

Water Rights, Water Quality & Water Solutions 💋 in the West

In This Issue:
The Edwards Aquifer Adjudication1
Director Paul Cleary Oregon Water Resources Dept TWR Interview 11
The ESA & Western Water Law 16
Water Briefs 27 Calendar 30
Next Issue:
Montana Adjudication
Instream Water Rights
Temperature Remedy for Effluent
Model Temperature Standards
And Much More!

THE RULE OF CAPTURE

AND THE

EDWARDS AQUIFER ADJUDICATION

by Darcy Alan Frownfelter and Deborah Clarke Trejo

INTRODUCTION

Well, nobody ever said that managing an aquifer would be easy. Nor has it been said that adjudicating aquifer water rights is an easy task (at least not by anyone who has actually tried). The sentiments have never rung truer than for the Edwards Aquifer of the South Central Texas Region proximate to San Antonio, Texas. The Aquifer (fondly referred to in the region as the "Edwards") as shown on the official aquifer maps in Texas, is a thin band traipsing across Texas from southwest Texas coming from Mexico, crossing the Rio Grande and meandering north under Brackettville, San Antonio, New Braunfels, San Marcos, Austin, and finally Round Rock.

As the Edwards moves across Texas there are hydrologic groundwater divides that break up the Aquifer into segments or "pools." The portions of the Edwards that this article is concerned with are the Uvalde Pool and the San Antonio Pool. These pools historically have been the sole source of water for 1.7 million people in the San Antonio Region. Only in the last several years has there been any treatment of in-basin surface water for municipal uses. Surface water, however, when compared to region-wide aggregate demand, constitutes only a small fraction of the supply required to meet regional demand.

Municipal users can be found in all parts of the Aquifer. However, the Bexar County sector of the San Antonio Pool (which includes the City of San Antonio) is the centroid of municipal use. San Antonio Water System is by far the largest single user of the Aquifer at 175,000 acre-feet/year. Likewise, industrial users may also be found in all parts of the Aquifer with the centroid being in the Bexar County and east sectors of the San Antonio Pool. Irrigated agriculture is predominant in the western part of the Aquifer, encompassing all of the Uvalde Pool and the western part of the San Antonio Pool. There is virtually no irrigation in the eastern part of the Aquifer.

While municipal, industrial, and irrigation uses can be found in the east, the focus is on environmental flows. The Comal Springs (the largest spring in Texas) arise in New Braunfels, Texas, and provide the headwaters for the Comal River. The San Marcos Springs (the second largest spring in Texas) arise in San Marcos, Texas, and provide the headwaters for the San Marcos River. The flows emanating from these springs are dependent on the water levels of the Aquifer. These springs are the home for eight species listed as threatened or endangered under the Endangered Species Act (ESA): the San Marcos Salamander (*Eurycea nana*), the Fountain Darter (*Etheostoma fonticola*), San Marcos Gambusia (*Gambusia georgei*), Texas Blind Salamander (*Typhlomolge rathbuni*), Comal Springs Riffle Beetle (*Heterelmis comalensis*), Comal Springs Dryopid Beetle (*Stygoparnus comalensis*), Peck's Cave Amphipod (*Stygobromus pecki*), and Texas Wild Rice (*Zizania texana*). Springflows emanating from these springs are required to be maintained at certain minimum levels as may be required by federal law in order to

	provent "telvinge" of these gracies under the ESA A third party heneficiery of these minimum
T James Ja	prevent "takings" of these species under the ESA. A third-party beneficiary of these minimum springflows are downstream surface water users on the Guadalupe River which include important
Edwards	municipal and industrial users. The Comal and San Marcos Rivers are tributaries to the Guadalupe River.
Aquifer	Therefore, the hydrology of the overall system suggests that the maintenance of certain water levels in the
	Edwards is important to the maintenance of minimum springflows of the Comal and San Marcos Springs,
	which in turn is important to the maintenance of certain base flow source water conditions for the
	Guadalupe River.
3.6.1.0.1	The bottom line is that municipalities, industrial users, irrigators, environmental interests, and
Multiple	downstream surface water right holders all have an interest in the management of the Uvalde and San Antonio Pools of the Edwards. The western and Bexar County interests emphasize consumptive use of
Stakeholders	the Aquifer, while the eastern environmental, and downstream interests emphasize consumptive uses.
	The eastern users who consumptively use groundwater from the Edwards, of course, prefer to protect
	consumptive uses, but the general political dynamic is to side with the non-consumptivists. This presents
	a classic conflict scenario indeed.
Numbers	It is useful to apply some numbers to the discussion, as follows: $\int \frac{1}{2} \int \frac{1}{$
Tumbers	 Groundwater in storage: 173,000,000 acre-feet (AF) Total average recharge per annum 1993-2002: 794,100 AF
	• Total average discharge per annum 1993-2002: 847,200 AF
	• Total average discharge for municipal purposes (consumptive) 1993-2002: 254,300 AF (30%)
	• Total average discharge for industrial purposes (consumptive) 1993-2002: 36,400 AF (4.3%)
	• Total average discharge for irrigation (consumptive) for 1993-2002: 105,400 AF (12.4%)
	• Total average discharge for environmental flows (non-consumptive) 1993-2002: 433,400 AF (51%)
	HYDROLOGY OF THE EDWARDS AQUIFER Generally, the Aquifer is divided into three zones: the contributing or drainage zone, the recharge
Three Zones	zone, and the artesian zone. Surface streams forming on the contributing zone (the dissected Edwards
	Plateau also referred to as the Texas Hill Country), flow south or east and cross the Edwards Limestone
	outcrop (recharge zone). During low flow conditions, most surface water is captured by the Aquifer as it
	crosses the outcrop. In addition, rainfall that occurs directly on the recharge zone may also enter the
	Aquifer. Groundwater in the artesian zone moves through the Aquifer, generally, from west to east and then northeast to ultimately discharge from a number of locations (from west to east) such as Leona
	Springs (Uvalde, TX), San Pedro and San Antonio Springs (San Antonio, TX), Hueco and Comal Springs
	(New Braunfels, TX), San Marcos Springs (San Marcos, TX), and Barton Springs (Austin, TX). The
	previous 5-year average discharge for Comal Springs and San Marcos Springs, the two largest springs
	discharging the Aquifer, is 8.3 cubic meters per second and 5.6 cubic meters per second, respectively.
	Residence time in the Aquifer ranges from a few hours or days to many years depending upon depth of circulation, location, and other Aquifer parameters.
	The Edwards is a 'karst' aquifer, i.e., characterized by the presence of sinkholes, sinking or losing
	streams, caves, springs, and a well-integrated subsurface flow system. It is a very porous aquifer with
Highly	groundwater flow occurring in the rock matrix; within fractures, faults, and bedding plane partings; and
Porous Aquifer	within conduits (>1 cm diameter). The combined primary/secondary/tertiary porosity of the limestone
	creates extremely high permeability. Most wells do not fully penetrate the Aquifer yet commonly have
	yields that exceed 3,800 liters-per-second with little or no drawdown – the Catfish Farmer Well, a 76 mm diameter flowing artesian well, was estimated to discharge in excess of 115,000 liters-per-second creating
	a ten meter vertical column of water at the surface when first drilled. Groundwater withdrawal is gener-
	ally limited by the size of the pump and not the physical properties of the Aquifer.
	The genesis of the Aquifer is a complex product of numerous geologic processes including carbonate
	deposition, uplift, early (paleo) karstification, down faulting, volcanism, and current karstification.
	Meteoric waters, dissolving carbon dioxide from the atmosphere and from vegetation, creates a weak acid
	that, over time has created preferential flow paths which allow rapid infiltration of surface water. In addition, dissolution through the process of corrosion mixing has also enhanced Aquifer permeability.
	addition, dissolution unough the process of corrosion mixing has also childheed Aquiter perineability.
	The Water Penert (ISSN contine) is sublished monthly by Environment Dublishing Ly
	<i>The Water Report</i> (ISSN pending) is published monthly by Envirotech Publications, Inc. 260 North Polk Street, Eugene, OR 97402
	Editors: David Light & David Moon Phone: 541/343-8504 Cellular: 541/517-5608
	Fax: 541/ 683-8279 email: thewaterreport@hotmail.com Subscription Rates: \$249 per year; Multiple subscription rates available.
	Postmaster: Please send address corrections to The Water Report, 260 North Polk Street, Eugene, OR 97402
	Copyright© 2004 Envirotech Publications, Inc.

	_
Edwards Aquifer	The preferential flow paths (caves or conduits) allow extremely rapid recharge during rain events. Monitoring wells located in the recharge zone have risen as much as 50 meters in response to large rainfall events. The rapid movement of water also produces dynamic changes in water chemistry in and near the recharge zone. Aquifer levels have also declined as much as 70 centimeters in one day related to pumping demand during dry conditions.
	THE BASICS OF TEXAS GROUNDWATER LAW
"Rule of Capture"	The first thing one normally encounters when investigating Texas groundwater law is the oft- repeated refrain that Texas is a 'Rule of Capture' state. This rule in other jurisdictions may be referred to as the English Rule, the Common Law Rule, or even the Absolute Ownership Rule (Texas courts also sometime use these names). The hallmark of the Rule of Capture is that it arises by mere ownership of the surface estate of land, and, in its purest form, authorizes the landowner to withdraw as much ground- water as he may choose for a beneficial use at any on-site or off-site location, irrespective of any negative
	impacts on adjacent well owners. Indeed, adjacent landowners have no remedy at law. Framed in this way, the Rule of Capture functions primarily as a principle of tort law, rather than a groundwater resource
Administration of the Rule	management tool. Perhaps the best thing that can be said about the Rule of Capture is that it is an easy rule for a state to administer. What little administration that occurs is done by the courts when two competing well owners may test the rule in court. Due to the rule's straightforwardness and the certainty of outcome, this will not occur frequently.
	The Rule of Capture functions quite well in several settings. When the supply of groundwater equals or exceeds demand, well interference is not likely or is manageable. If the volumes of withdrawals are relatively small, competing wells can likely be accommodated. If the well field is surrounded by a sufficient buffer zone, adjacent well owners may not be impacted. Aquifers in remote locations, where the overlying land is owned or managed by a single entity, would have no other water users to be con-
	cerned about. Finally, aquifers that are not hydraulically connected to a significant water course will not have the potential to impact surface water users.
Shortcomings	Establishing certainty during times of water shortage between competing users may well be the primary purpose of water law. It may be argued that the worst thing about the Rule of Capture is that during times of shortage the rule ceases to be an effective groundwater management strategy. Under the Rule of Capture, shortages are managed by drilling a deeper well, installing a bigger pump, or operating the well for more hours — the proverbial race to the bottom of the aquifer.
	In addition, the Rule of Capture provides no opportunity for the conjunctive management of ground- water and surface waters. Texas has a bifurcated system of water law. Texas surface water is managed under the Prior Appropriation Doctrine and groundwater is managed under the Rule of Capture — and never the twain shall meet. Of course, we know the real hydrologic cycle and surface and ground hydrology of the State of Texas do not operate in this fashion. The two do in fact meet, yet, there is no
	legal mechanism to mesh the two systems. Even if a particular aquifer is in balance and the competition between water users is manageable for
Legal Durability	one or more of the scenarios set out above, the existence of the Rule of Capture stills offers the <i>potential</i> for impact because existing users of an aquifer have no remedy against new water users that enter the mix and disrupt existing conditions by making very large withdrawals for on-site use or exportation. In 1904, the Rule of Capture was first enunciated by Texas courts as the common law for groundwater management in the case of <i>Houston & T.C. Railway v. East</i> , 81 S.W. 279 (Tex.1904). This rule has withstood regular attack over time with its most recent reaffirmance by the Texas Supreme Court in 1999 in <i>Sipriano v. Great Spring Waters of America, Inc.</i> , 1 S.W.3d 75 (Tex.1999). The rule operates effectively in rural settings with little competition for water. However, application of the rule has also resulted in the affirmance by Texas courts of the drying up of major springs in West Texas, which occurred during the drought of the 1950s due to the overpumping of the aquifer upon which springs relied. [See <i>Pecos County Water Control and Improvement District No. 1 v. Williams</i> , 271 S.W.2d 503 (Tex. Civ. App El Paso 1954, writ ref'd n.r.e.)]. Moreover, during the 50s' drought, the transport of groundwater in a watercourse to a downstream city was affirmed irrespective of massive channel losses between the point of withdrawal and the downstream place of use. (See <i>City of Corpus Christi v. City of Pleasanton</i> , 276 S.W.2d 798 (Tex. 1955). Finally, application of the rule allows a comparatively large new water user to enter an aquifer and cause well interference based on water level declines to existing proximate well
Limits	owners without recourse. (See <i>Sipriano</i> .) Texas courts have seen fit to limit the rule's reach to stem the impacts of subsidence on adjacent property owners (See <i>Friendswood Dev. Co. v. Smith-Southwest Indus</i> , 576 S.W.2d 21 (Tex, 1978)) and

to prohibit a landowner from maliciously taking water solely to injure one's neighbor (see *City of Corpus*

Edwards Aquifer

"GCDs"

Competing Interests

Litigation

ESA Litigation

Christi). Furthermore, landowners may not "wantonly and willfully waste" the water produced (see *Id*.). As the *East* case also recognized, the Rule of Capture may be limited by contractual arrangements between adjoining landowners, or through legislative action.

Legislative Change to the Rule of Capture

To provide for the "conservation, preservation, protection, recharging, and prevention of waste of groundwater" (see Tex. Water Code Ann. § 36.0015), the Texas Legislature beginning in the 1950s (with the regular encouragement of the courts), began its move away from the common law and the Rule of Capture. The strategy it adopted was to retain the Rule of Capture as the default legal regime, but provide for the local regulation of the rule by "groundwater conservation districts" (GCDs). Indeed, the legislature has stated that GCDs are the preferred level of government for groundwater management. (See *Id*.) To provide the sideboards for the authority of GCDs to act, the legislature enacted chapter 36 of the Texas Water Code as the "organic act" for the districts. If GCDs regulate the Rule of Capture consistent with chapter 36, then Texas courts will sustain the limitations on the rule imposed by the districts.

The clear purpose of GCDs is to develop locally based regulatory systems, taking into account the peculiarities of the aquifer in question. A GCD may act to eliminate, diminish, or mitigate the negative impacts of the operation of the unadulterated Rule of Capture. Although each district under chapter 36 is free to adopt a management system based on varying factors, the districts for the most part have adopted some form of groundwater production limitations based on a permitting system.

There are currently 80 confirmed GCDs in Texas, with eight additional districts awaiting confirmation by local voters. These districts encompass approximately 50% of the State. Outside these districts, the Rule of Capture operates under the common law as narrowly limited by Texas courts. Inside the GCDs, the Rule of Capture operates at various strengths depending on the extent a GCD desires to take the Rule of Capture out of play. In some districts, the Rule is only limited in minor ways, while in other districts it has been so limited that it may be said not to exist at all. Due to the impact of the GCDs, it may be an overstatement to categorize Texas as a Rule of Capture state without offering some footnotes.

A SHORT LEGAL HISTORY OF THE EDWARDS AQUIFER

Given the nature of the Edwards Aquifer, the backdrop of Texas groundwater law, and the Endangered Species Act, it would have been surprising had the users and beneficiaries of the Aquifer not been on a collision course. The Rule of Capture was ill-equipped to resolve competing interests (municipal, industrial, and irrigation users), the desire of the tourism and environmental interests to preserve or maintain springflows from Comal and San Marcos at sufficient levels for instream uses and habitat maintenance, and the conjunctive use interests of downstream surface water users in the Guadalupe River. The Rule of Capture would have authorized municipal, industrial, and irrigation users to simply withdraw more groundwater from the Aquifer for their consumptive uses during times of drought. Under the pure Rule of Capture doctrine, the tourism, environmental and downstream water users would have been left without a remedy for the decline or even cessation of springflows from Comal and San Marcos Springs due to declining Aquifer levels. Thus, the tourism, environmental and downstream water users interests needed to either force a legislative solution, create a GCD for the Aquifer, or find other law (preferably federal) that would preempt the application of the Rule of Capture. The best candidate for the latter strategy was the Endangered Species Act.

Litigation related to the Edwards Aquifer is legion. Perhaps the first case of note is *Guadalupe-Blanco River Authority v. Royal Crest Homes, et al.*, No. 89-038 (22nd Dist. Ct., Hays County, Tex. June 15, 1989). In this case, the *Authority* tried to do an end run around the Rule of Capture by seeking to have the Edwards Aquifer declared an "underground river." If successful, the groundwater in the Aquifer would have been deemed to be "state water" "owned" by the State of Texas and, therefore, subject to the Prior Appropriation Doctrine, not the Rule of Capture. For various political and legislative reasons, this suit has not proceeded forward, although it is still retained on the court's docket.

Other litigation has invoked the ESA to provide a hammer by which to trump the Rule of Capture since its utilization will *not* protect threatened or endangered species. In 1991, *Sierra Club v. Lujan*, 1993 WL 151353 (W.D. Tex. 1993) was filed alleging that the US Department of Interior and US Fish and Wildlife Service (USFWS) failed to adequately protect endangered and threatened species in the Comal and San Marcos Springs. US Western District of Texas Judge Bunton held for the Sierra Club and ordered USFWS to designate minimum springflows for San Marcos and Comal Springs to ensure protection of threatened and endangered species and to provide notice of its designated flows to Aquifer pumpers. The court also ordered Texas' Water Commission to develop a plan to protect springflows and encouraged the Texas Legislature to develop a regulatory system to limit withdrawals from the Aquifer to protect species, or face the possibility of federal management.

Edwards Aquifer	Plaintiffs alleged that US Department of Agri establish conservation programs for farmers,	in Judge Bunton's court in <i>Sierra Club v. Glickman.</i> culture (USDA) subsidization of farming, which failed to led to the overpumping of the Aquifer and threatened ld in favor of the Sierra Club and ordered the USDA to take
"Taking"	measures to protect threatened and endangered decision was affirmed in 1998 by the Fifth Ci 1998). In 1996, <i>Sierra Club v. City of San Ar</i> , were "taking" endangered species in violation abstention" grounds (i.e., abstention by a cour	d species dependent on the Aquifer. The district court's rcuit. <i>Sierra Club v. Glickman</i> , 156 F.3d 606 (5 th Cir. <i>atonio</i> , was filed claiming that pumpers from the Aquifer n of the ESA. Defendants sought dismissal on " <i>Burford</i> rt to allow agencies the opportunity to address an issue) in
Learning Curve	However, the district court ruled again for Pla great learning curve to overcome before it is n overruled the trial court decision on the groun	Authority (see <i>Burford v. Sun Oil Co.</i> , 319 U.S. 315 (1943). An antiffs, finding that "the Edwards Aquifer Authority has a ready to manage the Aquifer." In 1997, the Fifth Circuit adds of <i>Burford</i> abstention and the US Supreme Court denied <i>b v. City of San Antonio</i> , 112 F.3d 789 (5 th Cir. 1997).]
	With the temporary success of this feder	RDS AQUIFER AUTHORITY ACT al ESA litigation, the competing interests in the region That solution involved the passage of S.B. 1477, the
Authority Created	Edwards Aquifer Authority Act (Act), which Act granted groundwater management powers GCDs. Competing parties came together in 1 adequate power to manage the Aquifer for the management of the Aquifer from the federal g S.B. 1477 was specifically designed to b have prevented the Aquifer from being management	created the Edwards Aquifer Authority (Authority). The s far exceeding the authority of conventional chapter 36 993 to agree on legislation that provided the Authority with e benefit of all of the regional interests, thereby wresting
	Capture under common law that the Act super	rceded were the following:
	Comparison of I	Rule of Capture & SB 1477
	RULE OF CAPTURE	SB 1477
	Right arises by virtue of ownership of the surface estate in land	Right arises by owning a well from which groundwater was produced during the historical period, placing the water to beneficial use, and timely filing a declaration of historical use with the Authority providing convincing evidence of these facts.
	No groundwater withdrawal permit required	Permit required (except for certain small exempt wells)
	No metering required	Metering required
	No groundwater withdrawal reporting required	Reporting required
	No duty to conserve water	Water conservation required
	No duty to limit withdrawals to protect threatened & endangered species	Duty to limit withdrawals to protect threatened & endangered species
	No limit on aggregate Aquifer-wide withdrawals	450,000 AF/annum cap on aggregate withdrawals, with subsequent reductions in the cap to 400,000 AF/annum. Caps may be raised if technical basis for doing so.
	No duty to reduce aggregate withdrawals during drought conditions in order to maintain springflows from Comal and San Marcos as may be required by federal law	Duty to reduce aggregate withdrawals during droughts to maintain springflows as may be required by federal law
	Groundwater withdrawals not interruptible	Withdrawals are interruptible based on Aquifer or springflow conditions
	for any reasons No production limitations	Production limitation based on historical period withdrawals, and subsequent proportional adjustments, interruptions, or permit requirements
	No duty to pay fees to withdraw groundwater	Duty to pay aquifer management fees
	No limitation on location of place of use	No exportations. Place of use must be within Authority boundaries. Additionally, certain limitations on west to east transfers are prohibited.

