

CCVFCA'S Flood Flash

June 29, 2017

Send news tips, feedback, and subscription requests to <u>cindy@floodassociation.net</u>

CALENDAR ALERTS

**June 30 - Deadline to comment on Delta Conservancy's Prop. 1 grant funding guidelines
**June 30 - Deadline to apply for BIMID Manager position (see article below for details)
**July 11 - FMA Extreme Precipitation Symposium at UC Davis – register by June 30th for early bird rate
**July 14 - Deadline to apply for CDFW Prop. 1 Watershed & Ecosystem Restoration funding
**July 14 - USACE Regulatory Program Workshop, 1325 J St, Room 814, Sacramento, 1:30-4:00 pm
**July 21 - Deadline to comment on USACE Water Control Plan Update for Folsom Dam
**July 31 - Deadline to comment on USACE Re-circulated EIR for Folsom Dam Raise Project
**Aug 9 - Deadline for CVFPB to submit feasibility study proposals for inclusion in WRRDA bill
**Aug 14 - Deadline to apply for CWC's Water Storage Investment Program funded by Prop. 1

FEATURED ASSOCIATE MEMBER



KEEPING UP

**Check <u>CCVFCA Website for</u> more information on topics in Flood Flash

<u>Trump Administration Presents 2018 Budget for U.S. Army Corps of Engineers</u> The President's priorities for flood protection and navigation are outlined in the <u>\$5 billion</u> fiscal year 2018 budget for the USACE's Civil Works programs, which includes \$1.02 billion for construction and \$3.1 billion for O&M, but only provides \$35 million nationwide to fund emergency response and levee rehabilitation projects after flood events.

The budget proposes a total of \$89 million for the Investigations program, with specific reference to Phase 3 of the Sacramento River Bank Protection and the Yuba River Fish Passage (Englebright & Daguerre Point Dams) flood risk management studies.

Submission of the President's budget proposal is just the first step in the annual <u>federal budget process</u>, which is followed by Congressional budget resolutions and hearings before approving a final budget by October 1st.

<u>USACE Accepting Feasibility Study Proposals for Inclusion in WRRDA Legislation</u> Section 7001 of the Water Resources Reform and Development Act (WRRDA) 2014 requires the Secretary of the Army to annually submit a report to Congress that identifies the feasibility reports, proposed feasibility studies, and construction project proposals to modify any authorized water resources development project or feasibility study. This Annual Report is to be based, in part, upon requests for proposals submitted by non-federal sponsors.

The U.S. Army Corps of Engineers (USACE) published a <u>notice</u> in the Federal Register, requesting non-federal sponsors to submit their proposals online by August 9, 2017.

Authorization of a feasibility study by Congress is only for the study, not for construction. Once a study is completed, the following criteria must then be met before the project can proceed to construction: 1) project must be additionally authorized for construction by Congress; 2) Secretary, or other appropriate official, has approved a current decision document; and 3) the funds for the project construction have been appropriated by Congress and are available to USACE for disbursement.

For further information send an email to the help desk at <u>WRRDA7001Proposal@usace.army.mil</u> or call Lisa Kjefel, Planning and Policy Division, Headquarters, USACE, Washington DC at (202) 761-0626.

Urban Flood Control Agencies Making Progress in Implementing Levee Upgrades

Now that the rain has finally stopped, urban levee improvement construction projects are in full swing. Some are in the early stages of seeking federal funding, while others are nearing completion.

The U.S. Army Corps of Engineers (USACE), recently allocated approximately \$200,000 to complete the <u>Lower San Joaquin River Feasibility Study</u> which is the next step in authorizing federal approval to costshare with the State and local agencies comprising the San Joaquin Area Flood Control Agency (SJAFCA) on a \$1 billion plan to improve 23 miles of levees protecting the City of Stockton and installation of a flood-control gate on the Smith Canal and another on Fourteen Mile Slough. The <u>City of Lathrop</u> is also making progress in moving forward with a \$150 million plan to achieve a 200-year level of flood protection for one of the fastest-growing regions in the State.

In early May, a ground breaking ceremony was attended by federal, state, and local leaders to commemorate the largest levee project ever undertaken in West Sacramento. The \$170 million <u>Southport</u> <u>Levee Improvement Project</u> to improve six miles of Sacramento River levees is one of four projects designed to meet the 200-year urban level of flood protection. The project also includes a levee setback to provide environmental benefits.

