The Water Report™
Water Rights, Water Quality & Water Solutions in the West

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WATER RESTORATION CERTIFICATES

VOLUNTARY, MARKET-BASED FLOW RESTORATION

by Todd Reeve & Rob Harmon, Bonneville Environmental Foundation (Portland OR)

INTRODUCTION

Across the American West, thousands of miles of streams are chronically dewatered as a result of legal withdrawal of surface water to serve out-of-stream beneficial uses. Efforts are underway in many western states to support voluntary, market-based approaches to restore environmental flows to dewatered streams, rivers, and wetlands. However, funding available to support this work is not presently equal to the scale of the task. As one solution, the Bonneville Environmental Foundation (BEF) has launched the Water Restoration Certificate Program, which is the first nationally marketed, voluntary environmental flow restoration program. BEF provides a collaborative and innovative solution that promises to build a bridge between private sector urban water users and environmental flow restoration needs in the rural West.

BACKGROUND

CRITICALLY DEWATERED ECOSYSTEMS

Throughout the late 19th and early 20th century, rights to divert and use water were allocated among individuals, corporations, and municipalities that possessed the ability to divert water and put it to beneficial use. In a few very select cases, water rights appropriation did include provisions to protect streams from dewatering — for example to preserve waterfalls and lake levels at iconic recreation sites (Neuman and Chapman 1999; Scarborough 2010). However, undiverted water was generally considered wasteful. Historical appropriation of water rights did not include the use of water to support fish, wildlife, water quality, or recreation as a legitimate beneficial use with rare exceptions (Scarborough 2010). As a result, the surface water available in western rivers and streams was often fully or over appropriated in an effort to support human settlement and economic growth across the West. [Editor's Note: "Over appropriated" is a term of art in water law that basically means it has been determined by the governing agency that a stream has no additional water for new water rights (in accordance with the particular state standards) due to existing water rights that have already been granted. Each state has different standards that are applied to determine if a stream is over appropriated. Likewise, if a stream is "fully appropriated" then no additional water is deemed to be available for new rights.]

The result of this full-to-over appropriation of water rights is well documented. There are today thousands of miles of rivers, streams, and adjacent wetlands where legal diversion of water results in chronically and critically dewatered ecosystems. Many western river systems that historically flowed year-round, for example, now suffer from chronic low flows — or even go dry — during part of the year. In Montana alone, chronic or periodic dewatering occurs on over 4,000 miles of streams across 381 different river or stream systems (MFWP 2006). The ecological harm resulting from this hydrologic modification is manifold. In many locations throughout the West, chronic low flows exacerbate water quality issues; severely restrict the movement and productivity of fisheries and wildlife populations; reduce the vigor and function of riparian communities; and limit human recreational opportunities.

Restoration Certificates

Restoration Options

Water Trusts

Restoration Mechanisms

The Water Report
(ISSN 1946-116X)
is published monthly by
Envirotech Publications, Inc.
260 North Polk Street,
Eugene, OR 97402

Editors: David Light
David Moon

Phone: 541/ 343-8504
Cellular: 541/ 517-5608
Fax: 541/ 683-8279
email:
thewaterreport@yahoo.com
website:
www.TheWaterReport.com

Subscription Rates:
$249 per year
Multiple subscription rates available.

Postmaster: Please send address corrections to
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260 North Polk Street,
Eugene, OR 97402

SOLUTIONS

Over the last several decades, society has begun to acknowledge and assess the negative economic, environmental, and social consequences of widespread dewatering of streams and wetlands (Neuman and Chapman 1999; MDNRC 2001; CBWTP 2009). As government agencies, the private sector, and **n**on-**g**overnmental **o**rganizations (NGOs) grappled with how to restore flows to the levels needed to support aquatic life and ecological function, the options available to accomplish this goal generally fell into two categories — one administrative and the other voluntary and incentive-based (Aylward 2009).

Instream flow restoration options include:

- Administrative reallocation of water rights — where a governing body takes back, reassigns, or restricts water rights to meet environmental needs
- Voluntary reallocation of water rights — where a governing body provides an enabling framework for a market-based transfer process in which water rights holders voluntarily reallocate water use in response to legal, economic, or other incentives

Over time, several states responded with progressive legislation that codified the processes necessary to transfer and protect existing water rights to serve environmental purposes. On the heels of enabling statutes or legislation, water trust organizations across the West emerged and began to explore voluntary mechanisms to restore and protect environmental flows in dewatered ecosystems (see Furey & Purkey, *TWR* #2; Paulus, *TWR* #43; Beatie, *TWR* #66).

In 1994, the Oregon Water Trust (OWT) emerged as the first such organization dedicated to the voluntary acquisition of water rights for purposes of restoring instream flow. OWT is now part of The Freshwater Trust, having joined with Oregon Trout to form the new organization in 2009. The water trust movement quickly spread with groups such as the Washington Water Trust, Deschutes River Conservancy, Colorado Water Trust, and Montana Water Trust incorporating between 1996 and 2002. Over the past decade, new water trusts and agency programs have emerged, and several existing environmental organizations have developed programs to address environmental flow needs. Today, voluntary transactions to improve environmental flows have been implemented in the majority of western states (Scarborough 2010).

Environmental flow solutions may involve either diverting the water off the stream and directing it into an adjacent dewatered ecosystem, or simply leaving and protecting water flows instream. With the advent of water trusts and society's growing interest in improving environmental flows, a wide range of unique mechanisms to restore water to dewatered ecosystems has been developed, tested, and refined.

Flow restoration mechanisms include the following:

- Increase or change the timing of water released from reservoirs
- Change the point at which water is diverted from the stream to a point further downstream
- Substitute a groundwater source for surface water sources during low flow periods
- Improve delivery efficiency through lining or piping of ditches
- Reduce water diversions through better water distribution
- Improve on-farm use efficiency through improved sprinklers, drip irrigation, or other means

(from Aylward 2009)

The options noted above — except for increasing water released from a reservoir — allow for a reduction in the amount of water diverted *without* a corresponding decrease in crop production. However, these methods do not reduce the amount of water consumed (by crops or livestock). Accordingly, these methods typically can only restore flows immediately downstream to the point at which unconsumed water would have returned to the stream system. In other words, efficiency improvements may have resulted in smaller amounts of water being diverted but such changes also result in eliminating the "return flows" that historically returned to a stream (i.e. water not consumed by the crops or livestock). For this reason, the reallocation of water rights, where an existing water use is transferred to a new instream use, has emerged as a preferred method of restoring flows in many western basins.

Water right transfers to enable environmental benefits may entail:

- Fallowing land
- Switching to low-water use crops
- Reducing the amount of water made available for irrigation
- Shortening the period of irrigation
- Ceasing irrigation

Water rights holders must consider whether personal circumstances and market-based incentives warrant taking any of these actions.

Restoration Certificates

Transactions

Although there is much variation among western states, a recent review of instream transfer records from state, federal, and private entities indicates substantial interest on the part of western water rights holders in using water rights in new, different, and flexible ways that benefit environmental flows. From 1987-2007 more than 2,800 instream transactions were completed, restoring over 10 million acre-feet of water (Scarborough 2010). The water trust movement continues to thrive and grow. Indications are that there are ever-increasing opportunities to work with willing water rights holders and apply market incentives to achieve substantial improvements in environmental flows (Brewer et. al. 2007).

It is clear that a voluntary, market-based approach to restore environmental flow has great potential to improve ecological function in dewatered ecosystems across the West. Moreover, as a result of both historic and ongoing research, scientists and environmental organizations have significant knowledge about where and when water is critically needed. Some states have acted to pass statutes and institutionalize processes to facilitate and protect instream transfers. Environmental flow restoration mechanisms have been successfully developed and tested. Perhaps most importantly, results show that water rights holders are responding to economic incentives by voluntarily reallocating water rights for ecosystem benefit.

Funding Challenges

Increasing Costs

While the water trust movement began with the promise of market-based acquisition of water rights to restore streamflow, the primary funding mechanism to support flow restoration work to date has come from governmental regulatory or mitigation program funding. These public funds are typically utilized to buy water rights and/or pay for efficiency upgrades. Philanthropic, corporate, and individual contributions also play a part, but these funds are often far less than the overall cost of the water necessary to restore adequate streamflow for any given project. Hence, these private resources tend to be used for start-up or ancillary programmatic purposes (Aylward 2009).

Consistent predictions concerning future climate change, population growth, urban development, and associated water scarcity strongly suggest that competition and costs for water will only increase over time. Cost increases will amplify the challenges associated with restoring environmental flows on a meaningful scale across the American West. With thousands of miles of streams and adjacent wetlands in critical need of water, relying largely on limited mitigation and government funding to restore dewatered ecosystems is not likely to produce the necessary changes on a significant scale.

A Voluntary Market-based Solution

"Water Footprint"

In 2008, the Bonneville Environmental Foundation (BEF) began exploring whether a true voluntary, market-based approach could provide a significant, stable funding source to support environmental flow projects across a range of western states.

For the past eight years, BEF has operated a non-profit business, selling Renewable Energy Certificates (RECs) and carbon offsets to residential, corporate, and utility customers across North America. BEF's business interactions with "green" companies, corporate sustainability officers, and myriad trade organizations demonstrated the broad interest across society to reduce the "water footprint" associated with operational consumption of water. Water conservation remains an essential way to address this issue, however, our experience suggested that many progressive companies also seek methods to account for all institutional water use (for example, the residual water use that occurs even after extensive conservation practices are put into place). In some cases this motivation stems from an innate organizational commitment to sustainability and the environment. In other cases, companies seek to brand their product and build market share around environmental sustainability. Upon review, there did not appear to be any means by which progressive institutions or individuals could match their water use with an equal amount of water restored to the environment. In this, BEF saw an opportunity.

THE WATER RESTORATION CERTIFICATE

The Concept

Voluntary Market

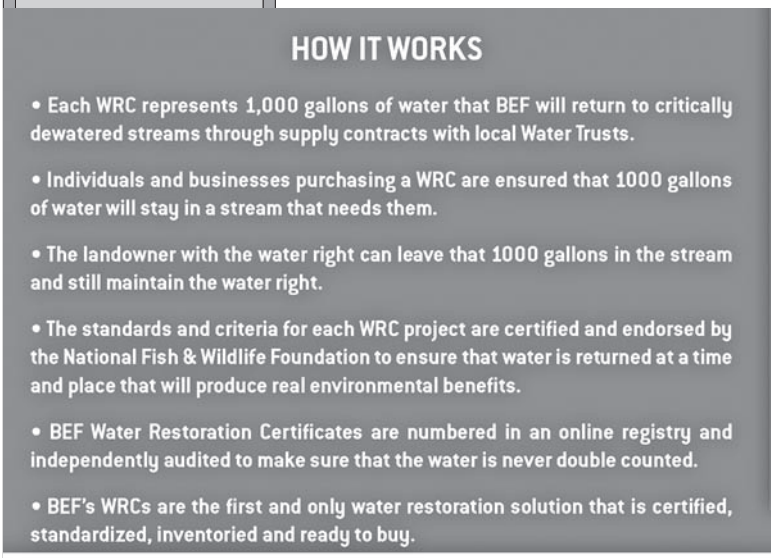
In 2009, BEF developed the Water Restoration Certificate™ (WRC) and with it, launched the first nationally marketed, voluntary environmental flow restoration program. The WRC program is built on the premise that private enterprise and the voluntary market can solve large-scale environmental challenges when society is empowered to both understand and directly address environmental challenges. WRCs offer an innovative, market-based solution that provides a measurable and effective way for companies and individuals to take responsibility for their water use.

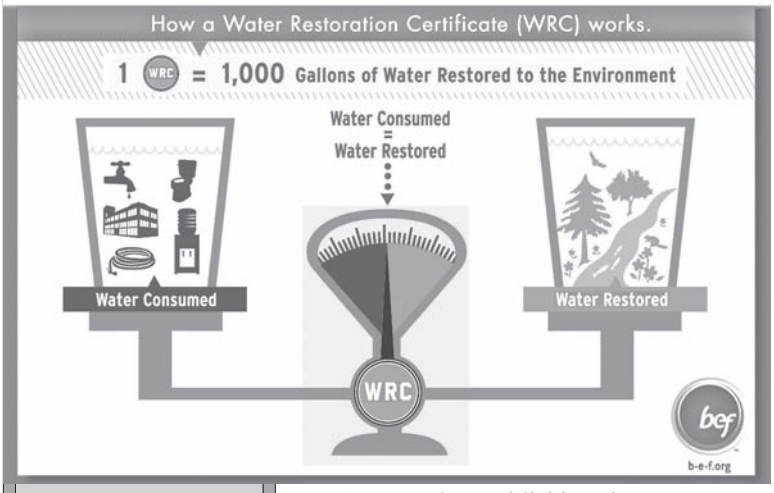
Restoration Certificates

How It Works

Each WRC produced by BEF represents 1,000 gallons of water that is restored to a critically dewatered river, stream, or wetland during a critical time of year. BEF contracts with water trust organizations and provides funding to implement environmental flow restoration projects in areas of critical need. The water restored through each BEF-funded project is measured, and ultimately this quantified amount of restored water forms the basis of the WRC "inventory." BEF then sells WRCs to residential and institutional customers that convey the right to claim responsibility for restoring a specific amount of environmental flow.

BEF uses its website and its sales and marketing teams to approach corporations, businesses, and individuals and offer a product (i.e., the WRC) that restores to the environment an amount of water equal to a business' or individual's use of water. As customers from the private sector commit to buy WRCs, BEF utilizes the retained earnings from this sales revenue to support water trust partners in creating the next phase of environmental flow projects.





