of removal, allotment, and direct federal-takeover — a legacy that turns on the massive expropriation of tribal wealth that was carried out in the Nineteenth and Twentieth Centuries. Notwithstanding recent improvements made possible by tribal revitalization, southeastern Oklahoma continues to experience poverty rates that are among the highest in Oklahoma, which is itself one of the poorest states in the country. It is an unfortunate fact, but southeast Oklahoma contains particularly deep pockets of harsh poverty; it is nonetheless a deeply beautiful region, blessed with a relative wealth of water resources. Most people in the area believe that regional economic development will rely on the conservation and sustainable management of those resources; they also believe that while urban growth in central Oklahoma and north Texas certainly provides some measure of indirect benefit, the true driver of the southeast Oklahoma economy will be the development of regional destination tourism, outdoor recreation, and preserved wilderness — that is, economic activities that capitalize on the use-value of *flowing* waters.

Tribal Water Resource Interests in the Former Indian Territory

Federal Trust

Those Chickasaw and Choctaw interests in the sovereign tribal estate that have not been alienated or terminated through express congressional action are, today, held by the United States in trust for the benefit of those Tribal Nations. 34 Stat. 137, § 27. *Accord* 25 U.S.C. § 1779(7). Placement of those interests within the federal trust creates a unique and well-established set of federal responsibilities and legal protections, among which is the preemption of inconsistent state law. Congress relevantly enacted that rule by, for example, requiring in Oklahoma's Enabling Act that the state disclaim any authority to interfere with "the rights of persons or property pertaining to the Indians" or "to limit or affect the authority of the Government of the United States to make any law or regulation respecting such Indians, their lands, property or other rights…" 34 Stat. 267, § 1 (Jun. 16, 1906). In other words and as a matter of federal law conditioning the state's very formation, Oklahoma cannot disturb tribal rights or interfere with superior federal authority.

Sovereign Title

Of course, the federal government is often criticized for failing to abide its trust obligations and to protect tribal rights. Federal failures in this regard have left many questions about what *is* and what *is not* retained to the Tribal Nations' sovereign estate. However, among other things, the Supreme Court has held that the Tribal Nations' retained sovereign estate includes the beds and banks of treaty territory streams. *Choctaw Nation v. Oklahoma*, 397 U.S. 620 (1970). *Accord Brewer-Elliott Oil Co. v. United States*, 260 U.S. 77, 82-83 (1922). Such lands are considered at law to be "sovereign lands," ownership of which constitutes "an essential attribute of sovereignty," *Utah Division of State Lands v. United States*, 482 U.S. 193, 195-98 (1987). As the Supreme Court put it in *Montana v. United States*, 450 U.S. 544, 551 (1981), "the ownership of land under navigable waters is an incident of sovereignty." Such retained sovereign title is an accordingly *uniquely powerful* aspect of the water resource rights that the Tribal Nations hold, vesting them with "essential" sovereign interests in water allocation and management that extend *beyond* what are typically held by American Indian tribes.

Contrast "Reserved Rights"

The water rights held by most American Indian tribes are generally based on: (a) equitable interests held in water that was severed from the public domain under, for example, the Desert Lands Act of 1877; and (b) the United States' reserving such rights to water for purposes of fulfilling the purpose of a particular land reservation. *See generally, e.g., Arizona v. California*, 373 U.S. 546 (1963); *United States v. Winters*, 207 U.S. 564 (1908). In this "reserved right" context, those rights and interests *not* reserved are presumptively set aside for the benefit of some future state or territory that will assume quasi-sovereign authority over the remaining resources. Those limitations, however, do *not* apply to the Tribal Nations' rights nor to the rights held by the other removal tribes of the former Indian Territory.

"Complete Sovereignty"

As the Supreme Court held in *Choctaw Nation*, the federal conveyance to Plaintiff Tribal Nations included "virtually complete sovereignty" over the entire sovereign estate and left the federal government, at least within the bounds of Indian Territory, with no reserved interest to convey to Oklahoma upon statehood. Accordingly, when Oklahoma was admitted to the Union in 1907, the sovereign title to submerged lands throughout the Tribal Nations' treaty territory was already held by the Tribal Nations, leaving Oklahoma with no interest — sovereign or otherwise — to receive therein. Then, to further protect the sovereign tribal estate, Congress conditioned Oklahoma's admission on its forever disclaiming any ability to interfere with tribal rights or superior federal authority on the subject. This set of legal facts gives rise to tribal interests in water that, as an Oklahoma federal court recently observed, could turn the traditional "reserved right" analysis on its head:

Surplus Water Rights

> If the Nation owned all the land and water for its absolute and exclusive use, the question to be asked is not, How much water was reserved to the tribes? but how much water has been taken away? The shift in the nature of the question transfers the burden of establishing a right to water from the tribes to the state. The shift also creates a presumption that surplus water is the property of the tribes rather than the state.

Oklahoma v. Tyson Foods, Inc., 258 F.R.D. 472, 478-79 (N.D. Okla. 2009), *aff'd*, 619 F.3d 1223 (10th Cir. 2010) (quoting and citing Taiawagi Helton, Comment, *Indian Reserved Water Rights in the Dual-System State of Oklahoma*, 33 Tulsa L.J. 979, 995 (1998) (quotation marks omitted).

Oklahoma Tribal Issues

State Recognition

Oklahoma has occasionally recognized the significance of these tribal water resource interests. For example, it recently recognized its lack of authority over water rights and interests that arise by operation of federal law, such as the Tribal Nations' (*see* 82 O.S. § 105.12A(B)(2)). It also previously sought Chickasaw and Choctaw Nation approval of a now-rejected Oklahoma proposal to sell Kiamichi Basin waters across state lines (s*ee* www.owrb.ok.gov/studies/legislative/southeast/se_plan.php). Additionally, in relation to its high-profile litigation of natural resource damages in the Illinois River Watershed, *Tyson Foods, supra at 8*, the State formally recognized that the "Cherokee Nation has substantial interests in lands, water and other natural resources located within the Illinois River Watershed though the extent of those interests has not been fully adjudicated." *Agreement By and Among the State of Oklahoma and the Cherokee Nation* (May 19, 2009).

Oklahoma's Rights

But more importantly, when squarely presented with questions implicating tribal rights and interests, federal courts have been — to say the least — skeptical of Oklahoma's interests. For example, as already discussed, the Supreme Court rejected Oklahoma's argument that its admission as a state on an equal footing with the rest of the states in the union somehow displaced the Tribal Nations' sovereign estate, *Choctaw Nation*, *supra*. Additionally, it is established that Oklahoma cannot claim to *own* any water within its boundaries. *Tarrant R.W.D. v. Sevenoaks, et al.*, 545 F.3d 906, 913 (10th 2008). But the Supreme Court has gone even further — suggesting, for example, that the State is not a sufficient *source* for a property interest in water. *United States v. Grand River Dam Authority*, 363 U.S. 229, 235-36 (1960). Even last year, a federal court dismissed significant elements of an Oklahoma suit because unadjudicated tribal rights limited the state's ability to assert the full scope of affected sovereign rights and interests. *Tyson Foods, supra*. These cases illustrate profound questions about what authority Oklahoma *does have* with respect to water management within this region.

Unique Situation

All tribal nations, including the Chickasaw and Choctaw Nations, have legally protected and sovereign interests in water resources. However, the Chickasaw and Choctaw Nations' retained sovereign estate — along with the concomitant limitations imposed on State authority — vests them with interests that transcend those protected by "reserved rights" theory.

CURRENT INTERSOVEREIGN & WATER USE-VALUE CONFLICTS

The Challenge of Water Export Proposals

Water Uses

The Chickasaw and Choctaw Nations' shared treaty territory contains all or part of thirty-one surface watersheds and seven major alluvial and bedrock aquifers; it also includes eleven federal and thirty-three local or municipal storage facilities. Those surface and groundwater systems provide drinking water supplies for scores of communities throughout the treaty territory, many of which are forecast to outgrow existing local water supplies and associated infrastructure within the foreseeable planning horizon. Those surface and groundwater systems likewise support a growing hunting, fishing, and outdoor recreation economy. It is locally understood that as the Dallas-Ft. Worth metroplex expands, more and more Texans use southeast Oklahoma as their weekend playground and escape, and this elevated *in situ* use-value of the region's natural resources vitally supports and grows the local economy.

Use Conflicts

In recent years, conflicts between consumptive and non-consumptive demands have come into clearer conflict, even within the treaty territory. These local conflicts are perhaps best illustrated by current challenges in the Arbuckle-Simpson Aquifer region — an area built upon a complex bedrock aquifer formation that is rich in springs and streams (Citizens for the Protection of the Arbuckle-Simpson Aquifer has long been active on this issue and has assembled useful documentation, *e.g.*, www.cpasa.net/). The clash among local Arbuckle-Simpson municipal, industrial, and recreational interests has triggered extensive litigation relating to Oklahoma's first, and ongoing, experiment in conjunctive-use management and environmental flows protection. Even that primarily local challenge, however, grew originally from what is the true challenge to treaty territory water management: proposed raw water exports.

Water Export

In 2002, a coalition of communities west of Oklahoma City sought to obtain a state-law permit for the diversion and transport of 80,000 acre-feet/year of Arbuckle-Simpson groundwater. Locals feared this export would dry up key elements of the local economy — *e.g.*, the Chickasaw National Recreation Area, the Tishomingo National Wildlife Refuge, and various camp and recreation areas, not to mention the municipal water supplies of Ada, Ardmore, Davis, Durant, and Tishomingo — all of which rely on surface waters that are supported by Arbuckle-Simpson spring discharges. Local opposition efforts led to the enactment of Senate Bill 288, a measure that conditions groundwater withdrawals on the avoidance of adverse impacts to springs and streams. *E.g.*, *Jacobs Ranch, LLC v. Smith*, 2006 OK 34, 148 P.3d 842 (Okla. 2006). The law also triggered a multi-year study of Arbuckle-Simpson hydrology for purposes of better understanding the area's surface and groundwater systems (s*ee* www.owrb.ok.gov/studies/groundwater/arbuckle_simpson/arbuckle_study.php). The results of that soon-to-be-completed study strongly validate concerns about the impact that would have resulted from the proposed diversion, but they also underscore the difficulty of managing a resource such as the Arbuckle-Simpson, even for local use and development. While work on such management continues, local planners continue to keep a cautious eye out for future export initiatives.

Groundwater Management

Oklahoma Tribal Issues

Municipal Export

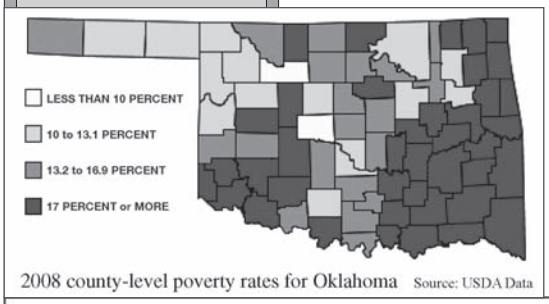
Such export concerns are far from a hypothetical concern. Well to the east of the Arbuckle-Simpson, a 110-mile, ninety million-gallons/day pipeline diverts water from Atoka Lake for purposes of supplying the expanding water needs of Oklahoma City and other central Oklahoma communities. Atoka is a private storage facility, built and owned by a municipal trust under state law. Oklahoma City relies on Atoka as its primary source of municipal drinking water, and that reliance has the regular effect of reducing the lake to a muddy hole, which then imposes the associated adverse economic and environmental impacts on the source region. This has been a recurrent cause of local concern, but it is also one that has been part of the landscape for generations — reaching back to Atoka's construction in the early 1960s, the decade before the US Congress's enactment of major environmental statutes and a period in the midst of the federal government's direct control of Chickasaw and Choctaw tribal affairs, *i.e.*, a time in which the Tribal Nations were unable to protect their rights or to even *engage* in the critical decision making processes.

Export Proposals

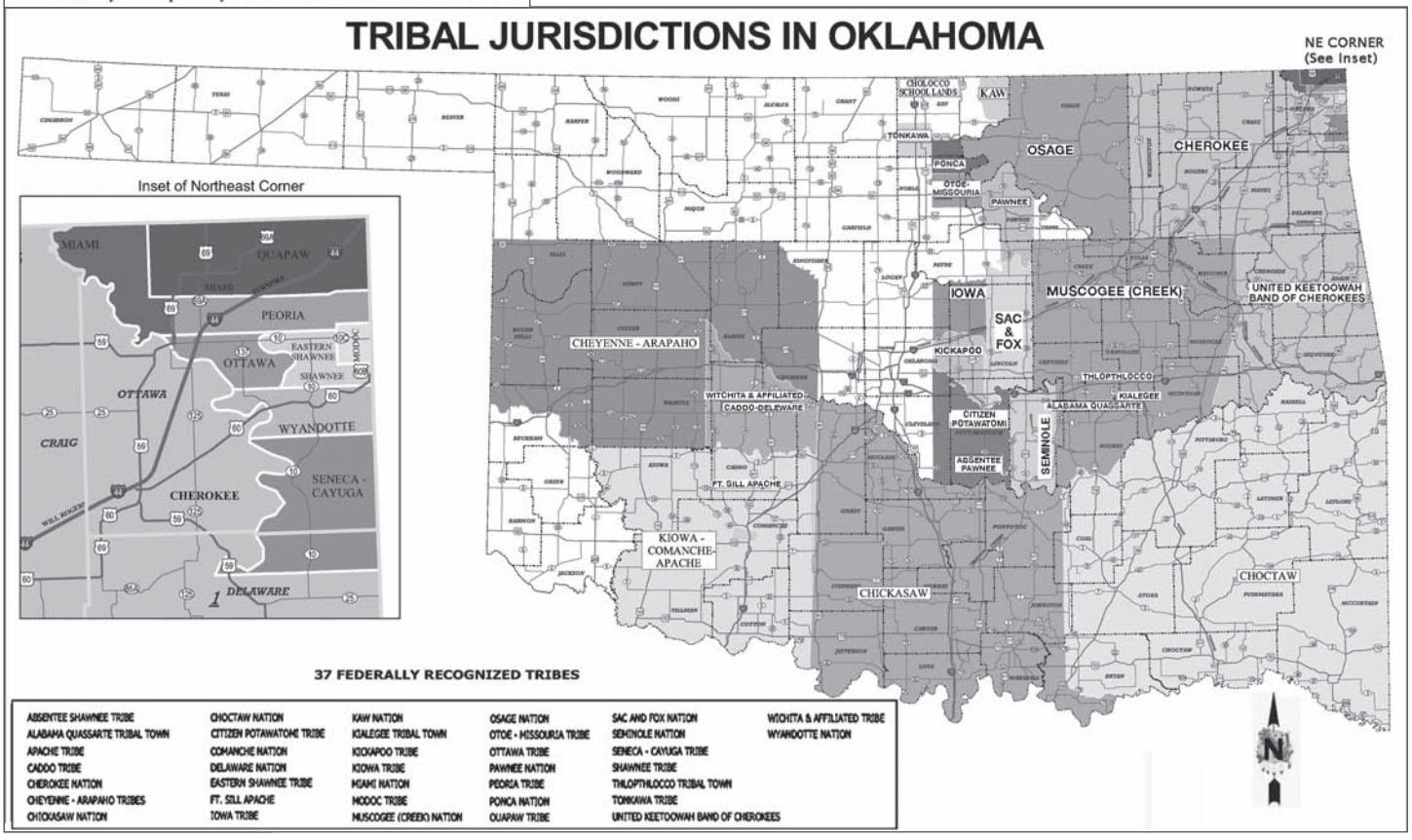
Likewise, Oklahoma City's plans for the two federal reservoirs to Atoka's east, the US Bureau of Reclamation's McGee Creek and the US Army Corps of Engineers' Sardis, have been an object of concern. Tribal efforts to reach out to Oklahoma City between 2007 and 2010 on these matters were categorically rejected, and as Moon's October 15 piece indicates, the city's plans are now ripening with little regard for local concern. More recently, a state consultant unveiled conceptual proposals for the development of one or more high-capacity pipelines for purposes of implementing massive diversions of water from the former Indian Territory to central and western Oklahoma. These and similar proposals has been developed *without* local engagement or outreach and has caused particular concern in southeastern Oklahoma — a region that lacks *any* representation on the Oklahoma Water Resources Board, the water-use permitting agency.

Texas Exports

Finally, to the south, the ever-expanding Dallas-Ft. Worth metroplex continues to target treaty territory waters. Recently, municipal leaders authorized spending $1.6 billion for construction of a pipeline for conveyance of water resources from, among other sources, the Tribal Nations' treaty territory. Perhaps more widely known, the Tarrant Regional Water District has filed suit to force Oklahoma to consider its applications for 460,000 acre-feet/year of water, to be diverted primarily from treaty territory sources. *Tarrant Regional Water District v. Herrmann, et al.*, No. Civ.-07-0045-HE (W.D. Okla.). While the Upper Trinity Regional Water District has not sued, it has likewise filed application for the appropriation and annual export of an additional 115,000 acre-feet/year of surface waters from the treaty territory. Interestingly, these applications have drawn fire from Oklahoma City, and Tarrant recently returned fire, targeting Oklahoma City's Sardis efforts. This sets up the increasingly complicated dynamic of two urban centers competing across state lines for access to the resources of a removed rural region while affected local and tribal interests are essentially ignored and Oklahoma state leaders fail to take a decisive position.