	The Authority now has the regulatory tools necessary to balance competing economic and environ-
Edwards	mental interests to reasonably manage the Aquifer and overcome impediments of the Rule of Capture.
Aquifer	One of those tools is the duty to "adjudicate" the groundwater rights to the Aquifer.
riquiter	Implementation of the "Adjudicatory" Aspects of the Act
// A 1 · 1 · / · //	The term "adjudication" of water rights is used somewhat colloquially to describe the Authority's
"Adjudication"	process to determine water rights in the Aquifer. In fact, in <i>Barshop v. Medina Underground Water</i>
	Conservation District, 925 S.W.2d 618 (Tex.1996), the Texas Supreme Court took great pains to state
	that the Authority's process "would not constitute an adjudication of title to property." Instead, the Court
	provided that the Authority, when issuing groundwater withdrawal permits would instead be engaging in
	"fact finding," which is not akin to the determination of a controverted right to property. As opposed to a normal adjudication, there is no duty on the Authority after making its preliminary report of proposed
	water rights to docket the preliminary report with a state district court for final order and issuance of
	certificates of adjudication. In a standard adjudication, a water right is evidenced by a certification of
"IRP"	adjudication and/or permits issued thereafter. Under the Authority's adjudication, the water right will be
	evidenced by an "Initial Regular Permit" (IRP) issued by the Authority's Board of Directors. Whether
	permit holders will seek individual quiet title suits to obtain individual adjudication of the ownership of their IRPs remains to be seen.
	Implementation Rulemaking
Litiastics	The Act became effective on June 28, 1996, the date the Texas Supreme Court issued its order in the
Litigation	Barshop litigation reversing the trial court's finding of facial unconstitutionality and lifting the trial
	court's injunction against the Act's enforcement. The Act is not self-implementing. Accordingly, the first thing the Authority was required to do was adopt implementation rules. This process started in July
	1996, and, continues to this day.
Rules	The rules bearing on the adjudication process and the Authority permit program are largely found in
	chapters 701 (General Provisions), 702 (General Definitions), 705 (General Jurisdiction), 707 (Procedures
	Before the Authority), 711 (Groundwater Withdrawals), subchs. A (Definitions), B (General Provisions), C (Exampt Walls), D (Interim Authorization), E (Groundwater Withdrawal Permits), E (Standard Ground
	C (Exempt Wells), D (Interim Authorization), E (Groundwater Withdrawal Permits), F (Standard Groundwater Withdrawal Conditions), G (Groundwater Available for Permitting; Proportional Adjustment; Equal
	Percentage Reduction), H (Abandonment), K (Additional Groundwater Supplies), and L (Transfers), and
	715 (Comprehensive Water Management Plan Implementation), subchapters E (Withdrawal Reduction
	Rules) and F (Regular Permit Retirement Rules). [See www.edwardsaquifer.org/Pages/
	theauthority.html.] With the exception of subchapters E (Withdrawal Reduction Rules) and F (Regular Permit Retire-
	ment Rules) of chapter 715, all of the rules necessary to implement the water rights adjudication aspect of
	the Act were adopted and enforceable beginning on November 15, 1996, and continuing intermittently
	over time through December 2003. Subchapters E and F of chapter 715 are scheduled for adoption in
	2006 closer to the time when the regulatory deadlines associated with the reductions to the 400,000 AF/ annum become applicable on December 31, 2007.
//DIII//	The first set of rules adopted by the Authority related to the details of filing a "declaration of
"DHU"	historical use" (DHU or "declaration"). This form is sometimes referred to an "application for an initial
1972 - 1993	regular permit." To be eligible to have one's groundwater right recognized, a water user was required to
	claim and prove that they owned a well from which groundwater from the Aquifer was produced and placed to beneficial use during the historical period, established by the Act as the period from 1972 to
	1993.
	The original effective date of the Act was September 1, 1993, with "declarations" required to be filed
	by March 1, 1994. Litigation delayed the effective date of the Act. First, the US Department of Justice
	refused to give pre-clearance to the Act under section 5 of the Voting Rights Act because under the 1993
	Act, the Board of Directors of the Authority was to be appointed rather than elected (see also <i>Texas v.United States</i> , 523 U.S. 296 (1998)). During the 1995 session of the Texas Legislature, the Act was
Amendment	amended to provide for an elected board to resolve this issue. The amended Act was scheduled to become
	effective on August 28, 1995. However, several days prior to this date, the Medina County Underground
	Water Conservation District, among others, challenged the facial constitutionality of the Act. Although
	the Plaintiffs prevailed at the trial level in enjoining the effectiveness of the Act, the Texas Supreme Court in <i>Barshop</i> found the Act to be facially constitutional and lifted the injunction on June 28, 1996.
	Claim Forms; Notice of Filing Declarations; and Workshops
	During the summer and fall of 1996, while scrambling to get the DHU implementation rules in
	place, the Authority staff also developed DHU forms for water users to use in making a claim. In order to

	ansure the widest notice of the deadline for filing the DIIU the Authority published notice of the manine
Edwarda	ensure the widest notice of the deadline for filing the DHU, the Authority published notice of the requirement to file a DHU prior to the close of business on December 30, 1996, in many newspapers of general
Edwards	circulation throughout the region. It advised water users that failure to do so would result in the non-
Aquifer	recognition of a historical water right and the denial of the declaration. To assist in this notice process,
	the Authority conducted several workshops on the DHU process. Finally, Authority staff also conducted
	pre-application conferences with any potential applicant to assist in preparing the declaration.
Processing	Late Claims and Initial Action on Declarations of Historical Use In December 1996, Authority staff time was consumed with the receipt and initial processing of
0	DHUs. Initially, action on DHUs consisted of receiving the DHUs at the official offices of the Authority
	and stamping them with the date of receipt clearly indicated. By the December 30, 1996 deadline, over
	1,000 DHUs were filed with the Authority. Several DHUs were filed late and the effect of late filing is
	currently under challenge (see <i>Chemical Lime, Ltd. v. Edwards Aquifer Authority,</i> No. C2002-0547-A (22 nd Dist.Ct., Comal County, Tex,. June 14, 2002). The theories raised in <i>Chemical Lime</i> to allow
	"late" filings are: (1) the December 30, 1996 filing deadline was improperly calculated and should be
	February 16, 1997 (6 months after the Supreme Court overruled the motion for rehearing); and (2) the
	applicant substantially complied with the filing date because a complete application was submitted shortly
	after the deadline, and the Authority was provided oral information constituting an application by the
Filings	applicant in a conversation with Authority staff. This case is scheduled for trial in the Spring of 2004.
8-	Of the some 1,000 DHUs filed, the applications break out as follows: municipal – 168, industrial – 214, irrigation - 633, and domestic/livestock – 81. The total volume of groundwater rights claimed was
	approximately 834,244 acre-feet/annum, obviously far exceeding the 450,000 AF/annum cap. Fifty-eight
	percent of the DHUs were for irrigation. Municipal claims accounted for 15%, with industrial claiming
	20%. Domestic and livestock wells (which are exempt from permitting) claimed 7%.
#6 1 . #	Administrative Completeness Review In 1997, Authority permitting staff initially reviewed each DHU for "administrative completeness."
"Completeness"	This review was focused on assessing whether the application contained the necessary information in
	legible form to allow the application to be maintained in the permanent records of the Authority, a
	technical review of the DHU to be conducted by Authority staff, and eventually for the general manager
	to recommend or propose action on the DHU. For those applications found to be administratively
	complete, the general manager of the Authority notified the claimant by mail. If the general manager determined that a DHU was not administratively complete, the claimant was
	notified of the specific deficiencies. The claimant was given the chance to submit any additional neces-
	sary information in response to the notice of deficiency letter. In the event the additional necessary
	information was not forthcoming, the general manager could return the incomplete DHU to the claimant.
	Under this procedure, the Authority permitting staff worked closely with the DHU filers to assist in the administrative completeness of the applications. No DHUs were returned due to the failure to submit
	additional minimal information to make the application complete. All DHUs were declared administra-
	tively complete by the general manager in 1997.
	Technical Review and Site Visits
	Concurrently with the administrative review process, Authority staff also performed "technical review." During technical review the Authority permitting staff again had the opportunity to notify the
"Additional	applicant that additional material was necessary for a complete technical review. If the applicant pro-
Materials"	vided the information, staff would proceed to complete technical review. If not received, they could
	return the DHU to the applicant. These decisions were to be made by the general manager on a case-by-
Site Visits	case basis. A primary component of technical review was site visits to the points of withdrawals (well-
	heads) and the claimed place of use for the purpose of verifying the information submitted with a DHU. Technical review was completed in November 2000, after a pause due to intervening litigation.
	Proposed Initial Regular Permits; Technical Summaries; Denials
	After the completion of technical review of the DHUs, the general manager of the Authority decided
"PIRP"	whether to recommend granting or denying the DHU. If the DHU was recommended to be granted, the
1 1111	general manager prepared a "proposed initial regular permit" (PIRP) consistent with the Act and Author- ity rules. The PIPP was subject to always during the course of processing the PHU based on the receipt
	ity rules. The PIRP was subject to change during the course of processing the DHU, based on the receipt of new information. In the event the general manager recommended denial, then Authority permitting
	staff prepared a proposed denial stating the reasons for that recommendation. The common bases for
	denial included late filing, no existing well identified in the DHU, the applied-for well was not owned by
	the applicant, the applied-for well was not a well completed in the Edwards Aquifer, the applied-for well
	qualified for exempt well status, the applied for beneficial use occurred outside the historical period, or there was insufficient avidence of beneficial use (after repeated requests for such information)
	there was insufficient evidence of beneficial use (after repeated requests for such information).

Edwards Aquifer

Technical Summaries

"TAPA"

To accompany PIRPs, Authority permitting staff prepared technical summaries for each DHU which provided information of the applicant's name and address, location of each point of withdrawal, the maximum beneficial amount of water that was used by the applicant during any one calendar year during the historical period, the purpose(s) of use, any equitable adjustments to the applicant's historic use of groundwater due to participation in a federal program, the maximum permit withdrawal amount stated on a per annum and per month basis, the maximum rate of withdrawal for each point of withdrawal in gallons per minute or cubic feet per second, description of any existing metering or measuring devices, the place of use, and proposed permit conditions. The technical summary also contained a notice that the applicant, any other applicant for an IRP, or any other permittee holding a groundwater withdrawal permit, could file a request for a contested case hearing on the DHU on or before the 30th day after the date of publication of notice of the PIRP or proposed denial. Each DHU claimant was provided with a copy of the proposed PIRP or denial and the technical summary.

First Notice of the PIRPs, Technical Summaries, and Proposed Denials

In April 1998, the docket clerk arranged for publication of a notice of the proposed PIRPs and denials in a newspaper of general circulation throughout the Authority's jurisdiction and at least four other newspapers within the jurisdiction of the Authority. The notice contained a description of the proposed PIRP, including any conditions, proposed denial and reasons, a brief description of the technical summary, and notice that the proposed actions would be presented to the Board of Directors of the Authority for action within 60 days unless a request for hearing was submitted within 30 days to the Authority. Within days of publishing the notice of proposed action, disgruntled irrigators and industrial users filed lawsuits to, among other things, void the implementation rules due to the Authority's failure to comply with certain rulemaking procedures of the Texas Administrative Procedures Act (TAPA). (*Wells, et al. v. Edwards Aquifer Authority*, No. 97-13983 (345th Dist. Ct., Travis County, Tex., Dec. 19, 1997); and *Living Water Artesian Springs v. Edwards Aquifer Authority*, No. 9802644 (353th Dist. Ct., Travis County, Tex., March 12, 1998). The Plaintiffs in the *Living Waters* litigation prevailed and, accordingly, the Authority was required to restart its rulemaking process and so withdrew the first published notice of the proposed actions.

TAPA applies to rulemaking by "state agencies." The Authority is not a "state agency." Nevertheless, prior to September 1, 2001, the Texas Legislature required the Authority to comply with TAPA. In order to adopt rules under TAPA (using a belts and suspenders approach), rulemaking was expected to take 18 to 24 months. Accordingly, the Authority permitting staff was left with deciding what to do until the new TAPA rulemaking process was concluded.

Fact Finding Conferences Success

To utilize this time, permitting staff determined that it would conduct information fact finding conferences with DHU claimants. The process was, in effect, an informal pre-hearing procedure, to further refine the issues, enter into stipulated facts when possible, allow more time to supplement evidence in the file, discuss legal theories, allow opposing parties to discuss their differences and possibly resolve them, and otherwise organize the future processing of the DHUs. Each member of the Authority's permitting staff was assigned a docket of DHUs, and over the next two years conducted one or more informal conferences with the parties. These information fact finding conferences turned out to be a real blessing and fostered expedient processing of the DHUs once the program got back on track with the adoption of new permitting rules. Although this process concluded in November 2000, the process remains on-going as new information is gathered.

Second Notice of the PIRPs, Technical Summaries, and Proposed Denials

The new set of permitting rules was finally adopted in October and December 2000. Immediately upon the effective date of the new permit rules in November 2000, and January 2001, the general manager was able to promptly republish the notice of the proposed PIRPs and denials in the appropriate newspapers, and provide individual notice to the claimants. The general manager proposed to grant 856 DHUs (78%) and deny the remaining 240 (22%). Of the proposed approvals, 249 were proposed as requested, and 607 were proposed with lower adjusted amounts. The total volume of groundwater rights proposed was 563,300 AF/annum – 227,000 AF/annum for municipal (40%), 70,700 for industrial (13%), and 265,600 for irrigators (47%).

Uncontested DHUs

The notice of proposed PIRPs triggered the contested case hearing process as many applicants were not satisfied with the groundwater withdrawal amounts that they or other applicants were to receive. Essentially at this point in the processing of a DHU, an applicant was required to decide if they agreed with the general manager's PIRP or proposed denial and not contest the matter, or to protest the proposed action and file a Request for Contested Case Hearings (RCCH) to present evidence at a full-blown

Informal Meetings

"RCCH"

Edwards	contested hearing to demonstrate why the general manger's proposed action was wrong. If the proposed action was not contested, the DHU would proceed to the uncontested docket of the Board of Directors of
Aquifer	the Authority for final action consistent with the PIRP or proposed denial of the general manager. If a RCCH was filed, then the Board proceeded with contested case hearings.
-	The deadline to file a RCCH expired in December 2000. Of the 1,096 DHUs filed with the Author-
	ity, 708 (65%) were disposed or will be disposed of as an uncontested matter. The volume of groundwa-
	ter rights recognized by the Authority under uncontested procedures as of December 2003 is approxi-
	mately 502,000 AF/annum. This includes both DHUs that were not initially protested and those that,
	although contested, were later withdrawn and processed as uncontested matters. Contested DHUs: Contested Case Hearings
	RCCHs were required to be in writing and filed with the Authority no later than 30 days after the
	publication of the PIRP or proposed denial notice. The Authority had prepared a RCCH form to make it
"Basis"	easier on claimants to contest either the general manager's proposed action on their DHU or that of
Statement	another claimant. Specifically, the person protesting a proposed action was required to state the basis
	upon which the person believed that a contested case hearing was appropriate, verified by an affidavit.
	By requiring that the basis be specifically provided, the Authority was much better prepared to evaluate the merits of a protest.
	After filing, the Board of Directors of the Authority was required to evaluate each RCCH to deter-
	mine if the RCCH was timely filed, whether the person requesting the hearing had a personal justiciable
	interest related to the PIRP or the proposed denial, and whether the basis for the protest was reasonable.
	If the Board of Directors determined that a RCCH had merit, the board would issue an interim order
"SOAH"	referring the matter to the Texas State Office of Administrative Hearings (SOAH) to conduct a contested case administrative hearing on the DHU. SOAH is a state agency that provides administrative law judges
	to conduct hearings and make recommendations to the referring agency on a proposed decision.
	The burden of proof is on the applicant in a contested case hearing to establish by convincing
	evidence that he is entitled to have his DHU approved at a volume other than as proposed in the PIRP by
	the general manger. In the event of proposed denial of the DHU, the applicant must establish all of the
	<i>prima facie</i> elements for the granting of an IRP.
	While at SOAH, a matter could proceed along four possible paths. First, if all persons protesting a DHU withdrew their RCCHs, the matter would be remanded back to the Board by the a dministrative law
"ALJ"	judge (ALJ) to be placed on the Authority's uncontested docket. Under this scenario, it is as if RCCHs
	were never filed, and the parties all agreed with the general manager's proposed action. It should be
	noted that some of these RCCHs may have been withdrawn after issuance of the interim order referring
	the DHU to SOAH but prior to actual docketing of the matter with SOAH. If this occurred, no remand from SOAH is required. Second, the matter could settle at terms or conditions different from the general
	manager's PIRP or proposed denial (normally at an authorized groundwater withdrawal amount higher
	than what the general manger had proposed, or if a denial, the general manger agreed that the claimant
	had finally presented sufficient evidence to show that the issuance of an IRP was appropriate). The
"AFO"	procedural devices used for this approach are stipulated facts, agreed settlement documents, or consent
mo	orders. Under this scenario an " a greed f inal o rder" (AFO) is executed by all parties, the ALJ again remands the DHU back to the Board, and it is docketed as an agreed case. While the Board is certainly
	free to reject such AFOs, such has not often been the case. The third possibility is that the matter goes go
	a contested case hearing because the parties were not able to settle the matter. The fourth scenario is that
	the party requesting the hearing defaults in the proceeding.
	Following the completion of a contested case hearing (or a default by the claimant), the ALJ submits
"PFD"	a " p roposal f or d ecision" (PFD) to the Board of Directors of the Authority and serves a copy on each party. The PFD is merely a recommended decision. It does not bind the Board to adopt it. In practice
	the PFD is normally quite persuasive and not often rejected by the Board.
	A PFD includes recommended changes to the PIRP or proposed denial originally proposed by the
	general manager. The parties are entitled to file exceptions and replies to the PFD under an identified
Final	schedule set out in the PFD.
Board Actions	Final actions by the Board must be in writing or stated in the record and include findings of fact and conclusions of law. The findings of fact may be based only on the evidence and on matters that are
Dourd Actions	officially noticed. If statutory language is used, findings of fact must be accompanied by a concise and
	explicit statement of the underlying facts supporting the findings. The Board may change a finding of
	fact or conclusion of law made by an ALJ, or may vacate or modify orders issued by ALJs, if the board
	determines the law was not properly applied, prior administrative decisions on which the ALJ relied are
	incorrect or should be changed, or that a technical error in a finding of fact should be changed.