Program Criteria and Project Review

Establishing very high project standards is fundamental to the success of the WRC program. Project standards and rigorous screening must assure that each WRC-funded project produces the environmental gains desired by (and promised to) WRC customers. In addition, with a market-based approach, there is every possibility that for-profit entities could seek to profit from a WRC-like program that relies on sales sourced from low cost environmental flow projects that produce little environmental benefit. Such low-cost, low benefit projects, for example, might seek to secure junior water rights or augment environmental flows during high flow periods or in river reaches that are not flow-limited. Accordingly, it is imperative that a high environmental standard be set to guide any and all future activity in an environmental flow marketplace.

Rigorous Criteria

As a result, establishing rigorous program criteria was the first and most critical step in designing the WRC program. To accomplish this, BEF contracted with the National Fish & Wildlife Foundation (NFWF) to develop environmental criteria and establish a selection process for projects that would restore environmental flows to serve as the basis for WRC inventory. NFWF is a nonprofit established by Congress in 1984. Among other programs, NFWF manages the Columbia Basin Water Transactions Program supporting innovative, voluntary transactions to improve streamflows in the Columbia Basin states of Idaho, Montana, Oregon, and Washington. NFWF is an authority on western environmental flow restoration, overseeing more than 23,000 acre feet of environmental flow restoration (176 cubic feet per second (cfs)) across 285 stream miles in 2009 alone.

The WRC project criteria are certified by NFWF and are derived from criteria approved by the Independent Scientific Review Panel used by the Bonneville Power Administration in the administration of the Columbia Basin Water Transactions Program (see www.cbwtp.org/).

Key Criteria

Examples of key WRC criteria include the following:

- The water rights to be secured as environmental flow must be valid and verifiable. The environmental flows associated with these rights must be either: a) protected instream under state water rights law; or b) be secured under a legally enforceable contract or agreement.
- Environmental flow in the stream reach(es) or area(s) addressed by the project must be identified as a limiting factor for fish and wildlife, biodiversity, and/or ecosystem function in a publicly-available, scientifically credible assessment, study or plan.
- Environmental flow must be secured and/or protected at both a location and time of year where low flows are a limiting factor for fish and wildlife, biodiversity, and/or ecosystem function.

Restoration Certificates

- The water rights associated with the project must be either: a) of significant seniority that they will be protected instream during critical low flow periods; or b) will be secured and/or protected instream regardless of priority date.
- The quantity of environmental flow proposed for protection must be in addition to existing flows for fish and wildlife in the targeted reach or area.
- The project must not result from a barrier, impoundment, or structure that: a) limits fish passage (up or downstream); b) substantially impedes natural hydrological processes; or c) degrades water quality.

Project Scoring

Project Review Process

To create a WRC, BEF first works with a water trust or similar organization to identify a suitable environmental flow project that meets the NFWF certification criteria. Where requested by BEF, water trust organizations develop and submit environmental flow project proposals using an NFWF online form and database for review. Key NFWF staff (with high-level expertise in the environmental flow arena) evaluate and score transaction proposals for funding based on the extent to which the proposals satisfy the established criteria. If proposals are approved and all applicable contracts with water rights holders and agency approvals are signed and received by NFWF, then a final approval for the environmental flow project is issued.

Trust Collaboration

Contracting with a Water Trust Organization

Once approved, BEF establishes a contract with a water trust organization in which BEF agrees to provide funding to support: a) project development costs; b) project implementation costs (including payment to water rights holders); and c) project monitoring costs for the duration of the project.
In return, the water trust agrees to the complete the following:

- Implement the environmental flow project and facilitate agency approval of a state leasing or transfer process (as applicable)
- Conduct/oversee monitoring of environmental flow compliance
- Produce an end-of-year report and signed attestation that include monitoring data for the project and document a minimum volume of environmental flow restored by the project over the course of the year
- Transfer to BEF the rights to claim:
  a) to have funded 100% of the environmental flows resulting from the project
  b) credit for any environmental benefits that occur as a result of restored environmental flows

Registry Evaluation

Registry and WRC Generation

Once the funded project is complete and the water trust submits an attestation and monitoring report, BEF provides all project documentation to the Markit Environmental Registry — an international environmental registry (see: www.markit.com/en/products/registry/markit-environmental-registry.page).

At this stage, the registry performs a third party evaluation of the submitted documents, serializes each WRC, and "posts" the new WRC inventory generated to the registry. The registry's system then catalogs, tracks, and accounts for each and every WRC created and sold in any given year.

Conservation First

Sales, Conservation, and Retirement

The goal of the WRC program is to promote sustainable use of water and to restore environmental flows in critically dewatered areas. As such, BEF first encourages water conservation among all WRC customers. As an example of this, water conservation devices such as low flow showerheads and aerators are included in the purchase price of all WRCs purchased on the BEF website. In addition, a wide range of water saving tips are integrated into the website content. For corporate customers, BEF maintains a list of water efficiency and conservation consultants, and we are prepared to engage corporate partners in broad water conservation efforts as a part of WRC purchases.

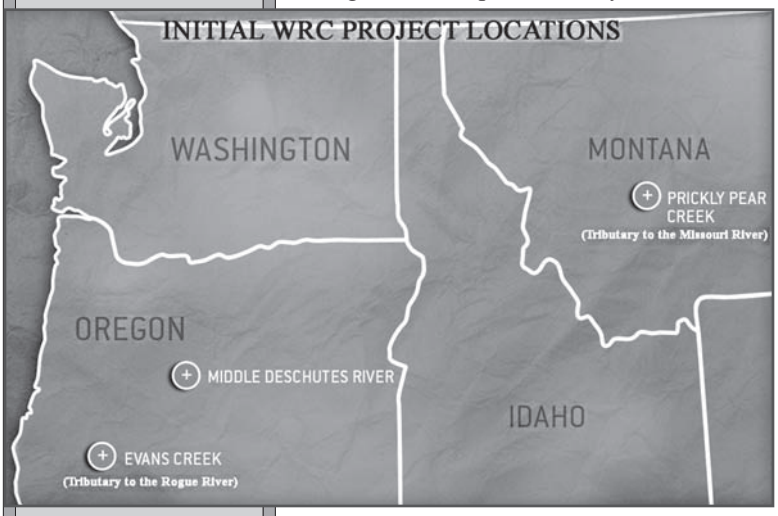
Once a WRC is sold to a customer, it is retired from use — meaning that it cannot be resold or used in any trading or mitigation program. In addition, in order to avoid any customer using a purchase of WRCs to justify further water use that could result in natural resource degradation, the WRC sales contracts specify that buyers will not use a WRC purchase in any attempt to establish new, or modify existing, rights for consumptive use of water.

Finally, an independent audit firm reviews all WRC transactions annually to make sure that WRC inventory and delivery systems are accounted for and that water returned to the ecosystem is never double counted.

Restoration Certificates

Project Locations

During BEF's decade-long experience working in the watershed restoration arena, we have established strong relationships with many water trusts working across the West. Building on these relationships, BEF worked closely with select organizations to identify and fund suitable projects that could serve as WRC inventory. In the program's first year, BEF funded three environmental flow projects (in advance of any WRC sales) to serve as baseline WRC inventory. Funded project locations included: the middle Deschutes River in Oregon; tributaries to the upper Missouri River in Montana; and tributaries to the Rogue River in Oregon. The Clark Fork Coalition, the Deschutes River Conservancy, and The Freshwater Trust are the water trust organizations that oversaw and managed every aspect of the environmental flow restoration projects.

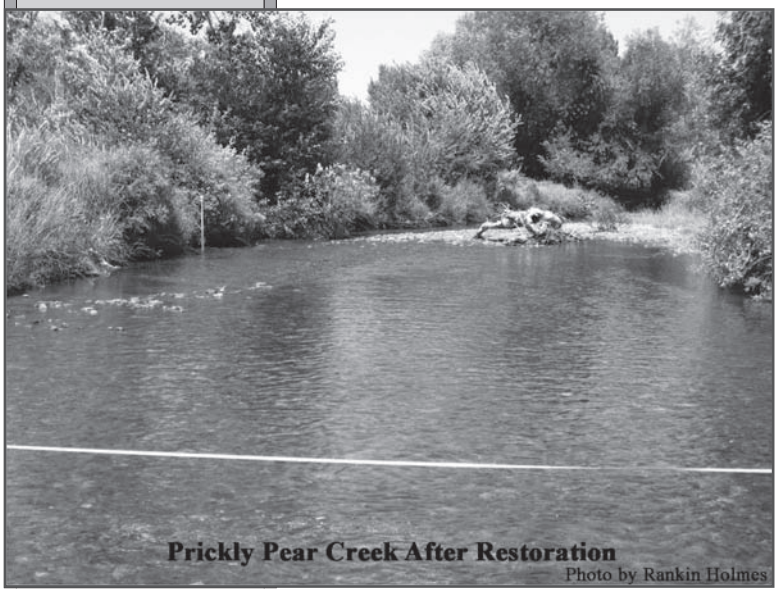


These initial projects represent a first phase of WRC inventory development, and it is BEF's expectation that we will add projects in additional locations and states in the next one-to-two years. To date, BEF has supported only environmental flow projects that increase critically low stream flows. Future WRC inventory will likely include projects that restore water to dewatered wetland areas.


Prickly Creek Before Restoration
Photo by Rankin Holmes

Customer Awareness

Interestingly, the extent of dewatering of western streams may not be widely understood by the general public. Because many stream systems have been dewatered for over 100 years and water withdrawal locations are often not visible from public access points, it is conceivable that multiple generations have grown up unaware that human diversion and use of water is a large contributor to low flow conditions in many rivers and streams. Upon first learning of the WRC program, for example, many prospective WRC customers express surprise at the pervasiveness of dewatering. BEF expects to use the WRC program to increase awareness about the extent and ecological effects of dewatering. Over time, we hope that increased public awareness will lead to conservation measures and the creation of new state statutes that allow water rights holders to efficiently and voluntarily reallocate water to mitigate chronic low flow conditions.


Prickly Pear Creek After Restoration
Photo by Rankin Holmes

WRC Project Goals

As noted, BEF's WRC program provides an innovative, market-based approach to a chronic and extensive western issue — i.e., the dewatering of streams, rivers, and wetlands by legal withdrawal of surface water. The program utilizes WRCs as a tool to engage residential and institutional customers in solutions that restore environmental flows. For the first time, this program connects water users anywhere with a mechanism that can restore water to the places that are in need of environmental flow restoration. Municipal water users seeking sustainable methods to account for their own water use can restore an amount of water equal to their own use through a WRC purchase. Significantly, the WRC program does not strive to restore flows only in watersheds from which customers draw their water — rather BEF supports projects where there is a clearly defined ecological need for flow restoration.

Todd Reeve is Vice President for Watershed Programs at BEF. Since 1992, Todd has undertaken watershed restoration efforts throughout the Pacific Northwest. He has worked for the US Forest Service, the Oregon Department of Fish and Wildlife, EPA, and private consulting firms. Since 2000, he has overseen the BEF's Watershed Program. Todd has conducted research on salmonid migration and habitat, monitored biological and hydrological results of stream restoration projects, and coordinated with many organizations to design, fund, and oversee watershed research and monitoring programs. Todd has presented at numerous conferences and has published articles in several scholarly journals and magazines.

Rob Harmon is Chief Innovation Officer and Senior Vice President at BEF. Rob has been working in the energy field since 1987, starting as an energy auditor in Massachusetts, moving on to manage an international marketing of wind energy. Rob joined BEF in 1999, and developed BEF's Green Tag program. In 2000, Rob developed and launched the first carbon calculator on the Internet. In 2000, Rob helped close the first retail Green Tag transaction in the US. In 2004, Rob was awarded the national Green Power Pioneer Award for his introduction of the retail Green Tag and ongoing efforts to build a Green Tag market in the US. Rob directed the development of BEF's national Solar 4R Schools program. His latest venture is the creation of BEF's Water Restoration Certificate business line. He recently contributed chapters to the book: *Voluntary Carbon Markets: A Business Guide to What They Are and How They Work*. Rob currently serves on the Boards of the Northwest Energy Coalition, Green-e, the Renewable Energy Marketers Association, and the Environmental Tracking Network of North America.

In marketing WRCs nation-wide, BEF seeks to generate support from the broadest customer base possible. As demand and sales of WRCs increase, it is our hope that this program can achieve four essential outcomes:

- Provide a stable funding source to support water trust organizations in their efforts to restore environmental flows in critically dewatered areas of the West
- Further demonstrate the real economic, social, and ecological value to water rights holders of voluntarily reallocating water rights to improve environmental flows
- Provide a simple, measurable, and effective way for individuals and institutions to address their water footprints
- Produce a market signal that will encourage states to enact (and water rights holders to support) legislation or administrative reforms that will facilitate efficient transfer and protection of water rights to meet environmental flow needs

CONCLUSION

Dewatered ecosystems across the West reflect a century old legacy, and change may not come rapidly in many areas. The success of this program will require individuals and institutions concerned about their own water use and the health of western watersheds to step up and participate in the solution offered by WRCs.

