

ARE YOU READY FOR A WILD RIDE THIS
**STORM
SEASON**

***A scary October
forecast?
Now is the time
to prepare!***

El Niño is here! What is it? El Niño, first, is not a storm. There is a big misconception that El Niño is a storm, when in actuality it is a climate pattern which originates in the Pacific Ocean off the coast of Peru along the equator. The proper terminology for this climate pattern is El Niño-Southern Oscillation. “The El Niño-Southern Oscillation (ENSO) is a recurring climate pattern involving changes in the temperature of waters in the central and eastern tropical Pacific Ocean. On periods ranging from about three to seven years, the surface waters across a large swath of the tropical Pacific Ocean warm or cool by anywhere from 1°C to 3°C, compared to normal. This oscillating warming and cooling pattern, referred to as the ENSO cycle, directly affects rainfall distribution in the tropics and can have a strong influence on weather across the United States and other parts of the world. El Niño and La Niña are the extreme phases of the ENSO cycle; between these two phases is a third phase called ENSO-neutral.”¹ In a nutshell, El Niño is when the waters in the equatorial region warm to above average (the warmer the waters, the stronger the El Niño); La Niña is when the waters in the equatorial region are cooler than average (the same is true for a La Niña – the cooler the waters, the stronger the pattern); and neutral (ENSO-Neutral) is when the waters remain at their typical average temperatures. The ENSO pattern goes

hand-in-hand with the Pacific Decadal Oscillation pattern – “The Pacific Decadal Oscillation (PDO) is a robust, recurring pattern of ocean-atmosphere climate variability centered over the mid-latitude Pacific basin. The PDO is detected as surface waters warm or cool in the Pacific Ocean, north of 20°N. During the past century, the amplitude of this climate pattern has varied irregularly at interannual-to-interdecadal time scales, meaning, time periods of a few years to as much as time periods of multiple decades. There is evidence of reversals in the prevailing polarity (meaning, changes in cool surface waters versus warm surface waters within the region) of the oscillation that occurred around 1925, 1947, and 1977. The last two reversals corresponded with dramatic shifts documented in salmon production regimes in the North Pacific Ocean. This climate pattern also affects coastal sea and continental surface air temperatures from Alaska to California. During a “warm”, or “positive”, phase, the west Pacific becomes cooler and part of the eastern ocean warms; during a “cool”, or “negative”, phase, the opposite pattern occurs.”² Typically strong El Niños occur during a positive (warm) PDO phase, and strong La Niña years patterns occur during a negative (cool) PDO phase. 2026 is quite unique in that, as of right now, we are still currently in a negative PDO phase with a historical El Niño building – which

If you’ve been watching the news for the last several months – especially from the meteorologists, you’ll likely know that California is in for a potentially very wild ride this winter! While the winter we see coming might not happen every year, and while it may certainly be an uncommon forecast for 2026, historically, an El Niño pattern is nothing new for California. You may recall seeing pictures of the great Sacramento flood of 1862. And while an extreme winter is nothing new to California, it is something to plan for while we still have time this fall so that when it arrives your site is prepared for an inundation of precipitation. In this month’s edition of **The Monthly Dirt**, we are going to take a look at what an El Niño is, and things you can be doing to prepare your site for a deluge of rain.

might possibly be big enough to flip the polarity of the PDO into the positive phase again – or it could mean a colder El Niño – which may thereby produce more snow. It is also possible the current negative PDO phase could dampen the effects of the El Niño. However, a negative PDO mixed with an El Niño doesn’t necessarily mean no rain or snow – instead it most likely will change the types of storms we could see this winter. Only time will tell what will happen this year. As of October, NOAA is predicting an 83% chance of the 2026/2027 El Niño being the strongest one on record since the 1950s (when ENSO weather patterns started being tracked). However, it is important to note that the percentage is in terms of ocean temperature anomalies and not necessarily rain or snow forecasts. It may be a wet year for California – or even a wetter than average year, but the 83% historic El Niño prediction from NOAA doesn’t mean it will be a historic wet year for California in regard to precipitation. Again, only time will tell. For an insightful look into this year’s potentially historic weather pattern, check out this [informative meteorologist explanation](#).

