

ACHIEVING PERMIT COMPLIANCE DURING CALIFORNIA'S 5TH SEASON

Fire Season — the fifth and most detrimental season in California.

In the past several years, it has seemed like wildfires have gotten more and more extreme. According to the Cal Fire wildfire statistics, *from January 2020 – December 2021, California experienced 15,969 wildfires* – that's not counting any that have occurred this year! With 6 of the top 20 largest fires in the State history occurring in 2021. Approximately 4,099,653 acres burned during the past two years – that's roughly 3.9% of our State! And while it may seem like there's not much left to burn, Cal Fire is predicting another bad fire season for 2022 – *"These continued dry conditions, with above normal temperatures through spring, will leave fuel moisture levels lower than normal,*



The 2021 Dixie Fire

As we head into the middle of summer with fire season looming on the horizon, the question on everyone's mind... *"is it going to be bad again this year?"* In light of the upcoming fifth season of our State, the toll wildfires have on the environment and water quality, and the strain put on facilities in fire impacted areas, we thought it would be fitting to address, in this month's edition of **The Rain Events**, how to achieve Permit compliance during fire season. Did you know the IGP has made allowances for facilities in impacted areas? Keep reading to learn more about this emergency response the Water Board has made for fires and industrial facilities.

*increasing the potential for wildland fire activity."*¹

Wildfires not only pose an immediate threat, but also a long lasting one to the environment. According to the EPA, "Just as wildfires impact air quality, they can also affect the quantity and quality of water available. Water supplies can be adversely affected during the active burning of a wildfire and for years afterwards. During active burning, ash and contaminants associated with ash settle on streams, lakes and water reservoirs. Vegetation that holds soil in place and retains water is burned away. In the aftermath of a large wildfire, rainstorms flush vast quantities of ash, sediment, nutrients and contaminants into streams, rivers, and downstream reservoirs. The absence of vegetation in the watershed can create conditions conducive to erosion and even flooding, and naturally occurring and anthropogenic substances can impact drinking water quality, discolor recreational waters, and may potentially contribute to harmful algal blooms."² While wildfires are a natural part of ecosystems - helping clear underbrush and cleansing the forest floor, opening up habitat for wildlife, removing disease ridden trees and plants, and propagating native plants and trees which need high heat for germination – they can also cause major erosion issues, a degradation of water quality, and hydrophobic soil conditions which can cause flooding

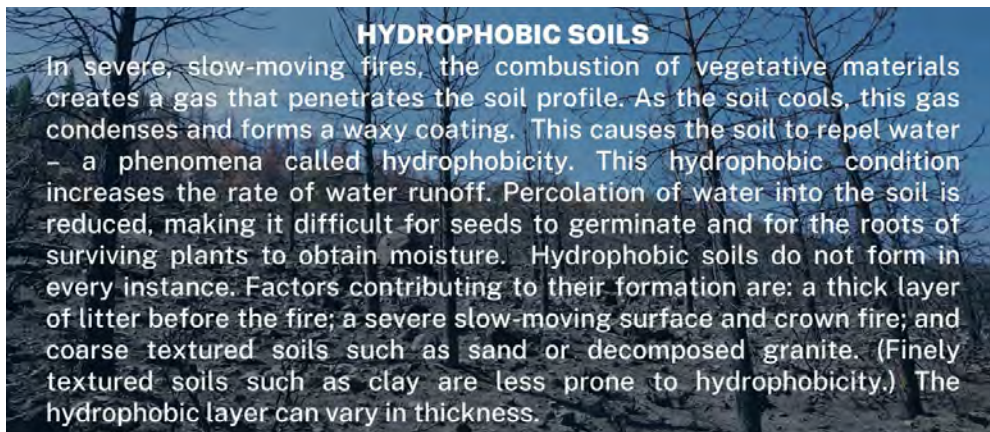
during the following wet season. The Water Board on their website stated, "research shows that fire affected areas in Southern California, including those in the WUI (wildland-urban interface), contained increased concentrations of contaminants including nutrients (e.g. nitrates and phosphorus), polycyclic aromatic hydrocarbons (PAHs), copper, zinc, mercury, lead, and other metals. Several of these pollutants can be harmful to human health and toxic to aquatic life at elevated concentrations. Many pollutants absorb, or attach to suspended particles such as sediment, and enter surface waters as runoff. High flows can transport sediment-bound pollutants to nearby waterways (gullies, canals, creeks, and rivers) and accumulate downstream in larger waterways, reservoirs, and the Sacramento-San Joaquin River Bay-Delta."³