At present WRCs are sourced from projects in just two states, however with every new WRC purchase, BEF's ability to support a broader range of projects increases. With diversified projects located in more states, we expect that the appeal for large corporate customers to make substantial, long-term WRC purchases will grow. We strongly encourage individuals working in the water arena to take one or more of the following actions:

- Seek out more information on the WRC website (www.b-e-f.org/water) and share information about this program with colleagues
- Make a WRC purchase that matches the water use in your home or business with an equal amount of water restored to a dewatered ecosystem
- Work with colleagues, community members, and legislators to increase awareness about dewatering issues and possible solutions
- Contact BEF to learn more or share ideas for potential corporate customers or program dissemination opportunities in your state or area

For Additional Information:

Todd Reeve, Bonneville Environmental Foundation, 541/ 760-6658 or treeve@b-e-f.org

Water Restoration Certificate sales information: Pam Davee, BEF, 503/ 248-1905

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CONSTRUCTION STORMWATER REGULATION

EPA WITHDRAWS NUMERIC SEDIMENTATION LIMITS

Construction Runoff

"Final Rule" Modified

Reconsideration Underway

Litigation Abeyance

"Point Sources"

Stormwater Coverage

Numeric Limitations

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

Introduction

The US Environmental Protection Agency (EPA) has withdrawn a large portion of its regulation relating to stormwater discharge from the construction and development industry. EPA did so in response to litigation filed by the National Association of Home Builders, the Wisconsin Builders Association and Utility Water Act Group (collectively, "petitioners"). The Small Business Administration also filed with EPA a petition for administrative reconsideration of several technical aspects of EPA's final rule, and identified potential deficiencies with the dataset used by EPA to support its numeric sedimentation limit.

The case, now in front of the Seventh Circuit, involves challenges to EPA's final rule entitled "*Effluent Limitations Guidelines and Standards for the Construction and Development Point Source Category*" (Final Rule) 74 Fed. Reg. 62,996 (Dec. 1, 2009). This "Final Rule" established the first-ever enforceable numeric effluent limitations on pollutants in stormwater from construction and development sites. It did so by requiring that discharges associated with construction activities not exceed an average turbidity for any day of 280 **n**ephelometric **t**urbidity **u**nits (NTUs — a metric for effluent clarity). The Final Rule also required monitoring as well as non-numeric effluent limitations.

As part of the litigation, EPA re-examined the dataset it relied on in coming up with the 280 NTU limit and concluded it had improperly interpreted the data. As a result, on August 12, 2010, EPA moved to vacate part of the Final Rule and hold in abeyance the remaining issues in the case pending EPA review, notice-and-comment rulemaking and rule revision. EPA asked for an abeyance for eighteen months (until February 15, 2012), to allow EPA time to collect new data and evaluate the effluent limits. The Seventh Circuit granted the motion on August 24, 2010 and remanded the case to EPA for further proceedings.

Background on the Rule

The federal Clean Water Act, 33 U.S.C. §1251 *et seq.* provides the structure for regulating discharges of pollutants into the waters of the United States and regulating the quality standards for surface waters. The Federal Water Pollution Control Act was enacted in 1948; in 1977 the amended act became known as the Clean Water Act (CWA).

The CWA makes it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit is obtained. 33 U.S.C. § 1311(a). Under the CWA, point sources are regulated by the National Pollutant Discharge Elimination System (NPDES) permit program. CWA "point sources" are discrete effluent conveyances such as pipes or man-made ditches. EPA is authorized through CWA sections 301 and 304 to regulate discharges by establishing effluent limitations, or restrictions on pollutants that are discharged from point sources into navigable waters. 33 U.S.C. §§ 1311, 1314(b).

Most stormwater discharges are considered point sources and require coverage under an NPDES permit. Stormwater runoff is generated when precipitation from rain and snow flows over land or impervious surfaces and does not percolate into the ground. Stormwater runoff can gather debris, chemicals, sediment, or other pollutants that could adversely affect water quality if the runoff is discharged untreated. Effluent limitations in NPDES permits include "effluent limitation guidelines" and "new source performance standards" — both of which are technology-based effluent limitations that are established for different categories of point source discharges. 33 U.S.C. § 1314(b).

EPA is authorized under the CWA to issue NPDES permits to regulate discharges related to industrial activity. EPA has interpreted its authority to include regulation of stormwater discharges associated with certain large construction activity (40 C.F.R. § 122.26(b)(14)) and small construction activity (40 C.F.R. § 122.26(b)(15)).

Construction and Development Stormwater Permit

On December 1, 2009, EPA issued its Final Rule regarding **e**ffluent **l**imitation **g**uidelines (ELGs) and **n**ew **s**ource **p**erformance **s**tandards (NSPS) for the construction and development source category. The new rule took effect February 1, 2010. The Final Rule was issued in response to the court ruling in *Natural Resources Defense Council v. EPA*, 437 F.Supp.2d 1137, 1139 (C.D. Cal. 2006), *aff'd,* 542 F.3d. 1235 (9th Cir. 2008) (establishing timeline for promulgating rule).

The Final Rule would impact nearly every development project. It imposed numeric effluent limitations for pollutant turbidity of 280 NTUs for large construction sites, as well as non-numeric effluent limitations for all construction sites. The Final Rule also requires compliance monitoring at construction sites. The Final Rule was set to be phased in over a period of four years.

Construction Runoff

Turbidity

Site-Size Threshold

Procedural Issues

Economic Impacts

Non-Numeric Limitations

New Limit Development

Key Criticisms of the Final Rule

The petitioners advanced several arguments to try to get the court to vacate the Final Rule based on various technical errors in the data analysis and evaluation performed by EPA as well as procedural defects in the rulemaking process. First they argued that the EPA unlawfully promulgated ELGs and NSPSs for the Final Rule, claiming that the Final Rule exceeded EPA's authority under the CWA and violates the Administrative Procedures Act (APA). The petitioners argued that EPA unlawfully designated the entire construction site as a point source, imposed non-numeric restrictions on nonpoint source runoff and regulated an "optical measurement" (that is, turbidity expressed as a light refraction measurement) as a "pollutant."

The petitioners also argued that EPA promulgated the Final Rule without looking at industry-specific factors, including compliance measures during freezing conditions or on small lots that are part of larger developments. They argued that EPA arbitrarily set a site-size threshold that triggers application of the Final Rule without considering whether a larger site-size threshold would produce similar environmental benefits and reduce the impact on the construction and development industry. The petitioners claim that EPA failed to collect industry-specific data through an information request, which is the process generally followed by EPA when coming up with ELGs.

The petitioners make procedural arguments as well. Their primary argument is that EPA violated the public participation requirements in the APA and CWA by adopting an option in the Final Rule that was never subject to public comment. This option set a numeric effluent limit that EPA claimed to have based on passive treatment systems like gravity-dependent check dams, sediment ponds, and chemical additives. However, according to the petitioners, the record shows that EPA evaluated data from sophisticated and advanced treatment systems and vendors who market control technologies to builders. According to petitioners, EPA's own data show that passive systems cannot meet the final numeric limit. The petitioners further argue that had EPA followed the public participation requirements, these mistakes would have been caught. The petitioners also argue that the EPA failed to respond to significant comments as required by the APA.

Finally, the petitioners argue that the Final Rule has a significant economic impact on a substantial number of small businesses and therefore EPA should have conducted an analysis under the Regulatory Flexibility Act.

While EPA, in its motion to vacate did not address each of these arguments, it did state: "Based on EPA's examination of the dataset underlying the 280-NTU limit it adopted, the Agency has concluded that it improperly interpreted the data and, as a result, the calculations in the existing administrative record are no longer adequate to support the 280-NTU effluent limit." EPA's Unopposed Motion for Partial Vacature of the Final Rule, Remand of the Record, To Vacate Briefing Schedule, and to Hold Case in Abeyance, Docket # 30, Filed 8/13/2010, at 4-5.

Current Federal Status

Although existing stormwater regulations (40 C.F.R. § 122.26) require dischargers engaged in construction activity to get NPDES permits and implement measures to manage construction activity discharges, prior to the December 2009 rule there were no national performance standards or monitoring requirements for stormwater. EPA's Final Rule sought to create technology-based minimum requirements on a national level. In spite of the vacature, all construction and development sites greater than one acre must still comply with the non-numeric effluent limitations as of February 1, 2010.

All permittees must implement a range of erosion and sediment controls and pollution prevention measures at regulated construction sites. The rule prohibits discharges from dewatering activities and concrete washout activities unless properly managed; wastewater from washout of stucco, paint, form release oils, curing compounds and other construction materials; fuels, oils or other pollutants from vehicle or equipment operation and maintenance; and soaps and solvents used in vehicle and equipment washing. Finally, when discharging from basins and impoundments, the discharger must utilize outlet structures that withdraw water from the surface, unless infeasible.

As a result of the court order vacating the numeric effluent limitation in EPA's rule, construction sites are no longer forced to comply with the numeric effluent limitation for turbidity. Under the December 2009 rule, permittees were required to sample stormwater discharges at the site and report the levels of turbidity present to the permitting authority. Permitting authorities were required to incorporate these turbidity limitations into their permits.

EPA also asked that the court place a hold on the litigation until February 2012 to give EPA time to go back and develop a new numeric limit. This is likely to be achieved through additional data collection, analysis and evaluation, and a narrowly tailored rulemaking process that will give additional opportunities for comments. Because not all the substantive challenges were addressed however, some are likely to remain for future litigation.

Construction Runoff

EPA Authority

Washington State Proposals

Oregon Process

State Reactions

Interim Guidance

Impacts on State NPDES Programs

EPA has authorized 46 states to implement the NPDES program in their jurisdictions, but retains independent enforcement authority and responsibility to ensure that states write and enforce permits that are consistent with the rest of the nation. The primary exceptions are Idaho, Massachusetts, New Hampshire, New Mexico, the District of Columbia; federal facilities in Colorado, Delaware, Vermont, and Washington; and most Indian land. EPA also provides federal guidelines for the state permitting programs. This oversight is complex because the NPDES program has expanded from roughly 100,000 point sources thirty years ago, to nearly a million sources.

Many states were well underway in creating their own construction and development permits. Washington recently issued a proposed new Construction Stormwater General Permit to incorporate the Final Rule. The Washington Department of Ecology (Ecology) put the draft permit out for public review and comments were to be accepted until September 10, 2010. That permit contains basic monitoring and reporting requirements. In addition, it retains the current permit's 25 NTU benchmark to trigger adaptive management and a 250 NTU trigger for calling in a report to Ecology. Critically, the permit adds the 280 NTU numeric effluent limitation for sites with 10 or more acres of soil disturbed at time, as required by the Final Rule. According to an Ecology fact sheet that accompanies the proposed rule, over 99% of the turbidity samples reported to Ecology on Discharge Monitoring Reports (DMRs) were less than 280 NTU.

Oregon's process is also underway. Oregon is currently seeking public comments through September 28, 2010 on its proposal to reissue the 1200-C NPDES permit for the discharge of stormwater associated with construction activities. Among the changes to the Oregon Department of Environmental Quality permit is a new turbidity monitoring requirement and daily average effluent limit for construction activity disturbing 10 or more acres, based on the EPA Final Rule.

Ecology is waiting for additional guidance from EPA, but is planning to remove the effluent limit of 280 NTU. As of the date of this article, it is unclear how Oregon intends to respond to the EPA's withdrawal of the 280 NTU effluent limitation. While a state can adopt its own regulations that are more stringent than federal law, Oregon and Washington would run the risk that if they were to retain the 280 NTU limitation, that it would be deemed arbitrary in light of EPA's recent admissions that it improperly interpreted the data and that the data was inadequate to support the 280 NTU effluent limit.

Conclusion

As a result of this partial vacature, EPA is expected to issue interim stormwater management guidance for construction sites while EPA works to refine the rule. In addition, EPA is expected to initiate a narrowly-tailored, new rulemaking process on construction stormwater standards. This will present new opportunities for interested parties to provide comments to EPA on the effluent limitations for the construction and development industries. Finally, many states, including Oregon and Washington have begun the process of creating their own construction and development permits in response to the Final Rule. Oregon and Washington both adopted the 280 NTU turbidity limitation in their proposed permits. Both state water quality agencies are currently accepting public comments on the proposed permits and considering their options.

For Additional Information:
Tom Lindley, Perkins Coie LLP, 503/ 727-2032 or TLindley@perkinscoie.com
Jessica Hamilton, Perkins Coie LLP, 503.727.2266 or JTHamilton@perkinscoie.com

Tom Lindley, a Partner in Perkins Coie LLP and the National Chair of its Environment Energy & Resources Group, focuses on environmental counseling, compliance, and litigation, with particular expertise in the Clean Water Act (CWA), the Clean Air Act (CAA), the Resource Conservation & Recovery Act (RCRA), and Superfund or the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Tom counsels clients on environmental compliance, environmental audits (including criminal investigations), climate change issues, and release reporting. Tom has a very diverse national practice representing clients in matters ranging from due diligence, to permitting and compliance, and to cost recovery and citizen suit litigation. Tom is a member of the Oregon, Washington, Illinois State Bars; admitted to the US Supreme Court; member, Environment, Energy and Resources, Torts and Insurance Practice, and Litigation Sections, American Bar Association; chair, Water Quality and Water Resources Subcommittee; chaired the Environmental Crimes Task Force, Brownfields Task Force, and Sustainability Task Force, all for Associated Oregon Industries; participant, International Conference and Sustainability, The Netherlands (1997); member, U.S. Delegation, Convention on International Trade in Endangered Species (1994); chair, International Centre for Criminal Law Reform's International Environmental Legislation Committee (1994); adjunct professor, Northwestern School of Law of Lewis & Clark College (1990-1997); frequent speaker and author on environmental regulation and liability issues. Tom is listed in Best Lawyers in America, Lawdragon, and Chambers USA

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

CWA Liability

CLEAN WATER ACT LAWSUITS

AVOIDING AND RESPONDING TO THIRD-PARTY LAWSUITS

by Jeff Kray & Meline MacCurdy, Marten Law PLLC (Seattle, WA)

INTRODUCTION

Citizen Suits

The citizen suit provision in the federal Clean Water Act (CWA), 33 U.S.C. §1251 *et seq.* (1972), has been used regularly by environmental groups to enforce compliance with stormwater permits across the United States. With legal and technical advice, a potential citizen suit can often be resolved before a complaint is filed. The easiest and most cost-effective way to avoid citizen suit litigation, however, is to obtain and maintain compliance with a stormwater permit. This article describes legal and practical tools to both avoid citizen suits and to defend against citizen suits that cannot be avoided. For purposes of illustration, this article focuses on the industrial stormwater permitting program in Washington State as an example for common elements of stormwater permits and issues that may arise in CWA citizen suits.