Edwards Aquifer	Parties may file motions for rehearing. Such motions are a prerequisite to appeal. The motions are to provide a concise statement of each allegation of error. The motions are overruled by operation of law unless the Board rules on the motion for rehearing within 45 days after the date the party or his attorney of record is notified of the decision or order, or the Board grants an extension of time. When a motion for rehearing is granted, the decision on the DHU is nullified. The board may reopen the hearing to the
Contested Cases	extent it deems necessary. In the absence of a motion for rehearing, a decision of the board is final on the expiration of the period for filing a motion for rehearing. If a party files a motion for rehearing, a decision of the board is final and appealable on the date of the order overruling the motion for rehearing or on the date the motion is overruled by operation of law. Of the 1,096 DHUs filed, 388 (35%) RCCH were filed requesting contested case hearings. The Board of Directors of the Authority approved all requests for RCCH. As of the time of this article, 382 RCCH (98%) have either been referred to SOAH or settled. That leaves six (2%) remaining with the Authority for further processing; these matters have not been referred because they are likely to settle. Appeals of Final Decisions of the Board on DHUs A person who was a party to a contested case before the Authority and is affected by a final decision of the Board may file a petition for judicial review within 30 days after the decision is final and appeal-able. The Authority is to prepare the record. The record in a contested case includes pleadings, motions, rulings, evidence, matters officially noticed, questions and offers of proof, summaries of the results of conferences, proposed findings, exceptions and briefs, decisions, opinions or reports of the ALJ, pre-filed testimony, memoranda or data submitted to or considered by the ALJ, the final order issued by the Board
	of the Authority, and any interlocutory orders. Of the original 388 contested DHUs, at the time of this article only one has been appealed to state or federal court.
Final IRPs	Issuance of Final IRPs and Conclusion of the Adjudication Process The adjudication of the Edwards Aquifer began in June 1996. It will end when the Authority issues the final IRPs to all claimants entitled thereto. This can only occur only when all appeals have been dimensional of a president to be corrections in 2007. When final IRPs are issued they will have been
"Proportional Adjustment"	disposed of — projected to be sometime in 2007. When final IRPs are issued, they will have been reduced by the "proportional adjustment" process to attain the 450,000 AF/annum aggregate Aquiferwide withdrawal cap. Additionally, an equal percentage of each IRP will have been retired to meet the 400,000 AF/annum withdrawal cap. Under the Act this must occur no later than December 31, 2007. Every applicant was assigned a maximum approved use. Because the total of the uses exceeded the 450,000 AF cap, the "proportional adjustment" process was instituted and the rights were proportionately adjusted downward to achieve the cap. Certain applicants, however, are entitled to minimum permit amounts, so a "step up" phase was required if the "proportional adjustment" resulted in amounts below the minimum levels.
	CONCLUSIONS The on-going adjudication of the Edwards Aquifer by the Edwards Aquifer Authority is the result of unique legislative effort by the State of Texas to manage groundwater resources through the groundwater conservation district created for that purpose – a legislative scheme which upends the Rule of Capture within the Authority's boundaries. The adjudicatory process represents a compromise between competing users of the Aquifer, and has effectively preempted federal management of the Aquifer. The Authority has adopted extensive rulemaking to carry out its adjudication. Pursuant to those rules, applicants for groundwater withdrawal permits and others have contested proposed decisions of the Authority's general manager to grant or deny applications. It is expected that groundwater withdrawal rights to the portion of the Aquifer managed by the Authority will be fully adjudicated by 2007. For Additional Information: Darcy Alan Frownfelter, General Counsel, Edwards Aquifer Authority, 210/ 222-2204 or email: dfrownfelter@kempsmith.com
	Darcy Alan Frownfelter is the Chair of the Environmental, Administrative, and Public Law Department of Kemp Smith, LLP. Since 1997, Mr. Frownfelter has served as General Counsel to the Edwards Aquifer Authority. The views expressed in this article are solely those of the authors and should not be attributed to the Authority, or any other client of the firm. Deborah Clarke Trejo is a partner in the Environmental, Administrative, and Public Law Department and assists Mr. Frownfelter in representing the Authority. The authors would like to thank Gregory M. Ellis, General Manager, and Steven D. Walthour, Program Development, of the Edwards Aquifer Authority for their assistance. The authors would also like to thank Ms. Tanya Keyser in the preparation of this article.



Oregon	already dramatically improved. Cleary noted that the coho salmon run was up this year from a count of 4,400 ('02-'03) to a count of 8,986 ('03-present). There has also been substantial improvement in fall
Water	chinook salmon runs from 1,080 ('00-'01) to 4270 ('03-present). [For current information on fish returns, see the Umatilla Tribes' website at www.umatilla.nsn.us/fishcounts.htmlAT.] Outlining the current status of the Project, Cleary stated, "The Bureau is doing the feasibility study
Phase III	and there will be a selection of the preferred alternative. There was an agreement between Westland Irrigation District and the Confederated Tribes of the Umatilla to jointly draft Phrase III legislation and
Open	use that legislation as the basis for resolving the treaty right claims." Cleary credits an active, open flow of information as being crucial to success. "We have monthly
Communication	phone conferences with the Tribes, the Districts, the Bureau and ourselves to stay updated. It is always good when you're in these projects with multiple parties to have monthly check-ins, or every six weeks or so, so there aren't any misunderstandings about who's supposed to be doing what — particularly if you've assigned different responsibilities — and to keep the momentum going," Cleary said.
Negotiating	OWRD supports the appointment of a Federal Indian Water Right Negotiating Team to resolve the
Team	Confederated Tribes of the Umatilla Indian Reservation tribal-treaty reserved water right claims, in conjunction with the Phase III legislation. WATER RIGHTS ACTIVITY
	Cleary commented on recent developments in water right applications. "The nature of the applica-
Groundwater &	tions has changed. We're seeing more groundwater applications and more small reservoir applications," Cleary noted. Oregon has an "Alternate permit applications process" for small reservoirs [see Oregon
Reservoirs	Revised Statutes (ORS) 537.409. Website given below.].
Transfers	There is also a trend for increased transfers of water rights and OWRD's backlog for transfer applications has hit approximately 770. "The transfer area is one where recent fee increases will help. Two positions were created for a two-year period to deal with transfers." Cleary pointed out that OWRD has been struggling somewhat with its budget lately: "We've had a 30% increase in water rights in the last
	decade while we've had a 15% decrease in staff."
Quality	Another area of growing importance is the "water quality/water quantity interface"— an area where
&	Cleary suspects OWRD may face increasing controversy over time. Under the federal Clean Water Act,
Quantity	National Pollution Discharge Elimination System (NPDES) water quality permits are often issued based on assumptions about flow levels in the receiving streams. Cleary said this issue rose to the fore during Oregon's 2001 drought, necessitating attempts to maintain mainstem Willamette River flows (particularly
"TMDLs"	in the Albany/Salem/Corvallis areas). The NPDES issue, along with restoration of instream flows, setting Total Maximum Daily Loads (TMDLs) for water quality impaired waters, and wastewater reuse are all areas where Cleary predicts increasing interaction with Oregon's Department of Environmental Quality—
	the state's principal agency for dealing with water quality regulation. COLUMBIA RIVER BASIN – NOTHWEST STATES COORDINATING
	The water agency directors of Oregon, Montana, Idaho and Washington — the four states affected
#CD1/	by water policy dealing with the Columbia River — hold meetings at least annually to discuss Columbia River issues. At the last meeting (July 2003), the focus was on the State of Washington's Columbia River
"CRI"	Initiative (CRI). Washington has a National Academy of Sciences review underway regarding the affect of additional water withdrawals from the Columbia River mainstem on the fisheries.
Withdrawals	The CRI's goal is to create an integrated program for deciding how new water withdrawals may be
&	permitted while supporting salmon recovery (source: Washington Department of Ecology:
Salmon	www.ecy.wa.gov/programs/wr/cri/crihome.html). Cleary noted that Washington is looking to allocate 1 million acre-feet over a 20-year period for municipal and irrigation use, while Oregon is potentially
owniton	developing 600,000 acre-feet of water. An additional 427,000 acre-feet is contracted to be sent down-
	stream from Idaho and Montana. In all, over 2 million acre-feet of potential diversions from the Colum-
	bia River are being reviewed. The National Academy of Sciences study, due to be completed in the
	Spring of 2004, will look at the impact on the fisheries from these potential diversions. If the impact is
	deemed adverse, the study will suggest practical mitigation strategies.
	Coordination amongst the four Northwest states and determining how they can "hang together versus
	the problematic race to the river" was the other area of discussion at the July 2003 meeting, Cleary said.
	The "desire is to get all the Governors, all the state water agencies, all the fisheries agencies and all the representatives of the Northwest Power Planning Council together to get up to speed on the Columbia
	River Initiative." Speculating on the possible outcome of the National Academy of Sciences study,
	Cleary noted the Academy "may say, like in the Klamath River Basin, that a focus on the mainstem is
Issues	not enough; that we need to look at all the issues of dams, fish screening and passage, water temperature

and quality, etc., rather than just the hydrology of the mainstem flows."

	KLAMATH BASIN RESTORATION ACTIVITIES
Oregon Water	With the Klamath Basin receiving so much publicity nation-wide lately, we asked Cleary about restoration activities in the Klamath Basin. "The list of all the restoration activities in the Basin is impressive," Cleary noted. He said the quickest way to check the scope of activities is the Department of Interior website (www.doi.gov/klamath) for information from Interior, NOAA Fisheries, Natural Resources Conservation Service (NRCS) and the Forest Service on Klamath Basin projects and plans. The
Adjudication	Klamath Basin is undergoing an adjudication process for all pre-1909 water rights in the basin, including federal reserved water rights and Tribal claims. "Until the Adjudication is completed, it is hard to use all the tools [available] for flow restoration. For example, instream leases are not available for unadjudicated water rights and [O]WRD can't regulate for or against water right claims until the adjudication is finished," Cleary said (see ORS 537.348 and ORS 539.240(7) respectively). Because of these limitations, OWRD is devoting substantial financial and staff resources to completing the Klamath Basin
Fish Passage	Adjudication. Chiloquin Dam has often been cited as a prime problem for the endangered Lost River suckers and short-nosed suckers in the Klamath Basin's Sprague River. The Dam blocks the suckers' passage and it is believed that its removal would open up 90%-95% of the historic spawning habitat on the Sprague River (approximately 70 miles of sucker spawning habitat above Upper Klamath Lake). An agreement has been reached among the stakeholders, the Klamath Tribes, and the federal and state agencies to
Tribal Lands	remove Chiloquin Dam and replace the low diversion dam with an alternative pumping system to continue supplying irrigation water. Cleary noted this piece of news with the homily "Bad news is sought out and good news has got to be promoted." [Author's note: Subsequent to this interview, President Bush's budget for 2005 included \$2.1 million to complete removal of the Chiloquin Dam]. Another hot topic in the Klamath River Basin is the Klamath Tribes' proposal for the recovery of Tribal land — a proposal to recover nearly 700,000 acres from the National Forest Service lands. Cleary said that the Tribes' proposal was discussed during the Alternative Dispute Resolution process in the Basin and that the Tribes made a presentation to the state agencies and local stakeholders in the Klamath Basin. Referring to the on-going Klamath Basin Adjudication, Cleary pointed out that "the large block of Tribal claims, if not settled, would drag out" the Adjudication. INSTREAM WATER RIGHTS IN OREGON As an example of programs that are working well in Oregon, Cleary cited the State's instream
Streamlined Process	leasing program. Some 300-350 cubic feet per second (cfs) are currently left instream due to the leasing program. Approximately 150 such leases were processed in 2003, alone. Cleary noted that OWRD continues to work with leasing entities and water users to streamline the process. Turn-around time is now less than 45 days from application to approval. [See ORS 537.348 and Oregon Administrative Rules (OAR) 690-77-077 regarding instream leases. Website given below.]
No Guarantee	Cleary discussed how Oregon's instream water rights apply in the real world. "The challenge is getting people to understand that an instream water right is not a guaranteed minimum streamflow. There are years when Oregon's instream rights are not satisfied. The Department is not required to make sure that water is left instream; many of the rights are relatively junior in priority. The fact that they aren't
Priority Dates	met doesn't mean it is a failure for the Department." [AUTHOR'S NOTE: Most of Oregon's instream rights have priority dates stemming from either the 1955 Minimum Perennial Streamflow law or the Instream Water Rights Act of 1987. Oregon now has a statute that allows any person to purchase, lease or gift a water right for transfer to an in-stream water right. The statute allows the original priority date of the water right to be retained after the transfer occurs. This law is being increasingly employed to restore water with senior priority dates to Oregon streams. ORS 537.348.]
Sustainability	Meeting instream needs is an objective of Oregon Governor Kulongoski's "Sustainability Plan." One OWRD contribution to Plan implementation involves encouraging voluntary streamflow restoration. Cleary said that OWRD is looking into areas where they can "achieve the biggest bang for the buck." OWRD's goal for 2004 is "to put a significant quantity of water in at least 18% of the watersheds that need flow restoration for fish through our voluntary and incentive-based programs." [Quoted from OWRD Sustainability Plan, December 22, 2003; see www.wrd.state.or.us/law/performance.shtml]. Regulation of the distribution of water by Oregon's "Watermasters" to protect instream water rights received significant attention in the drought year of 2001. Cleary said that of 478 streams regulated that
High Compliance	year, in 190 of those streams water rights were regulated to protect instream rights. He also proudly noted that in Oregon there is great compliance when regulation occurs (98%) and that both the water users and the Watermasters deserve credit for this achievement.

	Addressing continuing opposition to instream water rights in Oregon by some members of the
Orogon	agricultural community, Cleary noted, "People ask us: 'Are instream water rights drying up the use of
Oregon	water?' To answer this question, you've got to put things in perspective. In the last five years, approxi-
Water	mately 1500 irrigated acres have been transferred to instream use. Meanwhile, new permits have been
	issued for the irrigation of 83,000 acres. We've had 307 applications for transfers, but only 34 of those
	were for a change in type of use."
	FORFEITURE OF RIGHTS PROPOSED FOR TRANSFER
	THE LITTLE CREEK & KERIVAN CASES
	The Little Creek case involves the proposed transfer of water from agricultural purposes to instream purposes (purchase by Oregon Water Trust: see www.owt.org). It is currently winding its way through
	Oregon's administrative process. In a contested case proceeding, the Hearings Official found that the
	transfer could occur without injury to existing water rights (the standard in a transfer proceeding). The
	parties opposing the transfer then filed a separate action under Oregon's forfeiture laws and claimed that
Non-Use	portions of the underlying right proposed for transfer had been lost by non-use of more than five years
	[see Oregon's forfeiture statutes, ORS 540.610 et seq.].
	This move effectively stopped the transfer process and led to the beginning of a separate administra-
	tive forfeiture proceeding. Presently, Cleary said, initial briefing is underway to determine "whether the
	issue of forfeiture can be raised and litigated again." The forfeiture issue was raised previously in the earlier transfer proceeding.
	Cleary said OWRD recognizes the problems such procedural machinations can cause and is trying to
Mary Dr. 0	set up a parallel process, through rulemaking, to merge the issues into one proceeding. He noted, how-
New Process?	ever, that the "timing [of filing actions by the parties] may preclude having just one proceeding."
	Similar forfeiture issues were raised by water users in Kerivan, et al. v. Water Resources Commis-
	sion, et al., 188 Or. App. 491 (2003). In that case, a water right was transferred to instream use and the
	original right was canceled. A new water right certificate was then issued for the instream right — as is
Challenge	the normal Oregon process for transfers of all types. Oregon's statutes provide a three-month period to challenge the issuance of a water right certificate. After the expiration of three months, the certificate is
Period	"conclusive evidence of the priority and extent of the appropriation" except where the "rights of
I CHOU	appropriationhave been abandoned subsequent to issuance of the certificate." [ORS 537.270.] Cleary
	noted that OWRD is taking the position that the filing of a forfeiture proceeding "came in beyond all the
	appeal opportunities" and "that it is too late to raise a forfeiture issue since the certificate for the original
	irrigation right has already been canceled."
	Oregon's Court of Appeals found in favor of OWRD in <i>Kerivan</i> . The Court of Appeals decision
	states: "The text of ORS 537.270 clearly and unambiguously establishes the conclusiveness of a new water right certificate. It starts the five-year forfeiture clock from the date of issuance of the new certifi-
	cate. It is also significant that ORS 537.270 specifically provides that the certificate is conclusive
	evidence of the right, except when the right of appropriation is abandoned subsequent to the issuance of
	the certificate. Had the legislature intended to make an exception from the conclusiveness of the water
	right certificate for rights shown to have been abandoned before the issuance of the certificate, it could
	easily have done so."
	[AUTHOR'S NOTE: Subsequent to the interview, the Oregon Supreme Court denied review of the <i>Kerivan</i>
	case thus allowing the Oregon Court of Appeals decision to stand.] HYDRAULIC CONNECTION
	THE DESCHUTES BASIN GROUND WATER MITIGATION PLAN
	Asked about other "tools" that Oregon is utilizing for water management, Cleary mentioned the
	"Deschutes Basin Ground Water Mitigation Program" (Program). Following controversy over water
	availability for new groundwater rights and their potential impacts on the Deschutes River, the US
	Geological Survey conducted a comprehensive groundwater study of the Basin. The study provided the
	basis for the new Program, whose purpose is to allow development of groundwater "using mitigation
Water Parking	almost as a form of transfer"—as Cleary described the process. The Program uses "water banking" and "mitigation credits" to restore streamflow to the Deschutes River, thereby allowing OWRD to grant new
Water Banking	permits without adversely affecting the flow of the river.
& Mitigation	The Program was established by rule in September 2002 by the Oregon Water Resources Commis-
Mitigation Credits	sion (see OAR 690, Division 505: Deschutes Basin Program and Division 521: Deschutes Basin Mitiga-
Cleuits	tion Bank and Mitigation Credit Rules). The Program is still in its infancy with only one new groundwa-
	ter permit — with approved mitigation — having been issued to date . Seventy applications, however, are
	pending. Cleary expects to "see movement soon, with the mitigation bank now in place." OWRD intends
	to expedite processing of applications to help jump-start the mitigation bank.

Oregon

Water

Applicability

Challenge

Paul Cleary, Director of Oregon Water Resources, previously served as Director of the Oregon Division of State Lands; Deputy Director of the Wyoming State Land and Farm Loan Office; and as a natural resource advisor in the Wyoming Governor's Office. He began his professional career at the University of Wyoming's Water Resources Research Institute. He is a member of the Western States Water Council. Cleary earned his M.S. in Water Resources in 1978 from the University of Wyoming where he was Phi Kappa Phi, and B.S. in Biology in 1975 from Trinity College in Hartford. Connecticut.

"Well-defined commodities are needed for a functioning market," Cleary said. He went on to say that OWRD is working on some explanatory fact sheets to detail the process and define how mitigation will work. The Deschutes Resources Conservancy, a non-profit group, has been granted status as a "Groundwater Mitigation Bank" to provide mitigation credits. [See Deschutes Water Exchange at: www.deschutesrc.org/dwe.htm] Although it "took time to get the bank established," Cleary said, it now has product in the form of water "credits" that a new user can purchase for mitigation.

I asked Director Cleary if this manner of mitigation might be unique to the Deschutes River Basin. "It could be used wherever a hydraulic connection exists between the groundwater and surface water, and you have a similar need to offset or mitigate impacts from new water use." Cleary went on to note that a groundwater study is currently underway in the Klamath Basin (Upper Klamath Basin Ground-Water Study: www.oregon.usgs.gov/projs_dir/or180/).

[AUTHOR'S NOTE: Not everyone is so enthusiastic about the new program. WaterWatch of Oregon, an environmental group devoted to water issues in Oregon, believes that one shouldn't take lower basin flows to restore the mid-Basin, since lower basin instream and scenic waterway flows are not met nine months out of the year according to the group. WaterWatch and other groups have challenged the new mitigation program rules for the Deschutes Basin by filing suit in the Oregon Court of Appeals (*WaterWatch of Oregon, et al v. Water Resources Commission*, Appellate #A119779). As this issue goes to print, the Water Resources Commission (OWRC) is expected to adopt Final Proposed Rules at its March 11th meeting to provide greater flexibility to change a point of diversion from surface water to ground water in the Deschutes Ground Water Study Area, and establish a process to make temporary changes in place of use and type of use from irrigation to municipal uses in the Deschutes Basin for a period not to exceed 25 years. The OWRC will also be asked to approve modifictions to the Mitigation Bank Charter for the Deschutes Water Exchange at the same meeting.]

LONG TERM PLANNING & MUNICIPAL EXTENSIONS

Oregon recently addressed municipal water permits that were on the books but had never been used. In Oregon, municipalities are the only entities that are not subject to the state's forfeiture-for-non-use statute and thus are able to retain unused permit rights. The issue of extensions for the unused municipal permits resulted in administrative rule making approximately a year ago. As characterized by Cleary, "The new extension rules were an "attempt to acknowledge the unique aspect of municipal needs. Extensions are based on reasonable estimates of the time needed to develop permits and the ability to divert water is linked to water management and conservation plans."

