

**DRAFT ATTACHMENT E****RISK LEVEL 3 REQUIREMENTS****NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
GENERAL PERMIT FOR STORMWATER DISCHARGES  
ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBANCE  
ACTIVITIES****A. Effluent Standards**

1. Risk Level 3 dischargers shall comply with the narrative effluent limitations listed below:
  - a. Stormwater, dewatering, and authorized non-stormwater discharges regulated by this General Permit shall not contain a hazardous substance equal to or in excess of reportable quantities established in 40 Code of Federal Regulations §§ 117.3 and 302.4, unless a separate NPDES Permit has been issued to regulate those discharges.
  - b. Dischargers shall minimize or prevent pollutants in stormwater, dewatering, and authorized non-stormwater discharges through the use of controls, structures, and management practices that achieve Best Available Technology (BAT) for toxic and non-conventional pollutants and Best Control Technology (BCT) for conventional pollutants.
2. Risk Level 3 dischargers are subject to a pH numeric action level (NAL) of 6.5-8.5, and a turbidity numeric action level of 250 NTU.
3. Risk Level 3 dischargers are subject to the specified numeric effluent limitations in Table 4 when operating an active treatment system.
4. Risk Level 3 dischargers, that are Responsible Dischargers for a Total Maximum Daily Load (TMDL), are subject to applicable numeric action levels and numeric effluent limitations listed in Table H-2 of Attachment H of this General Permit.

**B. Good Site Management "Housekeeping"**

1. Risk Level 3 dischargers shall implement good site management (i.e., "housekeeping") measures for construction materials that could potentially be a threat to water quality if discharged. At a minimum to the extent feasible, Risk Level 3 dischargers shall implement the following good housekeeping measures:

- a. Identify the products used and/or expected to be used and the end products that are produced and/or expected to be produced. This does not include materials and equipment that are designed to be outdoors and exposed to environmental conditions (i.e. poles, equipment pads, cabinets, conductors, insulators, bricks, etc.);
  - b. Apply appropriate BMPs to erodible stockpiled construction materials (i.e. soil, spoils, aggregate, fly-ash, stucco, hydrated lime, etc.) to prevent erosion;
  - c. Store chemicals in watertight containers (with appropriate secondary containment to prevent any spillage or leakage) or in a storage shed (completely enclosed);
  - d. Minimize exposure of construction materials to precipitation. This does not include materials and equipment that are designed to be outdoors and exposed to environmental conditions (i.e. poles, equipment pads, cabinets, conductors, insulators, bricks, etc.);
  - e. Implement BMPs to prevent the off-site tracking of loose construction and landscape materials; and,
  - f. Prevent the discharge of plastic materials and limit the use of plastic materials when more sustainable, environmentally friendly alternatives exist. The discharger shall consider the use of plastic materials resistant to solar degradation where plastic materials are deemed necessary.
2. Risk Level 3 dischargers shall implement, to the extent feasible, good housekeeping measures for waste management, which, at a minimum to the extent feasible, shall consist of the following:
- a. Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;
  - b. Ensure the containment (e.g., secondary containment) of sanitation facilities (e.g., portable toilets) to prevent discharges of pollutants to the stormwater drainage system or receiving water;
  - c. Clean or replace sanitation facilities and inspect them regularly for leaks and spills;

- d. Trash must be placed in waste containers if it is subject to transport from the site by wind or runoff;
  - e. Cover waste disposal containers at the end of every business day and during precipitation events;
  - f. Prevent discharges (e.g., containers with solid bottoms and regular maintenance) from waste disposal containers to the stormwater drainage system or receiving water;
  - g. Contain and securely protect stockpiled waste material from wind and precipitation at all times unless actively being used;
  - h. Implement procedures that effectively address hazardous and non-hazardous spills;
  - i. Develop a spill response and implementation element of the SWPPP prior to commencement of construction activities, requiring:
    - i. Spill and leak response equipment and materials to be available on-site, cleaned up immediately, and disposed of properly; and
    - ii. Appropriate spill and leak response personnel are assigned and trained.
  - j. Ensure the containment (including covering the area at the end of every business day and during a precipitation event) of concrete washout areas and other washout areas that may contain additional pollutants so there is no discharge into the underlying soil and onto surrounding areas.
3. Risk Level 3 dischargers shall implement, to the extent feasible, good housekeeping for vehicle storage and maintenance, which, at a minimum to the extent feasible, shall consist of the following:
- a. Prevent fuel, grease, and oil from leaking into ground, storm drains, or surface waters.
  - b. Place all equipment or vehicles, which are to be fueled, maintained, and/or stored in a designated area fitted with appropriate BMPs.
  - c. Clean leaks immediately and dispose of leaked materials properly.