OVERVIEW OF THE CWA CITIZEN SUIT PROVISION

NPDES Permits

The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." *Id*. § 1301. Accordingly, the CWA prohibits the discharge of a pollutant by any person, except in compliance with specified statutory sections. *Id.* § 1311(a). Chief among these exceptions are discharges that occur in compliance with permits issued under the National Pollutant Discharge Elimination System (NPDES) in CWA Section (§) 402 of the CWA, which includes stormwater discharge permits. *Id.* §1311(a) and § 1342(p). The US Environmental Protection Agency (EPA) has authorized most states to administer the NPDES program in their jurisdictions. *Id.* § 1342(b). In Washington, the State's Department of Ecology (Ecology) develops and administers NPDES stormwater permits. Thus, a stormwater permit issued by Ecology is both an NPDES permit under the CWA and a state waste discharge permit under state law.

CWA Definitions

The CWA provides that any "citizen" may bring an action "against any person...who is alleged to be in violation of an effluent standard or limitation...or any order issued by [EPA] or a State with respect to such a standard or limitation." *Id.* § 1365(a). The CWA broadly defines a "citizen" for purposes of the citizen suit provision to refer to "a person or persons having an interest which is or may be adversely affected." *Id.* § 1365(g). The scope of the citizen suit provision is broad. The CWA defines a "person" to include "an individual, corporation, partnership, association, municipality," in addition to other entities. *Id.* §§ 1362(5); 1365(a)(1). Further, the term "effluent standard or limitation" is defined to include all federal and state CWA standards and limitations. This provision encompasses the CWA prohibition under Section 301 on discharges — including certain stormwater discharges — without a permit, and covers the enforcement of state water quality standards in permits and other permit terms.

Notice Letter

To file a lawsuit in federal court, a private citizen must first provide an alleged violator with notice of the alleged violation(s) 60 days prior to initiating an action, and must also send that notice to EPA and the relevant state authorities. 33 U.S.C. § 1365(b)(1) (referring to actions commenced under U.S.C. § 1365(a)(1)). Citizens may not sue if EPA or a state is already "diligently prosecuting" the alleged violation(s), but may still intervene as a matter of right. Federal regulations address the necessary level of detail in a notice letter, and disputes over whether plaintiffs have met this level of detail frequently arise in litigation. Generally, the notice letter must identify the plaintiff and the alleged violator and must be sufficiently specific so that the alleged violator can identify the alleged violations in order to understand what corrective action will avert a lawsuit.

AVOIDING CITIZEN SUITS

Maintaining Compliance

The clearest way for industries, municipalities, and other stormwater permit holders to avoid becoming entangled in a CWA citizen suit is to ensure that they have obtained an NPDES permit — if one is necessary — and that the permit requirements are being followed. Maintaining compliance requires attention to multiple details, including careful preparation of technical documents and plans, routine inspection, appropriate maintenance, and accurate reporting. Although none of these components are by themselves arduous, overlooking any aspect can invite a citizen suit. We describe below the primary elements of stormwater permits in Washington State. Subtle differences may exist in other jurisdictions.

CWA Liability

Obtain an NPDES Permit

To achieve compliance with the CWA, all stormwater dischargers should ensure that they have either obtained an NPDES permit, as required, or that they meet the "no exposure" exception to the NPDES permit requirements. The CWA requires an NPDES permit for discharges from point sources to waters of the United States. *Id.* § 1342(a). This requirement has been extended to stormwater discharges from many activities, including stormwater runoff that is collected in municipal separate storm sewer systems and discharged to surface waters. *Id.* § 1342(p).

Ecology has issued an Industrial Stormwater General Permit that regulates many industrial activities with discharges to surface waters. Ecology has also developed a Phase I stormwater permit that regulates discharges from municipal storm sewers operated by Seattle, Tacoma, Clark County, King County, Pierce County, and Snohomish County. A Phase II Municipal Stormwater Permit applies to certain "small" **m**unicipal **s**eparate **s**tormwater **s**ewer **s**ystems (MS4s). Over 100 municipalities are subject to the Phase II stormwater permits.

"No Exposure" Exemption

A conditional "no exposure" certificate is available for entities that establish that stormwater at a facility will not come into contact with pollutants as a result of industrial activities. *See* Ecology, *Industrial Stormwater General Permit*. In Washington, a facility is eligible for the "no exposure" exception and may apply for a "conditional no exposure certificate" if it conducts all industrial activities under a roof. *Id.*

Stay in Compliance

NPDES Conditions

It is axiomatic that permittees should ensure that they are in compliance with permit terms to avoid exposure to enforcement actions, including citizen suits. Because citizen suits are frequently used to enforce departures from NPDES permit conditions, industrial dischargers should ensure that they do not discharge prohibited materials and that they have complied with state permitting requirements. In Washington, as the following describes, dischargers should ensure that they have: 1) prepared a Storm Water Pollution Prevention Plan (SWPPP) that complies with the permit's requirements; 2) timely performed stormwater sampling; 3) consistently submitted Discharge Monitoring Reports (DMRs) to Ecology; and 4) complied with record-keeping obligations.

Prevention Plan

1) Prepare/update a storm water pollution prevention plan

Industrial permittees must prepare and implement a written SWPPP for the permitted facility that identifies both on-site sources of pollutants and **b**est **m**anagement **p**ractices (BMPs) to prevent or reduce stormwater pollution. The major required elements of the SWPPP include: a facility assessment; a monitoring plan; and a description of applicable BMPs.

The facility assessment must include: a description of industrial activities; a site map showing drainage patterns and discharge location(s); and an inventory of potential stormwater pollutants The monitoring plan must: identify all points of discharge; discuss representative sampling locations and how location(s) were chosen; and include procedures for stormwater visual monitoring and sampling. The description of BMPs must identify: operational source control BMPs; structural source control BMPs; any relevant treatment or rate/volume control BMPs; and erosion and sediment control BMPs. Relevant BMPs are specific to each facility, but generally refer to scheduled activities, prohibited practices, maintenance procedures, and other managerial practices to prevent or reduce water pollution. *See* Ecology, *Industrial Stormwater General Permit at Special Condition S9* which in turn references the *Stormwater Management Manual for Western Washington* (for facilities west of the Cascades) or *Stormwater Management Manual for Eastern Washington* (east of the Cascades). Where BMPs outlined within the SWPPP for a given facility are not adequate to eliminate pollutants in the facility's stormwater discharge, the facility must revise and update the SWPPP with further efforts to correct problems, and improve the quality of its discharge. Numerous additional SWPPP requirements are described in Washington's Industrial Permit, which include (without limitation): specific requirements concerning development of the site map; a Sampling Plan; and a Spill Prevention and Emergency Cleanup Plan (SPECP).

Plan Update

Monitoring

2) Stormwater sampling, 3) reports and 4) record-keeping

A permitted discharging facility must also perform stormwater monitoring and submit periodic (generally quarterly) reports concerning the results of monitoring efforts. To remain in compliance with the permit, permit holders must timely collect stormwater samples, ensure that proper sampling parameters are used, and conduct visual inspections, as required. Additionally, a permittee must record sampling and inspection information, including laboratory reports, with the SWPPP, report the results of stormwater sampling in DMRs, and submit DMRs to Ecology on a quarterly basis.

Annual Training

Other permit requirements: training and corrective actions

Training on stormwater pollution prevention and the SWPPP shall be provided at least annually to staff whose activities include outdoor operations or handling of materials that could come into contact with and pollute stormwater. The training and the topics covered must be recorded and those records kept with the SWPPP.

The permittee must compare the stormwater sampling results with benchmarks for those parameters. Permitted facilities whose sampling results exceed benchmark values in sampling periods must conduct and record their corrective actions.

CWA Liability

Compliance Suggestions

Ensuring Compliance

To ensure compliance, permittees should consider: 1) requesting a technical consultation or visit from the relevant permitting authority; 2) retaining a consultant to prepare a SWPPP and other technical documents, and to provide advice concerning technical requirements of the CWA including those related to sampling, reporting, and recordkeeping; and 3) retaining an attorney for advice on complying with statutory and regulatory requirements.

RESOLVING CITIZEN SUITS

Liability Exposure

Regulated entities are exposed to citizen suits if they fail to obtain stormwater discharge permits or if permit conditions are violated. As discussed above, "citizens" must provide alleged violators with notice of the alleged violation(s) 60 days prior to initiating an action. 33 U.S.C. § 1365(b)(1). Alleged violations can typically be resolved through settlement, but can also lead to litigation. This section provides: an overview of the process that typically ensues following receipt of a 60-day **n**otice **o**f **i**ntent to sue letter (NOI); the typical costs associated with resolving citizen enforcement actions; and available defenses.

Immediate Actions

Strategic Considerations

To provide the maximum opportunity to settle and/or defend against a citizen suit, several tasks must be accomplished quickly — preferably within the first few days of receiving the NOI. First, consult with an attorney to obtain the benefit of the attorney-client privilege and work product doctrine. Second, identify the core group of people who will work together to either settle or litigate the case. Third, obtain a copy of the permitting authority's file on the facility to ensure that the opposing party does not have unexpected information. These three actions will enhance a discharger's ability to quickly and accurately assess its situation and obtain a favorable result.

Timeline

After receiving an NOI, dischargers are under a tight schedule to send an initial response to the citizen group, assess the alleged violations, and work toward a possible settlement. Below is a table that presents typical "action items" that, based on our experience with citizen suits, entities should conduct after receiving an NOI, and recommended time frames for doing so.

Response Schedule

CWA LAWSUIT RESPONSE: Actions & Recomended Schedule

Action Item	Recommended Response Time (After Receiving NOI)
Review 60-day notice and compare your records to the alleged violations; Initial Response Letter to Citizen Group	Within 5 days
Review BMPs and Conduct Enhanced Facility Housekeeping	Within 5 days
Review and Edit/Update SWPPP	Within15 days
Respond to Typical 15-day Request for Copy of SWPPP	Within 15 days (or seek additional time)
Consider whether to sample stormwater to Assess Effects of Enhanced Housekeeping and Other Efforts to Respond to Notice Letter	Within 20-25 days
Arrange for Citizen Group to Conduct Site Visit	Within 25-30 days
Conduct Settlement Negotiations	Within 30-45 days
Select Supplemental Environmental Program (SEP) to Direct Possible "Payment in Lieu of Penalty"	Within 30-45 days
Draft Settlement	Within 35-50 days
Final Settlement	Within 60 days

CWA Liability

Settlement

To avoid the expense of litigation and to expedite resolution of citizen suits, regulated industries frequently endeavor to settle citizen enforcement actions. Settlement talks generally commence shortly after an NOI is received. Plaintiffs will typically file a complaint in federal court if settlement negotiations are not concluded within 60 days of notice, but settlement talks may still occur after the complaint is filed. In very few circumstances, plaintiffs will drop their NOIs due to government enforcement of the violations at issue.

Cost Drivers

The cost of settling a citizen suit is generally lower than if a case goes to court, because the parties avoid legal fees associated with formal legal proceedings and needing to seek approval from the Department of Justice and federal district courts for consent decrees that are necessary to resolve citizen suits. A typical settlement will include costs associated three categories, which include: 1) compliance; 2) penalties; and 3) litigation expenses.

Compliance Cost

With respect to the first category, a citizen group may ask for full compliance with permit terms, additional sampling, and a mechanism through which the citizen group may monitor and track the permittee's compliance progress. To comply with this settlement term, permittees may expect to incur in-house costs. Such costs are generally associated with retaining a consultant, preparing or updating an SWPPP, conducting additional sampling, and fulfilling other obligations.

Civil Penalties

Second, a citizen group may insist that the discharger pay civil penalties for the violation. An adjustment for inflation formula periodically applied to CWA penalties presently allows courts to impose civil penalties on permittees of up to $37,500 per violation per day. 74 Fed. Reg. 626 (Jan. 7, 2009) (codified at 40 C.F.R. § 19.4). Penalty amounts are based on several statutory factors. During settlement, parties frequently consider these factors in determining the appropriate penalty amount.

Penalty Factors

Statutory penalty amount factors include:

- The seriousness of the violation
- The economic benefit derived as a result of the violations
- Any history of violations
- Good faith efforts to achieve compliance
- The economic impacts of the civil penalty on the violator
- Such other matters as justice may require

33 U.S.C. § 1319(d)

Attorney's Fees Recovery

Some or all of the monies exacted as penalties or "payments in-lieu-of penalties" may be diverted to environmental projects with CWA objectives.

Finally, the CWA allows courts to award attorney's fees and costs to "citizen groups that prevail or substantially prevail in an action." *Id.* § 1365(d). Accordingly, citizen groups commonly request full compensation of all "reasonable" attorney's fees and costs.