And according to a study done by the US Forest Service, "High intensity postfire rainstorms typically increase runoff that erodes ash and soil from burned landscapes and dramatically elevates turbidity, nutrient, and dissolved organic carbon (DOC) levels in surface waters, which can cause short-term challenges for water providers. *There is also growing evidence that water quality impacts can persist after high severity fires due to slow vegetative recovery, and nitrogen and DOC have remained elevated for 15 years following high severity fire.*"⁴ Which to anyone complying with the

Industrial General Permit, may cause some alarm as those pollutant levels may negatively impact their facility's sample results and show their facility in violation with the Permit, when in reality the results are not representative and completely out of the dischargers control.

Which is why, in October 2020, the Water Board wrote a letter recognizing the public health and environmental impacts within the counties identified in the Governor-declared state of emergency proclamation due to wildfires. *"This letter provides the following guidance for regulatory compliance with the Statewide Industrial Stormwater General Permit for industrial facilities damaged and/or negatively impacted by wildfires within counties identified in a state of emergency proclamation. Negative wildfire impacts on industrial facilities may include higher levels of pollutant in the facility's stormwater discharges that are unrelated to the facility's industrial activities."*⁷⁴ According to the Permit (Section XI.B), dischargers are required to sample and report industrial storm water runoff sampling results, however due to this emergency response letter, dischargers may now claim their industrial storm water runoff samples as unrepresentative of their facility operations and document it as such. By "identifying and reporting the stormwater samples impacted by wildfire conditions (including post-wildfire conditions), collecting and reporting photographic documentation, and reporting the basis for why the industrial activity area runoff samples are not representative of the facility activities and operations."⁷⁵ This exemption from the sampling requirements of the Permit must be authenticated by factors such as: the discharge location conditions; photographs of the facility, discharge locations, and surrounding lands impacted by wildfires; facility operation status and condition; areas of high erosion and high collection of ash deposits; information on any facility observations prior to a rain event, BMPs currently implemented to manage runoff of industrial pollutants and to manage wildfire-related impacts at the facility; BMPs planned for implementation to manage runoff of industrial pollutants and to restore wildfire-related impacts at the facility; and comparisons of historical facility sampling results from drainage areas to the sampling results collected post-wildfires. Visual observations are still required (if conditions and safety allow) and must be submitted along with the analyzed sample results on SMARTS within 30 days of receiving lab results. *Dischargers should include information in their Ad Hoc about non-representative sample results and include the information listed above.*

The Water Board also emphasizes safety as a



high priority, so if dischargers cannot safely conduct the required monitoring due to hazardous conditions, the area being closed by a government agency, or the area having a high potential for mudslides during or after a rain event, monitoring is no longer required for those wildfire-impacted areas (at least until feasible again). In such a case, a detailed explanation should be included in the facility's SWPPP and Annual Report.

In addition, the Water Board made an allowance for the number of qualifying storm events. If four qualifying events were not able to be sampled due to wildfire conditions, the facility is not in violation of Permit Section XI.B.2. And if a facility needs to temporarily suspend industrial activities, dischargers can request a temporary suspension of visual observations, sampling, and analysis if it is currently infeasible due to hazardous conditions and if BMPs are currently implemented to manage runoff.

In a nutshell, due to unsafe conditions, unrepresentative samples, high levels of pollutants due to wildfire impacts, and area closures, industrial dischargers have been allowed to appeal that they cannot continue monitoring their facility temporarily due to conditions or submit their analytical results as not representative of their industrial activities.

