

# GOVERNMENT

## **SNWA to Receive Rural Nevada Groundwater**

On April 16, Nevada's state engineer approved a portion of the groundwater rights applications the Southern Nevada Water Authority (SNWA) submitted for Spring Valley in White Pine County, enabling SNWA to develop a maximum of 60,000 acre-feet annually from the rural eastern Nevada basin. SNWA had applied for rights to 91,000 acre-feet per year.

Under terms of the decision, SNWA can pump 40,000 acre-feet annually from the basin for 10 years. At that point, SNWA will be allowed an additional 20,000 acre-feet annually from the basin based on the results of monitoring and impact analysis.

The first water deliveries from Spring Valley to southern Nevada are not expected until 2014 at the earliest, pending construction of a 285-mile pipeline, among other things.

The state engineer's approval also requires protecting existing groundwater rights in the basin, the ability for future groundwater growth and development

in Spring Valley, and a comprehensive monitoring, management and environmental mitigation plan.

Visit [www.snwa.com](http://www.snwa.com).

## **Review of EPA Identifies Strategic Weaknesses**

A report issued in March by the U.S. EPA Science Advisory Board (SAB) identified several weaknesses in the strategic direction of the agency's major research programs. The strategic review focused on four key cross-program areas: the impacts of climate change, sensitive populations (human and ecological), the environmental consequences of urban sprawl, and large-scale natural and man-made environmental disasters.

Overall, the SAB found that severe budget constraints "appear to have caused EPA's research planning to become more reactive and less strategic." Furthermore, with a few exceptions, research funding decisions "appear to be incremental rather than strategic, causing research programs to focus more on yesterday's issues and less on new and emerging environmental problems." EPA "urgently needs to develop a higher-level research

planning effort that can consider and adjust the balance and focus among major program areas and increase coordination and collaboration across program areas." SAB expressed "grave concerns about the decreased trend in the funding of ecosystems research, decreased funding of STAR (Science To Achieve Results) extramural and fellowship programs, and the elimination of the economics and decision-sciences research program," that resulted from the President's FY 2008 budget.

The 38-member SAB panel largely represents research universities, but also includes representatives from federal and state governments and nongovernmental organizations.

The report is available at [www.epa.gov/sab/pdf/sab-07-004.pdf](http://www.epa.gov/sab/pdf/sab-07-004.pdf).

## **Reclamation Releases Draft EIS on CO River Shortage Guidelines**

In late February, the U.S. Bureau of Reclamation released for public review and comment a draft Environmental Impact Statement (EIS) on proposed interim guidelines for managing the Colorado River storage system, particularly under drought and low reservoir conditions. The guidelines, which would extend through 2026, would be used for determining shortages in the Lower Colorado Basin and coordinating operations for Lake Powell and Lake Mead reservoirs. The guidelines were developed to improve Reclamation's management of the Colorado River, provide mainstream U.S. users of Colorado River water a greater degree of predictability regarding annual water deliveries in future years, and provide additional mechanisms for the storage and delivery of water supplies in Lake Mead.

The draft EIS presents four possible alternatives for implementation plus a "no action" alternative, and the potential environmental implications of each.

## **HydroFacts**

Percent increase in global population during 20th century: 300  
Percent increase in water used for agricultural irrigation: 500

Total land area of the world: 32 billion acres  
Percent land area in pasture: 27  
Percent land area cultivated: 12  
Percent cultivated land area with rain-fed crops: 10  
Percent cultivated land area that is irrigated: 2

Annual withdrawals from rivers and aquifers for irrigation: 1.86 billion acre-feet  
Estimated amount of water effectively consumed by crops: 728 million acre-feet  
Percent global average irrigation efficiency: 39

Hours women and girls walk for water each day, globally: 200 million

Sources: UNESCO Water Portal Weekly Newsletter #185, April 2007 and WaterPartners International

The "Basin States" alternative, developed by the seven basin states, proposes a coordinated operation of lakes Powell and Mead to minimize Lower Basin shortages and avoid risk of curtailments of Upper Basin water use.

The "Conservation Before Shortage" alternative, developed by a consortium of nongovernmental organizations, includes voluntary, compensated reductions in water use to minimize involuntary shortages in the Lower Basin and avoid risk of curtailments in the Upper Basin.

The "Water Supply" alternative, developed by Reclamation, maximizes water deliveries at the expense of retaining water storage in the reservoirs for future use. Thus, full water deliveries would be released from Lake Mead until the water level falls below the point at which any more could be released.

The "Reservoir Storage" alternative, developed by Reclamation with cooperating agencies and other stakeholders, would keep more water in storage in lakes Powell and Mead by reducing water deliveries and increasing shortages to benefit power and recreational interests.