2008 county-level poverty rates for Oklahoma Source: USDA Data



Oklahoma Tribal Issues

Adjudicated Rights

Instream Needs

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Legal Framework

Proactive Planning

Alignment of Interests

Compacts Experience

Water Compact Commission

Large-scale interbasin water transfers *always* carry a high likelihood of controversy, but the targeting of waters within the Tribal Nations' treaty homeland has caused particular concern for at least two reasons. First, the state-tribal conflict: Water rights throughout this region have not been adjudicated, and while state statutes provide for a general stream adjudication process of sorts (82 O.S. § 105.6), the state has no meaningful experience with such processes and has so far demonstrated no political will to start. This leaves fundamental questions of respective state and tribal rights and interests unresolved and liable to fester into more difficult future conflicts. Second, the use-value conflict: State law fails to provide for *any* meaningful consideration of (much less protection for) instream or environmental flows; instead, the state's legal framework presumes the full *consumption* of all available waters, which — if allowed to control state permitting decisions — would work to the substantial prejudice of the local economy that, as discussed, will require the sustainable management of consumptive *and* non-consumptive uses. This latter point has been the grounds for substantial agreement among tribal and non-tribal leaders throughout the treaty territory but has also been a point of contention between in-territory and out-of-territory interests.

The Contours of the Emerging Conflict

Viewed from the narrow perspective of the law, the primary state-tribal conflict turns on the same three questions that underlie such water conflicts elsewhere: (a) who has what property interest in the resource?; (b) who has what jurisdiction over the resource?; and (c) by what process will we answer those questions? More broadly, the conflict turns on substantive policy matters that are interpreted differently based on the relative economic center of the respective sovereign, *e.g.*, how much water is available for consumption and how much should be preserved in its natural state? As is the case elsewhere, failure to deal with these issues triggers a familiar set of concerns — clouded title, regulatory uncertainty, and attendant suppression of economic activity and sustainable resource management. Indeed, the federal court's recent dismissal of Oklahoma's Illinois River Watershed case provides a timely reminder of the legal consequence of State and Tribal failure to work together within the complex legal framework of the former Indian Territory. Tribal and non-tribal stakeholders *jointly* face these risks, but the perceived zero sum game of these disputes often makes it difficult for the parties to come together and respectfully engage with the complex legacy of Oklahoma's origins. All the same, the former Indian Territory also provides unique opportunities.

First, the region's waters are generally unallocated and unappropriated, meaning there is still time for proactive planning and decision. Western water disputes typically play out in a landscape of already over-appropriated waters — a situation that forces stakeholders to decide who gets shut off or who pays for the development of infrastructure to increase supplies. That is not the case in Oklahoma, however, which provides an opportunity that is perhaps not yet fully appreciated by all.

Second, the radical remaking of Indian Territory's landownership patterns occasioned by allotment and statehood has left a jurisdictional and occupational checkerboard in eastern Oklahoma that is far more complex than what is typical in the West. As a result, tribal and non-tribal interests generally connect to the same water supply infrastructure, which greatly reduces the "tribal versus non-tribal" interest dynamic that can hinder practical problem solving. Within the Chickasaw and Choctaw treaty territory, for example, interests tend to align along "within" and "without" the territory rather than any state-tribal axis; this has been the case with respect to local efforts regarding the Arbuckle-Simpson Aquifer *and* the current Sardis conflict, and it has enabled far more effective local organizing between and among the tribes and various non-tribal institutions, organizations, and issue groups.

Third, this is far from the first intersovereign conflict over which Oklahoma and Tribal Nations have faced off. Since statehood and particularly in the later decades of the Twentieth Century (when tribes finally had the legal standing and financial wherewithal to defend their interests), state-tribal relations have often been deeply litigious. Tax issues, in particular, have been a recurring source of lawsuits; however, state and tribal governments have now several times been able to find their way to the table and work out compacts to address, for example, tobacco and motor fuel taxes, and casino-style gaming and associated revenue-sharing. Each time they have done so, the effort has redounded to the benefit of *all* parties and their respective citizenries. For several years, water and other environmental issues have simmered as the *next* wave of tribal state conflict in Oklahoma, but prior compacting experience provides some encouragement with respect to cooperative state-tribal problem solving.

Those factors, among others, support the feasibility of proactive engagement toward regional solutions to current challenges, and while it has taken some time, Oklahoma *seems* to be moving toward recognition of that opportunity. For example, one of the top recommendations from the state's 1995 water plan was to convene a special body to develop recommendations for the establishment of a mechanism to negotiate resolutions of state-tribal water right and water quality management conflicts. Based on this fifteen-year-old recommendation, the Tribal Nations have advocated for Oklahoma's consideration of a Montana-style compact commission for purposes of representing the state in state-tribal water rights negotiations. While Oklahoma has yet to take any organized step toward implementing such a goal, Oklahoma's ongoing effort to update its water plan has again underscored the recommendation.

Oklahoma Tribal Issues

As stated in one key planning report:

> State/Tribal Issues. State and tribal issues must be resolved through meaningful government-to-government negotiations, preservation and building upon history of "good neighbor" relations, and implementation of the specific recommendation made on this subject in the 1995 state water plan so that the state and tribes can work cooperatively and more efficiently to resolve water issues.

Oklahoma Academy, WATER: FINAL REPORT at 10 (2010).

State Water Plan

This recommendation is *particularly* interesting in that it was generated exclusively by Oklahoma citizens; tribal governments were, by design, excluded from the formal public policy development process in Oklahoma's ongoing water plan update. The updated State water plan is scheduled to be completed in 2012, and it is not now clear what form this renewed recommendation will take.

Legal Hurdles

Factors that would seem to favor proactive intergovernmental engagement notwithstanding, Oklahoma law continues to present an apparent bar to government-to-government water negotiations. For example, state law imposes "a moratorium on any state or tribal compact or any intergovernmental cooperative agreement…which is drafted in whole or in part to apportion surface water or groundwater ownership" until such time as a study of statewide water resources is completed. 74 O.S. § 1221.A. Of more recent and uncertain impact, Oklahoma voters amended the state constitution by referendum this election cycle to prohibit state courts from considering certain sources of law; while the primary target of the referendum was Sharia, the ballot question defined the prohibited sources of law as also including federal treaties with tribes. Such legal action, whether constructed by design or simply arising from habit, does not square with the more express policy direction that has emerged from past and ongoing water policy planning processes, and it remains unclear what direction tribal and state leaders, policy makers, and planners will take, *i.e.*, unilateral or coordinated action, confrontational or cooperative processes.

CONCLUSION: THE PATH FORWARD?

Negotiations

In line with past and current State water plan policy recommendations, the Chickasaw and Choctaw Nations continue to press for the convening of appropriate government-to-government negotiations centered on the Sardis dispute. The Tribal Nations have viewed the alternative — *i.e.*, litigation and its tacit admission of failure in intergovernmental relations — as the less attractive choice, particularly in matters as complex as intersovereign water resource management. For purposes of such negotiations, the Tribal Nations have articulated three thematic principals:

Tribal Principles

- state-tribal accommodation of separate sovereign rights;
- protection of in-territory present and future-use water needs, both consumptive and non-consumptive; and
- to the extent in-territory "surplus" waters are available, the provision for exports conditioned on verifiable need and mitigation of in-territory economic and environmental impact.

Export Balancing

The Tribal Nations have not expressed opposition to legitimate water needs outside of their treaty territory. However, they have emphasized that such needs must be balanced against in-territory needs and impacts, and at least as importantly, such balancing must be managed fairly and with the engagement of government stakeholders — federal, tribal, and state. For purposes of such balancing and regardless of state response, the Tribal Nations are now working together to conduct a tribal-regional water plan that fills in several policy and technical gaps identified in the ongoing state planning effort — most notably, the state water plan's failure to assess and provide for environmental flows that are necessary to support local economies.

As this emerging conflict has built toward a head, the Tribal Nations have called for progressive state leadership. Over the past year, public interest in the implicated water management and economic development questions has heightened, but so far, that heightened interest has not produced a meaningful process for resolution. With the recent state elections, though, all parties are watching the ongoing formation of a new Oklahoma executive administration — an administration that has inherited a complex set of intersovereign and urban-rural water use-value disputes that have been generations in the making. Both the Chickasaw and Choctaw Nations stand ready, and hopeful, that the new administration will constructively engage toward a long-term solution of these issues for the benefit of all.

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NEBRASKA'S EVOLVING WATER LAW

CHALLENGES & OPPORTUNITIES — PART II

by Mary E. Kelly, Parula LLC (Austin, TX)

Editor's Note: Part I of this article, in the November issue of The Water Report, included extensive information about the water resources of Nebraska and its water management system (Kelly, TWR #81). In Part II, Nebraska's compliance with the Republican River Compact is explored, followed by a comparison of Nebraska's water management approaches with other States.

COMPACT DELIVERY REQUIREMENTS

Republican River Compact

Nebraska, Colorado, and Kansas formally ratified the Republican River Compact (Compact) in 1943. The Compact allocated specific amounts of the "virgin water supply" to each of the three States: 49% to Nebraska (234,500 **a**cre-**f**eet (AF)); 40% to Kansas (190,300 AF); and 11% to Colorado (54,100 AF). Republican River Compact, Neb. Rev. Stat. Sec. 1-106, Art. IV. Virgin water supply is defined in the compact as*: "the water supply within the Basin undepleted by the activities of man." Id.* Art. II.[1] Under the Republic River Compact 2003 settlement, allocations are based on five-year rolling averages, not annual amounts. The Compact does not specifically mention or allocate groundwater.

Groundwater Pumping

As pressure on the State's water resources has increased — primarily from the increase in irrigation — the terms and obligations of that Compact are driving many water management decisions (similarly, the South Platte River Compact and decree provisions have resulted in water policy and management changes in the Platte's upstream States of Colorado and Wyoming). As discussed in detail below, the effect of stream flow depletions caused by groundwater pumping in Nebraska led to US Supreme Court litigation by the State of Kansas to secure delivery of its Compact allocations. This action and its settlement ultimately led to enactment by the Nebraska legislature of one of the broadest conjunctive surface water/groundwater management laws in the country: LB 962.[2] [See Kelly, *TWR* #81, for details on LB 962 and its impact on the water management system in Nebraska].

Conjunctive Management

LB 962 essentially established a process through the Nebraska Department of Natural Resources to declare a river basin fully- or over-appropriated and to work with the local Natural Resource Districts in the affected basin to prepare integrated groundwater/surface water management plans. Significantly, the legislature did not limit the provisions of LB 962 to the Republican basin. These additions to the State's legal framework, while not universally hailed, put Nebraska in the forefront of western States in terms of recognizing and beginning to address the undeniable and important connections between groundwater and surface water and in attempting to bring its water allocation system into more sustainable balance.

REPUBLICAN RIVER COMPACT COMPLIANCE

Delivery Shortfalls

The Republican River Compact operated without much controversy in its early years.[3] Over the last few decades, however, Nebraska has frequently failed to meet its delivery obligations to Kansas. The delivery shortfalls arose primarily from the combined effects of greatly increased groundwater use for irrigation (principally due to greatly expanded use of center pivot irrigation) and periodic droughts.[4] Center pivots represented a technological breakthrough in the 1960s, when an efficient way to manufacture that revolutionary system was developed. Previously, crops were grown on dry land or were irrigated by labor-intensive gravity systems, with hand-laid metal pipe carrying water along the ground. The self-propelled center-pivot system, invented by a Nebraska-born farmer, allowed water to be sprinkled on crops from an overhead pipe rotating around a centrally placed well.

Stream Flow Definition

In 1998, Kansas brought a case in the US Supreme Court seeking a ruling that stream flow derived from groundwater inputs was covered by the Compact terms and seeking hefty monetary damages for Nebraska's failure to meet delivery requirements. After lengthy proceedings before a Special Master, the Court approved a "Final Settlement Stipulation" agreed to by all three Republican River States in 2003.[5] The Special Master's Report and the associated settlement made it clear that Nebraska could not escape its downstream compact obligations even if the stream flows were reduced due to groundwater pumping. Over the State's protestations, the term "virgin water flows" was found to include all the natural stream flow, even that contributed by groundwater inputs to the river.

Allowable Depletions

Although the 2003 settlement included a fairly broad (though not absolute) moratorium on new groundwater wells upstream of Guide Rock, Nebraska, many new wells were drilled between the date the litigation was filed and the date of settlement.[6] Seeking to help the State meet the terms of the Compact and the Settlement, the Nebraska legislature enacted the groundbreaking LB 962 in 2004 (described in detail in Part I). After intensive cooperative work between the Nebraska Department of Natural Resources (DNR) and the Natural Resource Districts (NRDs), as well as several opportunities for public hearing and comment, the Upper, Middle, and Lower Republican NRDs now have approved Integrated Management Plans (IMPs).[7] The IMPs have specific goals with respect to allowable depletions of stream flow via groundwater pumping and reductions in pumping required to achieve those goals.

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Pumping Deduction

For example, the IMP for the Upper Republican provides that:

> The NRD and the NDNR agree that the IMP for the District shall keep the District's depletions including credits for streamflow augmentation to an amount within 44% of the State's allowable groundwater depletions. Based upon its calculations, the NDNR believes that a 20% reduction in pumping from the 98-02 baseline would be sufficient without additional streamflow augmentation to keep the District's net depletions within the [Upper Republican] NRD's 44% share of the State's allowable groundwater depletions during periods of average precipitation throughout the basin, through the year 2020.[8]

It remains to be seen whether the measures proposed in the new IMPs on the Republican River will be sufficient for Nebraska to consistently meet its delivery obligations to Kansas under the Compact — particularly if there is a recurring or persistent drought.

In May 2010, Kansas again sought to have the US Supreme Court hear the dispute, alleging that both Nebraska and Colorado have failed to meet their obligations under the Compact and the 2003 settlement.[9] Kansas claims Nebraska under-delivered water by about 79,000 AF during 2005-2006. In reply, Nebraska and Colorado both filed legal briefs in July 2010.

Water Lease

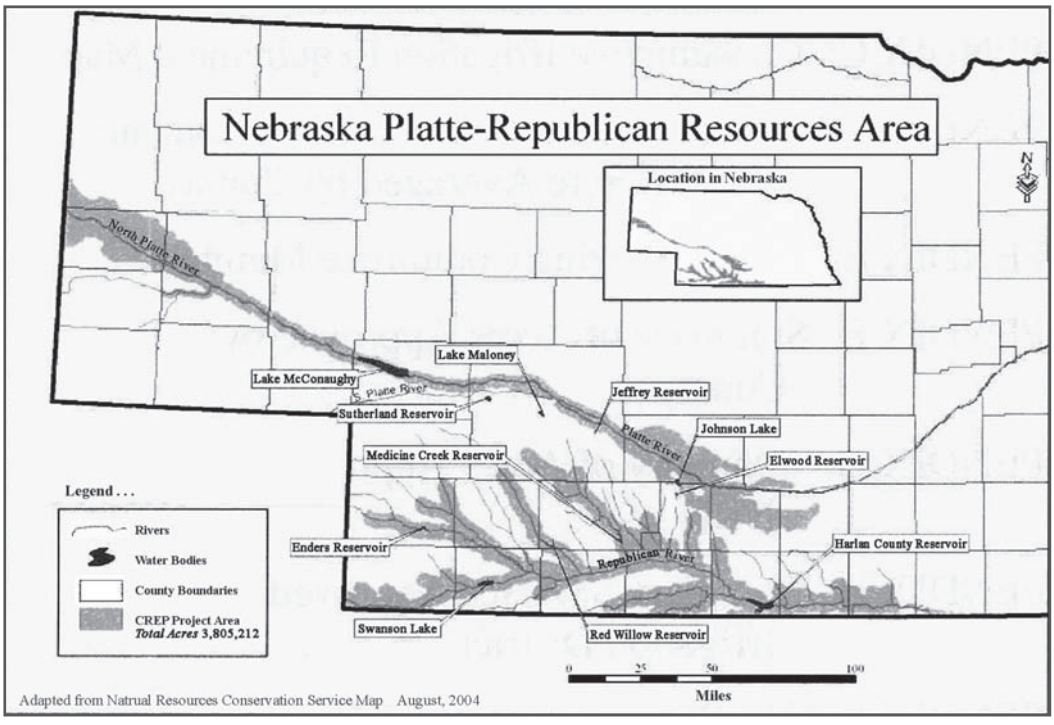
Nebraska's brief recounts the State's efforts to improve compliance via LB 962, the new IMPs, and other measures. One of the other measures was the lease of surface water rights from 2006 to 2008, requiring about $18 million to lease 98,000 AF — resulting in a consumptive use reduction of about 51,000 AF (i.e., $183 per leased acre-foot). Nebraska also asserted that Kansas has not suffered material damage due to the under-delivery of water, noting that Kansas was awarded only $10,000 via the required pre-court arbitration process in 2008.[10] Nebraska states that it is currently in compliance and that total groundwater pumping for irrigation in the three Republican River NRDs has declined from a high of about 1.5 million AF in 2002 to about 725,000 AF in 2009. Depending on where these reductions are occurring, they could have immediate, near-term, or longer-term effects on restoration of stream flow. Pumping reductions closest to the river will likely have the most immediate effect.