Litigation

Federal Lawsuit

If settlement does not occur during the 60 day period, the plaintiff may file a citizen suit in federal district court in the judicial district in which the violation occurred. The citizen group must send a copy of the complaint to EPA and the US Attorney General. If the US is not directly involved in the citizen suit as a party, the US cannot consent judgment until 45 days after EPA and the US Attorney General receive copies of any proposed consent judgments. *Id.* § 1365(c)(3).

High Costs

The cost of defending a citizen suit may be high: citizens may win injunctive relief; significant monetary penalties payable to the federal government (see above); and an order for the alleged violator to pay the plaintiffs' attorneys fees and costs. *Id.* § 1365(d) (allowing citizen groups that prevail or substantially prevail in an action to seek reasonable attorney's fees and costs). In addition to such potential costs, defendants may incur significant litigation expenses, including expenses associated with discovery and the preparation of briefs.

Available Defenses

Defendants involved in CWA citizen suits have somewhat limited defenses. The CWA is a strict liability statute, which means that good faith efforts to comply with the permit will not constitute a defense at the liability phase (although it is relevant at the penalty phase). Potential defenses include: 1) showing that the citizen suit is barred by the "diligently prosecuting" provision; 2) challenging a plaintiff's standing; 3) examining whether the plaintiff has fulfilled statutory notice requirements; 4) raising a statute of limitations defense; and 5) arguing that alleged violations are not "ongoing."

CWA Liability

"Diligent Prosecuting"

Agency Timing

Standing

Organizations' Standing

Notice Requirements

1) Diligently prosecuting

Because citizen suits are enforcement actions that are designed to supplement, but not supplant, agency enforcement, under certain circumstances a defendant may bar a citizen suit where an agency is "diligently prosecuting" a civil or criminal action in court against the defendant or when an agency has commenced and is prosecuting an administrative action against the alleged violator. *Id.* § 1365(b). Courts have construed the term "diligently prosecuting" narrowly and generally only bar citizen suits when the agency enforcement action has already been instituted. *See*, e.g., *Washington Public Interest Research Group v. Pendleton Woolen Mills, Inc.*, 11 F.3d 883 (9th Cir. 1993) (stating that the CWA "unambiguously bars suits only when the EPA has instituted an administrative penalty action").

Many cases have interpreted the level of formality required under the administrative enforcement diligent prosecution defense. Case law focuses on timing of the agency enforcement action, the type of enforcement action, whether there was public participation, and whether a penalty was imposed.

In some jurisdictions outside of Washington State, permittees have successfully barred citizen suits by contacting the regulator after receiving an NOI, and resolving the alleged violation with the regulator. Based on our conversations with members of Ecology and the Washington State Attorney General's Office, Ecology has a policy against becoming involved at facilities after citizen groups have issued an NOI. This policy effectively precludes permittees from creating a "permit shield" against citizen suits by negotiating with Ecology. Moreover, at least one court has ruled that the administrative diligent prosecution defense is unavailable in Washington because the statute under which Ecology issues administrative penalties is not comparable to the federal penalty statute. *Waste Action Project v. Atlas Foundry*, 1998 WL 210846 (W.D. Wash. 1998). As a result, the administrative diligent prosecution defense is probably not generally available to bar citizen suits in Washington.

2) Standing

While the standing hurdle is not a high bar for plaintiffs to meet, it is worth examining the standing defense carefully. Standing is a jurisdictional defense that can be raised at any time during litigation. The CWA allows any citizen to bring a citizen suit. 33 U.S.C. § 1365(a). A "citizen" is defined for purposes of the Act to refer to "a person or persons having an interest which is or may be adversely affected." *Id.* § 1365(g).

To establish standing, a plaintiff must show that there has been:

a) An actual or threatened injury; In *Friends of the Earth, Inc. v. Laidlaw Envtl. Serv. (TOC), Inc.*, 528 U.S. 167 (2000), the US Supreme Court clarified that citizens may establish the "injury" prong of standing by demonstrating that they have an aesthetic or recreational interest in the water body. Since *Laidlaw*, the Ninth Circuit has held that there is no need to demonstrate regular or continuous use of an area to demonstrate standing. *Ecological Rights Foundation v. Pacific Lumber Co.*, 230 F.3d 1141 (9th Cir. 2000).

b) Caused by defendant's conduct;

and

c) That the injury is redressable by the court. *Lujan v. Defenders of Wildlife*, 500 U.S. 915 (1992).

Where a plaintiff is an organization (as is typically the case in CWA citizen suits), the test for organizational standing precludes an organization from bringing suit on behalf of its members unless: a) its members would have standing to sue in their own right; b) the interests the group seeks to protect are germane to the organization's purpose; and c) neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit. *Hunt v. Washington State Apple Advertising Comm'n,* 432 U.S. 333, 343 (1977).

A citizen suit defendant should, therefore, determine whether a plaintiff has standing to bring an action. Further, because standing may be raised at any time, a defendant should monitor any change in circumstance that might affect a plaintiff's standing.

3) Statutory notice requirements

Defendants should also ensure that statutory and regulatory notice requirements are met. As stated above, "citizens" must provide an alleged violator with notice of the alleged violation(s) 60 days prior to initiating an action, and must also send that notice to EPA and the relevant state authorities. 33 U.S.C. § 1365(b)(1) (referring to actions commenced under U.S.C. § 1365(a)(1)). The notice letter must include: "sufficient information to permit the recipient to identify the specific standard, limitation, or order alleged to have been violated, the activity alleged to constitute a violation, the person or persons responsible for the alleged violation, the location of the alleged violation, the date or dates of such violation, and the full name, address, and telephone number of the person giving notice." 40 C.F.R. § 135.3(a). The Ninth

CWA

Jeff Kray is a partner at Marten Law in Seattle, Washington where he leads the firm's Water Resources/Water Quality Practice Group. He specializes in environmental litigation – with a particular focus on water issues. Jeff joined Marten Law in February 2003 and before that he practiced for more than 10 years in the Washington Attorney General's Office as an Assistant Attorney General representing a diverse range of state agencies, including the Washington Department of Ecology. He is a Vice Chair of the American Bar Association's Water Resources and Water Quality and Wetlands Committees and the editor of the ABA Water Resources Committee Newsletter. Jeff regularly speaks and writes on water quality, water, and other environmental topics. He is listed in *The Best Lawyers in America* (2011) and the *International Who's Who of Environmental Lawyers*.

Meline MacCurdy is an associate at Marten Law in Seattle, Washington. Her practice focuses on water quality issues, environmental litigation, and state and federal cleanup laws.

Circuit has held that the CWA notice requirement is jurisdictional, and has dismissed suits for failure to properly provide 60-day notice. *See*, e.g., *Washington Trout v. McCain Foods, Inc*., 45 F.3d 1351 (9th Cir. 1995) (dismissing suit where 60-day notice did not properly identify plaintiffs).

4) Statute of limitations

The CWA does not provide a statute of limitations for commencing a citizen suit. Courts have, therefore, applied the five-year statute of limitations for actions seeking to enforce civil penalties to citizen suits. *Sierra Club v. Chevron U.S.A., Inc.*, 834 F.2d 1517, 1520-23 (9th Cir. 1987) (federal five year limitation period applies to citizen action seeking enforcement of civil penalties under CWA). The statute of limitations is tolled sixty days before filing a complaint to accommodate the 60-day notice period. *Id.* at 1524.

5) Ongoing violations

Finally, citizens may only bring citizen suits to challenge "ongoing violations." *Gwaltney of Smithfield, Ltd. v. Chesapeake Bay Foundation*, 484 U.S. 49 (1987). In *Gwaltney*, the US Supreme Court construed Section 505(a) of the CWA — which authorizes citizen suits against a person "alleged to be in violation" of the Act — to bar suits for wholly past violations. *Id*. at 56-64. A suit is considered ongoing if violations exist after the date that the complaint is filed, or where there is a reasonable likelihood that violations will continue. A *Gwaltney* defense would, therefore, be particularly relevant where a permittee has only had a few violations in the past five years, or where violations have not occurred recently.

CONCLUSION

When it comes to avoiding citizen suits, it is almost always less expensive to obtain and comply with a permit than to defend against a citizen suit. The citizen suit provision in the CWA is a powerful enforcement tool that is often used to enforce compliance with stormwater permits. Upon receiving an NOI from a citizen group, businesses and municipalities have a short time frame in which to assess potential violations of the CWA and stormwater permits, develop a defense strategy, and to work toward a settlement. Although with technical and legal advice permittees may avoid the expense and time of litigation by settling with citizen groups, the easiest and most cost effective way to avoid an NOI is to follow legal, technical, and practical guidance regarding obtaining and remaining in compliance with a stormwater permit.

For Additional Information:
Jeff Kray, Marten Law PLLC (Seattle, WA), 206/ 292-2608 or jkray@martenlaw.com
Meline MacCurdy, Marten Law PLLC (Seattle, WA), 206/ 292-2620 or mmaccurdy@martenlaw.com

LOGGING ROAD RUNOFF

US LOGGERS LOSE AN IMPORTANT CLEAN WATER ACT EXEMPTION

by Jeffrey J. Miller, Perkins Coie (Seattle, WA) & Robert A. Maynard, Perkins Coie (Boise, ID)

Logging Road NPDES

Silviculture Exemption

Introduction

Until now, the US Environmental Protection Agency (EPA) has acted on the assumption that National Pollution Discharge Elimination System (NPDES) permits administered under federal Clean Water Act (CWA) programs are not required for discharges of pollutants from ditches, culverts and channels that collect stormwater runoff from logging roads. The US Court of Appeals for the Ninth Circuit changed all of that on August 17th. In *Northwest Environmental Defense Center (NEDC) v. Brown*, No. 07-35266, a three-judge panel overruled a Federal District Court's dismissal of NEDC's suit alleging that the Oregon State Forester and several private timberland owners had violated the CWA.

Since 1973, EPA has promulgated and amended a regulation specifically exempting from NPDES permitting requirements "point source" silviculture (forestry) activities such as "nursery operations, site preparation, reforestation and subsequent cultural treatment, thinning, prescribed burning, pest and fire control, harvesting operations, surface drainage, or *road construction and maintenance from which there is* '*natural runoff*'" (40 C.F.R. Sec. 122.27 (Silviculture Rule) emphasis added). Section 502(14) of the CWA defines "point source" in part as any discernible, confined and discrete conveyance including but not limited to any pipe, ditch, channel, tunnel or conduit. Absent an exemption such as that provided by the Silviculture Rule, point source polluters are required to obtain NPDES permits.

Logging Road NPDES

Agricultural Exemption

"Natural Runoff"

Possible Rulemaking

Additional Impacts

Contract Review

Retroactive Application

NEDC v. Brown

In *NEDC v. Brown,* the plaintiff alleged that the defendants violated the CWA by not obtaining EPA permits for stormwater runoff that flows from logging roads into systems of ditches, culverts, and channels, and that is then discharged into forest streams and rivers. NEDC further alleged that timber hauling on logging roads is a major source of sediment that flows through the stormwater collection system. Logging trucks passing over the roads grind up the gravel and dirt on the surface of the road. Sand, rocks, gravel, and dirt are then washed into the collection system and discharged directly into the streams and rivers.

In a detailed 41-page opinion, the Ninth Circuit panel analyzed the legislative history of the CWA and its several amendments. The court concluded that while Congress granted an exemption for agricultural point source polluters, it had never done so for silviculture. The court further reasoned that because no exemption could be implied from the legislative history and amendments to the CWA, EPA had no authority to create the exemption contained in the Silviculture Rule. [See Ninth Circuit Court website, www.ca9.uscourts.gov >> "decisions"]

It should be noted that the court did concede that the Silviculture Rule could be construed as consistent with the CWA so long as the "natural runoff" remains natural. That is, the exemption ceases to exist as soon as the natural runoff is channeled and controlled in some systematic way through a "discernible, confined and discrete conveyance" and discharged into the waters of the United States. This two-part test may allow some logging operations to remain exempt where the "natural runoff" is not discharged into streams and rivers.

Practical Issues for Loggers and Forest Owners

The Ninth Circuit panel decision remains subject to further appeal and there is not yet any apparent injunction associated with the decision. It is too early to determine how EPA will react to the decision. Counsel should be advised to communicate with EPA to keep abreast of developments in this arena.

One scenario to anticipate after this decision is further rulemaking by EPA that could propose applying a general and individual NPDES permitting scheme such as that now applicable to stormwater discharges from construction or industrial sites, or municipal road stormwater collection and drainage systems. If a general permit similar to that currently in place for smaller construction and industrial sites is made available, it could require the filing of an electronic or paper "Notice of Intent" for road construction, maintenance, or transport operations, together with a "Stormwater Pollution Prevention Plan" (SWPPP) that must be prepared and implemented. Whatever form the permitting scheme may take, it is likely to increase operational and compliance costs for landowners and operators.

The ultimate scope of the impact of the decision could extend beyond commercial logging to any roads constructed, maintained or used for thinning, prescribed burning, or other forest management and treatment activities, and nationwide, beyond the several Western states within the Ninth Circuit's jurisdiction — Alaska, Arizona, California, Hawaii, Idaho, Montana, Nevada, Oregon, and Washington.

If logging and other forest management roads and operations currently within the scope of the Silviculture Rule are placed within the NPDES permitting regime, it is possible that CWA "Total Maximum Daily Load" (TMDL) allocations in various stream drainages, "anti-degradation," and other NPDES requirements will be affected.

Further coordination between state regulatory authorities and EPA may be needed to avoid state forest practices act and other state/federal stormwater regulatory conflicts.