Following release of the draft EIS, public comments were accepted for 60 days. Those comments are now being used to identify the preferred alternative, which will be expressed in the Final EIS published in September 2007.

View the draft EIS at [www.usbr.gov/lc/region/programs/strategies.html](http://www.usbr.gov/lc/region/programs/strategies.html).

## Central Valley Drainage Plans Put Forward

Hundreds of thousands of acres of farmland in California's Central Valley is irrigated by imported water purchased by water districts from the U.S. Bureau of Reclamation. But that imported water contains abundant salts that are accumulating in the soils. The salinity has increased to the point that continued

agricultural productivity is at risk. In 2000, five years after Westlands Water District sued the federal government for reneging on its obligation to help drain the land, the 9th Circuit Court of Appeals ruled that indeed Reclamation is obligated to provide drainage. In July 2006, Reclamation issued a final environmental impact statement (EIS) describing alternatives for providing drainage.

In March, Reclamation selected the In-Valley Water Needs Land Retirement alternative, which calls for retiring a total of 194,000 acres from irrigated agriculture (44,106 acres have already been retired). This plan also includes collector systems, drainage water reuse facilities, treatment systems, evaporation ponds, and mitigation measures.

U.S. Fish and Wildlife biologists expressed concern that proposed evaporation ponds would be toxic to birds, according to the *Los Angeles Times*. In the 1980s, millions of migratory birds were poisoned by high levels of selenium in ponds that received irrigation drainage at nearby Kesterson National Wildlife Refuge. The ponds subsequently were filled in. Reclamation said a similar problem would

be avoided under the new plan by constructing the more than 2,000 acres of evaporation ponds in a way that is not attractive to wildlife, said the *Times*.

Meanwhile, Reclamation estimated that the project would cost at least \$2.2 billion, an amount deemed not economically justified or of "net positive national benefit." Furthermore, the agency doubted it could obtain the necessary appropriations in light of constraints on the federal budget. Therefore, Reclamation concurrently began developing an alternative that would provide the drainage needed for agriculture and also eliminate the agency's liability, minimize the need for federal funding, benefit the environment, avoid third party impacts, and be compatible with State Water Project operations.

In a February report, Reclamation outlined concepts of a new alternative that would place the drainage obligation on the irrigation contractors (water districts), relieving Reclamation of any further obligation in exchange for the transfer of certain Central Valley Project facilities and water rights to the water districts. Such an agreement would require Congressional

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Photo Courtesy of Phil Paski, HydroSystems, Inc.

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approval, as does Reclamation's selection of the In-Valley alternative. According to the *Times*, Tom Graff of Environmental Defense predicts that Congress will draft its own alternative, which will be completely different from either of the two now being considered.

Visit [www.usbr.gov](http://www.usbr.gov) and [www.latimes.com](http://www.latimes.com).

## Must CA Remove All Levee Trees?

A U.S. Army Corps of Engineers (ACE) policy that requires all trees and vegetation to be cleared from levees is causing an uproar in California's Central Valley. Since Hurricane Katrina wreaked havoc on Gulf Coast levees, the condition of California's levees has come under scrutiny. Now, this national policy is to be applied in California, where tree-lined levees are often the only riparian habitat available, reported

the *Sacramento Bee*. Removing the trees would not only severely compromise aesthetic appeal, but also would violate other federal laws, particularly those protecting endangered species habitat.

According to the *Bee*, state and federal officials are trying to negotiate a compromise that would allow a limited amount of vegetation to remain. "The policy is largely based on conditions on the Mississippi and Missouri rivers, where ample wildlife habitat exists between levees and the water's edge," said the article. Vegetation is prohibited in order to "preserve channel capacity and allow access for inspection and repair." California levees were designed to promote rapid discharge to flush mine debris out of the rivers, thus they are close together, and the water is up against them.

Not all corps personnel appear to back the tree-free policy. Jim Sandner of ACE's Sacramento district told the *Bee*

that his office has "coordinated with environmental agencies ... to incorporate vegetation in our flood control systems to provide shade and habitat for endangered species here in California." In fact, vegetation planting on the levees is encouraged in ACE's maintenance manual for the Sacramento River flood control system. John McMahon, the corps' regional commander, commented to the *Bee* that cutting down the trees could leave behind roots that provide pathways for water seepage as they rot. However, Dana Cruikshank from ACE's headquarters told the newspaper that although California will not be granted an exemption to the policy, revisions to the standards expected by the end of 2007 may allow "very small brush, very small trees in some circumstances ... but nothing beyond a very small tree. And of course there will be some spots where there would be no vegetation at all."

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## Hydrogeologists Needed

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