



Fire season is fast approaching, is your facility ready?

As we head into 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 danger and 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.

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 2024, California experienced 41,108 wildfires – that's not counting the ones that have occurred this year – including the tragic Los Angeles fires! With 10 of the top 20 largest fires in the State history occurring since 2020. Approximately 1.4 million acres burned since January 2023. And while it may seem like there's not much left to burn, the National Interagency Fire Center is predicting another normal to slightly above average fire season for this summer – "Based on the current fuel state and future weather predictions, normal significant fire potential is projected for May and near to above normal for June through August across large portions of the interior."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, heavy precipitation events after a wildfire causes increased runoff which erodes ash and soil from burned landscapes and spikes turbidity, nutrient, and dissolved organic carbon (DOC) levels in surface waters, which can cause issues that are widespread. Water quality impacts can also persist after high severity fires because of slow vegetative growth and restoration, it's been seen that nitrogen and DOC can remain elevated for 15 years following

HYDROPHOBIC SOILS

In severe, slow-moving fires, the combustion of vegetative materials creates a gas that penetrates the soil profile. As the soil cools, this gas condenses and forms a waxy coating. This causes the soil to repel water – a phenomena called hydrophobicity. This hydrophobic condition increases the rate of water runoff. Percolation of water into the soil is reduced, making it difficult for seeds to germinate and for the roots of surviving plants to obtain moisture. Hydrophobic soils do not form in every instance. Factors contributing to their formation are: a thick layer of litter before the fire; a severe slow-moving surface and crown fire; and coarse textured soils such as sand or decomposed granite. (Finely textured soils such as clay are less prone to hydrophobicity.) The hydrophobic layer can vary in thickness.

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 February 2025 after the devastating Los Angeles fires, the Water Board renewed 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."*⁵ 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"⁵ a facility will be exempt from sampling. 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, Filtrexx 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.

¹https://www.nifc.gov/nicc-files/predictive/outlooks/monthly_seasonal_outlook.pdf

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>

³https://www.waterboards.ca.gov/centralvalley/water_issues/wildfire_and_water_quality/

⁴<https://pubs.acs.org/doi/10.1021/acs.accounts.8b00670>

⁵https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/2025/2025-IGP-wildfire-compliance-guidance.pdf

The Rain Events

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State Water Resources Control Board

February 14, 2025

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 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:

- Discharge location(s) conditions,

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

- 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.

The Water Boards will continue to assess compliance with Numeric Effluent Limitations (NEL), however Water Code section 13385, subdivision (B)(j) provides relief if an unanticipated, grave natural disaster or other natural phenomenon of an exceptional, inevitable, and irresistible character, the effects of which could not have been prevented or avoided by the exercise of due care or foresight. If you believe the sampling results were impacted by wildfires, include a statement in the Ad Hoc Monitoring report that site conditions satisfy Water Code section 13385, subdivision (B)(j).

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.

3. Anticipated Non-Compliance

Per Permit Section XXI.M, Dischargers shall give advance notice to the Regional Water Board and local MS4 of any planned changes in the industrial activity that may result in noncompliance with this General Permit.

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. A list of the Regional Water Board contacts are available at https://www.waterboards.ca.gov/water_issues/programs/stormwater/contact.html.

Sincerely,

A handwritten signature in black ink, appearing to read "P. Crader".

Phillip Crader, Deputy Director
Division of Water Quality

cc: (see next page)

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

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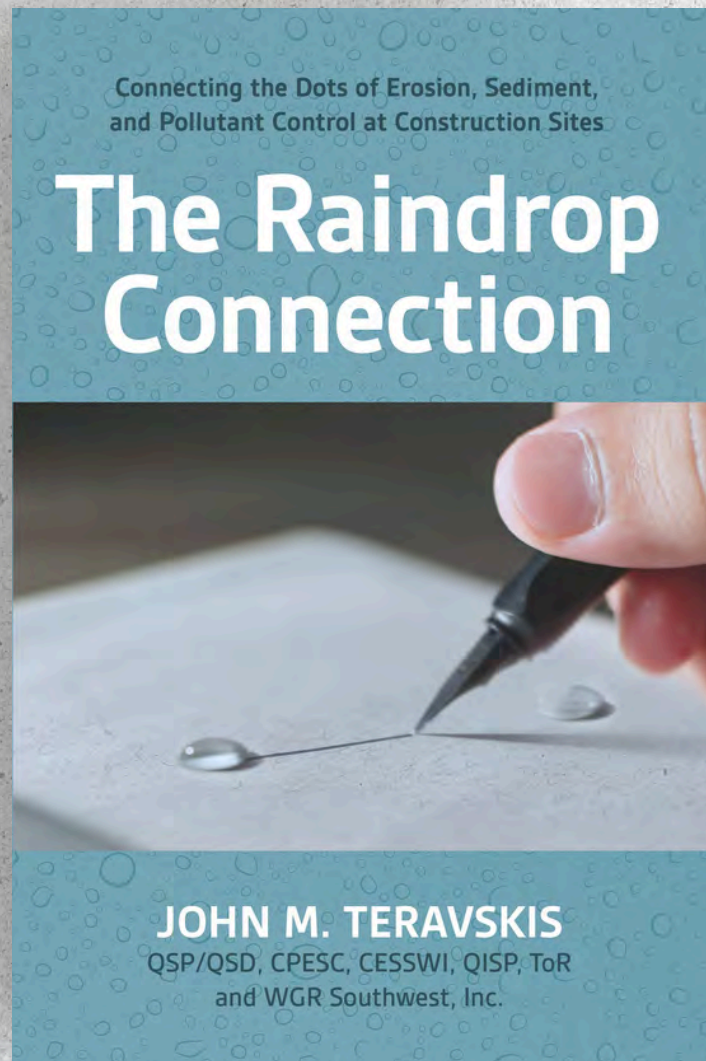
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Storm Water Contest...

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.

List three ways storm water can be treated for zinc?

Congratulations to Aaron who answered, *“Three ways stormwater can be treated for Zinc are: Vegetated filtration systems like Raingardens or Bioretention areas to filter Zinc out of stormwater; Hydrodynamic Separators to separate suspended Zinc and TSS from stormwater; Manufactured/Mechanical filtration systems using compost filter sock, peat moss or inlet protection to slow flow and separate out suspended Zinc from stormwater”* We hope you enjoy your next Chik-fil-A meal!

...This Month's Contest

What contaminants increase in concentration due to fires?

We need industrial storm water sleuths to help us with this month's question. Submit your answers by Friday, June 13th. Email your answer to jteravskis@wgr-sw.com. One winner will be selected by a random drawing to receive a \$25 gift card to Lowes.

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