Winter Forecast Implications – And before you dismiss El Niño and the potential weather impacts California may see later this winter as a bunch of news over-hype amidst a scorching October, the warmer and drier start of

our fall season is actually part of El Niño too! The warm equatorial Pacific waters and the barometric systems produced by the strengthening El Niño are responsible for our unusually hot autumn. This temperature influx could also influence this winter with slightly warmer than average winter temperatures forecasted – don't freak out, this doesn't mean a 95-degree Christmas, but you could see slightly warmer than average winter temperatures for California due to the warmth of the Pacific. We won't dive into great details about it in this article, but another winter forecast implication from El Niño which could be a cause for concern is coastal flooding – we've already seen flooding and higher sea levels due to the Kelvin waves³ and the Pacific hurricanes/tropical storms this fall. If the Kelvin waves, higher sea levels, storm swell, and King Tides all coincide at the same time later this winter, it could result in extreme coastal flooding. But when, you might ask, are we going to start seeing rain? According to the collective forecasting models, a wetter than average winter is most likely getting a late start around the end of December and reaching its peak in January 2027. However, according to the models, the wet winter has the potential of lasting with a higher-than-average percentage of precipitation all the way through May 2027.⁴ It should be noted that the amount of inland flooding California sees due to these forecast models is more about timing of storms rather than how much rain per storm we get. If storm systems are spaced out with time for the water to drain, flooding might be much milder than if we get storm after storm after storm back-to-back with little to no time for infiltration and drainage. How this winter will ultimately play out is still yet to be seen. The forecasting models that are predicting what this winter will look like are big picture models which are looking at a span of 30 days rather than a weekly forecast with tangible precipitation percentages.

Regulation Temporary Relief - On September 21, 2026, Governor Newsom issued a State of Emergency for the 2026-2027 El Niño. "The state of emergency helps California move faster to protect communities, stage critical resources, and strengthen readiness before severe weather intensifies. The Governor's action puts California in a stronger position before winter weather intensifies. It directs State agencies to begin protecting vulnerable communities, prepare roads and critical infrastructure, stage emergency supplies, and help local partners reduce flood, landslide, and coastal risks."⁵ You can read the full State of Emergency proclamation [here](#). On October 9, 2026, California Stormwater Quality Association (CASQA) drafted a letter to the

California Environmental Protection Agency (CalEPA) and the California Natural Resources Agency (CNRA) in light of Governor Newsom's state of emergency proclamation with further suggestions for suspending or temporarily relieving storm water compliance regulations during this potentially historic El Niño year. "The intent of this letter is to document the actions requested of the California Water Boards under existing authorities and, where applicable, request that CalEPA and CNRA recommend additional action by the Governor to ensure local communities can implement the flood mitigation and prevention efforts mandated by the Governor's state of emergency, while avoiding choices between public safety/flood control and permit violations." CASQA suggested the following adaptations be made in light of the upcoming storm season:

Comment #1 - Issue a letter from the State Water Board and Regional Board that specifies how the Governor's emergency proclamation will be applied to storm water permits.

Comment #2 - Allow proactive removal of catch basin inserts to reduce flood risk.

Comment #3 - Allow modified monitoring requirements due to safety concerns and/or technical infeasibility during high-flow events.

Comment #4 - Proactively issue guidance through SMARTS to IGP and CGP permittees regarding extreme flood events.

Comment #5 - Provide case-by-case consideration for staffing hardships during emergency conditions.

Comment #6 - Expedite / waive issuance of 401 Certifications to support flood preparations and responses.

On October 16th, the California State Water Resources Control Board released a guidance document for construction sites in light of the looming rainy season and the Governor's state of emergency proclamation. We've attached their guidance document to the end of this newsletter for your convenience.

How to prepare your site for El Niño: While we are still in this drier fall weather pattern before El Niño hits California with its full force, now is the time – like exhibited in Governor Newsom's proclamation and in CASQA's letter, to put into place measures to prepare for a potentially very wet winter and get your site ready for a whole lot of rain. Here's some things you should consider implementing before the start of the wet season at your site:

Prepare retention basins for big storms – clean out debris and overgrowth and drainage pipes and channels.

