



The Water Report™

Water Rights, Water Quality & Water Solutions in the West

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WATER EXCHANGE & MITIGATION

WATER RIGHTS PURCHASES HYDRATE WATER BANK & RECHARGE AQUIFER
PROGRAM IN WASHINGTON STATE MITIGATES FOR NEW WATER USES IN CLOSED BASIN

by David Moon, Editor

INTRODUCTION

Like many western states, the State of Washington has been dealing with the interrelated issues of water availability for new water rights, low instream flows in summer, and the impacts of exempt wells. An effort to simultaneously address all of these issues has resulted in an innovative program moving forward. The Washington Water Trust, in conjunction with the Washington State Department of Ecology (Ecology), announced on December 3rd that a purchase of water rights to “hydrate” the Dungeness Water Exchange had been finalized. Ecology has been in negotiations since 2009 to purchase this water, which totals 175 acre-feet annually. Operational details are also now in place to implement the mitigation program under the water exchange program.

The water rights purchase is primarily intended to support instream flows in the Dungeness River and provide for aquifer recharge in the Dungeness River Basin on western Washington’s Olympic Peninsula (see map, Page 3). The water will also provide mitigation water for new indoor and outdoor use in the Dungeness watershed. The Dungeness River is “fully appropriated” — i.e., there is no more water available for additional water rights. Under the water exchange program, water users will be able to purchase mitigation credits that will enable them to obtain new water rights in a basin that is otherwise closed to new appropriations.

The Dungeness Water Exchange will provide mitigation in the Dungeness watershed to offset new water use as required by the Dungeness Water Management Rule (WAC 173-518, available at: <https://fortress.wa.gov/ecy/publications/SummaryPages/173518.html>). This Rule became effective January 2, 2013 and applies to areas of eastern Clallam County between Bagley Creek and Bell Creek. Under this Rule, all water use established in the Rule’s area after the effective date must be mitigated.

THE DUNGENESS WATER EXCHANGE HAS TWO KEY PROGRAMS, RESTORATION AND MITIGATION:

- Mitigation: The Exchange mitigation program is a “water bank” that allows new water users to purchase a certificate that meets State requirements for protecting the Dungeness River. The money raised by the certificates will go to purchase water from willing sellers. That water will go back into the river instead of being used for out-of-stream needs. This mitigation program is designed to balance present water needs with future water needs and to create certainty for farmers and homeowners so they know they have enough supply to meet their basic needs.
- Restoration: The Exchange restoration program uses State and federal dollars to replenish local groundwater supplies and restore flows to the river to improve the overall ecological health of the watershed.

See WWT website: www.washingtonwatertrust.org/water-exchange.

The initial funding for the Dungeness Water Exchange was provided by the State. As announced on July 3, 2013, the Washington Legislature approved spending \$2.05 million to develop projects and acquire water rights to enhance stream flows and provide mitigation water for rural development in the Dungeness watershed. Ecology notes that “[s]teady growth in eastern Clallam County, particularly near Sequim, has led to increased demand

Water Exchange Collaboration

Exchange Provisions

Existing Rights

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for water supplies in the Dungeness watershed in the late summer and early fall. That's also when fish populations need water the most, which has caused concern about supplies for human needs."

DUNGENESS WATER MANAGEMENT & INSTREAM FLOWS

The Dungeness Water Exchange was created through a collaboration between Ecology, Clallam County, Dungeness Water Users Association, the Jamestown S'Klallam Tribe, City of Sequim, Clallam Public Utility District No.1, Clallam Conservation District, Washington Department of Fish and Wildlife, and Washington Water Trust (WWT). Accordingly to WWT's website, "These varied interests all recognize the importance of the Dungeness River. They created the Water Exchange to allow builders, homeowners and farmers to get the water they need to protect their investments while protecting the river for future generations." (See Cronin & Fowler, *TWR* #102.)

The Dungeness Water Management Rule (Rule) is sometimes referred to as Ecology's "instream flow rule" for the Dungeness.

KEY PROVISIONS OF THE RULE INCLUDE:

- Setting instream flow levels for the Dungeness mainstream, tributaries, and independent drainages.
- Closing subbasins to new surface water withdrawals for at least part (if not all) of the year.
- Requiring mitigation of all new groundwater uses, and provide for a water exchange to facilitate mitigation. Mitigation is required for both permitted and permit-exempt uses.
- Requiring metering of all new withdrawals (permitted and permit-exempt uses).
- Establishing reservations ("reserves") under RCW 90.54.050(1) for domestic (indoor) use.
- Establishing maximum depletion amounts to limit temporary adverse impacts for non-domestic water use under an approved mitigation plan, and set a limit on total impacts from all new water uses to closed surface waters.
- Establishing maximum allocation amounts for interruptible purposes from high flows from the Dungeness mainstream.
- A provision allowing storage projects for environmental enhancement and other purposes consistent with the watershed plan.

See Ecology's website at: www.ecy.wa.gov/programs/wr/instream-flows/dungeness.html;

see also Clallam County website: www.clallam.net/Permits/WaterRule.html.

Existing water rights are not impacted by the Rule. Provisions specifically provide that the Rule only applies to "the use and appropriation of surface and groundwater in the Dungeness River watershed begun after the effective date" of the Rule. It also clearly spells out that it "shall not effect" any existing surface or groundwater rights, including permit-exempt groundwater rights (exempt wells).

Since the Dungeness Rule became effective in January of this year, Ecology has approved 16 mitigation certificates. Most of these have been for indoor water use for new home construction or home remodeling in the Dungeness watershed. Implementing aquifer recharge projects in cooperation with the Dungeness Water Users Association will ensure that mitigation meets Ecology's legal requirement for offsetting impacts in the Dungeness River as well as small independent streams in the watershed.

"The progress in water management in the Dungeness with adoption of our instream flow rule is a sterling example of what can be accomplished when you have partnerships working toward a common goal of providing water for new homes and construction and water to support the natural environment," said Tom Loranger, manager of Ecology's Water Resources Program.

WATER RIGHTS PURCHASE & SALE AGREEMENT

The full name of the water rights sales agreement provides an indication of what is involved: "*Dungeness Mitigation Water Agreement for the Purchase and Sale of Temporary Trust Water Rights and Agreement for Recharge Water Conveyance and Use*" (Agreement). The three parties to the Agreement are Ecology, WWT, and the Dungeness River Agricultural Water Users Association (DWUA). WWT is a nonprofit organization based in Seattle that is dedicated to improving and protecting stream flows and water quality throughout Washington State. DWUA is the umbrella organization for the irrigation companies and districts in the Dungeness Valley near Sequim, composed of the Agnew Irrigation District, Clallam Ditch Company, Cline Irrigation District, Dungeness Irrigation Group, Highland Irrigation District, and Sequim Prairie Tri-Irrigation Association (into which Eureka Irrigation and Milling Company and Independent Irrigation District have been merged).

"This is a unique sale agreement because it includes the purchase of water rights and an agreement between the Dungeness Water Users Association and Washington Water Trust to work together to deliver water to aquifer recharge projects that will provide comprehensive mitigation across the Dungeness watershed," said Amanda Cronin, Project Manager for WWT and the Administrator for the Dungeness Water Exchange. As memorialized in the Agreement, WWT has agreed to operate the Dungeness Water Exchange for an indefinite period supported by funding from Ecology and in cooperation with Clallam County. Agreement at 1.

Water Exchange

Price

Instream Flow & Aquifer Recharge

Unique Rights

The water rights for 175 acre-feet of annual use were purchased for \$350,000, i.e. \$2,000 for each acre-foot of water. Ecology provided funding for the costs associated with the Agreement, including the purchase price, and will hold title to the water rights transferred by the Agreement. The purchased 175 acre-feet (AF) of water is the volume that may be used under the Agreement during a single year; one acre-foot is equivalent to 325,851 gallons of water. The purchased water also has a flow rate component, which is the amount of water (flow) available for use at a point in time. Flow rates are generally measured in cubic feet per second (cfs); one cfs equals 448.8 gallons per minute.

THE PURCHASE OF 175 AF OF WATER (ACQUIRED WATER) IS DIVIDED INTO TWO PORTIONS:

- 1) Instream Flows of .76 cfs, with a volume of 45 AF annually will stay in the Dungeness River from August 16th to September 15th. Cronin told *The Water Report* that the water for instream flow during this timeframe is critical for the health of the fishery in the river.
- 2) Aquifer Recharge of 2.2 cfs and a volume of 130 AF annually will be available for shallow aquifer recharge projects between May 15th and July 15th.

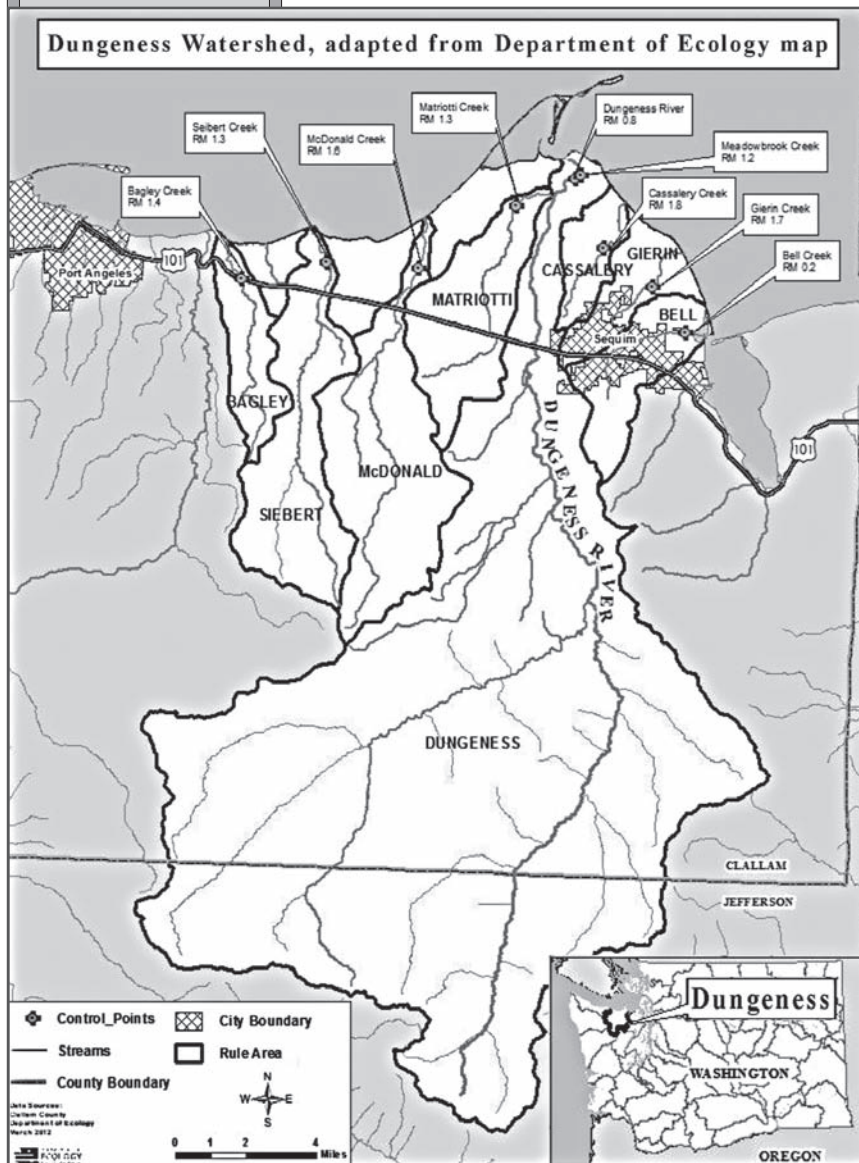
The Agreement calls for an Annual Water Plan that WWT will provide to DWUA each year, preferably prior to February 28th. Agreement at 4.

The Agreement is also unique due to the nature of the water rights purchased. The 175 AF of water purchased is composed of “Temporary Trust Water” currently held in Ecology’s Trust Water Rights Program ([see www.ecy.wa.gov/programs/wr/market/trust.html](http://www.ecy.wa.gov/programs/wr/market/trust.html)). The Washington State Trust Water Rights program provides a way to legally hold water rights — that are not currently being used — for future uses without the water right relinquishing (being forfeited for non-use). Water is held in trust to benefit groundwater and instream flows, and other beneficial uses. While water is held in trust it retains its original priority date. DWUA has water rights “temporarily held in the State’s Trust Water Rights

Program equal to 15.08 cfs (4,598 AF), resulting from water being conserved through reduction of irrigation diversions from the Dungeness River during the irrigation season from April 15th through September 15th... ” Agreement at 2. As noted in Exhibit A of the Agreement, which provides details regarding the Acquired Water, the parties agreed that “the Acquired Water is a portion of the Temporary Trust Water...that it will be removed from the temporary trust and placed permanently into the Trust Water Rights Program for the purposes described in...this Agreement.” Agreement at 14.

Specific instream flow protection amounts are ingrained in the Agreement: “DWUA is to take no more than 50% of the flow in the Dungeness River at the USGS [US Geological Survey] gage, and always leave at least 60 cfs instream at the gage; and that the DWUA is to consider any Temporary Trust Water Rights used for groundwater mitigation as diversions in accounting for measurement of the 50% flow and the 60 cfs commitments...” Agreement at 2. These amounts were first agreed to between Ecology and DWUA in a Memorandum of Agreement regarding water conservation and water rights on September 6, 2012.

The Agreement is the result of substantial collaboration between the State, water users, and instream flow advocates. “The signing of this agreement and the subsequent implementation of aquifer recharge projects will ensure that mitigation is available to the residents of the Dungeness watershed for many years to come,” Cronin stated, adding, “The Dungeness Water Users should be applauded for their efforts to ensure the success of the Dungeness Water Exchange. Starting up a water bank takes a lot of time and brainpower and the water users have contributed lots of both to make this work.”



AQUIFER RECHARGE & CONVEYANCE AGREEMENT

Cronin also noted another unique aspect of the Agreement — the aquifer recharge component, which allows for new groundwater rights in the area through mitigation credits. Aquifer recharge projects, in cooperation with DWUA, provide mitigation to meet Ecology’s legal requirement for offsetting impacts in the Dungeness River watershed. Cronin informed *The Water Report* that, though sites for the infiltration basins for recharge have not been selected, when they have been identified the DWUA’s water transfer system (ditches) will be used to help convey water to those recharge sites. Conveyance from DWUA’s system to the actual recharge sites will be WWT’s responsibility.

The “Recharge Water Conveyance” details set out in the Agreement (beginning at page 5) include WWT agreeing to “provide working facilities to convey the water from the DWUA member’s existing conveyance system to the recharge site” at WWT’s cost and — where applicable — the involved DWUA landowner’s approval. WWT and DWUA will estimate the amount of water diverted that is lost to seepage during conveyance to the recharge site and the “estimated seepage amount shall be deducted” to arrive at the amount “due at the point of delivery to the recharge site.” WWT agreed to pay DWUA \$5 per AF annually for the conveyance of Recharge Water through DWUA’s system (“Wheeling Fee”), based on the amount of water diverted at the point of diversion. This Fee amount may be increased in the future to account for increased costs of conveyance and delivery. WWT is the entity solely responsible for “[a]ll use of Recharge Water under WWT’s approved Mitigation Plan, including operations and maintenance...in cooperation with the respective landowner.”

Ben Smith, president of DWUA noted that, “As farmers, we have a long-term interest in the ecological and economic health of the Dungeness Valley. We were happy to work with WWT to shape this agreement and seed the Dungeness Water Exchange with mitigation that will support economic and environmental sustainability for many years into the future.”

TERMINATION OF AGREEMENT - WATER RIGHTS PROTECTED

The Agreement is scheduled to terminate on December 31, 2100, unless extended by mutual agreement of the parties. Any of the parties to the Agreement may also “propose that the Agreement terminate earlier if (i) changes to the State’s Trust Water Rights Program affect the continued viability of this Agreement of the project described herein, or if (ii) the Acquired Water is not being used in accordance with Section 2.2 of this Agreement or if WWT or Ecology do not obtain the funds necessary to meet its obligation pursuant to this agreement.” Agreement at 5-6.

Although the Agreement may terminate, as Amanda Cronin pointed out to *The Water Report*, the “water right is protected in perpetuity.” The Agreement’s Exhibit A provides explanation regarding this continued protection of the Acquired Water: “[t]he parties agree that the Acquired Water is a portion of the Temporary Trust Water...and that it will be removed from the temporary trust and placed permanently into the Trust Water Rights Program...” Agreement at 14.

MITIGATION CREDITS & NEW GROUNDWATER USE

The Dungeness Water Exchange is currently offering a choice of three mitigation packages, depending on the location of the property:

- 1) The “Indoor-Only Package” is for “domestic” purposes only (as defined in the Rule), for 150 gallons per day (gpd) average use with only minimal incidental outdoor use for \$1,000.
- 2) The “Indoor with Basic Outdoor Package” (costing \$2,000) also allows 150 gpd average indoor use and includes an allowance of 89 gpd for outdoor use; there is a limit on the amount of irrigated lawn area of .06 acres.
- 3) The “Indoor with Extended Outdoor Package” (costing \$3,000) allows 150 gpd average indoor use plus an allowance of 200 gpd for outdoor use, with a limit on the irrigated lawn area of .13 acres. An outdoor mitigation package reflects the maximum amount of water that users must agree to use on their property from their permit-exempt well.

See www.washingtonwatertrust.org/water-exchange.

Note that 150 gpd is the annual average used by households across the Dungeness watershed as determined by Ecology. Ecology will be requiring new water users to install a measuring device to record their water use.

A fourth option is available to landowners who are not yet ready to build and won’t immediately be using groundwater, but are concerned that there won’t be mitigation water available in the future. Those landowners may purchase an option for \$250 upfront and a payment of \$50/year, to insure that they will be able to purchase mitigation credits when they are ready to begin using water.

Ecology presented Clallam County with a \$100,000 grant to provide financial assistance for building permit applicants who sought mitigation credits for indoor household water uses, with funds provided for the first six months of 2013.

