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Water Rights, Water Quality & Water Solutions in the West

In This Issue:

Upcoming Stories:

California Water

Interbasin Tranfers

Stormwater Update

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KLAMATH SETTLEMENT AGREEMENTS: PART II

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INTRODUCTION

KLAMATH WATER MANAGEMENT: THE NEED FOR THE KLAMATH BASIN RESTORATION AGREEMENT

As noted in Part I of this article (see Spain, *TWR* #70), the proposed removal of dams is not in itself enough to restore the once-great salmon runs of the Klamath River. While dam removal will greatly improve water quality, it will not add one more drop of the water needed to improve instream flows for fish. Thus, a number of sweeping changes necessary to restore salmon runs and water sustainability in the Klamath Basin, additional to dam removal, are embodied in the Klamath Basin Restoration Agreement for the Sustainability of Public and Trust Resources and Affected Communities (most often referred to as the Klamath Basin Restoration Agreement (KBRA)). If anything, these aspects of KBRA have been even more controversial than the dam removals proposed under the earlier Klamath Hydroelectric Settlement Agreement (see Simmons, *TWR* #49).

The blunt fact is that too little water remains today in the Klamath River to sustain its valuable salmon fisheries, which were once the third-largest fish runs in the nation. Widespread over-allocation of water has resulted from short-sighted state water allocation policies that, in the past, systematically failed to recognize inherent "public trust" water needs of fisheries and aquatic ecosystems. [Editor's Note: the "public trust" generally refers to a principle that certain resources are preserved for public use and that the government is required to maintain it for the public's reasonable use. In the oft-cited *Mono Lake* decision, the Supreme Court of California ruled that the state had an ongoing duty to modify water rights to protect a public trust resource and that the application of the doctrine requires a balancing between the public interest in continued use of the diverted water and the needs of the trust resource. *National Audubon Society v. Superior Court*, 658 P.2d 709 (Cal. 1983)]. Compounding the problem, past water allocations were made without acknowledgement of the technically senior (but still un-quantified/unadjudicated) water rights of the Klamath Tribe — which were federally recognized as dating "from time immemorial" in *U.S. v. Adair* (723 F.2d 1394 (9th Cir. 1983)). To this day Oregon water law fails to acknowledge the senior water rights of the three other Klamath Basin First Nation Tribes (the Yurok, Karuk and Hoopa Valley Tribes) living just across the border in California.

In recent years, Tribal water rights have been successfully asserted in court as the most senior water rights. In addition, federal Endangered Species Act (ESA) water needs must now be considered. Unfortunately, most of the available water has already been spoken for in the form of previously claimed water rights. Thus, Oregon's water historic allocation policy, which ignored these other legitimate water needs, has now come back to haunt the Upper Klamath Basin in the form of years of increasingly bitter water conflicts between Indians, farmers, and fishermen.

Klamath Part II

KBRA Goals

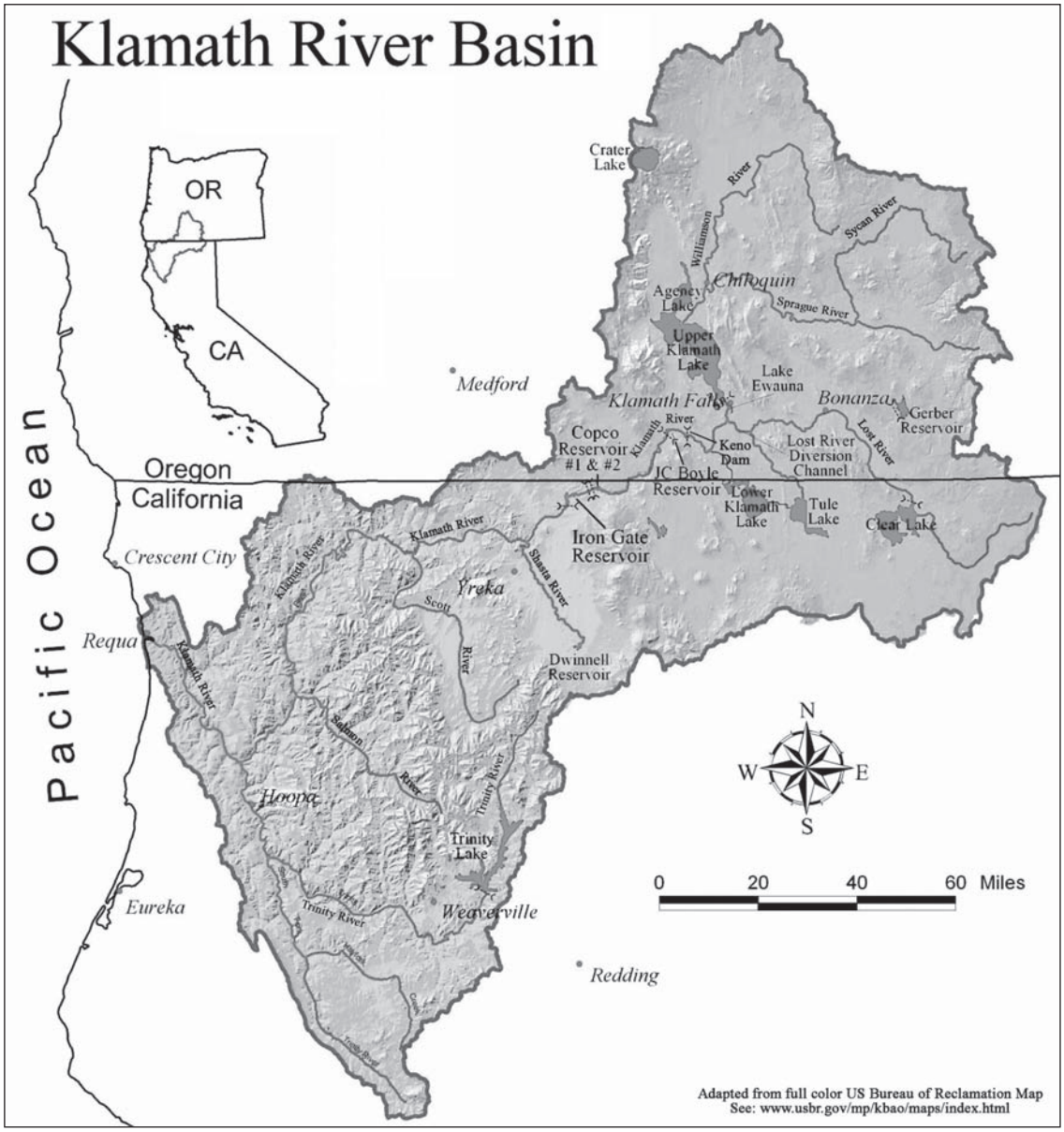
Congressional Execution

KBRA Conditionality

To end these water wars, KBRA aims to correct over-allocation by systematically, yet fairly, reducing Upper Klamath Basin irrigation demands. Farmers will benefit from greater water supply stability and still receive water amounts determined to be sufficient to their needs. KBRA must also deal with decades of widespread habitat destruction through a long-term restoration and fish reintroduction effort parallel to dam removal. KBRA attempts to meet those goals through a series of carefully balanced, gradually phased-in, permanent changes in how water is both stored and managed in the Upper Klamath Basin — a balance that is nonetheless sensitive to the water stability and economic needs of farming communities as well as Lower Klamath Basin and coastal fishing communities.

KBRA & KHSA: SOME LINKAGE

The Klamath Hydropower Settlement Agreement (KHSA), discussed in Part 1of this article, has few links to the parallel KBRA, except that the two agreements: 1) must both be executed together; and 2) both must pass through Congress as part of the same bill, albeit as two separate Titles. Once both KHSA and KBRA are authorized by Congress, dam removal under KHSA could still proceed even if KBRA fails to be fully funded or implemented. The reverse, however, is not true. KBRA cannot be fully implemented, nor would the Tribes subordinate their senior water rights, without both four-dam removal and implementation of KBRA's "On-Project Plan" and other water supply improvements for fish (see below) as a prerequisite to implementing KBRA's "diversion cap" on irrigation withdrawals for the Klamath Reclamation Project. The Secretary of Interior must find that all these conditions are satisfied before the Tribes are obligated to waive their senior water claims (§15.3.4). At that time the "diversion cap" on all future Irrigation Project withdrawals would become permanent.



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Klamath Part II

Restoration Roadmap

Tributary Issues

Contractual Limits

Fishery Goals

Incentives

KBRA CRITICISMS

As might be expected, KBRA is not without its critics.

Some have criticized KBRA for not including complete and comprehensive plans to address drought and fishery restoration (or the various other problem areas). While KBRA calls for several such planning efforts, it accepts that realistically they cannot be completed until KBRA is funded and is being implemented. Most such plans will take several additional years to complete and adopt. Thus, KBRA is more a roadmap to new basin-wide restoration relationships than it is a final work product. As opposed to being the final word, KBRA represents just the beginning of serious and cooperative efforts to resolve these many basin problems over the next 50 years.

Others have criticized KBRA for concentrating primarily on the Upper Klamath Basin, and thus not resolving similar water over-allocation problems in the Lower Klamath Basin's Scott, Shasta and Trinity Rivers. This is largely because aggressive restoration efforts are already underway in the Scott, Shasta and Trinity sub-basins, backed by state and federal law. However, while KBRA does primarily address the major (still unresolved) water conflicts in the Upper Klamath Basin, some of the restoration funds called for in KBRA's budget can also be used in the Scott, Shasta and Trinity to support those ongoing efforts. Moreover, the collaborative decision-making model KBRA establishes can also be used to help resolve similar problems in other areas of the entire Klamath Basin in the future.

Some critics of KBRA also overlook the fact that KBRA does not supplant nor supersede current law. As a mere contractual agreement, KBRA cannot override or change the federal Clean Water Act, ESA, the Kuchel Act (which allows commercial leaseland farming in national wildlife refuges) or any other law made by Congress. To the contrary, KBRA must always operate within those laws. Thus, there will still be ESA § 7 consultations and Biological Opinions to maintain minimum flows and lake levels for ESA-listed species and Clean Water Act **t**otal **m**aximum **d**aily **l**oads (TMDLs) to protect water quality. Indeed, there will still be the requirement to satisfy all other environmental laws. KBRA can be implemented only as part of this much larger legal context, as noted by its own terms (see §2 and §20.5.4).

KEY ELEMENTS OF KBRA

Key provisions of the agreement are summarized below. A copy of KBRA (and a more detailed Summary) is available on the following website: www.edsheets.com/Klamathdocs.html.

Rebuilding Fisheries

Goals

The goals and purposes of KBRA fisheries programs are to:

1) restore and sustain ecological functionality and connectivity of historic fish habitat
2) re-establish and maintain naturally sustainable and viable populations of fish to the full capacity of restored habitats (particularly above the dams)
3) provide for full participation in harvest opportunities for the fish species of concern, which include all the naturally occurring species (and races of species) in the basin, including salmon and steelhead. The Fisheries Program will be pursued in two phases, before and after dam removal (§9.2.1 and §9.2.6)

Note: Extensive and much more detailed Fisheries Restoration, Reintroduction, and Monitoring Plans will be created over the next few months, each containing their specific goals and benchmarks (§10, §11 and §12).

Approaches

The Fisheries Program will use collaboration, incentives, and adaptive management as preferred approaches. In the basin above Upper Klamath Lake, Program planning will involve and reflect collaboration among upper Klamath Basin irrigators, Tribes, and other appropriate parties. It will emphasize strategies and actions to restore and maintain properly functioning lake and river ecological processes and conditions, while also striving to maintain or enhance economic stability of adjacent landowners. Further, it will prioritize habitat restoration and monitoring actions to ensure the greatest return on expenditures. At each phase of the Program, the fish managers will use best available science to establish metrics to evaluate Program progress, including measures of abundance, population growth rate, genetic diversity, and population spatial structures (§9.2.2).

Geographic Scope

The focus of fisheries restoration and monitoring will be the Klamath River Basin, *excluding* the Trinity River watershed above its confluence with the Klamath River. (The Trinity River is excluded only because it is already part of Congressionally mandated restoration efforts from other sources.) The focus of reintroduction programs will be the upper Klamath Basin above the current dams. KBRA, however, is not intended and will not be implemented to establish or introduce populations of salmon, steelhead, or Pacific Lamprey into the Lost River or its tributaries, or to the Tule Lake Basin, areas where they never originally existed (§9.2.3).

Klamath Part II

Diversion Screens

Instream Flows

Lake Levels

"Diversion Cap"

Water Quality Measures

Voluntary Reductions

Fish Screening Program

One objective of the reintroduction program is to prevent reintroduced salmon and other aquatic species from entering irrigation diversions. The US Bureau of Reclamation (Reclamation) will evaluate appropriate methods and locations to screen Klamath Reclamation Project diversions, including: Lost River diversion channel or associated diversion points; North Canal; Ady Canal; and other diversions from Reclamation or Reclamation contractor-owned facilities diverting water from the Klamath River/ Lake Ewauna. Non-Project landowners will have their own fish screening programs as well (§21.1.3 and §22.2.2.C).

Securing Additional Water For Fish

KBRA includes a number of major actions to increase instream flows and maintain the elevation of Upper Klamath Lake at higher than historic levels (i.e., 1960-2000), with between 130,000 and 230,000 additional **a**cre-**f**eet (AF) provided for fisheries (exact amount varying annually depending on rainfall).

KBRA WATER MEASURES INCLUDE:

PERMANENT CAPS ON FEDERAL IRRIGATION PROJECT DIVERSIONS: KBRA establishes limitations for the first time ever on the (currently) essentially unlimited water right to divert "whatever water is available" based on Reclamation's 1905 water right from Upper Klamath Lake for irrigation use in the Klamath Reclamation Project (§15.1.1; Appendix E-1). The Department of Interior and Yurok Tribe have estimated that this proposed water right limitation, capped at no more than 330,000 AF in dry years (up to no more than 365,000 AF in wet years), will result in as much as 100,000 AF additional water for the river in the driest water years. This new restriction rightly reverses the historic situation in which Project irrigators typically got more water in dry years than in wet ones — which exacerbated the impacts of all droughts on the lower river and its salmon (see Chart below). This "diversion cap" will become an absolute limit on Reclamation's Irrigation Project water right. KBRA calls for the Klamath Water and Power Agency (KWAPA) — a joint powers entity comprised of Klamath Project irrigation districts established for that purpose — to develop and implement a long-term On-Project Plan for how the Klamath Irrigation Project should operate within the permitted diversion caps, subject to Reclamation approval, to be phased in over the next ten years until that "diversion cap" can be reliably met (§15.2).

IMPROVING WATER QUALITY: KBRA and KHSA both include various measures to improve water quality. State and federal Clean Water Act laws will of course all still apply (as do all other applicable laws) including approved TMDLs. KBRA includes specific funding for improving water quality. (§6.3 and Interim Measures (Appendices C and D) in KHSA; KBRA: §20.5.4 and Appendix C-2).

