A STORMWATER COMPLIANCE NEWSLETTER

TALK ON WATER

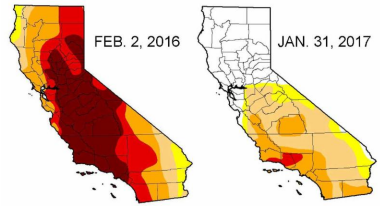
February 2017

In the News

"How Much Water is LA Catching?

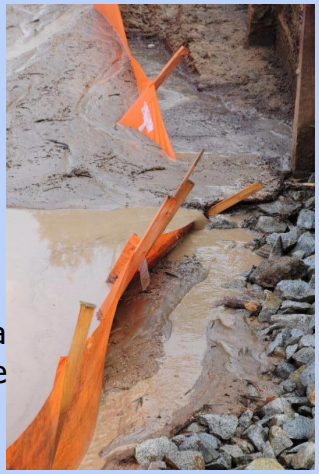
How LA is succeeding and failing to get the stormwater retention it needs.
Cont on pg. 6>>

"More Snowpack... More than just good skiing"



Increased snowpack is promising news for drought.
Cont on pg. 4>>

It Rained, What Now?



It has been awhile since we have seen real rain, at least 10 years. So how did your site hold up? Did you have adequate erosion and sediment controls in place?

As a result of the unexpected rain events which swept through California in December and January, many were caught with inadequate controls and significant exceedances of the NTU requirements.

We witnessed many sites which were lulled into complacency during the drought, and failed to install adequate site controls. Instead of gravel bag berms and silt fence, they used only straw wattles. Stockpiles were not bermed and covered, slopes did not have grade breaks or hydro-mulch applied.

Where do go from here and how can we get into compliance?

Continued on page 3>>

By the Numbers

2000 hr, 1600 hr bags...

It can be hard to tell what kind of bags to choose for your sediment control needs, especially with arbitary names. For durability, reach for the 2000 hr bags, or you may be replacing bags much more frequently.

Dates to Remember

IECA 2017 Conference
Atlanta, GA
Feb.21-24

Upcoming Classes

QSP Training
Feb. 23rd/24th
Apr. 27th/28th
June 29th/30th
Aug. 24th/25th
Oct. 26th/27th
Dec. 7th/8th

PDH Classes

Mar. 22nd
May 24th
July 26th
Sept. 20th
Nov. 15th

Request a registration packet at info@calstormcompliance.com

Stay Connected

Join My Mailing List

Forward to a Friend

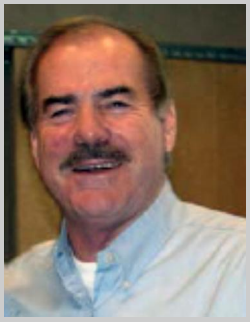
SWPPP Prep

Compliance Training

QSP Inspection Services

SMARTs Filing

In Memory of Mike Alberson



We are sad to announce the passing of Mike Alberson this past November after a short battle with cancer. Many of us knew Mike as an instructor in one of his many compliance training classes. I was lucky enough to call Mike a friend and colleague, both collaborating on projects and as co-teachers in classes. Mike was constantly tinkering with his training programs, always seeking a better way to more effectively convey information. He took his role as a compliance educator seriously, and did not shy away from the hard questions. Mike was a helpful and generous soul that will be remembered and missed by all.
-Ken Kristoffersen

What Went Wrong?

Erosion control.
No matter how many sediment controls you may put in place,the most effective way to stop sediment from leaving your site is to prevent the erosion in the first place. In the case of the photos above, sediment overwhelmed the protections at the base, ending up down the street. Overexposed slopes lacked proper grade breaks or mulching and offsite water added to the issues onsite.

No matter what type of stormwater compliance services you may need, CAL-Storm Compliance, Inc. can guide you through your options and provide quality, cost-effective solutions.

Sincerely,

The CAL-Storm Team
(949) 354 5530

CAl-Storm Compliance, Inc.
info@calstormcompliance.com

It Rained, Now What?