Apply temporary or permanent erosion controls before the start of the wet weather. This includes soil binders, hydraulic mulch, straw and wood mulches, erosion control netting and blankets, hydroseeding, and landscaping. Don't wait until you lose your window of opportunity due to saturated soils or wet weather that does not allow ample cure time.

Clean storm drains of any litter and organic debris to ensure peak flow rates.

Refresh BMPs – replace any damaged, weather-worn, or pollutant-saturated BMPs around your site with fresh and good performing ones.

Check rock bags and drain inlet inserts to make sure they are installed correctly and won't cause unnecessary flooding and drainage backlog.

Invest in a high quality and/or substantial dumpster bin cover and cover trash bins at the end of each workday to keep storm water from pouring into dumpsters and collecting pollutants from the garbage.

Stay on top of street sweeping – while roads are still dry send out the sweeper truck and make sure trackout is cleaned up and not causing further issues.

Watch safety training videos and prepare your team for bad weather. [Check out this free safety presentation from Storm Water Awareness Week.](#)

Get your team together and make a plan for worst-case-scenario situations with extreme flooding at your site. What are the procedures and protocols? Make sure your team is well informed and trained on what to do this winter.

Move potential sources of pollutants into covered and secured locations and store them where risk of being flooded out is least likely.

Be aware of your surroundings – are you near a river or floodplain area? Are you down gradient of a burn scar? Do adjacent properties influence the storm water on your site? Plan ahead!

Please contact us if you have any questions ...

The Monthly Dirt

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A GREAT GUIDEBOOK FOR QSPS & QSDS

THE RAINDROP CONNECTION

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The Raindrop Connection

SLOW-THE-FLOW BMPs



Figure 52 - Check dams or runoff "speed bumps" that have captured sediment. "Slow-the-Flow" BMPs require regular maintenance to keep them effective and to make sure they have enough capacity for sedimentation to occur. (Photo credit: John Teravskis)

In [Chapter 3](#), we saw an example of how even slightly slowing flow down can have a significant impact on removing soil particles from runoff. In that particular case, the chain link fence was a sufficient enough obstacle to slow the flow just enough to provide the soil particles the opportunity to deposit, resulting in approximately six inches of sediment deposition in a single rain event. When you think about it, that is exactly how sediment control is accomplished at construction sites.

Connecting the Dots of Best Management Practices

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We place obstacles in the flow path to reduce the velocity of the runoff. This not only facilitates sedimentation, but it will also have erosion control benefits. Sediment control devices do not prevent raindrop erosion, but they can have a positive effect on sheet and rill erosion. Fewer soil particles will detach in slower moving water, and slower moving water cannot carry (transport) particles previously detached. Therefore, we categorize this group of control measures as Slow-the-Flow BMPs, which provide both erosion and sediment control. Included in this group of BMPs are:

- Linear controls,
- Speed bumps,
- Fat spots, and
- Flow spreaders and dissipators.

Linear Controls (SF-1)

Oftentimes for effective sediment control, it is necessary to establish a line of defense. This line can be placed at different locations throughout the construction site but is generally placed downgradient of a source of sediment. Typically, linear measures used for sediment control are placed at the toe of a slope or at the project's downgradient perimeter. Linear controls can also be used to prevent sheet and rill erosion. In this case, they are typically installed in strategic places to slow the flow, such as along the face of a slope or where sheet flow discharges to areas of soil disturbance. Linear controls are the most prevalent of all BMPs at construction projects, but even with their popularity, they still seem not to be well understood in what they can and cannot do at a project site. The following are common myths about linear controls that we have observed in the storm water industry.

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**textbook is included with course enrollment*

Storm Alert

Refresh your BMPs before the rainy season arrives.