**Water
Exchange****Aquifer
Recharge****DWUA
Conveyance****Seepage Loss****Agreement
Termination****Perpetual
Water Right****Mitigation
Options****Average Use****Option
Insurance**

Water Exchange

Exempt Wells

Mitigation Required

For more details about the Dungeness Water Exchange Mitigation, see Ecology's website at: www.ecy.wa.gov/programs/wr/instream-flows/dungeness/dungeness-wemp-12032012.pdf.

PERMIT-EXEMPT WELLS

Permit-exempt wells — groundwater wells exempt from permitting under Washington water law — are allowed use up to 5,000 gallons per day (gpd) for indoor domestic use and to irrigate up to one-half acre of lawn or garden per well (RCW 90.42). The Dungeness Rule did not change those limits, but the Rule does require new permit-exempt wells to mitigate for their consumptive use, i.e. the amount of water consumed by indoor water uses and taken up by lawn and garden plants, which is not returned to groundwater.

Under the Rule, landowners who want to utilize the full amount allowed under the permit exemption (i.e., 5,000 gpd / one-half irrigated acre) may pursue their *own* mitigation plan. Landowners have the option to work directly with Ecology and come up with mitigation for their groundwater use as an alternative to going through the Dungeness Water Exchange.

Purchasing mitigation for the amounts offered by the Dungeness Water Exchange (shown above) does provide less water than the full exemption (5,000 gpd). Thus, mitigation buyers under the Exchange agree to limit their water use to the amount purchased and a note to the property title will reflect that limit. See www.washingtonwatertrust.org/dungeness-water-exchange-faqs.

CONCLUSION

The Dungeness Water Exchange provides an innovative solution to water problems that would otherwise prevent growth in the area, result in harm to the fishery, and pit the agricultural community against environmentalists and possibly other water users.

By addressing issues that include low stream flows and permit-exempt wells with a collaborative approach that utilizes water marketing, mitigation credits, and aquifer recharge, the parties have crafted a solution that could serve as a template in other parts of the West.

FOR ADDITIONAL INFORMATION:

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Washington Water Trust website: www.washingtonwatertrust.org

The “Dungeness Mitigation Water Agreement for the Purchase and Sale of Temporary Trust Water Rights and Agreement for Recharge Water Conveyance and Use” (Agreement) is available upon request from TWR — email: thewaterreport@yahoo.com

Washington Water Trust website: www.washingtonwatertrust.org

Table 1. Mitigation Package Descriptions (availability depends on location)

Package Description	Average Amount of Indoor Use (Gallons/Day)	Average Amount of Outdoor Use (Gallons/Day)	Amount of Irrigated Lawn Area (Square Feet)	Amount of Irrigated Lawn Area (Acres); pumped volume
Indoor Only Package (only minimal incidental outdoor use)	150*	0	0	0
Indoor with Basic Outdoor Package	150*	89	2,500 sq. ft. (approx. 50x50 ft)	.06 acres; 0.099 acre-feet/year
Indoor with Extended Outdoor Package	150*	200	5,625 sq. ft. (approx. 75x75 ft)	.13 acres; 0.224 acre-feet/year

US & Mexico Water

Complex Issue

UNITED STATES & MEXICO WATER SHARING

BACKGROUND AND RECENT DEVELOPMENTS

Edited/condensed from Congressional Research Service (CRS) Document R43312 (November 19, 2013)

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INTRODUCTION

How to share water has long been a complex issue for the United States' and Mexico's shared border region and in the broader US-Mexico relationship. The two countries share a nearly 2,000-mile border. Multiple rivers cross the border or form the border at various points.

THE PRINCIPAL RIVER BASINS SHARED BY MEXICO AND THE US ARE:

Figure 1. Illustration of Colorado River Basin



- The Colorado River, which is predominantly in the US, and crosses the Mexican border on its way to the Gulf of California (Figure 1)
- The Rio Grande, with major tributaries in the US and Mexico and whose riverbed is the US-Mexico border in Texas (Figure 2)

In the 19th century, numerous questions arose regarding the boundaries between the two countries and water sharing of international rivers. Starting in 1848 with the *Treaty of Guadalupe Hidalgo* (www.ibwc.state.gov/Files/Treaty_of_1848.pdf), which ended the Mexican-American War, early agreements sought to clarify the location of the border. Later in the century, the two countries entered into the *Convention of March 1, 1889*, establishing the International Boundary Commission (IBC) to apply border agreements (www.ibwc.state.gov/Files/TREATY_OF_1889.pdf). Starting in 1906, agreements to distribute water binationally began to emerge, including a *1906 Convention* on the sharing of Rio Grande for irrigation purposes, distributed water in the vicinity of El Paso, Texas (www.ibwc.state.gov/Files/1906Conv.pdf).

In 1944, the two countries entered into a treaty on “*Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande*” (US-Mex., Feb. 3, 1944, 59 Stat. 1219 (Treaty)). The Treaty reconfigured the IBC into the International Boundary and Water Commission (IBWC), which provides binational support and facilitates resolution of issues arising during application of US-Mexico treaties on water quantity, sanitation, water quality, flood control, and boundary demarcation.

Adapted from:

The Earth Institute at Columbia University (with minor modification by CRS), at <http://blogs.ei.columbia.edu/wp-content/uploads/2012/12/CO-River-Basin-REVISED.jpg>, and modified by CRS.

US & Mexico Water

Rio Grande Water Debt

IBWC Governance

This article provides a primer on US and Mexican water-sharing topics. It focuses on surface water quantity sharing and recent developments, including drought conditions. Due to Mexico's recent below-target deliveries of Rio Grande water to the US, particular attention is given to the status, underlying causes, and responses to the Rio Grande water debt.

This article describes:

- Legal obligations and processes under the Treaty
- Drought conditions from 2010 to 2013
- Water sharing and developments in the Colorado River Basin
- Water sharing in the Rio Grande Basin and Mexico's water debt
- Stakeholder, diplomatic, and legislative responses to Mexico's Rio Grande water debt

1944 WATER TREATY

Responsibilities, Execution, and Treaty Minutes

The Treaty establishes water allocations for the US and Mexico and creates the current governance framework for the IBWC to resolve disputes arising from its execution. The IBWC is an international body consisting of a US and a Mexican section, which are overseen by the State Department and the Mexico Ministry of Foreign Relations, respectively.

Under the Treaty, members of the IBWC are granted diplomatic status and enjoy "the privileges and

immunities appertaining to diplomatic officers" and may "freely carry out their observations, studies and field work in the territory of either country." However, all works and structures that are wholly located within one country — despite the potential international character of such works — remain under the exclusive jurisdiction of the country in which they are located. Each country is responsible for the expenses incurred by their respective section; however, joint expenses are "borne equally by the two Governments." The US section of the IBWC is typically funded through the annual US State Department and Foreign Operations appropriations bill.

Any disputes that arise under the Treaty are settled through the Treaty's "minute" process. The IBWC is authorized to develop rules and to issue decisions regarding the execution of the Treaty in the form of minutes, which become legally enforceable and essentially amend the Treaty. A proposed minute is forwarded within three days to the government of each country for approval. If the government of either country fails to announce its approval or disapproval within 30 days, the minute is considered approved. If either government disapproves, the matter is removed from IBWC control and the two governments negotiate the issue. If an agreement is reached between the governments, the IBWC must then take any further actions "as may be necessary to carry out such agreement." For the US, the executive branch has the authority to approve or disapprove of the proposed minutes arising from the Treaty — though the President only has the ability to make such agreements pursuant to a treaty if the agreement is within the purview of the treaty. Because a properly enacted treaty is the "Supreme Law of the Land," the power to enter into an agreement required or contemplated by the treaty lies fairly clearly within the President's executive function. US Const. art. VI, § 2.

Figure 2. Illustration of Rio Grande Basin



Adapted from

New Mexico Museum of Natural History and Science

www.nmnh.naturalhistory.org/BEG/BEG%20Images/MAP_RGB_pg48.jpg, modified by CRS

**US & Mexico
Water****Water
Distribution****Water Debt
Repayment****Diversion
Flexibility****Prioritized Uses****Water Quality
Issues****Constructed
Works
Operation****Other
Provisions****Water Distribution Requirements**

The basic water distribution arrangements in the Treaty are as follows:

- For the Colorado River basin:
 - the US is to provide Mexico annually with 1.5 million acre-feet (AF) of water. Treaty, art. 10
- For the Rio Grande basin below Fort Quitman, Texas:
 - Mexico has the rights to two-thirds of the flows that feed into the Rio Grande from the six major tributaries that enter from Mexico: the Conchos, San Diego, San Rodrigo, Escondido, and Salado Rivers and the Las Vacas Arroyo. Treaty, art. 10
 - the US receives all flows from Rio Grande tributaries in the US and one-third of flows from the six Mexican tributaries. *Ibid.*, art. 4(B). Mexico's water delivery from these six tributaries must average at least 350,000 AF per year, measured in five-year cycles. *Ibid.*, art. 4(B)(c)

If Mexico fails to meet its minimum flow obligations for a five-year cycle because of "extraordinary drought" — a term not defined in the Treaty — it must make up the deficiency during the next five-year cycle with water from the Mexican tributaries. In 1969, IBWC Minute 234 established that Mexico may repay its water debt using three sources of water: (1) excess water from its tributaries; (2) a portion of its allotment from its tributaries; or (3) a transfer of its stored water in the international reservoirs.

Article 9 of the Treaty provides the IBWC with some flexibility regarding the diversion of water from the Rio Grande. For example, in cases of extraordinary drought occurring in one of the countries, the IBWC may permit water to be withdrawn from the other country in order to help alleviate drought conditions. Further, the IBWC may allow one country to use water allocated to the other country if it can be done "without injury to the latter and can be replaced at some other point on the river." However, if the IBWC authorizes temporary diversions of water from one country to another, the use of such water does not establish a permanent right to divert. Under article 9, the IBWC also is responsible for keeping records concerning the water belonging to both Mexico and the US.

The Treaty establishes a hierarchy of uses for the water:

- 1) domestic and municipal uses; 2) agriculture and stock-raising; 3) electric power; 4) other industrial uses; 5) navigation; 6) fishing and hunting; 7) any other beneficial uses which may be determined by the Commission.

A frequent critique of this hierarchy is that it does not include an obligation to maintain water for ecological purposes. In addition, the original 1944 Treaty does not have any provisions that establish requirements for water quality, but only establishes the quantity requirements outlined above. This led to tensions regarding salinity levels in the US' deliveries to Mexico after the Treaty was ratified. As discussed in the "Salinity" section below, the two countries agreed to Minute 242 in 1973 to resolve the dispute.

Regarding management of reservoirs in the basin that are wholly in one country, the Protocol accompanying the original 1944 Treaty establishes that constructed works (e.g. dams, conveyance structures) in one country that are used only partly for Treaty compliance shall be constructed and operated by the federal agencies of that country.

Specifically, the Protocol states that for:

"construction or use of works for storage or conveyance of water, flood control, stream gaging, or for any other purpose, which are situated wholly within the territory of the country of that Section, and which are to be used only partly for the performance of treaty provisions, such jurisdiction shall be exercised, and such functions, including the construction, operation and maintenance of the said works, shall be performed and carried out by the Federal agencies of that country which now or hereafter may be authorized by domestic law to construct, or to operate and maintain, such works. Such functions or jurisdictions shall be exercised in conformity with the provisions of the Treaty and in cooperation with the respective Section of the Commission, to the end that all international obligations and functions may be coordinated and fulfilled." Treaty, Protocol.

Subsequent minutes, like Minute 319 (discussed further below), have integrated operational activities in specific circumstances for specific works. To what extent Mexico is operating its reservoirs to support Treaty compliance or prioritizing domestic water demands is a point of debate discussed in the "Stakeholder Perspectives" section below, which focuses on Mexico's Rio Grande water debt.

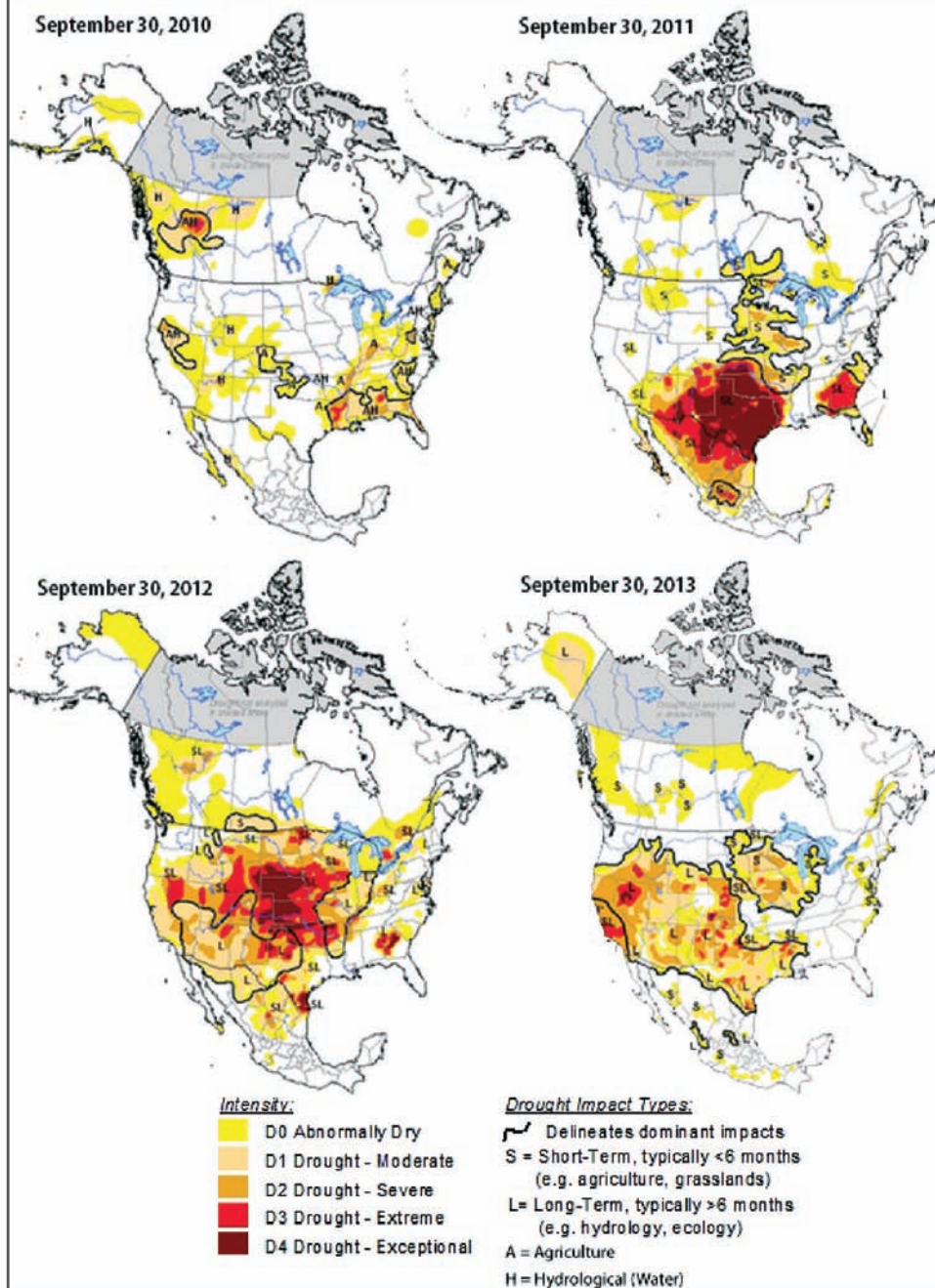
Other Treaty Provisions

The Treaty established other requirements beyond water distribution obligations.

The Treaty, among other things:

- 1) provided for the construction of certain dams and channels along the rivers;
- 2) required the IBWC to establish studies and prepare plans for flood control;
- 3) provided that the IBWC should study and plan for the generation of hydro-electric energy along the rivers; and
- 4) required the IBWC to establish regulations for the maintenance and operation of reservoirs.

Discussion of these treaty requirements is beyond the scope of this report.

Figure 3. Evolution of North American Drought from 2010 to 2013

Adapted from:
 North American Drought Monitor maps (minor modifications by CRS)
www.ncdc.noaa.gov/temp-and-precip/drought/nadm/nadm-maps.php

DROUGHT CONDITIONS

Water sharing becomes more complicated during droughts, and both the Colorado River and the Rio Grande basins are prone to multi-year droughts. For the Rio Grande, as shown in Figure 3, both 2011 and 2012 were marked by drought, resulting from high heat, low precipitation, and low runoff throughout most of the basin. For the Colorado River, drought conditions developed more noticeably in 2012 and persisted in 2013; significant rains in late August and September 2013 in some parts of the basin provided some relief, but also resulted in significant flooding and damage, particularly in the state of Colorado.

COLORADO RIVER BASIN TREATY IMPLEMENTATION ISSUES

As depicted in Figure 1, the Colorado River flows through seven US states (Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming) and forms the border between the Mexican states of Baja California Norte and Sonora, before emptying into the Gulf of California; 97% of the basin is in the US. Disputes have erupted over the use of the Colorado River water supplies for most of the past century. Although many of these disputes have related to state allocations on the US side of the border, issues have also arisen over water quality, availability, and conservation between the US and Mexico. When the Treaty was signed, Colorado River flows were estimated at some 16.8 million AF per year. Current flows are now likely closer to 14.4 million AF annually (see “U.S., Mexico: The Decline of the Colorado River” Stratfor Global Intelligence, May 13, 2013). That is, the Treaty requirement that the US provide Mexico with 1.5 million AF annually means that the US retains roughly 90% of the average flow, but less than originally estimated. In December 2012, the US Department of the Interior’s Bureau of Reclamation (Reclamation) published

a study documenting that the demand for the basin’s water in the US in some years exceeds supply, and that the demand-supply imbalance is anticipated to worsen in coming decades (see “Colorado River Basin Water Supply and Demand Study” Reclamation, December 2012; and P. Adams, T. Fulp, C. Jerla, *TWR* #90; P. Adams, C. Jerla, J. Prairie, *TWR* #100; and Water Brief, *TWR* #107).

While discussion of Colorado River water issues within the US is beyond the scope of this article, concern about meeting future demands in the US is significant to the context of discussions about the basin’s water sharing with Mexico.