UPPER KLAMATH BASIN WATER USE REDUCTION PROGRAM: Upper Klamath Basin irrigation water demand reduction should be shared equitably between Project and non-Project farmers. KBRA therefore also establishes a voluntary water right retirement program for the Wood River, Sprague River, Sycan River (excluding the drainage from the Sycan Marsh upstream), and the Williamson River (from the confluence with the Sprague River upstream to Kirk) that will be designed to reliably secure an average of an additional 30,000 AF of Upper Klamath Basin water for inflow to Upper Klamath

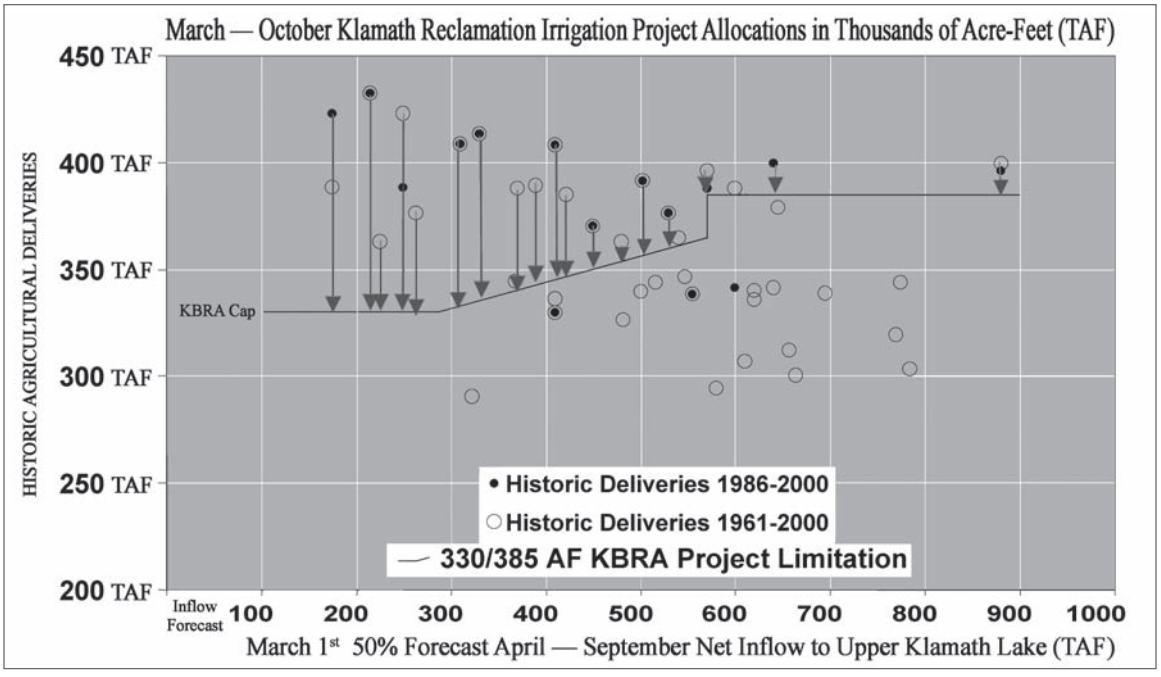

Chart: The vertical arrows represent the water savings that would have resulted from 1961-2000 historic agricultural deliveries had KBRA's "diversion cap" (dark line) been in place. This graph also shows that: a) the KBRA "diversion cap" represents a substantial water reduction, especially in dry years (up to 100,000 acre-feet); and b) agricultural deliveries to the Klamath Irrigation Project have been increasing in the period of 1986-2000 (i.e., the solid circles are largely found in upper half of the scatter).

Klamath Part II

Increased Storage

Water Banking

Management Operations

Minimizing Drought Impacts

Minimum Flows

Conjunctive Use

Lake. This program also includes a voluntary program to improve fisheries habitat and provides federal regulatory assurances to landowners in these sub-basins who participate that will help maintain landowner economic stability (§16.2.2).

Creating additional water storage - upper klamath lake: KBRA includes additional obligations to enhance water conservation and provide for further water storage.

Specific commitments to increase water supply in upper klamath lake include:

- Completing the breaching of levees in the Williamson River Delta, which will add approximately 28,800 AF of additional storage
- Reconnecting Barnes Ranch and Agency Lake Ranch to Agency Lake to add approximately 63,700 AF of additional storage
- Reconnecting Wood River Wetlands to Agency Lake to provide approximately 16,000 AF of additional storage.

Together, these measures will generate approximately another 100,000 AF of water annually to use for fish restoration (§18.2). One of these projects — the Williamson River Delta Project — has been more or less completed and the other two are well along in planning and permitting, and will be funded through KBRA.

Parties to KBRA will also support completion of the feasibility report under the Klamath Basin Water Supply Enhancement Act of 2000, including several ongoing investigations of additional storage opportunities. However, these highly speculative potential storage projects are not counted toward additional storage at this time. The KBRA establishes criteria in advance for the uses for such later additional storage, with the priority to apply it toward fish and wildlife needs (§18.3).

Immediate flow improvements through an interim water bank program: Importantly, KBRA provides for an immediate "Interim Water Bank Program" to provide improved interim Klamath River flows and maintain Upper Klamath Lake levels for the first few years of KBRA, until the permanent additional water can be fully secured. The purpose of this Interim Program is to "increase, to the extent technically feasible, the amount of water in the Klamath River and Upper Klamath Lake towards the amounts which will result from the permanent instream water enhancement measures during the interim period while those measures are being phased in." (KBRA §20.4) In other words, the fish will not have to wait 10 years or more for their additional water under this deal — they start getting it immediately. A $10 million/year budget allocation has been set aside for this purpose for at least the first ten years of operation, during which time the permanent in-stream flow augmentation measures will be gradually phased in. The agreement also has multiple provisions to ensure that all the additional "environmental water" generated by the diversion reduction and storage programs of KBRA will remain in Upper Klamath Lake or the Klamath River permanently to benefit the fish (§20.5).

Real-time management of environmental water: All of the additional water will be managed for the benefit of fisheries in Upper Klamath Lake and the Klamath River. KBRA establishes a science-based, Technical Advisory Team (TAT) to develop an Annual Water Management Plan that will provide recommendations to the Secretary of the Interior and other water managers on how to best use the additional water to benefit the fish. During each water year, TAT will also monitor implementation and will recommend ongoing, real-time water management operations to best protect the fish and to adjust for changing conditions (Appendix D-2). This "hands on" real-time water management approach is one of the important innovations of KBRA, and will help water managers make the best use of the additional water to benefit the fish based on real-time monitoring of river conditions.

Drought plan: KBRA §19.2 requires the development of a Drought Plan to guide increasingly intensive water management for agricultural, National Wildlife Refuges, and in-lake and in-river fishery purposes during future drought years. The purpose of the Drought Plan will be to avoid or minimize adverse impacts to Klamath Basin communities and natural resources (particularly salmon) in response to increasingly dry conditions and extreme drought. The many elements that must be contained in the Drought Plan are carefully specified in §19.2. The potential water impacts of climate change will also be studied and monitored, and KBRA adjusted accordingly (§19.4). Other state drought emergency response laws will supplement KBRA's Drought Plan, and, of course, ESA-required Biological Opinions will also still specify "minimum flows" for ESA-listed coho salmon to prevent "jeopardy" during such critically dry water years for the foreseeable future.

No adverse stream impacts from groundwater use: KBRA includes strong and detailed provisions in §15.2.4 to ensure that groundwater use does not have significant adverse impacts on river flows important to fisheries. If investigations by the US Geological Service identify adverse impacts, KBRA provides procedures to implement a speedy remedy. KBRA also sets up a process for further groundwater investigations and modeling for all scientists to better assess the impacts of groundwater use on fisheries in the future.

Klamath Part II

Guaranteed Inflow

Authorized Purposes

Funding Stream

Added Wetlands

Irrigation Supply Certainty

Landowner Incentives

Benefits for the National Wildlife Refuges

Some refuge advocates are disappointed that KBRA — as a mere contract — cannot repeal the 1964 Kuchel Act (PL 88-567) 16 U.S.C. § 695m, under which Congress allows commercial leaseland farming on parts of these refuges. It should be noted, however, that KBRA does not overturn the Kuchel Act's or any other laws' wildlife protections (see Appendix A, Item L).

KBRA supports the following significant benefits to the basin's national wildlife refuges:

- Guaranteed inflow - A guaranteed minimum summer inflow water right for the Lower Klamath National Wildlife Refuge of between 48,000 and 60,000 AF (scaled depending on the water year type; KBRA §15.1.2.E). At present, these National Wildlife Refuges have no water right assurances whatsoever, which means they can be (and have been) completely dried up during previous low rainfall years. This new refuge water right can be scaled down to no less than 24,000 AF, but only in the most extreme water shortages (§15.1.2.F.i).
- Federal implementing legislation - KBRA would provide for federal implementing legislation, which would for the first time specifically add "fish and wildlife" and "National Wildlife Refuges" as legally authorized purposes of the Klamath Reclamation Project (Appendix A-1, provision G). This change will institutionalize the requirement for Reclamation to provide reliable water supplies to the nearby National Wildlife Refuges.
- Dedicated funding - US Fish and Wildlife Service (USFWS) Klamath Refuge managers would for the first time have a dedicated funding stream (20% of future lease land revenues) to better provide for fish and wildlife needs on the wildlife refuges themselves, including enforcement and implementation of new mitigation measures required for the lease land program in accordance with the Kuchel Act (§15.4.4.B.iii). Refuge managers believe this will make much better management of the refuges for wildlife possible. At present, USFWS gets none of these lease land revenues, and refuge managers must instead tap the US Treasury for all of their refuge management funds, competing (sometimes unsuccessfully) against every other use of taxpayer dollars.
- New wetlands - An additional benefit to waterfowl generally from KBRA will also be the reclaiming and addition of several thousand acres of new wetlands to the existing upper basin wetlands land base, to be used for additional water storage as well as waterfowl (§18.2).

Improved Irrigation Water Supply Certainty

When basic agricultural water supplies are inherently uncertain, farmers cannot realistically plan ahead and agricultural bank loans become scarce. In return for greatly reducing Upper Klamath Basin agricultural irrigation diversions and reallocating that saved water to fish, there are a number of important measures in KBRA to provide farmers with greater water supply certainty to address their irrigation needs.

A new organization called the Klamath Water and Power Agency (KWAPA), made up of on-Project water districts, will have the sole responsibility to develop and implement the "On-Project Plan" subject to final approval by Reclamation. KWAPA must evaluate at least the following measures to meet the purpose of the plan: conservation easements; forbearance agreements; conjunctive use programs; efficiency measures; land acquisitions; water acquisitions; groundwater development; groundwater substitution; other voluntary transactions; water storage; and any other applicable measures. The On-Project Plan will be phased in over the next ten years to permanently reduce the demand for irrigation on the Project to the "diversion cap," after which the cap becomes fully legally enforceable as a limit on the Projects future water right (§15.2).

The parties to KBRA also committed to take every reasonable and legally-permissible step to avoid or minimize any adverse impacts, in the form of new regulations or other legal or funding obligations, that might occur to users of water or land upstream of Iron Gate Dam caused by introduction or reintroduction of aquatic species to currently unoccupied habitats, once the dams are removed as migration obstacles. In return for those assurances, the landowners will cooperate on improving upper basin salmonid habitat (§16.3, 21.1 and 22.1).

Endangered Species Act Compliance

KBRA establishes steps designed to comply with the ESA, including the preparation of various Biological Opinions on specific federal actions called for in the agreement. KBRA also establishes a process to develop a General Conservation Plan or Habitat Conservation Plans that would be designed to assist non-federal parties to comply with the ESA in return for additional habitat protections and restoration measures. Participation in these plans would of course be voluntary, but a number of incentives for landowner participation, including potentially lower irrigation pumping power rates, exist in law and in KBRA (§17.3 and §22.2).

Klamath Part II

Provisional Assurances

Adjudication Process

Dam Transfer to Reclamation

State Water Agency Authority

Resolving Disputes

Power Affordability

On-Project Water Rights Assurances

Theoretically, Tribal senior water rights may trump all other water rights in the basin. The Klamath Tribes, for instance, have water rights dating "from time immemorial" according to the Federal Court ruling in *Adair* (see above). This is a huge concern for those who need this water for irrigation. KBRA therefore includes certain "assurances" provisions to subordinate these senior Tribal water rights to irrigation rights, *provided* those irrigation rights are forever limited to the agreed-upon "diversion caps" for Irrigation Project irrigators (see Chart, page 4), and pursuant to anticipated private water settlements with non-Project farmers — including proposed resolutions of certain contested cases in the Klamath Basin Adjudication (§15.3).

Upper Basin Water Adjudication

KBRA establishes a process to foster negotiations to develop an Off-Project Water Settlement (OPWAS) to: 1) resolve claims between Off-Project Irrigators, the Klamath Tribes, and the Bureau of Indian Affairs in the Klamath Basin Adjudication in Cases 277, 279, 280, 281, 282, 284, 285 and 286; 2) provide reciprocal assurances for maintenance of instream flows and reliable irrigation water deliveries, notwithstanding the outcome of any unresolved contests; and 3) provide for the off-Project voluntary Water Use Retirement Program (§16.2.1).

Keno & Link River Dams

KBRA parties will also support provisions in the Hydroelectric Settlement (KHSA) to transfer Keno Dam to the US Bureau of Reclamation. Keno and Link River dams would continue to provide water to the Klamath Reclamation Project in accordance with existing contracts after Klamath dam removal, but subject to applicable laws such as the Clean Water Act or its state equivalent (§15.4.5). There is also specific money in KBRA's budget to remedy or mitigate various fish screen and water quality problems at Keno Dam (Appendix C-2).

Consistency With State Water Law

KBRA does not change or limit the authority of the Oregon Water Resources Department to administer existing water rights or determine water rights in the ongoing Klamath Basin Water Rights Adjudication. KBRA also will not affect the California Water Resources Control Board's regulatory authority in any way, as it will not be a signatory (§2.2.1, §2.2.11 and §21.4.2).

Litigation as the Last Resort

Before seeking any further limitations on diversion, use, and reuse of irrigation water by the Klamath Reclamation Project beyond the new "diversion cap" in KBRA, the National Marine Fisheries Service and USFWS will consider, to the maximum extent consistent with the ESA and any other applicable law, whether other alternative feasible options have been implemented. However, if other non-federal KBRA parties believe that listed species are still in "jeopardy of extinction," KBRA also describes the specific steps that these parties would take to: ensure timely implementation of the measures in the agreement; explore other alternatives; and pursue dispute resolution before a party could initiate litigation that could judicially limit these diversions. Litigation to prevent true "jeopardy" would by no means be prohibited under KBRA, but should (rightly) be used only as the last resort, and only after a robust dispute resolution process has failed to resolve the matter or find alternatives. (§6 and §21.3.1.B)

Dispute Resolution

KBRA establishes a robust process to resolve issues among the parties short of litigation.

The dispute resolution process includes four steps:

1) Clear notice of a dispute; 2) Informal meetings to resolve the dispute; 3) Referral of the dispute to KBCC; and 4) Mediation.

The agreement also includes enforcement provisions and a party may take actions to enforce any contractual obligation under KBRA after complying with the dispute resolution procedures (§6).

Other Important Programs

Renewable Power Program: Irrigation in the upper basin is heavily dependent on the ability to pump water from place to place within the basin — which takes electricity. One major concern for irrigators in the upper basin is their escalating pumping power costs. The purpose of this program is to provide reasonably affordable electricity while encouraging more efficient use, distribution, and management of water within the Klamath Reclamation Project and its facilitates, to the National Wildlife Refuges, and for the efficient return of unused irrigation water to the Klamath River.

Klamath Part II

The Renewable Power Program includes an interim power cost support program during the first few years of transition to the On-Project Plan, potential access to low-cost federal power to serve eligible Project and off-Project pumping facilities, but coupled with a long-term program to invest in and implement new energy efficiency and renewable power generation. Access to cheaper power serves as a major incentive for off-Project irrigators to participate in habitat restoration programs throughout the Upper Basin. The goal is to keep Project power rates to approximately the same or below the average for other regional federal irrigation projects. However, it is also made clear that no particular power rates are in any way guaranteed under KBRA (§17.2).