A \$20.4 million levee improvement project by the USACE was also ready to begin construction of a 2.1 mile levee upgrade in the <u>Natomas Basin</u>, which is part of a larger effort to improve a total of 42 miles of levees. The Sacramento Area Flood Control Agency (SAFCA) and DWR have already completed 18 miles, with the USACE working to complete the remaining 24 miles.

In the home stretch of a \$297 million levee improvement project on the west bank of the <u>Feather River</u>, the Sutter Butte Flood Control Agency (SBFCA) is expecting to complete the upgrade of 36 levee miles by the end of the year. The finished project will provide a 200-year level of urban flood protection from the Thermalito Afterbay to the Star Bend area in Yuba City. SBFCA held a community meeting in mid-May to <u>update residents</u> on the status of the levee improvement project as well as emergency repairs necessary after winter storm damage.

<u>Delta RD Increases Salary Range and Extends Application Deadline for Manager Position</u> Still in search of the right candidate to become District Manager, the Bethel Island Municipal Improvement District (BIMID) board of directors have extended the <u>application deadline</u> to June 30, 2017 and increased the salary range to \$88,500-\$105,000.

Established in 1960, BIMID provides levee, drainage, and general flood protection to the historic Bethel Island historic Delta legacy community located in Contra Costa County. Approximately 3,500 acres in size, the island has open pasture land and a permanent population over 2,100, with a master planned lagoon-based waterfront "Delta Coves" development of 495 new homes now getting underway, for which BIMID has contracted to operate and maintain its own levee, drainage, seepage, and pumping and breach systems.

Public Comments Being Accepted on Folsom Dam EIR and Water Control Manual The USACE and Central Valley Flood Protection Board (Flood Board) announced the <u>recirculation</u> of the environmental impact report (<u>EIR</u>) for the <u>Folsom Dam Raise Project</u>. The proposed flood risk reduction project has not changed since the last review in 2016, but is being recirculated due to the addition of new information and the correction of erroneous information and data. The deadline to comment is July 31, 2017.

The <u>draft Supplemental</u> environmental review documents for the Folsom Dam and Lake Water Control <u>Manual Update</u> are also available for public review and comment until July 21, 2017. The reason for the update is to incorporate the new flood risk management and dam safety benefits of the <u>Folsom Dam</u> <u>Modification Project</u> into new operation rules for Folsom Dam and Lake. Reducing the range of flood space allocation and improving weather forecast capabilities will be evaluated.

CVFPP Coordinating Committee on Summer Hiatus

The monthly Coordinating Committee meetings focused on implementation of 2012 Central Valley Flood Protection Plan (CVFPP) and development of the 2017 update have been cancelled for June, July, and August. This short hiatus will allow the Central Valley Flood Protection Board (Board) and DWR to finalize approval of the 2017 CVFPP and to identify new source of funding for the committee meetings to continue in 2018.

The intent is to meet again in September to discuss implementation actions associated with the updated CVFPP, the outcome of the Governor's budget decisions, status of the 2017 flood system repairs, and general work plan development to support future updates of the CVFPP.

As a member of the Steering Committee for the Coordinating Committee, the Association will participate in discussions with DWR and CVFPB about how the monthly committee meetings should evolve. Future issues for possible discussion include: 1) a strategy for how to implement (construct and finance) the 586 flood control projects listed in each of the six Regional Flood Management Plans (RFMPs) developed by local agencies; 2) the development of more detailed descriptions of the conceptual financing mechanisms (fees) proposed in the 2017 CVFPP update; and 3) other fiscal, policy, and regulatory issues related to successful implementation of the CVFPP.

The Coordinating Committee has been an important venue for state agencies to provide briefings on implementation of the 2012 CVFPP and the status of the 2017 update followed by interactive discussions with stakeholders on key fiscal and policy issues. The attendance by local flood control agencies have never waned since the committee began meeting, therefore, the Association supports continuation of this process.

