# CGP REVIEW

*For QSD and QSP Registration and Renewal*

ISSUE #5 | September 2020

## THIS ISSUE

## *California Wildfires*

*Slope Rehabilitation, Drainage Infrastructure, Post-Fire Permitting*

*Non-Visible Pollutant Monitoring*

*Overview of Previous CGP Review Issues*

*Responsibilities of LRP*

# INTRODUCTION

**This issue of the CGP Review discusses the effects of wildfires on construction site compliance with the CGP. The topics covered in this review are meant to provide background information for construction sites located in burn areas. The last sections include a discussion of non-visible pollutant monitoring, an outline of the topics discussed in previous CGP Review issues, and a reminder of LRP responsibilities.**

**This review serves as a guide for QSPs/QSDs but does not supersede permit language and requirements.**

# TABLE OF CONTENTS


**California Wildfires**

1 Slope Rehabilitation

2 Drainage Infrastructure

3–4 Post-Fire Permitting

**Other**

5 Non-Visible Pollutant Monitoring

6–7 Overview of Previous CGP Issues

8 LRP Responsibilities

**Wildfires themselves are not one of the activities covered under the CGP. However, some fire suppression work, such as construction of fire breaks, mobilization areas, or access roads, likely fall within the activities covered by the CGP. These fire-related construction and land-disturbing activities fall under the Permit Coverage requirements relative to public emergencies. In the case of a public emergency that requires immediate construction activities, a discharger shall submit a brief description of the emergency construction activity within five days of the onset of construction, and then shall submit all PRDs within thirty days.**

# CALIFORNIA WILDFIRES

California's 2018 fire season was the deadliest on record. Over 7,000 fires were recorded, burning over 1.6 million acres (CAL FIRE 2018 Fire Statistics). As of September 2020, the California fire season has surpassed records set in 2018, burning over 2.2 million acres (CAL FIRE 2020 Fire Statistics). These fires are particularly devastating during the burn, but there are still many negative impacts that affect the burn areas years later. Rainfall on burn areas can cause landslides on destabilized slopes, flooding, and significant water quality degradation. Accurate and timely post-fire assessments are essential for prioritizing post-fire stabilization efforts to prevent any additional loss of life and property. This CGP Review provides an overview of the post-fire stabilization efforts and CGP compliance in burn areas.

## *Slope Rehabilitation*

Because the vegetation that holds the soil in place has burned, there is no longer an anchor to stop it from eroding. Lack of vegetation can trigger a devastating new set of issues, such as debris flows, stream degradation, and provide an opportunity for invasive species to take over a landscape. A ranking system is typically used to assess burn areas based on burn severity (A, B, or C). Table 1 lists the conditions associated with each ranking. Torrential or prolonged rains have the greatest potential to destabilize slopes and cause the most damage in significantly burned areas. In relation to a construction site, it is critical to identify the sources of runon flowing through the site, such as in the photo below. A construction site on the opposite side of the road would not be within the burn area but could potentially receive runon via a culvert. It is essential to ensure that any drainage infrastructure is maintained and try to prevent commingling of construction site runoff with stormwater runoff or debris flows from the burn area. If it is atop a hill where surface waters drain away from the site, then holding topsoil on site will be a priority.

## Table 1: Burn Severity Rankings

| Ranking | Description |
|---|---|
| A | Assigned to the most severely burned areas. All or nearly all the pre-fire ground cover and surface organic matter is generally consumed, and charring may be visible on larger roots. BMPs will be required for rehabilitation. |
| B | Assigned to moderately burned areas. Up to 80% of the pre-fire ground cover may be consumed but generally not all of it. Fine roots may be scorched but rarely totally consumed. BMPs will likely be needed to rehabilitate slopes. |
| C | Assigned to the least burned areas, which may correct themselves without the installation of any BMPs. Surface organic layers are not completely consumed and are still recognizable. |

*Several catastrophic wildfires claimed numerous lives, destroyed thousands of homes, burned businesses, and scorched more than 100,000 acres of land across Northern California in 2018. The scale of these fires was unprecedented and will have lasting impacts on local communities.*