Property Tax Impact

Counties Program: This program includes programs to address specific economic impacts associated with potential removal of the four dams, including programs to offset potential property tax losses in Klamath and Siskiyou Counties resulting from dam removal and to help with salmon habitat restoration projects in Humboldt and Del Norte Counties. (§26 through §30)

Tribal Economics

Tribal Revitalization Program - The parties to KBRA pledge to support the goals of each Tribe to achieve the revitalization of Tribal subsistence and related economies. Funding will be provided to each Tribe for the development and planning of long-term economic revitalization projects. The parties also support funding for the Mazama Forest Economic Development Project in Klamath County, Oregon. Under this program, the Klamath Tribes would repurchase a portion of their original Tribal homelands on a willing seller basis to manage these lands for Klamath Tribal economic development. (§31 through §33).

Implementation Group

Coordination & Implementation

KBRA establishes the Klamath Basin Coordinating Council (KBCC) to facilitate coordination, cooperation, collaboration, and accountability among the parties to KBRA, and to ensure that all elements of the agreement are carried out effectively. This body will also serve as the primary forum for public involvement. The agreement also establishes the Klamath Basin Advisory Council (with the same composition as the KBCC) to formally advise federal agencies in the implementation of the agreement and to seek public comments, consistent with the Federal Advisory Committee Act (FACA). Both the Advisory Council and the Technical Advisory Team (TAT) will be chartered under FACA (Appendix D).

KBRA MYTHS & MISCONCEPTIONS

There are some fair criticisms of KBRA. It is true, for instance, that funding KBRA will require about $50 million more annually than is currently coming to the Klamath Basin. It is also true that combining the KHSA with KBRA makes the whole settlement deal more complex and more difficult to steer through Congress. It is also true that reliably funding a long-term, 50-year Klamath Basin restoration effort with annual Congressional deficit budgets will also be difficult. Yet, all of these problems would exist with any program as comprehensive and long-term as this one.

Most of the other criticisms of KBRA, though, are based on fundamental misreadings or wishful thinking — and then there are some outright fabrications. Several factually unsupported myths about KBRA are now addressed.

Irrigation Water

Myth: "Farmers get guaranteed flows under KBRA, but there are no guaranteed flows for fish."

Facts: The Klamath Irrigation Project farmers, under the original 1905 Bureau of Reclamation unlimited water right, already have a water rights guarantee to as much water as they can use, and have often used far more than KBRA's "diversion cap."

The only absolute "guarantee" Project irrigators get under KBRA is the guarantee of less water, albeit with somewhat more certainty about getting the remainder. The "diversion cap" (starting out at 330,000 AF and increasing to 365,000 AF gradually as more rainfall is available) is a maximum, not a minimum amount. (See CHART).

Instream Flows

What salmon in the lower river definitely will get under KBRA is between 130,000 and 230,000 AF more water every year, with the maximum amounts provided during the driest years when it is needed most. KBRA critics focus excessively on certain specific flows but completely ignore this huge extra volume of water. More volume must eventually translate into higher flows — it just depends on when and how you use it.

Real-Time Management

What KBRA does provide for is real-time water management on how to distribute the extra "environmental water" throughout the year as extra flows to secure the best benefit for salmon. This is what KBRA's Technical Advisory Team (TAT) will do — analyze and make recommendations to the federal water managers in order to maximize fish recovery (§20.3 and Appendix D-2).

Fish Recovery

Myth: "KBRA's Restoration Agreement does not contain specific fish recovery goals."

Facts: Many science-based restoration goals for fish are incorporated into KBRA. For instance, the TAT decisions and recommendations on water allocation and flows will be guided by certain basic biological principles and goals, including those in KBRA §20.4.3.A.ii.

Klamath Part II

Fisheries Specifics

Fisheries program purposes are explicitly described in KBRA §9.2.1 as follows:

"Sec. 9.2.1. Purposes. The purposes of the Fisheries Program are to restore and sustain natural production of Fish Species throughout the Klamath River Basin, excluding the Trinity River. Specifically, this program:

A. provides for reintroduction of anadromous Species throughout their historic range above Iron Gate Dam, including tributaries to Upper Klamath Lake, but excluding the Lost River sub-basin, and for reestablishment and maintenance of the ecological functionality and connectivity of Fish habitat;

B. otherwise establishes conditions that, combined with effective implementation of the Water Resources Program in Part IV, will provide for the natural sustainability and genetic diversity of Fish Species, their full utilization of restored and interconnected habitat, Full Participation in Harvest Opportunities, as well as the overall ecosystem health of the Klamath River Basin;

C. assesses status and trends, and the factors that influence those trends, of Fish Species and their habitats as identified in Sec. 9.1.1 and 9.1.2, and the effectiveness of actions under this Agreement to achieve this purpose; and

D. provides for adaptive management as described in Sec. 5.4 and 12.2.7.B."

In addition, while many specific Fisheries Program goals will be set later (when the Fisheries Restoration Plan is more fully developed), several specific goals to be set out in that Plan are already clearly specified in §9.2.6, as follows:

Fisheries Goals

"Sec. 9.2.6. Fisheries Program Goals. ….. Consistent with the purposes stated in Sec. 9.2.1, the goals of the Fisheries Program are to: (i) restore and maintain ecological functionality and connectivity of historic Fish habitats; (ii) re-establish and maintain naturally sustainable and viable populations of Fish to the full capacity of restored habitats; and (iii) provide for Full Participation in Harvest Opportunities for Fish Species.

"…The Fish Managers shall use best available science to establish the specific metrics for such goals for each Phase of the Program. These metrics shall consider and integrate the four parameters for evaluating population viability status, including: abundance, population growth rate, genetic diversity, and population spatial structure."

Numerical Goals Likely

While KBRA itself does not contain specific numerical fish recovery goals, specific numerical goals are likely to be important elements of each of these later-developed Fisheries Program Plans. As noted, KBRA is intended to be more a framework and guideline for developing and then implementing those plans over the next 50 years — not the finished work product.

Flow Science

Myth: "There is no science to support KBRA's flows. The water management framework has too much uncertainty; there is excessive risk that water management efforts will not be sufficient to restore fish populations."

Facts: An impressive body of science shows that KBRA flows, when coupled with dam removal, are sufficient for salmon recovery. KBRA's water reallocation scheme is, in the opinion of most scientists, far less "uncertain" and "risky" than simply doing nothing. The status quo itself could easily lead to widespread salmon extinctions in the basin.

"Science White Paper"

A full explanation of the science behind KBRA's flow regime is contained in a "Science White Paper" with the daunting title of "*Compilation of Information to Inform USFWS Principals on Technical Aspects of the Klamath Basin Restoration Agreement Relating to Fish and Fish Habitat Conditions*" USFWS. The final version of this Report was originally scheduled for release in November, 2009, but is expected to be released soon and drafts are available. Please refer to that document for the detailed scientific analysis supporting KBRA flow regimes. Those flow targets are solidly based on the so-called "Hardy Phase II Flow Study" — considered the best available science on the flow recovery needs of salmonids in the Klamath River (Thomas B. Hardy, R. C. Addley, et al., *Evaluation of Instream Flow Needs in the Lower Klamath River: Phase II Final Report*, (US Dept. of Interior, July 31, 2006)). There are also various summaries of the modeling efforts done to test KBRA flow recommendations and to assure their benefits to salmon restoration referenced in KBRA itself, at §12.2.7.A.

Under KBRA, "Hardy flows" are closely matched and in some instances exceeded during the most biologically critical times of the year for Klamath River salmonids (spring juvenile outmigration and late summer spawning). The flows the river receives today are clearly inadequate by comparison. All salmonid species (several chinook runs, coho and steelhead) were considered and will be benefited under these KBRA flow targets.

Flows + Dam Removal

It is clear that improved flows alone cannot recover the Klamath's damaged salmon runs. Those improved flows must be coupled with dam removal to improve water quality as well. This is one major reason these two Settlement Agreements are coupled together. Both are necessary for full salmon recovery in the Klamath Basin, but neither is sufficient by itself to accomplish that goal.

Klamath Part II

Refuge Leases Concerns

Myth: "KBRA 'locks in' continued agricultural leases on the Lower Klamath and Tule Lake National Wildlife Refuges 'for the next 50 years.' "

Facts: Agricultural leases have been allowed on certain National Wildlife Refuges since the passage in 1964 of the Kuchel Act (PL 88-567; 16 U.S.C. § 695m). The Klamath Basin is unique in America for allowing large-scale commercial row crop farming on its national wildlife refuges. However, the contractual KBRA agreement cannot repeal an Act of Congress. Only Congress can do that. This may be disappointing to some who tried to make the lease land program a KBRA issue, but the remedy for those advocating an end to national wildlife refuge lease land farming lies with Congress, not with KBRA. KBRA critics also discount certain benefits KBRA brings to these national wildlife refuges (listed above). These are not trivial benefits, but are deliberately ignored by many of KBRA's critics who focus far more on what is not in the agreement, rather than on what is.

FLAWED ALTERNATIVES & ESA LIMITATIONS

Alternatives' Shortcomings

Several critics of the Klamath Basin Restoration Agreement (KBRA) have proposed alternatives. In this author's view, none of those alternatives are as likely to result in both major water reforms and four-dam removal, such as the current negotiated Settlement will provide. Nevertheless these proposed alternatives should be examined more closely and their flaws explained for those interested in the debate.

Flawed alternatives include:

Forget KBRA — Just Rely on the ESA to Provide Water for Fish

The ESA cannot be relied upon alone to accomplish the major and permanent upper Klamath basin water reallocation reforms necessary because, among other problems:

ESA Limits

- ESA is fundamentally a "command and control" mechanism that can only prevent (through litigation) bad things from happening to ESA-listed species (i.e., it can prevent "jeopardy"), but is ill-adapted to securing a sweeping, watershed-wide water reallocation and restoration effort of the type needed in the Klamath.

Avoiding Backlash

- Forcing the Klamath Irrigation Project farming community to respond suddenly to court orders dramatically altering their water supply is fundamentally counterproductive. It just creates political firestorms in counter-reaction against ESA, fish protections, and "environmentalists" generally. Many calls in Congress for "political solutions" to over-ride or repeal ESA are fueled by this kind of counter-reaction.
- Klamath Basin coho salmon may not always be ESA-listed, and if that ESA listing ever goes away then the only litigation lever available to control water over-allocation (absent the permanent reallocations of KBRA) has then also gone away.

"Jeopardy" Flow Limits

- ESA alone cannot provide more water than the minimum amount necessary to prevent "jeopardy" to the listed species. There is no true recovery standard in ESA, only "conservation" defined as merely improving conditions sufficiently so that ESA protections are no longer necessary. Flows sufficient for true salmon recovery in the Klamath are a much higher bar to meet than what can be provided by ESA alone — and can only be obtained through something like the negotiated settlement of KBRA.

Landowner Incentives

- ESA is not a very useful tool in securing additional water from the off-Project farmers, who irrigate approximately 110,000 acres of privately-owned land above Reclamation's federal Klamath Irrigation Project within the Sprague/Williamson river sub-basin. Only a voluntary water demand reduction program coupled with landowner restoration incentives, such as the one contained in KBRA (§16), can accomplish this sort of non-Project water conservation program on private lands.

Proactive Restoration

- ESA is fundamentally reactive, kicking in to protect a species only when it is already facing potential extinction. What is truly needed in the Klamath is a proactive restoration and water reallocation system that will keep salmon and other species from becoming so depressed that they need ESA protections in the first place. Such a long-term proactive restoration program can only be achieved through something like KBRA.

Litigation Risks

Klamath coho salmon advocates have been extraordinarily fortunate in (so far) winning all the ESA cases they have pursued. The problem with relying solely on ESA litigation to force water reforms in the Klamath is that sometimes you may lose. *Alsea Valley*, which judicially delisted Oregon coastal coho, is a case in point in that federal ESA protections for Oregon coastal coho were lost in court by judicial fiat, and took many years of hard-fought legal battles to restore. *Alsea Valley Alliance vs. Evans* (161 F.Supp.2d 1154 (D. Or. 2001), appeal dismissed for lack of jurisdiction, 358 F3d 1181 (9th Cir. 2004)).

Ultimately, the only way to make a permanent and lasting shift in water allocations in the Klamath Basin for the benefit of fish is through a negotiated settlement that protects all stakeholder interests and gives the farming community both incentives, as well as the time, to gracefully adapt to a new water regime — in other words, something very similar to KBRA.

Klamath Part II

Compact Commission

Federal v. State Authority

Politics v. Stakeholder Process

Balanced Incentives

FERC Deadlines

Glen Spain is Northwest Regional Director for both the Pacific Coast Federation of Fishermen's Associations (PCFFA), the West Coast's largest organization of commercial fishing families, and for PCFFA's affiliate organization, the Institute for Fisheries Resources (IFR). He has been their Lead Negotiator in the Klamath Settlement Negotiations since they began in 2000, and involved in the Klamath Basin fisheries restoration efforts since at least 1985

Start Over and Negotiate Better Water and Restoration Deals

Several environmental groups dissatisfied with the current KBRA have proposed simply starting over to negotiate what supposedly would be a "better deal." In the best of such proposals to date, one critic has advocated using the existing Klamath Compact Commission legislation as the center point for such a renegotiated deal — in essence, re-creating an obscure stand-alone interstate compact Commission appointed by elected officials to try to fundamentally reorganize water rights in both Oregon and California. Renegotiating KBRA is more fantasy than reality, for several reasons, including:

- The three-person appointed Klamath Compact Commission is the implementing body of an interstate compact commission organized between Oregon and California for the sole purpose of resolving certain inter-state water conflicts dating from the 1950's. It has no jurisdiction over state water rights and is unlikely to be given that authority by either Legislature.
- The vast majority of water use in the upper basin is by Reclamation's Klamath Irrigation Project, which is under federal authority, not state authority. Making changes to the Project would take major Congressional legislation and could not be accomplished simply through a bi-state Compact Commission.
- The Klamath Compact Commission is appointed by elected officials (i.e., the Governor's of the two states), and the proposed revisions to the Commission's authority would leave all decisions in the hands of similar elected officials. There is no evidence that such a structure, being inherently politically driven with all decisions in the hands of political appointees, would be a better structure at resolving stakeholder conflicts in the basin than KBRA's Klamath Basin Coordinating Council, at which all KBRA signatory stakeholders (including counties, states and federal agencies) will be represented.
- There is more likelihood that, after several more years of re-negotiations starting from scratch, the end result would be less acceptable to the basin's stakeholders than the current KBRA, not more so. The current Klamath Settlement Agreements were the culmination of more than nine years of intensive, multi-stakeholder, arms-length negotiations, and are carefully balanced to provide incentives for every major stakeholder to participate. It is naïve to believe that the same interests would come together with the same grievances and the same needs and somehow achieve a very different "better" result. Indeed, as bitter memories of the back-to-back crises of 2001, 2002 and 2006 that wracked the basin begin to fade, there will be less incentive to comprehensively settle these problems in the future, not more.
- Without the ticking clock of the Federal Energy Regulatory Commission (FERC) Klamath Hydropower Project deadlines to drive the parallel water negotiations, there is no assurance that these proposed new negotiations would ever end. Indeed, those who benefit from the status quo would gain the most simply by delaying resolutions forever.

In the end, the proposal to throw out the carefully crafted results of nine years of negotiations and simply start from scratch appears driven more by objections by some stakeholders to providing any benefits in KBRA to certain other stakeholders with whom they have a long history of conflict and mistrust. Throwing KBRA out and starting from scratch is unlikely to result in anything better — and just as likely to return the basin to many more years of conflict and crisis.