It has been awhile since we have seen real rain, at least 10 years.

So how did your site hold up? Did you have adequate erosion and sediment controls in place?

As a result of the unexpected rain events which swept through California in December and January, many were caught with inadequate controls and significant exceedances of the NTU requirements.

We witnessed many sites which were lulled into complacency during the drought, and failed to install adequate site controls. Instead of gravel bag berms and silt fence, they used only straw wattles. Stockpiles were not bermed and covered, slopes did not have grade breaks or hydro-mulch applied.

Where do go from here and how can we get into compliance?

1. Perform a thorough site inspection and note all deficiencies.
2. Review and prioritize fixes and maintenance with site management.
3. Set clear time lines for all repairs and maintenance, remember maintenance and repair activities must start within 72 hrs. of identification, and be completed as soon as possible after starting.
4. Review all site records including daily weather, weekly inspections, REAPs, pre-rain, post-rain and during raining reports, including monitoring reports with turbidity and pH data.
5. Ensure that ad Hoc reports are filed in SMARTS for all qualifying events (Risk/Type 2 & 3). Remember, if you have had an exceedance, the ad Hoc must be submitted within 10 days.
6. Confirm that all maintenance is performed on time.
7. Review BMP design failures or inadequacies with the QSD, ensure amendments to the SWPPP are done and are reflected on site as well as in the SWPPP. (Don't forget to upload into SMARTS).
8. Training, training, training. As QSPs we have a responsibility to ensure that those onsite understand the basics of erosion and sediment control which should be reflected in the onsite training log. Training subjects are easy to find just by reviewing the last few weekly inspections reports.

Common Topics for Training:

- *Track out Issues*
- *Perimeter BMPs*
- *Erosion Control BMPs*
- *Inlet Protection BMPs*

California Snowpack 'Way Above Average' in Another Good Sign for Drought

In previous years, the snowpack survey was conducted in a bare

By Associated Press and Jonathan Lloyd

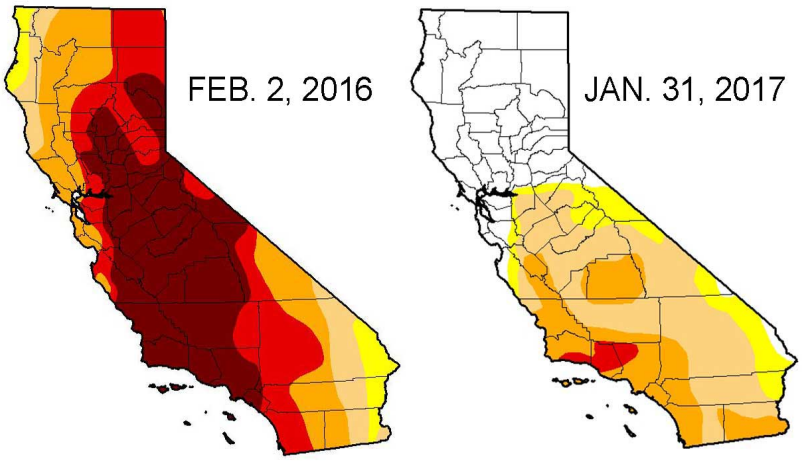
The Feb. 2, 2017 Sierra snowpack survey pointed to some promising signs for drought recovering in California. (Published Thursday, Feb. 2, 2017)

WHAT TO KNOW

- Snowfall in the Sierra Nevada mountains provides a third of the state's water through the year
- About 20 percent of California remains in severe drought, down from 61 percent three months ago
- At this time last year, 95 percent of California was in drought

A snowpack survey Thursday provided even more reasons for optimism for drought recovery in California, where January storms brought almost a year's worth of snow and rain in a single month.

The Sierra Nevada snowpack, a vital part of the state's water supply, is at 173 of average, with the most snow recorded since 1995, state water managers said. Thursday's manual survey at Phillips Station, which has been measured each winter since 1941, showed snow depth at 90.3 inches.