Financing

Financing is one of the most critical challenges in implementing the IMPs and meeting Compact delivery requirements in the Republican Basin, including how to finance: conservation measures; temporary water right buyouts; and/or permanent reductions in consumptive use. These measures will be particularly important in drought years, when irrigators feel pressure to pump groundwater to make up for low precipitation. Unfortunately, these are precisely the years when Compact compliance can be difficult.

CREP Savings

Nebraska has been exploring various mechanisms to beef up funding for management plan implementation, conservation, and reductions in consumptive use. The State has been at the forefront in providing the required state funding match for water conservation and related programs available under the federal farm bill.[11] About 40,000 acres had been enrolled in the Conservation Reserve Enhancement Program (CREP) for the Republican River, leading to a consumptive use savings of about 35,000 AF in 2008, over 30,000 of which are from reduced groundwater use (reduction of irrigated acres).[12] The water use reduction goal for the combined Platte-Republican Conservation area (see Map) is 125,000 AF/year.[13] The program also seeks to increase surface and groundwater retention by a combined 85,000 AF.[14]



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Bonds Authority

Tax Challenged

Consumptive Use Reductions

Sustainability Task Force

Groundwater "Mining"

In 2007, the Nebraska legislature passed LB 701 which, among other things, established two funding mechanisms for the Republican Basin consumptive use reduction programs. The law created bonding authority for NRDs to purchase surface or groundwater rights, reduce water-intensive vegetation that used stream flow, and take other actions to help ensure Compact compliance. The bonds could be paid back with either State funds or by local funds derived from two new sources created by the law: 1) a property tax levy (not to exceed ten cents per $100 taxable valuation) by the NRDs; and 2) an "occupation tax" that could be levied annually on irrigated acreage (with a limit of $10/acre).

The property tax authority was challenged in State court by several landowners in the affected NRDs. The plaintiffs claimed that the tax amounted to a property tax for State purposes and was unconstitutional under Article VIII, Section 1A of the Nebraska Constitution. Ultimately, the Supreme Court of Nebraska agreed, holding in *Garey et al. v. Nebraska Department of Natural Resources,* 277 Neb. 149 (2009) that the tax was enacted by the State primarily to be used for State purposes (i.e. Compact compliance). The court found that (*supra* at 159):

> The language of § 11(1)(d) of L.B. 701 grants property taxing authority only to those districts with a jurisdiction which includes "a river subject to an interstate compact among three or more States and that also includes one or more irrigation districts within the compact river basin." … On its face…[this] narrows the applicability of the taxing authority and, according to the record, includes only those districts which are appellants in this case. Further…the tax levy at issue in the instant case…is, on the face of the statute, excluded from being used for the operation of the district. The failure to include [the challenged] property taxes raised…from being used for the operation of the district suggests that such revenue will be channeled elsewhere, arguably to meet the expenses associated with the State's obligation to comply with the Compact. Based on the legislative history and the plain language of the statute, we conclude that the controlling and predominant purpose behind the property tax provision in § 11(1)(d) of L.B. 701 is for the purpose of maintaining compliance with the Compact, which we conclude is a State purpose.

The *Garey* decision also threw into doubt the validity of the "occupation tax." The Legislature responded this year by enacting LB 862, which extends the occupation tax authority to all NRDs preparing IMPs.

A recent analysis by University of Nebraska Professor Ray Supalla contains several findings that have implications for the State's design of programs aimed to compensate irrigators for consumptive use reductions:

> We found that if Nebraska implements a long-term program and wants to fully compensate irrigators using the least cost approach, they should: (1) use land retirement instead of allocation; (2) use a land purchase instead of a land leasing approach; and (3) use a regulatory with compensation policy for retiring land, instead of a voluntary willing buyer and willing seller approach. Land retirement is cheaper than allocation because it allows for more reduction in on-farm capital costs. Purchasing instead of leasing land is cheaper because with a lease you essentially "purchase" the land multiple times over the 50-year period that was analyzed. Regulated reduction in acres, with compensation equal to the estimated change in farm income, is cheaper than a voluntary willing buyer and willing seller approach because it eliminates the need to pay a premium price to induce the voluntary sale or lease.[15]

These options and related questions regarding who should be compensated, when, and by whom (local or State taxpayers) are going to be critical components of implementing the integrated management plans in the Republican and other basins.

Financing and other issues may be addressed by the new basin-wide Republican River Task Force created by LB 1057, which held its second meeting September 21, 2010.

Concerning this Task Force, LB 1057 provides that:

(1) The Republican River Basin Water Sustainability Task Force is created. The task force shall consist of twenty-two voting members, and except for the state agency representatives, the members shall be residents representing a cross-section of the Republican River basin…[specific positions to be appointed by the Governor].

(2) …The purposes of the task force are to define water sustainability for the Republican River basin, develop and recommend a plan to help reach water sustainability in the basin, and develop and recommend a plan to help avoid a water-short year in the basin…

(3) The task force shall present a preliminary report to the Governor and the Legislature on or before May 15, 2011, and a final report before May 15, 2012…[16]

OTHER STATE'S APPROACHES: COMPARING NEBRASKA WATER MANAGEMENT

Groundwater Management[17]

Ensuring that groundwater use is sustainable is one of the major challenges facing much of country as well as other parts of the world. Sustainability has multiple dimensions, including the effect of groundwater pumping on springs and river flows, and balancing pumping with recharge so as not to "mine"

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the aquifer (i.e., remove water in excess of the aquifer's ability to recharge). Of course, there are no easy answers and there are many different approaches, each of which has certain advantages and disadvantages. If one were starting with a "clean slate," a combined, consistent legal framework of public ownership and State-permitted use for both surface water and groundwater could potentially be the best approach to sustainable management. Some States, including the neighboring jurisdictions of Colorado and Kansas, have incorporated this basic concept into their water management framework, but most did that in the early to mid-1900s, when the number of groundwater users and pumping levels were a fraction of what they are today. Imposing this type of framework today in Nebraska is not likely practical or even desirable, given the certainty of political controversy, administrative complexity, and litigation that would accompany such a change.

State v. Local Regulation

Even with distinct surface water and groundwater regimes, most States centralize management in a State resource agency, as opposed to locally-based regulation. In theory, there are potential benefits to this approach assuming State decision-makers are more insulated from local political pressures, but it is certainly no guarantee of sustainable management. In some cases, local interests may be more aggressive than State policy makers in protecting their resources.[18] Again, imposing this type of framework in place of the long-standing NRD structure in Nebraska is not likely practical or desirable.

The question for Nebraska is more likely how to make the current groundwater management framework a more effective system for achieving sustainability. The powers accorded Nebraska NRDs are generally as comprehensive as those in other States that rely on local districts to manage groundwater. As noted above, the issue is more about ensuring those powers are effectively used by the NRDs, even before serious problems of groundwater level declines or stream flow depletions occur. (*See* Aiken 2006, supra n. 3 and J. David Aiken, *"NRD Plans for Not Quite Fully-Appropriated Basins,"* in Cornhusker Economics, 4/22/09 (discussing how NRDs might implement LB 483 to control groundwater development in basins that are not yet fully appropriated).

Fluctuating "Caps"

One approach may be to explore the development of specific "caps" on total groundwater pumping, within an NRD and among NRDs, where pumping affects stream flow in a particular river basin. The cap could fluctuate with climate conditions: i.e. a lower cap in dry years when groundwater inputs to stream flow are critical. While reductions in consumptive use, conditions on new wells, and related measures are already incorporated into Nebraska law, the use of defined annual caps appears to be infrequent.

Texas Approach

The "cap" approach has been used in Texas to limit pumping from the large Edwards Aquifer (*see* Frownfelter/Trejo, *TWR* #1). The aquifer is a major source of both agricultural irrigation water and municipal water for the City of San Antonio and other municipalities.[19] This prolific aquifer also supplies several major natural springs, some of which are home to endangered species, and these springs in turn supply much of the natural flow of the Guadalupe River. In response to litigation under the federal Endangered Species Act in the early 1990s, the Texas legislature created the Edwards Aquifer Authority and imposed a "pumping cap" on use of the aquifer.[20] The cap, which was modified by the legislature in 2007, has been set at 572,000 AF/year, with a critical period (drought) cap of 340,000 AF/year. While implementation of the Edwards Aquifer Act has not been without controversy and legal challenges (derived in large part from Texas' history of reliance on the "rule of capture" and uncertainty about legal ownership of groundwater), the cap has had real benefits. First, it has largely achieved its purpose of maintaining spring flows, even during some fairly serious drought years. Second, the cap has created a vibrant market in groundwater pumping rights, allowing farmers to lease or sell their rights to other irrigators or the City of San Antonio. This approach saves the State of Texas from having to allocate funds to buy out or fallow irrigation to meet spring protection and river flow objectives. Essentially, with the cap in place, the market — which is overseen by the Edwards Aquifer Authority — lets voluntary transactions work to find the most economically efficient reductions and trades. The *Edwards Aquifer Authority v. Day* case pending in the Texas Supreme Court could have huge ramifications for Texas groundwater law (Case No. 08-0964; briefs etc. available at www.supreme.courts.state.tx.us/opinions/Case.asp?FilingID=29927).

"Pumping Cap"

Market

One analysis of the "cap and trade" approach for managing groundwater in the Republican River basin in Nebraska concluded that it could be more economically efficient than other approaches.[21]

"Desired Future Conditions"

In Texas, the "cap" approach has now been incorporated into legislation applicable to groundwater management districts. HB 1763, enacted in 2005, requires groundwater districts overlying a common aquifer (each delineated as a **g**roundwater **m**anagement **a**rea, or GMA) to agree on "**d**esired **f**uture **c**onditions" (DFC) of the aquifer. Several GMAs have included spring flow/stream flow protection as part of their DFC. The State provides technical assistance and modeling to translate these DFCs into an amount of "managed available ground water."[22] Essentially, this process is designed to result in caps on how much water can be extracted from the aquifer over the applicable planning period of 50 years. The DFC process is just now concluding its first round, and it remains to be seen if the idea of the groundwater districts (versus the State) setting the caps will work. The process, like any major shift in water management framework, has been rocky at times. Nevertheless, like Nebraska's Integrated Management Plan approach, it has both increased attention on groundwater sustainability issues and resulted in the development of substantially more hydrological and use information than has previously been available.

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Surface Water Management and Instream Flows

Having adjudicated surface water rights throughout the State, Nebraska has overcome one of the hurdles that still bedevils other western "Prior Appropriation" States. However, two areas where Nebraska law might be improved are: 1) better regulatory definition of "public interest" factors to be considered in reviewing requests for new surface water appropriations; and 2) instream flow protection.

"Public Interest" Criteria

Professor Zellmer of the University of Nebraska-Lincoln has suggested that the State look to the "public interest" criteria applicable to inter-basin transfers in Nebraska and compare States such as Oregon and Alaska, whose statutes define public interest criteria for surface water right application reviews.[23] Advantages of better definition of the public interest criteria include increased fairness, certainty, and acceptance of the decision-making process. In addition, if surface water transfers become more common in Nebraska, having a body of regulation and decisions applying more specific public interest criteria might help with review of and decision on transfer applications.

Instream Flows

Given the increasing importance of protecting instream flows in Nebraska, it might be time for the State to consider enacting a more comprehensive program. At a minimum, surface water laws could be amended to require explicit consideration and protection of instream flow values — including fish and wildlife habitat, recreation, and related values — in evaluating surface water appropriation, with a prohibition on issuing appropriations that would adversely affect those values. For example, since 1985 in Texas all new appropriations and most amendments to existing permits have been subject to review for their effect on instream flows, fish and wildlife habitat, and recreation. In 2007, Texas expanded on this permit-by-permit approach to enact an ambitious and comprehensive program to develop environmental flow regime standards for all the State's river basins and bays.[24] In addition to a desire to offer more certainty to water users and better environmental flow protection, this new process is aimed at getting ahead of problematic situations — like those in the Platte and Klamath river basins and other places — where water management is being driven by various federal Endangered Species Act requirements. In Texas, the "environmental flow" process is not focused merely on minimum flows, but rather a complete regime of low flow, base flow, pulse and, in some cases, overbank flows necessary to sustain a "sound ecological environment" in the rivers and bays. It also is structured to involve a variety of stakeholders and scientists familiar with the particular basins and bays. In Nebraska, it might be desirable to develop flow targets or standards (beyond just minimum flows) as part of the IMPs for various basins.

Texas Environmental Flows

Several other States have also undertaken programs to protect instream flows for fish and wildlife and other purposes.[25] (*See* MacDonnell, *TWR* #56). A number of States are relying on "Water Trusts" (generally not-for-profit organizations that receive funding from a variety of sources) to help achieve instream flow goals in fully- or over-appropriated rivers by leasing or purchasing existing water rights and converting them to instream flows.[26] (*See* Paulus, *TWR* #43 and Beatie, *TWR* #66). In most States, the water rights are actually officially held by the State, but the Trusts are charged with implementing the lease/purchase programs. The advantage of these Trusts is that they are able to focus on the instream flow protection objectives. Of course, to be successful they must develop relationships with water right holders. The most effective Trusts have an oversight board representing a variety of stakeholders. They have become efficient at the permit amendment process, adept at accessing various sources of funding (including grants, federal funds and even revenue from lease-backs in some cases), and have workable tools provided in State law. Important examples of successful Trusts include The Freshwater Trust (www.thefreshwatertrust.org; formerly the Oregon Water Trust); the Washington Water Trust (http://washingtonwatertrust.org/); the Deschutes River Conservancy, working to protect the Deschutes basin in Oregon (www.deschutesriver.org); and the Montana Water Trust (www.montanawatertrust.org), now run by the Clark Fork Coalition.

Water Trusts

Given the already extensive institutional structure, stakeholder involvement, and complexity of issues in the Platte and Republican, a new Water Trust may not be particularly helpful in those basins, but it could be useful in helping to ensure instream flow protection in Nebraska's many other river basins.

Managing Public Expenditures in Securing Consumptive Use Reductions

The last few years have shown that, at least from a political feasibility standpoint, Nebraska is going to have to be able to provide some level of compensation to existing permitted water users where consumptive use reductions are urgently needed. This includes, at a minimum, the Republican and Platte Basins. The challenges center on how to ensure that the federal, State, or local funds generated for these purposes are used most efficiently, providing the taxpayers with real value and ensuring transparency of transactions for decision-makers and the public.

Compensation for Reductions

One option that might offer greater economic efficiency and transparency than one-on-one negotiations with water right holders is the use of "reverse auctions."[27] The literature on reverse auctions generally is extensive, but the application of this technique to conservation issues, including water right transactions, is relatively new.[28] Essentially, in a reverse auction the "buyer" (be it DNR or an NRD) would announce that it was seeking bids for the "best price" for leases or even permanent acquisitions. The buyer could announce to potential sellers the total funding available, a total goal in terms of acre-feet, both of those

Reverse Auctions

Nebraska Water Law

Transaction Reports

Gauging

Reservoir Revisions

Higher Temperatures

Increased Precipitation

Headwater Streams

specific details or neither of them. Then, willing "sellers" would submit a bid, offering to lease or sell a certain amount of water for a particular price per acre-foot. The buyer would evaluate these bids, and pick a combination of those that offered the most suitable water for the best price. Properly structured, reverse auctions can make the best use of limited funding because sellers are competing against each other to offer the successful bid.

Apart from economic efficiency aspects involved in the design of water rights leasing or well retirement programs, there is also a need for transparency in these transactions. At some point, programs will lose support if decision-makers and the public at large cannot see how funds are being spent and what results are being achieved. Accessible annual reports on transactions, including prices paid for water and stream flow gains and/or pumping reductions achieved, will likely become increasingly important as the Integrated Management Plans relying on these techniques are implemented.

Finally, and this is certainly not unique to Nebraska, better use needs to be made both of available gauging/measurement techniques and modeling and other techniques to show how storage reservoirs can be operated to meet multiple needs. Funding constraints have affected stream gauging programs throughout the West, but this is a basic, relatively lower cost investment that is absolutely critical in managing river systems, especially those in fully- or over-appropriated situations.