CONCLUSION

TIME FOR A CHANGE

KBRA is a reasonable and timely deal for all the Klamath Basin's many warring stakeholder interests and communities. Certainly it is far better than continuing a status quo that only promises more litigation, conflict, and gridlock.

While some groups critical of the process may be so locked into a pattern of conflict that they can now do nothing else, the vast majority of stakeholders in the Klamath Basin are ready for lasting change, including the resolution of decades of bitter conflict. The current negotiated KBRA settlement represents the best efforts of many people over nearly nine years to craft a carefully balanced package to achieve that much needed change, and thus deserves broad support. Nothing is ever changed without both vision and hard work. KBRA results from both, and its goals are well worth their effort to achieve.

Let history judge from our results.

For Additional Information:

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KBRA documents website: www.edsheets.com/Klamathdocs.html

Exempt Wells

UNSUSTAINABLE STOCKWATER EXEMPTIONS

WASHINGTON EXPERIENCE ILLUSTRATES EXEMPT WELL CONTENTIONS

by Rachael Paschal Osborn, Executive Director
Center for Environmental Law & Policy, Spokane, Washington

"I have one well that my great grandfather dug in 1900. If I lose it, I'm done."
Scott Collin, Five Corners Family Farmers Board Member
"*Industrial Wells Could Leave Eastern Washington with Dry Wells*"
April 9, 2009, New York Times

BACKGROUND

DAIRY WATER USE CASE TRIGGERS LEGAL BATTLE

Division Limit

In 2001, conflict over water supply for a Moxee Valley dairy, near Yakima, Washington, boiled over into litigation. Ultimately, the Washington State Department of Ecology (Ecology), the State's water resources management agency, won an administrative court ruling that Washington's 5,000 gallon per day limit on permit-exempt wells applies to large dairies. *Dennis and DeVries v. Department of Ecology*, Pollution Control Hearings Board (PCHB) No. 01-073, Summary Judgment Order (9/21/01).

"Stockwater"

The *DeVries* ruling was significant in two respects. First, it defined the term "stockwater" to include industrial, non-potable uses of water within a dairy. Second, the decision limited such uses to 5,000 **g**allons **p**er **d**ay (gpd). Per *DeVries*, if a dairy requires more than 5,000 gpd for any use or combination of uses, that water must be obtained via water permitting procedures set forth in Washington's water code statutes. Ecology's prevailing arguments in *DeVries* were consistent with several decades of agency policy and guidance statements on the subject.

Commercial Usage Unpermitted

The *DeVries* ruling raised alarms about the extent to which livestock operations throughout the State were already withdrawing large quantities of water without permits. The dairy industry estimates that 70% of the approximately 450 commercial dairies in the State are using groundwater without a water right. Cattle feedlots and other types of industrial livestock facilities also may be using water without permits. The *DeVries* decision, as it turns out, was not the end of the story. Rather, it was the trigger for a legal and political saga over unpermitted water usage that continues to reverberate in Washington State.

WASHINGTON'S PERMIT-EXEMPTION FOR WATER RIGHTS

Permit Process

Like many western states, water resources in Washington are public resources. All prospective water users must obtain a permit before diverting or withdrawing water from streams, rivers, and groundwater systems. Revised Code of Washington (RCW) 90.03.280, 90.44.050. The permitting process is designed to prevent over-allocation of water resources. Before a permit may issue, Ecology must make affirmative findings that water is available, and that the proposed new use will harm neither existing users nor the "public interest" (a broad term that encompasses protection of environmental values such as aquatic habitat and water quality).

The State water code, however, sets forth a major exception to the permitting requirement. If a prospective use of groundwater is for domestic or other small purposes and requires 5,000 gpd or less, the user may drill a well and put water to use without first obtaining permission from Ecology.

Groundwater Exemption

SPECIFICALLY, THE WATER CODE EXEMPTION STATES:

> After June 6, 1945, no withdrawal of public groundwaters of the state shall be begun . . . unless an application to appropriate such waters has been made to the department and a permit has been granted by it as herein provided: EXCEPT, HOWEVER, That any withdrawal of public groundwaters for stock-watering purposes, or for the watering of a lawn or of a noncommercial garden not exceeding one-half acre in area, or for single or group domestic uses in an amount not exceeding five thousand gallons a day, ... or for an industrial purpose in an amount not exceeding five thousand gallons a day, is and shall be exempt from the provisions of this section, but, to the extent that it is regularly used beneficially, shall be entitled to a right equal to that established by a permit issued under the provisions of this chapter: PROVIDED, HOWEVER, That the department from time to time may require the person or agency making any such small withdrawal to furnish information as to the means for and the quantity of that withdrawal…
> RCW 90.44.050.

Exempt Wells

Priority System

Although exempt wells are not subject to the permitting process, they are not exempt from the substantive requirements of the State water code. Exempt wells have a priority date (i.e., the date water is first put to use) and may not be used to the detriment of senior water users or the public interest. As the Washington Supreme Court has held, once the permit-exempt well user "perfects the right by actual application of water to beneficial use, the right is otherwise treated in the same way as other perfected water rights. Thus it is subject to the basic principle of water rights acquired by prior appropriation that the first in time is the first in right." *Washington Dept. of Ecology v. Campbell & Gwinn LLC*, 146 Wn.2d 1, 9 (2002).

For a variety of reasons (see below), it has become increasingly difficult for parties to obtain a new water permit in Washington. As a result, the use of permit-exempt wells has skyrocketed, with thousands of new wells being drilled each year. The numbers of new permit-exempt wells drilled each year is known because Ecology maintains a well drilling database which is accessible and searchable on the internet at: http://apps.ecy.wa.gov/welllog/. (Washington Administrative Code (WAC) 173-160-141,-151).

Loophole

The vast majority of exempt wells are being used to supply water to new residences. However, a new interpretation of the stockwater prong of RCW 90.44.050 has created an unanticipated loophole for yet another purpose: commercial livestock operations such as feedlots and dairies.

2005 STATE ATTORNEY GENERAL'S OPINION

Unlimited Stockwater Interpretation

In 2005, Washington State Attorney General (AG) Rob McKenna was asked to interpret the stockwater language set forth in the groundwater permit-exemption contained in the State's groundwater code, RCW 90.44.050. In the resulting Attorney General Opinion (AGO), the AG's office (and Ecology as its client) changed course. The AGO tersely construed the language of the statute, finding that the placement of commas indicated that the 5,000 gpd limit does not apply to stockwater, and concluding that stockwater use is therefore unlimited in quantity. AGO 2005 No. 17 (11/18/05). The AGO contains no reference to other parts of the statute, including the use of the term "small withdrawals" in the proviso following the permit exemption, nor to the legislative history or historical context of the State's groundwater code, Chapter 90.44 RCW, which was enacted in 1945.

The history of the permit-exemption is sparse but interesting. Reports issued around the time of the 1945 enactment of Chapter 90.44 RCW indicate that water needs for rural farmsteads (for both humans and livestock), ranged around 1,500 gpd. See Dunn, Kara, *Got Water? Limiting Washington's Stockwater Exemption to Five Thousand Gallons Per Day*, 83 Wash. L. Rev. 249, 257-261 (2008) and documents cited therein.

Statutory Construction

The 2005 AGO opened an unexpected and substantial loophole in the rule that all water use in Washington State requires a permit. RCW 90.03.010, 90.44.050. Although livestock water use is explicitly encompassed within the permit-exemption statute, the AGO interpretation that the statute allows unlimited usage contradicts the rule that exceptions to statutes (including the water code's general requirements) must be narrowly construed.

As noted above, obtaining a new water permit in Washington is difficult. Water resources are over-allocated in most basins, particularly when environmental needs such as instream flows for aquatic habitat and water quality are taken into account, as they legally must be. It comes as no surprise then that, shortly after the AGO was issued, large livestock operations announced the intent to use the permit-exemption for large withdrawals of groundwater.

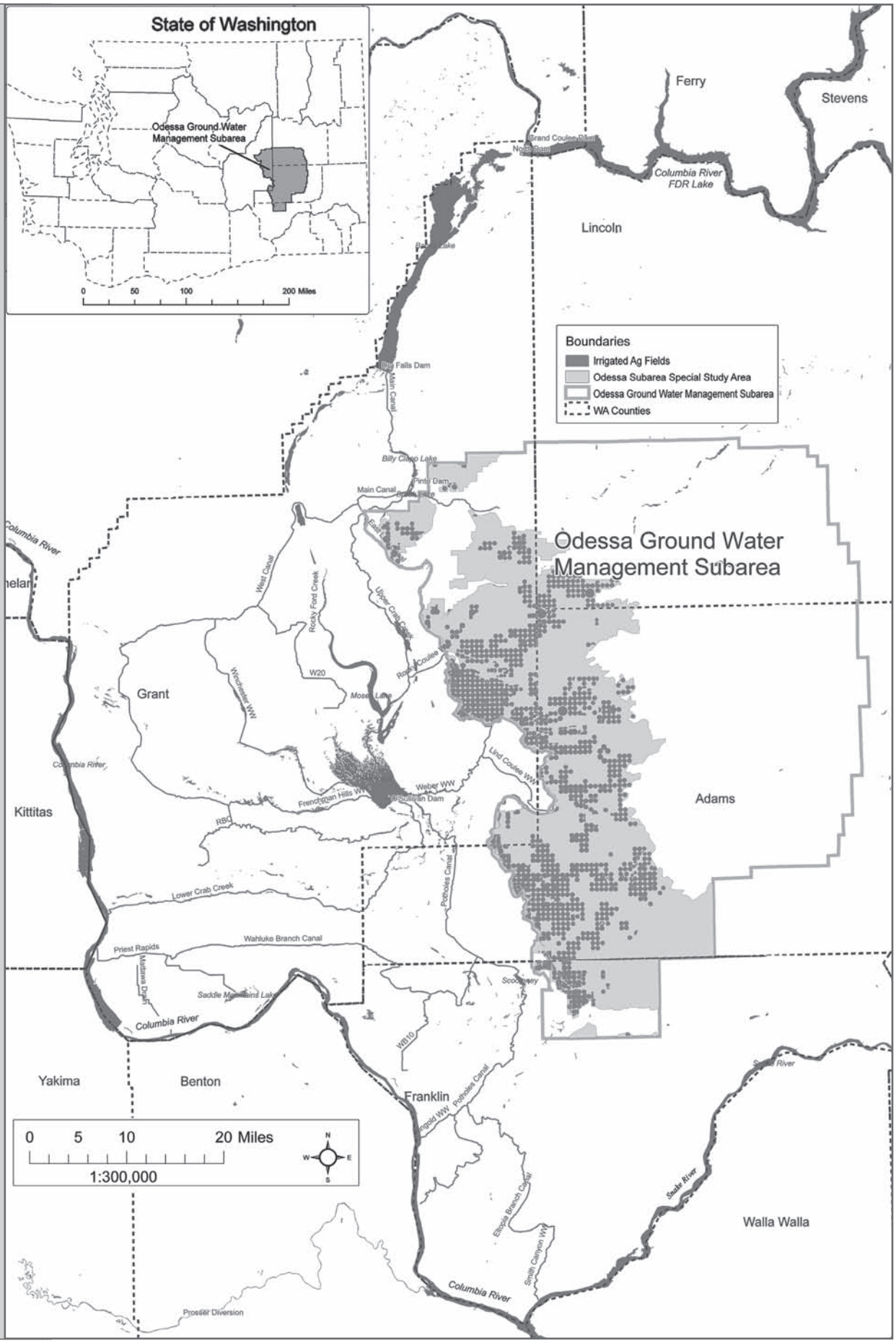
Groundwater Withdrawals

In 2006-2007, two eastern Washington dairies indicated in county land use applications that they would use the stockwater exemption to supply water for several thousand head of dairy cows, pumping between 150,000 and 500,000 gallons per day. Ecology's State Environmental Policy Act (SEPA) comment letter for one of the operations suggested that, because the agency itself could not do so, the dairy should analyze both the potential for impairing the rights of other water users and whether pumping might jeopardize the maintenance of "safe sustaining yields" of groundwater as required by RCW 90.44.130. Ecology also noted the existence of hydraulic continuity between the target aquifers and the Columbia and Snake Rivers, citing the need to avoid depletion of surface water flows that support endangered salmon populations. Letter, *Washington Dept. of Ecology to Benton County Planning Dept., Re Watts Bros. Dairy, LLC* (1/26/06).

Potential Impacts

Thus, from the outset, it was clear that the policy basis of the water code, i.e., protection of senior water rights and the public interest, was ill-served by the 2005 AG Opinion.

Exempt Wells



Exempt Wells

Feedlot Use

Groundwater Declines

Industrial Purposes

Water Right Transfer

Lawsuit Filed

Legislation Fails

Stockwater Information

2008 FEEDLOT STOCKWATER EXEMPTION PROPOSAL

EASTERDAY RANCHES, INC

In 2008, Easterday Ranches, Inc. (Easterday), proposed the third (known) explicit use of the unlimited stockwater exemption: a 30,000-head cattle finishing feedlot near Eltopia, Washington, that would rely entirely on permit-exempt wells for water supply. A group of local dryland wheat farmers, collectively known as Five Corners Family Farmers, began raising questions. The Family Farmers' members rely on their own permit-exempt wells to provide basic household water supply.

Easterday's proposed feedlot is located a few miles from the boundaries of the Odessa Subarea, a groundwater subbasin where water levels are declining at an average rate of 10 feet per year. See WAC 173-130A-060. Easterday's wells do, however, withdraw water from the same aquifer that underlies the Odessa Subarea. Groundwater declines in the Odessa Subarea are causing irrigators to chase water to depths of one-to-two thousand feet below ground surface — creating a regional crisis mentality. Federal and State agencies are responding with multi-million dollar studies investigating the possibility of supplementing Odessa Subarea water supply with water pumped-in from the Columbia River. See US Bureau of Reclamation, *Odessa Subarea Special Study, Appraisal-Level Investigation Summary of Findings* (4/1/08), www.usbr.gov/pn/programs/ucao_misc/odessa/index.html.

Five Corners Family Farmers are concerned about the potential impacts of increased groundwater pumping on their own domestic water supply. Unlike farms to the north and west that engage in intensive irrigation using groundwater, these dryland wheat farmers utilize groundwater solely for household usage. Thus, the loss of water supply would preclude their ability to continue to live on their farms.

The Easterday's proposal led Ecology to re-examine the scope of the permit exemption established by the 2005 AGO. In November 2008, Ecology announced that the groundwater exemption could be used for drinking water for livestock, but could not be used for industrial purposes associated with the feedlot (e.g., dust control, boiler use). (The Easterday's correspondence can be found on Ecology's website: www.ecy.wa.gov/programs/wr/rights/easterday.html and on the Center for Environmental Law & Policy website: www.celp.org.)

Ecology urged Easterday to purchase and transfer an existing water right to supply water for the industrial activities associated with the feedlot, which it promptly did. In a water supply analysis submitted as part of that transfer, Easterday indicated that the feedlot would require approximately 250 acre-feet per year for industrial uses and 500 acre-feet per year for drinking water. Franklin County Water Conservancy Board, *Re Easterday Ranches, Inc., Report of Examination*, Groundwater Certificate No. G3-00101C (4/10/09). This latter water use will be supplied via the permit-exemption. The same well will provide water pursuant to the transferred water right, and Easterday is required to measure water use for both uses (i.e., 250 acre-feet of industrial use and unlimited potable use).

In June 2009, Five Corners Family Farmers, along with the Center for Environmental Law & Policy and Sierra Club, filed a declaratory judgment action seeking judicial interpretation of the quantity of water available under the stockwater prong of the permit exemption. *Five Corners Family Farmers, et al. v. State of Washington, et al.*, Franklin County Superior Court Cause No. 09-2-51185-6. Several livestock industry associations have intervened in the case. Summary judgment arguments are scheduled in Franklin County Superior Court for late March 2010.

