

Power Plant Wastewater Rules Revised

The U.S. Environmental Protection Agency plans to revise the existing standards for water discharges from coal-fired power plants.

Earlier this year, EPA completed a multiyear study of power-plant wastewater discharges and concluded that current regulations, which were issued in 1982, have not kept pace with changes in the electric power industry over the last three decades. Controls installed to remove pollution from smokestacks have made great strides in cleaning the air. However, some of the equipment used to clean air emissions does so by “scrubbing” the boiler exhaust with water. When that water is not properly managed, it redirects pollution to rivers and other water bodies. Treatment technologies are available to remove these pollutants from wastewater streams before they are discharged to waterways, but have been installed at only a fraction of existing power plants.

As part of the study, EPA measured pollutants in the wastewater and reviewed treatment technologies, focusing mostly on coal-fired power plants. Many of the toxic pollutants discharged from power plants come from coal-ash ponds and the flue-gas desulfurization systems used to remove sulfur dioxide from air emissions. Wastewater discharged from coal-ash ponds, air pollution control equipment, and other equipment at power plants can

contaminate drinking water sources, kill fish and other wildlife, and cause other detrimental environmental effects.

Once the new rule for electric power plants is finalized, EPA and states would incorporate the new standards into wastewater discharge permits. A final study will be published later this year.

Visit www.epa.gov.

KS, CO Reach Arkansas River Agreement

In August, Kansas and Colorado made a joint filing with the U.S. Supreme Court, ending a 24-year dispute concerning the division of Arkansas River water.

The states’ water officials, Chief Engineer David Barfield in Kansas and State Engineer Dick Wolfe in Colorado, reached agreement on the final technical issues of the case by specifying how Colorado’s replacement requirements will be evaluated in order to maintain compliance with the 1948 Arkansas River Compact.

“Colorado has shown us by this agreement that they are willing to resolve certain disputes without litigation. That being said, Kansas has an enforceable Supreme Court decree with regard to the Arkansas River Compact to rely on if needed,” said Barfield.

Kansas filed suit against Colorado in 1985, claiming it was improperly diverting water by pumping large amounts of groundwater that in fact were connected to the river and belonged to Kansas. In 1995, the Supreme Court ruled in favor of Kansas

and ultimately required Colorado to pay Kansas more than \$34 million, largely for loss of farm income due to surface-water depletions. In addition, the court approved the Hydrologic-Institutional (H-I) model developed by Kansas to calculate water depletions in Colorado.

However, some issues remained unresolved, including exactly how stream depletion from groundwater pumping is monitored and determined. Resolving this issue involved modifying the language specifying how the H-I model will be applied.

Visit www.ksag.org.

Flow Returns to San Joaquin River

In October, releases from Friant Dam were increased to send water through two stretches of the San Joaquin River in central California that have been dry, except during extremely high flows, since the dam began diverting water more than 50 years ago, reported the *Los Angeles Times*.

According to the *Times*, the flows are part of a plan to return Chinook salmon to the river by late 2012. The October flow was slated to last six weeks, and marked the start of many test releases designed to study the effects of the flows. The temperature, depth, quality, and path of the released water will be monitored.

The *San Francisco Chronicle* reported that in 1988 the Natural Resource Defense Council and other environmental groups sued federal agencies to prohibit them from renewing agricultural contracts that had been diverting nearly all water from the river. In 2006, a federal judge ordered the reinstatement of flows and the return of the salmon. In March 2009, the project received \$400 million as part of a wilderness protection bill.

The *Chronicle* reported that the river is dry in two separate stretches of 24 and 40 miles. The test release will result in an 18-percent reduction in water deliveries for farmers served by the river. Flows are not planned to reach the 150-mile stretch between Friant Dam and the Merced River year-round until 2014.

Visit www.latimes.com and www.sfgate.com.

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SWH HydroFacts

Number of Southwest Hydrology issues published to date:	47
Number of pages produced:	1,990
Number of feature articles:	333
Number of unique authors:	657
Number of unique advertisers and sponsors:	112
Number of advertisers who have been in every issue to date: (Baski, Clear Creek Associates, Geosystems Analysis, HydroGeophysics, HydroSystems, Stewart Brothers Drilling Co.)	6
Number of states with Southwest Hydrology subscribers:	50
Current number of subscribers:	about 6,200

NM Program Aims for Drug-Free Rio Grande

In September, the Albuquerque Bernalillo County Water Authority (ABCWA) announced a plan to encourage proper disposal of old or expired medications in order to prevent them from entering the Rio Grande and its ecosystems.