More sophisticated modeling techniques are beginning to be employed to re-model operations of existing reservoirs to better accomplish their primary purposes (water storage, flood control) while protecting or enhancing environmental flows.[29] For example, the US Army Corps of Engineers has undertaken cooperative efforts with The Nature Conservancy in several locations, particularly the southeastern US, to investigate potential environmental and other benefits of revising reservoir operations ("reservoir re-operation"). Some of this type of experimentation has taken place on the Platte via the Cooperative Agreement program, but there appears to be much more potential for this type of analysis in various river basins in Nebraska.

EMERGING ISSUES

There are at least two issues on the horizon that could have significant implications for water resources management in Nebraska: 1) climate change; and 2) the next Congressional review of the federal farm bill. While these issues do not supplant the issues discussed above that require more immediate attention, they are worth considering, especially with respect to future water planning.

Climate Change

Predicting the precise effects of climate change on the Great Plains region in general, and water resources in particular, is difficult. The US National Assessment of the Potential Consequences of Climate Variability and Change summarized potential effects for the Great Plains region, including Nebraska (*see* www.usgcrp.gov/usgcrp/nacc/default.htm).

This Assessment included the following:

> The two climate models used as the primary source of results for the National Assessment suggest a continuation of the trends seen in the Great Plains historical climate: higher temperatures, and for some areas, greater precipitation. One of the models projects higher temperatures than the other. In both models, the annual average temperature rises more than 5 degrees F by the 2090s. Increases in temperature are greatest along the eastern edge of the Rocky Mountains. More warming is expected in the winter than in the summer. The models also suggest a greater number of heat events — three days in a row above 90 degrees F. For Colorado and Oklahoma, this represents more than a doubling of the number of times such heat stress would occur. Substantial increases in the July heat index (a combination of heat and humidity), with the largest increases in the southern areas, are also projected for this region.
>
> Annual precipitation over the Great Plains is projected to increase by at least 13% in both models by the 2090s — but not everywhere in the region. A pattern of decreasing precipitation appears in the lee of the Rocky Mountains and is much greater in one of the models. The annual increases in precipitation are greatest in the eastern and northern parts of the Great Plains. Precipitation is likely to occur in more intense rainfall events, especially in the Southern Great Plains. Although precipitation increases are projected for parts of the Great Plains, increased evaporation from rising air temperatures is very likely to overwhelm the extra moisture from precipitation, causing soil moisture to likely decline for large parts of the region. Both climate models also suggest that, just as a normal aspect of ongoing variability, there will be years when drought conditions are likely to prevail.

In addition to in-state effects on water needs, groundwater recharge, and reservoir evaporation, the fact that the Platte and Republican have their headwaters in the Rocky Mountains (which are predicted to have significantly changed snow accumulation and melt patterns) further complicates the picture for Nebraska.

Nebraska Water Law

Mary Kelly has 25 years of experience as an environmental lawyer, having worked in private practice and the not-for-profit sector. Before forming her own private consulting firm in July 2010, she served as Senior Counsel for Rivers and Deltas for the Environmental Defense Fund, managing EDF projects to protect and restore habitat, rivers and coastal deltas across the U.S. She has specialized in water law and U.S./Mexico binational water management during much of her career. Ms. Kelly joined Environmental Defense Fund in 2002, after many years as the Executive Director of the Texas Center for Policy Studies. Previous to that, she was a partner in the firm of Henry, Kelly & Lowerre and various predecessor firms, representing citizens and local governments in a wide variety of environmental matters.

Changes in Federal Farm Policy

The federal farm bill will be up for renewal in 2012, in an unknown legislative and political environment. The ballooning federal budget deficit could put pressure on allocation of resources for traditional crop payments, which would have potentially very significant effects on Nebraska corn production, including irrigated production. Additionally, there will likely be battles over funding for various farm bill conservation programs, including those Nebraska has been able to use to help farmers reduce consumptive use of surface water and groundwater. It would be foolhardy to attempt to predict the outcome of the next farm bill debate, but, whatever the outcome, it will have at least some implications for Nebraska water management.

SUMMARY

As discussed in Part I of this article (Kelly, *TWR* #81), Nebraska is endowed with abundant water resources yet faces difficult management challenges over the next several years. Conjunctive use issues between groundwater and surface water, and the conflicts generated between the respective users of these two sources, are at the top of the policy agenda, along with Republican River Compact delivery issues and challenges in protecting instream flows for fish, wildlife, and recreational tourism.

The legislature and policy-makers at the State and regional levels have undertaken innovative efforts to deal with at least the first two of these issues: groundwater/surface water interaction and compact delivery issues. Full implementation of the measures reviewed in this paper — some of which are relatively new — will present new and difficult questions (including those related to financing reductions in consumptive water use). Litigation can be expected in at least some instances. These measures, however, represent a worthwhile effort by Nebraska to build a more sustainable water management framework.

Other western States with similar challenges could look to Nebraska's approach for options in their own jurisdiction.

Similarly, there are some features of water law and policy in other States that may help inform the further development of Nebraska's water management framework, including a more substantial move to "capping" aquifer withdrawals while allowing trading of rights and more comprehensive approaches to setting instream flow targets. In addition, with financing for consumptive use reductions being a prominent issue requiring significant resources, it will be particularly important to ensure efficiency and transparency in the expenditure of funds for this purpose.

Finally, both potential effects of climate change and upcoming revisions to the federal farm bill subsidy and conservation programs could have important implications for Nebraska water policy and should be incorporated where possible into the State's water planning framework.

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FOOTNOTES

1 The compact also provides that: *Should the future computed virgin water supply of any source vary more than ten (10) per cent from the virgin water supply as hereinabove set forth, the allocations hereinafter made from such source shall be increased or decreased in the relative proportions that the future computed virgin water supply of such source bears to the computed virgin water supply used herein. Id.* Art. III.
2 Now codified in various sections of the Nebraska Water Code, ch. 46 Nebraska Revised Statutes (Neb. Rev. Stat.).
3 For a brief interesting history of the Republican River Compact and Compact-related litigation, *see* Don Blankenau, *"Republican River Litigation: Clearing the Waters,"* The Nebraska Lawyer, July/August 2010.
4 For a more comprehensive discussion of events over the life of the compact, *see* Popelka, Aaron, *The Republican River Dispute: An Analysis of the Parties' Compact Interpretations and Final Settlement Stipulations,* Creighton Law Review, 38:1203 (2004).
5 *Kansas v. Nebraska*, 538 U.S. 720, 123 S.Ct. 1898 (2003).
6 Popelka, *supra* n. 18 at 626. Moratoria on new wells were adopted in the Upper Republican NRD in 1997, but the Lower and Middle did not halt new wells until 2002.
7 Approved IMPs are available at www.dnr.state.ne.us/IWM/docs/IWM_ApprovedPlans.html.
8 Integrated Management Plan for the Upper Republican River, jointly developed by the Nebraska Department of Natural Resources and the Upper Republican Natural Resources District (2008). Available at www.dnr.state.ne.us/IWM/NRD/UpperRep/URNRD_IMP_2008.pdf. Earlier management plans for these districts required only about a 5% reduction over baseline.
9 For a summary of Kansas' position *see*: www.ksda.gov/includes/document_center/interstate_water_issues/RRC_Docs/RRCompactFS050410.pdf.
10 Brief of Nebraska in response to Kansas' Motion for Leave to File Petition, July 2, 2010, available at www.ksda.gov/includes/document_center/interstate_water_issues/RRC_Docs/RRCompactFS050410.pdf.
11 The State has also received federal farm bill water conservation funding for areas in the Platte River. Colorado has also structured and received funding for a CREP in the Republican basin to help meet its downstream delivery obligations. *See* www.fsa.usda.gov/Internet/FSA_File/crepcorr06.pdf.
12 State of Nebraska, Nebraska Platte-Republican Resources Area CREP Annual Performance Report, December 2009, p.10. Available at www.dnr.state.ne.us/CREP/CREP_Report_2009.pdf.
13 For the water use retirement contract entered into between DNR and the water rights holder, *see* www.dnr.state.ne.us/CREP/CREPWaterUseContract_05-07.pdf.
14 *See* www.fsa.usda.gov/Internet/FSA_File/nebcrep05.pdf and www.dnr.state.ne.us/CREP/CREP_Report_2009.pdf for more detail on the CREP programs.
15 Raymond J. Supalla, et al, *The Cost of Reducing Irrigation.* (2006). Available at http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1039&context=ageconworkpap.
16 Neb. Rev. Stat. 46-2,140 (added in 2010 by LB 1057).
17 For a discussion of how several western States deal with groundwater, *see* Gary Bryner and Elizabeth Purcell, *Groundwater Law Sourcebook of the Western United States*, Natural Resources Law Center, University of Colorado School of Law (September 2003).
18 *See*, e.g., Kurt Stephenson, "*Groundwater Management in Nebraska: Governing the Commons through Local Resource Districts"* Natural Resources Journal 36:761 (1996).
19 *See*, generally, www.edwardsaquifer.net.
20 For a history of the litigation that led to the Edwards Aquifer Act, see www.edwardsaquifer.net/rules.html.
21 Chris Thompson, et al., *Evidence Supporting Cap and Trade as a Groundwater Policy,* Oct. 2008: www.agecon.unl.edu/wateroptimizer/links/EvidenceSupportingCapandTradeasaGroundwaterPolicy10-30-08.pdf.
22 Mace, et al, *supra.*
23 Zellmer, supra n. 46.
24 For details on the new environmental flows process in Texas, *see* www.texaswatermatters.org/flows.htm.
25 For a survey of instream flow programs in the western U.S., *see*, e.g. Jesse A. Boyd, *Hip Deep: A Survey of State Instream Flow from the Rocky Mountains to the Pacific Ocean,* Natural Resources Journal, 43:1151 (2003).
26 Mary Ann King, *Getting our Feet Wet: An Introduction to Water Trusts*, Harvard Law Review, 28:495 (2004).
27 In 2009, the Nebraska legislature passed LB 168, authorizing the use of reverse auctions for various State procurement functions.
28 For an analysis of water rights auction techniques in Oregon, *see* Ray Hartwell and Bruce Aylward, *Auctions and the Reallocation of Water Rights in Central Oregon*, prepared for Deschutes Resources Conservancy, April 2007, available at www.earthmind.net/teebforbusiness/docs/Auctions_and_the_Reallocation_of_Water_Rights_in_Central_Oregon.pdf.
29 *See*, e.g. Brian Richter and Gregory Thomas, *Restoring Environmental Flows by Modifying Dam Operations,* in Ecology and Society, 12:12 (2007), available online at www.ecologyandsociety.org/vol12/iss1/art12.

Reclamation

Michael L. Connor is Commissioner of the Bureau of Reclamation (Reclamation). Connor has more than 15 years experience in the public sector, including having served as Counsel to the US Senate Energy and Natural Resources Committee, where he managed legislation for both Reclamation and USGS, developed water resources legislation and handled Native American issues that are within the Energy Committee's jurisdiction. From 1993 to 2001, Connor served in the Department of the Interior, including as deputy director and then director of the Secretary's Indian Water Rights Office from 1998 to 2001. In this capacity, Connor represented the Secretary of the Interior in negotiations with Indian tribes, state representatives, and private water users to secure water rights settlements. Before joining the Secretary's Office, he was employed with the Interior Solicitor's Office in Washington, DC, and in Albuquerque, New Mexico. He began his Interior career in the Solicitor's Honors Program in 1993. Connor received his J.D. from the University Of Colorado School Of Law, and is admitted to the bars of Colorado and New Mexico. He previously received a Bachelor of Science degree in Chemical Engineering from New Mexico State University and worked for General Electric.

BUREAU OF RECLAMATION UPDATE

RECLAMATION COMMISSIONER MIKE CONNOR INTERVIEW

Interviewed by David Moon, Editor, on October 28, 2010

Question: Are there any particular Bureau of Reclamation programs or initiatives that you feel are especially important for the water user community to know about?

Connor: Yes, there are a whole host of initiatives that I think we here at the Bureau of Reclamation and this administration are trying to address. From that standpoint, I think it reflects the water supply challenges that exist on many different levels — water management and water delivery is much more complicated than it used to be, the competition for the limited resource is ever increasing. So, I think my own perception and I think reality, from being around these issues for awhile is that it takes a much more broad-based agenda to deal with water issues effectively. The bottom line, though, is in everything that we try and do here with our agenda is to ultimately increase the certainty and sustainability by which water resources are used. So, from that standpoint I could talk about initiatives, multi-pronged based on the Department's set of initiatives.

I think we're trying to deal with the new energy frontier that we're on. We've got an aggressive program we're trying and recognize the energy water nexus that exists out there, to engage in water conservation in a way not only to stretch limited resources but also to promote energy efficiency. We're trying to look at all our facilities and be aware where we might generate more hydropower and [utilize] renewable resources from our facilities. We're trying to look at climate change adaptation from a very aggressive standpoint, which really starts with trying to better understand the implications that climate change has — which is different in different parts of the country. There may be more precipitation; change in the timing of flows in the Pacific Northwest; there might be less precipitation in the Southwest. You look at the modeling that exists out there.

We're trying to deal with our ecosystem in a very proactive manner, because I don't view that as a separate initiative. I think that taking care of the environment — the impact of water projects on the environment — is now recognized as a fundamental part of our mission. It's not a separate part of our mission. You can look at the Bay-Delta where you know we deal with the environmental issues that are out there, that we're not going to be able to deliver water and generate power like we used to.

We have a lot of Native American issues that exist out there. We are trying to be aggressive in helping settle water right claims that create uncertainty in the use of water resources in specific basins. And we're trying to address the pure lack of water supply on some reservations through our rural water programs.

Overall we're looking at — through individual settlements and through individual opportunities — to promote the more efficient use of water. Overall, that's appropriate no matter what the challenge is, whether it's drought, climate change, competing needs with the environment, or population increases. We're looking at each facility we have and the individual basins that we operate in. We're trying to ensure that we're using water as efficiently as possible, through concentration of actions on ability, through coordinated operations amongst our facilities and with other state water resource agencies, the Corps of Engineers, etc. All those things are necessary in the era in which we're living.

Question: If you could reduce the mission of the Bureau of Reclamation to a short statement -- asking basically what is the primary focus of the Bureau of Reclamation right now?

Connor: I'd say it would probably get back to the last question I was on. To supply water and generate power in an environmentally acceptable manner, and to promote the sustainability and certainty by which water resources are used in our operations area, which is the seventeen western states.

Question: One of the things I've found interesting in some other things we've covered in The Water Report is the issue about small hydro, low-head hydro and that sort of thing. I've noticed there was some information that has came out recently, a statement that you came out with in late July about small hydro and the MOU that you had signed. I'm wondering if you can update us a little bit or give us any specific information about that program?

Connor: In the small-head or low-head hydro development, we're looking at this on a couple of different levels. As you referenced, we have an MOU with the Department of Energy and the Corps of Engineers and the Department of Interior that is intended to look at a hydropower agenda that makes sense and is supported from a broad set of contingencies in the 21st Century. One aspect of that is looking at opportunities of low-head hydro development. Under the MOU right now we have published in the Federal Register a report that…we're calling it Section 1834 Study. It's a draft report that has gone out for public review, which is intended to look at opportunities for further hydro development and information at our facilities. We're doing this in partnership with the Corps. And that could be: new units at existing facilities; that can be efficiency gains at existing facilities; and it could be some of our existing large canal structures. That's Phase I. Phase II of that study is specifically to look at opportunities for low-head hydro development. We'll do a more rigorous review of our canals and

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Conservation & Hydro

WaterSmart Grants

Cost Share

Energy Efficiencies

Water Reuse

Basin Studies

our partners canals, and opportunities that are being presented to partners that we have — the Corps of Engineers, the Department of Energy and working with the hydropower associations and other entities. We're all interested in hydropower. And we're really looking at the opportunities to develop low-head hydro, and do a very preliminary review of the economics associated with that. Some of that is also to identify where it is already being done. So, right now we're in the assessment process, trying to put together that information that we hope will lead to involvement in hydro.

Also, we've actually provided some financial support already for projects that involve low-head hydro development. An example is the Recovery Act funds put aside, the Recovery Act funds that Reclamation had available, some $960 million. But $40 million I allocated that for WaterSMART grants, which are dedicated to water conservation efficiencies. We looked at some of those projects and we even redid our criteria to try and incentivize those projects that marry water conservation and hydro/energy conservation or renewable energy generation. We did a project in Oregon that replaced an unlined canal with a pipeline that yielded some X amount of water savings that is being dedicated to instream flows and also associated with that facility's pipeline was a hydropower turbine which I think was in the magnitude of 7.5 megawatts. And I know that this years round of WaterSMART grants we're also looking at integration of built-in hydro. We're looking at this kind of programmatically through this study but also we're providing for projects on-the-ground already in that hydro area.

[**Editor's Note:** The Memorandom of Understanding with the Department of Energy and US Army Corps of Engineers, along with the Hydropower Resource Assessment at Existing Reclamation Facilities Draft Report is available at: www.usbr.gov/power/]

Question: One of the things I noticed in trying to get information about the WaterSMART program from your website, talked about the fact that the 2009 budget was $72.9 million, apparently $62 million of that for Reclamation. And it talked about the fact that it would go to fund 60 new projects. I guess what I'm wondering, do you think that is enough? It seems like that from my knowledge of the water field and people out West that there is the possibility for a lot more projects than that and a lot more money that could be put to good use.