President Trump Orders the Waters of the United States Rule to be Revised

A legal update by Somach Simmons & Dunn reports that the Environment Protection Agency (EPA) and the U.S. Army Corps of Engineers (USACE) have initiated review of the Waters of the United States regulatory policy (WOTUS Rule) pursuant to Executive Order issued by President Trump on February 28, 2017. The President specifically directed the two agencies to consider Justice Scalia's interpretation of the Clean Water Act jurisdiction to be limited to permanent water bodies and wetlands, rather than the more expansive Justice Kennedy definition used by the Obama Administration in developing the current rule.

The WOTUS Rule adopted by the Obama Administration has not yet been implemented due to multiple lawsuits filed and approval of a stay while the Supreme considers different jurisdictional issues. In a recent Senate Environment and Public Works Committee focused on evaluating the technical, scientific, and legal basis for the current Rule, retired USACE Major General John Peabody testified that the Corps' advice had not been adequately incorporated into the creation of the Obama WOTUS Rule.

Revision pursuant to President Trump's Order will have its <u>own challenges</u> and likely trigger additional legal battles because other courts have already recognized Justice Kennedy's interpretation as the controlling opinion.

<u>Three Agencies Accepting Applications for Prop. 1 Funding</u> The CA Department of Fish and Wildlife (CDFW) announced \$31 million in Prop. 1 funding is available for ecosystem restoration projects, with \$7 million for projects that specifically <u>benefit the Delta</u> and \$24 million for watershed restoration <u>projects statewide</u>. Proposals must be <u>submitted online</u> by 4:00 p.m. on Friday, July 14, 2017 in accordance with application instructions. Additional information is provided in

The Delta Conservancy is <u>accepting comments</u> until June 30, 2017 on its <u>draft guidelines</u> for disbursement of \$10 million per year over five years of <u>funding provided in Prop. 1</u> for multi-benefit water supply, water quality, and watershed protection projects in the Delta. In the last solicitation, the available funding was undersubscribed because the Conservancy only received proposals totaling \$4.4 million, so don't miss this opportunity to fund your Delta watershed restoration or water-related agricultural sustainability project.

The California Water Commission is also <u>accepting applications</u> through August 14, 2017 for the Watershed Storage Investment Program funded by Prop. 1 water bond. Proponents of constructing <u>Sites</u> <u>Reservoir</u> to store up to 1.8 million acre feet are planning to apply for funding towards their total project costs of \$4.8 billion.

Rapid Snow Melt Results in More Flood Warnings

CDFW Prop. 1 grant program FAQ.

Winter may be over, but with more rain and snow in May and June, flood threats remain in Northern California as evidenced in the May 1st DWR Water Supply Index and <u>Bulletin 120 forecasts</u> which report the flows in the Sacramento, San Joaquin, Tulare Lake and North Lahontan regions were greater than 200% of average for the month of April.

In case you thought these unusually wet conditions are only in California, April was the <u>second-wettest on</u> <u>record</u> in the United States for that month, with average precipitation across the lower 48 states of 3.43 inches. This may not sound like a lot, but it is a full inch more than the average rainfall for April in the 20th century.

The Sierra Nevada snowpack accounts for a third of the state's water supply and can therefore be a blessing when larger than normal, especially after a multi-year drought, but can be dangerous when it starts melting too fast. That's why new <u>high-tech measuring methods</u>, such as those being evaluated by NASA in the SnowEx study, may eventually replace old-school snow surveying done with a snow core tube and scale.

In early May, local flood control agencies remained on high alert in <u>San Joaquin County</u> due to rapid snowmelt increasing flood threat on the Mokulmne and San Joaquin Rivers. After being underwater for the better part of two months, the Manteca Sportsmen Club was still wondering if water levels were ever going to drop. At the same time, a graph on the State's tracking site showed how the <u>New Melones Lake</u> soared over 2 million acre feet of storage in a couple of days, and still rising, encroaching on the space reserved pursuant to flood control rules.

Southern California was not immune to late spring flood dangers either, with Los Angeles Mayor Eric Garcetti declaring a local state of emergency due to flood concerns in the <u>Owens Valley</u>.

Even the <u>North Coast</u> has issued warnings and public safety tips for those choosing to recreate in rivers experiencing high flow conditions from snowmelt runoff. Similar warnings were advised for the American and Bear Rivers as well. The USACE also issued warnings to recreational users on the <u>Stanislaus</u> and <u>Yuba Rivers</u>.