The program, AguaRx, includes a public awareness campaign, voluntary testing to monitor the presence of pharmaceuticals and personal care products in the Rio Grande, the development of a regional strategy to address the issue, and pursuit of state legislation to facilitate pharmaceutical take-back programs. AguaRx was developed partly in response to reports by the *Associated Press* and USGS that sparked public concern over the presence of pharmaceuticals and personal-care products in water sources.

Visit www.abcwua.org.

Wetlands Mapping Standard Approved

In August, Secretary of the Interior Ken Salazar announced the adoption of a wetlands mapping standard that provides minimum requirements and guidelines

designed to enhance the overall quality and consistency of wetlands data.

The standard addresses a desire for a more refined scale, the need to share wetlands data, and for those data to be compatible with other water databases such as the National Hydrography dataset, enabling wetlands to be considered part of a watershed, ecosystem, or region.

The new standard includes requirements for spatial resolution of source and base imagery, classification level based on habitat type, target mapping unit, and accuracy. It also includes data-verification checks, standards for metadata, specified datum and projection, and quality-control procedures.

The standard will apply to all wetlands mapping activities funded or conducted by the federal government.

Visit www.fws.gov.

Tule River Tribe Seeks Water Development

In September, the chairman of the Tule River Tribe (located in the Sierra foothills north of Bakersfield) and the commissioner of the U.S. Bureau of Reclamation testified before the

Water and Power Subcommittee of the Senate Energy and Natural Resources Committee regarding the Tule River Tribe Water Development Act.

The proposed legislation would direct the Department of the Interior to conduct a feasibility study on the construction of a storage reservoir and delivery system to provide the Tule River Indian Tribe with a water supply based on their reserved water rights under the Winters Doctrine. The act would also authorize \$3 million for the Bureau of Reclamation to conduct the study.

In 2007, the tribe and local water users signed a settlement agreement that supplies sufficient water for downstream users while maintaining a stable water supply for the upstream tribe. The water development project would help implement that settlement. The tribal chairman noted they expected the settlement agreement would come before Congress in the coming months.

The Department of Interior opposes the bill for several reasons. Reclamation's commissioner stated that not all issues between the tribe and the federal negotiation team have been resolved, and Reclamation has not had an opportunity to conduct an appraisal-level study to determine whether a feasibility study was even warranted. In addition, Reclamation has not reviewed, and therefore cannot verify, the cost estimates upon which the bill is based. In addition, the legislation does not specify a nonfederal cost-share partner as is typically required. Finally, the bill includes restriction of the use of water for casinos and gaming activity, which the commissioner called "serious precedent and fairness problems."

The tribal chairman noted that the federal government had previously relocated the tribe from arable, irrigable land with a water supply to a mountainous setting. The storage project would provide water for the tribe by diverting it during high flows, thereby not inhibiting downstream users' ability to also divert water for their use.

A similar bill passed the House earlier in the year. According to *Indian Country*

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Today, members of the Tule River Tribe “are growing increasingly frustrated with the Department of the Interior as it continues to stall the tribe’s ability to secure clean and reliable water resources.”

Visit energy.senate.gov and www.indiancountrytoday.com.

Major Water Reform in CA

During a special session in November, California lawmakers passed a major water policy reform package consisting of four policy bills and an \$11 billion bond.

The first bill creates the Delta Stewardship Council, whose role is to help achieve Sacramento-San Joaquin Delta restoration and water supply reliability. In addition, state agencies must identify water-supply needs of the estuary for use in determining appropriate water diversion amounts. The Sacramento-San Joaquin Delta Conservancy was also established to implement ecosystem restoration activities.

The second bill requires local agencies to monitor groundwater basins and create groundwater elevation reports, for the first time in California’s history. The California Department of Water Resources will assist with these programs and implement them if necessary.

The third bill sets statewide water conservation targets, requiring development of agricultural water management plans and a 20-percent reduction of urban water use by 2020. Agricultural water suppliers must measure water deliveries, adopt a pricing structure based at least in part on quantity delivered, and implement measures to improve efficiency where feasible. Urban water suppliers must utilize performance standards for specific sectors, including indoor, landscape, commercial, and industrial water use. Urban suppliers must meet interim targets by the end of 2015.

The fourth bill provides stricter accounting of water diversions by eliminating exemptions. It also appropriates existing bond funds for activities to benefit the delta ecosystem and the state’s water supply.

Finally, the Safe, Clean, and Reliable Drinking Water Supply Act of 2010 is a bond proposal that would provide funding for drought relief, delta sustainability, water-supply reliability, statewide water system operational improvement, groundwater protection and water quality, and conservation and watershed protection. Gov. Arnold Schwarzenegger signed the bond measure in November, and it will go before voters in November 2010.

Visit www.water.ca.gov and gov.ca.gov.

within its allotment of Colorado River water, allows Metropolitan and its 19 million customers to receive unused agricultural supplies, said the *Sun*.