### Drainage Infrastructure

It is important for a QSP/QSD to conduct field investigations to observe any BMPs that may have already been implemented and prioritize where additional BMPs are required for a particular construction site. Rehabilitation efforts performed by CAL FIRE and other organizations will vary based on the location of the fire and available resources. Pay particular attention to any fire lines created near the project area by bulldozers, as these can act as a conduit for stormwater flows, with the potential to cause significant erosion. The most severely burned areas can be jeopardized further from existing drainage infrastructure being clogged or, in some cases, depending on material type, ABS culverts may be melted away entirely. This highlights the importance of verifying that the existing stormwater infrastructure within a burn area is still in place and functioning properly. Frequent inspections and maintenance will also be necessary, especially after rain events, since culverts will be more susceptible to clogging in burn areas. Adequate erosion controls are essential to prevent debris flows from overwhelming any existing drainage infrastructure.

## Quick Steps to Get a Permit or Authorization for Emergency Work

### 1 Contact the US Army Corps of Engineers

**The project may be authorized as emergency maintenance and exempt from permitting, require an Emergency Permit (RGP-5), or require a different permit.**

### 2 Contact Your Regional Water Board

**They will help coordinate the appropriate authorization, which in part depends on how the US Army Corps of Engineers authorizes the project.**

### 3 Provide Information About the Project

**Digital or paper copies of an Emergency Project application form are acceptable.**

### *Post-Fire Permitting*

Construction projects disturbing more than an acre of soil require permit coverage under the CGP. Clean-up activities and debris removal do not require CGP permit coverage. The preference in a developed area is to address hazardous materials, including ash and burned elements of homes, garages, and businesses. Prior to clean-up activities and debris removal, check with the local regional board on any other notifications and permit requirements. This is generally completed by post-fire response teams.

## Factors Driving the Level of Post-Fire Rehabilitation Effort

*In the case of a public emergency that requires immediate construction activities, a discharger shall submit a brief description of the emergency construction activity within five days of the onset of construction, and then shall submit all PRDs within thirty days.*

- **Fire intensity and severity was great enough to kill most vegetation on site and leave behind large areas of exposed soil.**
- **Fire severity was great enough to cause soil alteration, such as vitrification. May take 6–7 rain events to permeate the soil.**
- **Soils lacking any stabilizing features will likely wash away or result in mudslides under probable precipitation conditions.**
- **Invasive species are present in large enough populations to outcompete plants that are necessary for watershed and ecosystem functionality.**
- **Pre-fire vegetation composition does not provide the suite of species necessary for a reasonable rate of recovery of soils stabilization and ecosystem function.**

## *Non-Visible Pollutant Monitoring*

All projects, regardless of risk level, are required to collect one or more non-visible samples during any breach, malfunction, leakage, or spill observed during a visual inspection that could result in the discharge of pollutants to surface waters that would not otherwise be visually detectable in stormwater. Dischargers shall ensure that water samples large enough to characterize site conditions are collected. These should be sampled within the first two hours of generating runoff during normal working hours. Samples should be collected at discharge locations that can be safely accessed and where a spill could potentially leave the site. Table 2 lists a number of non-visible pollutants, as well as their potential sources, field test methods, and laboratory analysis. Refer to the CGP for applicable benchmarks. If no benchmark is available, submit sampling data as required to SMARTS and your regional water quality control board will contact you if further action is required.

