

GOVERNMENT

EPA Waffles on Perchlorate Regulation

Perchlorate, a toxic component of rocket fuel and a drinking water contaminant, might not be regulated by the U.S. Environmental Protection Agency, said Benjamin H. Grumbles, EPA's assistant administrator for water, in a May Senate Environment and Public Works Committee hearing. In April 2007, EPA said it had decided not to regulate 11 drinking water contaminants, but delayed the decision about perchlorate, citing the need for additional information. In the May hearing, Grumbles said a decision would be made on perchlorate by the end of 2008.

A 2008 study by the U.S. Food and Drug Administration found detectable levels of perchlorate in 625 of 1,065 (59 percent) of the food and beverage samples analyzed,

and a 2007 U.S. Centers for Disease Control study detected perchlorate in all 49 breast milk samples tested. These findings indicate that drinking water might not be the only or even the primary method of human exposure to perchlorate, which some argue makes establishing standards for drinking water even more important. Furthermore, as testified at the hearing, the Colorado River, which provides drinking water to millions, also has been found to contain trace amounts of perchlorate.

California set a drinking water standard of 6 parts per billion for perchlorate in 2007. George Alexeeff, deputy director of California's Office of Environmental Health Hazard Assessment, and other experts told the Senate committee there was already enough evidence to act.

Perchlorate is known to affect thyroid function, which could be particularly problematic for fetuses and infants.

Grumbles said there was a "distinct possibility" that EPA would not set a standard, but when hostilely questioned by California Sen. Barbara Boxer, the committee chair, he added that there was also a distinct possibility that it would.

In July, the committee approved two bills introduced by Boxer that could impose a deadline on EPA to act.

Visit epw.senate.gov, www.epa.gov, energycommerce.house.gov/Press_110/FDAStudy.TDSPerchlorate.pdf, and jcem.endojournals.org/cgi/content/abstract/92/5/1673.

Few Farmers Following in Imperial Valley

Imperial Irrigation District (IID) may not meet its Quantification Settlement Agreement (QSA) following requirements for 2008-2009, reported the *Imperial Valley Press* in May.

In an effort to help California live within its 4.4-million-acre-feet allotment of Colorado River water, the 2003 QSA resolved disputes among IID, San Diego County Water Authority (SDCWA), Coachella Valley Water District (CVWD), Metropolitan Water District (MWD), the State of California, and the United States.

As part of the QSA, IID agreed to reduce its water use in exchange for billions of dollars in payments. The program was to start with following, followed by IID delivery system improvements in 2008, and on-farm efficiency improvements by 2013, replacing following entirely by 2018. The conserved water would be transferred to SDCWA, CVWD, and MWD.

In addition, lining of the All-American Canal is expected to conserve water that will be transferred to SDCWA and San Luis Rey Indian Tribes in exchange for money and rights to use some of the conserved water. The QSA allows IID to preserve the agricultural output of the Imperial Valley at virtually no cost, while also minimizing future threats to its water supply.

HydroFacts

Percent of average snowpack for the date in Arizona watersheds, March 1, 2008:	154
Percent of average snowpack for the date in Arizona watersheds, April 1, 2008:	48-67

[Source: Mike Crimmins, University of Arizona]

Percent of average snowpack for the date in 2008 at Phillips Station in the California Sierra:				
January 3: 60	January 31: 123	February 28: 136	March 26: 98	May 1: 11

[Source: California Department of Water Resources]

Lake Mead elevation on June 30
[Source: U.S. Bureau of Reclamation]



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The following program relies upon voluntary land owner participation. Each year IID sets the price and sends out solicitations for participation. In 2007, IID began to physically prevent participants' fields from receiving water and initiated a monitoring program to ensure that those volunteers receiving money for following were not also irrigating.

Fallowed land has resulted in water savings ranging from a low of 39,000 acre-feet in 2003-2004 to a high of 96,000 acre-feet in 2006-2007. The 2007-2008 program resulted in about 90,000 acre-feet of savings. The average cost between 2003 and 2008 was \$55/acre-foot.

According to the *Press*, this year IID offered \$85 per acre-foot, but the high price of wheat seems to have limited the number of program applicants, leaving the program 5,000 acre-feet short. IID board Director James Hanks told the *Press* the district may have to move to on-farm conservation sooner than planned.