Now <u>heat waves</u> are causing rivers to run higher than normal for this time of the year, with enough snow to result in <u>runoff through August</u>, so the flood threat is not over yet.

Non-essential personnel were evacuated from Yosemite Valley in <u>early June</u> when a strong storm was expected to result in flooding. With triple-digit temperature in mid-June, the flood risk returned when rapidly melting snow was predicted to cause the upper <u>Merced River</u> at <u>Pohono Bridge</u> in Yosemite National Park to reach flood stage. Residents from the Riverland Resort near Kingsburg were also evacuated when the <u>Kings River</u> overflowed from snowmelt runoff.

To everyone's surprise another half of foot of snow fell in the upper elevations around <u>Tahoe in mid-June</u>, creating the possibility that some ski resorts may stay open through the 4th of July, and possibly longer.

Oroville Update

Much has happened since last CCVFCA Flood Flash update, so settle in for a deluge of the latest on Oroville dam repairs.

Repairs

The good news is that an independent board <u>overseeing repairs</u> determined that the foundation under the upper part of the spillway is in better condition than originally thought. They recommended <u>repairing</u> <u>bottom of the spillway first</u>, and then complete repairs at the top.

Construction workers moved into <u>high gear</u> by May 24th, using heavy equipment and <u>explosives</u> to remove remaining sections of damaged concrete and rebar so they can start pouring concrete in June to form the new spillway. Plan is to fill the bottom part of the spillway with roller-compacted concrete as a foundation and then cover that with higher quality construction/structural concrete, which will require the construction of two <u>onsite concrete batch plants</u>.

<u>Debris removal</u> at the bottom of the Oroville Dam Diversion Pool will take longer than expected, likely lasting through December, due to underestimating the amount of dredging and hauling work necessary. The material is being transported to four dump sites in an area between Cherokee Road and Thomspon Flat Cemetery Road. Additional <u>evening blasting</u> is scheduled between 6:00-6:30 pm for two weeks at the end of May, which includes warning sirens preceding each explosion.

By August, DWR anticipates about <u>500 employees onsite</u>, with work being conducted 20 hours a day, six days a week in order to complete replacement of the lower portion of the spillway by November 1st. For those interested in watching real-time progress, the CA Department of Parks and Recreation has installed by a <u>webcam</u> installed at the top of the main spillway for you to watch construction activity 24/7.

<u>Water Releases</u>

Spillway releases were shut down on May 1st once lake elevation level lowered to 846 feet. A week later, DWR <u>increased outflows</u> from Oroville reservoir to 30,000 cfs and issued warnings to downriver residents of the dangers associated with the <u>quadrupling releases</u> into the Feather River when lake levels rose by a

foot in 24-hour period. Outflows would be halted between <u>May 20-25</u> to allow for intermittent blasting of the bottom of the spillway and construction work on the main spillway.

Funding

Estimate for spillway repairs are between <u>\$400 million</u> and <u>\$549 million cost</u> (\$274 million emergency response and \$275 million recovery), which includes everything from construction activities such as <u>demolition</u> of damaged spillway and pouring new concrete structure to smaller items such as safety glasses and protective earmuffs.

The State announced in early May that it would be <u>borrowing \$500 million</u> through a letter of credit with Wells Fargo Bank despite <u>sanctions</u> implemented by the State Treasurer last year, in order to finance repair efforts that have already begun. However, the State is still hoping to recoup a bulk of the cost through <u>reimbursement</u> from FEMA and State Water Contractors <u>responsible for funding</u> the operation and maintenance of the State Water Project.

However, FEMA reimbursement may be jeopardized if the federal agency determines the spillway failure was due to DWR not performing adequate maintenance. FEMA program is focused on assistance related to natural disasters, not reimbursing for damage related to pre-existing conditions.

Expert Evaluations

<u>Board of Consultants</u> (BOC) say revised spillway design, such as increasing height of walls adjacent to spillway, is ready for final review after determining that the <u>forensic team</u>'s list of concerns were being addressed, but continued to recommend installation of an open ditch drainage system beside the spillway. The group also requested geographical information about the cutoff wall, water pressure recording by piezometers under the upper portion of the spillway, and an assessment of groundwater hydrological conditions that could affect piezometer readings outside the spillway chute. Their memo also discussed a briefing from a mandatory workshop, "Potential Failure Modes Analysis," required by FERC any time structures fail. Additional <u>technical memos</u> issued by <u>BOC</u> are available for public review.