Director Cleary gave an example of a municipal extension for 45 years, with essentially 20 years of "'green light' water, based on a rigorous evaluation of the city's 20-year need. The municipality would then face another 20-year projection down the line. "Instead of focusing on a crystal ball," Cleary stated, "we expect a reasonable showing of how much water they need, then require the municipality to sink their teeth into a Water Management and Conservation Plan." Cleary said that OWRD had a successful partnership with the League of Oregon Cities and the Oregon Water Utilities Council to develop a guidebook for the development of a "model plan." See www.wrd.state.or.us/programs/supply/ muni_wmcp.shtml.

The issue of what constitutes a 'reasonable amount of time necessary' to fully develop a municipal permit has come up with more frequency lately. OWRD has seen applications that request 40-to-50 year extensions, but Cleary admitted OWRD doesn't have much experience with such requests. "The focus is on the first 20 year period and improvements during that time. We're trying to encourage solid planning with realistic expectations." Cleary emphasized that OWRD views these plans as "tools for improvement rather than tools for punishment."

CONCLUSION

Cleary has been impressed by Oregon's approach to water issues since coming to the state from Wyoming. Most people, including Oregonians, blithely think of Oregon as water-rich but Cleary warns the state "still has variability issues" regarding water availability both year-to-year and geographically. A positive characteristic of Oregon, according to Cleary, is the "number of tools in our statutes relative to other states" available to address water problems. He attributes this to the "insight of the water user community." Cleary also feels strongly that the "problem solving attitude" of his staff can be relied upon to consistently engender creative solutions.

For Additional Information:

ADAM SUSSMAN, OWRD, 503/ 986-0877 or email: Adam.P.Sussman@wrd.state.or.us OREGON OWRD WEBSITE: www.wrd.state.or.us/ OREGON RULES AND STATUTES WEBSITE: www.oregon.gov/index.ctm?CurrPID=843



	1) Take Prohibitions
ESA / Wator	Section 9 of the ESA (16 U.S.C. §1538) provides the legal prohibition against "take" of an ESA-
ESA/Water	listed species. This provision represents the real teeth of the ESA. What constitutes a prohibited "take"
	is defined very broadly under the ESA, and includes actions "to harass, harm, pursue, hunt, shoot, wound,
Take	kill, trap, capture, or collect, or to attempt to engage in any such conduct" (16 U.S.C. §1532(19). Harm
	in the definition of "take" in the ESA means "an act which actually kills or injures wildlife. Such act may
	include significant habitat modification or degradation where it actually kills or injures wildlife by
	significantly impairing essential behavioral patterns, including breeding, feeding or sheltering" (see 50
	C.F.R. §17.3).
	This broad definition of "harm" to include habitat degradation was tested at the US Supreme Court,
Habitat	which ruled that significant modification or degradation of a protected species' habitat is appropriately
	included in the definition of "harm" (<i>Babbitt vs. Sweethome Chapter of Communities for a Greater</i>
	Oregon, 115 S. Ct. 2407; 132 L.Ed.2d 597 (1995)) and that Congress intended that this provision be
	interpreted broadly. [See also <i>Palila vs. Hawaii Dep't. of Land & Water Resources</i> , 649 F.Supp 1070 (D.
	Haw. 1986), <i>aff'd</i> , 852 F.2d 1106 (9th Cir. 1988)].
Irrigation	The first salmonid-water related action that was barred by the courts as a "take" was the sucking of
U	California Central Valley winter-run chinook into pumps used for irrigation water diversions (U.S. v.
Pumps	<i>Glenn-Colusa Irrigation Dist.</i> , 788 F.Supp. 1126 (E. Dist. Cal. 1992)). Most early salmonid take cases
	were of this type, where physical entrainment led directly to observed mortality. More recently though, a
"BiOps"	number of Biological Opinions (BiOps) issued under the Section 7 consultation provisions of the ESA
	(particularly in the Klamath and Columbia-Snake River basins) have ruled that reducing water flows too far in river systems can also create "jeopardy" for salmonids. The definition of "jeopardy" is now much
	broader and more biologically based than just finding dead fish. Both the US Fish & Wildlife Service
	and NOAA Fisheries (Services) have defined "jeopardy" to include actions "that reasonably would be
	expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed appriciant the wild by reducing the repreduction numbers, or distribution of that apprice?" (50
	listed species in the wild by reducing the reproduction, numbers, or distribution of that species" (50
	C.F.R. §402.02).
7/1 (1	The clearest instance in which a court upheld water diversions alone as constituting a "take" is a
Klamath	Klamath Basin water case challenging the legitimacy of ESA-required irrigation reductions for irrigation
Basin	water users of the federal Klamath Irrigation Project during the near-record 2001 drought. The US
	Bureau of Reclamation's (Bureau's) initial irrigation plan was given a "jeopardy" opinion and the
	Services required a number of changes, including reducing irrigation deliveries to put more water in-river
	for threatened coho salmon. With limited water available, these irrigation reductions were deemed
	necessary to prevent jeopardy to lower river coho salmon as well as to two other ESA-protected resident fish graving in the upper basin's loles (Kandra us Runeau of Realize stier) (145 E. Supp. 2d 1102 at 1207
	fish species in the upper basin's lakes (<i>Kandra vs. Bureau of Reclamation</i> (145 F. Supp.2d 1192 at 1207
	(D. Or. 2001) [rejecting arguments that mitigation measures which benefit ESA-listed fish could not be
	implemented because they were inconsistent with the primary irrigation delivery mission of the Klamath
(d) Dulas	Irrigation Project]). The Services also have been experimenting with "4(d) Pulse" under 16 U.S.C. \$1533(d) to specify
4(d) Rules	The Services also have been experimenting with "4(d) Rules" under 16 U.S.C §1533(d), to specify what take is not. This rather open ended section allows the adoption of "protective regulations to provide
	what take is <i>not</i> . This rather open-ended section allows the adoption of "protective regulations to provide for the conservation of the energies." 4(d) Pulse are now used by NOAA Eicheries to promote certain
	for the conservation of the species." 4(d) Rules are now used by NOAA Fisheries to promote certain types of restoration efforts as "safe harbor" incentives to states and landowners to make these efforts by
	relieving them in advance of ESA take liability. A number of take "limitations" or exemptions have been
	adopted as 4(d) Rules for salmon restoration purposes (65 Fed. Reg. 42422-42481 (July 10, 2000)).
	NOAA Fisheries has been subjected to intense political pressure by some states to sign off on state
	forestry, agricultural and other land and water use practices.
Consultation	2) Consultation Under Section 7 of the ESA
	Consultation, under Section 7 of the ESA (16 U.S.C. §1536), is another very important tool which
	requires all federal agencies to ensure that actions they carry out, fund or authorize are not likely to
	jeopardize the continued existence of any listed species or adversely modify its designated critical habitat.
	However, unlike Section 9, Section 7 only applies to actions involving federal agencies, i.e., activities
	having a "federal nexus."
	Under Section 7, a federal agency proposing a project must formally consult with the relevant wildlife trustee agency (for salmonids, NOAA Fisheries) and receive a BiOp as to whether the project as
"RPAs"	proposed would cause jeopardy. If jeopardy is found, the Service must then propose "recommended and
	prudent alternatives" (RPAs), which are mitigation measures that can be undertaken in the project to
	avoid that jeopardy. Compliance with the RPAs shields the agency from ESA liability. Noncompliance
	can be challenged in third party citizen suit actions, with injunctive relief as a potential remedy.

	However, the range and scope of RPAs is not unrestricted. RPAs are limited to actions "that can be
ESA/Water	implemented in a manner consistent with the intended purpose of the action, that can be implemented
LOA / Water	consistent with the scope of the Federal agency's legal authority and jurisdiction, that [are] economically
	and technologically feasible, and that the Director believes would avoid the likelihood of jeopardizing the
	continued existence of listed species or resulting in the destruction or adverse modification of critical habitat" (50 C E B $\&402.02$). In reality, what is "consistent with the intended purpose" of the proposed
	habitat" (50 C.F.R. §402.02). In reality, what is "consistent with the intended purpose" of the proposed action or what may be "feasible" often become intensive bargaining issues between federal agencies, a
	negotiating process which is subject to political interference and abuse.
Certainty	Much of the current litigation around RPAs revolves around issues of certainty. Courts are very
	hesitant to allow an agency to rely on future or planned actions, or the voluntary actions of others, all of
	which are inherently uncertain, as a tradeoff for the certainty of extinction if those measures do not work as hoped.
	STANDARDS OF CERTAINTY FOR FUTURE ACTIONS: Examples of two recent BiOps invalidated because of too
	heavy a reliance on inherently uncertain or speculative future federal actions, or on actions by non-federal
Speculative	parties over which the federal government had no control, include <i>National Wildlife Federation v. NMFS</i>
Actions	(254 F.Supp.2d 1196 (D. Or. 2003) [invalidated Columbia River Salmon Recovery BiOp because of reliance on speculative future actions and measures by non-federal entities]), and <i>Pacific Coast Federa</i> -
	tion of Fishermen's Associations vs. Bureau of Reclamation ((N. Cal. 2003, Civ. No. C02-02006-SBA)
	(Order July 15, 2003) [partially invalidated BiOp on lower Klamath River flow regimes for coho salmon
	because it relied on speculative future actions of entities outside of federal control]). Because RPAs are often more political compromise than biology-based actions, we can expect more litigation in this area.
	STATE RECOVERY ACTIONS AND THE 'PECE' POLICY: When the actions relied upon are a state recovery plan,
	or state enforcement, the issue of future certainty becomes even more difficult. The ESA in Section
	4(b)(1)(A), 16 U.S.C. §1533(b)(1)(A), directs the Secretary to make a determination as to whether a
	species is threatened or endangered after conducting a status review based on the best scientific and commercial data, and <i>after taking into account efforts by the State and foreign governments to protect a</i>
	species either by predator control, protection of habitat and food supply or other conservation practices.
#ECU#	In 1997, NOAA Fisheries (previously "NMFS") made a deal with the State of Oregon and deter-
"ESU"	mined that the Oregon Coast Coho Evolutionary Significant Unit ("ESU"— an ESA-determined genetic conservation unit) did not warrant listing as a threatened or endangered species (62 Fed. Reg. 24588 (May
	6, 1997)). The decision relied on the then recently adopted Oregon Coastal Salmon Restoration Initiative
Oregon Plan	(Oregon Plan). The Oregon Plan relied heavily on proposed voluntary actions of landowners and future
	agency actions to restore coho habitat. The Oregon Natural Resources Council (ONRC) and others (including the Pacific Coast Federation of Fishermen's Associations (PCFFA)) successfully sued to have
	that non-listing decision overturned. (ONRC v. Daley, 6 F.Supp.2d 1139 (D. Or. 1998)). The court noted
	that, "it is incongruous for the NMFS to defer listing a species as 'threatened' because the agency is
	hoping for a significant alteration in the conditions or practices presently threatening the long-term
	viability of the species At most, the [Oregon Plan] may prevent the Oregon Coast ESU from actually reaching the 'endangered' level and may ultimately allow the NMFS to delist the species once recovery
	efforts are far enough along." (<i>Id.</i> at 1152).
	The <i>ONRC</i> court also addressed the nature of the Oregon Plan itself and ruled that the agency cannot rely on speculative future efforts of this cort, either regulatory or non-regulatory, to down a listing. Nor
	rely on speculative future efforts of this sort, either regulatory or non-regulatory, to deny a listing. Nor can the agency rely on unenforceable (i.e., strictly voluntary) efforts in the Oregon Plan (of which there
	are many) because the complete lack of any enforcement mechanism precludes any real assurances for the
	protection of the species. As a result, the Oregon Coastal Coho ESU was ultimately listed.
"PECE"	In response to this ruling, NOAA fisheries reviewed its policy and on March 28, 2003, the federal Services announced a final joint policy, i.e. the "Policy on Evaluating Conservation Efforts" (PECE).
	The PECE evaluated how formal state conservation efforts that have yet to show effectiveness will
	contribute to an ESA listing decision. It outlined under what circumstances the Services could rely on
	such state conservation efforts in making a decision to not list an otherwise eligible species, or to list a species as threatened instead of endangered (68 Fed. Reg. 15100-15115 (March 28, 2003)).
Evaluating	The PECE policy was developed to "establish a set of consistent standards for evaluating certain
Certainty	formalized conservation efforts at the time of a listing decision and to ensure with a high level of certainty
	that formalized conservation efforts will be implemented and effective." This new policy potentially has
	far reaching consequences but is as yet untested. Nevertheless, it will likely be the basis for Oregon's efforts to delist coho in deference to the Oregon Plan, as well as other federal administration efforts to
	delegate future ESA salmonid recovery programs to the states. The States of Washington and California
	are also working on state salmon recovery plans, which might also be brought under the PECE standards.