However, if conditions are safe enough to continue monitoring and Permit compliance, the facility should continue to do so. The installation of BMPs, to help mitigate sediment and reduce the load of pollutants in runoff, should be implemented as a sediment and erosion control as well as a filtration system for runoff in burned areas. These BMPs include sediment retention basins, straw wattles/fiber rolls, compost socks, good housekeeping, hydroseeding/hydromulching exposed soils, or other erosion and sediment control measures.

Fire Remediation Spotlight: After the devastating 2018 Camp Fire in Paradise, and the Dixie Fire in 2021, Filtrex assisted the

communities with fire remediation. They not only trained the community about how to prevent erosion by installing erosion control measures, but they also provided fire remediation, jobs and training for locals who lost their livelihood and homes to the fire, and helped install thousands of feet of Siltsoxx used for erosion control and removal of pollutants. Watch these videos to see some of the fire remediation work needed post-fire, and to see how compost socks can be used to filter and improve water quality after a fire and reduce erosion.



Dixie Fire Erosion Control.



Camp Fire Filtrex Fire Remediation Project.

¹<https://www.fire.ca.gov/incidents/>

²<https://www.epa.gov/sciencematters/wildfires-how-do-they-affect-our-water-supplies#:~:text=just%20as%20wildfires%20impact%20air,wildfire%20and%20for%20years%20afterwards>

³<https://www.waterboards.ca.gov/centralvalley/water-issues/wildfire-and-water-quality/>

⁴<https://www.fs.usda.gov/research/pubs/58606>

⁵<https://www.waterboards.ca.gov/water-issues/programs/>

The Rain Events

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State Water Resources Control Board

October 20, 2020

TO: INDUSTRIAL STORMWATER DISCHARGERS IN AREAS IDENTIFIED IN AN EMERGENCY PROCLAMATION THAT ARE IMPACTED BY WILDFIRES

The State Water Resources Control Board (State Water Board) recognizes the public health and environmental impacts within counties identified in Governor-declared state of emergency proclamations¹ due to wildfires. This letter provides the following guidance for regulatory compliance with the Statewide Industrial Stormwater General Permit² (Permit) for industrial facilities damaged and/or negatively impacted by wildfires within counties identified in a state of emergency proclamation. Negative wildfire impacts on industrial facilities may include higher levels of pollutant in the facility's stormwater discharges that are unrelated to the facility's industrial activities.

1. Sampling and Analysis Requirements

A. Samples Not Representative of Facility Activities

Per Permit Section XI.B, industrial facility owners (Dischargers) are required to collect, analyze, and report industrial stormwater runoff sampling results even if those results are potentially not representative of their facility's industrial activities and operations. Dischargers may claim their industrial stormwater runoff sampling is not representative of their facility operations by:

- Identifying and reporting the stormwater samples impacted by wildfire conditions (including post-wildfire conditions),
- Collecting and reporting photographic documentation, and
- Reporting the basis for why the industrial activity area runoff samples are not representative of the facility activities and operations.

The following are example factors that may be applicable to a Discharger's basis for runoff samples not representing the facility activities and operations:

¹ [Current Office of Governor State of Emergency Proclamation](https://www.gov.ca.gov/category/proclamations)

<https://www.gov.ca.gov/category/proclamations>

² [General Permit for Stormwater Discharges Associated with Industrial Activities;](https://www.waterboards.ca.gov/water_issues/programs/stormwater/igp_20140057dwq.html)

https://www.waterboards.ca.gov/water_issues/programs/stormwater/igp_20140057dwq.html

- Discharge location(s) conditions,
- Photographs of facility, discharge locations, and surrounding lands impacted by wildfires,
- Facility operation status and condition,
- Areas of high erosion and areas with high collection of ash deposits
- Information on any facility observations prior to a rain event,
- Best management practices currently implemented to manage runoff of industrial pollutants and to manage wildfire-related impacts at the facility,
- Best management practices planned for implementation to manage runoff of industrial pollutants and to restore wildfire-related impacts at the facility, and
- Comparisons of historical facility sampling results from drainage areas to the sampling results collected post-wildfires.