Connor: Well, I could say a couple of things here. We're not an agency with unlimited resources first of all. But, we think that our budgets that we put together — the $62 million for 2011 for Reclamation is a significant increase in the area of WaterSMART grants. I think of that $27 million was allocated for WaterSMART grant programs, $29 million for Title XVI water reuse projects, and $6 million in our basin studies program. So that's a significant increase over where these programs have been in the past. From that standpoint I think we can make a good investment that will yield significant savings. The reality is, we reported this as I just testified on the Hill, that the grant proposals that come in every year greatly exceed the amount of resources. I think that's an indication that one, through this program we've been involved five or six years now, people are thinking about projects in this way — they're increasing their involvement. We're basically priming the pump for good ideas out there. So you'll see an increasing interest in the programs that's been demonstrated by the increasing requests we get for funding. I would just also note that this is a maximum of 50% federal cost share for these programs, so every dollar we spent at least 50% more [from the] state and local side of things. Typically, much more than that. So, on lots of these projects we're at less than 50% and there is a lot more investment from private finances.

Question: As far as the WaterSMART Project is concerned, is there anything in particular there that you think would be of interest to our readers that they might not otherwise know about?

Connor: I think it is just important to note that WaterSMART — Sustain and Manage America's Resources for Tomorrow — it's a broad-based program. As I mentioned before, Reclamation's pieces are the WaterSMART grant programs, which are for water conservation projects, particularly those designed for energy efficiencies. They are any efficiency projects that exist out there, so better operations and infrastructure improvements are part of the program. Also, we have R&D — research and development, all of that is built into the grant program. So, it is a pretty broad-based set of actions even within the grant program itself.

Then we also have as part of our WaterSMART program, the Title XVI water reclamation and reuse programs where we're getting a federal investment towards water reuse projects that basically are helping to meet the increased demand in certain areas without tapping into new water resources.

And then finally, in the last piece the Reclamation's basin studies program, which is intended to facilitate a very intensive review of supply and demand, the imbalance that exists in supply and demand in any particular river basin, some of the long-term reliability of our facilities or non-federal facilities, and also to look at the climate change adaptations. All those things rolled into one of these grants in partnership between Reclamation, typically the state water resources agency, and local institutions, that really do some intense planning in how to address water supply challenges and also adapt to the events of climate change. That's a broad set of initiatives that exist within Reclamation.

USGS also has some water support programs that are geared towards improving the acquisition of water-related data and making that information available, marrying it up with other sources of

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information so that water management has the best possible knowledge they can make decisions on — scientific, data gathering, data analysis, infrastructure, R&D, and it's to assist planning. And that makes up the WaterSMART program, so it's hard to convey that just with the name itself. But that's an element and I guess that's the point I would want to make to your readers.

Colorado River Basin Study

Question: A lot of our readers are in the Colorado River Basin and that is naturally always an area of interest. I've been pulling some information about the Colorado River Basin Study. I guess my first question is, is Reclamation still on track to kick out a draft study report for review in the near future?

Connor: We are. There are four phases in the Colorado River Basin Study. Phases I and II are really looking at supply and demand — future projections of supply and demand. And once again we're doing this in partnership with the seven basin states. I believe we are on track by the end of the calendar year to kick out a draft for public review, comment and input on Phases I and II, the supply and demand aspects of this. Then there are Phases III and IV. We're initiating also Phases III and IV of the basin study process, which is intended to look at the reliability of facilities, how that may change over time, and then adaptation strategies. Basin study programs typically are pure studies. I think those are still on track for completion in the 2011 timeframe at the end of a two-year study cycle. We're making good progress. In addition to the funding partners, we have the seven basin states. We're going to have other interests sitting with us at the table, so it's a good collaborative process. I think it's amazing for, a great compliment for those involved because we weren't quite sure how we would put this all together and get the input from the diverse quarters that we need to really make the study as meaningful as possible. We're well under way in that respect and I think that's just a representation of the Colorado Basin in particular how there is a realization that the issues are of such significance and that we need a very collaborative effort to deal with these issues to even study them, to try and get this all on board in 2010.

Adaptation Strategies

[Editor's Note: The Colorado River Basin Study Draft release is expected in January or February of 2011.]

Question: I know this may be a little preliminary, but I was wondering if there are any interesting findings — particularly as far as the driving forces in the Basin — is there anything that have been brought to your attention at this point about the Colorado River and where things are headed there?

Connor: Not specifically that I'm aware about from the study. People may be becoming aware of things through the study process and information they've already become aware of. But I can tell you that a large measure of the support for this Study, amongst the information that we already have out there generally about the Colorado River basin, is the fact that in this last eleven-year period we basically had a drought — it may be below average water supply in nine of those eleven years. That represents the driest period in the Colorado River Basin according to the records that we have right now. You got drought going on as we speak.

Driest Period On Record

You have Lake Mead that just went below the 1083 foot elevation, which is the lowest elevation that's it's been since the 1950's. And you've got the predictions that exist with respect to climate change, which currently by 2050 raise the specter that we may find increasing temperatures and different precipitation patterns, etc., that we may be in a situation where a lot of these climate models are in agreement that river flows may be reduced as much as 20% in that kind of timeframe. So, there's that general information that's out there, which seems to be consistent among climate models. You've got the anecdotal evidence of eleven years of drought. You've got the present conditions at Lake Mead and also Lake Powell. And all that tells you is that time is of the essence. With a 20% reduction, there won't be as much water in the Colorado River Basin.

Flow Reduction

Question: One of the other things as far as the Colorado River is concerned has to do with the Colorado River delta wetlands, the Cienega de Santa Clara. I was wondering if there was anything of interest from Reclamation's point of view or any kind of status update that you might have at this point as far as the wetlands are concerned. And tying that in obviously with the Yuma Desalinization Project — I'm wondering what you might be able to tell us about those two things.

Cienega de Santa Clara

Connor: Well, I think that's probably where these two things do tie together. We are sensitive to the issue of the Colorado River delta wetlands — the Cienega de Santa Clara. One representation of that sensitivity — of the importance of that wetlands area — *is* what we are doing with the Yuma Desalting Plant. Right now, as I'm sure you are aware of, we are about six months into an eighteen month trial run. We are operating at about a third of the plant's capacity. We're treating about 29,000 acre-feet (AF) of water, with the idea that that will be water that we can add to our delivery to Mexico under the 1944 Treaty and we can save that amount of water in Lake Mead. That's in the interest of the partners that we have who are helping to fund that trial run. That's also water that could be used in the Central Arizona Water Conservation District and Southern Nevada Water Authority. But in operating the plant, there was concern about making up the loss of that 29,000 AF which would normally flow to the Cienega. And we also brokered an agreement amongst all the interested entities — Mexico, the NGO community, ourselves — to make up that supply from other sources. So, we have kind of instituted a solution to that problem, at least for the trial run. We could operate that facility and we would benefit the overall

Yuma Desalting Plant

Reclamation

Colorado River water supply and we would address those things associated with the loss of those flows to the wetlands. That was a win-win for those involved, from the standpoint that we evaluate the trial run in the YDP (Yuma Desalting Plant) and think about the next step. That's going to be an important consideration that we have to deal with as we move forward.

Question: During the trial run, is it just going to continue to operate at 1/3 capacity? Is that the plan?
Connor: That's the plan, yes.

Desalting Costs

Question: I noticed in that regard that one cost figure that got thrown out there (my notes don't tell me what the source was), but they talked about the fact that operating at 1/3 capacity, it would appear that the cost per acre-foot was about $484/acre-foot. And I believe that that was due to the fact that the plant was only operating at 1/3 of capacity. Do you have any idea or projections about what ultimately the cost to desalinate that water might be coming in at?
Connor: I think that's one where I would have to go back to the record a little bit. I think the figure that you throw out sounds consistent with what I've heard. But I would just have to go back and double-check that to be certain. And I think that overall, part of this whole analysis is to operate the plant and project what it did — and that is full large-scale and also to assess where there might be opportunities for cost savings in the complex.
[Reclamation's Yuma Desalting Plant website: www.usbr.gov/lc/yuma/facilities/ydp/yao_ydp.html]

New Mexico Brackish Water Project

Question: Another thing in that regard, I noticed the New Mexico Reclamation Brackish Water Project. Obviously, trying to find new sources of water supply is important and I'm wondering if you have any update or information about that Project? The information that I came across mentioned that it opened in 2007 and I was just wondering how things are going there and what is going on with that Project?
Connor: The facility itself is now up and fully operating. As you mentioned, it did open in 2007. It had a slow start in getting some of the research project up and going. But I think we've been going at a fairly rapid rate since the start of this year. Earlier this year — I can't remember if it was February or March — I went out there to kind of celebrate the signing of a research agreement with New Mexico State University, which is going to have to be a constant presence at the desalinization research facility there. It's a multi-million dollar facility and they are going to have some on-going research there now which they have gotten up and going. And most recently, making an announcement through our science and technology program, we announced research grants that we make in general, but I think a couple of those are specifically for research separate from the New Mexico State agreement. Other researchers, I think are going to do research at the facility also. So I think we're getting up and going now. That facility has got a tremendous amount of potential now that things are really up and going. We'll be bringing to the table other interested entities from the academic community and private community and build on that and have some more partnerships. So we can get that facility up and going in the next year and start to see the results of that research and evaluate whether they might be opportunities to develop some other water supplies through desalinization.

Another part of the research center is also integrating desalinization and renewables. You know that is part of the agenda that we're moving towards developing.

Renewable Resources Integration

Question: Now when you mention that area, what specifically are you talking about? How would you integrate renewables with desalinization?
Connor: I think what we're looking at is certainly there are opportunities with solar power and even wind also. Marry up some of these technologies to be able to operate with some of those renewable energies resources then you have the opportunity to treat water off-the-grid. So some of it may be small-scale but some of it may be meaningful ways to clean up water supply in areas where there is no source of power, off-the-grid, etc. So, while it might be small-scale it's an area where we need to be looking at opportunities.

Klamath Basin

Question: Moving on to another area I'm familiar with due to experience over the years, the Klamath Basin obviously in the past has been a source of big consternation and a lot of people are very interested in what's going on down there. I noticed that the 2011 budget was apparently $22.5 million for the Klamath Basin and I'm wondering if you can give us some idea as far as Reclamation is concerned what are the plans for the Klamath Basin in the near future and what do you see as the best way to move forward in the Klamath?
Connor: The Klamath Basin overall having to deal with the issues, there is a separate track. There is the very serious drought and water supply resources issues that we've had this year. That takes a lot of time to address — our best approach is to ensure that we're taking care of our responsibilities for endangered species at that exact moment in Upper Klamath Lake with the suckers as well as protect flows in the Klamath River for Basin salmon. As well as doing that and trying to maintain some level of irrigated agriculture up there this year. This is where the two paths cross a little bit — as you know the 2001 water supply crisis that existed up in the Klamath River Basin, there were different parties up there,

Reclamation

the stakeholders that took it upon themselves to try and resolve a lot of these difficult environmental water supply issues on their own. And they came up with the Klamath Hydropower Agreement and the Klamath Basin Restoration Agreement, the KBRA. But those relationships that were built and the fact that they reached an agreement amongst themselves really helped bring those parties together this year to help address the issues such as the drought. That's been one aspect of what we've been dealing with, using our resources for.

Hydropower Agreement

The other aspect is the signing — the federal government signed the hydropower agreement. So we have been moving forward with the Secretarial determination on the assessment of the public interest of removing four private dams up there, due to the agreement with PacifiCorp to be willing to remove those dams depending on the outcome of the Secretarial determination. So there is a lot of technical work study going on at this point in time and a lot of stakeholder involvement that we're dealing with in making the assessment of whether removing the dams is in the public interest and whether it will actually do what we would all hope in restoring — helping to restore the fish runs up there. So that's been a real focus of our efforts over the last year and fortunately we had some Recovery Act funds that we could use to invest in the study necessary to make that determination. So we're proceeding with that as well as doing some of the things we have existing authority for in trying to do some of the analysis for the drought plan, etc., which will help long-term. There's a lot going on in the Klamath Basin notwithstanding the fact that there has been no legislative action on these restoration improvements.

Dam Removal Assessment

Question: You bring up the Recovery Act and a question I would ask you in that regard is we hear — especially with the election campaigns going on — we hear a lot of talk that "Well, the Recovery Act hasn't done that much and it really hasn't provided that much stimulus." I wonder if you could address from Reclamation's viewpoint what the Recovery Act funding has meant as far as on-the-ground projects and stimulus is concerned? I think that it's an important question because we do hear a lot about that as far as the emphasis and what it means. I'd followed up on some on the projects that did exist and I kind of was amazed at how much stuff had taken place. I'd be interested to hear your view of that.

Recovery Act Funds

Connor: I think the Recovery Act from Reclamation's standpoint has been an unqualified success. I think we have been able to use those funds consistent with the intent of the Recovery Act, which was to obligate those funds and get them out into the economy by September 30th of this year. We accomplished our goals from that perspective. We chose projects that enabled us to not only meet the Recovery Act goal of getting that money out there as quickly as possible, although frankly we had to scramble in some cases. But we did it. But, we also selected projects in that broad portfolio of activities that I think will not only create jobs and create economic activity in the short-term but have some really long-term benefits for different parts of the country. So, if you look at things — [for example] from the $200 million that we invested in rural water projects. I went to several Recovery Act events celebrating ground-breakings, such as water treatment facilities such as the one we did on the Standing Rock Sioux Reservation, which to me there is no debating the merits of creating opportunities for clean water for people who historically haven't had access to much water, much less clean water. So, that $200 million helped us make investments, in essence, not only on that project but in other projects that get over the hump in building some water treatment facilities in particular which is one of the most expensive aspects of those projects. Now we can do that and start laying pipe and bringing water to many people.

"Unqualified Success"

Rural Water Projects

Water Reuse

The Title XVI Program — we've invested over $135 million in water reuse projects. A great amount of that is in California, which I think should help California deal with its water supply issues.

Intertie Project

With respect to other California issues, a couple of weeks ago I went to a ground-breaking event for the "Intertie Project" in the Bay-Delta region, which is connecting the federal Delta Mendota Canal — our big water supply canal — south of the Delta with the California Aqueduct, a State Water Project delivery system. That is restoring some capacity in those canal systems — our canal system — that we have lost over time. It is expected to add on average an additional 35,000 to 40,000 acre-feet per year of water supply.

We've been dealing with a three-year drought plus some of the restrictions that exist because of environmental needs. We've had a hard time delivering much water in the last couple of years because of that. We've addressed the $165 million that we invested in infrastructure needs, addressing some long over due aging items that we had in place and we invested I think a couple hundred million dollars in environmental restoration type activities.

Infrastructure Needs

So we I think addressed a lot of pent-up need — a lot of those [projects] will have sustained benefits to water users across the West. And, in the meantime we've put a lot of folks to work in building some of the equipment that we need to install and in some of the construction activities that we have ongoing. So, I think our piece of it [Recovery Act] has been successful, perhaps because we've been able to do our part to help deal with the economic issues facing our country.

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WASHINGTON STATE MUNICIPAL WATER LAW

WASHINGTON SUPREME COURT UPHOLDS CONTROVERSIAL LAW

by Jeff Kray, Marten Law Group (Seattle, WA)

INTRODUCTION

Washington's Supreme Court recently issued a unanimous decision in *Lummi Nation, et al., v. State of Washington*, Washington Supreme Court Docket No. 81809-6, ___ P.3d ___ (October 28, 2010), upholding the constitutionality of the highly contentious municipal water law (MWL) that Washington enacted in 2003 (Municipal Water Supply – Efficiency Requirements Act, Second Engrossed Second Substitute House Bill 1338, 58th Leg., Reg. Sess. (Wash. 2003) (SESSHB 1338 - Chapter 5, Laws of 2003)). The MWL, which governs the supply of water to most of Washington's citizens, provided greater certainty to water suppliers — particularly municipalities and even developers — that they will have water available for future growth. The Washington Supreme Court's (Supreme Court's) decision upholds the State's ability to grant water rights based on system capacity rather than actual water use, and rejects objections to the retroactive effect of the MWL on existing water rights, among other challenges. But the Supreme Court's decision leaves the door open for "as applied" challenges if municipal water suppliers increase their water use in a manner that reduces the amount of water available to other water right holders. Decision at 10-11.