LEGISLATIVE WORKING GROUP

In late 2008, as the State was trying to determine its position on unlimited stockwater, Ecology Director Jay Manning urged legislators to address the issue. Several bills were filed during the 2009 session, two of which received a hearing. HB 1091 would have clarified that all listed uses of permit-exempt wells are subject to the 5,000 gpd limitation, and also grandfathered existing stockwater use. HB 1489 would have allowed up to 350 acre-feet per year in permit-exempt withdrawals for stockwater purposes. However, neither bill advanced to the floor.

With ongoing controversy and no fix in sight, the legislature decided to study the matter. The State budget passed with a proviso directing Ecology to convene a working group, composed of agricultural, environmental, tribal, agency and legislative representatives. The group was directed to "review issues surrounding the use of permit-exempt wells for stock-watering purposes and . . . develop recommendations for legislative action." ESHB 1244, p. 107. No tribes are participating.

Ecology maintains a website for the Stock Water Working Group. Materials from the September 3, 2009 meeting contain particularly interesting information about the status of water resources in Washington affected by stockwatering and exempt wells, and the extent to which the livestock industry relies on the unlimited exemption for water supply. See: www.ecy.wa.gov/programs/wr/hq/swwg.html

Exempt Wells

Unlimited Quantities

Basin Closure Option

Groundwater "Mining"

The working group met several times between August and December, 2009, but was unable to achieve consensus recommendations. It is unknown at the time of writing whether the 2010 Legislative session will see action on the stockwater exempt well issue.

ATTORNEY GENERAL'S NEW OPINION

Meanwhile, the AG's office recently issued another opinion regarding permit-exempt wells. AGO 2009 No. 6 (9/21/09). The new AGO follows the same logic as the stockwater opinion to find that the use of water for irrigating a half-acre lawn or garden, as authorized in the statute, is unlimited in quantity. The opinion also finds that Ecology lacks authority to limit the quantity of permit-exempt use of water on eligible parcels, as recently proposed in a rule for managing water in Kittitas County (WRIA 39). Ecology may, however, entirely close a basin to new appropriations, including permitted and permit-exempt withdrawals. This raises the intriguing question why the AG's office is advocating and advising agency action to control exempt wells (e.g., the *DeVries* case, the draft Kittitas rule) while simultaneously issuing opinions that such agency actions are in violation of law.

CONCLUSION

LEADERSHIP NEEDED

Litigation over the unlimited stockwater exemption will resolve the questions arising out of the 2005 AG Opinion. However, larger questions about the sustainability of water resources in Washington remain unanswered. Despite clear lessons from the Odessa Subarea, where groundwater levels are dropping at dramatic rates, no branch of government has taken action to prevent and reverse groundwater "mining" (groundwater extraction in excess of aquifer recharge) and surface water depletions in hydraulically connected streams. The outcome of the Five Corners Family Farmers litigation may provide a partial remedy for the problem of unsustainable groundwater use, but policy changes at the agency and legislative level are clearly needed.

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The author notes that this article is a revised version of an article previously published in the Oct. 2009 Newsletter of the American Water Resource Association, Washington Chapter.

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Residual Designation

Stormwater Challenge: Existing Development

RESIDUAL DESIGNATION AUTHORITY

NEW APPLICATIONS OF SELDOM-USED CWA REGULATORY TOOL

by Robert W. Varney, Normandeau Associates (Vancouver, WA and Bedford, NH)

OVERVIEW

All across the country, federal, state and local officials, developers and environmental groups are accelerating their efforts to focus on stormwater pollution. This has been true especially in New England, where it is recognized that polluted stormwater runoff is the next great challenge for restoring impaired water bodies. Much attention has been focused on **b**est **m**anagement **p**ractice (BMP) and **l**ow **i**mpact **d**evelopment (LID) approaches for new development/redevelopment projects. However, studies have shown that runoff from impervious surfaces at *existing* commercial, industrial and high-density residential development is resulting in degraded urban waters under conditions which have not been adequately addressed under current permitting programs. In some cases, regulators have called for as much as a 65% reduction in stormwater pollution from existing development.

Residual Designation

Seldom Used

In response to this problem, a seldom-used regulatory tool in the federal Clean Water Act (CWA) — residual designation authority — is being piloted by federal and state agencies in Massachusetts, Vermont and Maine, to ensure that water quality standards are achieved in impaired waterways.

Once designated, owners of affected parcels must apply for coverage under CWA's National Pollutant Discharge Elimination System (NPDES) permitting program, with requirements phased in over time.

REGULATORY BACKGROUND

NPDES Requirements

In 1987, Congress amended the CWA and added Section 402(p). This section required the US Environmental Protection Agency (EPA) to develop a comprehensive program for addressing stormwater discharges. Section 402(p)(1) requires EPA, or states that are delegated to implement the CWA, to address through permits the specific following types of stormwater discharges:

- Discharge subject to an NPDES permit before February 4, 1987;
- Discharge associated with industrial activity, including construction;
- Discharge from a municipal separate storm sewer system serving a population of 250,000 or more;
- Discharge from a municipal separate storm sewer system serving a population of 100,000 or more but less than 250,000

Phased Process

An EPA fact sheet concerning the CWA amendment implementation process (see EPA document #833-F-00-001 (revised 2005)) briefly described the phased process thusly:

> Phase I of the U.S. Environmental Protection Agency's (EPA) stormwater program was promulgated in 1990 under the CWA. Phase I relies on National Pollutant Discharge Elimination System (NPDES) permit coverage to address stormwater runoff from:
> (1) "medium" and "large" municipal separate storm sewer systems (MS4s) generally serving populations of 100,000 or greater; (2) construction activity disturbing 5 acres of land or greater; and (3) ten categories of industrial activity.
> The Stormwater Phase II Final Rule…expands the Phase I program by requiring additional operators of MS4s in urbanized areas and operators of small construction sites, through the use of NPDES permits, to implement programs and practices to control polluted stormwater runoff.

Unregulated Sources

> …Phase II is intended to further reduce adverse impacts to water quality and aquatic habitat by instituting the use of controls on the [previously] unregulated sources of stormwater discharges that have the greatest likelihood of causing continued environmental degradation.

EPA's regulations addressing the control of stormwater discharges can be seen in 40 C.F.R. Part 122. EPA's authority to designate stormwater discharges for permitting is located at 40 C.F.R. 122.26(a). The key provision relating to the use of residual designative authority can be found at C.F.R. 122.26(a)(9)(i). C.F.R. 122.26(a)(9)(i) STATES THAT:

"…for discharges composed entirely of storm water… operators shall be required to obtain a NPDES permit… if:

TMDL Allocations

(C) The Director, or in States with approved NPDES programs, either the Director or the EPA Regional Administrator, determines that storm water controls are needed for the discharge based on wasteload allocations that are part of "total maximum daily loads" (TMDLs) that address the pollutant(s) of concern; or

Standards Violation

(D) The Director, or in States with approved NPDES programs, either the Director or the EPA Regional Administrator, determines that the discharge, or category of discharges within a geographic area, contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States."

Petition Potential

EPA's Stormwater Phase II Rule allows municipalities with connected infrastructure to petition EPA to require individual permits. Interested persons, including environmental groups, may petition arguing that a discharge is contributing to a standards violation or is a significant contributor of pollutants and requires a NPDES permit.

New Obligations

Once a residual designative authority determination has been made, the CWA-authorized agency (i.e., EPA or the delegated state) is required to notify dischargers of their obligation to obtain a stormwater permit. The dischargers are required to seek coverage under the permit and apply within 180 days of receipt of notice.

Residual Designation

RESIDUAL DESIGNATIVE AUTHORITY: NEW ENGLAND EXAMPLES

Below are descriptions of the uses of residual designative authority in Massachusetts, Vermont and Maine. Vermont and Maine are delegated states while Massachusetts is not a delegated state under the federal NPDES permitting program.

Charles River Designation in Massachusetts

Urbanized Watershed

The Charles River is 80 miles long and flows through 23 cities and towns in eastern Massachusetts, from Echo Lake in Hopkinton to Boston Harbor through the heart of the Greater Boston area. This highly urbanized watershed covers about 308 square miles.

There are about 20 species of fish in the Charles River. Two of them – Alewife and Blueback Herring – are migratory fish that must climb a series of fish ladders at each of the lower five dams in the river. The river is used for a wide range of recreation activities such as sailing, rowing, kayaking, canoeing and windsurfing, and its many miles of beautiful parkland are enjoyed by hundreds of thousands of citizens.

Water Quality Issues

EPA-New England (EPA-NE), the Massachusetts Department of Environmental Protection (MDEP) and the Charles River Watershed Council have been monitoring Charles River water quality for many years. Water quality has suffered from high levels of bacteria, phosphorus and other pollutants. Fifteen years ago, EPA-NE launched the Charles River Initiative to focus attention and ensure accountability for restoration of the river. As part of this effort, EPA-NE annually issues and publicizes the Charles River Report Card, which evaluates the percentage of time that the river meets swimming and boating standards for bacteria. Rising from a "D" in 1995 to a "B+" in 2009, the Charles River's improved scorecard is a reflection of the investment of millions of dollars in infrastructure upgrades which have dramatically reduced pollution and improved water quality.

Toxic Algae Blooms

While significant progress has been achieved in reducing bacterial contamination, much remains to be done to address other pollutants caused by stormwater runoff. This reality became readily apparent to the general public in the summers of 2006 and 2007 when the lower Charles River had severe blooms of toxic cyanobacteria, commonly referred to as blue-green algae. These blooms created mats of floating scum that were highly visible to the public, as well as thick mats of algae along the river bottom which adversely affected the habitat of fish and other organisms. High phosphorus levels also resulted in low dissolved oxygen levels, increased odor, color and turbidity and contribute to excessive plant growth.

Phosphorus TMDL

In 2007, MDEP submitted and EPA-NE approved a TMDL for phosphorus in the lower Charles River which calls for a 54% annual reduction in phosphorus loadings overall, and a 65% reduction in phosphorus discharges from existing industrial, commercial and high-density residential uses. A draft TMDL for the middle and upper Charles River calls for similar reductions. The TMDL also showed that commercial and industrial land makes up only 8% of the watershed, but is responsible for 23% of the phosphorus pollution to the river. On a per-acre basis, commercial property is the largest source of phosphorus loading. Each year, commercial and industrial properties discharge an average of over 21,000 pounds of phosphorus to the river, more than all wastewater treatment plants combined.

Pilot Program

Faced with the daunting task of trying to reduce stormwater discharges from thousands of parcels of existing development through the federal NPDES permit program, EPA-NE, MDEP, Conservation Law Foundation and the Charles River Watershed Association decided to initiate a manageable, instructive and iterative pilot program which could be replicated throughout the watershed. After careful consideration of many factors, the towns of Milford, Bellingham and Franklin in the upper Charles were selected for this pilot program.

In November 2008, EPA-NE took action under its CWA residual designation authority to require certain industrial, commercial and high-density residential facilities in the three towns to operate under an NPDES permit for stormwater discharges.

Impervious Surfaces

The requirement for a 65% reduction in phosphorus discharges from these facilities applies to parcels with two or more acres of impervious surfaces (combination of parking lots, roads, roofs, etc.). Ultimately, residual designative authority and the lessons learned in the three-town pilot will be used to expand this stormwater initiative to the entire Charles River watershed.

Residual Designation in Vermont

Stormwater Settlement

Stormwater permitting and residual designation has been a contentious issue in Vermont for many years, especially between the Vermont Agency of Natural Resources (VT-ANR) and the Conservation Law Foundation (CLF).

The first major action occurred in 2001 in response to a new Lowe's home improvement center being planned for construction in South Burlington, Vermont. The CLF filed an appeal of Lowe's state-level stormwater permit. The project was near Potash Brook, a degraded tributary to Lake Champlain. Five years later, the parties reached a settlement which resulted in: revised construction plans; a state-of-the-art treatment system; a joint stormwater solution with an adjacent property; a green roof at a future store; and enhanced water quality monitoring in the brook above and below the store. Although not directly related to

Residual Designation

NPDES Permits Required

General Permit Phase-In

Degraded Stream

Prioritization

Residual Designation Petition

General v. Industrial Permits

this settlement, the City of South Burlington established the state's first stormwater utility in 2006 and has received several federal grants for stormwater projects.

The next significant action occurred in 2003 when the CLF submitted a petition to VT-ANR requesting a determination that NPDES permits should be required for all existing stormwater discharges that contribute to violations of water quality standards in Potash, Englesby, Bartlett, Morehouse and Centennial Brooks. All five brooks are tributaries of Lake Champlain near Burlington — Vermont's largest city. After VT-ANR denied the CLF petition, CLF appealed to the state's Water Resources Board. The Board reversed the VT-ANR decision and remanded the matter to VT-ANR, instructing the agency to implement and require NPDES permits for all non-de-minimus stormwater discharges. The VT-ANR then appealed the Board's decision to the Vermont Supreme Court.

In 2006, the Court reversed the Board's decision and remanded the matter back to VT-ANR with instructions that VT-ANR should determine, pursuant to its residual designation authority, whether or not NPDES permits were necessary for the specific discharges in question. VT-ANR then again denied CLF's petition and in 2007, CLF appealed VT-ANR's decision to the Vermont Environmental Court.

In August 2008, the Environmental Court decided in favor of CLF and concluded that NPDES permits are required and residual designation authority must be exercised by the state agency.

VT-ANR is now implementing the Court's judgment order consistent with residual designative authority requirements. In June and July of 2009, VT-ANR published a newspaper notice and sent letters to each property owner discharging stormwater to the five brooks, explaining that they must apply for general permit coverage within 180 days of notice of the designation. In November 2009, VT-ANR adopted a new state stormwater permit program covering the five watersheds and affecting about 450 property owners. Requirements are being phased-in over the next few years.

Long Creek Designation in Maine

Long Creek is a meandering freshwater stream that flows into Clark's Pond, the Fore River, and eventually Casco Bay. The 3.5 square mile watershed is located in South Portland, Westbrook, Scarborough and Portland — the state's largest city.

Long Creek is a highly urbanized watershed that has experienced significant commercial development. It includes the state's largest retail shopping area and the state's largest airport, as well as industrial facilities, office parks, motels and interstate highways and interchanges.

Once popular for hiking, fishing and swimming, Long Creek has been degraded by the volume and frequency of stormwater runoff associated with this development. Extensive studies conducted by EPA and the Maine Department of Environmental Protection (Maine-DEP) have shown that Long Creek no longer meets water quality standards due to the lack of native brook trout, disruption of aquatic insects that provide food for fish, damaged fish and wildlife habitats within and near the stream, low dissolved oxygen levels and the presence of numerous pollutants including metals. It is one of 32 streams in Maine that have been designated "urban impaired" by the Maine DEP.

Armed with scientific data and funding from an EPA grant and recognizing that the health of Long Creek is also important to the health of downstream water bodies that ultimately lead to the Casco Bay estuary, a group of state and local officials, property owners, the Chamber of Commerce, and environmental organizations formed a Steering Committee which led to the Long Creek Restoration Project. Their plan includes three tiers of prioritized and targeted BMP's, as well as strategies to restore in-stream and riparian habitats, and areas with degraded floodplains.

One of these environmental organizations, the Conservation Law Foundation, came to the conclusion that a stronger legal framework was needed to ensure that this full restoration of Long Creek occurred within a reasonable timeframe. Drawing on their experience with stormwater issues in Vermont and Massachusetts, the CLF submitted a petition to the EPA-New England regional office in Boston, seeking residual designation for the Long Creek watershed.