The following Treaty implementation issues in the Colorado River Basin are now discussed in more detail: salinity; environmental protection (instream flows); and Minute 319 (for more coverage of recent Treaty Minutes adoption, including Minute 319, see Kowalski, *TWR* # 107).

US & Mexico Water

Colorado River Flows

US & Mexico Water

Salinity Management

Salinity

While the US has consistently delivered Mexico's minimum allotment of Colorado River water, disputes did arise about the quality of the water. In the 1960s, salinity in the Colorado River rose dramatically. Mexico was receiving water that was too salty for human, livestock, or agricultural uses. The IBWC helped both countries agree to Minute 218, which took effect in 1965 for a period of five years, requiring the US to extend a drainage channel to reduce salinity. Five years later, Mexican farmers remained angry about the salinity issue. After the Mexican government threatened to take the water dispute to the International Court of Justice, the US agreed to Minute 242 in 1973. Per Minute 242, the US agreed to construct additional channels to control salinity, fund clean-up of the Mexicali Valley lands damaged by the accumulation of salts, and keep salinity levels of delivered water below a certain level. Minute 242 remains in force, and the US continues to comply with its provisions. While the IBWC-backed resolution to this crisis proved to be successful, the agreement took a long time and required external pressure to be reached.

Wetlands Created

Part of the US effort to manage the salinity of its water included Reclamation's construction of the Yuma Desalting Plant in Yuma, Arizona. This facility has rarely operated since its construction, however, due in part to the cost of its operations (desalination can require considerable electricity to operate). Instead, the high-saline irrigation water has been disposed (through a canal that enters Mexico and discharges into wetlands called the Cienega de Santa Clara near the Gulf of California) separately from the US' required deliveries to Mexico. Whether and how the Yuma Desalting facility should be operated, and how the impacts on the Cienega de Santa Clara from the reduced discharge of the untreated irrigation runoff should be managed, remain topics of some debate in the basin.

Instream Flow Needs

Instream Flows for Environmental Protection

The Colorado River Delta at the terminus of the Colorado River, prior to significant expansion of the basin's water consumption, covered 9,650 square miles in the US and Mexico. The Mexican side of the delta contains wetlands, woodlands and desert areas that are home to many endangered species; part of Mexico's delta is a designated United Nations Biosphere Reserve. According to environmental interests, insufficient water flowing into the delta has contributed to the degradation of 90% of the delta's wetlands (CRS phone interview with Carlos de la Parra, Professor at El Colegio de la Frontera Norte, Mexico, July 8, 2013); these interests recommend that annual flows accompanied by larger pulses of water every four years would restore the wetlands (Sierra Club, Regional Conservation Committee: *Colorado River Report*, February 2001). These stakeholders have argued that "environmental protection" should be added to the Treaty as a factor in determining water deliveries to Mexico. Other stakeholders are less supportive of these restoration efforts; some are concerned that they may reduce the allocations available for US users and others do not want to support these efforts while the question of Mexico's compliance with water deliveries in the Rio Grande basin is raising tensions (discussed further below).

Border Aquifers Are Largely Not Addressed by Binational Agreements

Binational aquifers also are shared water resources that can be particularly important for meeting needs during dry times; roughly 20 binational aquifers are significant sources of domestic water supply for overlying populations. For example, the Hueco Bolson aquifer provides Ciudad Juárez's 1.5 million residents and two-fifths of El Paso's 730,000 residents with water.

Many border aquifers have experienced significant declines in volume and/or quality. No broad bilateral agreement exists on U.S.-Mexico border groundwater management and use. Declining water levels, deteriorating water quality, and increasing use of groundwater resources have raised concerns about the long-term availability of the border's aquifers. Knowledge about the extent, depletion rates, and quality of transboundary aquifers is limited and in some areas completely absent. A binational aquifer quantity and quality assessment has been initiated, pursuant to the US - Mexico Transboundary Aquifer Assessment Act (P.L. 109-448). The Act authorized the Secretary of the Interior, through the US Geological Survey (USGS), to collaborate with the States of Arizona, New Mexico, and Texas through their Water Resources Research Institutes (WRRIs) and with the International Boundary and Water Commission, stakeholders, and Mexican counterparts to provide information and a scientific foundation for State and local officials to address pressing challenges along the US-Mexico border. According to the Act's accompanying Senate report (S.Rept. 109-17):

Ground-water pumping has lowered the water table, depleted aquifers, and reduced the base flow of many streams thus decreasing the quantity of water available to support critical riparian habitats. Excessive ground-water pumping in some major urban centers, such as in the El Paso/Juarez metropolitan region, has caused land subsidence that has damaged homes and essential urban infrastructure. In addition to the effects of ground- and surface-water depletion, degradation of water quality has reduced habitat suitability for the region's diverse biota.

The assessment was authorized in 2006 for \$50 million. The USGS used and distributed a total of \$2 million through FY2010 for the assessment. It has received no subsequent funding as of November 2013. Mexico also contributed funding, but estimated funding levels are not available. Additional USGS-supported work is contingent on funding.

Sources: G. E. Eckstein, "Buried Treasure or Buried Hope? The Status of Mexico-U.S. Transboundary Aquifers under International Law" *International Community Law Review*, vol. 13 (2011), pp. 273-290; W. A. Alley, *Five-Year Interim Report of the United States-Mexico Transboundary Aquifer Assessment Program: 2007 -2012*, U.S. Geological Survey, Open File Report 2013-1059, Reston, VA, 2013; Christopher E. Wilson, Erik Lee, et al., *The State of the Border Report: A Comprehensive Analysis of the U.S.-Mexico Border*, Woodrow Wilson Center, El Colegio de la Frontera Norte, Arizona State University, May 2013.

**US & Mexico
Water****Allocation**

The issue of instream flows for environmental protection entered bilateral discussions in the IBWC in the late 1990s. In recent years, bilateral discussions in the basin coalesced around improved management of and conservation of both the Colorado River and its delta. Both governments, along with state officials and conservation groups, worked with the IBWC to develop an agreement that would allocate water to Mexico based on whether there was a surplus or drought and allow for joint investments to create greater environmental protection, as well as greater water conservation (i.e., ability to store water) for Mexico. These discussions led to Minute 319.

Minute 319: Water Conservation and Environmental Protection

Minute 319 was signed on November 20, 2012, and is to be enforced for five years (with the possibility of an extension through 2026 if not supplanted or replaced by another minute). Some view Minute 319 as a step forward in bilateral water management and environmental protection efforts. Others do not support Minute 319 for a variety of reasons, including that the minute signaled increasing cooperation at the same time that water tensions in the Rio Grande basin were particularly acute.

Minute 319 stipulates: “the Government of the United States will provide the most current information to Mexico on basin conditions as often as required, including precipitation, stream flow, and water storage conditions in the basin and their historical behavior; the consumptive water uses for the different basin states, and the historical trend; and the status of the determination of shortage conditions in the Colorado River Basin within the United States...” — This level of data sharing is higher than required in the Rio Grande basin.

Key elements of the agreement include:

- extending provisions of Minute 318 (Cooperative Measures to Address the Continued Effects of the April 2010 Earthquake in the Mexicali Valley, Baja, California), to allow Mexico to defer delivery of its Colorado River water allocation while Mexico repairs earthquake-damaged infrastructure
- delivering additional water (i.e., above the 1.5 million AF annual delivery required by the Treaty) to Mexico when water levels are high in Lake Mead
- reducing deliveries during low Lake Mead reservoir conditions (i.e., Mexico’s annual water deliveries would be reduced by up to 0.5 million AF, similar to the reduction by the US lower basin states)
- implementing jointly funded water efficiency and conservation projects to free up water for the Colorado River Delta
- creating a mechanism by which US water deliveries to Mexico can be held in US reservoirs for subsequent delivery
- continuing to work together to address salinity concerns per Minute 242.

**Information
Sharing****Key Elements
of
Minute 319****RIO GRANDE BASIN TREATY IMPLEMENTATION ISSUES**

On most maps, the Rio Grande appears as a continuous line from Colorado to the Gulf of Mexico; in reality, the river dries up at various points. Consequently, what looks like a continuous basin in Figure 2 actually operates as separate binational basins divided into:

- Northwestern El Paso-Juárez Rio Grande Basin from south of Elephant Butte Dam in New Mexico past the water withdrawals and return flows of El Paso, Texas, and Ciudad Juárez, Chihuahua
- Southeastern Lower Rio Grande Basin, including its tributaries (e.g., Rio Conchos) from Fort Quitman, Texas, to the Gulf of Mexico

Binational water sharing agreements differ in the two binational Rio Grande basins. In the Northwestern El Paso-Juárez Basin, the US is required to deliver water to Mexico. In the Southeastern Lower Rio Grande Basin, it is largely Mexico that is obligated to deliver water to the US. A common characteristic of both basins is that the water demands regularly exceed supply; this imbalance becomes particularly apparent during droughts. While the Northwestern El Paso-Juárez Basin water issues have raised significant local concerns recently, the delivery of water from Mexico in the Southeastern Rio Grande Basin has received the majority of national media and political attention in the US.

**Separate
Binational
Basins****Shortages****Northwestern Rio Grande Basin (El Paso-Ciudad Juárez) Issues**

Under the 1906 Convention that guides US deliveries to Mexico at Ciudad Juárez, the US is to deliver to Mexico 60,000 AF (enough water to irrigate about 25,000 acres) for use in the Juárez Valley of Chihuahua. However, during conditions of extraordinary drought, these deliveries to Mexico are reduced proportionally to reductions in available supplies in the broader basin. From 1939 to 2013, deliveries to Mexico have been reduced in 31% of the years. The US is not required to repay any reduced deliveries. For example, in 2012, US deliveries to Mexico were curtailed due to drought, to an estimated 23,214 AF (39% of full allotment). In 2013, US deliveries to Mexico were estimated at 3,665 AF (6% of full allotment).

US Reductions

US & Mexico Water

Rio Grande Project

Timing of Releases

Mexico's Water Debt

Minute 234 Dispute

Irrigation Expansion

Current Cycle Deficit

Delivery Timing

In recent years, US water deliveries to Mexico in the binational Northwestern Rio Grande Basin have drawn attention because the Middle Rio Grande (the portion of the river that traverses New Mexico) has experienced particularly low flow conditions and low storage at reservoirs due to drought. Junior water rights holders (whose water allocations are reduced prior to those with more senior rights) in New Mexico and Texas have received deeply curtailed deliveries (as low as 4% of a full allotment) in recent years.

Specifically, US stakeholders associated with Reclamation's Rio Grande Project are interested in how water is being delivered to Mexico when the basin is affected by drought. The Rio Grande Project furnishes irrigation water for approximately 178,000 acres in New Mexico and Texas, as well as electric power. Water deliveries from this project have been significantly curtailed as multiple years of dry conditions have depleted reservoir storage.

In particular, the timing of the water releases in 2012 for delivery to Mexico and their potential impacts on US regional interests (e.g., potential conveyance losses because releases for Mexico would not be timed with deliveries to US water districts) raised concerns among some US stakeholders. Mexican growers had sought the surface water deliveries because pumping problems had impaired their ability to start the agricultural season using groundwater.

Southeastern Rio Grande Basin (below Fort Quitman, Texas)

In the southeastern Lower Rio Grande basin, Mexico is required to deliver water to the US under the Treaty. As previously noted, the southeastern Lower Rio Grande water delivery account is managed largely on five-year cycles. Mexico's compliance with Treaty delivery requirements often has been accomplished through wet weather flows, rather than purposeful releases from Mexican reservoirs during dry conditions.

Mexico met its deliveries within the five-year cycles until the 1994-2003 drought. During the two five-year cycles between 1992 and 2002, however, Mexico incurred water debt — failing to deliver the 1,750,000 AF (average annual 350,000 AF) required under the Treaty. In Minute 293 (October, 1995), the US agreed to loan Mexico water to alleviate the drought. However, in subsequent years Mexico's water debt continued to increase. Minute 308 (June, 2002), required Mexico to immediately transfer 90,000 AF of water from international reservoirs to the US, as partial repayment of the water debt. Minute 308 also required Mexico to conduct studies to improve drought management. After extended negotiations, the two countries reached a solution to eliminate Mexico's water debt for the aforementioned shortages in 2005.

As noted above, Minute 234 (1969), includes a procedure whereby Mexico may pay its water debt using three different sources of water. Minute 234 requires that the deficit payments from these three sources be made concurrently with required deliveries in the following five-year cycle. The US and Mexico differ in their interpretation and implementation of Minute 234. For example, Mexico claimed that in the event of extraordinary drought, only the deficit incurred during the 1992-1997 five-year water cycle needed to be repaid in the following five-year cycle (i.e., by 2002), and any deficit incurred during the 1997-2002 cycle could be deferred until the next five-year cycle. The US argued that Minute 234 required that the water debt incurred during the 1997-2002 cycle be made up concurrently with the 1992-1997 water debt. The matter was left unresolved.

Diffusion of tensions over the debt was accomplished through presidential intervention, negotiation of new minutes under the Treaty, and investments in improved water efficiency. Hurricane-induced wet conditions cleared the remaining water debt in 2005. The most significant tributary in the southeastern Rio Grande basin is Mexico's Rio Conchos, which historically contributed 70% of the flow in the Rio Grande, but as of the 1990s was only contributing 40% of the flow. Significant irrigated agricultural production developed in the Rio Conchos basin during the 1980s and early 1990s. It is the change in water deliveries from the Rio Conchos that garnered most of the critical attention during the 1994-2003 drought.

Mexico's Rio Grande Deliveries

The current delivery cycle started October 25, 2010, and will end October 24, 2015. In October 2013, the first three years of the current cycle ended with Mexico roughly 288,000 AF (27%) behind in deliveries, based on a total target delivery for those three years of 1,050,000 AF (shown in Figure 4). Much of this debt accrued as the result of a deficit of more than 249,000 AF of the annual 350,000 AF target during the second year of the cycle — that is, deliveries from Mexico were less than 30% of the annual target from October 2011 to October 2012. In the third year of the cycle, Mexico is estimated to have exceeded the target delivery, with roughly 374,000 AF delivered to the US. Mexico has two years before the five-year cycle ends; if it ends in with a delivery deficit and agreement that the "extraordinary drought" conditions existed, Mexico will have the next five-year cycle to repay its water debt.

The timing of the Mexican deliveries within the five-year cycle is a point of tension among some basin interests. This tension was particularly acute during 2012, which falls largely within the second year of the

US & Mexico Water

Reservoir Releases

Current Cycle Status

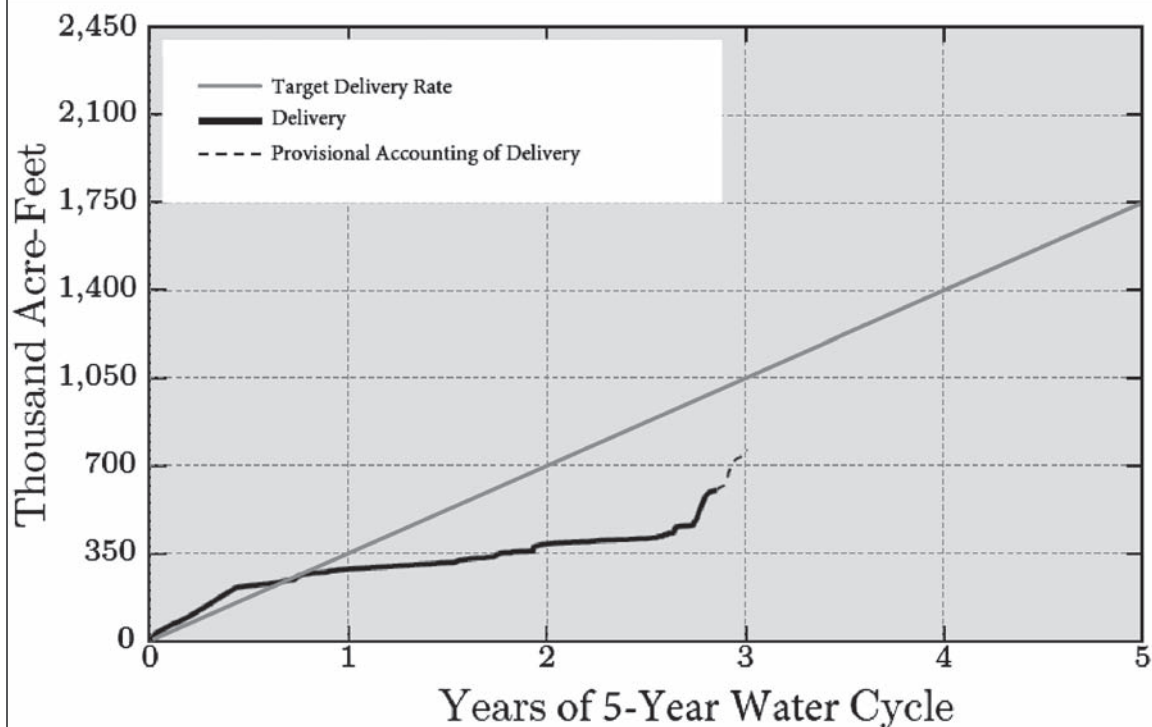
Mexican Relief

Demand Increases

cycle shown in **Figure 4**, as Texas water rights holders faced persistent drought conditions and Mexican water deliveries were below the target deliveries. Two binational reservoirs on the Rio Grande store much of the water Mexico delivers to the US; these reservoir releases help regulate when the water is delivered to US interests, thereby increasing the value of the delivered water in meeting US water demands. Some US stakeholders argue that the uncertainty regarding the timing of Mexico's deliveries reduces the effective utilization and management of the delivered water, its storage, and its release. Mexico, on the other hand, argues that its deliveries are in compliance with the cycle provided for in the Treaty.

Figure 4. Estimated Mexican Deliveries to United States, October 2010 to October 2015, Under 1944 Water Treaty

(data are provisional and subject to revision)



Source: CRS, adapted from IBWC data.

Recent Drought Conditions

According to the North American Drought Monitor, drought conditions are persisting (albeit at a lower intensity) in the US portion of the Rio Grande River Basin, while much of the Rio Conchos is largely no longer shown to be in drought condition (see Figure 3). The drought monitor maps in Figure 3 are created by experts who synthesize various drought indices and impacts. The maps in Figure 3 show a lifting of drought in much of Mexico's Rio Conchos basin.