ESA/Water	Thus far, all state recovery plans appear questionable in terms of enforceable curtailment of habitat loss from industrial forestry and agriculture.3) Critical Habitat Designations
	Designation of critical habitat is required under 16 U.S.C. §1533(b)(6)(C) either with the listing
Critical Habitat	decision or, if "not then determinable," within one year thereafter "to the maximum extent prudent." Conservation of critical habitat has always been one of the ESA's primary purposes (see 16 U.S.C.
	§§1531(b), 1532 & 1536(a)(2)). In spite of that fact, critical habitat has still only been designated for a
	minority of the total of species currently listed, and failure to designate critical habitat is a frequent
	source of ESA litigation.
	Biologically, protecting species requires protecting their habitat. Two recent studies have shown,
Designations	using the US Fish and Wildlife Service's (USFWS's) own data, that listed species which have critical
Work	habitats designated for them are far more likely to stabilize and move toward recovery than species which
	do not (see August 29, 2003 Government Accounting Office Report (GAO-03-803), "Endangered
	Species: Fish and Wildlife Service Uses Best Available Science to Make Listing Decisions, but Additional
	Guidance Needed for Critical Habitat Designations," available from www.gao.gov; also see "Critical
	Habitat Significantly Enhances Endangered Species Recovery," Center for Biological Diversity, available
	at: www.biologicaldiversity.org/swcbd/programs/policy/ch/Final.htm). Measures to avoid "adverse
	modification of critical habitat" are also frequently included in the RPAs recommended in Biological
	Opinions (see 5 C.F.R. §402.02 and above).
Funding Cuts	The past two federal administrations have considered initial habitat designations duplicative with
0	recovery plans and slowed the designation process down through reductions in funding. The current
	Bush Administration has dropped more than 30 existing critical habitat designations in friendly settle-
	ments of industry lawsuits, including most of the critical habitat designations for west coast salmonids,
	and now only designates critical habitat in response to court orders. This Administration also seems to be
	favoring bills in Congress that would eliminate the mandatory initial critical habitat designation process
	and instead make it part of the recovery plan. Unfortunately, there is no deadline on adoption of recovery plans under the ESA, and the majority of listed species still have no recovery plans, so delaying designa-
	tion of critical habitat until the recovery planning stage would likely doom many species to little or no
	habitat protection indefinitely.
	THE ESA & STATE WATER LAW
Flow &	Water projects tend to harm ESA-listed species by blocking their habitat or dewatering the river
Flow & Survival	
Flow & Survival	Water projects tend to harm ESA-listed species by blocking their habitat or dewatering the river systems they depend upon for survival. The survival of an aquatic species usually depends on the amount of water flowing through its river system. Other survival factors, such as water temperature, dissolved
	Water projects tend to harm ESA-listed species by blocking their habitat or dewatering the river systems they depend upon for survival. The survival of an aquatic species usually depends on the amount of water flowing through its river system. Other survival factors, such as water temperature, dissolved oxygen and water quality are also hydrologically related to water flows.
Survival	Water projects tend to harm ESA-listed species by blocking their habitat or dewatering the river systems they depend upon for survival. The survival of an aquatic species usually depends on the amount of water flowing through its river system. Other survival factors, such as water temperature, dissolved oxygen and water quality are also hydrologically related to water flows. There is no such thing as federal water law, and water allocation is a matter for states to regulate.
Survival State	Water projects tend to harm ESA-listed species by blocking their habitat or dewatering the river systems they depend upon for survival. The survival of an aquatic species usually depends on the amount of water flowing through its river system. Other survival factors, such as water temperature, dissolved oxygen and water quality are also hydrologically related to water flows. There is no such thing as federal water law, and water allocation is a matter for states to regulate. There are a number of state laws which do protect in-stream water for aquatic species (see Oregon's in-
Survival	Water projects tend to harm ESA-listed species by blocking their habitat or dewatering the river systems they depend upon for survival. The survival of an aquatic species usually depends on the amount of water flowing through its river system. Other survival factors, such as water temperature, dissolved oxygen and water quality are also hydrologically related to water flows. There is no such thing as federal water law, and water allocation is a matter for states to regulate. There are a number of state laws which do protect in-stream water for aquatic species (see Oregon's in- stream water right statute at ORS §537.332, et seq.; California's requirement to provide sufficient flows
Survival State	Water projects tend to harm ESA-listed species by blocking their habitat or dewatering the river systems they depend upon for survival. The survival of an aquatic species usually depends on the amount of water flowing through its river system. Other survival factors, such as water temperature, dissolved oxygen and water quality are also hydrologically related to water flows. There is no such thing as federal water law, and water allocation is a matter for states to regulate. There are a number of state laws which do protect in-stream water for aquatic species (see Oregon's in- stream water right statute at ORS §537.332, et seq.; California's requirement to provide sufficient flows through dams to protect fisheries at Cal. Fish & Game Code §5937, and see also Cal. Water Code
Survival State	Water projects tend to harm ESA-listed species by blocking their habitat or dewatering the river systems they depend upon for survival. The survival of an aquatic species usually depends on the amount of water flowing through its river system. Other survival factors, such as water temperature, dissolved oxygen and water quality are also hydrologically related to water flows. There is no such thing as federal water law, and water allocation is a matter for states to regulate. There are a number of state laws which do protect in-stream water for aquatic species (see Oregon's in- stream water right statute at ORS §537.332, et seq.; California's requirement to provide sufficient flows through dams to protect fisheries at Cal. Fish & Game Code §5937, and see also Cal. Water Code §§1243, 1257 & 1707; Washington's in-stream flows laws at RCW Chapter 90.22.010 and
Survival State	Water projects tend to harm ESA-listed species by blocking their habitat or dewatering the river systems they depend upon for survival. The survival of an aquatic species usually depends on the amount of water flowing through its river system. Other survival factors, such as water temperature, dissolved oxygen and water quality are also hydrologically related to water flows. There is no such thing as federal water law, and water allocation is a matter for states to regulate. There are a number of state laws which do protect in-stream water for aquatic species (see Oregon's in- stream water right statute at ORS §537.332, et seq.; California's requirement to provide sufficient flows through dams to protect fisheries at Cal. Fish & Game Code §5937, and see also Cal. Water Code §§1243, 1257 & 1707; Washington's in-stream flows laws at RCW Chapter 90.22.010 and 90.54.020(3)(a)). Unfortunately, many of these state programs are flawed, under funded or rarely
Survival State Allocation	Water projects tend to harm ESA-listed species by blocking their habitat or dewatering the river systems they depend upon for survival. The survival of an aquatic species usually depends on the amount of water flowing through its river system. Other survival factors, such as water temperature, dissolved oxygen and water quality are also hydrologically related to water flows. There is no such thing as federal water law, and water allocation is a matter for states to regulate. There are a number of state laws which do protect in-stream water for aquatic species (see Oregon's in- stream water right statute at ORS §537.332, et seq.; California's requirement to provide sufficient flows through dams to protect fisheries at Cal. Fish & Game Code §5937, and see also Cal. Water Code §§1243, 1257 & 1707; Washington's in-stream flows laws at RCW Chapter 90.22.010 and 90.54.020(3)(a)). Unfortunately, many of these state programs are flawed, under funded or rarely enforced, and many basins are already over-appropriated.
Survival State Allocation ESA/State	Water projects tend to harm ESA-listed species by blocking their habitat or dewatering the river systems they depend upon for survival. The survival of an aquatic species usually depends on the amount of water flowing through its river system. Other survival factors, such as water temperature, dissolved oxygen and water quality are also hydrologically related to water flows. There is no such thing as federal water law, and water allocation is a matter for states to regulate. There are a number of state laws which do protect in-stream water for aquatic species (see Oregon's in- stream water right statute at ORS §537.332, et seq.; California's requirement to provide sufficient flows through dams to protect fisheries at Cal. Fish & Game Code §5937, and see also Cal. Water Code §§1243, 1257 & 1707; Washington's in-stream flows laws at RCW Chapter 90.22.010 and 90.54.020(3)(a)). Unfortunately, many of these state programs are flawed, under funded or rarely enforced, and many basins are already over-appropriated. When the ESA constrains water supplies to conserve a listed species, these federally imposed
Survival State Allocation	Water projects tend to harm ESA-listed species by blocking their habitat or dewatering the river systems they depend upon for survival. The survival of an aquatic species usually depends on the amount of water flowing through its river system. Other survival factors, such as water temperature, dissolved oxygen and water quality are also hydrologically related to water flows. There is no such thing as federal water law, and water allocation is a matter for states to regulate. There are a number of state laws which do protect in-stream water for aquatic species (see Oregon's in- stream water right statute at ORS §537.332, et seq.; California's requirement to provide sufficient flows through dams to protect fisheries at Cal. Fish & Game Code §5937, and see also Cal. Water Code §§1243, 1257 & 1707; Washington's in-stream flows laws at RCW Chapter 90.22.010 and 90.54.020(3)(a)). Unfortunately, many of these state programs are flawed, under funded or rarely enforced, and many basins are already over-appropriated. When the ESA constrains water supplies to conserve a listed species, these federally imposed constraints often conflict with state water laws, causing a problem of federal preemption. The legal
Survival State Allocation ESA/State	Water projects tend to harm ESA-listed species by blocking their habitat or dewatering the river systems they depend upon for survival. The survival of an aquatic species usually depends on the amount of water flowing through its river system. Other survival factors, such as water temperature, dissolved oxygen and water quality are also hydrologically related to water flows. There is no such thing as federal water law, and water allocation is a matter for states to regulate. There are a number of state laws which do protect in-stream water for aquatic species (see Oregon's in- stream water right statute at ORS §537.332, et seq.; California's requirement to provide sufficient flows through dams to protect fisheries at Cal. Fish & Game Code §5937, and see also Cal. Water Code §§1243, 1257 & 1707; Washington's in-stream flows laws at RCW Chapter 90.22.010 and 90.54.020(3)(a)). Unfortunately, many of these state programs are flawed, under funded or rarely enforced, and many basins are already over-appropriated. When the ESA constrains water supplies to conserve a listed species, these federally imposed
Survival State Allocation ESA/State	Water projects tend to harm ESA-listed species by blocking their habitat or dewatering the river systems they depend upon for survival. The survival of an aquatic species usually depends on the amount of water flowing through its river system. Other survival factors, such as water temperature, dissolved oxygen and water quality are also hydrologically related to water flows. There is no such thing as federal water law, and water allocation is a matter for states to regulate. There are a number of state laws which do protect in-stream water for aquatic species (see Oregon's in- stream water right statute at ORS §537.332, et seq.; California's requirement to provide sufficient flows through dams to protect fisheries at Cal. Fish & Game Code §5937, and see also Cal. Water Code §§1243, 1257 & 1707; Washington's in-stream flows laws at RCW Chapter 90.22.010 and 90.54.020(3)(a)). Unfortunately, many of these state programs are flawed, under funded or rarely enforced, and many basins are already over-appropriated. When the ESA constrains water supplies to conserve a listed species, these federally imposed constraints often conflict with state water laws, causing a problem of federal preemption. The legal boundaries between the ESA and state water law are still in flux.
Survival State Allocation ESA/State	Water projects tend to harm ESA-listed species by blocking their habitat or dewatering the river systems they depend upon for survival. The survival of an aquatic species usually depends on the amount of water flowing through its river system. Other survival factors, such as water temperature, dissolved oxygen and water quality are also hydrologically related to water flows. There is no such thing as federal water law, and water allocation is a matter for states to regulate. There are a number of state laws which do protect in-stream water for aquatic species (see Oregon's instream water right statute at ORS §537.332, et seq.; California's requirement to provide sufficient flows through dams to protect fisheries at Cal. Fish & Game Code §5937, and see also Cal. Water Code §§1243, 1257 & 1707; Washington's in-stream flows laws at RCW Chapter 90.22.010 and 90.54.020(3)(a)). Unfortunately, many of these state programs are flawed, under funded or rarely enforced, and many basins are already over-appropriated. When the ESA constrains water supplies to conserve a listed species, these federally imposed constraints often conflict with state water laws, causing a problem of federal preemption. The legal boundaries between the ESA and state water law are still in flux. Significantly, the ESA itself does not prohibit state water right preemption by federal law, and
Survival State Allocation ESA/State	Water projects tend to harm ESA-listed species by blocking their habitat or dewatering the river systems they depend upon for survival. The survival of an aquatic species usually depends on the amount of water flowing through its river system. Other survival factors, such as water temperature, dissolved oxygen and water quality are also hydrologically related to water flows. There is no such thing as federal water law, and water allocation is a matter for states to regulate. There are a number of state laws which do protect in-stream water for aquatic species (see Oregon's in- stream water right statute at ORS §537.332, et seq.; California's requirement to provide sufficient flows through dams to protect fisheries at Cal. Fish & Game Code §5937, and see also Cal. Water Code §§1243, 1257 & 1707; Washington's in-stream flows laws at RCW Chapter 90.22.010 and 90.54.020(3)(a)). Unfortunately, many of these state programs are flawed, under funded or rarely enforced, and many basins are already over-appropriated. When the ESA constrains water supplies to conserve a listed species, these federally imposed constraints often conflict with state water laws, causing a problem of federal preemption. The legal boundaries between the ESA and state water law are still in flux. Significantly, the ESA itself does not prohibit state water right preemption by federal law, and contains only the vague statement that it is "the policy of Congress that Federal agencies shall cooperate with State and local agencies to resolve water resource issues in concert with conservation of endangered species" (16 U.S.C. §1531(c)(2)). A much stronger deference to state water law in the federal Clean
Survival State Allocation ESA/State	Water projects tend to harm ESA-listed species by blocking their habitat or dewatering the river systems they depend upon for survival. The survival of an aquatic species usually depends on the amount of water flowing through its river system. Other survival factors, such as water temperature, dissolved oxygen and water quality are also hydrologically related to water flows. There is no such thing as federal water law, and water allocation is a matter for states to regulate. There are a number of state laws which do protect in-stream water for aquatic species (see Oregon's instream water right statute at ORS §537.332, et seq.; California's requirement to provide sufficient flows through dams to protect fisheries at Cal. Fish & Game Code §5937, and see also Cal. Water Code §§1243, 1257 & 1707; Washington's in-stream flows laws at RCW Chapter 90.22.010 and 90.54.020(3)(a)). Unfortunately, many of these state programs are flawed, under funded or rarely enforced, and many basins are already over-appropriated. When the ESA constrains water supplies to conserve a listed species, these federally imposed constraints often conflict with state water laws, causing a problem of federal preemption. The legal boundaries between the ESA and state water law are still in flux. Significantly, the ESA itself does not prohibit state water right preemption by federal law, and contains only the vague statement that it is "the policy of Congress that Federal agencies shall cooperate with State and local agencies to resolve water resource issues in concert with conservation of endangered species" (16 U.S.C. §1531(c)(2)). A much stronger deference to state water law in the federal Clean Water Act did not eliminate federal obligations to provide water for ESA listed species (see <i>Riverside</i>)
Survival State Allocation ESA/State Conflict	Water projects tend to harm ESA-listed species by blocking their habitat or dewatering the river systems they depend upon for survival. The survival of an aquatic species usually depends on the amount of water flowing through its river system. Other survival factors, such as water temperature, dissolved oxygen and water quality are also hydrologically related to water flows. There is no such thing as federal water law, and water allocation is a matter for states to regulate. There are a number of state laws which do protect in-stream water for aquatic species (see Oregon's in- stream water right statute at ORS §537.332, et seq.; California's requirement to provide sufficient flows through dams to protect fisheries at Cal. Fish & Game Code §5937, and see also Cal. Water Code §§1243, 1257 & 1707; Washington's in-stream flows laws at RCW Chapter 90.22.010 and 90.54.020(3)(a)). Unfortunately, many of these state programs are flawed, under funded or rarely enforced, and many basins are already over-appropriated. When the ESA constrains water supplies to conserve a listed species, these federally imposed constraints often conflict with state water laws, causing a problem of federal preemption. The legal boundaries between the ESA and state water law are still in flux. Significantly, the ESA itself does not prohibit state water right preemption by federal law, and contains only the vague statement that it is "the policy of Congress that Federal agencies shall cooperate with State and local agencies to resolve water resource issues in concert with conservation of endangered species" (16 U.S.C. §1531(c)(2)). A much stronger deference to state water law in the federal Clean Water Act did not eliminate federal obligations to provide water for ESA listed species (see <i>Riverside</i> <i>Irrigation District vs. Andrews</i> , 758 F.2d 508 (10th Cir. 1985)). Thus, in considering the same problem
Survival State Allocation ESA/State Conflict ESA	Water projects tend to harm ESA-listed species by blocking their habitat or dewatering the river systems they depend upon for survival. The survival of an aquatic species usually depends on the amount of water flowing through its river system. Other survival factors, such as water temperature, dissolved oxygen and water quality are also hydrologically related to water flows. There is no such thing as federal water law, and water allocation is a matter for states to regulate. There are a number of state laws which do protect in-stream water for aquatic species (see Oregon's instream water right statute at ORS §537.332, et seq.; California's requirement to provide sufficient flows through dams to protect fisheries at Cal. Fish & Game Code §5937, and see also Cal. Water Code §§1243, 1257 & 1707; Washington's in-stream flows laws at RCW Chapter 90.22.010 and 90.54.020(3)(a)). Unfortunately, many of these state programs are flawed, under funded or rarely enforced, and many basins are already over-appropriated. When the ESA constrains water supplies to conserve a listed species, these federally imposed constraints often conflict with state water law are still in flux. Significantly, the ESA itself does not prohibit state water right preemption by federal law, and contains only the vague statement that it is "the policy of Congress that Federal agencies shall cooperate with State and local agencies to resolve water resource issues in concert with conservation of endangered species" (16 U.S.C. §1531(c)(2)). A much stronger deference to state water law in the federal Clean Water Act did not eliminate federal obligations to provide water for ESA listed species (see <i>Riverside Irrigation District vs. Andrews</i> , 758 F.2d 508 (10th Cir. 1985)). Thus, in considering the same problem under the ESA, the <i>Glean-Colusa Irrigation District</i> court noted:
Survival State Allocation ESA/State Conflict	Water projects tend to harm ESA-listed species by blocking their habitat or dewatering the river systems they depend upon for survival. The survival of an aquatic species usually depends on the amount of water flowing through its river system. Other survival factors, such as water temperature, dissolved oxygen and water quality are also hydrologically related to water flows. There is no such thing as federal water law, and water allocation is a matter for states to regulate. There are a number of state laws which do protect in-stream water for aquatic species (see Oregon's instream water right statute at ORS §537.332, et seq.; California's requirement to provide sufficient flows through dams to protect fisheries at Cal. Fish & Game Code §5937, and see also Cal. Water Code §§1243, 1257 & 1707; Washington's in-stream flows laws at RCW Chapter 90.22.010 and 90.54.020(3)(a)). Unfortunately, many of these state programs are flawed, under funded or rarely enforced, and many basins are already over-appropriated. When the ESA constrains water supplies to conserve a listed species, these federally imposed constraints often conflict with state water law are still in flux. Significantly, the ESA itself does not prohibit state water right preemption by federal law, and contains only the vague statement that it is "the policy of Congress that Federal agencies shall cooperate with State and local agencies to resolve water resource issues in concert with conservation of endangered species" (16 U.S.C. §1531(c)(2)). A much stronger deference to state water law in the federal Clean Water Act did not eliminate federal obligations to provide water for ESA listed species (see <i>Riverside Irrigation District</i> sourt noted: "This provision does not require, however, that state water rights should prevail over the restric-
Survival State Allocation ESA/State Conflict ESA	Water projects tend to harm ESA-listed species by blocking their habitat or dewatering the river systems they depend upon for survival. The survival of an aquatic species usually depends on the amount of water flowing through its river system. Other survival factors, such as water temperature, dissolved oxygen and water quality are also hydrologically related to water flows. There is no such thing as federal water law, and water allocation is a matter for states to regulate. There are a number of state laws which do protect in-stream water for aquatic species (see Oregon's instream water right statute at ORS §537.332, et seq.; California's requirement to provide sufficient flows through dams to protect fisheries at Cal. Fish & Game Code §5937, and see also Cal. Water Code §§1243, 1257 & 1707; Washington's in-stream flows laws at RCW Chapter 90.22.010 and 90.54.020(3)(a)). Unfortunately, many of these state programs are flawed, under funded or rarely enforced, and many basins are already over-appropriated. When the ESA constrains water supplies to conserve a listed species, these federally imposed constraints often conflict with state water law are still in flux. Significantly, the ESA itself does not prohibit state water right preemption by federal law, and contains only the vague statement that it is "the policy of Congress that Federal agencies shall cooperate with State and local agencies to resolve water resource issues in concert with conservation of endangered species" (16 U.S.C. §1531(c)(2)). A much stronger deference to state water law in the federal Clean Water Add not eliminate federal obligations to provide water for ESA listed species (see <i>Riverside Irrigation District vs. Andrews</i> , 758 F.2d 508 (10th Cir. 1985)). Thus, in considering the same problem under the ESA, the <i>Glenn-Colusa Irrigation District</i> court noted: "This provision does not require, however, that state water rights should prevail over the restrictions set forth in the Act. Such an interpretation would render the Act a nullity. The
Survival State Allocation ESA/State Conflict ESA	Water projects tend to harm ESA-listed species by blocking their habitat or dewatering the river systems they depend upon for survival. The survival of an aquatic species usually depends on the amount of water flowing through its river system. Other survival factors, such as water temperature, dissolved oxygen and water quality are also hydrologically related to water flows. There is no such thing as federal water law, and water allocation is a matter for states to regulate. There are a number of state laws which do protect in-stream water for aquatic species (see Oregon's instream water right statute at ORS §537.332, et seq.; California's requirement to provide sufficient flows through dams to protect fisheries at Cal. Fish & Game Code §5937, and see also Cal. Water Code §§1243, 1257 & 1707; Washington's in-stream flows laws at RCW Chapter 90.22.010 and 90.54.020(3)(a)). Unfortunately, many of these state programs are flawed, under funded or rarely enforced, and many basins are already over-appropriated. When the ESA constrains water supplies to conserve a listed species, these federally imposed constraints often conflict with state water law, causing a problem of federal preemption. The legal boundaries between the ESA and state water law are still in flux. Significantly, the ESA itself does not prohibit state water right preemption by federal law, and contains only the vague statement that it is "the policy of Congress that Federal agencies shall cooperate with State and local agencies to resolve water resource issues in concert with conservation of endangered species" (16 U.S.C. §1531(c)(2)). A much stronger deference to state water law in the federal Clean Water Act did not eliminate federal obligations to provide water for ESA listed species (see <i>Riverside Irrigation District vs. Andrews</i> , 758 F.2d 508 (10th Cir. 1985)). Thus, in considering the same problem under the ESA, the <i>Glemn-Colusa Irrigation District</i> court noted: "This provision does not require, however, that state water rights, and thus the
Survival State Allocation ESA/State Conflict ESA	Water projects tend to harm ESA-listed species by blocking their habitat or dewatering the river systems they depend upon for survival. The survival of an aquatic species usually depends on the amount of water flowing through its river system. Other survival factors, such as water temperature, dissolved oxygen and water quality are also hydrologically related to water flows. There is no such thing as federal water law, and water allocation is a matter for states to regulate. There are a number of state laws which do protect in-stream water for aquatic species (see Oregon's instream water right statute at ORS §537.332, et seq.; California's requirement to provide sufficient flows through dams to protect fisheries at Cal. Fish & Game Code §5937, and see also Cal. Water Code §§1243, 1257 & 1707; Washington's in-stream flows laws at RCW Chapter 90.22.010 and 90.54.020(3)(a)). Unfortunately, many of these state programs are flawed, under funded or rarely enforced, and many basins are already over-appropriated. When the ESA constrains water supplies to conserve a listed species, these federally imposed constraints often conflict with state water laws, causing a problem of federal preemption. The legal boundaries between the ESA itself does not prohibit state water right preemption by federal law, and contains only the vague statement that it is "the policy of Congress that Federal agencies shall cooperate with State and local agencies to resolve water resource issues in concert with conservation of endangered species" (16 U.S.C. §1531(c)(2)). A much stronger deference to state water law in the federal Clean Water Act did not eliminate federal obligations to provide water for ESA listed species (see <i>Riverside Irrigation District vs. Andrews</i> , 758 F.2d 508 (10th Cir. 1985)). Thus, in considering the same problem under the ESA, the <i>Glenn-Colusa Irrigation District</i> court noted: "This provision does not require, however, that state water rights should prevail over the restrictions set forth in the Act. Such an interpre
Survival State Allocation ESA/State Conflict ESA	Water projects tend to harm ESA-listed species by blocking their habitat or dewatering the river systems they depend upon for survival. The survival of an aquatic species usually depends on the amount of water flowing through its river system. Other survival factors, such as water temperature, dissolved oxygen and water quality are also hydrologically related to water flows. There is no such thing as federal water law, and water allocation is a matter for states to regulate. There are a number of state laws which do protect in-stream water for aquatic species (see Oregon's instream water right statute at ORS §537.332, et seq.; California's requirement to provide sufficient flows through dams to protect fisheries at Cal. Fish & Game Code §5937, and see also Cal. Water Code §§1243, 1257 & 1707; Washington's in-stream flows laws at RCW Chapter 90.22.010 and 90.54.020(3)(a)). Unfortunately, many of these state programs are flawed, under funded or rarely enforced, and many basins are already over-appropriated. When the ESA constrains water supplies to conserve a listed species, these federally imposed constraints often conflict with state water law, causing a problem of federal preemption. The legal boundaries between the ESA and state water law are still in flux. Significantly, the ESA itself does not prohibit state water right preemption by federal law, and contains only the vague statement that it is "the policy of Congress that Federal agencies shall cooperate with State and local agencies to resolve water resource issues in concert with conservation of endangered species" (16 U.S.C. §1531(c)(2)). A much stronger deference to state water law in the federal Clean Water Act did not eliminate federal obligations to provide water for ESA listed species (see <i>Riverside Irrigation District vs. Andrews</i> , 758 F.2d 508 (10th Cir. 1985)). Thus, in considering the same problem under the ESA, the <i>Glemn-Colusa Irrigation District</i> court noted: "This provision does not require, however, that state water rights, and thus the