- d. Risk Level 3 dischargers shall implement good housekeeping for landscape materials, which, at a minimum, shall consist of the following:
  - e. Containment of stockpiled materials such as mulches and topsoil when they are not actively being used.
  - f. Containment of fertilizers and other landscape materials when they are not actively being used.
  - g. Discontinuation of the application of any erodible landscape material at least 2 days before a forecasted precipitation event<sup>1</sup> or during periods of precipitation.
  - h. Application of erodible landscape material at quantities and application rates in accordance with manufacturer recommendations or based on written specifications by knowledgeable and experienced field personnel.
  - i. Stacking of erodible landscape material on pallets and covering or storing such materials when not being used or applied.
4. Risk Level 3 dischargers shall have a Qualified SWPPP Developer conduct an assessment and create a list of potential pollutant sources and identify any areas of the site where additional BMPs are necessary to reduce or prevent pollutants in stormwater, dewatering and authorized non-stormwater discharges. This potential pollutant list shall be kept with the SWPPP and shall identify all non-visible pollutants which are known, or should be known, to occur on the site. Risk Level 3 dischargers shall do the following, at a minimum, when developing the Pollutant Source Assessment:
  - a. Consider potential sources of pollutants associated with applicable TMDLs listed in Attachment H and state whether or not sources of those pollutants are present on-site.
  - b. Consider the quantity, physical characteristics (e.g., liquid, powder, solid), and locations of each potential pollutant exposed, source handled, produced, stored, recycled, or disposed of on-site.

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<sup>1</sup> A forecasted precipitation event has a precipitation probability of 50 percent or greater.

- c. Consider the degree to which pollutants associated with those materials may be exposed to and mobilized by contact with stormwater.
  - d. Consider the direct and indirect pathways that pollutants may be exposed to stormwater or authorized non-stormwater discharges. This shall include an assessment of past spills or leaks, non-stormwater discharges, and discharges from adjoining areas.
  - e. Ensure retention of sampling and visual inspection records.
  - f. Ensure effectiveness of existing BMPs to reduce or prevent pollutants in stormwater, dewatering, and authorized non-stormwater discharges.
5. Risk Level 3 dischargers shall implement good housekeeping measures on the site to control the air deposition of site materials and from site operations, to the extent feasible. Such particulates can include, but are not limited to, bacteria, metals, nutrients, oil and grease, organics, sediment, and trash.
  6. Risk Level 3 dischargers shall document all housekeeping BMPs in the SWPPP in accordance with the nature and phase of the construction project. Construction phases at traditional land development projects include Demolition and Pre-development Site Preparation Phase, Grading and Land Development Phase, Streets and Utilities Phase, Vertical Construction, Final Landscaping and Site Stabilization Phase.

### **C. Non-Stormwater Management**

1. Dischargers shall implement the following measures to control all non-stormwater discharges during construction, to the extent feasible:
  - a. Wash vehicles in such a manner as to prevent non-stormwater discharges to surface waters or MS4 drainage systems;
  - b. Clean streets in such a manner as to prevent unauthorized non-stormwater discharges from reaching surface water or MS4 drainage systems; and,
  - c. Eliminate any non-stormwater discharges not authorized in Section II.E of this General Permit's Order.

## D. Preserve Existing Topsoil

1. Risk Level 3 dischargers shall implement the following practices to preserve existing topsoil, to the extent feasible:
  - a. Stockpile existing topsoil during construction and deploy when feasible to reestablish native vegetation prior to termination of coverage, and;
  - b. Stabilize disturbed topsoil during construction and as part of final stabilization Notice of Termination requirements.

## E. Erosion Control

1. Risk Level 3 dischargers shall implement the following practices to eliminate or minimize site erosion, to the extent feasible:
  - a. Implement effective wind erosion control;
  - b. Preserve existing vegetation, schedule earthwork to minimize the amount of disturbed area during periods of high rainfall potential when feasible;
  - c. Stabilize exposed soils disturbed by construction activities by designing, installing, and maintaining BMPs that minimize erosion. Temporary or permanent BMPs shall be applied within 14 days of completing earthwork in a specific area or prior to a precipitation event forecasted with greater than 50 percent probability whichever is sooner;
  - d. Erosion control BMPs must be available on-site with trained staff able to deploy the product under the direction of the Qualified SWPPP Practitioner;
  - e. Reestablish vegetation or non-vegetative erosion controls as soon as practicable;
  - f. Divert up gradient run-on water from contacting areas of exposed soils disturbed by construction activities or convey run-on through the site in a manner that prevents erosion from areas of construction and does not compromise the effectiveness of erosion, sediment, and perimeter controls;
  - g. Dischargers shall limit the use of plastic materials when more sustainable, environmentally friendly alternatives exist. Where plastic materials are deemed necessary, the discharger shall consider the use of plastic materials resistant to solar degradation;

- h. Control stormwater and non-stormwater discharges to minimize downstream channel and bank erosion; and,
- i. Control peak flowrates and total volume of stormwater and authorized non-stormwater discharges to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points.

## **F. Sediment Controls**

1. Risk Level 3 dischargers shall implement the following site sediment controls, to the extent feasible:
  - a. Establish and maintain effective perimeter controls;
  - b. Stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from the site;
  - c. Design, install, and maintain effective sediment controls to minimize the discharge of pollutants utilizing site-specific BMPs. Dischargers utilizing sediment ponds shall complete installation prior to other land disturbing activities, when feasible; and,
  - d. At a minimum, design sediment basins according to the method provided in CASQA's Construction BMP Handbook<sup>2</sup>.