On December 3, 2008, EPA-New England, in consultation with Maine-DEP, determined that the residual designation of certain stormwater discharges in the Long Creek watershed was appropriate because they were contributing to water quality violations. The designation, which was issued as a final order on October 28, 2009, requires that property owners with one acre or more of impervious area that discharges to Long Creek obtain a CWA general permit with the Maine-DEP.

On October 29, 2009, Maine-DEP adopted general permit requirements for post-construction discharges of stormwater from property with one acre or more of impervious area in the Long Creek watershed. The state's goal under this program is to restore Long Creek and meet water quality standards by 2020. Interestingly, the general permit requires the permittee to participate in implementation of and comply with the Long Creek Management Plan, to be carried out by an entity called the Long Creek Watershed Management District (District). As part of this responsibility, the permittee is required to make necessary payments and conduct work as agreed to in a contract with the District, as well as ensure that the District carries out the specified restoration work in the watershed. Operators that do not participate in the plan will be responsible for treating their own discharges through an individual permit.

Residual Designation

Innovation

Coming Your Way?

CONCLUSION

RESIDUAL DESIGNATION AUTHORITY: COMING SOON?

It will be interesting to see if the use of residual designation authority spreads across the country as a means of ensuring that water quality standards are met in waters that have been severely degraded as a result of stormwater pollution. Although these three designations described above all use the same CWA legal authority, they are being implemented in different ways — providing opportunities for innovation, collaboration, shared learning and adaptive management approaches.

Stay tuned, residual designation authority may be coming to an impaired waterway near you!

For Additional Information:

Bob Varney, Normandeau Associates (Vancouver, WA and Bedford, NH), 603/ 472-9151
or email: rvarney@normandeau.com

Bob Varney is a former EPA New England Regional Administrator who joined Normandeau Associates as Senior Vice President in 2009. He was the long-serving regional administrator and top environmental official in New England and is recognized for instituting many innovative approaches and policy initiatives that have served as national models. Prior to EPA, Bob was the state environmental commissioner in New Hampshire where he was appointed by three governors of both political parties over 12 years. With a master's degree in urban planning, he also has served as director of the state's planning office and two regional planning commissions. Bob is widely recognized as a leader and innovator in stormwater management, and has been a speaker at numerous stormwater-related conferences across the country, including the Pacific Northwest. Normandeau Associates is an environmental consulting firm with 14 offices in 10 states, including three in the state of Washington.

WATER BRIEFS

LAWSUIT CHALLENGING WATER RIGHT NEGOTIATIONS FILED

by David Moon, Editor

In an action designed to throw a monkey wrench in the Klamath Basin settlement process, Water for Life and six individual irrigators (Plaintiffs) filed a lawsuit against the Oregon Water Resources Department (OWRD) and its Director for allegedly denying public access to Tribal water rights negotiations, undertaken as part of the Klamath Basin Restoration Agreement. The lawsuit, filed in Marion County Circuit Court in Salem, Oregon on December 8, 2009, seeks to prevent OWRD from continuing to engage in "closed-door" (confidential) water right negotiations with the Klamath Tribes and other parties "to define the scope and attributes of federal reserved rights claimed by the Klamath Tribes."

The lawsuit also seeks to enjoin OWRD from entering into a legally binding Klamath Basin Restoration Agreement (KBRA) without providing public notice of negotiations and opportunity for interested parties to participate and file exceptions to the agreement as plaintiffs assert Oregon law requires (citing ORS 539.310(1)).

The Plaintiffs maintain that the negotiations surrounding the Klamath Basin Restoration Agreement have taken place under a "shroud of secrecy" enforced by a written confidentiality agreement, which all parties to the negotiations (including OWRD) signed. Water for Life and the other plaintiffs say it is this aspect of the negotiations that violates the law. "Oregon law is very clear," Water for Life spokesman Richard Kosesan said. "The Department has legal authority to participate in Tribal water right negotiations, but the negotiations must be open to the public."

Water for Life is a non-profit organization dedicated to protecting and promoting agricultural water rights while advocating responsible stewardship of the land. It was organized in 1990 by a group of irrigators in the Klamath River Basin.

Tom Paul, Deputy Director of the Oregon Water Resources Department, told The Water Report that, "We don't think there is any merit to the lawsuit. One interesting point is that Water for Life's action is only against the Department and its Director, Phil Ward. The Department is only one of many parties to the KBRA, and is not one of the major drivers in the settlement discussions. The major reason that the Department is in the group is to make sure that any agreement is consistent with Oregon water law."

Paul noted that a hearing was just held on Water for Life's request for a temporary restraining order and that the judge in the case denied that request following the hearing on January 7. A hearing on the injunction request was scheduled for January 14.

"The only part of the KBRA that Water for Life is complaining about regarding the Department's participation is the water rights adjudication issue," Paul said. "There are many other parts of KBRA that are not adjudication related."

According to Water for Life (WFL), the Klamath Basin Restoration Agreement, which has yet to be finalized, is contingent on the removal of several dams, and contemplates agreed upon limitations to Tribal water claims that will ensure irrigators on the Klamath Project receive a certain amount of water. The agreement is made possible, in part, by provisions calling for the retirement of 30,000 acre-feet of water in the Upper Klamath Basin. Water for Life's December 8 press release noted, "Yet even though the agreement depends on the retirement of Upper Basin water rights, the Oregon Water Resources Department and other parties to the closed-door negotiations have repeatedly denied Upper Klamath Basin irrigators and the public access to the negotiating table."

For Additional Information: Helen Moore, WFL, 503/ 375-6003 or helen.moore@waterforlife.net;
Tom Paul, OWRD, 503/ 986-0882 or thomas.j.paul@wrd.state.or.us

WATER BRIEFS

HAZWASTE CLEANUP US

EPA TO DISTRIBUTE $1.79 BILLION FROM LARGEST EVER ENVIRO-BANKRUPTCY

On December 10, EPA and the US Departments of Justice, Interior and Agriculture announced that as a result of the largest environmental bankruptcy in US history $1.79 billion has been paid to fund environmental cleanup and restoration under a bankruptcy reorganization of American Smelting and Refining Company LLC (ASARCO).

ASARCO is a leading producer of copper and one of the largest nonferrous metal producers in the US. It is based in Arizona and is responsible for sites around the country that are contaminated with hazardous waste.

The money from environmental settlements in the bankruptcy will be used to pay for past and future costs incurred by federal and state agencies at more than 80 sites contaminated by mining operations in 19 states. Those states are Arizona, Alabama, Arkansas, California, Colorado, Idaho, Illinois, Indiana, Kansas, Missouri, Montana, Nebraska, New Jersey, New Mexico, Ohio, Oklahoma, Texas, Utah, and Washington.

Under the terms of the plan, all allowed claims were paid in full along with interest.

FUNDS WERE DISTRIBUTED AS FOLLOWS:

- US received approximately $776 million, which will be distributed in accordance with the underlying settlements to address 35 different sites
- Coeur d'Alene Work Trust was paid $436 million for work in Idaho's Coeur d'Alene Basin
- Three custodial trusts which address the owned but not operating properties of ASARCO and involve a total of 13 states and 24 sites were paid a cumulative total of approximately $261 million
- Payments totaling in excess of $321 million were paid to 14 different states to fund environmental settlement obligations at 36 individual sites

In total, the payment will address environmental cleanup and restoration at more than 80 sites around the country. Much of the money paid to the US will be placed in special accounts in the Superfund to be used by EPA to pay for future cleanup work. It will also be placed into accounts at the Departments of Interior and Agriculture to pay for natural resource restoration.

ASARCO filed for protection under Chapter 11 of the US bankruptcy code on August 9, 2005. ASARCO has operated for nearly 110 years — first as a holding company for diverse smelting, refining, and mining operations throughout the US and now as the Arizona-based integrated copper-mining, smelting, and refining company.

By the time it filed for bankruptcy, ASARCO's core operating assets were limited to certain operations in the states of Arizona and Texas. However, it continued to own numerous non-operating properties that were highly contaminated and was subject to environmental claims at sites that were not owned by the company.

In August 2009, following lengthy litigation, the US Bankruptcy Court for the Southern District of Texas held a two-week hearing on competing plans of reorganization for ASARCO that would allow the company to be purchased out of bankruptcy. During this hearing, two competing plans emerged that proposed to pay creditors in full with interest.

On August 31, 2009, Judge Richard Schmidt of the US Bankruptcy Court in Corpus Christi issued a recommendation to the US District Court for the Southern District of Texas to confirm a reorganization plan for ASARCO that would allow the company to be purchased out of bankruptcy. The plan was proposed by ASARCO's parent company — a subsidiary of Grupo Mexico. US District Judge Andrew Hanen in Brownsville accepted Judge Schmidt's recommendation and confirmed Grupo Mexico's plan on Nov 13, 2009.

On December 9, 2009, Grupo Mexico met its funding obligations and the plan was consummated. Additionally, the environmental payment and property transfer obligations outlined in the numerous settlement agreements, which had been approved by the bankruptcy court over the course of the litigation, were complied with.

The full payment of environmental claims, plus interest, will facilitate the cleanup of contamination and restoration of natural resources at numerous sites across the country. The reorganized company remains liable for environmental liabilities at the properties that it will continue to own and operate.

For info: Deb Berlin, EPA, 202/ 564-4914 or berlin.deb@epa.gov

EPA WEBSITE: www.epa.gov/compliance/resources/cases/cleanup/cercla/asarco/index.html

FED STORMWATER RULE US

EPA LISTENING SESSIONS

EPA will hold five listening sessions to provide information to the public about a potential rule to strengthen stormwater regulations and to establish a comprehensive program to reduce stormwater from new development and redevelopment. These potential regulations would help to reduce stormwater discharges that can harm water quality in nearby waterways.

EPA SEEKS INPUT ON WHETHER TO:

Expand the area subject to federal stormwater regulations

Establish specific requirements to control stormwater discharges from new development and redevelopment

Develop a single set of consistent stormwater requirements for all municipal separate storm sewer systems (MS4s)

Require those sewer systems to address stormwater discharges in areas of existing development through retrofitting the sewer system or drainage area with improved stormwater control measures

Explore specific stormwater provisions to protect sensitive areas

SESSIONS WILL BE HELD:

January 19 - Chicago, IL
January 20 - San Francisco, CA
January 25 - Denver, CO
January 26 - Dallas, TX
January 28 - Washington, DC
(See Calendar for specifics)

EPA will accept written comments on the preliminary rulemaking considerations until February 26, 2010.

For info: www.epa.gov/npdes/stormwater/rulemaking

WATER BRIEFS

DESALINATION PILOT RUN SW

YUMA DESALTING PLANT

The US Bureau of Reclamation's Lower Colorado Region will be conducting a pilot run of the Yuma Desalting Plant (near Yuma, Arizona) in collaboration with three water agencies from California, Nevada, and Arizona. A May 2010 start date is planned.

The pilot run will provide information about the plant's capability to reliably produce water that could be used for a multitude of purposes. About 21,700 **a**cre-**f**eet (AF) of desalted water will be produced. This water will be combined with 7,300 AF of untreated irrigation drainage water and the total amount — 29,000 AF — will be discharged into the Colorado River and included in Treaty deliveries to Mexico. This will reduce water releases from Lake Mead to help meet the Treaty obligations by an equal amount, conserving water in Lake Mead and augmenting the river's overall water supply.

The Metropolitan Water District of Southern California (MWD) , the Southern Nevada Water Authority (SNWA), and the Central Arizona Project (CAP) will provide about $14 million of the pilot run's estimated $23.2 million cost. These state agencies will receive a water storage credit of one AF of water in Lake Mead for each AF of water conserved by the pilot run. The amount of storage credits each agency receives will be proportionate to its funding contribution.

As a result of bi-national consultations conducted with Mexico through the International Boundary and Water Commission regarding the pilot run, the US, Mexico, and a bi-national coalition of non-governmental organizations have each committed to arrange for the conveyance of 10,000 AF of water to the Cienega de Santa Clara wetlands in Mexico. The MWD, SNWA and CAP also will contribute funding for a comprehensive environmental monitoring program for the wetland that will begin prior to and conclude following the pilot run.

Construction of the Yuma (AZ) Desalting Plant was authorized by the Colorado River Basin Salinity Control Act of 1974. Its purpose was to desalt irrigation drainage water flows from the Wellton-Mohawk Irrigation and Drainage District so a portion of that water could be included in Treaty-required deliveries of Colorado River water to Mexico. Since 1977, this drainage water has been conveyed from the District to the Cienega, bypassing the desalting plant.

The plant, five miles west of Yuma, Arizona, was essentially completed in 1992. Initial operational testing was conducted at about one-third capacity until early 1993, when it was stopped after flooding on the Gila River damaged a portion of the irrigation drainage canal. Since then, the plant has only operated for a three month demonstration run in 2007 at about ten percent of capacity.

Reclamation is not at this time proposing to operate the plant beyond the pilot run. Any decision about the plant's future will be made after the pilot run is completed or terminated.

For info: Robert Walsh, Reclamation, 702/ 293-8421

RECLAMATION WEBSITE: www.usbr.gov/lc/yuma/environmental_docs/environ_docs.html

STORMWATER DISCHARGE SW

EPA "PORTS INITIATIVE"

SAN JOAQUIN RIVER AGREEMENT

Through its Ports Initiative, the EPA's Pacific Southwest regional office is evaluating stormwater management at various ports. This effort involves both individual inspections of port tenants and audits of the municipal stormwater programs implemented by the ports. The initiative aims to improve water quality by working with facilities to bring them into compliance and collaborating with states to improve stormwater permits for ports.

Ports contain a variety of facilities, including container terminals, boat repair shops, and industries related to the transportation of goods. Many of these industries are subject to stormwater requirements. Due to their close proximity to our nation's waterways, port industries' compliance with stormwater requirements has been identified as an emerging national enforcement priority area.

EPA has reached an agreement with California's Port of Stockton to correct deficiencies in the port's stormwater program in an effort to bring it into compliance with the federal Clean Water Act (CWA) and improve water quality in the San Joaquin River.

In a 2008 audit of the port's stormwater management and control systems, EPA and the Central Valley Regional Water Quality Control Board found deficiencies with the port's permit program concerning construction and industrial oversight, municipal operations, standard development, and toxicity monitoring. Discharges from the port's sewer system flow directly or indirectly to the San Joaquin River.

"Discharge from municipal storm sewer systems is a significant source of water contamination in the San Joaquin River," said Alexis Strauss, Water Division director for the EPA's Pacific Southwest region. "The Port of Stockton's efforts under this agreement will greatly improve its stormwater program and help minimize stormwater pollution of an important water resource."

The Clean Water Act has a National Pollutant Discharge Elimination System permit program designed to address stormwater pollution. Under the program, operators of municipal sewer systems obtain permit authorization from EPA or an authorized state and must run a comprehensive stormwater management program to prevent harmful pollutants from being washed or dumped into surface waters.

Under the agreement, the port is to improve its toxicity testing program, oversight of industrial tenants and construction sites, and management practices for pesticide storage, catch basins, sumps, stormwater retention basins, and street sweeping by July 1, 2010.

For info: Margot Perez-Sullivan, EPA, 415/ 947-4149 or perezsullivan.margot@epa.gov

EPA WEBSITE: www.epa.gov/region09/water/ports/

WATER BRIEFS

COLORADO RIVER FLOWS SW

GRAND CANYON EXPERIMENT

The US Department of the Interior (DOI) will undertake an important experimental initiative to improve the management of Glen Canyon Dam and the Colorado River as it flows through Grand Canyon National Park, Secretary of the Interior Ken Salazar announced December 10. "We must find a way to protect one of the world's most treasured landscapes – the Grand Canyon – while meeting water and clean energy needs in the face of climate change," Salazar said.