The *Press* also reported that IID's equitable distribution pilot program, a straight-line rationing system for shortages, did not receive enough participation to be effective.

Visit www.iid.com and www.ivpressonline.com.

Oil Companies Pay Up for MTBE Contamination

In May, 13 oil companies agreed to pay \$422 million in a partial settlement of a grouping of MTBE cases covering plaintiffs in 17 states, including California and New Mexico in the Southwest, and 153 public water providers. The settling defendants include BP Amoco, Atlantic Richfield, Chevron, ConocoPhillips, Shell, Marathon, Valero, CITGO, Sunoco, Hess, Flint Hills, El Paso Merchant Energy, and Tesoro. ExxonMobil refused to settle, and its first trials will begin in September.

The payment will go toward remediating drinking water wells that are contaminated with MTBE. The defendants must also pay
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their share of treatment costs for plaintiffs' wells that become contaminated in the future. The plaintiffs own or operate 3,395 wells that serve 7 million individuals.

MTBE, a gasoline additive used between 1979 and 2007, has contaminated groundwater through leaking underground storage tanks. Internal oil company documents uncovered by the law firm Baron and Budd P.C., who represented the plaintiffs, revealed that in the mid-1980s, the oil companies knew that MTBE posed problems to drinking water but did nothing about it.

MTBE makes drinking water nonpotable even at levels as low as 1 part per billion, and is a potential human carcinogen. It is also highly soluble, travels quickly, and biodegrades slowly. Twenty-five states have since banned MTBE; ethanol has replaced MTBE across the nation.

The first MTBE contamination lawsuit in the United States was filed in 1995 and settled in 1997. A well-known MTBE lawsuit over contamination of five of the City of Santa Monica's 11 wells was settled in 2002, after the city was forced to import 30 percent of its drinking water. The settlement allowed Santa Monica to build a water treatment system to monitor and clean up the MTBE and continue importing water until 2010, when its own water is expected to be potable again.

Visit www.baronandbudd.com.

EPA Toxicity Assessment Process Questioned

In an April 2008 Senate hearing, the Government Accountability Office (GAO) and California Sen. Barbara Boxer questioned the U.S. EPA's new process for toxicity assessments. The Integrated Risk Information System (IRIS) is used by EPA to provide human health risk information from exposure to over 540 environmental contaminants. This information is used as the foundation of most EPA regulatory programs.

Previously, on April 10, EPA had announced it was making improvements to the IRIS process to enhance predictability, transparency, and efficiency. The revised process is to include earlier involvement of other agencies and the public and more rigorous scientific peer review of assessments.

Boxer criticized the new changes, stating that "Under EPA's new approach politics can be—and already has been—injecting into multiple stages in the process," and adding that the procedure effectively requires the Department of Defense to agree with EPA on any risk assessment before it goes forward. "By placing politics before science, the Bush administration is putting the public in harm's way," Boxer warned. She stated that the flawed process delayed or derailed risk assessments on such chemicals as TCE, naphthalene, and formaldehyde.

GAO Director of Natural Resources John Stephenson testified that the IRIS database "is at serious risk of becoming obsolete because EPA has not been able to routinely complete timely, credible assessments or decrease its backlog of 70 ongoing assessments; a total of 4 were completed in fiscal years 2006 and 2007."

The GAO previously provided comments to EPA on the potential revisions to IRIS, stating that the changes would actually reduce the timeliness and credibility of assessments. The GAO cited newly required reviews by the Office of Management and Budget and other agencies and the compounding effect of delays. Stephenson complained that EPA had promised in February to consider GAO's recommendations, but failed to do so.

Visit epw.senate.gov and www.epa.gov.

EPA is Pushed for More PPCP Research

California Sen. Barbara Boxer took another occasion to berate the U.S. EPA in an April Senate hearing on the

demand for research into the health effects of pharmaceuticals and personal care products (PPCPs). Although the U.S. Geological Survey and the *Associated Press* have found evidence of PPCPs in drinking water, Boxer said EPA "has failed to require the needed testing to determine the effects of these chemicals at low levels," even though they were instructed to do so by Congress in 1996. She added, "EPA hasn't even proposed to set a single health standard for any pharmaceutical in drinking water."