An independent <u>Forensics Team</u> also released a May 5, 2017 <u>memo</u> identifying <u>dozens</u> of potential <u>causes</u> of the spillway damages that occurred in February, such as <u>inadequate maintenance</u> and <u>flaws</u> in the concrete and foundation, so these <u>factors</u> may be considered in the design of the repair. The Team is expected to issue a final report in the fall outlining what caused the failure.

A <u>scale model</u> of the Oroville dam has been constructed at Utah State University Water Lab to physically replicate the 750 foot drop of the spillway and test the effectiveness of the planned repair design if up to 270,000 cfs is released, which is the largest flood event that occurred in 1995. More than <u>50 test runs</u> provide verification of engineering calculations and modeling results conducted for development of new spillway design and <u>recovery plan</u>.

Lingering Safety Concerns

<u>Prosecution</u> of those accused of looting during the evacuations is actively pursued by Butte County District Attorney Mike Ramsey. In the eight pending cases, he is seeking the maximum penalties allowed and not offering any plea deals to lessen their sentences.

A coalition of local elected officials representing cities below the Oroville Dam have formed the <u>Oroville</u> <u>Dam Coalition</u> and sent a <u>letter to Governor</u> Brown expressing <u>concerns</u> regarding the State's ability to provide adequate flood protection to downstream communities and requested answers to specific questions and the state to provide emergency relief funds to reimburse business and home owners from losses experienced during the evacuation in February.

Based on their review of prior inspection reports for Oroville dam, Catholic Online has raised safety concerns about the <u>56 inoperable piezometers</u> (water sensor instruments) that were installed when the dam was constructed to measure the dam's internal water pressure, and questioned whether a green patch on the face of the dam wall indicated the existence of a deeper seepage path.

AquaAlliance filed a <u>lawsuit</u> against DWR on June 9th, claiming violations of the public records law in regards to their request for documents regarding <u>asbestos exposure</u> of construction workers.

Local Impacts

With seasonal tourism underway including the Feather Fiesta Days car show, the Oroville Chamber of Commerce continues implementation of an <u>"Oroville Strong"</u> marketing campaign, which will include a video promoting the history, safety, and natural beauty of the region. Their efforts are <u>actively supported</u> by local business owners, residents, and elected officials.

Visitor traffic is noticeably less than normal due to public confusion about facilities such as the spillway boat ramp which will remain closed during the two year construction period. However, alternative ramps will allow <u>boating recreation</u> to continue through summer season, and business has improved for at least one local market which has seen <u>increase in sales</u> from nearby construction workers.

Several hundred local residents and elected officials attended a community meeting scheduled in Yuba City on May 9th by DWR as part of a series of public meetings intended to provide an opportunity for residents to ask questions and register their <u>complaints</u> and distrust regarding how evacuations and spillway repairs are conducted. DWR apologized for the disruptions of their lives, their ongoing frustration, and future uncertainty. Attendees demanded transparency moving forward, declaring the status quo regarding previous communication was unacceptable.

Local levee maintaining agencies were also invited to a meeting with DWR and USACE representatives to discuss <u>impacts to levees</u> associated with releases from Oroville since the spillway incident. Discussions focused on ways to improve communication in future emergency events. The local government agencies each completed <u>after-action reports</u> revealing that their evacuation plans generally worked, but traffic delays were a problem due to the failure of DWR to provide adequate notice.

DWR <u>officials respond</u> to criticism at a <u>legislative hearing</u> for the department's performance during the Oroville spillway incident, fielding questions from <u>Senator Nielsen</u>, <u>Assemblymembers</u> Gallagher and Frazier, which included inquiries about Professor Robert Bea's evaluation of <u>broken anchor tendons</u> at the spillway gates. Similar problems with anchor tendons resulted in failure of Radial Gate 2 occurred in 2013 at Clifton Court Forebay Dam. Butte County Supervisor Bill Connelly and Oroville Chamber of Commerce president Sandy Linville both testified about local frustrations, including <u>"broken promises</u>" made to the communities when the dam was originally constructed. The costs of repairs and <u>who would pay</u> were also discussed, but the reimbursement for economic losses experienced by local governments, businesses, and evacuated residents was not clear.