An Over-Allocated Basin

Demands for water in the southeastern Rio Grande basin exceed average supply; it is an over-allocated basin. This imbalance became acute during the 1994-2003 drought. During that drought, the water supply for US agriculture in the Lower Rio Grande basin averaged 78% of the full allocation from 1994 to 1996, and 53% from 1997 to 2004. Currently, Texas water users other than priority water users (i.e., municipal, domestic, and industrial users) can expect to receive on average 70% of their water allocation in average water years. Over-allocation in Mexico's Rio Grande basin also exists. Much of Mexico's over-allocation is attributed to the expansion of Mexican irrigated agriculture from 1965 to 1994, first in Tamaulipas and later in Chihuahua. Significantly, Texas agricultural water withdrawals did not increase at a similar rate during this period in part because agriculture was already well established on the US side of the border. Growth in industrial activity near the border (associated largely with the maquiladora industry) and population growth in the basin's urban areas also increased demands for urban water supplies. See S. Sandoval-Solis, "Water Planning and Management for Large Scale River Basin Case of Study: the Rio Grande/Rio Bravo Transboundary Basin" (Ph.D. dissertation, The University of Texas at Austin, 2011).

US & Mexico Water

Buy-Backs & Conservation

Minute 309

After the 1994-2003 drought, efforts were made to better align water demand and supply in the southeastern Rio Grande basin; these efforts included buyback of water rights and infrastructure improvements (e.g., reducing water losses from agricultural and municipal water distribution systems). Much of the focus has been on reducing agricultural water use since it accounts for 84% of water withdrawals in the southeastern Rio Grande basin.

Some of these efforts were undertaken binationally. For example, efforts to improve irrigation efficiency in the largest irrigation district in the Rio Conchos basin were undertaken using assistance from the North American Development Bank (NADBank). NADBank also invested in irrigation efficiency conveyance improvements in US border counties. NADBank provided \$40 million in grants for these activities in Mexico, and \$40 million for activities in the US. Support for some of these investments was provided by Minute 309 (*see Minute 309, Volumes of Water Saved with the Modernization and Improved Technology Projects for the Irrigation Districts in the Rio Conchos Basin and Measures for Their Conveyance to the Rio Grande*, July 3, 2003: www.ibwc.gov/Files/Minutes/Min309.pdf).

Although progress has been made, demand still exceeds supply. Some stakeholders have also questioned how much water savings has been accomplished through these investments and whether the investments in Mexico resulted in improved water deliveries by Mexico under the Treaty.

Responses to Mexico's Rio Grande Water Debt

STAKEHOLDER PERSPECTIVES

Some US interests contend that Mexico's water delivery process treats US deliveries as a secondary priority to meeting Mexico's own water uses; this has angered some because of the more prescriptive nature of the US water delivery requirement to Mexico (i.e., specified quantities are required to be delivered annually). Critics point to high storage levels in some Mexican reservoirs as counter-evidence; for example, the Luis Leon and Francisco Madero reservoirs in the Rio Conchos basin were at or above 100% as of November 8, 2013. They seek the release of waters from these reservoirs to help with the agricultural water needs in the most eastern portion of the basin. These interests see these high reservoir levels as the hoarding of a shared resource.

Other basin stakeholders argue that Mexico's delivery flexibility was explicitly provided in the Treaty to deal with the annual variability of water conditions in the basin. While the flexibility in delivery schedule can be viewed as generous to Mexico, some Mexican interests view the water delivery requirements in the Treaty as generous to the US. They argue that although 30% of the water in the southeastern Rio Grande basin historically originated in the US, 50% of the basin's water has been allotted to the US. This occurs, in part, because US tributaries are allotted 100% to the US.

For Mexico, conserving water in its reservoirs can be viewed as part of a long-term drought risk management strategy. Mexican reservoirs associated with the Treaty tributaries (which are on tributaries that are shared 2/3 Mexico, 1/3 the US) are at 62% of their total capacity as of November 8, 2013. The two binational dams on the Rio Grande, the Amistad and Falcon dams, were at 44% and 35% of their storage capacity as of November 12, 2013 (*see IBWC, Rio Grande Basin Conditions*, available at: www.ibwc.state.gov/Water_Data/Reports/RG_Flow_data.html).

The Mexican reservoirs on non-Treaty tributaries (which are allotted 100% to Mexico) are at 73% capacity. The strategy in some Mexican sub-basins to conserve water in some reservoirs during drought also may be influenced by the less developed levels of agricultural insurance and government assistance programs in Mexico. These types of programs in the US reduce the agriculture sector's economic exposure to droughts and other natural disasters.

Some US stakeholders support reevaluating the current binational water-sharing framework for multiple reasons, including Mexico's Rio Grande water deliveries, its reservoir management and plans, and other disputes and concerns (e.g., environmental restoration and protected and invasive species management issues) in both the Rio Grande and Colorado River basins. Others support continuing to work within the existing Minute and IBWC framework; this includes some US interests that are encouraged by the resolution and cooperation on binational Colorado River issues and concerned that opening up the Treaty is risky for US interests.

DIPLOMATIC RESPONSES

The IBWC has resolved most border water disputes since 1944, although its processes may be slow to reach resolution. The IBWC employs a combination of technical expertise and diplomacy (backed by the US State Department and Mexico's Foreign Ministry) to find solutions that are acceptable to stakeholders on both sides of the border. As with past crises, the IBWC has been the primary entity engaged in resolving the current Rio Grande water dispute over how to address drought conditions in that region.

Storage Issues

Water Origination

Drought Strategy

Mexican Storage

Treaty Review

IBWC Resolution

**US & Mexico
Water**

The US and Mexican sections of the IBWC have been meeting regularly since late 2012 to discuss Mexico's water deliveries. As of early April 2013, the US section of the IBWC (USIBWC) reported that the Mexican government had initiated some releases from a reservoir on the San Rodrigo River per the USIBWC's (and the Mexican state of Tamaulipas's) repeated requests. Since April 2013, US and Mexican political officials have stepped in to support IBWC efforts to resolve the current water dispute.

**Political
Efforts**

According to US and Mexican officials, the water dispute has been a frequent topic of conversation between high-level government officials, including during President Obama's trip to Mexico. Mexican officials indicate they understand that the US does not want to wait for the end of this five-year delivery period to receive its allotment of Rio Grande water. US Ambassador to Mexico Earl Anthony Wayne has raised the issue with high-level officials in the administration of Mexican president Enrique Peña Nieto. President Peña Nieto reportedly does not want this dispute to become a serious irritant in the bilateral relationship and has instructed his Foreign Ministry to prioritize working with the IBWC, the US State Department, Mexico's Water Commission, and authorities from Texas to reach a mediated settlement to the dispute as soon as possible.

**Mexico
Delivery**

Between the end of July 2013 and late October 2013, the two sections had eight formal bilateral meetings, including a meeting attended by the US Ambassador to Mexico and the Mexican Foreign Ministry's Under Secretary for North America. Among the outcomes has been an exchange of technical data to assist in options for future water management in the basin. Mexico delivered more than the 350,000 AF during the third year of the cycle and reduced its water debt. According to the IBWC Commissioner, "This is a consequence, to be sure, of beneficial summer precipitation but also is a direct result of our negotiations achieving a substantially more cooperative approach by Mexican authorities in reservoir management."

CONGRESSIONAL RESPONSES**Congressional
Pressure**

Several Members of Congress noted the complaints of farmers, local officials, and state officials about Mexico's water debt. Some Members of Congress have expressed concerns about the adequacy of USIBWC and State Department efforts to press Mexico to comply with its Treaty obligations. On April 11, 2013, five Members of Congress sent a letter requesting that President Obama take "immediate action" to ensure water deliveries to the Rio Grande valley and to bring up the issue with Mexican President Peña Nieto during his May 2013 visit to Mexico (Letter from Reps. Cuellar, Gallego, Hinojosa, O'Rourke, and Vela, to the Honorable US President Barack Obama, April 11, 2013).

**Proposed
Reporting
Requirements**

Members of Congress have also introduced legislation that seeks to address the water shortages in Texas. House Bill H.R. 1863 (introduced May 7, 2013), would require the US State Department to report 120 days after the enactment of the bill and annually thereafter on efforts by Mexico to meet its Treaty deliveries of water to the Rio Grande and the benefits to the US occurring as a result of Minute 319. H.R. 2307 and Senate Bill S. 1125 (both introduced June 10, 2013), would require the State Department to report 45 days after the enactment of the legislation and quarterly thereafter on Mexico's water deliveries and to provide annual reports on the benefits of Minute 319. H.R. 2307 and S. 1125 would also prohibit the Secretary of State from continuing to implement Minute 319 if the Secretary fails to comply with the reporting requirements included in the act. As of mid-November 2013, none of these bills had been enacted.

Farm Bill

On July 11, 2013, the House passed its version of the 2013 farm bill (H.R. 2642). Section 11320 of H.R. 2642 would require the State Department to submit a report within 120 days of the bill's enactment on efforts by Mexico to meet its Rio Grande Treaty deliveries and on the US benefits of implementing Minute 319 and Minute 318 through 2017. As of mid-November 2013, this bill was in conference with the Senate version of the 2013 farm bill, which contains no comparable provision.

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The full Congressional Research Service Report #R43312 — "*U.S.-Mexico Water Sharing — Background and Recent Developments*" — is available for download at: www.fas.org/sgp/crs/row/R43312.pdf

ESA Litigation

Critical Habitat Designation

Habitat Conservation Plans

Appeal Issues

NEPA Issue Split

ENDANGERED SPECIES ACT LITIGATION

CRITICAL HABITAT EXPANSION FOR SANTA ANA SUCKER APPEALED & OTHER ESA LITIGATION

by Kira Johnson, Best Best & Krieger (Los Angeles)

INTRODUCTION

In the coming year, the United States Ninth Circuit Court of Appeals (Ninth Circuit) will decide a dispute over the designation of more than 7,000 acres of critical habitat for the Santa Ana sucker on California's Santa Ana River. These 7,000 acres include 5,434 acres already being voluntarily conserved by coalitions of local agencies in partnership with the United States Fish and Wildlife Service (USFWS). The case, now known as *Bear Valley Mutual Water Company v. Jewell*, Appeal No. 12-57297, raises legal issues that may have a significant impact on the way that USFWS and the National Marine Fisheries Service (NMFS) (collectively, the "Services") implement the federal Endangered Species Act (ESA). For example, the Ninth Circuit's decision could impact the extent to which the Services are required to comply with the National Environmental Policy Act (NEPA) and to cooperate with State and local public agencies involved with water resources when making critical habitat decisions. It may also clarify the reach of the Service's authority to designate riverine land which is unoccupied by the concerned species, including species-uninhabitable "source areas" that provide water flow and an influx of other elements into species-occupied areas. Further, it will also provide guidance on the enforceability of assurances made in connection with formalized Habitat Conservation Plans and could impact the utility of using such voluntary conservation efforts to predictably plan for mitigation related to infrastructure projects.

Bear Valley was filed by twelve water agencies (Appellants) in May 2012, and challenges USFWS's critical habitat designation for the Santa Ana sucker under the ESA, Administrative Procedure Act (APA), and NEPA. See district court opinion: *Bear Valley Mutual Water Company v. Salazar*, 2012 U.S. Dist. LEXIS 160048 (*Bear Valley*).

ISSUES RAISED BY THIS APPEAL INCLUDE:

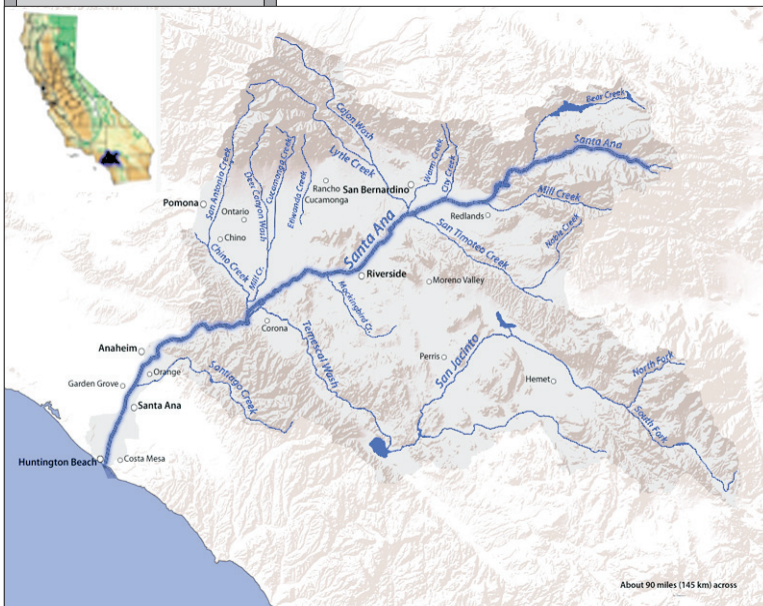
- 1) whether the Services must comply with NEPA when designating critical habitat
- 2) whether ESA Section 2(c)(2) requires the Services to cooperate with State and local agencies when designating critical habitat to "resolve water issues in concert with conservation of endangered species"
- 3) whether the designation of voluntarily conserved lands under a Habitat Conservation Plan is subject to judicial review
- 4) whether the Services can designate as critical habitat, land that serves as a conduit for water flow and other elements to downstream occupied habitat but that cannot itself be accessed or inhabited by the species

Because the NEPA issue on appeal involves a split in the federal circuit courts, the case may become a candidate for review by the United States Supreme Court (US Supreme Court).

BACKGROUND

The Santa Ana River begins its course in the San Bernardino Mountains of Southern California, travels through southwestern San Bernardino County and western Riverside County, then crosses through Orange County before emptying into the Pacific Ocean. Its 2,450 square mile watershed — the largest in Southern California — is home to more than five million people. Because the Santa Ana River is flood-prone, Seven Oaks Dam and Prado Dam were constructed on the River by the US Army Corps of Engineers and continue to be operated in tandem to control flows on the River.

The Santa Ana River is an important local source of water. River water has been allocated in accordance with two interlocking decisions of the Superior Court of California for more than 40 years. The Santa Ana River is also subject to a recently granted appropriative water rights permit issued to Appellants San Bernardino Valley Municipal Water District and Western Municipal Water District. These rights enable these Districts to divert water



ESA Litigation

Final Rule

captured behind Seven Rivers Dam for beneficial use within their respective service areas. State Board Decision No. 1649, In Re Applications 31165 and 31370.

The Santa Ana sucker (sucker) is a small fish that is native to the seasonal rivers and streams draining the San Gabriel and San Bernardino Mountains of Southern California. It was listed as “threatened” under the ESA in 2000. 65 Fed. Reg. 19686-7 (Apr. 12, 2000). USFWS adopted a Final Rule revising critical habitat for the sucker on December 14, 2010. 75 Fed. Reg. 77962 (12/14/2010) (Final Rule). As adopted, the Final Rule encompasses more than 7,000 acres within the Santa Ana River (SAR) watershed including 1,559 acres currently unoccupied by suckers in the Santa Ana Wash, and 5,434 acres voluntarily conserved by Plaintiffs pursuant to partnerships and agreements with USFWS.

Endangered Species Act Provisions

ESA Provisions

The ESA is intended “to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, [and] to provide a program for the conservation of such endangered and threatened species...” 16 U.S.C. § 1531(b). USFWS has been delegated the responsibility for enforcing the ESA for terrestrial and freshwater species, and NMFS has been delegated the responsibility for marine species and anadromous fish. 50 C.F.R. § 402.01(b).

Once a species is listed as endangered or threatened, statutory prohibitions help ensure the survival and recovery of the species. ESA Section 7 requires federal agencies to consult with the Services to avoid jeopardizing listed species; ESA Section 9 prohibits take of listed species; and ESA Section 4 requires the Services to designate “critical habitat.”

Critical Habitat

“Critical habitat” under the ESA can include both occupied and unoccupied habitat. Occupied critical habitat is defined as “the specific areas within the geographical area occupied by the species, at the time it is listed..., on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protections...” 16 U.S.C. § 1532(5)(A)(i). Unoccupied critical habitat is defined as “specific areas outside the geographical area occupied by the species at the time it is listed..., upon a determination...that such areas are essential for the conservation of the species.” *Id.* at § 1532(A)(ii). The implementing regulations provide that “areas outside the geographical area presently occupied by a species” shall be designated as critical habitat “only when a designation limited to its present range would be inadequate to ensure the conservation of the species.” 50 C.F.R. § 424.12(e).

Exclusion Provision

ESA Section 4(b)(2) requires the Services to designate critical habitat “on the basis of the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impact, of specifying any particular area as critical habitat.” 16 U.S.C. § 1533(b)(2). ESA Section 4(b)(2) also provides that, even when an area meets the statutory and regulatory definitions of critical habitat, the Services may exclude it from a designation if “the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless [the Secretary] determines, based on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species concerned.” *Id.*

The designation of critical habitat triggers the protections of ESA Section 7. ESA Section 7 requires a federal agency to consult with the Services to insure that the actions they fund, authorize, or carry out will not result in the “destruction or adverse modification” of designated critical habitat, among other things. 16 U.S.C. § 1536(a)(2). Federal actions that initiate ESA Section 7 consultation include granting permits and licenses to applicants. *Id.* at § 1536(a)(3). If the Services determine that destruction or adverse modification is likely, the Services must recommend mitigation or “reasonable and prudent alternatives” (RPAs) that can be implemented by the federal agency or the applicant. *Id.* at § 1536(b)(3)(A). Activities that require a Clean Water Act section 404 permit — including water diversion and supply, hydropower production, and flood control activities — can trigger ESA Section 7 consultation.