Shane Snyder, research and development project manager for the Southern Nevada Water Authority, emphasized in the hearing that "scientists need both occurrence data and human health-effect information... If we regulate contaminants based upon detection, rather than health effects, we are embarking on a futile journey without end."

According to an American Water Works Association newsletter, EPA water chief Benjamin Grumbles explained that most pharmaceuticals occur far below levels with adverse health effects, but Snyder and other scientists at the hearing disputed this argument, citing studies that found fish reproductive systems being "feminized" by exposure to wastewater and agricultural runoff with a range of chemicals that act similar to estrogen, even at levels of parts per billion. Boxer called these fish and wildlife "canaries in a coal mine."

Boxer recommended five steps for the Bush administration to take immediately, including requiring testing of drinking water for pharmaceuticals and public disclosure of results, as well as establishing rules and programs for safe disposal of waste pharmaceuticals.

Visit epw.senate.gov and www.awwa.org.

Colorado Streams Receive Legal Aid

In April, Colorado Gov. Bill Ritter strengthened a 35-year old state instream

flow program by signing into law House Bill 1280, the Healthy Rivers Act.

The program has allowed the Colorado Water Conservation Board to acquire consumptive use water rights through purchase, donation, lease, or other means, and to leave that water in the rivers. These flows can help protect or improve the natural environment of streams and rivers in the state.

The previous "use it or lose it" constraint, common throughout the West, made it risky for water rights owners to lease water to the state because a water right not consumptively used could legally lose its value or be considered abandoned. The Healthy Rivers Act represents a shift to rewarding conservation rather than punishing it. The bill gives assurance to water rights owners that their right will not be diminished for the time it is leased to the instream flow program.

The bill is expected to provide the state with more opportunities to lease water for instream flows, as well as to provide greater flexibility to farmers and ranchers who may not want to permanently fallow their land.

The bill was supported by both environmental groups, such as Colorado Environmental Coalition, and water providers, including Denver Water.

Visit www.colorado.gov and www.ourcolorado.org.

Help for Verde River Species

Arizona's Salt River Project (SRP) received approval from the U.S. Fish and Wildlife Service (FWS) in May for its plan to minimize and offset harm to federally threatened and endangered species, including the southwestern willow flycatcher. SRP developed a habitat conservation plan (HCP) for Horseshoe and Bartlett reservoirs on the Verde River, which store water for agricultural, industrial, and municipal uses, especially for the Phoenix metropolitan area.

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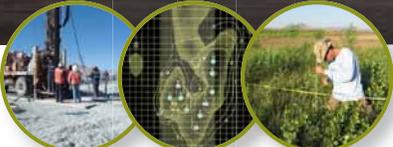


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Under the Endangered Species Act, federally listed species receive protection from harm due to change or destruction of habitat. However, FWS may allow incidental harm if an appropriate plan is in place to minimize and mitigate that harm. Reservoir operations affect habitat for endangered species and may favor non-native fish species that compete with native ones.

Through the HCP, SRP committed to managing reservoir levels to favor southwestern willow flycatcher and yellow-billed cuckoo habitat while also limiting benefits to non-native fish. SRP will also acquire habitat along the Verde and Gila rivers for other bird species, exclude non-native fish from Lime Creek, and expand a native fish hatchery. SRP and the City of Phoenix will spend \$6.5 million to \$9 million on the project over 50 years.

FWS's acceptance of the plan resulted in a permit for the incidental take of four endangered species, three threatened species, and nine species that may be listed in the future. In a press release, FWS recognized "SRP's commitment to conserve native wildlife and habitat."

Visit www.fws.gov.

Legislation Provides NM Water Planning Help

On May 8, President Bush signed into law a bill that gives New Mexico water planning assistance from the U.S. Bureau of Reclamation and the U.S. Geological Survey. The legislation, backed by both New Mexico senators Domenici and Bingaman, became part of the Consolidated Natural Resources Act of 2008, a combination of over 50 pieces of legislation related to land and water.

The bill authorizes \$3 million per year for five years for technical assistance and grants to develop state water plans, conduct water resource mapping, and undertake a comprehensive study of potable, brackish, and saline groundwater resources.