Metropolitan customers have been in mandatory water conservation for the first time in 18 years, reported the paper. However, CVWD expects to finish 8,000 acre-feet below its allotment and IID 180,000 acre-feet below, the largest amount of underuse since the QSA was implemented.

IID told the paper that the low water use is a result of the depressed farming economy and natural market forces. Some farmers dispute this, noting they have invested large amounts of capital to conserve water but have not received payments promised by the QSA.

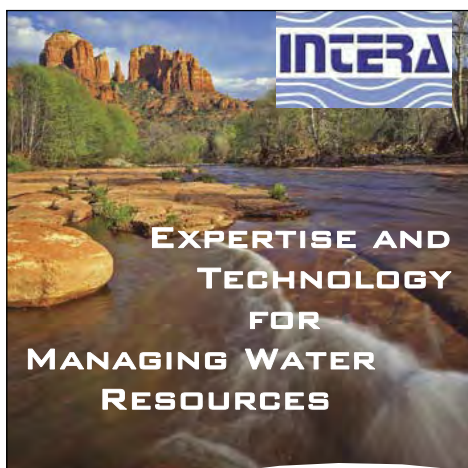
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Pecos River Settlement Implemented

In September, the state of New Mexico and other parties to the Pecos River Settlement announced the implementation of the agreement that helps assure long-term compliance with the Pecos River Compact.

The compact delineates New Mexico’s obligations for delivery of Pecos River and tributary water to Texas. The 2003 settlement agreement provides additional water supplies to the Carlsbad Irrigation District (CID) and protects junior groundwater rights in the Pecos Valley Artesian Conservancy District (PVACD) from the threat of a priority call. The U.S. Bureau of Reclamation is the fourth party in the agreement in addition to New Mexico, CID, and PVACD.

In the six years since the settlement was signed, the parties have been working out how to satisfy its conditions. In June, they filed a joint declaration with the Fifth Judicial District Court in Chaves County, New Mexico, that conditions had been met. Among them, the New Mexico Interstate Stream Commission (ISC) had to acquire a minimum of 4,500 acres with water rights in CID, and a minimum of 7,500 acres in the Roswell Artesian Basin. ISC was very close to those goals as of July 2009.



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SoCal Residents Get Extra Water

Metropolitan Water District of Southern California was slated to receive large and unexpected amounts of water from the Imperial Irrigation District (IID) and Coachella Valley Water District (CVWD), reported the *Palm Springs Desert Sun* in September. The 2003 Quantification Settlement Agreement (QSA), designed to keep California

ISC also had to develop a minimum of 15,750 acre-feet per year of augmentation pumping capacity to supplement Pecos River flows. This was achieved through new augmentation pumping at three locations, including the primary site in the Seven Rivers area.

Visit www.ose.state.nm.us and www.currentargus.com.

Lake Mead Pumping Project Downscaled

Although Southern Nevada Water Authority will complete the third intake to withdraw water from the dropping Lake Mead, reduced demand means the agency no longer needs an additional pumping station, reported the *Las Vegas Sun* in September, decreasing the project's cost from \$817 million to \$521 million.

If lake levels fall 46 feet below September levels, the first intake will no longer draw water. According to the paper, the pump that draws water out of the second intake will also be able to

pull enough water through the third intake to meet current peak demand. However, the additional pumping station may still be required in the future if it becomes necessary to draw water from the third intake at full capacity.

Most members of SNWA have been paying their part of the construction cost of the third intake projects through connection fees of \$5,000 per new home. However, Boulder City opted out of that fee and has not yet determined how it will pay its share. The postponement of the pumping station cuts their bill from \$26 million to \$13.6 million.

Visit www.lasvegassun.com.

SNWA Supports Cloud Seeding

The Southern Nevada Water Authority (SNWA) board voted in October to keep the Desert Research Institute's northern Nevada cloud seeding program alive, reported the *Las Vegas Review-Journal*. According to DRI,

SNWA will provide \$165,000 to fund the operation of seven generators in the Tahoe/Truckee River Basin.

The *Las Vegas Sun* reported in August that Pat Mulroy, general manager of SNWA, had suggested that her agency provide support for the program after existing funding was cut by the state legislature. According to the *Sun*, the program was designed to increase precipitation to rural groundwater basins in northern Nevada—places SNWA plans to pump from in the future to provide water for the Las Vegas metropolitan area. The paper said SNWA has already been funding cloud seeding in Colorado areas that provide snowmelt to the Colorado River, Las Vegas's primary water source.

According to DRI, the seeding program increases snowpack that later melts and recharges aquifers, making it particularly valuable to rural Nevadans. ■

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