National Environmental Policy Act Provisions

NEPA Review

NEPA requires environmental review of all “major federal actions” that may “significantly affect[] the quality of the human environment,” unless the action has been explicitly or implicitly been made exempt from NEPA review by Congress. 42 U.S.C. § 4332. Whether the action is “major” or the effects on the human environment are “significant” relates to how much the action will add to presently existing adverse environmental problems. *Grand Canyon Trust v. FAA*, 290 F.3d 339, 341 (D.C. Cir. 2000); 40 C.F.R. § 1508.18. The “quality of the human environment” relates to “the natural and physical environment and the relationship of people with that environment.” 40 C.F.R. § 1508.14. If a proposed action meets these requirements and Congress has not made the action exempt, NEPA review must be performed and the ways the proposed action might impact the environment must be disclosed and analyzed in an environmental document. Such review is intended to ensure both that federal agencies give proper consideration to the environmental consequences of their actions (*see Merrell v. Thomas*, 807 F.2d 776, 777-78 (9th Cir. 1986)), and that “relevant information will be made available to the larger audience that they may also play a role in...the decisionmaking process.” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989).

APPEAL ARGUMENTS

ESA
LitigationHuman
EnvironmentCritical Habitat
& NEPAOut-of-Circuit
Disapprovals“Displacement”
TheoryEnvironmental
ImpactsUndeveloped
Land**Does NEPA Apply to ESA Section 4 Designations of Critical Habitat?**

Appellants raise the issue of whether NEPA review is required for critical habitat designations that have significant potential to impact the human environment. Appellants argue that NEPA environmental review is imperative here because the Santa Ana sucker designation will have significant impacts on the human environment. Such impacts potentially include the loss of a substantial volume of local water at a time when water agencies are already under pressure to decrease reliance on water from imported sources (including the Sacramento-San Joaquin Delta Estuary). This critical habitat designation could also impact flood control and water resource infrastructure by imposing mitigation requirements on construction projects, including the potential for cancellation of those projects.

The Ninth Circuit previously considered the applicability of NEPA to ESA Section 4 critical habitat designation, holding in *Douglas County v. Babbitt*, 48 F.3d 1495, 1502 (9th Cir. 1995) that critical habitat designations are not subject to the requirements of NEPA. *Douglas County* was a case of first impression for any circuit. The district court in *Bear Valley* held that it was bound by *Douglas County v. Bear Valley*, *supra*, 2012 U.S. Dist. LEXIS at *109-11.

In *Douglas County*, the Ninth Circuit held that NEPA does not apply to the designation of critical habitat for three reasons: “(1) Congress intended that the ESA critical habitat procedures displace the NEPA requirements, (2) NEPA does not apply to actions that do not change the physical environment, and (3) to apply NEPA to the ESA would further the purposes of neither statute.” *Douglas County*, *supra*, 48 F.3d at 1507-08.

Appellants urge the Ninth Circuit to reconsider *Douglas County*. Appellants cite to out-of-circuit decisions issued since *Douglas County*, all of which have disapproved of the Ninth Circuit’s “displacement” and “furthering purposes” holdings. Appellants also differentiate the Santa Ana sucker critical habitat designation from the facts in *Douglas County*, arguing that because the designated area includes developed land — in particular land containing important water supply and flood control infrastructure — the designation will, in fact, change the physical environment.

Appellants argue that the “displacement” theory of exemption set forth in *Douglas County* conflicts with controlling US Supreme Court precedent regarding the dual purposes of NEPA. In *Douglas County*, the Ninth Circuit found that the ESA’s Section 4(b)(5) notice procedures — which require publication of notice in the Federal Register; actual notice to each affected state; publication in local newspapers of affected areas; and a public hearing (if requested) — “displaced” NEPA and made any NEPA review “superfluous.” *Douglas County supra*, 48 F.3d at 1503. Appellants argue that NEPA is intended to ensure not only public disclosure but also proper *consideration* of environmental consequences and therefore cannot be displaced by notice requirements alone. *Baltimore Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 97 (1983). For this reason, Appellants note that courts and scholars have warned that *Douglas County*’s “displacement” theory, if left intact, could be used to exempt a broad array of statutory actions that require notice — including any that must comply with the APA — but not environmental review. Thus, they argue that this theory would “render NEPA meaningless.” *In re Polar Bear Endangered Species Act Listing*, 818 F.Supp.2d 214, 237 (D.D.C. 2011); Patterson, *NEPA’s Stronghold: A Noose for the Endangered Species Act?*, 27 Cumb.L.Rev. 753, 776 (1996-1997).

Appellants also dispute *Douglas County*’s holding that NEPA review is unnecessary because the ESA furthers the goals of NEPA. 48 F.3d at 1506-07. Appellants argue that the ESA only furthers one environmental goal while NEPA requires disclosure and consideration of a broad array of environmental impacts. *Baltimore Gas*, *supra*, 462 U.S. at 97. In contrast, the ESA has a single goal of species protection. *Tennessee Valley Auth. v. Hill*, 437 U.S. 153, 184 (1978). *Douglas County* held that ESA Section 4(b)(2), which states that the Services “shall designate critical habitat...after taking into consideration the economic impact, impact on national security, and any other relevant impact,” prevents the Services from considering environmental impacts “other than those related directly to the preservation of the species.” 48 F.3d at 1507. Appellants dispute the *Douglas County* court’s reading of ESA Section 4(b)(2), arguing instead that the requirement to consider “other relevant impacts” not only permits but requires the Services to consider a wide range of environmental impacts.

Furthermore, Appellants argue that the facts in *Douglas County* are distinguishable from the ones at play in the *Bear Valley* case. *Douglas County* involved the designation of undeveloped federal land, and as a result, the designation preserved existing conditions without change. 48 F.3d at 1505-06. The Ninth Circuit concluded that NEPA review was not triggered by an action that would “not alter the natural, untouched physical environment at all.” *Id.* Thus, the designation in *Douglas County* did not trigger NEPA because it would not “significantly affect[] the quality of the human environment.” 42 U.S.C. §4332.

ESA Litigation

Developed Environment

Circuits Split

Water Resource Issue

General Policy v. Operative Requirement

Mandatory Command

"Shall"

Appellants in *Bear Valley* argue, however, that the Santa Ana sucker designation, in contrast, would have significant environmental impacts because it applies to federal, state, local, and privately owned land, much of which is developed with dams, water diversion facilities, bridges, wastewater treatment plants, residences, and recreational facilities. Indeed, the Final Rule and supporting economic analysis for the designation documented significant impacts related to the designation of these facilities.

Since *Douglas County*, three cases outside the Ninth Circuit have addressed the issue of the applicability of NEPA to critical habitat designations, and all three have held that when a critical habitat designation may result in significant impacts to the human environment, NEPA review is required. *Middle Rio Grande Conservation Dist. v. Norton*, 294 F.3d 1220 (10th Cir. 2002); *Catron County Bd. of Comm'rs v. U.S. FWS*, 75 F.3d 1429 (10th Cir. 1996); *Cape Hatteras Access Preservation Alliance v. U.S. DOI*, 731 F.Supp.2d 15 (D.D.C. 2010). As a result, the Services currently operate under a split policy. Indeed, as USFWS explained in its final designation: "outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses as defined by NEPA in connection with designated critical habitat under the Act." 75 Fed. Reg. 77962, 78001. Because of this split between the circuit courts, this issue ultimately could be resolved by the US Supreme Court.

Does ESA Section 2(c)(2) Require the Services to Cooperate with State and Local Agencies To Resolve Water Resource Issues?

Appellants also argue in *Bear Valley*, pursuant to ESA Section 2(c)(2), that USFWS should not have ignored important features of the Santa Ana River's water resource landscape. These include 40-year old interlocking decisions of the California superior court allocating its water and a recent California State Water Board decision granting appropriative water rights permits to store river water behind Seven Oaks Dam. The district court rejected this argument, finding that Section 2(c)(2) of the ESA is a "non-operative statement of general policy." *Bear Valley, supra*, 2012 U.S. Dist. LEXIS at *26. ESA Section 2(c)(2) states:

It is further declared to be the policy of Congress that Federal agencies shall cooperate with State and local agencies to resolve water resource issues in concert with the conservation of endangered species.

On appeal of the district court's determination, the Appellants in *Bear Valley* argue that canons of statutory construction, case law, and statutory history support reading this mandate as an operative requirement of the ESA.

Courts should not give effect to statutory provisions that by their own language indicate that they are not operative. *Hawaii v. Office of Hawaiian Affairs*, 556 U.S. 163, 175 (2009). Provisions that have been found to be non-operative include "whereas" clauses, "preambles," and "sense of congress" statements. *Id.*; *Yazoo & Mississippi Valley R. Co. v. Thomas*, 132 U.S. 174, 188 (1889); *Yang v. California Dept. of Social Services*, 183 F.3d 953, 958 (9th Cir. 1999). The district court found that ESA Section 2(c)(2) is likewise non-operative because it is set forth in a statute of the ESA titled "Congressional findings and declarations of purposes and policy" and a subsection titled "Policy." *Bear Valley, supra*, 2012 U.S. Dist. LEXIS at *26-27. Appellants argue, however, that a plain reading of ESA Section 2(c)(2) distinguishes it from statements that have been found to be "non-operative" because, among other things, it includes the mandatory command "shall." According to Appellants, this mandatory language should be enough to end the inquiry. As held in *Gross v. FBL Fin. Servs.*, 557 U.S. 167, 175 (2009), "statutory construction must begin with the language employed by Congress and the assumption that the ordinary meaning of that language accurately expresses the legislative purpose."

Appellants support their argument by citing to case law, which has found policy statements containing the word "shall" to be operative. For example, in *Schaffer Transportation Co. v. U.S.*, 355 U.S. 83 (1957), the US Supreme Court considered the National Transportation Policy which stated that all of the provisions of the Interstate Commerce Act "shall be administered and enforced with a view to carrying out the above declaration of policy." *Id.* at 87, n. 5. The Supreme Court held that the Policy "govern[s] the [Interstate Commerce] Commission in the administration and enforcement of all provisions of the Act" and "is the yardstick by which the correctness of the Commission's actions will be measured." *Id.* at 87-88; see also *S. Fla. Water Mgmt. Dist. v. Miccosukee Tribe of Indians*, 541 U.S. 95, 108 (2004); *PUD No. 1 v. Wash. Dep't. of Ecology*, 511 U.S. 700, 720 (1994).

Both Appellants and the Federal Government argue that legislative history supports their interpretation of ESA Section 2(c)(2). Federal Appellees note that Congress described Section 2(c)(2) as a "statement of congressional policy" and stated that it was "not intended to and does not change the substantive or procedural requirements of the Act." S. Rep. 97-418 (May 26, 1982) at 25-26. The district court found this language indicative of the non-operative nature of Section 2(c)(2). *Bear Valley, supra*, 2012 U.S. Dist.

ESA Litigation

Legislative History

Consultation With States

Defining "Cooperate"

LEXIS at *27. Appellants dispute the use of legislative history, citing *Thrifty Oil Co. v. Bank of America Nat'l Trust & Sav. Ass'n*, 322 F.3d 1039, 1057 for its holding that a court may "look to legislative history to aid in the interpretation" only if it first finds the statute "ambiguous" — but nonetheless argue that the history supports reading ESA Section 2(c)(2) as a mandate. They point to statements in the legislative history that show Congress intended the section to "instruct[] the Federal Government to work with State and local agencies to resolve water resources issues in concert with conservation of endangered species"; that Congress intended the provision to result in the avoidance of conflicts between water resource development and species conservation through "close cooperation"; and that Congress also intended ESA Section 2(c)(2) to recognize "the regional interest with respect to water allocation." S. Rep. 97-418 at 5, 25.

Appellants also argue that the Ninth Circuit has already construed lesser language than that contained in Section 2(c)(2) to impose a substantially greater obligation on the Government to work with the States and local agencies to implement congressional directives, as opposed to simply providing notice and an opportunity for comment. In *California Wilderness Coalition v. USDOE*, 631 F.3d 1072 (9th Cir. 2011) for example, the Court found a statutory requirement that a study concerning certain electric transmission corridors issue from the Department of Energy "in consultation with affected States" to mean more than the mere invitation of comments from the public. 631 F.3d 1072, 1088-89. Because the Federal Power Act failed to define the term "consultation," the Court held the term to be defined by its plain meaning; namely, that the DOE was required to "confer with the affected States before it completed the study." *Id.* at 1087. In the case of Section 2(c)(2) an even stronger federal obligation arguably exists where Congress has mandated that "Federal agencies shall cooperate with State and local agencies to resolve water resource issues in concert with conservation of endangered species." Congress did not define the term "cooperate" in Section 2(c)(2) of the ESA. When the Ninth Circuit confronted the same lack of definition of the term "consult" in *California Wilderness*, it turned to the New Oxford Dictionary. *Id.* Referencing the same source for the word "cooperate" discloses that it means "to work jointly towards the same end" or "assist someone." In the case of the designation of critical habitat for the sucker, the record shows no such partnership, joint action, or collaborative work on the part of the USFWS. Instead, as it always does when designating critical habitat, the USFWS simply engaged in a process of notice and comment — and, nothing more.

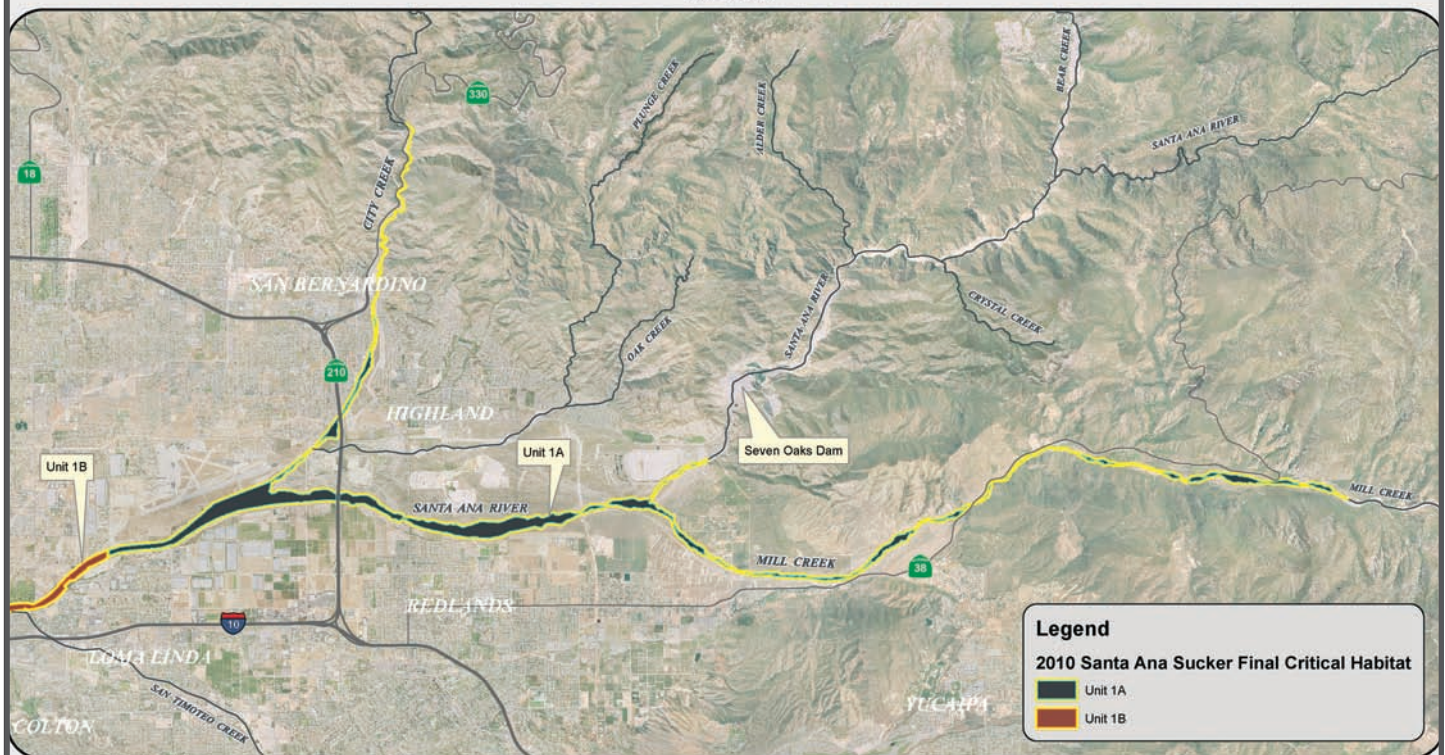
2010 Final Critical Habitat for the Santa Ana Sucker (*Catostomus santaanae*) - Unit 1A Upper Santa Ana River, Santa Ana Wash



0 7,000 14,000 21,000 28,000 35,000 Feet

Date: 5/29/2012

The San Bernardino Valley Municipal Water District has prepared and uses this information for its own purposes and it is not intended for, nor may it be suitable for, use by others. The information is provided "as is".
Source: SBVMD, USFWS



ESA Litigation

Critical Habitat Exclusion

HCPs

"No Surprises" Rule

If the district court's holding stands, ESA Section 2(c)(2) will, in essence, be read out of the Act. If instead, ESA Section 2(c)(2) is found to be operative, local and state water agencies will have the opportunity to contribute meaningfully to ESA conservation decisions.

Is the Exclusion Analysis Under ESA Section 4(b)(2) Subject to Judicial Review?

