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CALENDAR ALERTS

April 1

USACE Regulatory Program [Workshop](#), 1:30-4:00 pm, Sacramento.

April 8

EIR public [scoping meeting on CVFPP](#) 2017 update, 10:00am-12:00pm, Sacramento City Hall, 915 I St.

April 15

Deadline to apply for RD 2068 Asst. General Manager position.

April 20-21

[CA Water Policy Conference](#), [UC Davis Conference Center](#).

April 27

CVFPP Coordinating Committee Meeting, 9:00 am-12:00 pm, 1110 W. Capitol Ave., West Sacramento.

April 28

Annual [Water Policy Conference](#), Sacramento Masonic Temple, 1123 J St., 9am-3:30pm.

** = [New Calendar Alert](#)

FEATURED ASSOCIATE MEMBER



[HDR](#) has over 225 locations around the world and specializes in architecture, environmental and construction services.

KEEPING UP

**Check [CCVFCA Website](#) for more information on topics in Flood Flash

Northern California Reservoirs Release Water to Manage for Flood Protection

Just four months ago, the major reservoirs in Northern California (Shasta, Oroville, Folsom) were at their lowest levels, but now all three recently had to initiate controlled water releases in order to manage for flood control. Sufficient space must be maintained in the reservoirs to accommodate high inflows from heavy rain or snow melt so that operators can release water without causing flooding downstream. However, many are frustrated seeing lake levels intentionally lowered when Californians are still under water-use restrictions imposed by the Governor after several years of drought conditions.

In early February the [outflow rate was doubled at Lake Natoma's Nimbus Dam](#) so that space is available in Folsom Lake for flood protection. Releases into the American River in [early March](#) were about 15,000 cubic feet per second. The current U.S. Army Corps of Engineers' storage retention rules for Folsom Dam were written after disaster was narrowly avoided in relentless 1986 storm events that almost led to the evacuation of nearly a half a million people in the Sacramento area due to the reservoir and dam operating beyond their design capacity. As the likelihood of significant storms decreases through the spring season, operators of Folsom Dam can start allowing increased storage again. In addition, completion of a new spillway later this year will provide dam operators more flexibility in the future.

This week both Shasta and Oroville also began releasing water to reduce the chances of downstream flooding if heavy spring rains continue. [Shasta](#) has received nearly five feet of rain since October, reaching reservoir levels not seen in five years. Thanks to 'March Miracle' storms, [Lake Oroville](#) has been rising about two feet per day, leading to encroachment on the flood control reservation space that must be maintained in accordance with Army Corps rules. On Thursday, the Oroville flood gates were opened for the first time in five years, and will continue outflow levels for about six days, which will increase surface water levels downstream in the Feather River high flow channel by about 2-4 feet.

[New Approach for Optimizing Operation of Major Northern CA Reservoirs](#)

An [article](#) describing a new approach for developing economically-based operating rules for major reservoirs California's Sacramento Valley is presented by U.C. Davis authors in the S.F. Estuary and Watershed Science Journal. They propose considering previous year type on water availability and various system and sub-system storage conditions, in addition to normal consideration of local reservoir storage, season, and current inflows. After developing preliminary reservoir operating rules from the results of CALVIN, they used a simple simulation model to refine and test their preliminary operating rules.

The paper acknowledges that the derived rules in their study are optimized for statewide economics only (within environmental and flood-stage constraints) and that future analysis is required, concluding that developing optimized rules that include dynamic flood-control curves could help better contain floods and improve water-supply reliability during droughts.

[Sacramento River Flows Spilling Over the Fremont Weir, Filling Yolo Bypass](#)

The winter rains brought by effects of El Nino have required the Yolo Bypass to engage as the relief valve for the swollen Sacramento River for the first time since the drought took hold in 2012. Designed to spill water into the bypass once the Sacramento River reaches 33.5 feet elevation, the bypass has been filling up over the last week, and will begin subsiding slowly as it drains over the next week. Thanks to drone technology, a [birds-eye view](#) video of the expansive bypass in its inundated state is available.

[USBR Study Examines Climate Change in the Sacramento and San Joaquin Basins](#)

The U.S. Bureau of Reclamation [announced release of a basin study report](#) claiming climate change will cause earlier runoff and refill reservoirs earlier in the year, potentially affecting reservoir operations and water storage. Projecting a median sea level rise of 36 inches due to warming conditions, the report recommends next steps in the following categories:

- Institutional Flexibility
- Municipal and Industrial and Agricultural Water Use Efficiency
- River Temperature Management
- Forest Health
- Groundwater and System Conveyance

No mention of flood control operational rules in the press announcement, but maybe it's discussed somewhere in the 142-page [Executive Summary](#), 499-page [Technical Report](#), or the 246-page [Technical Appendices](#). The Sacramento and San Joaquin Rivers Basin Study is a part of WaterSMART, a sustainable water initiative created by the Department of the Interior to improve water conservation and help water resources managers identify strategies to narrow the gap between supply and demand.