## **G. Additional Risk Level 3 Requirements:**

1. Risk Level 3 dischargers shall implement appropriate erosion control BMPs (runoff control and soil stabilization) in conjunction with sediment control BMPs for areas under active<sup>3</sup> construction, to the extent feasible.
2. Risk Level 3 Dischargers shall implement the following:

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<sup>2</sup> California Stormwater Quality Association (CASQA), [Construction BMP Handbook](https://www.casqa.org/sites/default/files/casqa-handbook-construction/master_hanbook_file_2015_sec.pdf) (January 2015), <[https://www.casqa.org/sites/default/files/casqa-handbook-construction/master\\_hanbook\\_file\\_2015\\_sec.pdf](https://www.casqa.org/sites/default/files/casqa-handbook-construction/master_hanbook_file_2015_sec.pdf)> [as of October 19, 2020] (CASQA Construction BMP Handbook)

<sup>3</sup> Active areas of construction are areas undergoing land surface disturbance and associated site areas included in the SWPPP. This includes construction activity during the preliminary phase, mass grading phase, streets and utilities phase, and the vertical construction phase.

- a. Cut and fill slopes are designed and constructed in a manner to ensure slope stability and to minimize erosion including, but not limited to, these practices:
  - i. Reducing continuous slope length using terracing and diversions;
  - ii. Reducing slope steepness; and,
  - iii. Roughening slope surfaces with large cobble or track walking.
- b. Using linear sediment controls in conjunction with erosion control BMPs; and,
- c. Installing linear sediment controls along the toe of the slope, face of the slope, and at the grade breaks of exposed slopes and comply with the Table 1 sheet flow lengths until the slope has reached Notice of Termination conditions for erosion protection.

**Table 1 - Critical Slope and Sheet Flow Length Combinations for Linear Sediment Reduction Barriers**

Slope Ratio Horizontal: Vertical	Sheet flow length not to exceed
0 to 20:1	Per QSDs specification.
> 20:1 to ≤ 4:1	35 feet
> 4:1 to ≤ 3:1	20 feet
> 3:1 to ≤ 2:1	15 feet
> 2:1	10 feet

- 3. Construction activity traffic to and from the project is limited to entrances and exits that employ effective controls to prevent off-site tracking of sediment.
- 4. All storm drain inlets and perimeter controls, runoff control BMPs, and pollutant controls at entrances and exits (e.g. tire wash off locations) are maintained and protected from activities that reduce their effectiveness.
- 5. Additional site-specific sediment controls are implemented upon written request by the Regional Water Boards when the implementation of the other requirements in this Section are determined to inadequately protect the site’s receiving water(s).



6. Revised Universal Soil Loss Equation, Version 2, (RUSLE2) calculations for temporary BMP applications during construction. The calculations must be included in the SWPPP, include the steepest slope and soil types found on the specific site, and be used to determine site-specific BMPs resulting in a sediment loss from the disturbed construction area to be less than or equal to natural (native vegetation for the area) conditions. The discharger implementing an equally protective alternative to RUSLE2 shall include in the SWPPP a technical site-specific explanation developed by the QSD for the alternative method and the site-specific RUSLE2 calculations.
7. The Regional Water Board may require Risk Level 3 dischargers to implement additional site-specific sediment control requirements if the implementation of the other requirements in this section are not adequately protecting the receiving waters.

#### **H. Surface Water Buffer**

1. Provide and maintain natural buffers and/or equivalent erosion and sediment controls when a water of the U.S. is located within 50 feet of the site's earth disturbances.
2. The discharger must comply with one of the following alternatives for any discharges to waters of the U.S. located within 50 feet a site's earth disturbances:
  - a. Provide and maintain a 50-foot undisturbed natural buffer;
  - b. Provide and maintain an undisturbed natural buffer that is less than 50 feet and is supplemented by erosion and sediment controls that achieve, in combination, the sediment load reduction equivalent to a 50-foot undisturbed natural buffer; or
  - c. Implement erosion and sediment controls to achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer when infeasible to provide and maintain an undisturbed natural buffer of any size.

#### **I. Pesticide Application**

1. Risk Level 3 dischargers shall only apply pesticides that have been authorized for use through California Department of Pesticide Regulation. The application of pesticides must follow manufacturer's guidance.

2. Risk Level 3 dischargers are prohibited in exposing pesticide treated soil to a precipitation event. All areas treated with pesticide including but not limited to pre-construction termite application of pesticide must be covered with an impermeable barrier such as concrete or plastic sheeting within 24 hours of application or prior to a precipitation event whichever occurs first.

#### **J. Demolition of existing structure**

1. Risk Level 3 dischargers shall prevent exposing demolished materials to a precipitation event when feasible. Demolition materials should be covered with an impermeable barrier such as, but not limited to, plastic sheeting prior to a rain to prevent known contaminants from being mobilized. Dischargers unable to cover demolished material shall sample for any non-visible pollutants in stormwater discharges such as, but not limited to, asbestos, leaded paint, or PCBs when the demolished structure was built or renovated between January 1, 1950 and January 1, 1980.