	District Court ruled that Interior was "required to give the [endangered species] priority over all other
ESA/Water	purposes" of the project but that any water "not required under the ESA" must be stored for the water users (<i>Carson-Truckee Water Conservancy Dist. vs. Watt</i> , 549 F.Supp. 704, 710 (D. Nev. 1982)). On
	appeal to the Ninth Circuit, the Court somewhat expanded the ruling to hold that not only could the
	Bureau of Reclamation use water necessary to prevent jeopardy, but that the Bureau could also, in
Jeopardy	absence of specific contractual water obligations, devote whatever water resources it had within its
Avoidance	discretion toward lower river endangered species protections (Carson-Truckee Water Conservancy Dist.
Avoluance	vs. Clark, 741 F.2d, 257 (9th Cir. 1984)). That case did not rule on the issue of whether the ESA would
	supersede specific water contracts because there were no such contracts in that case.
	A later Ninth Circuit case, however, ruled that if project water deliveries fail the jeopardy test, the
	ESA does require that additional water be used to avoid jeopardy, notwithstanding any pre-existing water
	contracts (<i>O'Neill vs. U.S.</i> , 50 F.3d 677 (9th Cir. 1995)). The court held in that case that the federal
	government was relieved from federal water contract obligations to the extent that the water was required to prevent jeopardy to the ESA-listed winter run chinook. The Ninth Circuit later reiterated this view in a
	Klamath Basin water case over ESA-listed coho salmon (<i>Klamath Water Users Association vs. Patterson</i>
	(204 F.3d 1206, 1213 (9th Cir. 1996)), ruling that even though federal water contracts based on state
	water laws may have existed long prior to the ESA, subsequent ESA legislation requiring changes in
	water contract allocations to meet ESA-listed species' survival needs legally prevails over those prior
	contracts. Specifically that court said:
	"It is well settled that contractual arrangements can be altered by subsequent Congressional
"Whatever	legislation. The ESA was enacted in 1973 to 'halt and reverse the trend toward species extinction,
the Cost"	whatever the cost.' Even in circumstances where the ESA was passed well after the agreement, the
the Cost	legislation still applies as long as the federal agency retains some measure of control over the
	activity. Therefore, when an agency, such as Reclamation, decides to take action, the ESA generally applies to the contract.
	"Because Reclamation retains authority to manage the Dam, and because it remains the owner in
	fee simple of the Dam, it has responsibilities under the ESA as a federal agency. <i>These responsi</i> -
	bilities include taking control of the Dam when necessary to meet the requirements of the ESA,
	requirements that override the water rights of the Irrigators." (Id. at 1213; emphasis added,
	citations omitted)
Treaty	That same court also noted that Tribal treaty obligations, which in the Klamath include rights to
Obligations	sufficient water retained in the river and lakes to protect subsistence fisheries, also supersede the contrac-
Congutions	tual rights of irrigators: "Similar to its duties under the ESA, the United States, as a trustee for the Tribes, has a responsibil-
	ity to protect their rights and resourcesBecause Reclamation maintains control of the Dam, it has
	a responsibility to divert the water and resources needed to fulfill the Tribe's rights, rights that take
	precedence over any alleged rights of the Irrigators." (<i>Id.</i> at 1213-1214)
	It appears clear, then, that at least in the Ninth Circuit both ESA water needs of listed species and
	Tribal water rights take precedence over federal water contracts supported by state water law. This
	precedent was later applied in Kandra vs. Bureau of Reclamation (145 F. Supp.2d 1192 at 1207 (D. Or.
	2001) [rejecting arguments that mitigation measures which benefit ESA-listed fish could not be imple-
	mented because they were inconsistent with the primary irrigation mission of the Klamath Irrigation
	Project]. See also <i>Tennessee Valley Authority vs. Hill</i> , 437 U.S. 153, 185; 57 L.Ed.2d 117 (1978). In a 1995 memorandum specifically addressing Klamath Project operations, the Regional Solicitor's
	Office of the Department of Interior expressed the same view. The Regional Solicitor wrote:
"Availability"	"Reclamation has an obligation to deliver water to the project water userssubject to the availabil-
	ity of waterWater would not be available, for example, due to drought, a need to forego diver-
	sions to satisfy prior existing rights, or compliance with other federal laws such as the Endangered
	Species Act." (Memorandum from Regional Solicitor, Pacific Southwest Region, to Regional
	Director, Bureau of Reclamation, Mid-Pacific Region, "Certain Legal Rights and Obligations
	Related to the U.S. Bureau of Reclamation, Klamath Project for Use in Preparation of the Klamath
	Project Operations Plan (KPOP)," July 25, 1995). These cases do leave open the question of what might happen if specific legislation gives the Burgau
	These cases do leave open the question of what might happen if <i>specific legislation</i> gives the Bureau of Reclamation (Bureau) <i>no discretion</i> over irrigation water deliveries. The ESA consultation require-
	ments of Section 7 may apply only to discretionary actions. Also, the Bureau has asserted repeatedly that
	providing water for ESA-listed species is inconsistent with its statutory (i.e., non-discretionary) mission
	to provide irrigation water. However, that argument was summarily dismissed in <i>Kandra</i> . Furthermore,
	it was rejected and the Bureau was enjoined for ignoring its Section 7 consultation obligation in 2001 in

ESA / Water	Pacific Coast Federation of Fishermen's Associations, et al., vs. U.S. Bureau of Reclamation, 138 F.Supp.2d 1228, 1249-59 (N.D.Cal. 2001), and ordered to reconsult. The federal courts would likely take a dim view of Bureau efforts to completely exempt itself from the ESA, particularly since the Bureau does maintain wide discretion over the amounts of water it delivers and when it does so. Thus far, no court has accepted the Bureau's theory.
Discretion & Take Congressional Override Moot	 Court has accepted the Bureau's theory. Even if it were true that the Bureau lacked discretion to meet ESA requirements, although Section 7 might no longer apply, the ESA's Section 9 "take" prohibitions most certainly still would, exposing the federal government (and potentially its irrigation clients) to considerable ESA liability. In addition, since ESA and Tribal trust water obligations are on a similar par, the government would have to claim equivalent lack of discretion to meet Tribal trust water needs, and thus be exposed to massive Tribal lawsuits for breach of its fiduciary duties as trustee. Thus the Bureau's position that it lacks discretion to comply with non-irrigation legal obligations is wholly untenable. In the Ninth Circuit, the Bureau clearly has ESA obligations it cannot ignore, and <i>Klamath Water Users</i> and <i>O'Neill</i> remain the law of the land. THE SILVERY MINNOW CASES: A similar issue arose recently in the Tenth Circuit in <i>Rio Grande</i> <i>Silvery Minnow vs. Keys</i>, 333 F.3d 1109 (10th Cir. 2003), in which a three-judge panel supported the <i>Patterson</i> ruling, holding that the Bureau did indeed have the legal discretion to modify federal irrigation contracts when needed to supply water for the survival of ESA-listed fish, in this case the silvery minnow. That ruling provoked a political firestorm in New Mexico, and ultimately resulted in a rare Congressional override of the ESA that forbade such water diversions for at least two years (at Sec 208(a), 2004 Energy & Water Appropriations Bill, P.L. 108-137). Oddly enough, after all the controversy the Bureau never had to actually exercise that authority and the issue was legally mooted and the prior ruling vacated in a later ruling by the Tenth Circuit Court <i>en banc</i> on January 5th, 2004. This means that the
	Ninth Circuit is still the only Circuit Court that has clearly delineated the relationship between ESA water
	needs and irrigation water contracts, and the law is still unsettled in most other areas of the country.
	ESA LIABILITY OF NON-FEDERAL GOVERNMENT ENTITIES
State "Takes"	All the above cases involved a "federal nexus"— i.e., water operations by the Bureau, even though the Bureau's actions were in part based on state water laws. Whether non-federal governmental agencies
State Takes	can become liable under the ESA for a "take" that it authorizes or condones is still being litigated in the
	Ninth Circuit. However, a growing line of cases from the First Circuit strongly implies that they can (see
	Strahan vs. Coxe, 127 F.3d. 155 (1st Cir. 1997), cert. denied, 525 U.S. 830 (1998)). At least one case in the Ninth Circuit also found indirect state agency ESA take liability (<i>Palila vs. Hawaii Dep't. of Land &</i>
	Water Resources, 649 F.Supp 1070 (D. Haw. 1986), aff'd, 852 F.2d 1106 (9th Cir. 1988) [state agency
	liable for maintaining herds of feral sheep and goats to detriment of ESA-listed palila bird]).
State Forestry	The implications flowing from the <i>Strahan</i> line of cases, holding state agencies liable for "take" of ESA-protected species, are now being tested in a landmark Oregon case, <i>Pacific Rivers Council et al.</i> , vs.
Case	Brown (Dist. Or. No. CV-02-243-BR). The plaintiffs in that case (which include PCFFA/IFR) allege that
	the State Forester and Oregon Board of Forestry are authorizing logging operations on high-risk, land- slide-prone slopes, thus causing landslides that silt up spawning and rearing streams and "take" ESA-
	listed Oregon coho salmon. Though that case must still go to trial on the many specific issues of fact
	involved, the District Court in that case has already ruled in a preliminary jurisdictional finding that the
	<i>Strahan</i> theory of liability would apply (ruling on summary judgment motion December 23rd, 2002). There is now little doubt that state agencies have some responsibility for avoiding "take" of ESA-listed
	species through their actions, but the extent of that responsibility has yet to be determined.
Water Districts?	By analogy, local and regional governmental entities such as local water districts, also face similar
	ESA liability, and would additionally not have a defense of state sovereignty under the 11th Amendment. For instance, a Section 9 "take" suit was filed by NOAA Fisheries against the Grants Pass Irrigation
	District in 1998 alleging "take" caused by Savage Rapids Dam on the Rogue River in Oregon, owned by
	the District (U.S. vs. Grants Pass Irrigation District (Civ. No. 98-3034HO (D.C. Or.)). Poor fish passage
	at the dam adversely impacted a salmonid fishery whose value was estimated by the U.S. Army Corps of Engineers at \$5 million/year to the local economy. That case resulted in a settlement that will eventually
Driveto Lleoro	lead to the removal of the dam.
Private Users	The ESA also applies to private water users whose otherwise legal uses result in "take" under the
	ESA, but because of the difficulty of such litigation, fears of such lawsuits have been far more pervasive than actual lawsuits. Nevertheless, the ESA does provide for a third party "citizen suit" right of action
	under 16 U.S.C. §1540(g) to enjoin "any person [including but not limited to the government] from
	violating the ESA or any of its regulations." The only known effort to systematically use the ESA "take"
	prohibitions against private landowners to protect listed fish is by the Idaho-based Western Watershed

ESA / Water	Project (www.idahowatersheds.org), which in October 2000 sent more than fifty "60-day Notice of Intent to Sue" letters to various Idaho ranchers, claiming that their water diversions are harming salmon, steelhead, and bull trout habitat in violation of the ESA by trapping fish in ditches, blocking migration, and completely dewatering parts of some streams. Several suits following up on those notices were filed in 2001, and litigation is still pending.		
Public Rights	"TAKINGS" VS. "TAKINGS" WHEN ESA PROTECTIONS ARE COMPENSABLE In accordance with <i>Klamath Water Users</i> , and <i>O'Neill</i> , as noted above, the Bureau must withhold water from irrigation even in the face of valid, pre-existing water rights and water delivery contracts, whenever required to do so under the ESA, and the ESA (at least in the Ninth Circuit) clearly prevails over pre-existing water contracts wherever there is a direct conflict. The ESA does not so much prevent the exercise of private property rights as it protects public property rights: i.e., fish and wildlife resources held in common in public trust for the good of the region. There is no "right" to jeopardize public property by causing the extinction of species, any more than there is a "right" to use one's own property in ways that destroy the property rights of others. Since the <i>Codex Justinianus</i> in 529 A.D., private property rights have always been bounded and superseded by Public Trust obligations. Nevertheless, the tension between the two has been fertile grounds for lawsuits pitting prohibitions against "taking" of species against the Fifth Amendment Constitutional right to compensation for the "taking" of private property for public uses.		
Damages	The <i>Tulare Lake Basin Water Storage District</i> Case On December 31, 2003, the US Court of Federal Claims awarded monetary damages to federal water		
Awarded	contract irrigators for the loss of a portion of their anticipated irrigation diversions in 1992-94 that was		
	used to meet the survival needs of endangered winter-run chinook and delta smelt. The damages were awarded as compensation for a "taking" of private property under the Fifth Amendment. In a ruling that may have a chilling effect on future federal protection measures for species listed under the ESA, the court ruled in <i>Tulare Lake Basin Water Storage District vs. US</i> (Fed. Cl. No 98-101 L) that nearly \$14 million in damages plus interest (over \$26 million total) was due the farmers for the lost water. Pumping of water to the District had been reduced to keep ESA-listed fish from being sucked into pumps and irrigation canals where large numbers were dying. The ruling was not unexpected. The Court's ruling on December 31st was merely the damages phase of an earlier ruling on the merits on April 30, 2001 (49 Fed. Cl. 313 (2001)) in which the Court said: "The federal government is certainly free to preserve the fish; it must simply pay for the water it takes to do so." That ruling has been much criticized as far too broad, but also was apparently decided		
	without reference to Ninth Circuit cases such as O'Neill, Klamath Water Users and Kandra.		
Courts' Schism	The <i>Tulare</i> case represents a growing schism between the Ninth Circuit and the Court of Claims over how to reconcile the ESA and the Fifth Amendment in federal irrigation water contract disputes. The <i>Tulare</i> ruling will likely also be limited to the specific facts of that case, including unusual provisions in the federal irrigation contracts at issue containing specific volume promises of water to be provided. A test of the <i>Tulare</i> decision's applicability will likely come in a similar Court of Claims water case,		
Applicability	Klamath Irrigation District vs. US (Fed. Cl. No. 01-591L), which is before a different judge. In that case, Klamath Irrigation Project farmers are claiming \$1 billion in "damages" resulting from "taking" of their water to meet basic survival needs for ESA-listed fish in the Klamath Basin during the 2001 near- record drought. (Klamath Project farmers have already been compensated by federal disaster relief programs, and their 2001 drought damages have been estimated elsewhere as roughly \$30 million.) However, the federal water contracts the Klamath farmers operated under were also very different than those decided upon in <i>Tulare</i> . Unlike the <i>Tulare</i> case contracts, most federal contracts do not provide guarantees of any specific water amount, only a share of whatever water is "available." In the <i>Klamath</i> <i>Water Users Assn.</i> ruling and Solicitor's Opinion cited above, such "availability" is interpreted as applying after all other prior legal obligations — i.e., ESA as well as Tribal Trust obligations — have been met. Additionally, Klamath Project water rights have never been adjudicated, and it is therefore unclear what legal rights to the water actually exist. These issues are still being litigated in Oregon's Klamath Basin Adjudication.		
Federal	Whether the current federal Administration will aggressively defend these kinds of damage cases		
Defense?	remains to be seen. Broadening the <i>Tulare</i> case precedent unduly would make ESA-driven water reforms prohibitively expensive. This would put endangered species at further risk. It would also expose the federal government to potentially much larger damages claims from American Indian Tribes, whose water rights legally come prior to irrigation contract rights under the <i>Klamath Water Users Assn.</i> case.		

ESA/Water	[The December 31, 2003 <i>Tulare</i> case damages award can be obtained from: http:// www.uscfc.uscourts.gov/Opinions/Wiese/03/WIESE.Tulare.pdf. The original Tulare case liability ruling of April 30, 2001 can be obtained from: http://www.uscfc.uscourts.gov/Opinions/Wiese/01/Tulare.pdf]	
	UNRESOLVED SALMON AND ESA WATER DILEMMAS	
Little Recovery Guidance	UNRESOLVED SALMON AND ESA WATER DILEMMAS SLOUCHING TOWARDS RECOVERY Elizabeth Garr, Chief of the NOAA Fisheries Salmon Recovery Branch in the Northwest com- mented: "The ESA was a wake-up call, but now that we are awake we need to figure out what to do." She and others are now working to chart out that recovery pathway. The ESA itself, however, gives little practical guidance as to how recovery plans must be con- structed and does not provide deadlines for producing such plans. Creating Technical Review Teams and determining what biological criteria need to be met in each recovery plan is also a monumental task requiring resolution of a number of still unresolved scientific and policy questions. Federal funding may be insufficient to create or implement such plans, and the issue of weak state laws and lack of state funding to implement such plans remains a serious barrier to delegation of recovery efforts to the states.	
	What follows are just some of the still unresolved problems and issues that impact future recovery planning.	
	Hatchery Impacts on Wild Fish	
Negative Impacts	Biologists are increasingly documenting negative impacts on wild fish populations caused by hatcheries (see <i>Salmon Without Rivers: A History of the Pacific Salmon Crisis</i> , by Jim Lichatowich (Island Press, 1999)). Oregon's new "Native Fish Conservation Policy" goes part of the way toward mitigating those impacts, as does the NOAA Fisheries ESA requirement of hatchery genetic conservation plans. On the other side, the <i>Alsea Valley</i> line of cases (<i>Alsea Valley Alliance vs. Evans</i> , 161 F.Supp.2d 1154 (Dist.Or. 2001) and numerous look-alike cases) are based on the assertion that there is no difference between hatchery and wild fish; that they are genetically identical. Proponents of this theory hope that since any number of hatchery fish could be produced at will, this would lead to widespread delisting of	
	wild populations.	
Judicial Delisting	In September 2001, the original <i>Alsea Valley Alliance</i> District Court case resulted in a temporary judicial delisting of the central Oregon coho ESU that was later stayed on appeal to the Ninth Circuit. However, on February 24, 2004, the Ninth Circuit dismissed the appeal, though purely on jurisdictional	
Limbo New Policy?	grounds rather than on the merits. This theoretically reinstated the lower court's judicial delisting. The current status of the central Oregon coho ESU is now in limbo — technically still listed, but legally unenforceable — until the Ninth Circuit rehearing process has been completed. The <i>Alsea Valley</i> delisting decision has now become the hope of every industry group seeking to delist salmon entirely, and there are many copy-cat delisting cases still pending. The hatchery-wild fish issue is likely to be moot soon, however, as NMFS is working to change the ambiguous hatchery fish listing policy that led to the contradiction the <i>Alsea Valley Alliance</i> case was based on. This new policy is expected to come out this summer. Hatchery practices and wild fish genetic conservation policies and how the two interact under	
	the ESA are due for a thorough overhaul. When Is a Rebound Sufficient to Delist?	
How Much?	Listing was intended to lead to recovery, but it is unclear how much "recovery" — and for how long — is needed to delist. We have seen higher returns of salmon this year than in the most recent past when salmon were headed for extinction, and this is cause for optimism. Unfortunately, recent higher returns are due almost entirely to extremely favorable recent ocean survival conditions, not to any efforts made to restore salmon habitat. Adult returns this year are from juveniles that hatched or went out to sea in 1999 or 2000, before most recovery efforts really got up and running. Additionally, this year's wild adult returns are only a small fraction of historic run sizes. In most coastal areas wild runs are still signifi- cantly depressed.	
Conditional	Nevertheless, based in part on those higher returns, the State of Oregon is now working toward	
Delisting?	crafting a new type of "conditional delisting" in which Oregon would agree to take over all salmon recovery efforts through the Oregon Salmon Plan, in return for reviewable delisting status. State salmon recovery plan performance would then become a condition for maintaining delisted status. The federal administration is apparently fostering this idea as well. A similar deal may also be in the works in for California, which has its own, relatively strong, state ESA. California recently adopted an ambitious Coho Salmon Recovery Strategy and listed that state's coho salmon runs under its own ESA. Washing- ton State is also working on securing statewide ESA exemptions for its private lands forest practices rules, and already has a statewide Habitat Conservation Plan in place for state-owned forestlands.	