System Capacity

WASHINGTON'S PRE-MWL WATER LAW

Unlike other types of water rights — such as those used for agricultural irrigation or industrial purposes — Washington protects municipal water rights from being relinquished, or forfeited, back to the state. Other types of water rights are relinquished if they are not used for five years. RCW 90.14.140(2)(d). This protection allows municipal utilities to meet community needs as they change and grow over time. Before the MWL was enacted, the Washington Department of Ecology (Ecology) issued water right certificates for municipal uses once the main withdrawal and distribution works had been constructed for using the water, but before all of the water was actually put to use. RCW 90.14.140(2); *R.D. Merrill Co. v. PCHB*, 137 Wn.2d 118, 969 P.2d 458 (1999); see Final Bill Report, 2E2SHB 1338. Under this philosophy, a municipality could establish unused "inchoate" water rights with priority over subsequent water rights and develop its actual use over time.

Forfeiture Exemption

Despite the forfeiture exemption for municipal water supplies, the law remained unclear on such issues as the appropriate place of use for municipal water rights and the nature and extent of municipal water rights where the certificated volume was not historically put to beneficial use. The Supreme Court's decision in *Theodoratus v. Ecology*, 135 Wn.2d 582, 957 P.2d 1241 (1997) brought some of these issues into sharper focus and increased uncertainty for municipal water suppliers and other users.

Issues Unclear

In *Theodoratus*, the Supreme Court held that state statutory and common law does not allow Ecology to determine beneficial use or issue a vested water right based on water system capacity. *Id*. at 600. However, *Theodoratus* did not involve a municipality, and the Supreme Court expressly declined to "address issues concerning municipal water suppliers in the context of this case." *Id.* at 594. Indeed, the Supreme Court specifically recognized that under Washington's statutes there are significant differences between municipal and other water uses. *Id.* At the same time, the Supreme Court created uncertainty by implying that municipal water suppliers could not rely on system capacity to validate inchoate water rights. The Supreme Court also suggested that the municipal relinquishment exemption may not provide a basis for defining beneficial use differently for municipalities. *Id.* at 595.

Theodoratus Decision

2003 MUNICIPAL WATER LAW

The State Legislature enacted the MWL, in part, in response to the *Theodoratus* decision. For the first time in state law, the MWL defined which types of water systems qualify as municipal water suppliers and extended this definition to include privately owned systems serving at least 15 residential connections, which can include developer-built systems for residential subdivisions.

Municipal Definition

The Legislature also passed the MWL to address several issues that municipal water suppliers and other state and local agencies believed would benefit from clarification.

MWL Requirements

The MWL includes provisions that:

- Allow municipal water suppliers to use their water rights anywhere within their service areas, up to the full amount of water specified in their water rights, as long as they remain in compliance with their state-approved water system plans
- Establish new water conservation standards for municipal water utilities and those who use their water, and impose a fee to fund conservation activities
- Require consistency with land use plans and set forth a duty to provide retail water service
- Impose on municipal water suppliers a duty to provide water service to all new connections within their retail service area, if they can do so in a "timely and reasonable" manner according to the Washington Department of Health (Health) and have sufficient water to meet the request, and if the request is consistent with approved land-use plans

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- Establish criteria for changing or transferring municipal water rights
- Allow use of water for environmental goals and pilot watershed agreements

As further discussed below, some, but not all, of these MWL provisions have been impacted by subsequent legal challenges.

KING COUNTY TRIAL COURT DECISION

On June 11, 2008, a King County trial court judge invalidated portions of the MWL. The trial court ruling decided a pair of lawsuits that environmental groups, small-boat fisherman, individuals, and tribes filed against the Washington Departments of Ecology and Health in late 2006: *Lummi Indian Nation v. State of Washington*, and *Burlingame v. State of Washington*, each alleging that the MWL is unconstitutional.

Involved Parties

The Washington Water Utilities Council (Utilities Council), an association of over 100 Washington water utilities including cities, water districts, and **p**ublic **u**tility **d**istricts (PUDs) — which own and operate water systems that serve approximately eighty (80) percent of Washington's population — intervened in the suits as a defendant, as did the Cascade Water Alliance and Washington State University.

The trial court decision affirmed many of the MWL's provisions. In its "*Order Granting in Part and Denying in Part Plaintiffs' Motions for Summary Judgment; Granting in Part and Denying in Part Defendants' Motions for Summary Judgment*," (Order on Summary Judgment), the court denied Plaintiff's motions for summary judgment as follows:

- MWL's "water system plan" provisions codified in RCW 90.03.260(4) and (5) do not facially violate procedural or substantive due process under the state and federal constitutions
- MWL's "service area" provisions codified in RCW 90.03.386(2) do not facially violate procedural or substantive due process under the state and federal constitutions
- MWL's "water right transfer" provisions codified in RCW 90.03.330(2) do not facially violate procedural due process under the state and federal constitutions

Order on Summary Judgment at 6.

Definitions Invalidated

However, the trial court concluded that MWL definitions of "municipal water supplier" and "municipal water supply purposes" are "retroactive statutes that unconstitutionally attempt to reinstate water rights that were invalidated by the Washington Supreme Court in [*Theodoratus*]." June 11, 2008 Verbatim Report of Proceedings at 9. Those key definitions run throughout the MWL and, by invalidating them, the trial court decision restored to Washington water law much of the uncertainty about the scope of the municipal water right exemption that led the Legislature to enact the MWL in the first place.

Private Developers

The trial court ruled that the Washington Legislature violated the state constitution by including private developers in the definition of "municipal water supplier" that is a key part of the MWL. That court also overturned portions of the MWL that allowed developers to hold final, "certificated" rights for water that they have not yet put to use. Washington has routinely granted these "inchoate" water rights on the basis of a water system's capacity to withdraw and distribute water — based on a system's "pumps and pipes" — without the water being put to actual use. The trial court ruled unconstitutional the part of the MWL that protected as "rights in good standing" the certificated municipal water rights for unused, inchoate amounts of water that were granted to water utilities before the MWL took effect in 2003. The Legislature had particularly enacted this part of the MWL in response to the decision in *Theodoratus*.

Inchoate Rights

Specifically, the trial court granted Plaintiffs' motions for summary judgment as follows:

Retroactive Effect

- "[MWL's definitions of "municipal water supplier" and "municipal water supply purposes" codified in] RCW 90.03.015(3) and (4) violate the separation of powers under the state constitution because they have retroactive effect and attempt to overrule an interpretation of the Water Code in *Department of Ecology v. Theodoratus*, 135 Wn.2d 582, 957 P.2d 1241 (1998)."
- "[MWL's "pumps and pipes" provision codified in] RCW 90.03.330(3) violate the separation of powers under the state constitution because they have a retroactive effect and attempt to overrule an interpretation of the Water Code in *Department of Ecology v. Theodoratus*, 135 Wn.2d 582, 957 P.2d 1241 (1998)."
- "Alternatively, even if one were to accept the State's interpretation of the statute that it addresses only valid inchoate water rights (or rights 'in good standing') (which this Court does not), then RCW 90.03.330(3) violates the separation of powers under the state constitution because it purports to make a legislative determination of adjudicative facts concerning the 'good standing' of particular water rights."

Order on Summary Judgment at 5-6.

Pumps & Pipes Certificates

In announcing its decision, the trial court stated that "it appears to this Court that in significantly recasting the substantive and procedural rights and roles of those who hold water rights in this state in 2003, the legislature overreached unconstitutionally by attempting to restore water rights to certain parties holding pumps and pipes certificates and expanding the number of parties holding such rights to include Mr. Theodoratus." June 11, 2008 Verbatim Report of Proceedings at 13.

The MWL defined "municipal water rights" by defining a "municipal water supplier" as "an entity that supplies water for municipal water supply purposes." RCW 90.03.015(3). Then, in turn, the MWL defined "municipal water supply purposes" to include traditional residential, commercial, industrial, landscape

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irrigation, and fire flow uses, but also broadly includes the use of water "for any other beneficial use generally associated with the use of water within a municipality." RCW 90.03.015(4). This definition was not limited to uses by cities, towns, PUDs, or other public utilities, but included any beneficial use of water to serve 15 or more residential connections, the threshold at which water systems must comply with federal regulations under the nation's Safe Drinking Water Act.

APPELLATE LITIGATION

Direct Review

All parties appealed the King County Superior Court's MWL decision and filed briefs to the Supreme Court under the common case title, *Lummi Nation, et al., v. State of Washington*. The parties had the right to appeal the trial court's decision to the Washington Court of Appeals, Division I but decided to seek direct review by the Supreme Court, which exercised its discretion to accept direct review in March 2009.

The Departments of Ecology and Health, Washington State University (WSU), the Washington Water Utilities Council (WWUC), and Cascade Water Alliance (Cascade) filed opening briefs in October 2008. The environmental groups, small-boat fishermen, individuals, and tribes filed opening briefs in December 2008. Ecology, Health, WSU, the WWUC, and Cascade filed final responses and replies to the other parties' briefs in February 2009. The environmental groups, small-boat fishermen, individuals, and tribes filed their final responses and replies in April 2009. The Court heard oral argument in February 2010.

Planning & Conservation

The MWL's Planning and Conservation Provisions and "Duty to Serve"

The MWL also has another key element — increased water system planning and conservation — putting Washington in the top tier of states taking aggressive steps toward water conservation and efficiency. These MWL provisions require municipal water suppliers to forecast and collect data about water use, set goals for improving the efficiency of water use and report on their performance in meeting these goals, and limit leakage from distribution systems to ten percent or less of total water supplied to its customers.

SDWA Regulation

Soon after the MWL was enacted, the Washington Departments of Ecology and Health, which have slightly overlapping and complementary roles, began to implement that Act. As of September 2005, more than 17,000 drinking water systems in Washington provided water to more than five million residents, most of whom received their household water from water systems regulated under the Safe Drinking Water Act (SDWA). Most Washington residents receive water from fewer than 200 large Group A community systems, all of which serve more than 1,000 homes. Many of the rest are served by a large number of smaller systems — including nearly 13,000 Group B systems that serve an average of eight people each and do not meet MWL's definition of a municipal water supply system.

Efficiency Rules

The Department of Health's Water Use Efficiency Rules took effect on January 22, 2007. The rules affect all "municipal water suppliers" and address key MWL elements as follows:

- Water Use Efficiency Planning Requirements: municipal water suppliers are required to collect data, forecast demand, and evaluate leakage and water use efficiency measures (including rate structures that encourage water use efficiency) as part of a water system plan or small water system management program.
- Distribution Leakage Standard: municipal water suppliers are required to meet a state leakage standard of 10% or less in order to minimize loss of water from distribution system leakage. Municipal water suppliers must install source meters and service meters on all connections by January 22, 2017.
- Water Use Efficiency Goal Setting and Performance Reporting: municipal water suppliers are required to set water use efficiency goals through a public process and report their performance to the Washington Department of Health and the public.

Place of Use Expansion

Under the MWL, a municipal water supplier could only expand its water right's place of use if it is complying with the terms in its water system plan, including water conservation requirements. Therefore, as a practical matter, municipal water right holders must ensure that their water system plans are complete prior to seeking a water right change or risk losing potential water rights.

Duty to Serve

As noted above, under the MWL, a municipal water supplier also has a duty to provide water service to all new connections within its retail service area if it meets four threshold factors:

- Service is available in a timely and reasonable manner as defined by guidance from the Department of Health
- Sufficient water rights to provide service
- Sufficient capacity to serve water in a safe and reliable manner
- Service requested is consistent with local comprehensive growth plans and development regulations

RCW 43.20.260.

Plan Approval

Washington's water system plan approval process has become increasingly complex as Health and Ecology implement the MWL. There are three key components to obtaining the Department of Health's approval for a water system plan:

- Approvals are required from both Ecology and Health
- Plans must be consistent with local land use planning
- The water system's governing body must approve the plan

This process requires water system operators to actively manage their plans.

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MWL Upheld

Jeff Kray's practice focuses on water quality, water resources, and complex environmental litigation, including Clean Water Act permitting and regulatory compliance, and CERCLA (Superfund) site remediation. He has represented public and private clients throughout the west. Jeff regularly advises businesses in water quality permit compliance and defense matters, stormwater pollution prevention, hazardous waste spill prevention and cleanup, and cost recovery litigation. He also frequently consults with water right owners and purchasers on preserving, acquiring, and transferring water rights. Jeff is a frequent speaker and writer on water law and policy. He recently authored a chapter on water and climate change for the treatise Waters and Water Rights (Michie 3rd Ed. 2009). He holds leadership positions in the Water Resources and Water Quality and Wetlands Committees of the American Bar Association's Section on Environment, Energy, and Resources.

The Plaintiffs in the *Lummi* litigation did not challenge the MWL's efficiency and conservation provisions. However, by invalidating MWL's key definitions, the trial court's decision limited the number of water suppliers required to comply with the conservation provisions of the Act and, as a result, potentially limited the State's water system planning and conservation efforts. The decision also potentially put increased pressure on the limited pool of municipal water suppliers, including public utilities, to supply water to those systems excluded from the MWL, and encouraged developers to seek water from municipalities and other water providers. The practical result of the decision was to leave cities, PUDs, water districts, and, in particular, developers without clear guidance as to who is a "municipal water supplier" and what amount of water they have available for future use.

THE WASHINGTON SUPREME COURT DECISION

In its recent decision, the Supreme Court partially affirmed and partially reversed the trial court's decision, holding that the MWL's changes to Washington water law were, on their face, constitutional. Decision at 1. The Supreme Court reversed the trial court's decisions that the amendments to the definition of municipal water suppliers in RCW 90.03.015 and the retroactivity provision of RCW 90.03.330 violated separation of powers as, the trial court had concluded, they effectively overruled *Theodoratus*. The Supreme Court held that "there is no general separation of powers caused by the [MWL] amendments [to the definition of municipal water suppliers and the retroactivity provision]…and [t]he legislature approached its legislative task both thoughtfully and with deference to this court's construction in *Theodoratus*." Decision at 16. With regard to arguments that the legislature violated separation of powers by purportedly determining that particular water rights covered by the MWL were in "good standing," the Supreme Court held that the legislature did not adjudicate the facts of a particular water right but "simply confirmed that the right represented by a water certificate issued before *Theodoratus* continued to be 'a right in good standing.'" Decision at 17-18. The Supreme Court also affirmed the trial court's decisions that the MWL does not facially violate substantive or procedural due process. Decision at 27.

The Supreme Court also rejected arguments that under the MWL some junior water right holders' enjoyment of their water rights may be impaired without notice or opportunity to be heard. The Supreme Court held that "nothing in the [MWL] amendments…deprive any vested rights holder of any vested rights as a matter of law." Decision at 24.

The Supreme Court, however, also signaled that it may entertain "as applied" challenges to the MWL if the state applied the law in a manner that impaired existing water rights. Decision at 10-11. "An 'as applied' challenge occurs where a plaintiff contends that a statute's application in the context of the plaintiff's actions or proposed actions is unconstitutional." Decision at 11, citing *Wash. State Republican Party v. Pub. Disclosure Comm'n*, 141 Wn .2d 245, 282 n. 14, 4 P.3d 808 (2000) (citing *In re Detention of Turay*, 139 Wn.2d 379, 417 n. 28, 986 P.2d 790 (1999)). If a statute is held unconstitutional as applied, it cannot be applied in the future in a similar context, but it is not rendered completely inoperative. A statute is rendered completely inoperative if it is declared facially unconstitutional.

The Supreme Court's decision does not resolve whether the MWL is constitutional in all "as applied" fact patterns. Challenges to particular applications of the MWL will need to be decided as they arise. There is, in fact, at least one "as applied" challenge currently pending before Washington's Pollution Control Hearings Board. See *Cornelius v. Dep't of Ecology*, No. 06-099 (Wash. Pollution Control Hr'gs Bd. Dec. 7, 2007).

The Supreme Court's decision in *Lummi* is significant in that it upholds the constitutionality of carefully constructed legislation that requires municipal water suppliers to conserve water in exchange for greater certainty that water will be available for future growth. The trial court's decision had put in jeopardy urban land use planning that relied on a predictable municipal water supply by calling into question the constitutionality of key MWL provisions. Without those provisions, the MWL lost much of its balance and vitality. The Supreme Court's decision to affirm the MWL restores certainty that those provisions are constitutional and is particularly important for municipalities, water utilities, business, and developers planning for urban growth in that they will again be able to rely on the MWL's definitions of "municipal water supplier" and "municipal water supply purposes." As a result, the decision affirms that municipal water suppliers have flexibility in deciding when to put their water rights to use.

CONCLUSION

By enacting the MWL, Washington addressed longstanding uncertainty about the scope of municipal water suppliers' rights and responsibilities with a compromise. Washington's compromise unequivocally embraced allowing municipal water suppliers to develop their water supply systems over time without risk of forfeiting their water rights in exchange for a mandatory process designed to ensure that future municipal water use is well-planned and efficient. Washington's Supreme Court has determined that the Washington State Legislature had the power to strike that compromise.

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WATER BRIEFS

HYDRAULIC FRACTURING US
INTERIOR HOLDS FORUM

Secretary of the Interior Ken Salazar on November 30 hosted a forum on hydraulic fracturing, a practice employed to extract oil and natural gas (see Orford, *TWR* #80), to examine best practices to ensure that natural gas on public lands is developed in a safe and environmentally sustainable manner. Joining Secretary Salazar at the forum were Carol Browner, Assistant to the President for Energy & Climate Change; David J. Hayes, Deputy Secretary of the Interior; Marcilynn Burke, Deputy Director of the Bureau of Land Management (BLM); and more than a dozen representatives from industry, environmental and public interest groups.