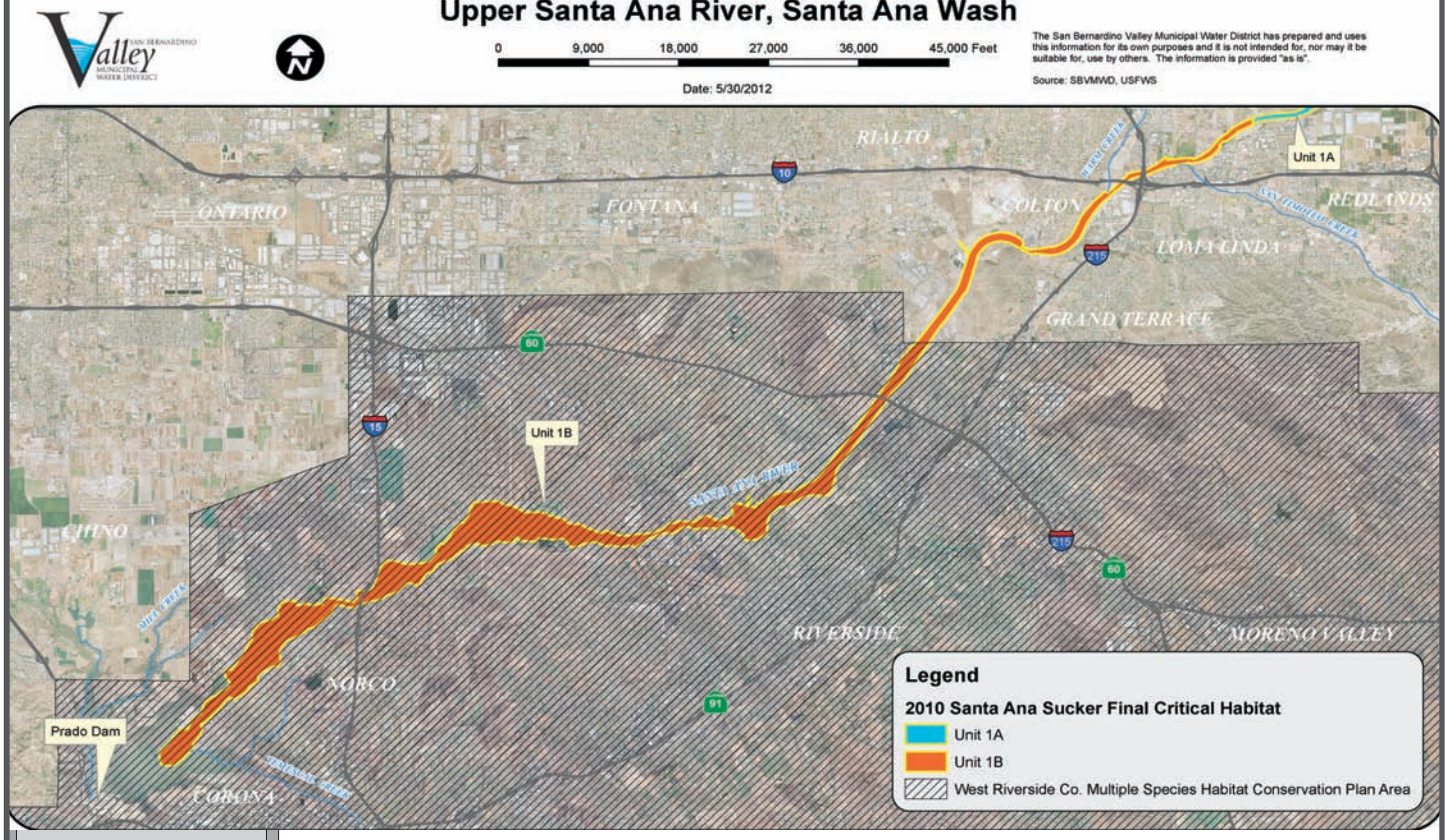
In the sucker critical habitat designation, USFWS designated lands that had been voluntarily conserved by two separate coalitions of local agencies, including lands conserved by the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The district court rejected Appellants' challenge of this action, holding that USFWS's decision not to exclude habitat under §4(b)(2) of the ESA is not subject to judicial review. *Bear Valley*, 2012 U.S. Dist. LEXIS at *41. Appellants appeal this decision and maintain that USFWS abused its discretion when it designated conserved lands without acknowledging that it promised not to do so in the MSHCP Implementing Agreement and that it is prohibited from imposing additional mitigation on MSHCP participants by its "No Surprises" Rule, 50 C.F.R. §17.32(b)(5).

Western Riverside County Multiple Species Habitat Conservation Plan & Bear Valley

Habitat Conservation Plans (HCPs) allow non-federal parties to work in partnership with the Services to insure the conservation of species and their ecosystems while also providing landowners with long-term assurances that their activities will be in compliance with the requirements of the ESA. HCPs are planning documents that are required as part of an application for an incidental take permit pursuant to ESA Section 10(a)(1)(B). They describe the impact likely to result from the taking, the steps the applicant will take to minimize and mitigate adverse impacts, and how the HCP is to be funded. 16 U.S.C. § 1539(a)(2)(A). See *Habitat Conservation Handbook* (June 1, 2000), available at: www.fws.gov/midwest/endangered/permits/hcp/hcp handbook.html.

The implementing regulations governing incidental take permits and HCPs include a provision known as the "No Surprises" Rule. 50 C.F.R. § 17.32(b)(5). The "No Surprises" Rule specifies that, if an HCP is being properly implemented, additional conservation and mitigation measures will not be imposed upon permittees absent "unforeseen circumstances." 50 C.F.R. § 17.32(b)(5)(ii), (iii); see also 50 C.F.R. § 17.3 (defining "unforeseen circumstances"). Congress enacted the "No Surprises" Rule because it "recognized that non-Federal property owners seeking HCP permits would need to have economic and regulatory certainty regarding the overall costs of species mitigation over the life of the permit." 63 Fed. Reg. 8859, 8859 (Feb. 23, 1998).

2010 Final Critical Habitat for the Santa Ana Sucker (*Catostomus santaanae*) - Unit 1B Upper Santa Ana River, Santa Ana Wash



ESA Litigation

Implementing Agreement

Benefits Analysis

Judicially Reviewable Decision

In 1999, a coalition of agencies developed the Western Riverside County Multiple Species Habitat Conservation Plan. The MSHCP encompasses 1.26 million acres and addresses 146 species, including the sucker, over its 75-year term. The Implementing Agreement for the MSHCP echoed the assurances of the “No Surprises” Rule in several of its passages. In particular, the Agreement stated in part “the USFWS agrees, that, to the maximum extent allowable after public review and comment, in the event that a Critical Habitat determination is made for any Covered Species Adequate Conserved, and unless the USFWS finds that the MSHCP is not being implemented, lands within the boundaries of the MSHCP shall not be designated as Critical Habitat.” It also noted that the USFWS likely will exclude HCP lands from a critical habitat determination by finding (pursuant to ESA Section 4(b)(2)) that the benefits of excluding such lands outweigh the benefits of including them. *See MSHCP Implementing Agreement*, Section 14.10, available at: www.rctlma.org/mshcp/volume3/index.html.

In its designation of critical habitat for the Santa Ana sucker, USFWS designated 3,048 acres of land already included within the MSHCP. USFWS did not find that the MSHCP is not being implemented in good faith. Rather, USFWS found that “[d]espite these planned conservation measures, results from recent surveys and research efforts indicate that the status of Santa Ana sucker and its available habitat have continued to decline in the portions of the Santa Ana River covered by the plan.” On this basis, USFWS determined that the benefits of excluding MSHCP lands did not outweigh the benefits of inclusion.

HCP-Related Arguments

The Federal Appellees argued before the district court that USFWS’s decision “to not exclude essential habitat under ESA Section 4(b)(2)” is not judicially reviewable, and the district court agreed. *Bear Valley*, supra, 2012 U.S. Dist. at *37, *40. Further, the district court held that “meeting one’s assurances in conservation plans” is not a “relevant impact” that the Service was procedurally required to consider pursuant to ESA Section 4(b)(2). *Id.* at *44. Appellants dispute both holdings on appeal.

There is a “strong presumption that Congress intends judicial review of administrative action.” *Socop-Gonzales v. INS*, 208 F.3d 838, 843 (9th Cir. 2000); 4 U.S.C. § 704. This presumption is only overcome if

2010 Final Critical Habitat for the Santa Ana Sucker (*Catostomus santaanae*) - Unit 1C Upper Santa Ana River, Santa Ana Wash



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Date: 5/30/2012

The San Bernardino Valley Municipal Water District has prepared and uses this information for its own purposes and it is not intended for, nor may it be suitable for, use by others. The information is provided "as is".
Source: SBVMWD, USFWS, ESRI



ESA Litigation Agency Discretion Decision “Not To Exclude” Exclusion Analysis Impact on Collaboration Unoccupied Areas Designation Essential Elements	there is a statutory prohibition on review or “agency action is committed to agency discretion by law.” 5 U.S.C. § 701(a). The district court concluded that USFWS’s determination “not to exclude” habitat under ESA Section 4(b)(2) is “committed to agency discretion” because it is “written in the permissive with conditions precedent.” <i>Bear Valley, supra</i>, 2012 U.S. Dist. at *40-*41. Appellants argue that the district court erred because case law establishes that a statute is not made unreviewable by the use of permissive language alone. <i>See, e.g. Mulloy v. U.S.</i>, 398 U.S. 410, 414-15 (1970). Despite its use of the word “may,” Appellants argue that the ultimate inquiry is whether ESA Section 4(b)(2) provides a standard for the court to apply. <i>Citizens to Preserve Overton Park, Inc. v. Volpe</i>, 401 U.S. 402, 410 (1971). The standard supplied in Section 4(b)(2) is whether “the benefits of such exclusion outweigh the benefits of inclusion” and whether “the failure to designate...will result in the extinction of the species concerned.” The district court acknowledged that these standards are capable of review when the Services decide to exclude land, but distinguished between a decision to exclude and a decision not to exclude. <i>Bear Valley, supra</i>, 2012 U.S. Dist. at *40; see also <i>NRDC v. U.S. DOI</i>, 113 F.3d 1121, 1125 (9th Cir. 1997). Appellants contend that this is a distinction without a difference. <i>See Mulloy, supra</i>, 398 U.S. at 414-15. Indeed, a decision “not to exclude” is simply another way of describing a decision to designate critical habitat. ESA Section 4(b)(2) also includes the procedural requirement that the Services consider “the economic impact, the impact on national security, and any other relevant impact, of specifying any particular area as critical habitat.” “Consideration” pursuant to ESA Section 4(b)(2) requires the Services to “give careful thought to the relevant information in the context of deciding whether or not to proceed with the optional exclusion analysis” set forth in the second sentence of ESA Section 4(b)(2). <i>Davis v. Coleman</i>, 521 F.2d 661, 679 (9th Cir. 1975). The parties agree that this portion of ESA Section 4(b)(2) is subject to judicial review, but dispute whether it requires USFWS to consider the specific assurances set forth in the MSHCP as a “relevant impact.” Appellants argue that, contrary to the district court’s holding, the USFWS has a longstanding practice of considering the impact of designating HCP land on ongoing and future conservation partnerships in its ESA Section 4(b)(2) analysis. While the district court suggested in dicta that the USFWS’s discussion of the MSHCP was nonetheless sufficient, Appellants maintain that USFWS’s failure to mention the specific assurances included in the MSHCP constitutes a failure to give “careful thought to the relevant information.” [Editor’s Note: Dicta is a statement of opinion or belief by a court that was not part of the legal basis for the judgment, and thus does not provide a legal precedent.] If the district court’s holding stands, it could weaken the viability of collaborative conservation planning under the ESA. The Services have long acknowledged that large-scale conservation efforts like the MSHCP are undertaken because landowners, including water agencies, desire assurances and predictability to facilitate long-term planning. If landowners have no means of enforcing negotiated assurances, the value of ESA Section 10 planning will be diminished. Can the Services Designate Uninhabited Sources Areas as Critical Habitat? Finally, Appellants appeal the district court’s holding that unoccupied source areas can be designated as critical habitat. <i>Bear Valley, supra</i>, 2012 U.S. Dist. LEXIS at *66-68, *93-94. Appellants argue that the designation of unoccupied source areas in Subunit 1A of the Santa Ana sucker critical habitat designation exceeds USFWS’s authority pursuant to ESA Section 3(5)(A)(ii) and 50 C.F.R. § 424.12. Subunit 1A consists of two seasonal upstream tributaries and a portion of the Santa Ana wash immediately downstream of the Seven Oaks Dam. Subunit 1A is a source of water and coarse substrate to occupied downstream reaches of the mainstem, but is not occupied by the sucker and, because it is dry nearly 99 percent of the time, is not capable of being occupied by the sucker. Appellants warn that reading the ESA and its implementing regulations to permit the designation of Subunit 1A as critical habitat would open the door for the Services to designate any area upstream of occupied critical habitat where water flow is considered essential to a listed species. First, Appellants argue that source areas do not meet the statutory requirements for unoccupied critical habitat set forth in ESA Section 3(5)(A)(ii), i.e., that “such areas are essential for the conservation of the species.” The district court held this statutory requirement was satisfied because USFWS concluded that Subunit 1A is not just a source, but rather the “primary” source of essential elements to occupied habitat. <i>Bear Valley</i>, 2012 U.S. Dist. LEXIS at *94. Appellants cite to case law which has held that “it is not enough that the [unoccupied] area’s <i>features</i> be essential to conservation, <i>the area itself</i> must be essential.” <i>Cape Hatteras Access Pres. Alliance v. U.S. DOI</i>, 344 F.Supp.2d 108, 119 (D.D.C. 2004) (emphasis added); see also <i>Alliance for the Wild Rockies v. Lyder</i>, 728 F.Supp.2d 1126, 1138 (D. Mont. 2010). Appellants argue that designating an area as a source of elements — primary or otherwise — impermissibly focuses on the area’s features. Rather, Appellants contend that unoccupied areas are properly designated to support activities such as reoccupation, reintroduction or transportation that concern “the area itself.”
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ESA Litigation

Designation “Inadequate”

Inadequacy Finding Threshold

Second, Appellants argue that the USFWS failed to find that the designation of the occupied areas would be “inadequate” contrary to the regulations implementing the ESA. Under the regulations, 50 C.F.R. § 424.12(e), a designation of critical habitat outside the geographical area presently occupied by the species is permissible “only when a designation limited to its present range would be inadequate to ensure the conservation of the species.” The district court held that USFWS was not required to make a finding of inadequacy because 50 C.F.R. § 424.12 provides “an elaboration [of ESA Section 3(5)(A)(ii)] and not an additional requirement or restriction.” *Bear Valley*, 2012 U.S. Dist. LEXIS at *66-68 (“If certain habitat is essential, it stands to reason that if the Secretary did not designate this habitat, whatever the Secretary otherwise designated would be inadequate.”). Appellants dispute this reading of the requirements, citing to *Cape Hatteras* in which the DC district court invalidated a designation of unoccupied habitat that failed to make the inadequacy finding. 344 F.Supp.2d at 125. Appellants also raise the Services’ own “Policy on Designating Critical Habitat” which characterizes the inadequacy finding of 50 C.F.R. § 424.12 as a threshold that must be met prior to considering the statutory requirement of ESA Section 3(5)(A)(ii) — as noted above, that “such areas are essential for the conservation of the species.”

Appellants also argue that the designation of occupied critical habitat in the mainstem Santa Ana River is in fact “adequate” for the conservation of the sucker. The designation of occupied habitat already triggers Section 7 consultation on projects in upstream, unoccupied reaches to the extent that a project may adversely impact flow or the influx of sediment into the occupied reaches below. 16 U.S.C. § 1536(a)(2). By designating Subunit 1A, USFWS broadens the reach of Section 7 consultation to any project that may affect flows or sediment in the upstream, unoccupied reaches of the river without regard to whether the impacts have any potential to reach the species below.

“Habitat” Meaning

The broad reading of “unoccupied critical habitat” exemplified by the designation of Subunit 1A and upheld by the district court permits the Service to designate as critical habitat areas that a species will not and cannot enter. This interpretation arguably exceeds the ordinary meaning of “habitat.” The district court’s holding thus exposes water infrastructure projects to burdensome administrative hurdles without any threshold showing linking project impacts to the species or habitat within the species’ range.

OTHER NOTEWORTHY ESA LITIGATION

Mining Consultation

***The New 49’ers, Inc., et al. v. Karuk Tribe of California*, 133 S.Ct. 1579 (2013) denying cert to *Karuk Tribe of Cal. v. United States Forest Serv.*, 681 F.3d 1006 (9th Cir. 2012)(*Karuk Tribe*)**

The US Supreme Court declined to hear a mining group’s appeal of the Ninth Circuit’s decision in *Karuk Tribe*. In *Karuk Tribe*, an en banc panel of the Ninth Circuit held that the Forest Service must consult with the Services before approving a Notice of Intent (NOI) to conduct mining activities in critical habitat of a listed species. 681 F.3d at 1011. Dissenting judges of the opinion characterized the majority’s holding as imposing ESA Section 7 consultation for the first time upon “an agency’s decision not to act.” *Id.* at 1031.

Mining Law of 1872

This case involves small-scale recreational miners operating in the Klamath River system within the critical habitat of coho salmon. Under the General Mining Law of 1872, a private citizen may enter public lands for the purpose of prospecting and mining. 30 U.S.C. § 22. However, the Forest Service is authorized to impose reasonable environmental regulations on such mining activities so long as they do not prohibit or impermissibly encroach on legitimate mining uses. 16 U.S.C. § 478, 482, 551. At the time this dispute arose, Forest Service regulations required a person proposing to engage in mining activities that “might cause” disturbance of surface resources to submit a NOI to a District Ranger who would decide within 15 days if the activities “will likely cause” significant disturbance requiring a Plan of Operations. 36 C.F.R. § 228.4(a) (2004).

Vested Right v. “Agency Action”

“Agency action,” which triggers ESA Section 7 consultation, is defined as “any action authorized, funded or carried out by a [federal] agency.” 16 U.S.C. § 1536(a)(2). Under established case law, where private activity is proceeding pursuant to a vested right or to a previously issued license, an agency has no duty to consult under Section 7 if it takes no further affirmative action regarding the activity. *See Western Watersheds Project v. Matejko*, 468 F.3d 1099 (9th Cir. 2006). The dissenters believed that the Forest Service’s actions fell squarely within this precedent, characterizing a miner’s NOI as “a notice from a miner, not a permit or license issued by the agency.” 681 F.3d at 1035. However, the majority held that a NOI “proposes” activities that a District Manager is required to affirmatively “authorize” before they can proceed, and thus the “agency action” requirement for ESA Section 7 consultation was satisfied. *Id.* at 1021.

ESA Litigation

Climate Change

Listing Thesis

***In Re: Polar Bear Endangered Species Act Listing and 4(d) Rule Litigation*, 709 F.3d 1 (D.C. Cir. 2013)**

The DC Circuit Court of Appeals upheld USFWS's decision to list the polar bear as "threatened" based on its conclusion that, due to the effects of global climate change, the polar bear is likely to become an endangered species and face the threat of extinction within the foreseeable future. *See generally* 73 Fed. Reg. 28212 (May 15, 2008). The polar bear was the first species listed under the ESA due solely to global warming. The listing decision was challenged by a number of industry groups, environmental organizations, and states.