Conclusion

Contracts between loggers and landowners should be reviewed for covenants and indemnities relating to regulatory compliance. Careful consideration should be given to impacts on compliance costs and performance timelines and milestones that will result from additional regulatory burdens and delays.

A major yet-to-be-answered issue relates to whether existing logging roads will require NPDES permits.

For Additional Information:
Robert Maynard, Perkins Coie (Boise, ID), 208/ 343-3434 or rmaynard@perkinscoie.com
Jeffrey J. Miller, Perkins Coie (Seattle, WA), 206/ 359-8350 or jjmiller@perkinscoie.com

Bob Maynard is the Managing Partner of the Perkins Coie LLP Boise office. His practice focuses upon environmental regulation, water and land use, and other natural resource issues faced by energy, forest products, mining, manufacturing, technology, and other businesses.
Jeff Miller, Of Counsel in the Perkins Coie Seattle office, focuses his practice on new technologies with an emphasis on bioenergy derived from woody biomass. He also represents a major Northwest timber harvesting company.

OKLAHOMA WATER STORAGE

TRIBAL CONCERNS RAISED

by David Moon, Editor

Last June, the Oklahoma Water Resources Board (OWRB) approved a transfer agreement that OWRB asserts will resolve once-and-for-all the State's 36-year-old water storage contract obligation to the federal government for construction of Sardis Lake in southeastern Oklahoma, as well as provide options to help satisfy central Oklahoma's long-term water supply needs. In addition to satisfying the State's immediate need to make a court-ordered payment to the federal government, the agreement called for significant water to be reserved to meet local needs well into the foreseeable future. See *U.S v. State of Oklahoma*, Civil Action No. 98-CV-00521 (N.D. Okla. September 3, 2009), which found Oklahoma in default on its financial obligations, and ordered the State to pay the US Army Corps of Engineers (Corps) approximately $28 million.

In 1974, the Oklahoma Water Storage Commission, a predecessor agency to the OWRB, justified underwriting Sardis construction costs based partly on the potential for central Oklahoma to utilize it to meet future water supply needs. However, no significant users contracted to use the water and assume the State's annual storage payments. As a result, the Sardis contract has been in contention for decades. The Regional Raw Water Supply Study for Central Oklahoma, an engineering study commissioned by the Oklahoma Regional Water Utilities Trust (ORWUT) in 2009, determined that central Oklahoma possesses insufficient water supply to meet projected needs in the region beyond 2030, and a new water resource would be required. The study identified Sardis Lake as the most feasible option for meeting this water deficit.

The Sardis Lake storage contract transfer agreement, which was considered and approved by the Oklahoma City Water Utilities Trust (OCWUT), was similarly approved, with minor modifications, by the OWRB in June. The agreement is intended to transfer the State of Oklahoma's water storage rights at Sardis Lake to Oklahoma City, along with the State's existing obligation to the federal government. OCWUT was to also reimburse the State for past Sardis water storage payments and costs. A recent federal district court order required Oklahoma to pay off, within five years, its nearly $28 million obligation for the construction of additional water supply storage in Sardis Lake (see above).

J. D. Strong, OWRB's Interim Executive Director, noted OWRB's position in a June 11 press release: "This agreement was constructed with three critically important objectives in mind, that is to satisfy the State's longstanding Sardis Lake obligation, secure water supply options for central Oklahoma's water needs, and preserve the lake's considerable value to the citizens of southeast Oklahoma." Through the transfer agreement, coupled with an existing application for water rights in the basin — which OWRB plans to consider soon — OCWUT seeks to acquire 136,000 acre-feet of drinking water per year to share with central Oklahoma communities. In a critical facet of the agreement, 20,000 acre-feet of water is reserved for both current and future water needs in the Sardis Lake region. OWRB believes that this set-aside, coupled with a requirement for a lake level management plan, will help ensure that Sardis Lake continues to provide important flood control, recreation, water supply, and related benefits to the local area.

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

Tribal Objections

The transfer agreement for Sardis Lake, however, was not uniformly greeted with enthusiasm. On June 10, the Choctaw Nation urged the OWRB to reject the proposal to transfer Sardis Lake water holding rights to Oklahoma City and offered to pay the $5.2 million debt the State of Oklahoma owed the federal government by July 1. The Choctaw Nation, along with the Chickasaw Nation, made the offer in order to buy time for all involved parties to resolve the dispute over potential use of the lake's water. "Using the debt owed by the State to the federal government as an excuse to make a deal that ignores the two tribes' historic water rights and the environmental and economic interests of all of Southeastern Oklahoma just doesn't make sense," said Chief Gregory E. Pyle of the Choctaw Nation. According to the Choctaw Nation, "on May 20 the U.S. Army Corps of Engineers, which constructed the reservoir and dam, warned the governor, legislative leaders and State water officials that the Corps has not been asked for approval of any transfer of storage rights. The Corps said any such approval would be necessary by both the federal government and a U.S. District Court judge who ordered the State to repay the debt." Choctaw Press Release, June 10.

On August 10, Assistant Secretary for Indian Affairs Larry Echo Hawk and Senior Advisor to the President on Indian Affairs, Kim Tee Hee, visited the Choctaw Nation for a first-hand view of Sardis Lake. Echo Hawk reiterated his request, first set forth in his June 11 letter to OWRB, that any final action of the proposed transfer of water be deferred pending consultations with appropriate federal officials as well as both the Choctaw Nation and the Chickasaw Nation. The water transfer has also been opposed by the group, Oklahomans for Responsible Water Policy (OWRP), a grassroots organization formed in March 2010 that is made up farmers, ranchers, business owners, landowners, elected leaders, environmental advocates and others.

Additional Information:
Choctaw Nation website: www.choctawnation.com
Oklahoma Water Resources Board website: www.owrb.ok.gov/
Oklahomans for Responsible Water Policy website: www.orwp.net/

WATER BRIEFS

EXEMPT WELL RULING MT
RULEMAKING TO FOLLOW

On August 17, Montana's Department of Natural Resources and Conservation (DNRC) issued a declaratory ruling on combined water appropriations in Montana. DNRC ruled that while the current definition of a "combined appropriation" is not in conflict with applicable law under the State's Water Use Act, increasing demands on water resources warrant a repeal of that definition. The rulemaking process for the new definition of "combined appropriation" will begin within eight months.

Under Montana's system, "a permit is not required before appropriating ground water by means of a well or developed spring with a maximum appropriation of 35 gallons a minute or less, not to exceed 10-acre feet a year." MCA § 85-2-306 (3)(a), (1991 Amendment). Also exempt are impoundments or pits used by livestock on non-perennial streams with a 15 **a**cre-**f**oot (AF) capacity and a maximum appropriation of 30 AF per year. In such cases, it is not necessary to apply for a water right and no review concerning water availability or environmental impacts takes place. So long as the well is completed and water is put to "beneficial use" a water right certificate is automatically granted.

The Petition for Declaratory Action was filed by the Western Environmental Law Center in 2009, supported by senior water right holders, Missoula County, Mountain Water Company, Trout Unlimited, and the Clark Fork Coalition. The Petition maintained that DNRC's definition of "Combined Appropriation" was invalid and asserted that DNRC should initiate rulemaking to amend that definition. The Petition succinctly laid out the crux of the case: "According to DNRC, an appropriation of groundwater by two or more wells from the same aquifer is only deemed a 'combined appropriation' if the developments are 'physically manifold' or connected into the same system. See Rule 36.12.101 (13), ARM…Under this logic, a 1,000 lot subdivision with a 1,000 individual wells appropriating up to 10,000 ac-ft-yr of water from the same aquifer would be exempt from the Act's permitting requirements and procedural safeguards." *Petition* at 2.

Water quality and water quantity concerns were raised by the Petition. "Most supporters…commented about the use of exempt wells to serve domestic uses within a large, relatively dense subdivision. Their concerns were impact to the water resource and existing water rights from multiple ground water withdrawals and degradation to the water resource from multiple septic systems. Some supporters…commented on the use of exempt wells for coal bed methane development and the impacts to the water resource and existing water rights from multiple ground water withdrawals and the degradation to surface water resources from discharge of lower quality water. Some supporters…commented about instances where exempt wells are used instead of municipal water supply, interfering with existing rights and making municipal water planning more difficult or creating economic impacts to the community from people who use community resources but rely on individual wells instead of community water supplies. Other comments were that there is no cap on the number of exempt wells, no evaluation of impact on existing water rights, and no consideration of the cumulative impact to water resources from exempt wells." *Ruling*, Attachment 1, p. 7.

The Petition was opposed by the Montana Association of Realtors, Montana Building Industry Association, and the Montana Water Well Drillers Association. The Ruling states: "The opponents to the Petition say that the Petition is a 'backdoor attempt' to halt growth and hamper the development of affordable housing in Montana and that the Petitioner's requested relief essentially amends the statute so that the use of exempt wells will be eliminated in almost all situations." *Ruling*, Attachment 1, p. 4-5.

The Ruling stated that the legislative intent for exempt wells was "to provide for small uses of water with limited potential for impact to the water resource, typically for domestic and stock uses, without the burden and expense of the permit process." *Ruling* at 17. The Ruling points out that "the proliferation of exempt wells for individual domestic purposes developed in a way that was not anticipated at the time the legislation was passed needs to be addressed." *Ruling* at 18. The Ruling notes: "While the current 'combined appropriation' administrative rule definition has been effective and simple to administer, increased pressure to use the exempt well statute will likely lead to more people attempting to use this provision in new and creative ways that are not consistent with the purpose of the statute." *Ruling* at 20

DNRC Water Resources Division Administrator Tom Schultz discussed the agency's plans for the proposed definition: "The new definition will take into account the original intent of the statute, along with the fact that we have a number of basins closed to new appropriations where we've seen an increase in groundwater development…[DNRC] is evaluating a rule that would allow an exempt well to serve to up twelve residential lots with a maximum appropriation of 35 gallons per minute and not to exceed ten acre-feet per year."

The Ruling grandfathered in all existing water right certificates for exempt wells issued to date, ruling that they are valid. DNRC's ruling also did not invalidate its "combined appropriation" definition while rulemaking is in progress. The Petitioners are unhappy with these aspects of the decision. Presumably, anyone following the ministerial acts required to obtain a new certificate will be able to do so until a new rule is in place.

For info: Tom Schultz, DNRC, 406/444-2074; Declaratory Ruling and related documents available on DNRC's website: http://dnrc.mt.gov/wrd/declaratory_ruling/petition_declaratory_ruling.asp

CLIMATE/SHORTAGES US
TETRA TECH / NRDC REPORT

More than 1,100 US counties — a full one-third of all counties in the lower 48 states — now face higher risks of water shortages by mid-century as the result of global warming. More than 400 of these counties will be at extremely high risk for water shortages, according to estimates in the recently released report — "*Evaluating Sustainability of Projected Water Demands Under Future Climate Change Scenarios*" (Roy et al., July 2010) (Report)— produced by Tetra Tech for the Natural Resources Defense Council (NRDC).

The Report uses publicly available water use data across the US and climate projections from a set of models used in recent Intergovernmental Panel on

WATER BRIEFS

Climate Change (IPCC) work to evaluate withdrawals in relation to renewable water supply. The Report finds that 14 states face an extreme or high risk to water sustainability, including: parts of Arizona, Arkansas, California, Colorado, Florida, Idaho, Kansas, Mississippi, Montana, Nebraska, Nevada, New Mexico, Oklahoma, and Texas. In particular, in the Great Plains and Southwest US, water sustainability is at extreme risk.

Sujoy Roy of Tetra Tech, principal engineer and lead Report author, stated: "The goal of the analysis is to identify regions where potential stresses, and the need to do something about them, may be the greatest. We used publicly available data on current water withdrawals for different sectors of the economy, such as irrigation, cooling for power generation, and municipal supply, and estimated future demands using business-as-usual scenarios of growth. We then compared these future withdrawals to a measure of renewable water supply in 2050, based on a set of 16 global climate model projections of temperature and precipitation, to identify regions that may be stressed by water availability. These future stresses are related to changes in precipitation as well as the likelihood of increased demand in some regions."

Estimated water withdrawal as a percentage of available precipitation is generally less than five percent for the majority of the Eastern United States, and less than 30 percent for the majority of the Western United States. However, in some arid regions (such as Texas, the Southwest, and California) and agricultural areas, water withdrawal is greater than 100 percent of the available precipitation.

For info: The Report is available in "PDF" format from: www.nrdc.org/globalWarming/watersustainability/

DREDGING OPPOSED KS

EPA OBJECTS TO CORPS PROPOSALS MISSOURI RIVER

EPA has announced that a US Army Corps of Engineers (Corps) Draft Environmental Impact Statement is insufficient to support dredging permits allowing sand and gravel removal from the Missouri River. The permit applications covered in the Corps proposal would allow the removal of 11,615,000 tons per year of main channel river bottom material.

Active commercial sand and gravel dredging in the lower Missouri River began in the 1930s. Sand and gravel dredging removal has increased from 250,000 tons per year in 1935 to about seven million tons in recent years.

Dredging contributes to riverbed degradation, threatening bank stability, erode levee foundations and eliminate adjacent wetlands. Dredging usually occurs in close geographic proximity to locations where the construction need is greatest, such as cities along the Missouri River.

EPA Region 7 Administrator Karl Brooks said, "Adequate science is lacking to support issuance of the requested dredging permits. The proposal could contribute to significant riverbed loss in three segments of the river and result in damage to levees and bridges, increased flood risk, and environmental damage."

Under the National Environmental Policy Act and Clean Water Act, EPA is required to review the environmental impact of federal proposals. The Corps is will consider EPA's comments as the Corps prepares a final Environmental Impact Statement (EIS). The final EIS will contain the Corps' preferred dredging amount.