Yes

Remind me later

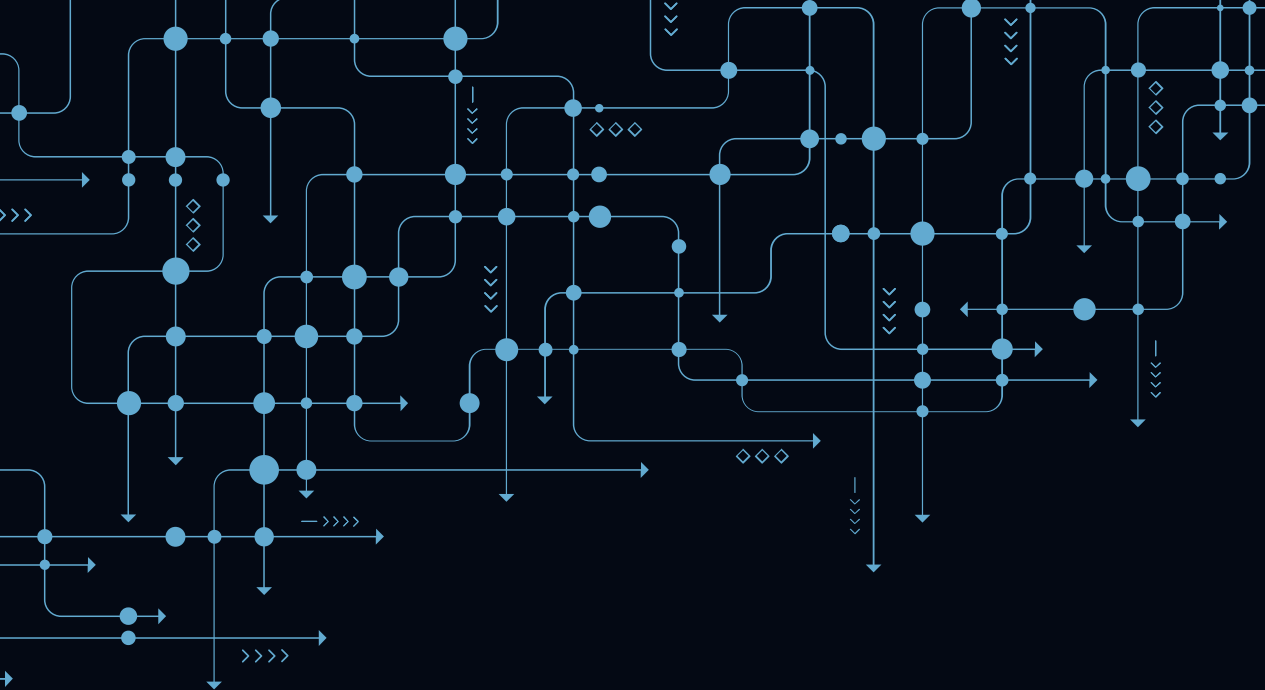


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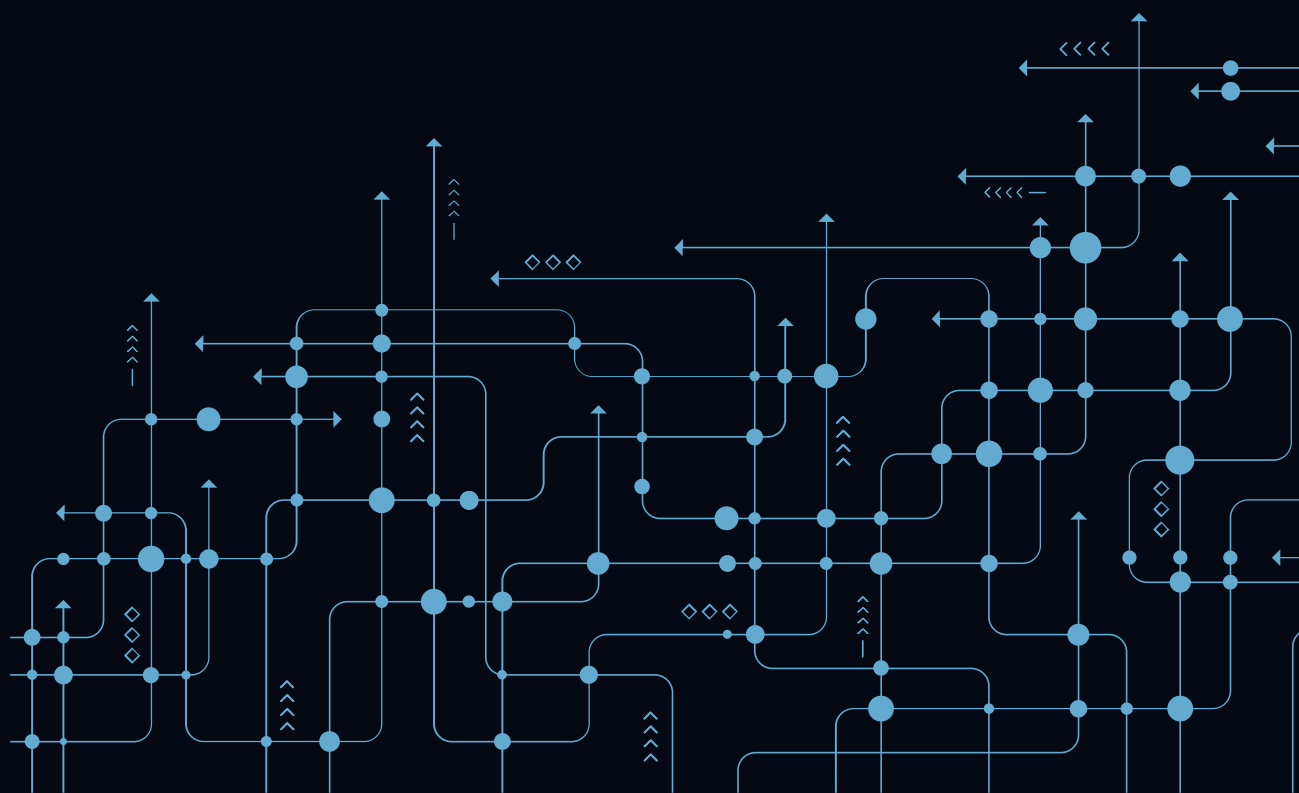
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STORM WATER AWARENESS WEEK 2026 EVENT STATS

16,626

REGISTRATIONS

2,592

INDIVIDUAL ATTENDEES

3,123

VIDEO VIEWS TO DATE

46

STATES

28

COUNTRIES

2

**U.S. TERRITORIES
OR DISTRICTS**

80

WORKSHOPS

65

PRESENTER ORGANIZATIONS

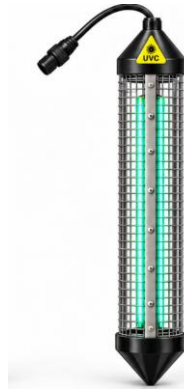


UV-C for Golden Mussel - Surface Fouling Prevention

Our design builds on IRI's patented mosquito larvae treatment system and is now being evaluated for the treatment of golden mussels and other aquatic species. Our goal is a practical preventative maintenance tool that uses localized UV-C exposure to help prevent mussel larvae from attaching to vault and wet-well surfaces.



Vault installation



UV-C treatment unit



Pump station protection

Start with smaller vaults

Install compact units near selected surfaces, monitor new settlement, and use the findings to guide larger installations. Repeated UV-C exposure is the approach being evaluated.

Measure before setting the treatment schedule

Our laboratory testing measures UV-C intensity at different distances and water turbidity levels. Lab and field results will help determine lamp spacing and daily operating hours. Cameras can also be added to monitor the system remotely.

Evaluate performance in the field

Next, we will install pilot units at selected locations and evaluate their performance. We will compare treated and untreated surfaces, record operating hours and water conditions, and document settlement with underwater images. Field testing will help determine how well the system prevents attachment under actual conditions.

Chemical free treatment tailored to your site

The system uses UV-C light without adding treatment chemicals to the water. Unit placement and operating schedules can be adapted to vault dimensions, water depth, flow, and clarity. One or more units can be used as testing establishes the coverage needed. Routine inspection and cleaning will help maintain lamp output.

What IRI can do

IRI can provide site assessments and underwater camera inspections, including video clips documenting mussel infestations. We can also handle mussel removal, system installation, and monitoring. We welcome the opportunity to join your team and install a pilot unit at your facility.

Interested in a demonstration or pilot location?