"The Department of the Interior manages vast expanses of public land where this process occurs and we have a leadership role to play in studying the potential impacts, identifying best management practices that should be used in fracturing operations, and implementing commonsense requirements at the permitting stage for public lands," said Deputy Secretary Hayes.

"Now within the Department of the Interior and the Bureau for Land Management we will be considering issuing a policy that will deal with the issue of disclosure requirements with respect to the fluids that are used with hydraulic fracturing," Secretary Salazar said at the forum. "Now I know that what happens is when you raise that issue you have some members of industry saying no, you ought not to go in that direction at all for those arguments off and on over the last decade. And the argument is that those are issues and information, which is proprietary. But on the other hand there are those that argue that the best interest for the future of natural gas is to make sure that there is transparency with respect to that issue so that everybody knows what is being injected into the underground."

About 90 percent of wells currently drilled on federally-managed lands are stimulated by hydraulic fracturing. After drilling into reservoir rocks, producers inject fluid under high pressure to create or enlarge fractures and then pump a "propping agent" into the well to keep the fractures from closing when operators release the pressure. Fracturing allows hydrocarbons to move more freely into the well bore so that they can be extracted. The fracturing fluid and propping agent, while primarily comprised of water and sand, respectively, also contain certain chemicals. The number of stimulated wells has steadily increased over the years as technology has improved and types of geologic formations that are now capable of commercial production are less permeable than previous ones. This accelerated use of the process on public and private lands has created intense debate about the potential effects of fracturing on water quality and quantity, particularly regarding the chemical composition of fracturing fluids and the fracturing methods used.

Natural gas development has significantly increased on federal lands over the last 20 years, resulting in a nearly 60 percent increase in gas production on these lands. In fiscal year 2009, approximately 13 percent of onshore domestically produced natural gas came from public lands, principally in Colorado, Wyoming, New Mexico, Utah, and Montana, although most of the gas permits in those states are still non-federal.

For info: Kendra Barkoff, DOI, 202/ 208-6416;
Forum transcript: www.doi.gov/news/pressreleases/loader.cfm?csModule=security/getfile&PageID=79514

CWA PERMITS TX
EPA REQUESTS PERMIT ISSUANCE

EPA has requested the Texas Commission on Environmental Quality (TCEQ) take the necessary steps to reissue Clean Water Act (CWA) discharge permits to sewage treatment plants and industrial facilities in Texas.

TCEQ has a significant number of draft Clean Water Act discharge permits which have not been issued pending resolution of various concerns raised by EPA. Of the 80 discharge permits of concern, a large number of these draft permits have been delayed due to issues regarding the toxicity of the discharges.

There are significant environmental consequences to the continued authorization of discharges under expired permits. In some cases, EPA is concerned that expired permits continue to authorize toxic discharges.

To ensure that TCEQ's and EPA's program commitments continue to be met, EPA has requested that TCEQ take the necessary steps to resolve its concerns. With its action on Dec. 2, EPA requested that TCEQ issue the long overdue discharge permits within six months so that the cleanup and conservation of the state's waters can proceed.

An EPA audio file regarding this action is available at: www.epa.gov/region6/6xa/podcast/dec2010.html
For info: Joe Hubbard, EPA, 214/ 665-2200 or r6press@epa.gov

CWA ENFORCEMENT US
RESIDENTIAL HOMEBUILDER SETTLEMENT

On Dec. 2nd, Beazer Homes USA, Inc., a national residential homebuilder, has agreed to pay a $925,000 civil penalty to resolve alleged CWA violations at its construction sites in 21 states, the US Justice Department and EPA announced. As part of the settlement, Beazer will also implement a company-wide stormwater program to improve compliance with stormwater runoff requirements at current and future construction sites around the country.

The government complaint, filed simultaneously with the settlement agreement in federal court in Nashville, TN, alleges a pattern of violations that was discovered through site inspections and by reviewing documentation submitted by the company. The alleged violations include failure to obtain permits until after construction began, or failing to obtain them at all. At sites with permits, violations included failure to prevent or minimize the discharge of pollutants such as silt and debris in stormwater runoff.

The settlement requires Beazer to: develop improved pollution prevention plans for each construction site; conduct additional site inspections; and promptly correct any problems detected. The company must properly train construction managers and contractors and designate trained staff for each site. Beazer must also implement a management and internal reporting system to improve oversight of on-the-ground operations and submit annual reports to EPA.

WATER BRIEFS

The CWA requires that construction sites have controls in place to prevent pollution from being discharged with stormwater into nearby waterways. These controls include simple pollution prevention techniques such as silt fences, phased site grading, and sediment basins to prevent common construction contaminants from entering the nation's waterways.

Construction projects have a high potential for environmental harm because they disturb large areas of land and significantly increase the potential for erosion. Without onsite pollution controls, sediment-laden runoff from construction sites can flow directly to the nearest waterway and degrade water quality. In addition, stormwater can pick up other pollutants, including concrete washout, paint, used oil, pesticides, solvents and other debris. Polluted runoff can harm or kill fish and wildlife, degrade aquatic habitats, and affect drinking water quality.

This settlement is the latest in a series of enforcement actions to address stormwater violations from construction sites around the country. In the last several years, EPA and DOJ have reached consent decrees with nine residential construction companies for stormwater violations resulting in approximately $6.3 million in penalties.

Seven states have joined the settlement. The states of Colorado, Florida, Indiana, Maryland, Nevada, and Tennessee, and the Commonwealth of Virginia will receive a portion of the penalty.

The consent decree, lodged in the US District Court for the Middle District of Tennessee, is subject to a 30-day public comment period and approval by the federal court.

For info: EPA website: www.epa.gov/compliance/resources/cases/civil/cwa/beazer.html

HEADWATER PROTECTION NM

WILDERNESS AREAS RULE

The State of New Mexico's Water Quality Control Commission (WQCC) has adopted a rule that requires the State to protect headwater streams in federally designated wilderness areas. The State's "Outstanding National Resource Waters " (ONRW) proposal will go into effect Dec. 30. The rule exempts existing grazing practices and acequia maintenance and repair from the designation, an aspect which protects cattle growers' and acequia associations' interests.

WQCC did not adopt a proposed expansion of the State's control, requested in a petition presented by Amigos Bravos and Wild Earth Guardians that would have protected all streams, whether or not perennial (i.e., those that flow year-round). WQCC also declined to adopt Wild Earth Guardians' request to protect waters in adjacent roadless areas in Forest Service Wilderness areas.

In a related measure, the WQCC adopted a negotiated proposal on antidegradation and its associated guidance and procedures documents.

In order to maximize public participation in the ONRW proposal, State agencies engaged in an extensive two-year public outreach effort, which represented the most extensive public participation effort on a water quality initiative ever undertaken by the State.

Governor Bill Richardson announced the State's intention to seek ONRW designation for surface waters within the Forest Service Wilderness on Earth Day in 2008. The New Mexico Environment Department (NMED) took the lead in the petition, assisted by the New Mexico Department of Game and Fish and the New Mexico Energy, Minerals and Natural Resources Department. The three state agencies filed a petition with WQCC in February of this year nominating all perennial surface waters in US Forest Service Wilderness as ONRWs.

ONRW status is authorized under the State's Water Quality Act and the federal Clean Water Act. The designation will protect approximately 700 miles of 195 perennial rivers and streams, 29 lakes, and approximately 4,930 acres of 1,405 wetlands in 12 Wilderness areas. These waters represent the State's most valuable headwater streams. Protection of these headwaters will help maintain a clean water supply for uses in designated wilderness areas and for downstream uses by municipalities, agriculture, and recreational interests, and will help maintain healthy ecosystems, preserve habitat, and protect vulnerable and endangered species.

For info: Marissa Stone Bardino, NMED, 505/ 827-0314

LAKE POLLUTION US

COAL TAR SEALANT LARGEST PAHS SOURCE

According to a recently released US Geological Survey (USGS) report, coal-tar-based pavement sealant is the largest source of **p**olycyclic **a**romatic **h**ydrocarbons (PAHs) found in the 40 urban lakes studied. This sealant is the black, shiny substance sprayed or painted on many parking lots, driveways, and playgrounds.

PAHs are an environmental health concern because several are probable human carcinogens. They are also toxic to fish and other aquatic life. Their concentrations have been increasing in urban lakes in recent decades.

USGS scientists evaluated the contribution of PAHs from many different sources to lakes in cities from Anchorage, AK, to Orlando, FL. The full report can be found in the journal "*Science of the Total Environment*."

USGS scientists collected sediment cores from 40 lakes, analyzed the cores for PAHs, and determined the contribution of PAHs from many different sources using a chemical mass-balance model. On average, coal-tar-based sealcoat accounted for one-half of all PAHs in the lakes, while vehicle-related sources accounted for about one-quarter. Lakes with a large contribution of PAHs from sealcoat tended to have high PAH concentrations, in many cases at levels that can be harmful to aquatic life. Analysis of historical trends in PAH sources to a subset of the lakes indicates that sealcoat use since the 1960s is the primary cause of increases in PAH concentrations.

Coal tar is made up of at least 50 percent PAHs. Pavement sealants that contain coal tar, therefore, have extremely high levels of PAHs compared to other PAH sources such as vehicle emissions, used motor oil, and tire particles. Small particles of sealcoat are worn off of the surface relatively rapidly, especially in areas of high traffic, and are transported from parking lots and driveways to streams and lakes by storm runoff. Manufacturers recommend resealing surfaces every three to five years.

Runoff isn't the only path by which PAHs are leaving parking lots. A recent USGS study found that use of coal-tar-based sealcoat on parking lots was associated with elevated concentrations of PAHs in house dust.

WATER BRIEFS

Sealcoat products are widely used in the US, both commercially and by homeowners. The products are commonly applied to commercial parking lots (including strip malls, schools, churches and shopping centers), residential driveways, apartment complexes, and playgrounds. The City of Austin, Texas estimates that before a ban on use of coal-tar-based sealcoat in 2006, about 600,000 gallons of sealcoat were applied every year in that city.

Two kinds of sealcoat products are widely used: coal-tar-emulsion based and asphalt-emulsion based. Consumers can determine whether a product contains coal tar by reading the label or asking the company hired to do the pavement application. The coal-tar products have PAH levels about 1,000 times higher than the asphalt products.

National sealcoat use numbers are not available; however, previous research suggests that asphalt-based sealcoat is more commonly used on the West Coast and coal-tar based sealcoat is more commonly used in the Midwest, the South, and the East. The results of the lake study reflect this east-west difference. For example, sealcoat contributes over 80 percent of PAHs in Lake Anne, VA, and PAH concentrations there are about twenty times higher than in Decker Lake, UT — even though the areas have similar population density and level of urban development. Furthermore, PAH levels in pavement dust from sealcoated parking lots in Virginia are about 1,000 times higher than those from sealed parking lots in Utah.

For info: USGS National Water Quality Assessment Program website: http://water.usgs.gov/nawqa/ on PAHs and sealcoat. http://tx.usgs.gov/coring/allthingssealcoat.html

TRIBAL SETTLEMENTS US CLAIMS SETTLEMENT ACT (*COBELL*)

On November 30, the US House of Representatives passed the Claims Settlement Act (Act), which will now be sent to President Obama for his signature. The Act, which recently passed the Senate, will provide long-awaited funding for the agreements reached in the *Pigford II* lawsuit, brought by African American farmers; the *Cobell* lawsuit, brought by Native Americans over the management of Indian trust accounts and resources; and four separate water rights suits made by Native American tribes.

"Congress' approval of the Cobell settlement and the four Indian water rights settlements is nothing short of historic for Indian nations," Secretary of the Interior Ken Salazar said. "The settlements honorably and responsibly address long-standing injustices and represent a major step forward in President Obama's agenda to empower tribal governments, fulfill our trust responsibilities to tribal members and help tribal leaders build safer, stronger, healthier and more prosperous communities."

The Cobell Settlement is a $3.4 billion agreement that will resolve the long-running and highly contentious class action lawsuit regarding the US government's trust management and accounting of individual American Indian trust accounts. The Bill also approved four major water rights settlements totaling more than $1 billion for American Indian tribes that will help deliver clean drinking water to Indian communities and provide certainty to water users across the West.

The four settlements contained in the legislation include: White Mountain Apache Tribe (AZ): the centerpiece is the construction of the tribal rural water system, which will greatly expand the water delivery system to meet critical needs of the reservation; Crow Tribe (MT): his settlement will ensure safe drinking water for the reservation as well as provide for rehabilitation of the Crow Irrigation Project, which is in a dire state of disrepair. The existing drinking water system on the Crow reservation has significant deficiencies in capacity and water quality that have resulted in health problems; Aamodt (NM): the Aamodt settlement ends one of the longest running water rights cases in the federal court system, with nearly 43 years of litigation yielding little in the way of results. The settlement provides for the construction of a regional water system to serve the Pueblos of Tesuque, Nambe, Pojoaque, and San Ildefonso as well as surrounding communities in northern New Mexico, with a non-federal cost share of 40 percent; Pueblo of Taos (NM): the settlement solidifies and makes permanent water sharing arrangements between the Pueblo of Taos and neighboring communities. It also protects and restores the Pueblo of Taos's Buffalo Pasture, a culturally sensitive and sacred wetland.

For info: www.cobellsettlement.com<http://www.cobellsettlement.com; Interior website: www.doi.gov<http://www.doi.gov

CONSTRUCTION PERMIT CA STORMWATER GENERAL PERMIT

On November 16, the California State Water Resources Control Board (SWB) discarded its long-standing policy that liability for stormwater runoff from construction sites must fall to the property owner. Now, the project proponent will typically be the "**l**egally **r**esponsible **p**erson" or "LRP." The change was prompted by confusion generated by the new general stormwater permit for construction activities (Construction General Permit (CGP)) which was adopted in late 2009 and took effect July 1.

Since California adopted its first CGP 1992, property owners have been on the hook to enroll in and assume legal responsibility for compliance with that permit, even though in many cases, property owners have no authority or control over the construction site. Those with direct site control — tenants, developers, builders, contractors — were considered too transient to be accountable for compliance. As a result, contract issues and thorny conflicts sometimes arose between landowners and their tenants when tenant contractor performance created stormwater enforcement issues.

The new definition of the "legally responsible person" extends to both individuals and entities with easements, leases, or another "real property interest," providing great relief to landowners who have leased their property. However, others will not be so enamored with their new eligibility for permit responsibility, including bankruptcy trustees, receivers and conservators with day-to-day control over property, and entities authorized by property owners to undertake pollution investigation and remediation projects. These entities will need to become familiar with the CGP and understand their obligations to implement requirements to ensure proper stormwater management at construction sites, even if construction has stalled in the economic slump.

WATER BRIEFS

Public and private utilities continue to have the latitude allowed by the current CGP to assume storm water responsibility at underground or overhead linear construction projects they own or operate. Contractors remain ineligible to enroll in the permit, with one exception hammered out during the hearing November 16: the US Corps of Engineers may authorize bonded contractors to serve as the LRP, although the Corps remains responsible for compliance.

The SWB also tweaked the provisions identifying those whom the legally responsible person may authorize as an "Approved Signatory" to sign, certify, and submit permit-related documents. In some cases, authorized signatories were expanded from high ranking officials to lower managerial positions, easing the logistics of meeting paper requirements. The State Water Board anticipates posting guidance on implementing permittee changes in the state's electronic permit registration system (SMARTs).

For info: Wendy L. Manley, Wendel Rosen Black & Dean, 510/ 834-6600, wmanley@wendel.com or www.swrcb.ca.gov/water_issues/programs/stormwater/

EXEMPT WELL RULES MT
LAWSUIT SETTLEMENT

On November 10, a Montana District Court adopted a settlement that was reached between four individual ranchers plus an environmental group and the Montana Department of Natural Resources and Conservation (DNRC) in a lawsuit regarding exempt well permit exemptions. *Clark Fork Coalition, et al. v. Mary Sexton* (DNRC), et al., Case No. BDV-2010-874. The plaintiffs had maintained in the lawsuit that DNRC's 1993 administrative rule defining the term "combined appropriation" as two or more groundwater developments that are "physically manifold" together (Admin. R. Mont. 36.12.101(13)) is contrary to the intent of the Montana Water Use Act, §85-2-306(3)(a), MCA.

In the Stipulation and Order of Dismissal, the parties agreed that "it was never the intent of the Montana Water Use Act to allow a single large consumptive water user (i.e., those exceeding the 35 gpm or 10 acre-feet/year) utilizing one large ground water system or multiple wells or developed springs to quality for an exception from the Act's permitting requirements;" the parties also agreed that "due to increased demands to use the small ground water use exception…and the new and creative ways large consumptive water users are seeking to qualify for an exception…DNRC recognizes that the 1993 administrative rule defining 'combined appropriation'…needs to be amended, broadened, and updated" (Order at 2).