The listing rule was predicated on a three-part thesis: "the polar bear is dependent upon sea ice for its survival; sea ice is declining; and climatic changes have and will continue to dramatically reduce the extent and quality of Arctic sea ice to a degree sufficiently grave to jeopardize polar bear populations." *In Re: Polar Bear*, 709 F.3d at 8. The DC Circuit found that USFWS's foundational premises were adequately explained — including the correlation between habitat loss and dramatic population decline — and its scientific conclusions were supported by data and "well within the mainstream" on climate science. *Id.* at 8-9.

***Intertribal Sinkyone Wilderness Council, et al. v. NMFS*, 2013 U.S. Dist. LEXIS 149892 (N.D. Cal. Sept. 25, 2013)**

The US District Court for the District of Northern California remanded NMFS's authorization of incidental take of marine mammals and a corresponding biological opinion relating to the Navy's anti-submarine warfare training exercises. The court found that NMFS failed to use the best available science and failed to evaluate the full effects of the agency action.

Significantly, the court found that the five-year period used by NMFS to define the "agency action" was too short to make a meaningful determination of whether the Navy's ongoing sonar activities are likely to jeopardize the continued existence of any listed species or destroy or adversely modify critical habitat. In a biological opinion, the Services must identify the "agency action" subject to ESA Section 7 consultation and "analyze the effect of the entire agency action." *Conner v. Burford*, 848 F.2d 1441, 1453 (9th Cir. 1988). NMFS argued that each new five-year take authorization permitted under the Marine Mammal Protection Act constitutes a separate "action" for purposes of the ESA. See 16 U.S.C. § 1371(a)(5)(A)(i)(I). The district court disagreed, citing supporting documents from the Navy's take authorization application which noted the Navy's sonar use over the past 30 years and that stated activities "would continue for an indefinite period of time." 2013 U.S. Dist. LEXIS at *46-47.

FOR ADDITIONAL INFORMATION:

KIRA JOHNSON, Best Best & Krieger LLP, 213/ 787-2556 or Kira.Johnson@bbklaw.com

Best Best & Krieger LLP represents the following Appellants
before the Ninth Circuit in the *Bear Valley* case:

City of Riverside; Riverside County Flood Control and Water Conservation District;
and Western Municipal Water District.

Kira Johnson is an associate in the Environmental Law & Natural Resources practice group of Best Best & Krieger LLP's Los Angeles office. Ms. Johnson works with public and private clients in matters involving environmental, water, and land use law. She is currently involved with ongoing federal litigation matters concerning the intersection between water resources and species listed under the federal Endangered Species Act in the San Francisco Bay Delta and the Santa Ana River basin. She serves as counsel for the appellant water agencies in Bear Valley. Ms. Johnson received her JD from Loyola Law School where she was a Dean's Scholar and a member of the Scott Moot Court Honors Board. While in law school, Ms. Johnson externed with the California Attorney General in the Natural Resources Law Section as part of the Public Rights Summer Honors Program. Ms. Johnson received a BA in Religion and Environmental Studies from Swarthmore College.

WATER BRIEFS

REPUBLICAN RIVER REPORT KS/NE

SPECIAL MASTER REPORT ISSUED

Special Master William J. Kayatta, Jr. issued his 188-page Report of the Special Master in *Kansas v. Nebraska and Colorado*, Case No. 126, Original (Nov. 15, 2013), concerning the dispute between Kansas and Nebraska regarding water use in the Republican River Basin. The Special Master succinctly set forth his recommendations as follows: “Generally summarized, the Report recommends that the Court declare Nebraska to have breached the 1943 Compact by consuming a total of 70,869 acre feet of water in excess of its Compact allocation in 2005 and 2006; that the Court enter judgment against Nebraska and in favor of Kansas in the amount of \$5,500,000; that the Court otherwise deny Kansas’ claims for relief; and that the Court order the accounting procedures used by the states reformed to correct a mistake.” *Slip Op.* at 2. The Special Master Report is submitted to the US Supreme Court, which will make the final ruling sometime next year.

The Report drew praise from Nebraska Attorney General Jon Bruning, despite the recommendation that Kansas be awarded \$5.5 million for damages incurred. “We’re pleased Special Master Kayatta rejected Kansas’ demand for \$80 million in damages and future restrictions on water use,” said Bruning. “Our basin irrigators have worked hard to keep Nebraska in compliance with the Compact on an annual basis since 2007. And, although we think the \$5.5 million award is too high, we’re glad the Special Master acknowledged Nebraska should have the right to govern its water users without the oversight of an independent River Master.”

Kansas’ claims were based on its assertion Nebraska allowed thousands of groundwater wells in areas hydraulically connected to the Republican River, depleting river flows that Kansas was entitled to under the Republican River Compact. “Kansas seeks a remedy both for Nebraska’s breach in 2006 of the 1943 Republican River Compact and for what Kansas claims is Nebraska’s likely continued breach of that Compact in the future.” *Slip Op.* at 1.

Special Master Kayatta made the following recommendations in the Report:

- Judgment against Nebraska and in favor of Kansas in the amount of \$5.5 million due to Nebraska’s breach of the 1943 Republican River Compact, which resulted in Nebraska’s overuse of Republican River water in 2005 and 2006 (Kansas claimed \$6.6 million in damages).
- Kansas’s demand of \$80,187,021 should be rejected. Kansas failed to prove it was entitled to an award based on unjust enrichment because it could show no bad faith by Nebraska.
- 100% of the evaporation from Harlan County Lake during 2006 (as calculated under the RRCA Accounting Procedures) should be charged to Kansas; 100% of the evaporation from Non-Federal Reservoirs in Nebraska (as calculated under the RRCA Accounting Procedures) should be charged to Nebraska.
- Kansas’ demand that Nebraska permanently shut down 302,000 irrigated acres should be rejected.
- Kansas’ demand for appointment of an independent River Master to dictate compliance terms should be rejected. Kansas failed to demonstrate a credible threat of future non-compliance.
- Kansas’ request that Nebraska be found in contempt should be denied.
- All remaining requests by Kansas, including injunctive relief and sanctions, should be denied.
- The RRCA Accounting Procedures should be changed to correct a technical, mutual mistake. It is recommended that the problem be addressed by adopting Nebraska’s proposed 5-Run Solution. This change will improve Nebraska’s Compact accounting balance in all years from 2007 forward.

Kansas’ Attorney General, Derek Schmidt, expressed a different view on the Special Master’s recommendations. In particular, Schmidt noted that the Special Master, for the first time, is recommending that payments for overuse include disgorgement of unjust economic gains that Nebraska receives from keeping more than its share of water in dry years. “We are greatly encouraged by the Special Master’s recommendation,” said Schmidt, who noted that the recommendation to include disgorgement of unjust gains in the calculation of damages is a groundbreaking development. “This recommendation, if adopted by the Supreme Court, can change the economics of overuse and send a powerful message to discourage future overuse of water by our neighbors to the north.” Schmidt’s press release pointed out that the “\$5.5 million recommended to be awarded to Kansas included \$3.7 million for economic losses suffered in Kansas because the water was withheld and another \$1.8 million to disgorge part of Nebraska’s financial gains from keeping more than its share of water during the years in dispute.”

The Conclusion of the Special Master is instructive when one views the litigation and the recommendations, given other States’ disputes over interstate compacts: “While the extent of Nebraska’s breach is subject to the debates addressed in this Report, this action most importantly concerns the subject of remedy. This Report recommends a measured use of the Court’s equitable tools in a manner that accounts for the variety of interests implicated in a compact allocating interstate waters, that conforms accounting formulae to the states’ shared intentions, that makes Kansas fully whole, that provides adequate incentive for avoiding further breaches, and that at the same time avoids either overshooting the mark or entangling the Court in ongoing supervision of the parties’ efforts. In so doing, the issuance of this Report also hopefully provides an occasion on which the states can resolve to proceed forward with greater consensus based on the knowledge that their interests in administering the waters of the Basin will be more aligned.” *Id.* at 186.

For info:

Special Master Report at: https://vipasuite.com/resources/dyn/files/1122604zf0b3b7c8/_fn/Special+Master+Report?disposition=inline
Report Appendices: https://vipasuite.com/resources/dyn/files/1122603z6ed7226b/_fn/Appendices_Special+Master?disposition=inline

WATER BRIEFS

UTAH NUCLEAR PLANT UT

WATER RIGHTS CHANGES UPHELD

On November 27, the Seventh Judicial District Court upheld the Utah State Engineer's decision, which granted applications to change the points of diversion for two water rights that have been leased to Blue Castle Nuclear Project (Blue Castle) for a nuclear power project in Green River. *Heal Utah, et al. v. Kane County Water Conservancy District, et al.*, Case No. 120700009 (Nov. 27, 2013). Judge George Harmond, Jr. held that the "court finds that Blue Castle presented evidence sufficient to establish that there is reason to believe that each of the statutory criteria have been met regarding the applications." *Slip Op.* at 6-7. Two water conservancy districts filed the change applications, which total 53,600 acre-feet of water and will allow the diversion of 75 cubic feet per second of water continuously, primarily for cooling the Plant. The change applications also sought approval to store 2,000 acre-feet of water in a reservoir located on the Project site. *Id.* at 2-3. *See also* Water Briefs, *TWR* #96 regarding the State Engineer's initial decision.

The use of Utah's "reason to believe" standard set a fairly low bar for the applicants to meet. The court must approve a change application under Utah law, §73-3-8(1)(a), if the court has *reason to believe*, among other things, that the proposed plan is physically and economically feasible and would not prove detrimental to the public welfare; if the applicant has the financial capability to complete the proposed works; and if the application was filed in good faith and not for purposes of speculation or monopoly. *Id.* at 4-5 (emphasis added). In addition, under §73-3-8(1)(b), the court must reject the application if it "has reason to believe that the application...will unreasonably affect public recreation or the natural stream environment, or will prove detrimental to the public welfare..."

Regarding economic feasibility, the court found that it "is far from certain that Blue Castle will find partners to construct the nuclear plant itself, but Blue Castle's business plan shows the Project, if built, will eventually be profitable. Blue Castle is not required to have a business plan that is certain to succeed, but rather it is only required to establish that its plan is economically feasible." *Id.* at 15. Judge Harmon also noted, "as with the requirements of physical and economic feasibility, the requirement that the applicant have the ability to complete the proposed works has had little appellate attention in Utah jurisprudence. In *Searle*, op cit. the Utah Supreme Court, in applying the 'reason to believe' standard to all the statutory criteria of §73-3-8 held that this standard was designed to 'provide some meaningful barrier so that the floodgates remain closed to all applications except those with a sufficient probability of successful perfection.' This standard is applicable to the issue of financial ability." *Id.* at 16. The court decided that Blue Castle "are on target in their development plan." Thus, the court found that Blue Castle "has provided sufficient evidence that it is possible, and that there is reason to believe that the Project will be completed." *Id.*

The plaintiffs, HEAL Utah, argued that "the Project's ultimate completion is speculative, in that the scope of the Project and the money needed to complete the project make it unlikely to succeed, and Blue Castle will therefore prevent other uses of water." The court, however, found that "speculation" means "holding the water itself for purposes of speculation." Finding that "Blue Castle has a specific plan to utilize the water for a purpose specifically identified in the statute as a beneficial use [power], not to develop the water only to sell it to others." *Id.* at 17. The court went on to point out that Blue Castle has spent \$17.5 million working on this project: "Because the private investors are willing to risk enormous amounts of their own money and time in the Project, the risk of speculation or monopoly is minimal." *Id.* at 18.

The issue of "unreasonable effect on the natural stream environment" was essentially passed by the Utah court to the federal regulators to decide. The court decided "it would be unnecessary and inappropriate for this court to attempt to make a final determination of whether the Project will have any unreasonable effect on the natural stream environment" because of the "compulsory federal regulations and burden of proof..." *Id.* at 22.

Judge Harmond's 26-page decision did come with some conditions on the use of the water. Blue Castle's water rights will be subordinated to those of the Central Utah Project (CUP), which supplies water to approximately 600,000 people along the Wasatch Front Range, based on a "public welfare" consideration. "The State Engineer determined, and the court agrees, that the Project should be subordinated for purposes of priority distribution of water rights held by entities for use in the CUP. With this condition in place, the court finds that there is reason to believe that the Project will not be detrimental to the public welfare." *Id.* at 25.

The water is required to be put to beneficial use before September 30, 2015, but the Judge did also note that requests for extension may also be filed.

For info:

Decision available at Blue Castle website:

www.bluecastleproject.com/files/news_items/141-112713%20Memorandum%20Decision%20%20Seventh%20Judicial%20District%20Court.pdf

HEAL Utah (plaintiffs) website: <http://healutah.org/>

WATER BRIEFS

UIC VIOLATIONS UT

SAFE DRINKING WATER PENALTY

EPA announced on November 5 that Newfield Production Company (Newfield) has settled violations of the Safe Drinking Water Act in the Monument Butte Well Field in Duchesne County, Utah on the Uintah and Ouray Reservation. Under the terms of a consent decree lodged with the US District Court on October 23, Newfield agreed to pay \$600,000 for failing to demonstrate financial responsibility associated with the safe operation of 442 injection wells on the Reservation from March 2009 through September 2010.

“Companies like Newfield have an obligation to demonstrate they have sufficient resources to operate responsibly in Indian country,” said Mike Gaydos, EPA enforcement director in Denver. “In this case, Newfield did not provide adequate documentation of financial reserves to ensure the protection of water resources and the safe operation of wells used to dispose production wastes.”

Under the consent decree, Newfield agreed to secure a bond to provide proof of adequate financial assurance through the remainder of this year. The company must also comply with specific restrictions and reporting requirements to ensure that future demonstrations of financial assurance are adequate.

EPA’s Underground Injection Control (UIC) program regulates the construction, operation, permitting, and closure of injection wells that place fluids underground for storage or disposal. The program requires that owners and operators of injection wells prove they have the financial means to properly plug and abandon any well should the well fail or need to be shut down. Improperly managed or abandoned wells can contaminate drinking and ground water. Making sure that companies have the financial resources to operate these wells protects drinking water sources and prevents defaults that would shift cleanup and response costs from responsible parties to taxpayers.

For info: Britta Copt, EPA, 303/ 312-6229; EPA’s UIC program at: <http://water.epa.gov/type/groundwater/uic/>

FRACKING REGULATIONS CA
RULEMAKING PROPOSED

The California Department of Conservation (DOC) has sent out public notice of proposed regulations for the use of well stimulation in oil and gas production. The public notice begins formal rulemaking and marks the beginning of a 60-day public comment period. The regulations, which are to go into effect on January 1, 2015, are designed to protect health, safety, and the environment, and supplement existing well construction standards. They address a comprehensive list of issues, including testing, monitoring, public notice, and permitting. DOC will have emergency regulations in place by January 1, 2014 to ensure that the major requirements of Senate Bill 4 (signed into law in September) are addressed in the interim.

The text of the proposed regulations can be found at the DOC website. This effort is the product of public meetings to both solicit ideas on what the regulations ought to include and to receive comments on an unofficial “discussion draft” of regulations; extensive research of other states’ regulations and of scientific studies; and input from other regulatory agencies, the environmental community, and the oil and gas industry.

The proposed regulations do allow for companies to withhold information about what is in the fracking treatment fluid based upon a claim of trade secret. According to DOC, in California “companies and individuals have a statutory right to protect trade secret information from public disclosure, but SB 4 put limitations on trade secret protection for well stimulation fluids. SB 4 provides a process for determining if a trade secret claim is valid and for public disclosure if it is determined the information is not a trade secret. The public has the right to challenge in court a trade secret claim. SB 4 also provides that even if the information is a protected trade secret, it must be disclosed to specified government entities, or for a health professional who reasonably believes that the information may be necessary in the diagnosis or treatment of a patient.” FAQ at: <http://www.conserva->

conservation.ca.gov/index/Documents/FAQS%20final%2020131114.pdf

Comments regarding the proposed regulations can be submitted via email to DOGGRRegulations@conservation.ca.gov; via FAX to 916/ 324-0948; or via regular mail to the Department of Conservation Office of Governmental and Environmental Relations, 801 K Street MS 24-02, 95814, Attention: Well Stimulation Regulations. Comments will also be taken at five public hearings around the state in early January.

For info: DOC website: www.conserva-

WATER QUALITY TRADING US

USDA - EPA PARTNERSHIP

The US Department of Agriculture (USDA) and the Environmental Protection Agency (EPA) announced an expanded partnership on December 3rd to support water quality trading and other market-based approaches that provide benefits to the environment and economy. “New water quality trading markets hold incredible potential to benefit rural America by providing new income opportunities and enhancing conservation of water and wildlife habitat,” Agriculture Secretary Tom Vilsack said. “Additionally, these efforts will strengthen businesses across the nation by providing a new pathway to comply with regulatory requirements.”

Water quality trading provides a cost-effective approach for regulated entities to comply with EPA Clean Water Act requirements, including water quality-based effluent limits in NPDES permits. Trading would allow regulated entities to purchase and use pollutant reduction credits generated by other sources in a watershed. Cost savings and other economic incentives are key motivators for parties engaged in trading. Water quality trading can also provide additional environmental and economic benefits, such as air quality improvements, enhanced wildlife habitat, carbon capture and storage, and new income and employment opportunities for rural America.

EPA and USDA are working together to implement and coordinate policies and programs that encourage water quality trading. USDA and EPA

WATER BRIEFS

will identify opportunities to work collaboratively to help improve water quality trading programs across the country. Cooperative management and technical assistance will improve resource management and public services, and accelerate implementation.

The purpose of this policy is to support states, interstate agencies, and tribes as they develop and implement water quality trading programs for nutrients, sediments and other pollutants where opportunities exist to achieve water quality improvements at reduced costs.