These maps depict drought conditions in California in 2016 and 2017, revealing areas of significant improvement after five years of drought.

Photo credit: USGS

"Our snowpack overall is way above average," said Frank Gehrke, chief of the California Cooperative Snow Surveys Program. "This is some of the best snow you can have.

"If we keep getting these storms to come through, it's going to make for a very robust snowpack."

Typically, snowfall in the Sierra Nevada mountains during winter storms provides a third of the state's water through the year, as the drifts melt and flow into reservoirs. The water content level at Phillips Station Thursday was 153 percent of the long-term average for that site, Gehrke said.

"You have to go all the way back to 2005 to find a year similar to this," said NBC4 forecaster David Biggar.

The state snowpack was at about 163 percent of average in 2005.

California had received just one-fourth of a normal year's precipitation when January started, he said. The storm systems, known as atmospheric rivers, "caught us all off guard, how many came in so quickly, and turned everything around," Dettinger said.

January's storms lifted the northern half of the state out of drought. This time last year, 95 percent of California was in drought, after the driest three-year stretch in the state's history.

The California Drought Monitor report released Thursday showed improvement in the severe drought category. About 20 percent of California remains in severe drought, down from 26 percent last week and 61 percent three months ago.

In April of 2014, Gov. Jerry Brown stood in a Sierra meadow bare of its usual snow to declare a drought emergency in California, and ordered mandatory water conservation in cities and towns. Surveyors with the state Department of Water Resources will return to the meadows Thursday with rods to measure the depth of the snowpack so far this winter.

Phillips Station, the site of Thursday's survey, is one of hundreds of locations around the state that will be surveyed during a 10-day period early this month to determine water content in the snow. The manual surveys supplement the state water resources department's electronic monitors.

State water officials, who lifted the statewide conservation mandate as the drought eased, said Brown's administration likely will wait for a final seasonal snow survey in April before deciding whether to officially end the state drought emergency.

How much storm water is LA catching?

Sharon McNary

January 23 2017

The San Gabriel River leads into the Pacific Ocean at Alamitos Bay in Long Beach.

Maya Sugarman/KPCC (Aerial support provided by LightHawk)

Los Angeles County storm water capture systems have shunted enough water from rain-swollen rivers into percolation ponds this rain season to serve the annual water needs of about a half-million people, an official said Monday.

More than 22 billion gallons of storm water has been collected since mid-October along the San Gabriel and Los Angeles rivers, said Steven Frasher, spokesman for the Los Angeles County Public Works Department.

However, most of the water that falls on the region is still lost to the Pacific, partly because the kinds of investments made over the years in spreading grounds along the San Gabriel River have been lagging along the Los Angeles River, said Mark Gold of the UCLA Institute of the Environment and Sustainability

"You see a storm year like this and you see all the water that ends up going through the LA River and Ballona Creek and Dominguez Channel, and you say, "Wow. That could have been our water supply for the next year," Gold said.

"I think this storm here has really demonstrated where the shortcomings are in our local water system," Gold said. "We've barely scratched the surface on what we can do in the eastern San Fernando Valley in trying to capture more of that precious rainfall from the sky and have it actually infiltrate into the ground and get into our groundwater supply."

Why do we lose so much rain water?

The flood control system was initially built to speed water to the ocean to avoid damage to communities along the rivers during heavy rain storms. So it took decades for the region to adapt to the idea of capturing that water for later use.

Every few decades from the first settlements to early 1900s, big rainstorms would cause flooding and destruction along the rivers that run through Los Angeles and surrounding counties. And while local governments raised some money to channelize parts of the river and build dams, the 1938 flood became was a turning point.

In late February and early March 1938, record-setting rain caused a disastrous flood on the Los Angeles River. Homes were swept away, bridges torn out. That's back when the L.A. River was a natural river.