A local op-ed compliments Assemblyman James <u>Gallagher</u> for: 1) challenging DWR's assertion in a legislative hearing that "the emergency spillway worked" during the February flood event; 2) introducing three legislative bills; 3) actively engaging in the budget process to secure levee repair funding; and 4) his continuing demand for transparency about repairs and honesty about what went wrong from DWR.

Tempers flare, suspicions abound, and conspiracy theories by locals escalate when the Legislature subsequently votes to make dam safety plans secret when the language was slipped into a budget trailer bill without any policy hearings or discussion. Assemblyman Gallagher reportedly called the insertion of the language without the opportunity for debate <u>"insulting."</u>

Oroville Dam Settlement

Shutdown since February due to flood damage, the <u>Riverbend Park</u> along the Feather River is slated to receive an early release of <u>\$3 million</u> in funding from \$61 million settlement agreement signed 10 years ago with DWR in order to perform extensive cleaning and repairs estimated to cost \$8 million.

On a related note, local elected leaders are <u>reconsidering</u> a 2006 settlement agreement with DWR and evaluating whether exiting the agreement is warranted due to the department failing to live up to promises made. Signed by more than 50 local entities back in 2006, the contract contains commitments from DWR to provide \$61 million in local benefits as part of the mitigations associated with <u>original construction</u> of the dam.

Research into the history of decisions related to <u>original construction</u> reveal a zealous commitment to build the water project fast, despite recommendations to delay construction and <u>allegations</u> of substandard building materials being used.

DWR Updates

Board of Consultants – Required by CA Water Code.

<u>Board of Consultants Reports</u> – DWR website explains purpose of BOC and has copies of each independent memo they released.

Forensic Team – <u>Selected</u> d to <u>determine</u> root cause of spillway incident and contributing factors.

Spillway Incident FAQs – Frequently asked questions and answers.

Videos – Document everything related to recovery and repair construction activities.

Recovery Plans & Schedule

<u>May 9th</u> construction update announced intermittent blasting would resume on May 9th, Feather River levels would increase from 7,750 cfs to 27,750 cfs between 5:30-11:30 am on May 10th in order to make space for expected snowmelt, and outflow gates were expected to be closed to halt releases between May 20-25 to allow construction work to be performed.

- May 15th Changes in outflow releases.
- <u>May 17^{th} Transition from response to recovery.</u>

May 19th – Status update: road closures.

May 30th – Notice with description of Forensic Team evaluation process.

May 31st Media Advisory about scheduled testing of new Lake Oroville emergency siren that replaces prior siren that was lost during February releases.

June 7th Press Release with update of construction activity, copy of 6th Board of Consultants memo, copy of BOC design approval letter, and info on testing of emergency siren.

2017 <u>DWR Magazine</u> features Oroville spillway incident.

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.)