The removal of sand and gravel from the Missouri River's channel has been closely associated with the lowering of the riverbed, particularly in segments of the river where dredging is most concentrated. Under a separate federal project, the Corps is working with local partners to fund and perform a feasibility study on solutions to the riverbed loss problem in the lower river and, particularly, the Kansas City reach of the river.

For info: Kris Lancaster, EPA, 913/ 551-7557 or lancaster.kris@epa.gov

TOTAL COLIFORM RULE US

EPA COMMENT PERIOD EXTENDED

EPA is extending by 30 days the public comment period for a proposed National Primary Drinking Water Regulation, the Revisions to the Total Coliform Rule (RTCR), which was published in the Federal Register on July 14, 2010. See Brief, *TWR*#77. The comment period for the proposed RTCR now ends October 13, 2010.

For info: EPA website — http://water.epa.gov/lawsregs/rulesregs/sdwa/tcr/regulation.cfm#tcr1989

BLACKFEET CWA STATUS MT

TRIBE SEEKS CWA AUTHORIZATION COMMENT PERIOD OPEN

The Blackfeet Tribe of the Blackfeet Indian Reservation in north-central Montana has applied to EPA for eligibility to administer the Water Quality Standards program under the federal Clean Water Act (CWA). This eligibility is also referred to as "**t**reatment in a similar manner **a**s a **s**tate" — or "TAS." See Du Bey/Rosenthal, *TWR* #18 and Moon/Light *TWR*#52. EPA will accept comments on the Tribe's assertion of authority through September 30.

EPA's review of the Tribe's Water Quality Standards program application is not an approval or disapproval of the Tribe's standards. EPA review and approval or disapproval of specific standards is a separate agency action.

If approved, the Blackfeet Tribe would be the fourth tribe in Montana to obtain authority to administer the Water Quality Standards program. The Confederated Salish and Kootenai Tribes of the Flathead Indian Reservation and the Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation currently have standards in effect under the CWA. The Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation received authority for the Water Quality Standards program in 2006. To date, the Northern Cheyenne Tribe has not submitted standards to EPA for approval.

The comment period for the Blackfeet Tribe's application runs through September 30.

For info: George Parrish, EPA, 303/312-7027 or parrish.george@epa.gov
EPA WEBSITE: www.epa.gov/region8/water/wqs

TRIBAL CERTIFICATION US

EPA DRINKING WATER PROGRAM

EPA has announced a voluntary Tribal Drinking Water Operator Certification Program, effective October 1, 2010. The program will enable qualified drinking water operators at public water systems in Indian country to be recognized as certified operators by EPA. This program will provide the benefits of certification to both the public water system operators and the Tribal communities they serve.

Tribal operators can learn how to supply drinking water that meets national standards and gain understanding of the associated public health benefits.

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Certification designates the water system operator as a public health professional and demonstrates the operator has the skills, knowledge, education and experience necessary to deliver safe water, supporting consumer confidence.
For info: EPA website: www.epa.gov/safewater/tribal.html or Safe Drinking Water Hotline, 800-426-4791

CLIMATE RESPONSE US

EPA TOOLBOX FOR WATER UTILITIES

EPA recently released the Climate Ready Water Utilities (CRWU) Toolbox. The Toolbox provides a searchable database for water utilities to identify relevant climate change-related impacts and target resources for responding to those challenges.

TOOLBOX DATA INCLUDES:

- Federal, state, and associated activities related to climate change impacts on water resources and utilities
- Grants to support climate-related actions by utilities and municipalities
- Publications and reports
- Tools and models
- Workshops and seminars

The toolbox will be updated periodically.
For info: EPA toolbox website:www.epa.gov/safewater/watersecurity/climate/toolbox.htm.

PHOSPHORUS REMOVAL ID

INNOVATIVE OFFSET PROJECT

On July 7, Federal and State environmental officials joined members of Idaho's congressional delegation on a tour of an innovative environmental project that the City of Boise (Boise) is proposing to help meet stricter water pollution rules in a cost-effective manner. Boise hosted EPA Region X Administrator Dennis McLerran and Idaho Department of Environmental Quality (IDEQ) Director Toni Hardesty along with Idaho's US Senators and Representatives at the site of its proposed Lower Boise Phosphorus Removal Project. If EPA approves the phosphorus reduction project as an offset for point source wastewater treatment plants, the project could provide huge savings for taxpayers.

EPA will soon require lower phosphorus limits at Boise's and other municipal treatment facilities across the Treasure Valley. The limits will protect and improve water quality in the Lower Boise River, Snake River and Brownlee Reservoirs. Phosphorus from sources like agricultural drains and wastewater treatment plants can cause algae blooms and sometimes kill fish.

The City is proposing an innovative, first-of-its-kind approach — known as the Lower Boise Phosphorus Removal Project or "Dixie Drain" — to meet the expected limits by removing phosphorus from an agricultural drain flowing into the Lower Boise River. Phosphorus removed from the drain would be used as a credit to meet Boise's new treatment plant limits. If the project is approved, Boise and the other municipalities would be the first to implement a phosphorus removal effort of this kind in the US. Because of its unique nature, the project is being watched closely by regional and national regulators, municipalities, environmental groups, and other water quality stakeholders.

Along with removing phosphorus, the City's proposal would reduce sediment flowing into the river and create wildlife habitat. The site of the project is along the Dixie Drain about five miles west of Notus. Water used for farming in the area flows into the Dixie Drain and eventually into the Boise River.

The project property is 49 acres, bisected by the Dixie Drain, a manmade facility built in 1915 to collect irrigation runoff and control ground water. The drain is the largest nonpoint source contributor to the Lower Boise — about 9% of the total phosphorus load. The property lies 1/4 mile upstream from the confluence of the Boise River and Dixie Drain. There is a three-foot fall which would help allow for the treatment process without pumping.

At a July 8 City Council Meeting, Boise Public Works Director Neal Oldemeyer explained that the IDEQ may require a TMDL for the Lower Boise to assign load allocations, or include it in the Snake River TMDL. EPA believes the TMDL is necessary to implement the trading concept and provide certainty for allocations throughout the river system.
For info: Adam Park, Boise, 208/ 384-4402 or apark@cityofboise.org

DROUGHT PLAN CA

CLIMATE CHANGE IMPACTS

The California Department of Water Resources released the draft California Drought Contingency Plan (Draft) in August. In response to the recent drought, Governor Schwarzenegger issued Drought Proclamations and Executive Orders in 2008 and 2009 directing State agencies to take immediate actions to manage the crisis. California's Department of Water Resources (DWR) was required to provide a report on the state's drought conditions and water availability. DWR then developed a Drought Contingency Plan to address the possibility of continuing dry conditions as called for in the California Water Plan. This Plan contains strategies and actions State agencies have taken or may take to prepare for, respond to, and recover from droughts or water shortages.
For info: DWR website: www.waterplan.water.ca.gov/materials/index.cfm?subject=aug1010

HYDRAULIC FRACTURING WY

WYOMING APPROVES REGULATIONS

On June 8, the Wyoming Oil and Gas Conservation Commission (WOGCC) adopted new rules regarding the practice of hydraulic fracturing (aka "fracking") that require oil and gas companies to disclose the chemicals that they are injecting underground to stimulate oil and gas wells. Apparently, Wyoming's new rules are the first in the nation to require such disclosure. "The Oil and Gas Commission unanimously adopted a set of rules which include added protections for both the environment and the citizens of Wyoming, but recognized the importance of fracking," Governor Freudenthal said. The new rules go into effect on September 15.

Environmental groups had sought this disclosure, maintaining that it is critically important to human health and safety due to the possibility of these chemicals ending up in groundwater used by humans for drinking and bathing, and because of the risk of exposure to these chemicals by accidents or spills. According to Dan Heilig, Wyoming staff attorney for Western Resource Advocates, over 340 different chemicals can be used in hydraulic fracking fluids, many of which are harmful to humans, and even cancer causing.

The rules require disclosure of chemicals proposed to be used on the application filed for a permit before drilling begins. This makes it possible to conduct baseline testing of drinking water to prove that groundwater is not already contaminated with specific chemicals prior to the start of drilling. A report after fracturing has occurred

is required that will detail chemicals actually used. Companies must also disclose the volume, concentration, and Chemical Abstracts Service (CAS) number of chemicals used.

The oil and gas industry was concerned about disclosing proprietary chemical compounds used in fracking. Consequently, WOGCC included language in the new rules that require state regulators not to disclose certain information to the public if a company can prove it is proprietary.

For info: New rules available at WOGCC's website: http://wogcc.state.wy.us/downloads/proposed_rules_2010/Post8jun10/CH3_8jun10.pdf
Tom Doll, WOGCC Supervisor, 307/ 234-7147 or tdoll@state.wy.us
Dan Helig, Western Resource Advocates, 307/ 332-3614;

POLLUTION CONTROLS US

OVER $298 BILLION NEEDED

EPA estimates that nationwide capital investment needs for wastewater and stormwater pollution control will be more than $298 billion over the next 20 years. The *2008 Clean Watersheds Needs Survey* summarizes the results of the agency's fifteenth national survey on publicly owned treatment works needs. The estimate includes $192 billion for wastewater treatment and collection systems, $64 billion for combined sewer overflow corrections, and $42 billion for stormwater management.

The report documents a $43 billion (17 percent) increase (in constant 2008 dollars) in investment needs over the previous 2004 report.

For info: EPA's website: www.epa.gov/cwns

WATER & GRAZING WEST

PRIVATE WATER RIGHTS ON PUBLIC LANDS

The Ninth Circuit Court of Appeals (Court) handed down a scathing decision September 1, which upheld an Idaho federal district court decision that overturned several Bush Administration regulations governing grazing on federal lands. The decision impacts 160 million acres of Bureau of Land Management (BLM) lands and hundreds of special status species under the federal Endangered Species Act in the West. According to the Court, the 2006 proposed amendments to BLM's grazing regulations "decreased public involvement in public lands management, put new limitations on the BLM's enforcement powers, and increased ranchers' ownership rights to improvements and water on public lands." *Western Watersheds, et al. v. Kraayenbrink, et al*., Nos. 08-35359 and 08-35360 (Sept. 1, 2010) at 13231.

The decision is particularly important to water users due to the fact that it overturned regulations that would have granted ranchers private property interests in public livestock grazing installations and developments including fences, water developments, and buildings on public lands (sharing title with the US; 43 C.F.R. § 4120.3-2). The overturned regulations also would have allowed private permittees — and not the US — to acquire and hold water rights on public lands (to the extent permitted by state law). See 43 C.F.R. § 4120.3-9.

Western Watersheds Project and Maughan et al. (Plaintiffs) challenged the new amendments, arguing that "BLM violated the National Environmental Policy Act (NEPA) by failing to take the required 'hard look' at the environmental effects of the revised regulations; failed to consult with the United States Fish & Wildlife Service (FWS) as required by the Endangered Species Act (ESA); and violated the Federal Land Policy and Management Act (FLPMA) in promulgating the 2006 Regulations." *Id.*

BLM withdrew its appeal of the district court decision in December 2008, but American Farm Bureau Federation and the Public Lands Council (Intervenors), two organizations that represented the interests of ranchers, continued with their appeal. Among other issues, both the Plaintiffs and the Intervenors claimed that the other side did not have "standing" — the Court, however, found that both parties did have standing and that Plaintiffs' claims were ripe for appeal.

The Court agreed with the district court that BLM violated NEPA and ESA in adopting the 2006 amendments, and affirmed the lower court's grant of summary judgment to Plaintiffs. The Court affirmed the district court's permanent injunction enjoining BLM's 2006 regulations (see Federal Register of July 12, 2006, amending 43 C.F.R. Part 4100 et seq.). The Court also decided that the district court erred when it failed to consider Plaintiffs' FLPMA claim, in accordance with the deference set forth in *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.,* 467 U.S. 837, 842-43 (1984), so it vacated the district court's grant of summary judgment in favor of Plaintiffs on that claim and remanded it to the district court for further consideration.

For info: Jon Marvel, Western Watersheds, 208/ 788-2290or jon@westernwatersheds.org; Decision available on website: www.westernwatersheds.org

SMALL HYDRO AGREEMENT US

COLORADO/FERC MOU

On August 25, Governor Bill Ritter of Colorado and the Federal Energy Regulatory Commission (FERC) announced that they have signed a Memorandum of Understanding (MOU) that will make it far easier and more cost-effective to develop small hydropower projects. The MOU between FERC and Colorado will considerably streamline the permitting process, reducing the time and money required to develop a project, and opening the door to derive more clean energy from small hydropower sites while maintaining high levels of environmental protections. FERC has also signed MOUs with four other states recently on the development of hydrokinetic projects: California, Washington, Maine, and Oregon. FERC plans to soon unveil a new webpage devoted to small hydropower licensing at: www.ferc.gov.

Surveys have found that Colorado has several hundred sites with a potential of five megawatts or less, with a combined generating capacity of more than 1,400 megawatts.

Small hydro projects typically take advantage of existing dams, ditches, canals and pipelines to make the projects more practical. Such projects also avoid additional diversions from Colorado streams, as they use water flows already designated for crops or municipal supplies. As part of the Colorado initiative, the Governor's Energy Office (GEO) has contracted with a group of renewable energy experts, known as the Renewable Energy Development Team (REDT), to assist the best projects in the state in navigating the FERC permitting process. Small hydro developers interested in participating in this program will be able to apply directly at the GEO's website: rechargecolorado.com — this fall.