"Today, I am directing the development of a protocol for conducting additional High Flow Experiments at the Dam," Secretary Salazar said. "These experimental high flows [like the one in 2008] send sediment downstream to rebuild sandbars, beaches and backwaters. The rebuilt areas provide key wildlife habitat, enhance the aquatic food base, protect archeological sites, and create additional camping opportunities in the canyon." Assistant Secretary Anne Castle later explained, "We've put in place a comprehensive science program designed to figure out the complex processes at work downstream of Glen Canyon Dam, so that we can get better at managing the river for the benefit of all the various resources at stake. We can make [high flow releases of short duration] without affecting the overall amounts of water required to be released from Lake Powell by the 2007 interim guidelines and the Law of the River."

Because Glen Canyon Dam traps approximately 90 percent of the sand once available to maintain Grand Canyon sandbars, high flows are a good tool to rebuild these resources. The new protocol will allow for high flows to occur when Colorado River tributaries below the dam produce sufficient sediment to meet a threshold, or "trigger." Timing of high flows would depend not only on sediment inputs from tributaries, but also other environmental considerations such as impacts to the Lees Ferry trout fishery and riparian vegetation.

The new protocol also will protect the interests of those relying on the Colorado River, as the water released during the high flow will not change the annual amount of water to be released to downstream users from Glen Canyon Dam, according to DOI. That water flows downriver to Lake Mead for use by the Lower Colorado River Basin States and the Republic of Mexico.

The most recent High Flow Experiment at Glen Canyon Dam was conducted in March 2008. During the experiment, the Bureau of Reclamation released water from both the powerplant and the bypass tubes to a maximum amount of approximately 41,000 cubic feet per second for about 60 hours. Preliminary results of the 2008 experiment show a robust sandbar building response and sandbar development throughout the river corridor. However, considerable erosion occurred following the experiment. Research on the effects of the 2008 event on a range of resources — including native fish, vegetation, the Lees Ferry trout fishery, and more — will be completed by the US Geological Survey in January 2010 and this additional information will be taken into consideration in the development of the new protocol.

For info: Joan Moody, DOI, 202/ 208-6416 or www.doi.gov

WATER STUDY CA

MYTHS DISPELLED

A study was released by the Public Policy Institute of California (PPIC) on December 7, 2009, that focuses on eight myths about California's water supply, ecosystems, and the legal and political aspects of governing the system. Myths about California's water problems — and their solutions — are hindering the development of effective policies to manage one of the state's most important natural resources, the study maintains. These myths persist, in part, because California's water management is decentralized, with more than a thousand local and regional water agencies responsible for water delivery, wastewater treatment, and flood control. This system encourages innovation and responsiveness to local problems, but fails to foster the collection and sharing of information.

"California Water Myths" was prepared by a distinguished group with expertise in ecology, economics, engineering, law, and the physical sciences. It includes Jay Lund, Ariel Dinar, Brian Gray, Richard Howitt, Jeffrey Mount, and Peter Moyle — from three University of California campuses — and Barton "Buzz" Thompson of the Stanford University Law School.

The myths include: California is running out of water; a villain is responsible for California's water problems; we can build our way out of California's water problems with technological solutions; we can conserve our way out of California's water problems; healthy aquatic ecosystems conflict with a healthy economy; more water will lead to healthy fish populations; California's water rights laws impede reform and sustainable management; and we can find a consensus that will keep all parties happy.

The PPIC study recommends improving the flow of existing information, collecting more information in the field from surface and groundwater users — an unpopular idea among many water users—and expanding the analysis and synthesis of data pertinent to important management and policy choices.

For info: Report available at: www.ppic.org/main/publication.asp?i=890

TOXICS REGULATION US

STATES PUSH FOR TSCA REFORM

Thirteen states on December 2, 2009, released a set of principles designed to ensure that the debate over reforming the nation's outdated chemical policy stays focused on protecting public health and the environment. State regulatory leaders across the country say the 33-year-old Toxic Substances Control Act (TSCA) does not contain powerful enough tools to safely monitor and control the tens of thousands of chemicals used every day in the US. As Congress debates TSCA's future, environmental officials in the 13 states are seeking reform of one of the nation's signature environmental

WATER BRIEFS

laws to allow them to protect vulnerable populations by effectively identifying and regulating the most troubling chemicals.

The eight recommendations listed in the States' Principles on Reform of the Toxic Substances Control Act are central to TSCA's reform, state officials say. The principles were developed through a collaboration of 13 states – California, Connecticut, Illinois, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Oregon, Vermont and Washington. The key recommendations in the States' Principles include: manufacturers must demonstrate that the chemicals they use and the products they make are safe – for the public and the environment; safer products and chemicals should be promoted; and chemical and safety information should be widely available to regulators, businesses and the public.

"Without adequate protection at the federal level, it has fallen to the states to protect people and the environment from the toxic chemicals that are causing harm. But dealing with toxic contamination after the fact is ultimately futile – the human, environmental and economic damage is already done," said Ted Sturdevant, Director of the Washington State Department of Ecology. "We need a federal law that prevents contamination from happening in the first place, and phases out the harmful chemicals that are already in widespread use. That's common sense, but it's not the system we have today."

For info: Principles available at: www.ecy.wa.gov/news/2009news/docs/TSCAstatesSIGTfinal.pdf; BreAnda Northcutt, California EPA, 916/ 324-9670 or bnorthcutt@calepa.ca.gov; David P. Littell, Maine DEP, 207/ 287-2812; Ted Sturdevant, Washington Ecology, 360/ 407-7001

GROUNDWATER TRANSFER WA

MITIGATION BANK FOR PUMPING

The Washington Department of Ecology (Ecology) is formally reviewing a large water-right transfer proposal that would make senior water rights available to groundwater users in upper Kittitas County as mitigation for groundwater pumping there. "This water-right transfer will give people an opportunity to obtain coverage under a very senior water right and provide peace of mind during low-water years in the Yakima River basin when junior water uses are at risk of being curtailed," explained Ken Slattery, Ecology water resources program manager. Currently, new groundwater withdrawals are halted in upper Kittitas County unless senior water rights are obtained to offset impacts to streamflows and senior water rights.

Suncadia Resort is proposing to transfer 353.8 acre-feet of water rights to the state's Trust Water Right Program. Through a water banking program, the transferred water would be available for assignment to third parties as mitigation for the "consumptive use" associated with groundwater withdrawals in the area surrounding the resort. Suncadia is taking applications for use of mitigation groundwater, pending approval of its water right transfer applications. The senior water rights, dating to the year 1884, were acquired by the original resort development company, Trendwest/Mountain Star Resort (now Suncadia Resort). As described in Kittitas County's environmental impact statement for the resort, the company was required to obtain water rights to mitigate for growth triggered as the resort built out.

Suncadia and Ecology have negotiated a draft Trust Water Right Agreement describing how Ecology would manage the three water rights within the trust water rights program. The draft agreement is available on Ecology's website (below). A map describing the suitability of the rights – known as Lamb and Anderson rights – to mitigate new groundwater withdrawals within the upper Kittitas area can be reviewed online at: www.ecy.wa.gov/programs/wr/cwp/images/kitt_map_lg.jpg.

For info: Joye Redfield-Wilder, Ecology, 509/ 575-2610 or jred461@ecy.wa.gov; Draft Agreement at: www.ecy.wa.gov/programs/wr/cro/images/pdfs/draft_twr_agreement.pdf

CHEMICALS OF CONCERN US

EPA TSCA ACTIONS - NEW LIST

On December 30, EPA announced a series of actions on four chemicals raising serious health or environmental concerns, including phthalates. For the first time, EPA intends to establish a "*Chemicals of Concern*" list and is beginning a process that may lead to regulations requiring significant risk reduction measures to protect human health and the environment. EPA's actions represent its determination to use its authority under the existing Toxic Substances Control Act (TSCA) to the fullest extent possible, recognizing EPA's strong belief that the 1976 law is both outdated and in need of reform.

In addition to phthalates, the chemicals EPA is addressing today are: short-chain chlorinated paraffins; **p**oly**b**rominated **d**iphenyl **e**thers (PBDEs); and perfluorinated chemicals, including PFOA. These chemicals are used in the manufacture of a wide array of products and have raised a range of health and environmental concerns.

EPA also recently announced that three US companies agreed to phase out DecaBDE, a widely used fire retardant chemical that may potentially cause cancer and may impact brain function.

On September 29, 2009, EPA Administrator Jackson outlined a set of agency principles to help inform legislative reform and announced that EPA would act on a number of widely studied chemicals that may pose threats to human health. When TSCA was passed in 1976, there were 60,000 chemicals on the inventory of existing chemicals. Since that time, EPA has only successfully restricted or banned five existing chemicals and has only required testing on another two hundred existing chemicals. An additional 20,000 chemicals have entered the marketplace for a total of more than 80,000 chemicals on TSCA's inventory.

EPA actions include reinforcing the DecaBDE phaseout — which will take place over three years — with requirements to ensure that any new uses of PBDEs are reviewed by EPA prior to returning to the market.

This is the first time EPA has used TSCA authority to list chemicals that

WATER BRIEFS

"may present an unreasonable risk of injury to health and the environment." Once listed, chemical companies can provide information to EPA if they want to demonstrate that their chemical does not pose an unreasonable risk.
For info: Dale Kemery, EPA, 202/ 564-7839 or kemery.dale@epa.gov
EPA WEBSITE: www.epa.gov/oppt/existingchemicals

PESTICIDE METHODOLOGY US
AQUATIC LIFE EFFECTS

In the November 25, 2009, Federal Register, EPA announced that starting January 2010, it will conduct six public meetings to solicit input on methods being evaluated by the Office of Pesticide Programs (OPP) and the Office of Water (OW), with the support of the Office of Research and Development (ORD), to characterize effects from pesticides on fish, other aquatic organisms, and aquatic plants in aquatic ecosystems. At the public meetings, EPA will detail initial thinking on how to ensure that effects are characterized consistently by both OPP and OW. See TWR Calendar (later in this issue) for meeting details.

Following these meetings, EPA plans to develop a set of white papers describing potential new tools and analytical approaches that may be used by EPA, state pesticide and water quality agencies, and other stakeholders. These white papers will explore methods for estimating aquatic toxicity data for deriving community level benchmarks and methods to address effects on plants. EPA expects to solicit additional stakeholder input on the tools and approaches as the white papers are developed. The tools and approaches will undergo peer review prior to being made available.

Information that will be presented at the meetings and the schedule of meetings is available on EPA's website (below). The Federal Register notice is available at www.regulations.gov, identified by Docket ID No. EPA-HQ-OPPTS-2009-0773.
For info: EPA website: www.epa.gov/oppefed1/cwa_fifra_effects_methodology/index.html

CALIFORNIA BAY-DELTA CA
FED ACTION PLAN RELEASED

On December 22, 2009, Secretary of the Interior Ken Salazar released the "Interim Federal Action Plan for the California Bay-Delta" (Interim Action Plan). The coordinated interim action plan is designed to address the water crisis in California. In accordance with a Memorandum of Understanding (MOU) signed by six federal agencies at the end of September, Secretary of the Interior Salazar and Chair Nancy Sutley of the White House Council on Environmental Quality (CEQ) joined the Department of Commerce, Environmental Protection Agency (EPA), the Department of the Army, and the Department of Agriculture to release a list of actions being taken by the six federal agencies.

"The California water crisis is a full-blown crisis that requires all hands on deck to help those who are suffering. We are moving aggressively to do our part to address the urgent need to provide reliable water supplies for 25 million Californians, while also protecting the Bay-Delta ecosystem upon which the supplies depend," Secretary Salazar said. "Everything we do will be done in close partnership with the State of California and will build upon the path-breaking legislation recently enacted by the State."

The 23-page Interim Action Plan contains many specific short-term actions and is intended to: strengthen the federal government's coordination of actions with the state; help to meet water needs through actions that promote smarter water supply and use; help ensure healthy ecosystems and improved water quality; and call for agencies to help deliver drought relief services and ensure integrated flood risk management.
For info: Kendra Barkoff, DOI, 202/ 208-6416; Interim Action Plan available at: www.doi.gov/documents/CAWaterWorkPlan.pdf

CLIMATE & PLANNING US
WATER UTILITY CLIMATE ALLIANCE PAPER

The Water Utility Climate Alliance (WUAC), a consortium of metropolitan drinking water providers, commissioned a white paper, entitled "*Options for Improving Climate Modeling to Assist Water Utility Planning for Climate Change*." The goal of the white paper is to explain how climate models work; describe how models have been used in the water sector to assess potential impacts on our systems; and make recommendations regarding how to improve modeling and downscaling techniques so these tools can be more useful for the water sector.
For info: www.wucaonline.org/assets/pdf/actions_whitepaper_120909.pdf

WQ AMMONIA CRITERIA US
EPA UPDATE

On December 30, 2009, EPA published in the Federal Register a Draft Update of the 1999 *Ambient Water Quality Criteria for Ammonia – Freshwater* which reflects new scientific knowledge. Ammonia is toxic to aquatic life at low concentrations. EPA has incorporated in the draft criteria dataset new toxicity data on larval and juvenile freshwater mussels, which are more sensitive than the aquatic organisms represented in the dataset for the 1999 ammonia criteria.

Since freshwater mussels are not present nationwide in all waters, EPA is recommending in the draft criteria update a short-term (acute) criterion for waters with mussels present, and another criterion for waters without mussels. Similarly, the recommended long-term (chronic) criterion includes one value applied to waters with mussels, another criterion to apply to waters without mussels, and a third chronic criterion value to apply to waters without mussels but with early life stages of fish present.

EPA is accepting scientific views on the draft updated criteria document for 60 days from Federal Register publication.
For info: www.epa.gov/waterscience/criteria/ammonia/factsheet2.html

WATER BRIEFS

EFFLUENT GUIDELINES US
EPA PRELIMINARY 2010 PLAN

On December 28, EPA published in the Federal Register the agency's preliminary 2010 plan regarding developing and revising technology-based water pollution control regulations, called effluent guidelines. The preliminary plan is a requirement of the Clean Water Act, and describes EPA's ongoing efforts to develop effluent guidelines. The preliminary plan does not contain regulatory requirements, rather it presents a process EPA is using to identify industries for further investigation and analysis. EPA will use these additional analyses to determine whether to revise or establish new effluent guidelines.

In this preliminary 2010 plan, EPA states its decision to initiate an effluent guidelines rulemaking for the Steam Electric Power Generating industry due to the potential hazard to human health and the environment from the industry's pollutant discharges. EPA also updates the public and interested stakeholders on the results of detailed studies of the Coalbed Methane Extraction and Health Care Industries and a preliminary category review for the Ore Mining and Dressing (Part 440) category.

EPA will accept comments on the preliminary plan for 60 days.
For info: www.epa.gov/guide/304m/.

MEDICINES TAKE-BACK CO
DENVER METRO DISPOSAL PROGRAM

The Colorado Department of Public Health and Environment and a consortium of concerned organizations have launched a pilot program offering a secure and environmentally responsible way for people to dispose of unwanted medicines. Tamper-resistant collection boxes now are available at locations around the Denver metro area.

Secure collection boxes have been installed to dispose of the waste medicines in their original containers. The boxes are intended for household medications including prescription drugs but cannot accept narcotics, controlled substances or medications from clinics, hospitals or nursing homes. A guidebook attached to each collection box explains which products can be deposited.