For info: Alison Davis, EPA, 202/ 564-0835; USDA Office of Communications, 202/ 720-4623

KLAMATH SETTLEMENT OR/CA AGREEMENT IN PRINCIPLE

On December 2, Klamath Tribal Chairman Don Gentry and representatives of the Upper Klamath Basin “Off-Project” Irrigators met in Klamath Falls, Oregon to sign an Agreement in Principle (AIP). The AIP, built on the foundation laid by the Tribal member-approved Klamath Basin Restoration Agreement (KBRA), is the result of meetings initiated by US Senator Ron Wyden among the Klamath Tribes, Upper Basin Irrigators, and federal and state representatives. Negotiated over several months, the AIP provides a framework based on a common set of principles and concepts that the Parties will share with their respective constituents. “Off-Project” irrigators refers to irrigators in the Upper Klamath Basin (Wood, Williamson and Sprague sub-basins) who are not within the Bureau of Reclamation’s Klamath Basin Project. Water issues in the Klamath came to a head last summer when the Klamath Tribes exercised their newly-adjudicated water rights to “call” for water in the basin for instream flows.

There are three main elements of the Upper Klamath Basin AIP: Water Use Program designed to reduce consumptive water use in key reaches of the tributaries to Upper Klamath Lake, as well as to increase the volume of water flowing into the lake (all in return for a significant reduction in the frequency and extent of water

regulation); a Riparian Restoration and Management Program designed to improve and protect riparian conditions along key reaches of the tributaries to Upper Klamath Lake; and an Economic Development component designed to create employment opportunities for the Klamath Tribes.

The AIP represents a critical step toward resolving Upper Klamath Basin water and fisheries disputes not previously addressed in the KBRA. In addition to resolving water and fisheries issues, the AIP is intended to result in a Final Agreement that incorporates the three elements mentioned above. “Negotiating and signing this agreement is a very important and positive step in the efforts of the Klamath Tribes and irrigation community to resolve years of ongoing conflicts and court battles over water management affecting the Tribes’ fisheries and other Treaty resources, and the economic stability of our community,” stated Don Gentry, Chairman of the Klamath Tribes.

Several interesting concepts were included in the seventeen-page AIP, which should be reviewed in detail. “The non-Federal Parties support the acquisition of the Mazama Forest for the use of the Klamath Tribes for economic development purposes.” AIP at 2. “The Parties intend to work...to develop and implement a program to acquire water rights for instream purposes within the Off-Project Restoration Area, including leases of water rights, lease/options, and agreements for forbearance of water use by the holders of water right claims in the Adjudication.” *Id.* “In the Final Agreement, the Parties anticipate including a limitation on calls for the regulation of water rights based on the Tribal Water Right for water levels in Upper Klamath Lake during 2014, if the Parties succeed in reducing water use by a specified amount. In addition, the Parties anticipate a similar arrangement regarding regulation of water use in the Wood, Williamson and Sprague sub-basins, such that regulation would be to Specified Instream Flows...” *Id.* at 2-3. The Final Agreement is expected to include a “Water Use Program” designed to: permanently “increase instream flows into Upper Klamath

Lake over Baseline Conditions by 30,000 acre-feet on an average annual basis by increasing inflows from the Off-Project Area”; establish “Specified Instream Flow (‘SIF’) thresholds measured at a network of locations within the Off-Project Restoration Area from which regulation of water rights junior to the Tribal Water Rights” would proceed; and retire “groundwater rights [that] may be included in the Water Use Program, particularly where it is determined that there is a sufficient degree of connectivity between the groundwater source and nearby streams such that retirement of the water rights will result in timely additional stream flow.” *Id.* at 3-5.

The KTNT and Tribal Council will provide information about the AIP, and work toward a Final Agreement and the prospective legislative process at a series of Tribal member community meetings to be held December 17-20 (see Calendar, this *TWR*). If and when a Final Agreement is reached, it will be subject to the approval of the Klamath Tribes General Council.

For info: AIP available upon request from *TWR*; Don Gentry, Klamath Tribal Chairman, 541/ 783-2219 x100 or don.gentry@klamathtribes.com

LAND SUBSIDENCE CA GROUNDWATER USE IMPACTS REPORT

Extensive groundwater pumping from San Joaquin Valley aquifers is increasing the rate of land subsidence, or sinking. This large-scale and rapid subsidence has the potential to cause serious damage to the water delivery infrastructure that brings water from the north of the valley to the south where it helps feed thirsty cropland and cities. According to a new report by the US Geological Survey (USGS) the subsidence is occurring in such a way that there may be significant operational and structural challenges that need to be overcome to ensure reliable water delivery. The report, “Land subsidence along the Delta-Mendota Canal in the northern part of the San Joaquin Valley, California, 2003-10: USGS Scientific Investigations Report 2013-5142,” by Michelle Sneed, Justin Brandt, and Mike Solt, is available online.

WATER BRIEFS

The report concentrates on subsidence in an original study area along the economically vital Delta-Mendota Canal in the northern San Joaquin Valley, but also includes data from a subsequently discovered and much larger subsidence area that touches the canal on the southwest. This subsidence is reducing the capacity of the Delta-Mendota Canal, the California Aqueduct, and other canals that transport floodwater and deliver water to agriculture, cities, industry, and wildlife refuges. To help public agencies and resource managers minimize risk and damage to California's infrastructure, the USGS is studying and providing information on groundwater conditions and land subsidence in the San Joaquin Valley.

Between 1926 and 1970, groundwater pumping caused widespread aquifer compaction and resultant land subsidence in the valley. Subsidence in some areas exceeded 28 feet. Though surface-water imports in the early 1970s resulted in a steady recovery of groundwater levels, court-mandated and drought-related reductions in surface-water deliveries since 1976 have led to periods of increased groundwater pumping, resulting in historic low groundwater levels in some areas. This increased pumping has caused additional land subsidence, as well as a shift in the part of the San Joaquin Valley most affected by the subsidence.

The subsidence rate doubled in 2008 in some areas around the Delta-Mendota Canal, the study found. Though much of the northern portion of the canal area was fairly stable, the southern portion experienced about 1.8 inches of subsidence from 2003 to 2008. Water levels in many deep wells in this area reached historic lows during this period, indicating that at least some of the subsidence measured in this area probably will not return to its previous level, even if groundwater levels recover.

For info: Report available at: <http://pubs.usgs.gov/sir/2013/5142/>; Leslie Gordon, USGS, 650/ 329-4006 or lgordon@usgs.gov

DOMESTIC WATER

NM

GUIDANCE MANUAL RELEASED

The Utton Transboundary Resources Center at the University of New Mexico School of Law recently announced the publication of the Water Rights Manual for Mutual Domestic Water Consumers Associations. Written by law students Zackary Carpenter and Gregory Chakalian, class of 2011, the manual has been updated and edited by Darcy S. Bushnell, Stell Water Ombudsman of the Utton Center. The manual provides information and procedural guidance to MDWCAs in the acquisition and care of water rights in New Mexico. It has undergone extensive review by the Office of the State Engineer, organizations which provide services to Mutual Domestics, and water attorneys. The manual was made possible by a grant from the McCune Charitable Foundation.

For info: Utton Center website: <http://uttoncenter.unm.edu/>; Manual available at: <http://uttoncenter.unm.edu/pdfs/2013-09-27-MD-Manual-Final.pdf>

NORTHWEST CLIMATE

NW

CLIMATE ASSESSMENT

The Oregon Climate Change Research Institute (OCCRI) helped coordinate the first regional climate assessment since 1999, entitled the *Northwest Climate Assessment Report (Report)*. Both the 1999 report and the current report were produced as part of the US National Climate Assessment; Washington and Oregon produced similar state-level reports in 2009 and 2010 (Oregon Climate Assessment Reports). Editors are OCCRI's Meghan Dalton and Philip Mote, and Amy Snover from the Climate Impacts Group at the University of Washington.

The *Report's* view of rising temperatures portray a grim future — "Over the period from 1970-99 to 2041-70, new models project NW warming of 2.0°F to 8.5°F, with the lower end possible only if greenhouse gas emissions are significantly reduced..." In the Northwest, the *Report* notes that in "most watersheds (except those with little snow), as snow accumulation diminishes, spring peak flows shift earlier, winter flow increases, and late-summer flow decreases." The impact on agriculture in the area is also addressed in the Summary: "Competing

reservoir water demands could create summer water shortages and reduce the proportion of irrigable cropland and/or reduce the production and value of agricultural goods."

For info: Full *Report* available in PDF format at: <http://occri.net/reports>

WATER & ECONOMY

US

EPA REPORT RELEASED

In November, EPA released *Importance of Water to the U.S. Economy*. This report is intended to help raise the awareness of water's importance to our national economic welfare, and to summarize information that public and private decision-makers can use to better manage the nation's water resources. It highlights EPA's review of the literature and practice on the importance of water to the US economy, identifies key data gaps, and describes the implication of the study's findings for future research. EPA hopes this report will be a catalyst for a broader discussion about water's critical role in the US economy. The main findings of the report are that water is absolutely fundamental to the US economy; water value and competition will rise; and decision-makers in the private and public sectors will need more information that can help them maximize the benefits derived from its use.

"It is also difficult to generalize about water's economic value because water is a complex commodity. Determining this value requires analysts to control for a number of factors where data is often limited. For example, the value of water in a particular application is likely to depend on the *amount* of water supplied, *where* the water is supplied and used, *when* it is supplied, whether the supply is *reliable*, and whether the *quality* of the water meets the requirements of the intended use. Empirical estimates of the value of water, where available, are therefore highly variable and depend on the context from which they were derived. Applying these estimates to support decision-making in other settings can be problematic." Report at 1.

For info: Report available at: <http://water.epa.gov/action/importanceofwater/upload/Importance-of-Water-Synthesis-Report.pdf>

December 16-18 DC

Panel for the Review of the EPA Water Body Connectivity Report Meeting, Washington. Washington Plaza Hotel, 10 Thomas Circle, NW. For info: www.gpo.gov/fdsys/pkg/FR-2013-09-24/pdf/2013-23198.pdf

December 17 CA

Agricultural Drought Workshop, Fresno. Presented by California Dept. of Water Resources & the Center for Irrigation Technology. For info: Ted Thomas, DWR, 916/653-9712 or www.fresnostate.edu/jcast/cit/

December 17 WEB

Proactive Drought Management Webinar, WEB. Presented by AWWA. For info: www.awwa.org/webinars/flood-drought.html?utm_source=F%26D+Webinar+1+Register&utm_campaign=F+D+Report+Rel+%26+Webinar+1&utm_medium=email

December 17 OR

Agreement in Principle Information Meeting, Klamath Falls. Klamath Tribal Health, 3949 S. Sixth St., 6pm-8pm. For info: Don Gentry, Klamath Tribal Chairman, 541/783-2219 x100 or don.gentry@klamathtribes.com

December 17-18 CA

GIS for Watershed Analysis: Intermediate (Course), Davis. 1137 Lab, Plant & Environmental Sciences, UC Davis. For info: UC Davis Extension, <http://extension.ucdavis.edu/>

December 18 OR

Agreement in Principle Information Meeting, Chiloquin. Klamath Tribes Administration Auditorium, 501 Chiloquin Blvd., 6-8pm. For info: Don Gentry, Klamath Tribal Chairman, 541/783-2219 x100 or don.gentry@klamathtribes.com

December 19 OR

Agreement in Principle Information Meeting, Eugene. U of O Many Nations Longhouse, 6-8pm. For info: Don Gentry, Klamath Tribal Chairman, 541/783-2219 x100 or don.gentry@klamathtribes.com

December 19 CA

Regional Integrated Water Resources Workshop, Riverside. 11615 Sterling Avenue, 9-11am. Organized by Santa Ana Watershed Project Authority. For info: www.sawpa.org/event/regional-integrated-water-resources-workshop/

December 19-20 CA

GIS for Watershed Analysis: Advanced (Course), Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, <http://extension.ucdavis.edu/>

December 20 OR

Agreement in Principle Information Meeting, Portland. DoubleTree Inn (Lloyd Center), 6-8pm. For info: Don Gentry, Klamath Tribal Chairman, 541/783-2219 x100 or don.gentry@klamathtribes.com

January 8 OR

Air Quality & Climate Change Conference, Portland. World Trade Ctr. Two, 25 S.W. Salmon. For info: Holly Duncan, 503/282-5220 or www.elecenter.com

January 8-9 HI

Hawaii Agriculture Seminar, Honolulu. YMCA, 1040 Richards Street. For info: The Seminar Group, 800/574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

January 8-10 Ecuador

International Perspective on Water Resources & the Environment Conference, Quito. Hilton Colon. Presented by Environmental & Water Resources Institute of the American Society of Civil Engineers. For info: <http://content.asce.org/conferences/ipwe2014/index.html>

January 9-10 TX

Texas Wetlands Conference, Austin. Omni Hotel at Southpart. For info: CLE Int'l, 800/873-7130 or www.cle.com

January 10 WA

SEPA & NEPA Seminar, Seattle. Washington State Convention Ctr. For info: Law Seminars Int'l, 800/854-8009, registrar@lawseminars.com or www.lawseminars.com

January 18-19 CO

12th Annual Research & Management Conference: Riparian Restoration in the Western US, Grand Junction. Colorado Mesa University. Presented by Tamarisk Coalition. For info: www.tamariskcoalition.org/programs/conferences/2014

January 21-23 LA

2014 UIC Annual Conference, New Orleans. Hotel Monteleone. Presented by Ground Water Protection Council. For info: http://gwpc.site-ym.com/events/event_details.asp?id=361226

January 23 CA

CEQA & Climate Change: An In-Depth Update, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, <http://extension.ucdavis.edu/>

January 23-24 CA

Building a Water & Energy Efficient California - 2014 California Irrigation Institute Conference, Sacramento. Arden West Hilton. For info: www.caii.org/

January 25 CA

California Water Law Symposium, San Francisco. For info: Vincent Lu, waterlawteam@gmail.com or www.waterlawsymposium.com/

January 28-31 GA

The Environmental Bootcamp, Atlanta. DoubleTree Atlanta Buckhead. For info: www.epaalliance.com/environmentalbootcamp-jan14.html

January 29-31 CO

Colorado Water Congress Annual Convention, Denver. Hyatt DTC. For info: www.cowatercongress.org/cwc_events/Annual_Convention.aspx

January 30 CA

Water Technology Conference: Water & Energy, La Verne. University of La Verne. For info: <http://laverne.edu/waterconference2014/>

January 31 CA

Environmental Law Update Conference, San Francisco. Hotel Nikko. For info: CLE Int'l, 800/873-7130 or www.cle.com

February 3-7 WA

13th Annual Stream Restoration Symposium, Stevenson. Skamania Lodge. Presented by River Restoration Northwest. For info: www.rrnw.org/Home

February 3-7 AK

Alaska Forum on the Environment, Anchorage. Dena'ina Convention Ctr. For info: <http://akforum.com/>

February 6-7 FL

Florida Water Law & Policy Conference, Orlando. Hyatt Regency. For info: CLE Int'l, 800/873-7130 or www.cle.com

February 6-7 DC

Natural Resources Damages Seminar, Washington. Thurman Arnold Bldg. For info: Law Seminars Int'l, 800/854-8009, registrar@lawseminars.com or www.lawseminars.com

February 12 CA

CEQA Update, Issues & Trends, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, <http://extension.ucdavis.edu/>

February 14 CA

Thresholds of Significance in Environmental Planning Course, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, <http://extension.ucdavis.edu/>

February 18-20 WA

Northwest Hydroelectric Ass'n Annual Conference, Seattle. Marriott Downtown Waterfront Hotel. For info: Jan Lee, NWHA, 503/545-9420, h20kw@aol.com or www.nwhydro.org



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(continued from previous page)

February 18-20 **CO**

Tamarisk Coalition's 11th Annual Conference, Grand Junction. Colorado Mesa University. For info: 970/ 256-7400 or www.tamariskcoalition.org

February 20-20 **CA**

Planning & Environmental Law Course, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, <http://extension.ucdavis.edu/>

February 20-21 **NV**

2014 Family Farm Alliance Annual Conference, Las Vegas. Monte Carlo Resort. For info: www.familyfarmalliance.org

February 20-21 **NM**

Land & Water Summit 2014: Drought as an Opportunity for Change, Albuquerque. Sheraton Airport Hotel. Sponsored by Xeriscape Council of New Mexico & Arid LID. For info: www.xeriscapenm.com/

February 21 **CO**

Colorado Water Law Conference - 12th Annual, Beaver Creek. Westin Riverfront. For info: CLE Int'l, 800/ 873-7130 or www.cle.com

February 25-27 **DC**

2014 ACWA DC Conference, Washington. The Liason Capitol Hill. Presented by Ass'n of California Water Agencies. For info: <https://acwa.eventready.com/index.cfm>

February 25-28 **TX**

Environmental Awareness Bootcamp, San Antonio. Hyatt Place San Antonio. For info: www.epaalliance.com/environmentalbootcamp-feb14.html

February 26-28 **TX**

SPCC & Stormwater Compliance Workshop, San Antonio. Hyatt Place San Antonio. For info: www.epaalliance.com/spccstormwaterworkshop-feb14.html

February 26-28 **NV**

Lower Colorado River Tour, Las Vegas. Presented by Water Education Foundation. For info: www.watereducation.org/

February 27-28 **CA**

3rd Annual Hydraulic Fracking Seminar, Santa Monica. Bacara Resort. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net or www.theseminargroup.net

February 27-March 2 **OR**

Public Interest Environmental Law Conference: "Running Into Running Out" Eugene. University of Oregon. Presented by the Environmental & Natural Resources Law Center. For info: <http://pielc.org/>

February 28 **OR**

Freshwater Trust Gala & Auction, Portland. Kridel Grand Ballroom. For info: Dominique, FT, 503/222-9091 x14 or Dominique@thefreshwatertrust.org

February 28 **CA**

Project Planning for Permit Integration Course, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, <http://extension.ucdavis.edu/>

March 3-7 **NC**

Nexus 2014: Water, Food, Climate & Energy Conference, Chapel Hill. University of North Carolina, Friday Ctr. Presented by the Water Institute at UNC. For info: http://nexusconference.web.unc.edu/?doing_wp_cron=1369772477.6436951160430908203125

February 17-18 **CA**

Tribal Water in California Seminar, Cabazon. TENTATIVE. For info: Law Seminars Int'l, 800/ 854-8009, registrar@lawseminars.com or www.lawseminars.com