#### **K. Inspection, Maintenance and Repair**

1. Risk Level 3 dischargers shall ensure that all inspection, maintenance, repair, and sampling activities at the site shall be performed or supervised by a Qualified SWPPP Practitioner (QSP) representing the discharger. The QSP may delegate inspection, sampling, maintenance, and repair activities to appropriately trained personnel, under their supervision.
2. Risk Level 3 dischargers shall perform weekly inspections, and at least one inspection during each 24-hour period during extended precipitation events, to identify and record BMPs that need maintenance to operate effectively, have failed, or could fail to operate as intended. Inspectors shall be the QSP or be trained by the QSP.
3. Risk Level 3 dischargers shall implement repairs or design changes (review options that have not been used yet) to BMPs within 72 hours of identification.
4. Risk Level 3 dischargers shall complete an inspection checklist using a form provided by the Water Board or in an alternative format for each required inspection.
5. Risk Level 3 dischargers shall ensure that checklists remain on-site with the SWPPP and at a minimum, shall include:
  - a. Inspection date and date the inspection report was written;

- b. Weather information, including presence or absence of precipitation, estimate of beginning of precipitation event, duration of event, time elapsed since last storm, and approximate amount of precipitation in inches;
- c. Site information, including construction phase, activities completed, and approximate area of the site exposed;
- d. A description of any BMPs evaluated and any noted deficiencies;
- e. If the site is safely accessible during inclement weather, list the inspections of all BMPs, erosion controls, sediment controls, chemical and waste controls, and non-stormwater controls. Otherwise, list the results of visual inspections at all relevant outfalls, discharge points, downstream locations and provide any projected maintenance activities;
- f. Report the presence of noticeable odors or of any visible sheen on the surface of any discharges;
- g. Any required corrective actions, including any necessary changes to the SWPPP and the associated implementation dates;
- h. Photographs of areas of concern prior to rain event and the QSP's description of the problem, if any; and,
- i. Inspector's name, title, and certification.

#### **L. Risk Level 3 Requirements for Pre-Precipitation Event Inspections**

1. The discharger shall ensure a QSP or QSD conduct a pre-precipitation event inspection within 48 hours prior to any likely precipitation event. A likely precipitation event is any weather pattern that is forecast to have a 50 percent or greater probability of producing precipitation in the project area. The discharger shall ensure a QSP obtain a printed copy of precipitation forecast information from the [National Weather Service Forecast Office](https://www.weather.gov/) (e.g., by entering the zip code of the project's location at <https://www.weather.gov/>).
2. The discharger shall ensure a QSP or QSD conduct the pre-precipitation event inspection for all phases of construction. This inspection must be done by a QSP or QSD and not delegated to other site staff.

3. The discharger shall ensure a QSP includes, at a minimum, the following site information in the pre-precipitation event inspection:
  - a. Site Address;
  - b. Calculated Risk Level 3;
  - c. Site stormwater manager information including the name, company, and 24-hour emergency telephone number;
  - d. Erosion and sediment control provider information including the name, company, and 24-hour emergency telephone number;
  - e. Stormwater sampling agent information including the name, company, and 24-hour emergency telephone number; and,
  - f. Photographs of areas of concern prior to the precipitation event and the QSP's description of any problems.
4. The QSP shall include in the pre-precipitation event inspection, at a minimum, the following project phase information:
  - a. Activities associated with each construction phase;
  - b. Trades active on the site during each construction phase;
  - c. Trade contractor information; and,
  - d. Suggested actions for each project phase.
5. The discharger shall ensure a QSP begin implementation and make the pre-precipitation event inspection form available on-site no later than 24 hours prior to the likely precipitation event.
6. The discharger shall ensure a QSP maintain a paper copy of each pre-precipitation event inspection form on-site in compliance with the record retention requirements of the Special Provisions Section IV of this General Permit's Order.

**M. Risk Level 3 Monitoring and Reporting Requirements**

**Table 2 - Summary of Monitoring Requirements**

<b>Risk Level</b>	<b>Weekly Visual Inspection</b>	<b>Pre-Precipitation Event Visual Inspection</b>	<b>Daily Extended Precipitation Event Visual Inspection</b>	<b>Post-Precipitation Event Visual Inspection</b>	<b>Stormwater Discharge Sample Collection</b>	<b>Receiving Water Sample Collection</b>	<b>Non-Visible Sample Collection (when applicable)</b>
<b>3</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>