Reported documentation must comply with the required sample event visual observations in Permit Section XI.A.2. Additionally, per Permit Section XI.B.11.a., Dischargers must submit the analyzed sampling results in the Stormwater Multiple Application and Report Tracking System (SMARTS) as an Ad Hoc monitoring report within 30 days of obtaining results from the analytical laboratory. Dischargers must include information in the Ad Hoc monitoring report for all reported sampling results that are not representative of industry activities and operations due to wildfire damage and impacts, as provided by the above guidance.

B. Sampling Not Completed Due to Unsafe Conditions

Dischargers are required to conduct sample collection and visual observations during scheduled facility operating hours, when weather or other conditions do not pose a safety hazard for site access and sampling (Section XI.C.6). The State Water Board emphasizes safety as high priority; therefore, Dischargers are not required to conduct permit-required monitoring in wildfire-impacted areas:

- With unsafe conditions,
- Closed by a government agency, or
- With high potential for mudslides during or after a precipitation event.

Dischargers are required to include an explanation in the facility's Stormwater Pollution Prevention Plan and Annual Report for all not completed sample collection and visual observations, including wildfire-specific information related to missed sampling events and visual observations.

C. Non-qualifying Storm Events

Dischargers that perform an analysis of collected sample results and determine the discharge is not representative of the industrial activities and materials at the facility may submit the results and analysis in SMARTS as a non-qualifying storm

event. Non-qualifying storm event results will not be included in the Numeric Action Level exceedance calculation.

D. Number of Qualifying Storm Events

The State Water Board recognizes that it may not be feasible for all Dischargers to obtain four qualifying storm events in a reporting year due to qualifying storm events not occurring with that year. Therefore, a Discharger that attempts but is unable to obtain and analyze stormwater samples from two qualifying storm events in each half of a reporting year per discharge location due to a lack of qualifying storm events is not in violation of Permit Section XI.B.2.

The corresponding Regional Water Quality Control Board Executive Officer has the authority to require the Discharger to revise and resubmit Ad Hoc monitoring reports determined to be inaccurate (Permit Section XIX.).

2. Temporary Suspension of Industrial Activities

Per Permit Section X.H.3, Dischargers planning to temporarily suspend industrial activities for ten (10) or more consecutive calendar days may request to temporarily suspend visual observations, sampling, and analysis if:

- Conducting visual observations, sampling and analysis is infeasible while industrial activities are suspended (e.g. unstaffed, remote, or inaccessible), and/or,
- Best management practices are currently implemented to properly manage stormwater runoff for industrial activity areas.

The Discharger shall upload a Change of Information in SMARTS at least seven (7) days prior to the planned temporary suspension of industrial activities to:

- Revise the Stormwater Pollution Prevention Plan addressing the facility stabilization best management practices,
- Justify why monitoring is infeasible at the facility during the period of temporary suspension of industrial activities,
- Provide the date the facility is fully stabilized for temporary suspension of industrial activities, and
- Provide the projected date that industrial activities will resume at the facility.

Regional Water Quality Control Board staff may review the submitted information pertaining to the temporary suspension of industrial activities, and may request revisions or deny the Discharger's Request to temporarily suspend monitoring.

For further information regarding Permit requirements, please visit our [State Water Board Industrial Stormwater webpage](https://www.waterboards.ca.gov/industrialstormwater) at <https://www.waterboards.ca.gov/industrialstormwater>.

If you have general questions regarding this letter, please contact the State Water Board, Stormwater Help Desk at stormwater@waterboards.ca.gov. If you have industrial facility-specific questions, please contact your local Regional Water Quality Control Board staff at:

North Coast Region: r1_stormwater@waterboards.ca.gov or (707) 576-2220

San Francisco Bay Region: r2stormwater@waterboards.ca.gov or (510) 622-2402

Central Coast Region: r3_stormwater@waterboards.ca.gov or (805) 549-3147

Los Angeles Region: r4_stormwater@waterboards.ca.gov or (213) 576-6600

Central Valley Region:

- Fresno Office: r5f_stormwater@waterboards.ca.gov or (559) 445-5116
- Redding Office: r5r_stormwater@waterboards.ca.gov or (530) 224-4845
- Sacramento Office: r5s_stormwater@waterboards.ca.gov or (916) 464-3291

Lahontan Region:

- South Lake Tahoe Office: r6a_stormwater@waterboards.ca.gov or (530) 542-5400
- Victorville Office: r6b_stormwater@waterboards.ca.gov or (760) 241-6583

Colorado River Region: r7_stormwater@waterboards.ca.gov or (760) 346-7491

Santa Ana Region: r8_stormwater@waterboards.ca.gov or (951) 782-4130

San Diego Region: r9_stormwater@waterboards.ca.gov or (619) 516-1990

Sincerely,



Karen Mogus, Deputy Director
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cc: (see next page)

cc: (via email)

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Filtrex Environmental Sustainability Benefits

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Excerpt from *Case Studies in Tube-Based Sediment Control: California Fire Remediation*

Originally published in *Erosion Control Magazine*, May 2017, Janice Cessna

“As a waste management engineer for the California Department of Resources Recycling and Recovery (CalRecycle), Todd Thalhamer occasionally serves as operations chief for large-scale fire remediation projects throughout California. Recently, he directed structural debris cleanup operations for the massive Valley Fire. Covering 76,000 acres in Lake County and minor portions in adjacent Napa and Sonoma Counties, the fire consumed nearly 2,000 structures containing potentially hazardous asbestos and heavy metals...

Using products that install rapidly and easily with minimal crew training makes Thalhamer’s job easier...Because fire remediation involves dealing with hundreds or thousands of burned and exposed acres with limited personnel and materials, small crews of six to eight move quickly to install a variety of erosion and sediment control products. “We use erosion control mats, hydroseeding, and straw fiber rolls on many property boundaries,” says Thalhamer. But SiltSoxx, made by Filtrexx International from Filtrexx Mesh and composted FilterMedia, became his preferred product for certain applications because of its superior performance and rapid installation...

Primarily, he calls for SiltSoxx along the lowest stretch of a property boundary, where sheet flow attempts to leave the lot. “We’ve found that [SiltSoxx] works extraordinarily well in preventing sheet flow erosion as long as the surface is relatively level,” says Thalhamer. Justin Hill, foreman for Pacific States Environmental Contractors, agrees. “We also drop [SiltSoxx] where we can’t really anchor it well, like across concrete driveways,” says Hill. Working regularly with CalRecycle as a fire remediation contractor, Pacific States installs its share of erosion and sediment control products. “I think SiltSoxx does a good job. It’s easy to lay down, you don’t have to trench it, and it’s heavy enough to settle in once it gets wet...”

Having worked on many fire remediation projects, Thalhamer claims he’s tried every erosion and sediment control product on the market but now has no plans of using anything but SiltSoxx for critical applications. “With some other products, there’s more of a quality control and quality assurance problem and they’re not as durable,” he says...

After cleanup, the erosion and sediment control products are left in place as homeowners return and rebuild. As blocks of sites are cleaned up and released back to homeowners, cleanup continues elsewhere in the area. When it comes to eventual disposal, SiltSoxx continues to be low maintenance thanks to the organic composted filling that can be spread onsite. “You can just cut them open and dump the compost on the ground,” says Thalhamer...”

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Storm Water Contest...

Each month, we invite our readers to participate in a contest to test their knowledge of the Industrial General Permit and show their storm water compliance program. We enter all submittals to our monthly newsletter question into a drawing and one person is selected at random to receive a \$25 gift card. Last month's contest question was:

How many donut puns were in the newsletter?

Congratulations to Brandon who answered our contest question and kept track of the donut puns in the newsletter! We hope you enjoy some amazing donuts as you work on your annual report (or just have them as a special treat)!!

...This Month's Contest

What allowances are made by the Water Board to industrial facilities affected by wildfires?

We need industrial storm water sleuths to help us with this month's question. Submit your answers by Friday, July 15th. Email your answer to jteravskis@wgr-sw.com. One winner will be selected by a random drawing to receive a \$25 gift card to Amazon.

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