- <u>Report: California 'dodged a bullet' with snowmelt flooding</u> Appeal-Democrat
- VIDEO: Yosemite's waterfalls overflowing in spectacular display WRIC
- Yosemite Flood Danger as New Storms Slam Sierras BRIETBART
- Merced River to start receding in Yosemite, but some flooding still possible The Tribune
- High temps bring high river flows-how to stay safe Mendocino Voice
- <u>The overlooked risk of levees as rainfall rises</u> Salon
- LADWP preparing for 'massive runoff' Sierra Wave Media
- Fluctuating Feather hurting fish habitat Appeal-Democrat
- <u>Mammoth snowmelt making rivers so dangerous that 'if you fall in, you're done'</u> Fresno Bee
- Big risk, big ideas: Flood control no longer just levees Recordnet.com
- Oroville Dam: With bills rolling in, State borrows heavily Sacramento Bee
- Climate change erodes thin safety margins at Calif. Dam E&E News
- Modern Flows for the Sacramento Valley NCWA
- Holy CDEC*: New Melones hits 2M acre-feet esanjoaquin.ocm
- Oroville spillway gates close for season to make way for repairs Sacramento Bee
- <u>After Oroville Dam debacle, we deserve straight talk and safety</u> Sacramento Bee
- Melting Snowpack Poses Dangers in the Sierra Nevada Weather.com
- <u>New Silicon Valley flood projects at risk because of red tape, water district says</u> Mercury News
- <u>Angry public, insistent media uncloaking Oroville Dam repair secrecy</u> Sacramento Bee
- <u>Reconstruction begins at Oroville Dam. Will it be different this time?</u> Sacramento Bee
- <u>Unified Front</u> Newsreview.com
- Newport Beach neighborhood flooded after seawall destroyed ABC 7
- Measuring the snowpack goes high-tech with airborne lasers and radar LA Times
- David Little: James Gallagher keeps pressure on Oroville spillway saga Chico ER
- If <u>You Think Fighting Climate Change Will Be Expensive</u>, <u>Calculate the Cost of Letting It Happen</u> -Harvard Business Review
- Study: Floodplain farm fields benefit juvenile salmon The Davis Enterprise
- <u>Some walnut, peach orchards show "collapse" symptoms after NorCal winter floods</u> Western Farm Press
- Some say Oroville Dam crisis trashed the Feather River. Is the state responsible? -Sacramento Bee
- Our View: There's a strong local element with Bullards Bar appeal-democrat
- High volume flows of Yuba River pose danger US Army Corps of Engineers
- Cold water high volume flows of Stanislaus River pose danger US Army Corps of Engineers
- <u>Corps accepting flood damage rehabilitation assistance applications</u> US Army Corps of Engineers
- <u>Rivers Across The West Turn Dangerous As Days Warm, Snow Melts</u> CBS Local San Francisco
- Merced River is expected to reach flood stage Sunday My Motherlode.com
- merceartiter to expected to react need stage sunday
- Why years of waiting may be over on Delta Tunnels Sacramento Bee
- Belvedere Heights flood victims get \$529,000 from city Chico ER
- <u>Sites Reservoir proponents make their case</u> Ag Alert
- <u>Study: Floodplain Farm Fields Benefit Juvenile Salmon</u> labmanager.com
- Floodplain farm fields provide novel rearing habitat for Chinook salmon PLOS
- <u>Nuisance floods cost more than extreme events?</u> Robin Meadows
- Can private money solve public water problems? -High Country News
- <u>200 year flood efforts generate lots of questions</u> Manteca Bulletin
- Uset were seedlasting and ff from Giama OBC Local Car From is
- Heat wave accelerating runoff from Sierra CBS Local San Francisco
- Snowmelt triggers a flood warning in Yosemite and a river closure in the Central Valley LA Times
- Last month was the wettest April for the U.S. in 60 years Washington Post
- <u>New Valley PBS Documentary Miniseries Looks At Water In California's Central Valley</u> KVPR
- West Sacramento Breaks Ground On Largest Levee Project Capital Public Radio
- DROUGHTS AND FLOODS: CALIFORNIA'S CLIMATE CHANGE CONUNDRUM FISHBIO.COM
- <u>What will El Nino be like in the future?</u> For answers, scientists look to the past National Science Foundation
- <u>Snow melt prompts concerns over possible flooding in Owens Valley</u> ABC 7
- Agency to showcase how levees have been bolstered Emergency Management
- <u>CTDA opposes storm water bill</u> Tire Business.com
- <u>McClintock introduces legislation to speedup water reservoir projects</u> mymotherlode.com
- Delta levees still at risk from water heavy snowpack The Delta Confluence
- Flood insurance relief on the way for homeowners Calaveras Enterprise
- California Farm Fights Water District Over Elections Courthouse News
- Editorial: Science is clear twin tunnel plan will hurt the Delta East Bay Times
- <u>NEWS WORTH NOTING: DWR and Reclamation Recirculate Draft Environmental Document for Fre-</u> mont Weir Adult Fish Passage Modification Project - Maven's Notebook
- <u>Melting Sierra snowpack spurs river warning</u> Auburn Journal
- <u>Rapid snowmelt causes floods, impacts recreation</u> Lake Tahoe News
- J-Mack Ferry back in service following investigation, repairs Delta Confluence
- FLOODPLAINS AND FISH REINTRODUCTION: THE 2017 SALMON RESTORATION CONFER-ENCE - FISHBIO

California Central Valley Flood Control Association 910 K Street, Suite 310 Sacramento, CA 95814 (916) 446-0197