1. Construction Site Monitoring Program Requirements

- a. Pursuant to Water Code Sections 13383 and 13267, all dischargers subject to this General Permit shall develop and implement a written site-specific Construction Site Monitoring Program (CSMP) in accordance with the requirements of this Section. The CSMP shall include all monitoring procedures and instructions, location maps, forms, and checklists as required in this Section. The CSMP shall be developed prior to the commencement of construction activities and revised as necessary to reflect project modifications. The CSMP shall be a part of the Stormwater Pollution Prevention Plan (SWPPP), included as an appendix or separate SWPPP chapter.
- b. the new discharger shall comply with these requirements as of the date the ownership change occurs for all or any portion of the site prior to completion or final stabilization.
- c. A Qualified SWPPP Practitioner is responsible for completing visual inspection and monitoring requirements.
- d. For all Risk Level 3 sites, sampling is required at all locations where stormwater associated with construction activity, dewatering, or authorized non-stormwater is discharged off-site or enters any on-site waters of the U.S. (e.g., a creek running through a site). All sampling locations shall be identified on the SWPPP site map(s). The discharger shall determine the feasibility of installing automated sampling equipment where sampling locations are unsafe or infeasible for personnel to sample during storm events. The site-specific SWPPP map(s) shall indicate locations of automatic sampling equipment when used.

2. The Construction Site Monitoring Program shall be developed and implemented to address the following objectives:
  - a. To demonstrate site compliance with the Discharge Prohibitions in this General Permit's Order Section III;
  - b. To demonstrate site compliance with applicable numeric action levels (NALs);
  - c. To determine whether non-visible pollutants are present at the site and are causing or contributing to exceedances of water quality objectives;
  - d. To determine whether immediate corrective actions, additional BMP implementation, or SWPPP revisions are necessary to reduce pollutants in stormwater discharges, dewatering discharges and authorized non-stormwater discharges;
  - e. To determine whether BMPs included in the SWPPP are effective in preventing or reducing pollutants in stormwater discharges and authorized non-stormwater discharges; and,
  - f. e. To determine compliance with water quality-based effluent limitations.
3. Risk Level 3 Visual Inspection Requirements
  - a. Risk Level 3 dischargers shall visually inspect all discharge locations for evidence of erosion, insufficient BMPs, or ineffective BMPs within two business days (48 hours) after each precipitation event.
  - b. Risk Level 3 dischargers shall visually inspect the discharge of stored or contained stormwater that is derived from and discharged subsequent to a precipitation event. Stored or contained stormwater that will likely discharge after operating hours due to anticipated precipitation shall be observed prior to the discharge during site operating hours.
  - c. Risk Level 3 dischargers shall conduct pre-precipitation inspections, weekly inspections, extended precipitation event inspections, and post precipitation event inspections to visually inspect each drainage area for the presence of (or indications of prior discharge) unauthorized and authorized non-stormwater discharges and their sources.

- d. Risk Level 3 dischargers shall ensure that visual inspections document the presence or evidence of any non-stormwater discharge (authorized or unauthorized), dewatering discharges, pollutant characteristics (floating and suspended material, sheen, discoloration, turbidity, odor, etc.), and source. Risk Level 3 dischargers shall maintain on-site records indicating the personnel performing the visual inspections, the dates and approximate time of the inspection, the non-stormwater discharge that was observed, the location of the discharge, the response taken to eliminate unauthorized non-stormwater discharges, and measures to reduce or prevent pollutants from contacting non-stormwater discharges.
- e. Risk Level 3 dischargers shall only conduct visual inspections during site operating hours.
- f. Risk Level 3 dischargers shall record the time and date of all precipitation events that produce discharge.
- g. Within 2 business days (48 hours) prior to each precipitation event, Risk Level 3 dischargers shall visually inspect:
  - i. All stormwater drainage areas to identify any leaks, spills, or uncontrolled pollutant sources. The discharger shall implement appropriate corrective actions when necessary to control pollutant sources.
  - ii. All BMPs to identify whether they have been properly implemented in accordance with the SWPPP. The discharger shall implement appropriate corrective actions when necessary to control pollutant sources.
  - iii. Any stormwater storage and containment areas to detect leaks and ensure maintenance of adequate freeboard.
- h. Risk Level 3 dischargers shall observe the presence or absence of floating and suspended materials, a sheen on the surface, discolorations, turbidity, odors, and source(s) of any observed pollutants during the visual inspections described in g.i and g.iii above.
- i. Risk Level 3 dischargers shall conduct post precipitation event visual inspections within two business days (48 hours) after each precipitation event resulting in discharge to: (1) identify if BMPs were adequately designed, implemented,

and effective, and (2) identify additional BMPs and revise the SWPPP accordingly.

- j. Risk Level 3 dischargers shall maintain on-site records of all visual inspections, personnel performing the inspections, inspection dates, weather conditions, locations inspected, and corrective actions in response to the inspections.