•	Should States Take Over Recovery Efforts?			
ESA/Water Although it sounds good in principle that the states — as opposed to the federal government -	_			
should be salmon recovery leaders, practical problems with this concept are numerous. At present	, state			
laws still fail to adequately control many of the impacts on salmon that originally led to their listing	g,			
particularly impacts from forestry and agriculture. Oregon's Forest Practices Act's riparian protection	tion			
rules, for instance, are far weaker than comparable rules in either Washington or California, and fa	r less			
protective than recommended by NMFS or by the Oregon's own Independent Multi-disciplinary S	cience			
"IMST" Team (IMST) that oversees the Oregon Salmon Plan.				
Concerning Oregon's Forest Practices Act, NMFS has previously written: "[T]here are no pro	ovisions			
Concerns to avoid logging or road construction on high-risk sites. This is a serious deficiency in the Rules,				
landslides can add significant amounts of fine sediment to streams and can result in increased dire	et			
mortality of salmon through burial of redds and eggs." (from NMFS Initial Concerns with Revised				
Oregon FPR's (Jan. 2, 1997)). The IMST has also stated: "Current rules for riparian protection, la	rge			
wood management, sedimentation, and fish passage are not adequate to reserve depressed stocks of	f wild			
salmonidsWhile they are important as an initial step in accomplishing the mission of the Oregon	ı Plan,			
they are not sufficient for the recovery of critical habitat for wild salmonids." (IMST Technical Re	port			
<i>1999-1</i> (Sept. 8, 1999), pg. 2).				
Furthermore, timber industry-supported provisions in the Oregon Forest Practices Act inhibit				
Exemptions additional efforts to protect damaged riparian areas on Oregon's timberlands (ORS §527.714(4)),				
logging operations are categorically exempt from Oregon's water quality and pollution control law	's (ORS			
§527.770), even though their adverse impact on water quality is well documented.				
Agricultural Likewise, Oregon exerts relatively weak regulatory control over agriculturally generated sedi				
Impacts chemical pollution, in spite of the fact that many Oregon streams are listed as "water quality limited				
under §303(d) of the Clean Water Act primarily because of agricultural impacts. Agricultural Wa				
Quality Improvement Plans under Oregon's Senate Bill 1010 are mostly based on voluntary action				
are generally weak. Agricultural practices are also categorically exempt from most of Oregon's w				
quality laws. State water laws have allowed many of its rivers to become over-appropriated for la	ge			
parts of each year, primarily because of water diversions for agricultural use.	2.			
Scope Issues Finally, state-based recovery plans can address salmon problems only on non-federal lands. I cently proposed elimination of important federal salmon protection rules under the Northwest Ford				
Plan's Aquatic Conservation Strategy and other laws demonstrates the need to maintain continued				
listing protections at least for the one-third of west coast damaged salmonid habitat that lies within				
lands.	icuciai			
Weaknesses in Oregon's watershed protection laws are not unique. Similar problems abound	in the			
States of California and Washington. In California, the State Resources Agency commissioned and				
Insufficient independent scientific review of its Forest Practices Act which concluded that California's forestry				
insufficient				
Protections Were woerung insufficient to prevent further samonid extinctions (<i>Report of the Scientific Review</i> on California Forest Practices Rules and Salmonid Habitat (June 1999), available at: www.ceres.				
cra/srp.html). In Washington State, the Society for Ecological Restoration and Western Division	of the			
American Fisheries Society sponsored a Scientific Review of the Washington State "Forest & Fish	Plan"			
in February 2000, which also concluded that the statutory standards adopted were insufficient to p	rotect			
salmonids as well as insufficient to meet Clean Water Act standards.				
Industry Agriculture, forestry, developers and other industry groups that profit from development in an				
Support salmonid habitat are pushing for state control over recovery as well as delisting. State Legislature				
more vulnerable to industry lobbying than the federal government. Certain industries have also jo	ined			
efforts to roll back salmonid ESA listings through delisting petitions and in the courts.				
"HCPs" HCP Adaptive Management vs. "No Surprises"	140.0			
Habitat Conservation Plans (HCPs) offer landowners with approved HCPs "No Surprises" and				
No Surprises? Harbor" blanket protections from future ESA enforcement in return for what is promoted as comp	ehen-			
- sive species-protective plaining. Nature itsen, nowever, is full of surprises.	7			
Since their beginnings in 1992, the number of HCPs has mushroomed. There are now at leas	, 44 /			
approved HCPs nationwide, exempting more than 39 million acres from ESA enforcement. While HCP standards have improved, many are still seriously deficient in their science and b	alogy			
WHIGHLY A MAIDARD DAVE HIDDOVED HIARV ARE SUD SCHOUSTV DEDICIERT IN THEIR CHERCE AND N				
	avoiu			
Also, there is no requirement that HCPs actually contribute toward species recovery, only that the				
Also, there is no requirement that HCPs actually contribute toward species recovery, only that the jeopardy.				
Also, there is no requirement that HCPs actually contribute toward species recovery, only that the	n			

	98-1873)). On September 30, 2003, Judge Sullivan ruled in favor of the plaintiffs' summary judgment
ESA/Water	motion in that case to invalidate the HCP "No Surprises" policy, and issued an injunction against USFWS approving any more HCPs, but has not yet issued a final ruling. The summary judgment ruling may be
	the death-knell of the controversial HCP "No Surprises" policy.
<u> </u>	Economics-Based vs. Science-Based ESA Decision-Making There are few places in law in which science trumps economics, even within the ESA. The ESA
Science -v-	Section 4 listing process is one of those few. Economic considerations do come into play in ESA
Economics	"critical habitat" designations, in the recovery planning process, and nearly everywhere else in the ESA,
	but the listing decision itself must be made "solely on the basis of the best scientific and commercial data available $-$ " (16 U.S.C. \$1523(b)(1)(A))
	available" (16 U.S.C. §1533(b)(1)(A)). Anti-ESA activists often claim that the ESA is "economically devastating"— but in fact there is
Devastation?	absolutely no evidence that the ESA adversely impacts state or regional economies, and every reason to
	think that it does not. For instance, a comprehensive study by the "MIT Project on Environmental
	Politics and Policy" looked at the statistical relationship between the number of species listed in each state as compared to that state's economic performance (over the period of 1975-1990).
	That study concluded:
No Measurable	"The data clearly shows that the Endangered Species Act has had no measurable economic
Impact	impact on state economic performance. Controlling for differences in state area and extractive
	industry dependence, the study finds that states with the highest numbers of listed species also enjoyed the highest economic growth rates and the largest increases in economic growth
	ratesThe one and a half decades of state data examined in this paper strongly contradict the
	assertion that the Endangered Species Act has had harmful effects on state economies. Protections
	offered to threatened animals and plants do not impose a measurable economic burden on develop- ment activity at the state level. In fact the evidence points to the converseIn fact, for every tale
	about a project, business, or property owner allegedly harmed by the efforts to protect some plant
	or animal species there are over one thousand stories of virtual 'non-interference.' In reviewing
	the record of 18,211 endangered species consultations by the Fish and Wildlife Service/National Marine Fisheries covering the period 1987-1991 the General Accounting Office found that only
	11% (2050) resulted in the issuance of formal biological opinions. The other 89% were handled
	informally — that is to say the projects proceeded on schedule and without interference. Of the
	2050 formal opinions issued a mere 181 — less than 10% — concluded that the proposed projects were likely to pose a threat to an endangered plant or animal. And most of these 181 projects were
	completed, albeit with some modification in design or construction. In short, more than 99% of
	the projects reviewed under the Endangered Species Act eventually proceeded unhindered or with
	marginal additional time and economic costs. Given the political and economic screening that
	occurs in listings cases it is not surprising that no measurable negative economic effects are detectable"
	(Stephen M. Moyer, Endangered Species Listings and State Economic Performance, Massachu-
	setts Institute of Technology, Project on Environmental Politics and Policy (March 1995). Facts
	on actions cited from US General Accounting Office (1992) <i>Endangered Species Act: Types and Numbers of Implementing Actions</i> (GAO/RECD-92-131BR)).
Critical Habitat	The primary argument involving economics and the ESA is now about critical habitat. The ESA
IIabitat	requires the designation of critical habitat "on the basis of the best scientific data available and after taking into effect the economic impact, and any other relevant impact, of specifying any particular area as
Invalidation	critical habitat." (16 U.S.C. §1533(b)(2)). Recent cases have resulted in settlements invalidating critical
	habitat designations for 20 salmonid ESUs because of inadequate economic impacts analysis (National
	Association of Homebuilders vs. Evans (No. 1:00-CV-02799 CKK (DC Dist.)), while another case
Redesignation	resulted in a settlement by which NMFS agreed to redesignate critical habitat on a court-ordered schedule for those same 20 ESUs after redoing an economic impacts analysis (<i>Pacific Coast Federation of</i>
	Fishermen's Associations vs. NMFS (Civ. No. 03-1833 (Dist. DC)). NMFS is required under that
	settlement to publish new proposed critical habitat designations by June 30, 2004. Much of this upcom-
	ing battle will be fought on the battlefield of economics, not law or biology. THE ESA, THE BUSH ADMINISTRATION & 108TH CONGRESS
	By any objective standard the Bush Administration does not have a good record on ESA issues to
Buch Descui	date. Recent Administration officials' rhetoric that "the ESA is broken" reflects more the
Bush Record	Administration's unwillingness to fully fund or implement it than problems with the ESA. To date the Bush Administration has listed fewer critters than any other prior federal administrations
	at the same point in its tenure since the ESA was adopted. It is the only administration which has never

ESA/Water	listed a single species on its own initiative, but only in response to court orders in citizen lawsuits. Insufficient funds to break through the USFWS's massive ESA gridlock has brought about numerous missed deadlines (and resulting lawsuits). USFWS estimates that it will need approximately \$153 million to clear its current listing and critical habitat decision backlog. The Administration's FY 2004 budget
Consultation Proposals	request was only \$13 million. The FY 2005 request was roughly comparable. Rather than provide adequate funding to catch up, the Administration is proposing to disable the consultation process itself. Consultation is arguably the ESA's strongest component. Proposed rules were recently published (69 Fed. Reg. 4465-4480 (January 30, 2004)) that would "streamline" the consultation process by cutting the expert fish and wildlife agencies out entirely, giving the US Environ-
"NLAA"	mental Protection Agency (which has little fish and wildlife expertise and a clear conflict of interest) the power to "self-consult" internally on the effects of its own registered pesticides on ESA-listed species. The proposal gives EPA sole authority to make all initial "not likely to adversely affect (NLAA)" decisions. Present regulations require Service concurrence.
Congress	A similar "self-consultation" process, i.e., removing the federal Services entirely from the NLAA consultation loop, was also proposed May 30, 2003, again under the rubric of "streamlining" consultations, by the BLM and US Forest Service under the National Fire Plan. There are numerous other federal rule-making efforts underway to quietly undercut ESA consultation as well as critical habitat authority. There are also, as in every recent Congress, numerous western Republican-led bills in the 108th Congress that would "reform" the ESA in various ways to make it less effective or more difficult to apply, including in the House: H.R. 1194; H.R. 1235; H.R. 1253; H.R. 1662; H.R. 1835; H.R. 1965; H.R. 2602; and H.R. 2933. In the Senate there are S. 369 and S. 1178, as well as the "State Water Sovereignty"
	Protection Act" (S. 561) sponsored by Idaho Senator Crapo, a bill that would dramatically shift the balance of federalism by making all federal actions involving water subservient to state water law, thus disabling both the ESA and Clean Water Acts insofar as water issues are concerned, all in the guise of giving states sovereign control over water rights. So far, support for these bills is limited even within the Republican majority. [Bill language is accessible from the Library of Congress THOMAS reference site: http://thomas.loc.gov]
ESA	Relatively balanced ESA reform bills in the 107th Congress (H.R. 4579) and in the 106th Congress (H.R. 960) that would have streamlined, improved and better funded the ESA, and which had far more bipartisan support, never got hearings in Committees now dominated by anti-ESA (mostly western) Republicans, and none have been reintroduced in the 108th Congress. Because the ESA is so popular with constituents, for the foreseeable future efforts to disable the ESA
Popularity	are likely to consist of low-profile, backroom attempts to defund it, to carve out special exemptions for such things as national defense, to legislatively bias what kinds of science can be used in applying it, or to change technical administrative rules to make it harder to apply or enforce. In the meantime, the ESA has not been formally reauthorized by Congress in several years, but continues to limp along on single-year spot appropriations. On the other hand, the ESA is so popular with the public that, in spite of major lobbying by the regulated industry for 10 years, none of their efforts in Congress to restrict it have so far
	succeeded. They are even less likely to succeed in an election year.
	CONCLUSION Today the ESA remains the single most popular environmental law ever passed, and an effective tool at protecting species from extinction. Although the ESA process might be streamlined or improved, and implementation should also be far better funded, the federal ESA, and its impact on western water issues, is unlikely to go away any time in the foreseeable future.
	FOR ADDITIONAL INFORMATION, CONTACT: Glen Spain, Pacific Coast Federation of Fishermen's Associa- tions (PCFFA), 541/ 689-2000 or email: fish1ifr@aol.com.
	Glen Spain , J.D., is the Northwest Regional Director of the Pacific Coast Federation of Fishermen's Associations (PCFFA), the west coast's largest trade association of commercial fishing families, as well as Program Director of PCFFA's affilate conservation organization, the Institute for Fisheries Resources. PCFFA is the west coast's largest trade association of commercial fishermen and fishing families.
	PCFFA webpage: www.pcffa.org

The Water Report

WATER BRIEFS

STURGEON

LISTING REMANDED

US Magistrate Laporte has ordered fisheries scientists to reconsider their finding that green sturgeon do not merit ESA protection, based on a finding that the National Marine Fisheries Service (NMFS) "arbitrarily and capriciously failed to examine whether...lost habitat constituted a significant portion of the green sturgeon's range." Magistrate Laporte remanded a January 2003 decision to reject listing the species back to NMFS for reconsideration. The Court concluded that "this matter must be remanded for further analysis and decision of the issue of whether the green sturgeon are endangered or threatened in a significant portion of its range." The successful challenge was brought by the Environmental Protection Information Center (EPIC), Center for Biological Diversity (CBD), and Oregon Natural Resources Council (ONRC), represented by CBD attorney Brent Plater.

CA-OR

The Court noted that "despite the scientific evidence of the 'alarming reduction in spawning range of the green sturgeon,' in the words of its own scientist, the National Marine Fisheries Service downplayed the threat" and "failed to analyze whether the species was threatened in a significant portion of its range in reaching its listing decision." NMFS acknowledges the loss of spawning populations and habitat in many rivers, including the San Joaquin, Eel, and South Fork Trinity Rivers in California and the Umpqua River in Oregon. According to NMFS, only limited spawning still takes place in the Sacramento and Klamath Rivers in California and the Rogue River in Oregon.

NMFS has defined two remaining "distinct population segments" of the green sturgeon, drawing a north-south boundary at the Eel River in California. It estimates there are only a few hundred to 2,000 individuals in the southern population.

Green sturgeon are among the largest living species in freshwater, living up to 70 years, reaching 7.5 feet in length, and weighing up to 350 lbs. Green sturgeons are anadromous, migrating to the ocean and returning to freshwater to spawn. **For Info:** Wendell Wood, ONRC, 503/ 283-6343 ONRC website: www.onrc.org.

MISSOURI RIVER

CORPS PRIORITIES

The US Army Corps of Engineers (Corps) has released the Final Environmental Impact Statement for its Missouri River Master Manual, providing for no significant flow changes. [The 2004 Annual Operating Plan and Master Manual Environmental Impact Statement are available at http://www.nwdmr.usace.army.mil/rcc/reports/MManual/ MManual.html]

Judge Magnuson of the US District Court (MN) ordered the Corps to present a final Master Manual by March 19, 2004. Conservationists will ask the judge to order the agency to provide more natural spring and summer flows for the river's ecological health, fish and wildlife, and recreational use, in accordance with the Biological Opinion of 2000. A federal judge ordered the Corps last summer to abide by recommendations from federal wildlife scientists to restore more natural spring and summer flows below Gavins Point Dam. Despite Fish and Wildlife Service's opposition, the Corps claims that it will mechanically create more than 1,200 acres of new shallow water habitat for the pallid sturgeon by July, relieving itself of the obligation to create such habitat by reducing summer flows in the river.

Barge traffic on the Missouri River has been in decline and in January, two of the last barge companies announced they would take no orders to ship grain or fertilizer along the river in 2004. The new Master Manual does include drought conservation measures, apparently intended to placate states along the upper river. Conservationists from those states have rejected these provisions as too little, too late.

For info: David Hayes, Latham & Watkins, 202/ 637-2200, Richard Hoppe, Izaak Walton League of America, 301/ 548-0150 ext. 215

WATER QUALITY EPA APPROVES STANDARDS

Oregon's new water quality standards were approved by EPA on March 2, 2004. The standards are being touted as a landmark approach. "The Oregon standards are state-ofthe-art for the Northwest...[they incorporate] what different fish need at different stages of their life, at different locations, different elevations, and different times of the year. Certainly other states will want to look to this as a model," said Randy Smith, Director of Water Quality Programs, EPA Region 10.

OR

The temperature standards lower the acceptable temperature in many rivers and streams, and raise the temperature limit in others, based on the latest reliable scientific data. Previously, ODEQ used a temperature standard of 64° F for most streams and rivers. All water quality permits in Oregon will, upon renewal, need to meet more protective temperature targets. ODEQ will also use the new temperature standards in future listings of impaired water bodies and for issuance of pollution load limits (TMDLs). The new standards will affect virtually all "point of discharge" pollution (point source) and nonpoint pollution sources, including agriculture and forestry.

The standards also include methods for implementing Oregon's "anti-degradation" policy. Proposed new or increased pollution discharges must go through a water degradation review to balance the need for the discharge against the water quality degradation that might occur as a result. The new standards also include revisions to criteria for inter-gravel dissolved oxygen levels, for further protection of salmonid spawning.

The standards resulted from a lawsuit filed by Northwest Environmental Advocates (NEA) of Portland. The lawsuit alleged that EPA improperly approved ODEQ's temperature standards in 1999 and claimed that the standards did not meet CWA and ESA requirements. "Our belief is that this set of standards amounts to one gigantic loophole for industrial and The Water Report

WATER BRIEFS

municipal sources and land activities," said Nina Bell, executive director of NEA. The standards require officials to measure temperature at the edge of a "mixing zone"— the area where the discharge mixes with river water. "In Oregon, that zone is set wherever it needs to be set," she said.

ODEQ will use new comprehensive watershed maps that identify temperature requirements for each water body (see ODEQ's website, info below). This will enable water quality officials to track when and where the new temperature rules are in effect for specific sections of rivers and streams. For info: Mark Charles, ODEQ Water Ouality, Portland, 503/ 229-5589, Randy Smith, EPA, 206/553-1261 or email: smith.randy@epa.gov. ODEQ website: www.deq.state.or.us/ wq/standards/WQStdsTemp.htm.; EPA website: www.epa.gov/r10earth/ oregonwqs.htm

AK

WQ STANDARDS Partial approval

On February 27, EPA partially approved Alaska Water Quality Standard revisions. EPA took no action on the acute and chronic freshwater aquatic life criteria for selenium and mercury or on the removal of the fluoride and odor secondary drinking water standards. EPA needs to conduct additional work to complete its review, so the new aquatic life criteria for mercury and selenium will not be in effect for CWA purposes until a decision is made by EPA about whether they can be approved. In the interim, the previously approved aquatic life criteria for mercury (2.4 ug/l acute and 0.012 ug/l chronic, both as total recoverable) and selenium (20 ug/l acute and 5 ug/l chronic, both as total recoverable) will remain the applicable CWA standards and will be retained in the CWA/WQS docket until EPA acts on this revision (65 FR 24643). The secondary drinking water standards for fluoride (2.0 mg/l) and odor (3 threshold odor number) will remain in effect for CWA purposes.

For info: Sally Brough, EPA/Reg 10, 206/ 553-1295 or email:

brough.sally@epa.gov; Nancy Sonafrank, Alaska Dept of Environmental Conservation, 907/ 451-5170 or email: nancy_sonafrank@dec.state.ak.us EPA website: www.epa.gov/region10/ (select: "Water Quality" >> "What's New")

ARSENIC REMOVAL NM EPA PROJECT

The first full-scale arsenic removal demonstration project for drinking water funded by the EPA recently began its year-long run. Funding for this project follows EPA's approval of a new arsenic standard for drinking water of 10 parts per billion promulgated January 2001. "Since nearly 97 percent of the water systems affected by the new standard are small systems that serve less than 10,000 people each, it is vital that treatment technologies be developed that are effective and affordable," said EPA Region 6 Administrator Richard Greene. EPA set aside \$157,000 to fund installation and demonstration of the new treatment technology for a year at the Desert Sands Mutual Domestic Water Consumers Assn' in Anthony, New Mexico. Technology being tested at the site uses an iron oxide media to absorb arsenic from water. The project is one of 12 funded in 2003. Another demonstration project in New Mexico will be sited at Nambe Pueblo. EPA expects the projects to verify new treatment technologies that can be used across the nation by thousands of water systems. EPA's standard for arsenic in drinking water was established to protect public health from potential effects of long-term exposure to low concentrations of inorganic arsenic. These effects may include cancer of the skin, bladder, lung, kidney, nasal passages, liver and prostate, as well as cardiovascular, pulmonary, immunological, neurological and endocrine (e.g., diabetes) effects. Water systems must comply with the new standard by January 2006. For info: EPA/External Affairs, 214/ 665-2200 EPA websites: arsenic standard at:

www.epa.gov/safewater/ars/ ars_rule_techfactsheet.html. arsenic removal projects at: www.epa.gov/ORD/NRMRL/arsenic/.