[CCVFCA Members Working to Improve Fisheries and Water Supplies](#)

Partnering with water contractors that export water from Northern California, Central Valley landowners and water agencies are moving forward with another project to improve conditions for protected fish.

[Modifications to the Wallace Weir](#) in the Yolo Bypass are being led by the general manager of Reclamation District 108, Lewis Bair, who also serves as the vice-chair of the Central Valley Flood Control Association. Funded by the export water contractors, the \$8.6 million project will provide holding structures for fish headed north to spawn so they can be captured and returned to the river instead of becoming stranded when water recedes.

The Wallace Weir project is part of the larger Sacramento Valley Salmon Recovery Program that focuses on opportunities to improve fish passage and wildlife habitat to better meet statewide water supply objectives. Upstream, the Glenn-Colusa Irrigation District (GCID) recently completed a restoration project to improve spawning habitat with the placement of about 9,400 cubic yards of gravel in the Sacramento River immediately below the Anderson-Cottonwood Irrigation Diversion Dam and the Market Street Bridge. The Northern California Water Association (NCWA) is helping to coordinate the more than 40 projects being considered for implementation in the Salmon Recovery Program.

President Obama Requests Financial Support at White House Water Summit

Subsequent to hosting a Water Summit this week in honor of World Water Day, the Obama Administration released a [report](#) requesting government agencies and private organizations to support a sustainable water future for the country by contributing their time and money.

Resilience of Delta Evaluated From Two Very Different Perspectives

According to [recent research](#) presented at the fall meeting of the [American Geophysical Union](#) in San Francisco, protracted droughts in California can threaten the structural integrity of its levee systems through the imposition of several thermo-hydro mechanical weakening processes. An article regarding their research and specific focus on California's levees also appeared in the [Earth Magazine](#).

Joe D. Robinson and his coauthors used a regional-scale analytical model to study the effects of drought on the shear strength of alluvial soils in the Sacramento-San Joaquin Delta region. Their results indicated that a reduction in shear strength due to drought conditions can cause land subsidence and increased internal levee erosion below the land surface. The researchers acknowledged that levee resilience to extreme drought is not well understood and recommended more research to close the current information gap.

In a recent [Estuary News article](#), the concept of resilience is discussed in terms of both ecosystem and infrastructure, and refers to resilience in its simplest term as coping with change – social, ecological, political, or physical. In the Bay Area, the hope is to mainstream a recently developed resilience vision into capital improvements of aging infrastructure. The article also focuses on the Sacramento-San Joaquin Delta's ability to adapt to changing conditions, pointing out that there are limits to how much change a system can withstand before it becomes something else if the capacity for resilience is exceeded.

Last year a San Francisco Estuary Institute team led by Erin Beller convened a national science panel to vet the working definitions of ecological resilience in relation to infrastructure and land use in the South Bay. Google funded a subsequent report, [Landscape Resilience Framework](#), to help translate resilience science into a set of practical considerations for landscape management.

JOB ALERTS

Assistant General Manager (AGM) Position

Reclamation District No. 2068 in Dixon California is recruiting for an AGM. The District is an irrigation water supply, drainage and levee maintenance agency. The successful candidate will increasingly assume responsibilities for planning, organizing, directing and coordinating functions of the District and would be considered for the GM position upon the retirement of the current GM. A Bachelor's degree in business administration, engineering, water resources or related field is expected. A complete position description and additional information is available by request at jobsrd2068@solanowireless.com. Please include a name and return email address. Resumes will be accepted until April 15, 2016.

IN THE NEWS

(Clicking the links will take you to news organization websites, where you can read the full stories. CCVFCA is not responsible for content on these external sites.)

- [In California, Dealing With A Drought And Preparing For A Flood](#) - Capital Public Radio
- [Floods, farms, fowl, and fish: a confluence of successful management](#) - California Water Blog
- [Bureau increases water releases from Lake Shasta](#) - Record Searchlight
- [Collaborative projects aim to aid salmon](#) - Ag Alert
- [The environmental perfectionist-career bureaucrat-LA water complex](#) - Manteca Bulletin
- [Timing all wrong for new water ballot initiative](#) - Western Farm Press
- [Largest California reservoirs releasing water for flood safety](#) - Sacramento Bee
- [Water released from Lake Oroville to prevent flooding](#) - KRCR

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