4. Risk Level 3 Water Quality Sampling and Analysis

**Table 3 - Risk Level 3 Effluent Monitoring Requirements**

Risk Type	Frequency	Effluent Monitoring
3	Minimum of 3 samples per day characterizing discharges associated with construction activity from the project construction areas.	Turbidity, pH, and applicable non-visible pollutant parameters

- a. The discharger shall collect stormwater grab samples from sampling locations characterizing discharges associated with activity from active construction areas.
- b. The discharger shall obtain a minimum of 3 samples per day of the precipitation event. The first sample must be taken within the first 2 hours of discharge during site operating hours. A minimum 2-hour interval is required between subsequent discharge samples during site operating hours.
- c. The discharger shall record the discharge end-time in the if discharge does not continue long enough to collect 3 samples.
- d. The discharger shall collect samples of stored or contained stormwater discharged subsequent to a precipitation event.
- e. The discharger shall ensure that stormwater grab sample(s) obtained be representative of the discharge flow and characteristics.
- f. Risk Level 3 dischargers shall analyze their effluent samples for:
  - i. pH and turbidity;
  - ii. Non-visible pollutant parameters (if applicable); and,



- iii. Any additional parameters for which monitoring is required by the Regional Water Board.
- g. Risk 3 dischargers shall electronically submit all effluent sampling results to the State Water Board no later than 10 days after the conclusion of the precipitation event or 10 days after receiving the analytical laboratory results.

#### 5. Risk Level 3 Stormwater Effluent Sampling Locations

- a. The discharger shall perform sampling and analysis of stormwater discharges to characterize discharges associated with construction activity from the entire disturbed project or area.
- b. The discharger may monitor and report run-on from surrounding areas if there is reason to believe run-on may contribute to exceedance of NALs.
- c. The dischargers shall select analytical test methods from the list provided in Table 4 below.
- d. The discharger shall ensure that all stormwater sample collection preservation and handling is conducted in accordance with Section M.7 Stormwater Sample Collection and Handling Instructions below.
- e. Risk Level 3 dischargers who deploy an active treatment system on their site, or a portion on their site, shall collect active treatment systems effluent samples and measurements from the discharge pipe or another location representative of the discharge.

#### 6. Risk Level 3 Visual Inspection and Sample Collection Exemptions

- a. Risk Level 3 dischargers shall be prepared to conduct visual inspections to meet the minimum visual inspection requirements of this Attachment. Risk Level 3 dischargers are not required to conduct visual inspections under the following conditions:
  - i. During dangerous weather conditions such as flooding or electrical storms;
  - ii. Outside of site operating hours (hours when construction activities are not occurring); or,
  - iii. When access to the site is unsafe.

- b. The discharger shall include an explanation for any missed sampling or visual inspections required by this Attachment in the SWPPP and the Annual Report.
7. Risk Level 3 Stormwater Sample Collection and Handling Instructions
    - a. The discharger shall ensure the following during stormwater sample collection and handling:
      - i. Identification of testing parameters and the number of stormwater discharge points that will be sampled.
      - ii. Request the laboratory to provide the appropriate number of sample containers, types of containers, sample container labels, blank chain of custody forms, and sample preservation instructions.
      - iii. Appropriate sample shipping method to the laboratory. The laboratory should receive samples within 48 hours of the physical sampling (unless otherwise required by the laboratory). The options are to either deliver the samples to the laboratory, arrange to have the laboratory pick them up, or ship them overnight to the laboratory.
      - iv. Only the sample containers provided/specified by the laboratory are used to collect and store samples. Use of any other type of containers could cause sample contamination.
      - v. Sample contamination is prevented by not touching or putting anything into the sample containers before collecting stormwater samples.
      - vi. Sample containers are not overfilled. Overfilling can change the analytical results.
      - vii. Each sample container cap is tightly secured without stripping the cap threads.
      - viii. Each sample container is labeled. The label shall identify the date and time of sample collection, the person taking the sample, and the sample collection location or discharge point. The label should also identify any sample containers that have been preserved.

- ix. Carefully pack sample containers into an ice chest or refrigerator to prevent breakage and maintain temperature during shipment; frozen ice packs or ice is placed into the shipping container to keep sample close to 4° C (39° F) until arriving at the laboratory (do not freeze samples).
- x. A complete Chain of Custody form is with each sample set. The Chain of Custody form shall include the discharger's name, address, phone number, identification of each sample container and sample collection point, person collecting the samples, the date and time each sample container was filled, and the analysis required for each sample container.
- xi. Both the signatures of the persons relinquishing and receiving the sample containers is obtained upon shipping and delivering the sample containers.
- xii. Personnel are designated and trained for the collection, maintenance, and shipment of samples in accordance with the above sample protocols and laboratory-specific practices.
- xiii. The Surface Water Ambient Monitoring Program's (SWAMP) Quality Assurance Program Plan (QAPrP) is referred to for more information on sampling collection and analysis.<sup>4</sup>

#### 8. Risk Level 3 Monitoring Methods

- a. Risk Level 3 dischargers shall include a description of the following items in the Construction Site Monitoring Program:
  - i. Visual inspection locations, procedures, and follow-up tracking procedures.
  - ii. Sampling locations, collection, and handling procedures shall include detailed procedures for sample collection, storage, preservation, and shipping to the testing lab to assure that consistent quality control and quality assurance is maintained.

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<sup>4</sup> Additional information regarding [SWAMP's QAPrP](https://www.waterboards.ca.gov/water_issues/programs/swamp/quality_assurance.html#qaprp) can be found at: [https://www.waterboards.ca.gov/water\\_issues/programs/swamp/quality\\_assurance.html#qaprp](https://www.waterboards.ca.gov/water_issues/programs/swamp/quality_assurance.html#qaprp) [as of October 19, 2020]

Dischargers shall use an example Chain of Custody form used for sample handling and shipping.