STEELHEAD WA-OR ESA LISTING CHALLENGED

Eastern Washington and Oregon farmers sued NMFS to invalidate three ESA listings of west coast steelhead, alleging the agency is illegally listing Columbia River and Upper Willamette River steelhead as threatened species under the ESA. The Pacific Legal Foundation (PLF) is representing a large group, including the Washington State Grange, Oregon State Grange, Washington Farm Bureau, Alsea Valley Alliance, Okanogan County, Kittitas County and the Building Assn' of Washington.

The plaintiffs charged the federal government with unlawfully manipulating fish counts in an attempt to bolster justification for listings, by refusing to count hatchery steelhead in the Columbia and Willamette Rivers. The lawsuit also says the agency must count rainbow trout ("resident steelhead") since they are scientifically indistinct from steelhead. The lawsuit is based in part on the ruling by US District Judge Hogan in the Alsea Valley Alliance case (see Spain, p. 23 this TWR). The 9th Circuit dismissed appeals of Hogan's ruling on February 24, 2004, saying it they would not exercise jurisdiction over Hogan's remand order because it is not a "final decision" (No.01-36071, D.C. No. CV-99-06265-HO).

The fisheries services have been reviewing various listings across the western states since Hogan's 2001 ruling, with the first results due March 31, 2004 (including salmon and steelhead populations in the mid and upper Columbia and Snake River). **For info:** Dawn Collier, PLF, 916/ 362-2833 or email: dmc@pacificlegal.org PLF website: www.pacificlegal.org

WATERSHED-BASED NPDES PERMIT NATIONAL FIRST

OR

The Oregon DEQ (ODEQ) has issued the first-of-its-kind Clean Water Act (CWA) integrated, watershedbased permit to Clean Water Services — a wastewater and stormwater management utility. The permit covers four municipal wastewater treatment facilities, urban storm water runoff, and allows for "water quality credit trading." The permit combines requirements of four previous NPDES wastewater treatment facility permits and a major municipal storm water discharge permit into one permit.

ODEQ developed this Tualatin River Watershed-based Permit in accordance with new EPA policy that encourages regulators to issue CWA permits based on goals for an entire watershed, rather than focusing on the limits for individual facilities. The permit includes requirements for increased stakeholder involvement in decision making for the watershed, has requirements for development of improved watershed assessment and performance measures, and provides an opportunity to develop water quality trading and other watershed management tools.

As part of the watershed-based permit, ODEQ expects CWS to take the following actions to help lower river temperatures: augment the river's flow in the summer months with cold reserved water; plant trees; and pursue reuse of cleaned wastewater.

The water quality trading provision of the new permit enables two treatment facilities that discharge to the river in the summer months to trade discharges of pollutants, as long as the river exceeds water quality standards for dissolved oxygen. For info: Lyle Christensen, ODEQ, 503/229-5295 or email: christensen.lyle@deq.state.or.us; Charles Logue, CWS, 503/ 681-3604. RE: water quality trading: Sonja Biorn-Hansen, ODEQ, 503/ 229-5257 or email: biornhansen@deq.state.or.us ODEQ website: www.deq.state.or.us/ wq/wqpermit/indvpermitdocs.htm (scroll to CWS permit)

SNAKE RIVER

IDWR & CORPS ENFORCEMENT

The Idaho Department of Water Resources (IDWR) has issued notices of violation for damages to more than 750 feet of stream bank on the Snake River through unauthorized excavation

ID

The Water Report

WATER BRIEFS

and dumping of fill material. The US Army Corps issued separate notices of violation in the case including a requirement that the riverbank be restored and revegetated. IDWR notices of violation were issued seeking a total of \$3,464 in civil penalties, as follows: Steven Burgess - unpermitted excavation and placement of unauthorized fill material along 205 feet of riverbank, not associated with the maintenance of any water intake structures (\$1,060); Brad Evans unpermitted excavation and placement of unauthorized fills along 420 feet of the riverbank and a landing extending into the river channel not associated with maintenance of any water intake structures (\$1,490); and Max Garrison – unpermitted excavation of riverbed material and placement of excavated material and pre-cast concrete blocks into the river channel to construct a landing along 132 feet of the riverbank and extending into the river channel, not associated with the maintenance of any water intake structure (\$914). The violations were reported last summer but staff shortages and other backlogged investigations delayed IDWR action. IDWR civil penalties will be suspended provided the riverbank is restored as outlined by the Corps. If restoration is not completed by April 1, 2004 the penalties become due and the individuals will have until April 15 to file a plan showing how the restoration and removal of fill from the river will be done. For info: Dick Larsen, IDWR, 208/ 327-7933

STORMWATER VIOLATIONS CA 7-UP / ROYAL CROWN

EPA is ordering the 7-Up / RC Bottling Company of Southern California, Inc. to immediately comply with the CWA at two plants near Los Angeles. Stormwater runoff polluted by industrial materials such as fuel and battery acid has been draining into the Pacoima Wash Canal and the Los Angeles River. A CWA/NPDES permit, which stipulates specific pollution management practices and close monitoring of runoff, is required to discharge industrial stormwater to waterways. One of the Plants recently obtained stormwater permit coverage after warnings from the EPA

and state regulators, but failed to carry out the required pollution management practices. Effluent discharged by the plant into the sewer system proved to be excessively acidic. To protect municipal sewerage treatment systems from corrosive damage, EPA specifically prohibits the discharge of acidic industrial wastewater to sewers. EPA is ordering 7-Up to: minimize and prevent the discharge of pollutants into waterways; perform a daily inspection of industrial activity; complete specific clean-up tasks; seek stormwater permit coverage; and determine the causes and implement remedies for its acidic wastewater. These are EPA's third and fourth orders within the last eight months to 7-Up. Failure to comply with the EPA order could make 7-Up liable for civil penalties of up to \$27,500/day per violation. For info: Francisco Arcaute, EPA, 213/ 452-3378

WESTERN WATER

CONSERVATION GRANTS

Interior Secretary Norton has announced a \$4 million Challenge Grant Program to help areas of the West hard hit by chronic water shortages to develop conservation and efficiency projects. The program promotes: voluntary water banks and other market-based measures; new technology for water conservation and efficiency; and removing institutional barriers. The Bureau of Reclamation will be accepting proposals for matching grants from irrigation and water districts that seek to leverage their money and resources to create water markets and make more efficient use of existing water supplies through water conservation and efficiency projects. Proposals must have matching non-federal funds of at least 50 percent. The selection process will emphasize projects that can be completed within 24 months and that can reduce future conflicts. The grants will be awarded in the current fiscal year (FY 2004) which ends September 30, 2004.

For info: Trudy Harlow, BuRec, 202/ 513-0574; website: www.doi.gov/ water2025/grant.html.

Issue #1

CA

WY

March 17-20 CA "Collaborative Watershed Efforts for Salmonid Recovery" 22nd Annual Salmonid **Restoration Conference and** 14th International Salmonid Habitat Enhancement Workshop, Davis, Veteran's Memorial Center, Sponsors: Salmonid Restoration Federation in conjunction with the American Fisheries Society, RE: This conference focuses on a broad range of salmonid and watershed restoration topics of concern to restoration practitioners, agency scientists, and land planners and owners: fish-friendly agricultural practices, effectiveness and validation monitoring of restoration projects, urban creek restoration and water conservation efforts, advanced GIS analysis for watershed management, Instream Flow Requirements for Salmonids, conservation hatchery practices and research, FERC relicensing process, Instream and upslope salmonid habitat enhancement projects, diversion replacements and fish bypass structures. For info: Dana Stolzman, 707/223-1770 or

email:srf@northcoast.com website: www.calsalmon.org/ conference.html

OR



For info: Hanford Hotline, 800-

March 18 HI Water Commission Meeting, Hawaii Department of Land and Natural Resources, Honolulu, DLNR Land Board Conf Rm, Kalanimoku Building Room 132, 1151 Punchbowl St. 9 am. For info: 587-0225 or website: www.hawaii.gov/dlnr/

March 18-19

CalendarEvents.htm

3rd Annual Clean Water Act Conference, Urban Water Institute, Santa Ana, Double Tree Hotel, John Wayne Airport, RE: Clean Water Act, Stormwater runoff, Compliance and effectiveness of Basin Plan requirements, New legislation, Focus of rules and regulations. For info: Matt Clark, 949/ 679-9676 or email: info@urbanwater.com; The Urban Water Institute Inc. website: www.urbanwater.com

March 19 CA California Water Marketing, The Seminar Group, Sacramento, Clarion Hotel, RE: Water marketing and sales in California. For info: The Seminar Group, 800/ 574-4852, website: http:// theseminargroup.net/htmls/ seminars/04wamca/index.htm

March 19

Water Quality Standards for Wyoming Groundwaters Public Meeting, DEQ Water **Quality Division (WQD)** Casper, Pronghorn Room at the Game and Fish Office Bldg., 3030 Energy Lane, 1pm-3pm. RE: Changes to standards used to establish the suitability of groundwater for Class I, Domestic Use, Standards for protection afforded to groundwater associated with, but adjacent to, groundwater impacted from commercial mineral production, primarily in-situ uranium production. For info: Kevin Frederick, DEQ/Water Quality Division, 307/777-5985 or email: kfrede@state.wy.us, WDEQ website http:// deq.state.wy.us/

March 19 AZWater Quality Appeals Board, Public Meeting/Hearing on Case #40A-001WQB (City of Tempe v. ADEQ), Phoenix, 1400 W. Washington, Suite 101, 9 am. For info: OAH Office, 602/ 542-9826

WA

March 24

Hangman (Latah) Creek Water Quality Improvement Plan, **Spokane County Conservation District and Washington Dept.** of Ecology, Fairfield, Fairfield Community Center, 304 E. Main St, 7pm-8:30pm, RE: Water **Ouality Issues for the Hangman** Creek Watershed. For info: Elaine Snouwaert, 509/329-3503 or email: esno461@ecy.wa.gov

WA March 24-25 Hangman (Latah) Creek Water Quality Improvement Plan, **Spokane County Conservation District and Washington Dept.** of Ecology, Marshall, Marshall Community Center, 5910 W. Park, 7pm-8:30pm, RE: Water Quality Issues for the Hangman Creek Watershed. For info: Elaine Snouwaert, 509/329-3503 or email: esno461@ecy.wa.gov

March 24-26 CA Lower Colorado River Tour, Water Education Foundation, **RE: tour follows of the course** of the lower Colorado River through NV, AZ and CA; includes tour of Hoover Dam, a boat ride on Lake Mead, visit to the Salton Sea, tours of MWD of Southern California facilities and Gene Village, and visits to southern California agricultural and urban regions. Issues include California 4.4 plan, Central Arizona Project, southern Nevada's water needs, water conservation and transfer agreements, restoration of Salton Sea, endangered species, tribal water rights, and water quality. Tour begins in Las Vegas, optional pre-registration in Sacramento, and ends at Ontario International Airport. For info: www.water-ed.org/tours.asp

March 24-26

California Fish Passage, Design and Implementation Workshop, Pacifica, Best Western Inn, 105 Rockaway Beach Ave., RE: Policy, funding issues, inventory methods and approaches for evaluating appropriate fish passage at stream crossings. For info: For The Sake of Salmon, 503/223-8511 or website: www.4sos.org

CA

TX

CA

March 25

"Salt Movers and Shaker" Workshop on Desalination in Texas, Texas Water Development Board, Austin, Travis Building, Room 1-111, 8:30am-3:45pm, RE: Sea water desalination studies, Regional Water Facility Planning, Sea water desalination projects, Desalination concentrate management, Delivery methods, Permitting model for projects. For info: TWDB, 512/ 463-7847 or email: info@twdb.state.tx.us or Special.Projects@twdb.state.tx.us

March 25-26

Drinking Water Vulnerability Assessment, Water Environment Federation Workshop, Sacramento, RE: Vulnerability assessments are due 6/30/04 for small drinking water systems (population greater than 3,300 but less than 50,000) under the Public Health Security and Bioterrorism Preparedness and Response Act of 2002, Emergency Response Plan (ERP) within 6 months of completing the VA. For info: EPA Region 9, Bob Fitzgerald, 415/ 972-3173, Bruce Macler, 415/ 972-3569 website: www.lgean.org/ watersecurity/

March 29-30 OR Agriculture 2004 Conference, Portland, Westin Portland Hotel. Program Co-chairs: Tom Lindley (Perkins Coie, Portland)

LLP & Sandy Mackie (Perkins

Coie, Olympia). For info: Law

Copyright@ 2004 Envirotech Publications; Reproduction without permission strictly prohibited.

321-2008

Seminars International, 800-854-8009 or website: www.clenews.com/LSI/04/ 04agor.htm

March 30

Legislative Symposium, **Association of California** Water Agencies, Sacramento,

Holiday Inn Capitol Plaza, , RE: State Budget Collapse and Ramifications on Water Agencies, The Schwarzenegger Team Perchlorate, and more, Note Legislative Reception on March 29. For info: website www.acwanet.com/events/ LegSym_04,asp

March 30

Washington State Model **Toxics Control Act (MTCA)** Workshop: MTCA 101, Richland, WA, Red Lion Hotel, 802 George Washington Way, 8:30am-5pm. RE: Amended Model Toxics Control Act (WAC 173-340), Groundwater Cleanup Levels; More. For info: Northwest Environmental Training Center, 206/ 762-1976

March 30 - April 2 BC GLOBE 2004: 8th Biennal Trade Fair and Conference, Vancouver, BC, Corporate Sustainability, Climate Change, and Green Building. For info: website: www.globe2004.com/.

March 31-April 1 WA Washington State Model **Toxics Control Act (MTCA) Cleanup Levels Workshop**, Richland, WA, Red Lion Hotel, 802 George Washington Way, 8:30am-5pm. RE: Establishing Cleanup Levels for Soil, Groundwater, and Surface Water Under the MTCA. For info: Northwest Environmental Training Center, 206/ 762-1976

April 1-2 ID Idaho Water Resources Board Meeting, Location TBA. For info: Rita Fleck, 208/ 327-7880 or email: rfleck@idwr.state.id.us

April 1-2

CA

WA

CA Drinking Water Vulnerability Assessment, Water Environment Federation Workshop, Riverside, RE: Vulnerability assessments are due 6/30/04 for small drinking water systems (population greater than 3,300 but less than 50,000) under the Public Health Security and Bioterrorism Preparedness and Response Act of 2002, Emergency Response Plan (ERP) within 6 months of completing the VA For info: EPA Region 9, Bob Fitzgerald, 415/ 972-3173, Bruce Macler, 415/ 972-3569 website: www.lgean.org/ watersecurity/

April 6

"Water Forecast" Water Forum, State of Wyoming, Laramie, State Engineer's Conference Room, Herschler Building 4E at 10 am, Speaker: John Lawson, Bureau of Reclamation,

CA April 7-8 California Bay-Delta Authority Meeting, Sacramento, 650 Capitol Mall, 5th FL, Bay-Delta Rm. For info: Heidi Rooks, 916/ 445-0533, email: hrooks@calwater.ca.gov

April 16

Desalination Conference, Santa Barbara, CA, RE: Statewide Water Supply, Desalination Methods and Technology; More. For info: Chris Terp, The Seminar Group, 800-574-4852 or website: www.theseminargroup.net/htmls/ seminars/04dslca/index.htm

April 19-22

"One Environment – One **Conference**" EPA National **Compliance Assistance Providers Forum and the National Pollution Prevention** Roundtable, Baltimore, Wyndham Baltimore Inner Harbor Hotel. For info: www.p2.org/summit2004/

MD

CA

CA

April 22

California Water Plan, **Advisory Committee Meeting**, Sacramento, Sterling Hotel, 1300 H Street, 8:30am-4:30pm, Note: 3/17/04 meeting was postponed-moved to 4/22/04, Administrative Draft of Update 2003 to be released on April 7, For info: 916/448-1300, website: www.waterplan.water.ca.gov/ b160/committee/calendar.htm

April 22

WY

CA

California Water Plan, Advisory Committee Meeting, Sacramento, Sterling Hotel, 1300 H Street, 8:30am-4:30 pm, Note: 3/17/04 meeting was postponed-moved to 4/22/04, Administrative Draft of Update 2003 to be released on April 7. For info: 916/448-1300, website: www.waterplan.water.ca.gov/ b160/committee/calendar.htm

April 25-28 OR **Building Bridges in a Changing** World, Portland, Hilton Hotel, RE: NEPA symposium, Public participation, Land & watershed management, Sustainable development, Water rights and water quality, ESA, Environmental management. For info: Donna Carter, 863/ 679-3852, or email: conference@naep.org

April 29-30 UT Utah Board of Water Resources, Board Meeting, Salt Lake City. For info: 801/ 538-7230 or email: mollywaters@utah.gov; website: www.water.utah.gov/board/ 2004sched.asp

April 30

CA

An Overview of Water Law and Policy in California (UC/ Davis), Sacramento, Sutter Square Galleria, 2901 K St, 9am-4:30 pm, RE: allocation of California's water resources, comprehensive study of the regulatory framework for surface water and groundwater rights, as well as the environmental laws that regulate water use, current controversies associated with California water, overview of California water law, Instructor: David Sandino J.D., staff counsel for the California Department of Water Resources

May 4

WY "Field Evaluation of the Fate of Wastewater Components from Septic Systems" Water Forum, State of Wyoming, Laramie, Speaker: Marge Bedessem, University of Wyoming, State Engineer's Conference Room, Herschler Building 4E at 10am

May 4 CA "Water Quality: Source to Tap" Workshop, Association of California Water Agencies, Monterey, Monterey Conf. Center and surrounding hotels, Co-sponsor: CA-NV Section of the American Water Works Assn. For info: Dawn Hummel, 888/ 666/2292, email: dawnh@acwanet.com

May 5-7

CA

"California Water: Thinking Outside the Box", 2004 Spring Conference, Association of California Water Agencies, Monterey, Monterey Conf. Center and surrounding hotels, RE: Priorities and Nuance of the Schwarzenegger Admin.; State Water Resources Control Board-Fees, Groundwater Management; Bay-Delta: Tidal or River System; Clean Water Act; more. For info: Dawn Hummel, 888/ 666/2292, email: dawnh@acwanet.com

(continued from previous page)

May 11 OR	June 16-18 CA	July 15-16 CA	September 26-29
Hydropower Relicensing	Bay-Delta Tour, Water Educa-	Water Law & Policy Briefing,	Dam Safety 2004, ASDSO ³
Workshop, Portland, 5th Ave.	tion Foundation, RE: Tour	Water Education Foundation,	Annual Conference, Assoc
Suites, 506 SW Washington, 9am-	travels through the Delta and San	San Diego, Hyatt Islandia Hotel	of State Dam Safety Offici
4:30pm, RE: FERC Relicensing,	Francisco Bay region, with a	on Mission Bay, RE: latest	Phoenix, Pointe South Mou
New Rules, Collaborative	houseboat ride on Delta water-	information on water law,	Resort, RE: dam failures/
Options, 401 Certificate, Effective	ways and visits to Delta farms,	management and planning across	incidents, hydrology&hydra
Participation in Relicensing. For	Harvey O. Banks Pumping Plant,	the states, in-depth panel	emergency preparedness, se
info: The Seminar Group, 800/	the Skinner Fish Collecting	discussions. For info: http://	at dams, dam owner issues,
574-4852, website:	facility, the Bay-Delta model in	www.water-ed.org/	safety regulatory programs,
www.TheSeminarGroup.net	Sausalito, Los Vaqueros Reser-	briefings.asp#law&policy	inspections, dam construction
	voir and Suisun Marsh. The tour		rehabilitation and design. Fo

May 12-14

Central Valley Tour, Water Education Foundation, RE: Issues of growth, water supply, groundwater banking, wetlands, salmon restoration, and salinity and agricultural drainage will be discussed on this tour that begins and ends at the Sacramento International Airport. Stops include San Luis Reservoir, Panoche Irrigation District, Westlands Water District, San Luis National Wildlife Refuge, Friant Dam, the San Joaquin River Parkway, Kern County Water Bank and local farms. For info: http://www.water-ed.org/ tours.asp

CA

begins and ends at Sacramento International Airport and includes dinner at the beautiful Alta Mira Hotel in Sausalito. For info: http:/ /www.water-ed.org/tours.asp

AZ**D's 21st** ociation cials, ountain raulics, security s, dam s, dam tion, For info: http://www.damsafety.org.



260 N. Polk Street • Eugene, OR 97402