For info: Todd Hartman, Governor's Office, 303/ 866.2262, todd.hartman@state.co.us; Celeste Miller, FERC, 202/ 502-8680 or MediaDL@ferc.gov

CALENDAR

September 15-16 OR
Sustainable Stormwater Symposium, Portland. World Forestry Ctr. Sponsored by Oregon Section ASCE-EWRG & APWA. For info: www.asceor.org/stormwater_home

September 16 AZ
Drought Contingency Planning & Water Conservation, Phoenix. Ottawa University - Phoenix Campus. For info: Deborah Patton, RCAC, 520/ 631-5056, dpatton@rcac.org or www.rcac.org/events.aspx?585

September 16-17 TX
Texas Water Law Conference, Austin. Omni Downtown. For info: CLE International, 800/ 873-7130 or website: www.cle.com

September 16-17 CA
CEQA: 6th Annual Conference, Los Angeles. Hotel Nikko. For info: CLE International, 800/ 873-7130 or website: www.cle.com

September 17 WEB
Treatment in Same Manner as a State for Water Quality Standards Program, WEB. Audio Webcast. For info: www.epa.gov/water/tribaltraining/CWAwebcasts.html

September 19-23 WA
3rd Annual National Dam Security Forum, Seattle. WA State Convention & Trade Ctr. For info: www.damsafety.org

September 19-24 Canada
Cities of the Future Workshop: IWA World Water Congress & Exhibition, Montreal. For info: International Water Ass'n, www.iwahq.org

September 20-21 ID
Idaho Water Law Conference, Boise. The Water Report's David Moon is Speaking. For info: Law Seminars Int'l, 800/ 854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

September 20-21 OR
Northwest Power & Conservation Council Meeting, Bend. For info: www.nwcouncil.org/

September 20-22 WA
Engineering Log Jam: Applications for Erosion Control & Fish Habitat, Cle Elum. Suncadia Resort. For info: NWETC, 206/ 762-1976 or www.nwetc.org

September 21-24 MT
EPA Region 8 Wetland Program Capacity Building Workshop, Bozeman. For info: Lynda Saul, MT DEQ, 406/ 444-6652 or http://deq.mt.gov/wqinfo/Wetlands/2010capacitybldghome.mcpx

September 22 CA
Water Leaders Roundtable & Conservation - Delta Vision Foundation, Sacramento. California Chamber of Commerce Conf. Rm., 1215 K Street. RE: Implementation of the Delta Vision Strategic Plan. For info: DVF: www.deltavisionfoundation.org/

September 23 CA
EIR/EIS Preparation & Review Course, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, 800/ 752-0881 or www.extension.ucdavis.edu/landuse

September 23-24 WA
Western Water Law Conference, Seattle. Grand Hyatt. For info: CLE International, 800/ 873-7130 or website: www.cle.com

September 23-24 MT
Montana Water Law Conference, Helena. Great Northern Hotel. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

September 24 WA
Stormwater & Contaminated Sediment Conference, Seattle. Washington Convention Ctr. For info: Holly Duncan, Environmental Law Education Center, 503/ 282-5220, hduncan@elecenter.com or www.elecenter.com

September 24 CO
Water Resources, Issues & Administration of the Colorado River Basin Course, Denver. CLECI Classrm, 1900 Grant Street. For info: www.cobar.org/cle

September 24 WEB
Introduction to Water Quality Standards WEBCAST, WEB. EPA WEBCAST. For info: www.epa.gov/water/tribaltraining/CWAwebcasts.html

September 24 WA
Washington Water Law: Water Right Evaluations & Transfers Teleconference, For info: Lorman Education, www.waterlawresource.com/

September 26-29 PA
Water-Energy Sustainability Symposium 2010 & GWPC Annual Forum, Pittsburgh. Sheraton Station Square. Presented by Ground Water Protection Council & US Dept. of Energy. For info: Mike Nickolaus, mnickolaus@gwpc.org or http://waterenergy2010.com/

September 28 DC
Environmental Law: Supreme Court Preview, Washington. Environmental Law Institute, 2000 L Street, NW, Ste. 620. For info: Environmental Law Institute: www.eli.org/Seminars/event.cfm?eventid=564

September 28 AZ
The Future of Water Partnerships in the West, Phoenix. Sheraton Crescent Hotel. Sponsored by National Council for Public-Private Partnerships. For info: www.ncppp.org/

September 28-30 MT
Wild Trout X: "Conserving Wild Trout" Symposium, West Yellowstone. Holiday Inn. For info: www.wildtroutsymposium.com

September 28-30 NM
New Mexico Watershed Forum: Teaming UP for Healthy Watersheds, Albuquerque. Hilton Hotel 1901 University Blvd. NE. For info: www.watershedforum.org/

September 29-30 CA
Implementing Public Involvement in CERCLA Conference, Sacramento. Public Library, 828 I Street. For info: NWETC, 206/ 762-1976 or www.nwetc.org

September 29-Oct. 2 LA
ABA Environmental, Energy & Resources Law Summit, New Orleans. Sheraton Hotel. For info: ABA: www.abanet.org/environ/fallmeet/2010/

September 30 CA
Wind Power Conference, Marina del Rey. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

September 30 CA
Overview of Fluvial Geomorphology, Davis. Da Vinci Bldg., 1632 Da Vinci Ct. For info: UC Davis Extension, 800/ 752-0881 or www.extension.ucdavis.edu/landuse

September 30-Oct. 1 CA
ACWA's Continuing Legal Education Workshop, San Francisco. Argonaut Hotel. RE: Comprehensive Water Package Legislation. For info: ACWA, 916/ 441-4545 or website: www.acwa.com

October 1 OR
Water Toxics Conference, Portland. For info: Holly Duncan, Environmental Law Education Center, 503/ 282-5220, hduncan@elecenter.com or www.elecenter.com

October 2-6 LA
WEFTEC: 83rd Annual Water Environment Federation Technical Exhibition & Conference, New Orleans. For info: Water Environment Federation, 800/ 666-0206 or WEFTEC website: www.weftec.org

October 5 OR
GoGreen '10 Conference, Portland. Gerding Theater at the Armory, 128 NW Eleventh Ave. For info: http://portland.gogreenconference.net/

October 6 NE
Nebraska Water Law Conference, Lincoln. Downtown Holiday Inn. For info: Lorrie Benson, Water Center, 402/ 472-7372, lbenson2@unl.edu or http://watercenter.unl.edu/WaterLawConf2010/WaterLawConf2010.asp

October 6-7 WA
Washington Brownfields Redevelopment Conference: Reclaiming Our Communities, Tacoma. Greater Tacoma Convention & Trade Ctr. For info: Sue Moir, NEBC, 503/ 227-6361, sue@nebc.org or www.nebc.org

October 6-7 ID
Mercury Effects on Human Health & Ecosystems Course, Boise. Red Lion Downtown Boise. For info: NWETC, 206/ 762-1976 or www.nwetc.org

October 7 NE
Greater Platte River Basins Symposium, Lincoln. Downtown Holiday Inn. For info: Lorrie Benson, Water Center, 402/ 472-7372, lbenson2@unl.edu or http://watercenter.unl.edu/platte2010.asp

October 7-8 OR
Environmental & Natural Resources CLE - Law Year in Review, Troutdale. McMenamin's Edgefield Manor. For info: http://osbenviro.homestead.com/

October 7-9 CO
Global Commerce Forum: Energy, Logistics & the Environmental, Denver. Grand Hyatt. For info: www.globalcommerceforum.org

October 9 OR
Northwest Water Law Symposium, Portland. White Stag Bldg. UO Portland. For info: http://enr.uoregon.edu/nw-waterlawsymposium/

October 10-13 AZ
113th National Association of Water Companies' Annual Conference, Tucson. Loews Ventana Canyon. For info: www.nawc.org/

October 11-13 CA
Hydrology Conference 2010: Hydrologic Impacts, San Diego. Hilton Resort & Spa. For info: www.hydrologyconference.com

October 11-15 AK
Alaska Tribal Conference on Environmental Management, Anchorage. For info: http://www.atcemak.com/

October 13 CA
Groundwater Law & Hydrology Course, Davis. Da Vinci Bldg., 1632 Da Vinci Ct. For info: UC Davis Extension, 800/ 752-0881 or www.extension.ucdavis.edu/landuse

October 13-14 OR
Northwest Power & Conservation Council Meeting, Portland. For info: www.nwcouncil.org/

October 14-15 MT
Rivers of Change: Science, Policy & the Environment - Montana AWRA Annual Conference, Helena. Colonial Inn. For info: http://water.montana.edu/awra

October 15 OR
Water Quality Conference, Portland. For info: Environmental Law Education Center, 503/ 282-5220, hduncan@elecenter.com or www.elecenter.com

October 15-17 WA
4th Graduate Climate Conference, Seattle. Pack Forest Conference Ctr. For info: http://staff.washington.edu/smbush/GCC/Home.html

October 16-17 CA
EPA's Second Water Laboratory Alliance Security Summit, San Francisco. Grand Hyatt Hotel. For info: www.thetestportal.com/wlasummit

October 18-21 PA
Assoc. of State Drinking Water's Annual Conference, Pittsburgh. Hilton Hotel. For info: www.asdwa.org

October 19-20 CA
Water & Climate Change Symposium, Long Beach. Hyatt Regency. For info: Water Education Foundation, 916/ 444-6240 or www.watereducation.org/

October 20 DC
2010 Environmental Law Institute Fall Practice Update, Washington. Omni Shoreham Hotel. For info: Environmental Law Institute: www.eli.org/Dinner/practice_update.cfm

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

CALENDAR

(continued from previous page)

October 20-21 MT
5th Tribal Water Rights Conference, Polson. KwaTaqNuk Resort. For info: Center for Water Advocacy: www.wateradvocacy.org

October 21-22 NV
Tribal Water Law Seminar, Las Vegas. Monte Carlo Resort. For info: Law Seminars Int'l, 800/ 854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

October 21-22 CA
Habitat Restoration: Intensive Workshop, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, 800/ 752-0881 or www.extension.ucdavis.edu/landuse

October 21-22 UT
Utah Water Law Conference, Salt Lake City. Marriott Downtown. For info: CLE International, 800/ 873-7130 or website: www.cle.com

October 21-22 FL
Water, Energy & Climate Change Conference, Deerfield Beach. Hilton. For info: CLE International, 800/ 873-7130 or website: www.cle.com

October 23 WA
Washington Water Trust's 5th Annual Benefit, Dinner & Auction, Willows Lodge. For info: Lea Whitehill, WWT, 206/ 675-1585 x102, lea@washingtonwatertrust.org or www.washingtonwatertrust.org

October 24-27 NV
Association of Metropolitan Water Agencies Annual Meeting, Henderson. Green Valley Ranch Resort. For info: www.amwa.net/cs/conferences/future

October 24-28 TX
2010 International Water Conference, San Antonio. Crowne Plaza Riverwalk Hotel. For info: www.eswp.com/water

October 25-26 WA
Environmental Civil & Criminal Enforcement Conference, Seattle. For info: Law Seminars Int'l, 800/ 854-8009, email: registrar@lawseminars.com, or website: www.lawseminars.com

October 25-26 NC
Water & Health: Where Science Meets Policy Symposia, Chapel Hill. Sponsors: Water Institue at UNC and UNC's Institute for the Environment. For info: www.ie.unc.edu/content/news_events/symposia.cfm

October 25-29 CA
Wetlands Training Course: Protocols for Diverse & Changing Landscapes. Elkhorn Slough Coastal Training Program. For info: Greg Hayes, Elkhorn Slough, 831/ 274-8700, grey@elkhornslough.org or www.elkhornslough.org

October 26-27 OK
Governor's Water Conference (Oklahoma), Norman. Embassy Suites Conf. Ctr. For info: Oklahoma Water Resources Board website: www.owrb.ok.gov

October 27 CA
Groundwater Resource Management Seminar, Sacramento. For info: The Seminar Group, 800/ 574-4852, email: info@theseminargroup.net, or website: www.theseminargroup.net

October 27-29 CA
Western States Water Council Fall Meeting, San Diego. Doubletree Hotel Downtown. For info: Cheryl Redding, WSWC, 801/ 685-2555, credding@wswc.state.ut.us or www.westgov.org/wswc/

October 27-31 NM
Forests & People - A Watershed Event, Albuquerque. Society of American Foresters Nat'l Convention. For info: www.safnet.org/natcon10/index.cfm

October 28-29 CO
National Environmental Policy Act Institute, Denver. Grand Hyatt. Sponsored by Rocky Mt. Mineral Law Foundation. For info: Mark Holland, RMMLF, 303/ 321-8100 x106, mholland@rmmlf.org or www.rmmlf.org

October 28-29 CA
Salmonid Ecology Course, Sacramento. Sutter Square Galleria, 2901 K Street. For info: UC Davis Extension, 800/ 752-0881 or www.extension.ucdavis.edu/landuse

November 1-4 PA
AWRA Annual Water Resources Conference, Philadelphia. Loews Hotel. For info: AWRA website: www.awra.org/

November 2-3 ID
EPA's New Unified Guidance: Statiscal Analysis of Groundwater Monitoring Data Course, Boise. Red Lion Downtown Boise. For info: NWETC, 206/ 762-1976 or www.nwetc.org

November 2-4 CA
31st Annual International Irrigation Show, San Diego. For info: Irrigation Assn, website: www.irrigation.org

November 2-5 NV
Floodplain Management Ass'n Annual Conference, Henderson. Loews Lake Las Vegas Resort. For info: www.floodplain.org/conference.php

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

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

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