- iii. Identification of the analytical methods and related method detection limits (if applicable) for each parameter required in Section M.7 above.
- b. Risk Level 3 dischargers shall ensure all sampling and sample preservation are in accordance with 40 Code of Federal Regulations Part 136 and the current edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association)<sup>5</sup>. All monitoring instruments and equipment (including a discharger's own field instruments for measuring pH and turbidity) shall be calibrated and maintained in accordance with manufacturers' specifications using available U.S. EPA acceptable test methods to ensure accurate measurements.
- c. All analyses shall be conducted by a laboratory certified for such analyses by the State Water Board Environmental Laboratory Accreditation Program (ELAP), except field-analyzed turbidity and pH. Risk Level 3 dischargers shall conduct their own field analysis of pH and may conduct their own field analysis of turbidity if the discharger has sufficient capability (qualified and trained employees, properly calibrated and maintained field instruments, etc.) to adequately perform the field analysis.

#### 9. Risk Level 3 Analytical Methods

- a. Risk Level 3 dischargers shall refer to Table 4 for test methods, detection limits, and reporting units.
- b. Risk Level 3 dischargers shall perform pH analysis on-site with a calibrated pH meter using a U.S. EPA acceptable test method. Risk Level 3 dischargers shall record pH monitoring results on paper and retain these records in accordance with Section M.14, below.
- c. Risk Level 3 dischargers shall perform turbidity analysis using a calibrated turbidity meter (turbidimeter), either on-site through an ELAP-accredited laboratory. Acceptable test methods include Standard Method 2130 or U.S. EPA

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<sup>5</sup> Unless other test procedures have been specified in this General Permit or by the Water Board.

Method 180.1. The results will be recorded in the site log book in Nephelometric Turbidity Units (NTU).

#### 10. Risk Level 3 Non-Visible Pollutant Monitoring Requirements

- a. Risk Level 3 dischargers shall implement sampling and analysis requirements to monitor non-visible pollutants associated with: (1) construction activities, (2) activities producing pollutants that are not visually detectable in stormwater discharges, and (3) activities which could cause or contribute to an exceedance of water quality objectives in the receiving waters.
- b. The Regional Water Board may assign additional non-visible pollutant monitoring requirements upon obtaining site-specific information about the potential presence of non-visible pollutants in the site's stormwater, dewatering, or non-stormwater discharges.
- c. Risk Level 3 dischargers shall conduct sampling and analysis for non-visible pollutants when it is believed pollutants associated with construction activities have the potential to be discharged with stormwater runoff due to a: (1) failure to implement BMPs, and/or (2) BMP(s) breach, failure, leak, malfunction, or spill.
- d. Risk Level 3 dischargers are not required to sample if one of the conditions described in 10.c above (e.g., breach or spill) occurs and is immediately cleaned of material and pollutants and/or BMPs are implemented prior to the next precipitation or snowmelt event.
- e. Risk Level 3 dischargers shall use visual inspections as a monitoring trigger to collect samples down-gradient from all discharge locations visually inspected and safely accessible. Personnel collecting any stormwater samples shall be trained in water quality sampling procedures.
- f. Risk Level 3 dischargers shall ensure all sampling for non-visible pollutant parameters are analyzed for parameters indicating the presence of pollutants identified in the pollutant source assessment required in Section B.5 of this Attachment.
- g. Risk Level 3 dischargers shall collect samples during the first two hours of stormwater discharge that occur during site operating hours (hours when construction activities are occurring).

- h. Risk Level 3 dischargers shall ensure representative discharge samples are collected and analyzed in the field or through a laboratory as specified in 10.j below:
  - i. For all identified non-visible pollutant parameters; and/or
  - ii. For indicator parameters including, but not limited to dissolved oxygen, pH, salinity, specific conductance, and Total Dissolved Solids (TDS).
- i. Risk Level 3 dischargers may, or upon written direction by the Regional Water Board delegate(s), collect uncontaminated (collected at a location unaffected by construction activities) samples during the first two hours of stormwater discharge that occur during site operating hours (hours when construction activities are occurring). The discharger shall then compare the discharge samples to uncontaminated discharge samples using field analysis or through laboratory analysis. The discharger shall ensure that a sufficiently large sample of stormwater that has not come into contact with the disturbed soil, construction activities, or the materials stored or used on-site (uncontaminated sample) is collected for this comparison.
- j. Risk Level 3 dischargers shall ensure:
  - i. Compliance with Section M.7 and M.8 of this Attachment;
  - ii. Sampling results and records are kept in the SWPPP document in accordance with Section M.14 of this Attachment;
  - iii. Monitoring requirements in the Construction Site Monitoring Program are updated to address these additional parameters and associated updates are made to the SWPPP's pollutant source assessment; and,
  - iv. All field and/or analytical sampling results are certified and submitted through SMARTS<sup>6</sup> 30 days after obtaining the analytical laboratory report, or 10 days if the analytical laboratory report demonstrates the

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<sup>6</sup> [Stormwater Multiple Application and Report Tracking System](https://smarts.waterboards.ca.gov), <<https://smarts.waterboards.ca.gov>> [as of October 19, 2020] (SMARTS):

exceedance of an applicable numeric action level (NAL) or numeric effluent limitation (NEL).