After that storm, Congress authorized federal money to build a new system designed to flush stormwater out to the Pacific as fast as possible. The Los Angeles and the San Gabriel rivers were mostly lined with concrete. Orange County's Santa Ana River and some of its larger creeks also were lined for much of their reach. That system was mostly built out by 1960.

In recent decades, as the region has struggled through repeated droughts, the sight of all that water being lost to the Pacific Ocean has motivated water agencies to install more projects to capture storm runoff. A network of spreading grounds has been built up along the region's rivers. In some places, rubber dams are used to redirect the flow of water.

The Orange County Water District uses an inflatable rubber dam across the Santa Ana River in Anaheim to divert river water that would otherwise flow to the ocean. The water flows into one of the district's recharge basins, where it eventually percolates into an underground aquifer that supplies water to 2.4 million Orange County residents.

However, some of these groundwater aquifer recharge projects go back to the late 1930s, like one along the Rio Hondo tributary of the Los Angeles River. They've become more common in the past two decades.

Can those spreading grounds absorb all this rain?

Nope. There's just too much rain coming down at once for the spreading grounds to soak up. That's where the dams come in.

High up in the San Gabriel Mountains is a series of dams that capture and control rainwater falling on the slopes. The Morris, San Gabriel and Cogswell dams are visible alongside Highway 39 above Azusa. Farther down in the San Gabriel Valley are the Santa Fe and Whittier Narrows dams.

A lowering water level can be seen at Morris Dam, which holds back the San Gabriel River in the San Gabriel Mountains, north of Azusa and east of Los Angeles on July 29, 2014 in California, where emergency water-conservation measures are being implemented as the state struggles through its third year of drought amid lowering water supplies in its reservoirs, parched dry land on farms across the state and a heightened concern for wildfire dangers. New restrictions carrying a $500 penalty come into effect in California on August 1st regarding outdoor water use. Frederic J. Brown/AFP/Getty Images

And the water in those dams is parceled out to the spreading grounds a bit at a time over many months.

How much rain is being saved this way?

L.A. County Flood Control estimates that from the latest storm, they were able store 433 million gallons of stormwater. That's about 656 Olympic-size pools of water, about enough to serve the water needs of 10,600 people a year.

Since the rainy season started in mid-October, the spreading grounds have saved enough water to serve more than a half-million residents, Frasher said.

All that rain takes months or years to percolate down through layers of soil and rock to filter into the groundwater where it can be pumped out.

The engineered Dominguez Gap Wetlands in Long Beach filters stormwater and runoff from the Los Angeles River, then the water is siphoned under the river to a spreading ground to the west. Sharon McNary/KPCC

How else are we hanging onto all this rain?

There are some pretty remarkable water saving projects in the works.

One in Sun Valley is a series of human-made caverns built underneath a park's baseball field. The water from flood-prone Sun Valley flows to the park and drains into these catacombs to be filtered into the groundwater. More projects like these are being built across the region.

What still needs to be done?

Where local history is full of mega-projects like large dams and river-fed groundwater recharge fields covering hundreds of acres, others see the potential water supply that could come from micro-projects like residential rooftop water capture systems put on millions of homes and businesses.

"Right now there are a number of these missed opportunities when we get these wonderful rainstorms," said Cindy Montanez, CEO of Treepeople. The water advocacy nonprofit is collaborating in a project with the large local water utilities including Los Angeles DWP to make such projects achievable.

"The Trump administration has said they want to spend more on water infrastructure. We hope that means that our front yards and distributed storm water will be seen as an opportunity for storm water capture, and not just build big dams that are more difficult to site in California," Montanez said.

She also hopes the region can get new federal funding to clean pollution from underground water aquifers in the San Fernando Valley, making them more suitable for storing large amounts of stormwater.

Gold, the UCLA sustainability expert, said he'd like to see the state put money toward aquifer cleanup and other stormwater storage projects from the $7.5 billion that voters approved for water projects in Prop 1. Like Montanez, Gold also sees potential for more groundwater recharge with "green streets" designs that use porous ground coverings to soak water into the earth.