The parties stipulated that DNRC will complete formal rulemaking to amend the rule defining "combined appropriation" within 15 months of the Court's Order. "Guiding Principles" were also agreed to that will govern all actions DNRC takes under the stipulation, including: DNRC agrees that any amended rule defining "combined appropriation" will be broader than and not be limited solely to wells or developed springs that are physically manifold or connected together; and DNRC will consider amending that definition to consider "cumulative or collective impacts to the water resource(s) resulting from multiple, unconnected wells or developed springs that appropriate water from a single source aquifer and for a single project" (*Id*. at 3). The parties did recognize that the 2011 Montana Legislature may adopt legislation defining "combined appropriation" or remove the term from the Montana Water Use Act — if that occurs, DNRC's obligations under the Stipulation expires. *Id*. A copy of the Order is available at the website below.

For info: Clark Fork Coalition, www.clarkfork.org/recent-articles/in-the-news.html

ALTERED FLOWS US
LAND & WATER MANAGEMENT

On November 3, the US Geological Survey (USGS) released a report entitled "*Alteration of Streamflow Magnitudes and Potential Ecological Consequences: A Multiregional Assessment*." The amount of water flowing in streams and rivers has been significantly altered in nearly 90 percent of waters that were assessed in the new nationwide USGS study. Flows are altered by a variety of land- and water-management activities, including reservoirs, diversions, subsurface tile drains, groundwater withdrawals, wastewater inputs, and impervious surfaces, such as parking lots, sidewalks and roads.

Flow alterations are a primary contributor to degraded river ecosystems and loss of native species. "This USGS assessment provides the most geographically extensive analysis to date of stream flow alteration," said Bill Werkheiser, USGS Associate Director for Water. "Findings show the pervasiveness of stream flow alteration resulting from land and water management, the significant impact of altered stream flow on aquatic organisms, and the importance of considering this factor for sustaining and restoring the health of the Nation's streams and ecosystems."

In streams with severely diminished flow, native trout, a popular sport fish that requires fast-flowing streams with gravel bottoms, are replaced by less desirable non-native species, such as carp. Overall, the USGS study indicated that streams with diminished flow contained aquatic communities that prefer slow moving currents more characteristic of lake or pond habitats. "Management practices related to water demand continue to alter stream flows in many places," said Jeff Ostermiller, Water Quality Manager with the Utah Division of Water Quality. "Understanding the ecological effects of these flow alterations helps water managers develop effective strategies to ensure that water remains sufficiently clean and abundant to support fisheries and recreation opportunities, while simultaneously supporting economic development."

The severity and type of stream flow alteration varies among regions, due to natural landscape features, land practices, degree of development, and water demand. Differences are especially large between arid and wet climates. In wet climates, watershed management is often focused on flood control, which can result in lower maximum flows and higher minimum flows. Extremely low flows are the greatest concern in arid climates, in large part due to groundwater withdrawals and high water use for irrigation.

The study identified over 1,000 unimpaired streams to use as reference points to create stream flow models. The models were applied to estimate expected flows for 2,888 additional

WATER BRIEFS

streams where the USGS had flow monitoring gauges from 1980-2007. The estimated values for the 2,888 streams were compared to actual, measured flows to determine the degree to which streams have been altered.
For info: Daren Carlisle, USGS, 703/ 648-6890
Report available at: www.usgs.gov/ newsroom/article.asp?ID=2631

WATER CONSERVATION AZ

AZ PROGRAMS EVALUATED

Western Resource Advocates (WRA) has recently released "*Arizona Water Meter*" — which highlights the water conservation programs of 15 Arizona communities and evaluates their programs by seven important water conservation criteria. WRA promotes urban water conservation as a no-regrets strategy for increasing water supplies that is often cheaper, faster, and smarter than "traditional" approaches that rely on obtaining more water from elsewhere. Maximizing water conservation across the state will allow Arizona cities to do more with their existing water supplies.

The communities in the report include Buckeye, Casa Grande, Chandler, Clarkdale, Lake Havasu City, Mesa, Payson, Peoria, Phoenix, Prescott, Safford, Scottsdale, Sierra Vista, Tucson, and Yuma. They represent a diverse cross-section of municipal water providers, and are varied with respect to size, budget, geographic location, ownership structure, and regulatory program. By presenting a broad sample of current conservation practices, utilities, researchers, policy makers, and local communities can make informed decisions about the possibilities that exist for improvement in their own programs.

WRA notes that there are seven criteria that constitute a thorough water conservation program: minimizing per capita water use; water rate structures that encourage wise water use; community-based water conservation programs; conservation ordinances; funding for conservation programs; stemming system water loss; and effluent reuse.
For info:
www.westernresourceadvocates.org/ azmeter/report.pdf

WATER RECYCLING/REUSE US

TITLE XVI FUNDING RECLAMATION CRITERIA PUBLISHED

The Bureau of Reclamation has published the funding criteria for the Title XVI - Water Recycling and Reuse Program. The funding criteria will be used for two new fiscal year 2011 Title XVI Funding Opportunity Announcements. The criteria are available online at http://www.usbr.gov/WaterSMART.

This fall, two funding opportunities will be posted at http://www.grants.gov. One opportunity will be open for construction of Title XVI projects. Another funding opportunity will provide cost-shared assistance for the development of feasibility studies under the program.

The Title XVI program is focused on identifying and investigating opportunities to reclaim and reuse wastewaters and naturally impaired ground and surface water in the 17 Western States and Hawaii. Title XVI projects have the potential to stretch water supplies using both time-tested methodologies and piloting new concepts.

WaterSMART is a program that focuses on improving water conservation and helping water-resource managers make sound decisions about water use. It also identifies adaptive measures to address climate change and its impact on future water demands.
For info: Dan DuBray, Reclamation, 202/ 513-0574

ENDOCRINE DISRUPTORS US

EPA TO EXPAND TESTING

EPA has identified a list of 134 chemicals that will be screened for their potential to disrupt the endocrine system. Endocrine disruptors are chemicals that interact with and possibly disrupt the hormones produced or secreted by the human or animal endocrine system, which regulates growth, metabolism and reproduction.

The list includes chemicals that have been identified as priorities under the federal Safe Drinking Water Act (SDWA) and may be found in sources of drinking water where a substantial number of people may be exposed. The list also includes pesticide active ingredients that are being evaluated under EPA's registration review program to ensure they meet current scientific and regulatory standards. The data generated from the screens will help EPA identify whether additional testing is necessary, or whether other steps are necessary to address potential endocrine disrupting chemicals.

Chemicals listed include those used in products such as: solvents; gasoline; plastics; personal care products; pesticides; and pharmaceuticals, including benzene, perchlorate, urethane, ethylene glycol, and erythromycin.

After public comment and review, EPA will issue test orders to pesticide registrants and the manufacturers of these chemicals to compel them to generate data to determine whether their chemicals may disrupt the estrogen, androgen and thyroid pathways of the endocrine system.

EPA is already screening an initial group of 67 pesticide chemicals. In October 2009, EPA issued orders to companies requiring endocrine disruptor screening program data for these chemicals. EPA will begin issuing orders for this second group of 134 chemicals beginning in 2011.
For info: EPA website: www.epa.gov/endo

WASTEWATER UTILITIES US

ENERGY USE REDUCTION

A new technical document, *Evaluation of Energy Conservation Measures for Wastewater Treatment Facilities*, is available from EPA to help municipal utility owners and operators find information on cost-effective energy conservation measures and technologies. The information can help utilities reduce energy usage at their wastewater treatment facilities. The document covers innovative and emerging technologies that have the potential for substantial energy savings. It also includes nine in-depth facility studies that examine application and cost information for various full-scale, operational energy conservation measures and technologies.
For info: EPA website: http://water.epa.gov/scitech/wastetech/publications.cfm

CALENDAR

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

December 15-17 NV
Colorado River Water Users Ass'n Conference, Las Vegas. Caesar's Palace. For info: www.crwua.org

December 16 CA
Sustainable Planning, Environmental Site Design & Development Course, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, 800/ 752-0881 or www.extension.ucdavis.edu/landuse

December 18 WA
Puget Sound 101 & Challenges for Its Restoration Speech, Port Angeles. Arthur D. Feiro Marine Life Ctr., 6:30-8:30pm. For info: http://pugetsound.org/connect/events

December 20 OR
***ZRZ Realty:* Oregon Supreme Court Decision That Could Mean Millions in Environmental Insurance Coverage (Luncheon), Portland.** Miller Nash, 111 S.W. Fifth Ave. OSB Environmental & Natural Resources Section Brownbag. For info: Pat Dinsmoor, Miller Nash, 503/205-2309 or Pat.Dinsmoor@millernash.com

January 9-13 AZ
2nd Int'l Congress on Sustainability Science & Engineering: Where Science & Engineered Technologies Meet the Needs of Society, Tucson. J.W. Marriott Starr Pass Resort. For info: http://icosse11.org/index.php?ID=1

January 10 OR
Clean Water Act: Stormwater, Toxics, NPDES Permits, TMDLs, Standards Conference, Portland. World Trade Center, 121 SW Salmon. For info: Holly Duncan, 503/ 282-5220, hduncan@elecenter.com or www.elecenter.com

January 10-11 DC
2nd Annual Choose Clean Water Conference: Chesapeake Bay Restoration, Washington. Park Hyatt Hotel. For info: www.choosecleanwater.org/cms/conference

January 10-12 WA
Pacific West Biomass Conference & Trade Show, Seattle. Sheraton Seattle Hotel. For info: www.biomassconference.com/pacificwest

January 12 WA
SEPA & NEPA Seminar, Seattle. Washington Convention Ctr. 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 12-14 TX
Groundwater Management Districts Ass'n Annual Meeting, San Antonio. Drury Plaza Riverwalk Hotel. For info: Sherry Stephens, 806/ 762-0181, sstephens@hpwd.com or www.gmdausa.org

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 13-14 CA
Environmental Planning & Site Analysis Course, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, 800/ 752-0881 or www.extension.ucdavis.edu/landuse

January 18 WA
EPA's Unified Guidance: Statistical Analysis of Groundwater Data Course, Seattle. Mountaineers Club. For info: EOS Alliance: www.eosalliance.org/schedule/calendar/courses-eos#

January 20-21 CA
NEPA 7th Annual Conference, San Francisco. Hotel Nikko. For info: CLE International, 800/ 873-7130 or website: www.cle.com

January 20-21 FL
Natural Resource Damages in the Gulf, Miami. Hotel InterContinental 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 20-21 AZ
Watershed Technical Training in Green Infrastructure Workshop, Tucson. For info: Tory Syracuse, WMG, 520/ 396-3266, tsyracuse@watershedmg.org or www.watershedmg.org/tech-trainings

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 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 21 CA
CEQA & Climate Change: An In-Depth Update, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, 800/ 752-0881 or www.extension.ucdavis.edu/landuse

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 25-26 CA
Managed Aquifer Recharge Symposium, Irvine. Atrium Hotel at Orange Co. Airport. For info: www.nwri-usa.org/RechargeSymposium.htm

January 25-27 CA
Brownfield Restoration Training, Oakland. Washington Inn Hotel. For info: EOS Alliance: www.eosalliance.org/schedule/calendar/courses-eos#

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 26 OR
Green Professionals Conference 2011, Portland. For info: www.green-professional.com

January 26-27 NV
Hunting & Fishing Rights for Tribes & Tribal Organizations Conference, Las Vegas. Hard Rock Hotel. For info: Falmouth Institute, http://falmouthinstitute.com/

January 26-28 WY
Wyoming Water Well Assn 2011 Convention, Casper. Parkway Plaza. For info: www.wywaterwell.org

January 27 MI
2011 Agriculture's Conference on the Environment, Lansing. Lansing Center. For info: www.maeap.org/maeap/events/ace

January 27-28 WA
Endangered Species Act Conference, Seattle. Grand Hyatt 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.rrnw.org/pageview.aspx?id=32242

February 1-3 CA
Waste Management & Pollution Prevention, San Diego. Mission Valley Resort. For info: EOS Alliance: www.eosalliance.org/schedule/calendar/courses-eos#

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
3rd Solar Power Projects & Permitting Seminar, Portland. World Trade Center, 121 SW Salmon. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

February 2 MD
TMDL for the Chesapeake Watershed Seminar, Baltimore. Sheraton Inner Harbor Hotel. For info: Law Seminars Int'l, 800/ 854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

February 2-5 Australia
Int'l Conference on Integrate Water Management, Perth. Murdoch University. For info: www.etc.murdoch.edu.au/pages/conf1.html

February 3 CA
Thresholds of Significance in Environmental Planning Course, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, 800/ 752-0881 or www.extension.ucdavis.edu/landuse

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

February 7 WA
Stormwater Management & Permitting Conference, Seattle. Washington Convention Ctr. For info: Holly Duncan, 503/ 282-5220, hduncan@elecenter.com or www.elecenter.com

February 7 WA
Innovative Energy Management Workshop, Yakima. Sponsors: EPA Region 10, Evergreen Rural Water of WA and NW Energy Efficiency Alliance. For info: Cyndi Grafe, EPA, 208/ 378-5771 or grafe.cyndi@epa.gov

February 7-10 LA
6th Int'l Conference on Remediation of Contaminated Sediments, New Orleans. Sheraton Hotel. For info: www.battelle.org/conferences/sediments/

February 8-9 WA
Human Health Risk Assessment Course, Kirkland. Computer Classroom Seattle. For info: EOS Alliance: www.eosalliance.org/schedule/calendar/courses-eos#

February 9 CA
Surface Mining & Reclamation Act Course, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, 800/ 752-0881 or www.extension.ucdavis.edu/landuse

February 10 CA
Making Effective Use of Mitigated Negative Declarations Course, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, 800/ 752-0881 or www.extension.ucdavis.edu/landuse

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

CALENDAR

(continued from previous page)

February 10-11 CA
NEPA 7th Annual Conference, Los Angeles. Millennium Biltmore. For info: CLE International, 800/ 873-7130 or website: www.cle.com

February 10-11 CA
Environmental Planning & Site Analysis Course, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, 800/ 752-0881 or www.extension.ucdavis.edu/landuse

February 11 CA
Water Resources Planning & Urban Growth Course, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, 800/ 752-0881 or www.extension.ucdavis.edu/landuse

February 15 GA
Carbon Credits Seminar, Atlanta. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

February 15-17 UT
Nutrients & Water Quality: EPA Region 8 Collaborative Workshop, Salt Lake City. Hilton City Center. For info: www.cwi.colostate.edu/nutrients

February 15-16 WA
Principles of Environmental Sampling Course, Issaquah. NWETC Hdqtrs. For info: EOS Alliance: www.eosalliance.org/schedule/calendar/courses-eos#

February 16 GA
Solar Power: Projects & Permitting Seminar, Atlanta. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

February 16 CA
CEQA Update, Issues & Trends Course, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, 800/ 752-0881 or www.extension.ucdavis.edu/landuse

February 16-17 AZ
2011 Tamarisk Research Conference, Tucson. Marriott University Park. For info: www.tamariskcoalition.org

February 17-18 GA
Wetlands & Water Law in the SE Seminar, Atlanta. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

February 18 OR
Water Supply & Management Seminar, Portland. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

February 23 AZ
Environmental Crimes & Penalties Seminar & Free WEBCAST, Phoenix. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

February 23 MD
TMDL in the Chesapeake Watershed Seminar, Baltimore. For info: Law Seminars Int'l, 800/ 854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

February 23-25 CA
Water Law Conflicts in Practice: ABA Water Law Conference 29th Annual, San Diego. Westin San Diego. For info: ABA, www.abanet.org/environ/programs/waterlaw/2011/home.shtml

February 23-25 OR
Environmental Negotiations for Scientists & Resource Managers Course, Portland. North Ramada Airport. For info: EOS Alliance: www.eosalliance.org/schedule/calendar/courses-eos#

February 24 AK
ESA - Impacts on Alaska, Anchorage. For info: Law Seminars Int'l, 800/ 854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

February 24 CA
Endangered Species Regulation & Protection Course, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, 800/ 752-0881 or www.extension.ucdavis.edu/landuse

February 23-25 NV
Family Farm Alliance 23rd Annual Meeting & Conference, Las Vegas. Monte Carlo Resort. For info: Dan Keppen, FFA, 541/ 892-6244 or www.familyfarmalliance.org

February 24-25 TX
Texas Wetlands Conference - 21st Annual, Austin. Omni at Southpark. For info: CLE International, 800/ 873-7130 or website: www.cle.com

February 24-25 CA
Environmental Issues for Energy Projects Seminar, San Diego. For info: Law Seminars Int'l, 800/ 854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

February 24-25 Ontario
Conference on Stormwater & Urban Water Systems Modeling, Brampton. Marriott Ctyd. Toronto Brampton. For info: www.chiwater.com/Training/Conferences/conferencetoronto.asp