John J. Paoluccio | Inventive Resources, Inc. | (209) 545-1663
info@IRIproducts.com | ShortwaveSolutions.com

State Water Resources Control Board

October 16, 2026

SUBJECT: CONSTRUCTION SITE PREPARATION FOR THE HISTORIC EL NIÑO EVENT

The State Water Resources Control Board and Regional Water Quality Control Boards (collectively Water Boards) are notifying you to prepare for impacts of a strong and likely historic El Niño event identified in a Governor-declared state of emergency proclamation.

The National Oceanic and Atmospheric Administration is predicting a potentially historic El Niño event (a condition that occurs when a band of warm water develops in the Pacific Ocean that causes changes in rainfall) occurring during the winter of 2026-2027. This letter provides guidance for regulatory compliance with the Statewide Construction Stormwater General Permit (Permit)¹ for construction sites that may experience intense and higher than normal precipitation events due to the El Niño event.

All of the requirements of the Permit remain in effect during El Niño, including, but not limited to:

1. New Planned Construction Activity and Emergency Construction Activity

As required by the Permit, an entity or person planning to conduct construction activities is required to apply for and obtain Permit coverage for activities that disturb:

- One acre or more of land surface, or
- Less than one acre, and the project is part of a larger common plan of development or sale that disturbs one acre or more of land surface.

¹ [General Permit for Stormwater Discharges Associated with Construction Activities](https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction/general_permit_reissuance.html);

https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction/general_permit_reissuance.html

Per Permit Section III.A.3, in the case of a public emergency that requires immediate construction, an entity or person may proceed with construction provided that the entity or person:

- Provides the applicable Regional Water Quality Control Board (Regional Water Board) with a brief description of the emergency construction activity within five (5) days of construction initiation at the site, and
- Submits permit registration documents within thirty (30) days through the Stormwater Multiple Application and Report Tracking System (SMARTS).

Permit coverage is not required for the following activities:

- Cleanup,
- Debris removal activities, or
- Construction activities disturbing less than one acre of land surface if the activities are not part of a larger common plan of development or sale disturbing an acre or more of land surface.

2. Continuation of Existing Regulated Construction Activity

All active, regulated construction activities, including linear underground/overhead projects, with active regulatory coverage under the Permit (i.e. active Waste Discharge Identification Number [WDID]) are required to continue complying with Permit requirements consistent with the following guidance:

A. Visual Observations and Sample Collections Not Completed Due to Site Inaccessibility

Per Permit Attachments D and E, Permit Section III.B.1, visual observations and sample collections are required during scheduled site business hours and when site access is safe. Visual inspections and sample collections are not required during dangerous weather conditions, outside of scheduled site operating hours, or when the site is not accessible to personnel.

Dischargers must provide an explanation in the site's Annual Report if visual observations and sample collections are not completed based on the above justification.

B. Completed Visual Observations and Corrective Actions at Sites

Visual observations completed at construction sites that are safe to access shall include:

- An assessment of best management practices by a Qualified Stormwater Pollution Prevention Plan (SWPPP) Practitioner, or their trained delegate, and

- A plan describing the corrective actions, including any necessary changes for the Qualified SWPPP Developer to add to the SWPPP, for replacing and/or repairing damaged best management practices and stabilizing erodible areas.

The Qualified SWPPP Practitioner, or their trained delegate, shall assess the site, and include the following items with their inspection report:

- a) Evaluation and documentation, including photographs, of site conditions documenting:
 - Discharge locations,
 - Soil stabilization²,
 - Damaged best management practices or stormwater conveyance structures,
 - Areas on the site with problem areas of erosion.
- b) Location information and description of currently implemented best management practices, and
- c) Schedule for reinstallation, repair and/or addition of best management practices to manage runoff of construction pollutants.

C. Bypass of Damaged Treatment Best Management Practices

Bypass is the intentional diversion of waste streams from any portion of a treatment facility or system. Dischargers with damaged treatment best management practices must contact the Regional Water Board³ to discuss the applicability of the emergency bypass provisions in Permit Section VI.K. Dischargers shall update their Active Treatment System Plans or Passive Treatments Plans as applicable.