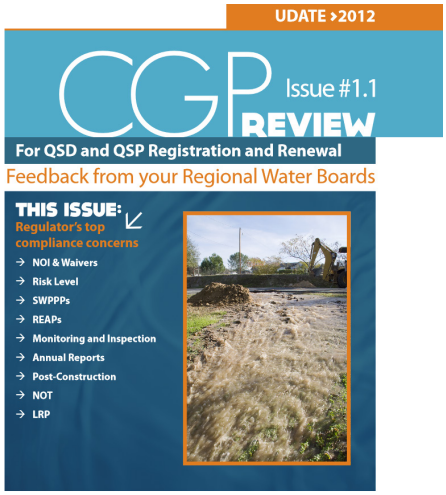
## Table 2: List of Common Potential Non-Visible Pollutants at Construction Projects

| *Category* | *Potential Pollutant Source* | *Field Indicator of Pollutant Release* | *Laboratory Analysis* |
|---|---|---|---|
| Line flushing | Chlorinated water | Colormetric kit | Residual chlorine |
| Portable toilets | Bacteria, disinfectants | NA | Total/fecal coliform |
| Conrete & Masonry | Acid wash | pH meter | pH |
| | Curing compounds | pH meter | pH, alkalinity, volatile organic compounds (VOCs) |
| | Concrete rinse water | pH meter | pH |
| Painting | Resins | NA | Semi-volatile organic compounds (SVOCs) |
| | Thinners | Phenols kit | Phenols, VOCs |
| | Paint strippers | NA | VOCs |
| | Solvents | Phenols kit | Phenols, VOCs |
| | Adhesives | Phenols kit | Phenols, SVOCs |
| | Sealants | NA | SVOCs |
| Vehicle and Equipment Fueling | Diesel Fuel<br>Motor Oil<br>Lubricants | TPH | TPH |
| Cleaning | Detergents | Colormetric kit | MBAS, phosphates |
| | Bleaches | Colormetric kit | Residual chlorine |
| | Solvents | Phenols kit | VOCs |
| Asphalt | Total petroleum hydrocarbons | TPH | TPH |
| Landscaping | Pesticides/herbicides | NA | Check with analytical laboratory |
| | Fertilizers | NA | $NO_3/NH_3/P$ |
| | Lime and gypsum | pH meter | Acidity/alkalinity |
| | Aluminum sulfate, sulfur | Total dissolved solids (TDS), pH | TDS, alkalinity |
| Treated wood | Copper, arsenic, selenium | Metals test kits may be available | Metals |
| Soil amendments & dust control | Lime, gypsum | pH meter | pH |
| | Plant gums | NA | Biochemical oxygen demand (BOD) |
| | Magnesium chloride | TDS | Alkalinity, TDS |
| | Calcium chloride | TDS | Alkalinity, TDS |
| | Natural brines | TDS | Alkalinity, TDS |
| | Lignosulfonates | TDS | Alkalinity, TDS |

CASQA Construction BMP Handbook

Review product literature and Material Safety Data Sheets to confirm potential constituents.

# Overview of Previous CGP Review Topics




The first CGP Review was released in 2012 to address regulators' top compliance concerns. This review outlined a collection of comments from Regional Water Board inspectors regarding commonly misunderstood elements of the CGP. Some of the topics covered in CGP Review 1 are listed in Table 3.

## Table 3: CGP Review 1.0

| Regulators' Top Concerns | Summary | Page |
|---|---|---|
| NOI and Waivers | Process to apply for a waiver. | 3 |
| Risk Level | Know how to manually determine risk level. SMARTS is not necessarily as precise in calculating risk level. | 3 |
| SWPPPs | Reminders for key elements to include in SWPPP. | 4 |
| REAPs | Required elements often missing in REAPs. | 5 |
| Monitoring and Inspection | Reminder to conduct inspections and document if discharges do or do not occur during qualifying rain events. Examples included illustrating how to calculate sampling averages. | 5 |
| Annual Reports | All Regional Water Boards compile a list of sites that fail to submit an annual report. | 8 |
| Notice of Termination (NOT) | Review 70% coverage and a reminder to verify on SMARTS that the NOT has been certified and submitted. | 8 |

https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/training/cgp_review_issue.pdf


The second CGP Review was released in 2014 and included an enforcement case study, lessons from the 2013 CASQA QSD/QSP Forum, and protecting wildlife. Table 4 provides a brief summary of each topic.