To prevent theft, each box requires two keys. Box contents will be immediately destroyed upon collection to render them unusable. The residual waste materials will be incinerated at a facility licensed to handle medical waste. The pilot program is scheduled to run for two years and will provide state regulators with data needed to determine if a statewide program is feasible.
For info: Dee Martinez, Denver Public Health, 303-436-6615; WEBSITE: www.coloradomedtakeback.info

FED AGENCY STORMWATER US
EPA GUIDANCE FOR FEDERAL AGENCIES

EPA has issued guidance to help federal agencies minimize the impact of federal development projects on nearby water bodies. The guidance is being issued in response to a change in law and an Executive Order signed by President Obama, which calls upon all federal agencies to lead by example to address a wide range of environmental issues, including stormwater runoff.

Under the new requirements, federal agencies must minimize stormwater runoff from federal development projects to protect water resources. Federal agencies can comply using a variety of stormwater management practices often referred to as "green infrastructure" or "low impact development" practices, including reducing impervious surfaces, using vegetative practices, using porous pavements and installing green roofs.
For info:
www.epa.gov/owow/nps/lid/section438/

CONSTRUCTION BMPS CA
STORMWATER HANDBOOK DEVELOPED

The California Stormwater Quality Association (CASQA) has developed a new CASQA Construction BMP Handbook/Portal to complement the new California State Construction General Permit that takes effect July 2010. CASQA is making the new CASQA Construction BMP Handbook/Portal available now for annual subscription to help permittees and other users prepare for when the new permit takes effect in July. For more information about purchasing an annual subscription to the Construction BMP Handbook/Portal, go to CASQA's website (below).

The format of the new version reflects a switch from a paper-based handbook format to an interactive web portal format. This new update of the Construction Handbook reflects the current state of construction stormwater quality management practices and revised regulatory requirements that take effect in July. Note that the current State Construction General Permit (99-08 DWQ) remains in effect through the current wet season until July 1, 2010, when the new Construction General Permit (2009-0009 DWQ) takes immediate effect.
For info: www.casqa.org

PESTICIDE INGREDIENTS US
EPA SEEKS DISCLOSURE

EPA is requesting public comment on options for disclosing inert ingredients in pesticides. In this anticipated rulemaking, EPA is seeking ideas for greater disclosure of inert ingredient identities. Inert ingredients are part of the end use product formulation and are not active ingredients. Revealing inert ingredients will help consumers make informed decisions and will better protect public health and the environment.

EPA believes public disclosure is one way to discourage the use of hazardous inert ingredients in pesticide formulations. EPA is inviting comment on various regulatory and voluntary steps to achieve this broader disclosure.

On October 1, 2009, EPA responded to two petitions (one by Northwest Coalition for Alternatives to Pesticides, and a second by several state attorneys general), that designated more than 350 inert pesticide ingredients as hazardous. The petitioners asked EPA to require that these ingredients be identified on the labels of products that include them in their formulations.

EPA will accept comments on the advance notice of proposed rulemaking for 60 days after it has been published in the Federal Register.
For info: www.epa.gov/opprd001/inerts/index.htm

CALENDAR

January 15 CA
California Water Law Symposium: "Who Controls the Water? Reforming California Water Law Governance in an Age of Scarcity," San Francisco. U of SF School of Law, 2130 Fulton Street. For info: www.waterlawsymposium.com/

January 15 WA
Introduction to the State Environmental Policy Act (SEPA) Course, Seattle. NWETC Hdqtrs, 650 South Orcas Street. For info: NWETC, 206/ 762-1976 or website: http://nwetc.org

January 19 KS
EPA Workshop on Effects of Pesticides on Fish & Aquatic Organisms, Kansas City. 901 North 5th Street, Rm2240 A. For info: www.epa.gov/oppefed1/cwa_fifra_effects_methodology/index.html

January 19 IL
Fed Stormwater Rule - EPA Listening Sessions, Chicago. EPA Region 5 Office, 77 W. Jackson Blvd., 10am-3pm. See Briefs, this Issue. For info: www.epa.gov/npdes/stormwater/rulemaking

January 20 AZ
Environmental Lab Services Seminar, Surprise. Town Hall Auditorium. For info: Linda Parrish, 602/ 324-6110 or lparrish@legend-group.com

January 20 CA
Fed Stormwater Rule - EPA Listening Sessions, San Francisco. EPA Region 9 Office, 75 Hawthorne Street, 10am-3pm. See Briefs, this Issue. For info: www.epa.gov/npdes/stormwater/rulemaking

January 20 OR
State of the State - Environmental Legislation & Regulation: NEBC Reception, Portland. BridgePort Brew Pub, 1313 NW Marshall, 5-8pm. For info: NEBC, 503/ 227-6361 or www.nebc.org

January 20-22 DC
The New Green Economy: Aligning Science, Education & Markets Conference, Washington. International Trade Center. 10th National Conference on Science, Policy & the Environment. For info: Conf. website: http://ncseonline.org/conference/greeneconomy/

January 21 WA
EPA Workshop on Effects of Pesticides on Fish & Organisms, Seattle. 1200 Sixth Ave., Ste. 900. For info: www.epa.gov/oppefed1/cwa_fifra_effects_methodology/index.html

January 21 MT
State of the Gallatin Watershed Meeting & Silent Auction, Bozeman. Holiday Inn. For info: Sharlyn, 406/ 219-3739, info@greatrgallatin.org or www.greatergallatin.org

January 21-22 CA
NEPA Seminar, San Francisco. For info: CLE International, 800/ 873-7130 or website: www.cle.com

January 21-22 NC
Stormwater Management in the Carolinas, Charlotte. For info: Law Seminars Int'l, 800/ 854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

January 21-22 AK
EPA's Numberic Limits to Construction Site Stormwater Discharge & BMPs Course, Anchorage. For info: NWETC, 206/ 762-1976 or website: http://nwetc.org

January 22 CA
EPA Workshop on Effects of Pesticides on Fish & Aquatic Organisms, Oakland. Ronald V. Dellums Federal Bldg., 1301 Clay Street. For info: www.epa.gov/oppefed1/cwa_fifra_effects_methodology/index.html

January 22 DC
10th National Conference for Science & the Environment: The New Green Economy, Washington DC. Ronald Reagan Bldg. For info: http://ncseonline.org/conference/greeneconomy/

January 25 CO
Fed Stormwater Rule - EPA Listening Sessions, Denver. EPA Region 8 Office, 1595 Wynkoop Street, 10am-3pm. See Briefs, this Issue. For info: www.epa.gov/npdes/stormwater/rulemaking

January 25-26 TX
Wind Energy Seminar, Austin. For info: CLE International, 800/ 873-7130 or website: www.cle.com

January 25-27 TX
2010 UIC Conference, Austin. Intercontinental Hotel. Sponsored by Ground Water Protection Council. For info: GWPC website: www.gwpc.org/meetings/uic/uic.htm

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

January 26 TX
Fed Stormwater Rule - EPA Listening Sessions, Dallas. EPA Office Region 6, 1445 Ross Avenue, Ste. 1200, 10am-3pm. See Briefs, this Issue. For info: www.epa.gov/npdes/stormwater/rulemaking

January 26-27 CA
Intro to Managing Environmental Data w/ Microsoft Access 2007 Course, Los Angeles. Japanese American Cultural & Community Ctr, 224 South San Pedro Street. For info: NWETC, 206/ 762-1976 or website: www.nwetc.org

January 27 CA
Thresholds of Significance in Environmental Planning Course, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, 800/ 752-0881 or http://extension.ucdavis.edu

January 27-28 NM
Tribal Energy Transmission System Planning Workshop, Albuquerque. Mariott Hotel. For info: Rosalyn Worthan, BIA, 202/ 208-3567 or rosalyn.worthan@bia.gov

January 27-29 CO
Colorado Water Congress' 52nd Annual Conference, Denver. Hyatt Regency Tech Center. For info: CWC: http://colowc.com

January 28 OR
Solar Power: Projects & Permitting Seminar, Portland. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

January 28 WA
Wetlands in Washington Seminar, Seattle. Renasissance Hotel. For info: Law Seminars Int'l, 800/ 854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

January 28 CA
Environmental Planning & Design Issues for Development Projects On or Near Airports Course, Sacramento. Sutter Square Galleria. For info: UC Davis Extension, 800/ 752-0881 or http://extension.ucdavis.edu

January 28 CA
Climate Change Adaptation Planning Course, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, 800/ 752-0881 or http://extension.ucdavis.edu

January 28 CA
Managing Environmental Data w/ Microsoft Access 2007 Course, Los Angeles. Japanese American Cultural & Community Ctr, 224 South San Pedro Street. For info: NWETC, 206/ 762-1976 or website: www.nwetc.org

January 28 DC
Fed Stormwater Rule - EPA Listening Sessions, Washington. EPA HQ Office, Ariel Rios Bldg., 1200 Pennsylvania Ave.NW, 10am-3pm. See Briefs, this Issue. For info: www.epa.gov/npdes/stormwater/rulemaking

January 28-29 WA
Endangered Species Act Seminar, Seattle. Washington State Trade & Convention Ctr. Webcast Available. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

February 1-2 TX
Texas Wetlands Seminar, Austin. For info: CLE International, 800/ 873-7130 or website: www.cle.com

February 1-5 OR
Klamath Basin Science Conference, Medford. Red Lion Hotel. Sponsored by USGS, NOAA & National Fish & Wildlife Foundation. For info: http://wfrc.usgs.gov/

February 2-4 WA
River Restoration Northwest 2010 Stream Restoration Design Symosium, Stevenson. Skamania Lodge. For info: Rob Sampson, USDA, Rob.Sampson@id.usda.gov or http://rrnw.org

February 3 WA
The New Industrial Stormwater Permit Workshop, Seattle. Sponsored by NEBC. For info: Sue Moir, NEBC, 503/ 227-6361, sue@nebc.org or www.nebc.org

February 3-4 WA
NEPA: Writing the Perfect EA/FONSI or EIS Course, Seattle. For info: NWETC, 206/ 762-1976 or website: http://nwetc.org

February 4 IL
Carbon Credits Seminar, Chicago. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

February 4 CA
Land Use for Real Estate Professionals Course, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, 800/ 752-0881 or http://extension.ucdavis.edu

February 4-5 AZ
Solar Energy Seminar, Phoenix. For info: CLE International, 800/ 873-7130 or website: www.cle.com

February 5 CO
Promise & Peril of Oil Shale Development Symposium, Denver. Grand Hyatt-Denver, 1750 Welton St. Sponsored by Natural Resources Law Center. For info: NRLC, 303/ 492-1286, nrlc@colorado.edu or www.colorado.edu/law/centers/nrlc/OilShale.pdf

February 7-9 WA
Harvesting Clean Energy 10th Annual NW Conference, Kenniwick. For info: Dana Colwell, 800/ 942-4978, Eana.Colwell@wsu.edu or www.harvestcleanenergy.org

February 9 MT
Water Rights: What You Need to Know, Billings. Holiday Inn Grand. Sponsored by Montana Watercourse & DNRC. For info: Janet Bender-Keigley, 406/ 994-6671, jkeigley@montana.edu or www.mtwatercourse.org

February 9-11 WA
Facilitation Skills for Scientists & Resource Managers Course, Seattle. For info: NWETC, 206/ 762-1976 or website: http://nwetc.org

February 10 WA
TMDLs in the Spokane Basin Seminar, Spokane. For info: Law Seminars Int'l, 800/ 854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

February 10 CA
Annual Water Law Update Course, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, 800/ 752-0881 or http://extension.ucdavis.edu

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

CALENDAR

(continued from previous page)

February 10-11 WA
Construction Site Erosion & Pollution Control, Shoreline. For info: UW Engineering website: www.engr.washington.edu/epp/cee/wet.html

February 11 WA
Reducing Uncertainty in Predictions of Climate Change Lecture, Seattle. UW Seattle Campus, Kane Hall 120. For info: UW Program on Climate Change, 206/543-6521, uwpcc@u.washington.edu or http://uwpcc.washington.edu

February 11-12 WA
Using Hydroacoustics for Fishery Assessment Course, Seattle. For info: Caroline Mercado, 206/ 633-3383, cmercado@HTIsonar.com or www.htisonar.com/ha short course.htm

February 16 GA
Carbon Credits Seminar, Atlanta. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

February 16-19 WA
Creating Thriving Rural & Urban Communities Through Ecological Restoration Conference, Marysville. Tulalip Convention Ctr. For info: www.ser.org/sernw/Conference_2010.asp

February 17 GA
Solar Power Seminar, Atlanta. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

February 17 WA
Protecting Aquatic Ecosystems by Understanding Watershed Processes: A Guide for Planners Program, Lacey. For info: www.coastaltraining-wa.org/Scheduled-Classes/5.aspx

February 17 WA
UW Water Center's 20th Annual Review of Research, Seattle. UW Seattle Campus. For info: http://water.washington.edu/Outeach/Events/AnnualReview/annualreview.html

February 17-19 NM
WESTCAS 2010 Winter Conference, Albuquerque. Embassy Suites. For info: Dawn Moore, 770/ 424-8111; email: westcas@mindspring.com or website: www.westcas.org

February 17-19 CA
ABA Water Law Conference, San Diego. US Grant Hotel. Sponsored by American Bar Association. For info: ABA website: www.abanet.org/environ/calendar/

February 18 OR
Future of Oregon's Water Supply & Management Seminar, Portland. World Trade Center, 121 SW Salmon. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

February 18-19 Ontario
2010 International Conference on Stormwater & Urban Water Systems Modeling, Toronto. For info: Computational Hydraulics Int'l website: www.computationalhydraulics.com/

February 18-19 GA
Georgia Wetlands & Water Law Seminar, Atlanta. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

February 18-19 CO
Renewable Energy Finance Seminar, Denver. For info: CLE International, 800/ 873-7130 or website: www.cle.com

February 21-24 Costa Rica
21st Century Watershed Technology: Improving Water Quality & the Environment, San Jose. Ramada Plaza Herradura. Sponsored by American Society of Agricultural & Biological Engineers. For info: ASABE website: www.asabe.org/meetings/water2010/index.htm

February 21-25 SC
2010 Land Grant & Sea Grant National Water Conference, Hilton Head Island. Marriott Hilton Head Resort. Sponsored by National Water Program. For info: NWP website: www.usawaterquality.org/

February 22-25 AZ
Southwest Membrane Operators Association Annual Symposium, Scottsdale. Carefree Resort. For info: SWMOA, 888/ 643-0830 or www.swmoa.org

February 23-25 DC
Assn of California Water Agencies Washington, D.C. Conference, Washington. Washington Court Hotel. For info: ACWA, 916/ 441-4545 or website: www.acwa.com

February 25 CA
CEQA Update, Issues and Trends Course, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, 800/ 752-0881 or http://extension.ucdavis.edu

February 25-26 MD
Water Quality in the Chesapeake Seminar, Baltimore. For info: Law Seminars Int'l, 800/ 854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

February 25-28 OR
Public Interest Environmental Law Conference, Eugene. UO Law School. For info: www.pielc.org/pages/home.html

February 26 OR
27th Annual Benefit Dinner & Auction: The Freshwater Trust, Portland. Art Museum. For info: www.thefreshwatertrust.org

February 26 OR
Water Quality Conference+E134, Portland. For info: Holly Duncan, Environmental Law Education Center, 503/ 282-5220, hduncan@elecenter.com or www.elecenter.com

March 2-4 NV
2010 NWRA Annual Conference, Las Vegas. Golden Nugget Hotel. Sponsored by Nevada Water Resources Association. For info: NVWRA, 775/ 473-5473 or website: www.nvwra.org/

March 3 WA
Convervation in Practice: UW College of the Environment Colloqium, Seattle. UW. For info: http://depts.washington.edu/cbcomm/colloquium