Technical assistance may include acquisition of hydrologic data, groundwater characterization, database development, data distribution, expansion of climate and water monitoring networks, assessment of existing water resources, and numerical analysis and modeling. In addition, the bill authorizes Reclamation and USGS to participate in state planning forums, coordination of federal water planning efforts, "technical review of data, models, planning scenarios, and water plans developed by the State, and provision of scientific and technical specialists to support State and local activities."

Specific allocations were requested for hydrologic models and equipment in New Mexico Rio Grande main stem sections and the Pueblos de Taos and Hondo rivers; the Nambe, Pojoaque, Tesuque, and Chama rivers; Lower Rio Grande tributaries; the San Juan River and its tributaries; the Animas Basin; and the Gila River and its tributaries, in addition to statewide digital orthophotographic mapping.

Although the bill authorizes funding, no allocations had been made as of August.

Visit energy.senate.gov and thomas.loc.gov.

New Mexico Passes Pit Rule

The New Mexico Oil Conservation Commission passed the "Pit Rule" in May, replacing an old, less environmentally strict rule. The rule affects oilfield waste pits, below-grade tanks, and closed-loop systems related to oil and gas operations, which typically store or are used to manage produced water, brine, and drilling fluids.

The new rule is designed to better protect water quality and the health of humans, livestock, and wildlife. It prohibits the use of unlined pits and requires a greater lining thickness. Unlined pits will be allowed for future use only if an administrative exception is approved, with the application subject to public notice and environmental review. In addition, abandoned pit waste must be removed to a landfill and the pit

restored, unless the operator can prove that the waste will not harm the environment.

The Oil Conservation Division, part of the New Mexico Energy, Minerals, and Natural Resources Department, says the rule is part of a gradual trend during Gov. Bill Richardson's administration toward making waste rules more protective of the environment.

Visit www.emnrd.state.nm.us.

Water for America Merges Federal Programs

In his Fiscal Year 2009 budget, President Bush included a \$21.3 million Water for America initiative. The initiative would fund the U.S. Bureau of Reclamation and the U.S. Geological Survey to help "state, tribal, and local governments better conserve, manage and develop their vital water resources...using the latest technologies in water planning and management," according to a Department of Interior press release.

Water for America contains three strategies: 1) "plan for our nation's water future," 2) "expand, protect, and conserve our nation's water resources," and 3) "enhance our nation's water knowledge." Reclamation will focus on the first two and USGS on the third. The initiative also merges three Reclamation programs: Water 2025, Water Conservation Field Services, and Investigations.

Reclamation receives \$13.1 million from this initiative to fund watershed planning, smaller-scale geographical studies, and challenge grants. The goal is to stretch water supplies while managing and protecting endangered species. Reclamation will also address using climate change information in operations and planning through project-specific studies.

The USGS will use its \$8.2 million for a national water census—the first in 30 years—as well as upgrades and additions to the stream gauging network and groundwater resources research.

In May, Secretary of the Interior Dick Kempthorne announced \$1.8 million in grants to water districts in California, New Mexico, Oregon, and Utah for ten projects related to delivery systems improvements. In the future these grants, related to Water 2025, will become part of the Water for America initiative.

Visit www.doi.gov.

400,000 Balls on LA Reservoir

In an effort to prevent a recurrence of the late 2007 bromate spike in Los Angeles reservoirs (see *Southwest Hydrology*, May/June 2008), the Los Angeles Department of Water and Power in June dropped 400,000 black balls into Ivanhoe Reservoir. The 2007 bromate spike required two other reservoirs to be drained, cleaned, and refilled to protect public health.

The 4-inch, hollow, high-density polyethylene balls, known as Shade



Photo: LADWP

Shade Balls settle into position on the surface of Ivanhoe Reservoir.

Balls, are supposed to prevent the sunlight-triggered formation of bromate, a disinfection byproduct and suspected carcinogen, by preventing sunlight from reaching the water, which contains the other components of bromate—bromide and chlorine. This is the first use of shade balls to address water quality issues. The balls are commonly used by airports to keep birds away from wet areas near runways, reported the *Los Angeles Times*.

The balls are a cost-effective way for LADWP to meet a federal regulation to cover the open-air reservoir. The balls will shade Ivanhoe Reservoir for about 5 years, or until an underground water storage project under construction in Griffith Park is completed. The *Times* noted that the reservoir eventually will be completely blanketed by 3 million balls.

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