² See [CGP Review Issue 3](https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/training/cgp_review_issue3.pdf) for guidance document on site stabilization, healthy soils, native seeds, and optimal moisture content:
https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/training/cgp_review_issue3.pdf

³ The Permit requires 14-day advanced notice to the Regional Water Quality Control Board for a needed treatment bypass. If the discharger is unable to notify the Regional Water Board in advance of a bypass due to an emergency situation where the bypass is unavoidable to prevent loss of life, personal injury, or severe property damage, the Discharger shall submit written notification to the Regional Water Board within 14 days after the bypass.

D. Sampling and Numeric Action Level (NAL) Exceedances

The Permit requires Risk Level 2 and 3 Projects and Type 2 and 3 Linear Underground/Overhead Project Dischargers to collect, analyze, and report construction stormwater runoff sampling results even if the results are not representative of stormwater runoff due to construction activities.

If NALs are exceeded, an NAL Exceedance Report may be required in response to a Regional Water Board request, or a Discharger may voluntarily submit one as part of an Ad Hoc monitoring report. In either case, if the exceedance is not representative of normal construction activity site conditions, the report should explain the conditions at the site.

E. Dewatering

This Permit requires dischargers to implement BMPs to control the volume and velocity of dewatering discharges in Permit Section IV.M. Dischargers are required to minimize the discharge of pollutants from dewatering trenches and excavations through the implementation of BMPs. This Permit requires dischargers to implement BMPs to control the volume and velocity of dewatering discharges in Permit section IV.M. Dischargers are required to minimize the discharge of pollutants from dewatering trenches and excavations through the implementation of BMPs. Dischargers with dewatering activities subject to a separate National Pollutant Discharge Elimination System de minimis, or low threat discharger permit for dewatering activities, are to obtain coverage through those permits issued by the Water Boards. Attachment J of the Permit authorizes specific construction dewatering discharges and requires the dewatering activity to utilize outlet structures that withdraw water from the surface of the sediment basin or similar impoundment, unless infeasible.

A Dewatering Discharge Notification Guidance is available at https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction/docs/2022-cgp-dewatering-guidance.pdf

F. Inactive Constructions Sites

Dischargers with active Permit coverage planning to discontinue, inactivate, or suspend all construction activities for an undetermined time period (but at least 30 days) may per Permit Section III.G, file a Change of Information to revise their SWPPP. Dischargers with Active Permit coverage that intend to cease construction activities entirely may, per Permit Section III.H, submit a Notice of Termination to terminate Permit coverage, including the documentation required in

Permit Section III.H.2, demonstrating compliance with post-construction standards in Permit Section IV.N. In either case of either suspension or complete cessation of construction activities, the site must be stabilized prior to submitting a request.

Since the El Niño event has been predicted for quite some time, all rain-related unauthorized stormwater discharges to the environment will be evaluated to determine if appropriate maintenance and preparation steps for El Niño were taken. Failure to demonstrate that adequate preventative measures were taken, which could have minimized or prevented known or anticipated wet weather problems and resulted in an unauthorized discharge of stormwater to the environment, may result in enforcement action.

For further information regarding Permit requirements, please visit the State Water Board [Construction Stormwater Program webpage](https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html) (https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html).

On behalf of the Water Boards and the residents of the state of California, I appreciate your attention to this matter. For general questions regarding this letter, please contact the Water Boards, Stormwater Help Desk at stormwater@waterboards.ca.gov.

For specific questions, please contact your local Regional Water Board. A list of the Regional Water Board contacts is available at https://www.waterboards.ca.gov/water_issues/programs/stormwater/contact.html.

To ensure you receive the latest updates please ensure you are subscribed to the "Storm Water Construction Permitting Issues" email contact list by navigating to our subscription page https://www.waterboards.ca.gov/resources/email_subscriptions/ entering your email address and selecting the appropriate box.

Sincerely,



Phillip Crader, Deputy Director
Division of Water Quality

cc: (via email)

Valerie Quinto, Executive Officer
North Coast Regional Water Quality Control Board

Eileen White, Executive Officer
San Francisco Bay Regional Water Quality Control Board

Ryan E. Lodge, Executive Officer
Central Coast Regional Water Quality Control Board

Susana Arredondo, Executive Officer
Los Angeles Regional Water Quality Control Board

Patrick Pulupa, Executive Officer
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David Gibson, Executive Officer
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