## Table 4: CGP Review 2.0

| Regulators' Top Concerns | Summary | Page |
|---|---|---|
| Enforcement Case Study | Includes examples of inadequate BMP maintenance, inadequate BMP implementation, inadequate SWPPP development and implementation, missing documentation, and falsification of inspection reports. | 1 |
| Lessons from the QSD/QSP Forum | Most common SWPPP deficiencies, potential cause of elevated pH levels, and using COI to adjust the total disturbed area in SMARTS. | 7 |
| Protecting Wildlife | Wildlife-friendly erosion and sediment control used to reduce wildlife entanglement. | 8 |

https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/training/cgp_review_issue2.pdf


CGP Review 3.0 was released in 2016 and included insights for better stabilization. A summary of final stabilization methods was included, as was an overview of challenges for Rural Linear Underground/Overhead Projects (LUP). Table 5 lists a brief summary of each topic.

## Table 5: CGP Review 3.0

| Regulators' Top Concerns | Summary | Page |
|---|---|---|
| Final Stabilization Methods | Overview of 70% final cover approach, RUSLE/RUSLE 2, as well as the custom method. | 1 |
| Rural (LUP) Final Stabilization Challenges | Overview of challenges faced by LUP projects, such as access, fire danger, and habitat restoration. | 12 |
| Stockpiling for Proper Restoration | Proper soil stockpiling practices to maximize soil quality and infiltration. | 14 |

https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/training/cgp_review_issue3.pdf


CGP Review 4.0 was released in 2018 and included an overview of erosion and sediment control types, highlights from the 2017 CASQA QSD/QSP Forum, and best management practices to document for NOT. Table 6 lists a brief summary of each topic.

## Table 6: CGP Review 4.0

| Regulators' Top Concerns | Summary | Page |
|---|---|---|
| Erosion and Sediment Control Overview | Overview of commonly used sediment and erosion control methods, as well as their appropriate applications and limitations. | 4 |
| Highlights from the 2017 CASQA QSD/ QSP Forum | Communication with regional board staff is essential. Ensure that the appropriate erosion controls are installed before conditions become too saturated. Examples of good housekeeping and poor housekeeping practices are also included in this section. | 9 |
| NOT Photograph Best Management Practices | Recommendations for accurately documenting construction sites for NOT. | 11 |
| Sampling Guidelines | Sampling guidelines for pH and turbidity. | 14 |

https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/cgp_review_4.0.pdf

# Responsibilities as the Legally Responsible Person:

- Certify all Permit Registration Documents (PRDs) to obtain coverage under the Construction General Permit. Failure to obtain coverage carries a $5,000 Minimum Mandatory Penalty (MMP). Higher penalties can be pursued under an ACL for discharging without a permit.

- Opt to assign, in SMARTS, a Duly Authorized Representative to sign, certify, and electronically submit PRDs, COIs, NOTs, and any other documents, reports, or information required by the CGP.

- Delegation of Authority from the LRP to the Duly Approved Signatory, also labeled as the Duly Authorized Representative, is required to provide authorization with a wet signature and be sent to the Water Board and kept on file. If the LRP or AS changes, the authorization will need to be redone.

- Certify all Changes of Information (COIs) made to the plan. Failure to certify COIs carries a $10,000 penalty per day of violation. COIs for project revisions must be completed prior to the project completion date in the NOI passing.

- Certify all Annual Reports, due on September 1 of each year the project remains active. Failure to submit and certify the Annual Reports carries a penalty of up to $10,000 per day of violation.

- Certify sampling results uploaded to the project file in SMARTS.

- Certify the NOT, which should be filed once the project has met the conditions for termination or within 30 days of property transfer. Failure to certify the NOT will keep the project active and annual fees will continue to incur until termination in addition to being subject to the CGP permit requirements for the project, including inspections, monitoring, and BMP requirements.

**Failure to fulfill these responsibilities carries penalties of up to $10,000 per day per violation. All certifications are made under penalty of perjury.**


*For QSD and QSP Registration and Renewal*

***Authored by the Construction General Permit (CGP) Training Team***

***Contributors:*** *Office of Water Programs at California State University; Sacramento and State Water Resources Control Board Staff*