#### 11. Risk Level 3 Watershed Monitoring Option

- a. Risk Level 3 dischargers who are part of a qualified regional watershed-based monitoring program may be eligible for relief from the requirements in Sections M.5. The Regional Water Board may approve proposals to substitute an acceptable watershed-based monitoring program by determining if the watershed-based monitoring program will provide substantially similar monitoring information in evaluating discharger compliance with the requirements of this General Permit.

#### 12. Risk Level 3 Receiving Water Monitoring Requirements

- a. Risk Level 3 dischargers with discharges directly to receiving waters, trigger receiving water monitoring when the effluent pH values: (1) fall outside of the range of 6.0 and 9.0 pH units, or (2) when the effluent turbidity exceeds 500 NTU.
- b. Receiving water monitoring triggers do not apply to run-on if caused by a forest fire or any other natural disaster.
- c. Receiving Water Monitoring Exceedances
  - i. The discharger shall subsequently sample the receiving waters body to which the discharge was made when the discharger's effluent exceeds the receiving water monitoring triggers described above;
  - ii. The discharger shall sample for turbidity and pH (if applicable) for the duration of coverage under this General Permit upon written request by the Regional Water Board delegate;
  - iii. These receiving water monitoring requirements are limited to the site's receiving water and only for the period of time the site-location is covered by this General Permit;
  - iv. The discharger shall subsequently sample the receiving waters for turbidity and pH (if applicable) for the duration of coverage under this General Permit upon written request by the Regional Water Board delegate if: (1) the active treatment system (ATS) effluent exceeds the ATS numeric effluent limitations

in this General Permit and (2) the ATS has a direct discharge to receiving waters; and,

- v. The discharger shall obtain receiving water samples in accordance with the requirements of the Receiving Water Sampling Locations Section of this Attachment.

d. Risk Level 3 Receiving Water Sampling Locations

- i. The discharger shall obtain any required upstream or up-gradient receiving water samples from an accessible and safe location that is:

1. Representative of the discharge to the receiving water;
2. As close as possible to the effluent discharge point; and,
3. Upstream from the effluent discharge point.

- ii. The discharger shall obtain any required downstream or down-gradient receiving water samples from an accessible and safe location that is:

1. Representative of the discharge to the receiving water;
2. As close as possible to the effluent discharge point; and,
3. Downstream from the effluent discharge point.

- iii. Risk Level 3 dischargers may sample the receiving water at a single upstream location and a single downstream location that encompasses all discharge locations when two or more discharge locations discharge to the same receiving water.

13. Risk Level 3 Particle Size Analysis for Project Risk Justification

- a. Risk Level 3 dischargers justifying an alternative project risk shall report a soil particle size analysis used to determine the RUSLE K-Factor. ASTM D-422 (Standard Test Method for Particle-Size Analysis of Soils), as revised, shall be used to determine the percentages of sand, very fine sand, silt, and



clay on the site. Project slope LS factor determination must be performed by a CBPELSG<sup>7</sup> licensed professional. Alternate Risk Level determination shall be certified and submitted through SMARTS and will be reviewed by Regional Water Board staff prior to approval.

#### 14. Risk Level 3 Records

- a. Risk Level 3 dischargers shall retain all stormwater monitoring information, records, and reports copies (including Annual Reports) for a period of at least three years. Risk Level 3 dischargers shall retain all records on-site while construction is ongoing. These records include:
  - i. The date, place, time of facility inspections, sampling, visual inspections, and/or measurements, including precipitation;
  - ii. The individual(s) who performed the facility inspections, sampling, visual inspections, and or measurements;
  - iii. The date and approximate time of analyses;
  - iv. The individual(s) who performed the analyses;
  - v. A summary of all analytical results from the last three years, the method detection limits and reporting units, the analytical techniques or methods used, and all chain of custody forms;
  - vi. Quality assurance and quality control records and results;
  - vii. Non-stormwater discharge inspections, visual inspections and stormwater discharge visual inspection records (see Sections M.3 and M.10 above);
  - viii. Visual inspection and sample collection exemption records; and,
  - ix. Any corrective actions and follow-up activities that resulted from analytical results or visual inspections.

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<sup>7</sup> California Board of Professional Engineers, Land Surveyors, and Geologists

15. Risk Level 3 Numeric Action Level (NAL) Exceedances and Reporting<sup>8</sup>

- a. Risk Level 3 dischargers shall electronically certify and submit all field sampling results exceeding the pH and/or turbidity NALs through SMARTS no later than 10 days after the conclusion of the precipitation event.
- b. Risk Level 3 dischargers shall electronically certify and submit all sampling results exceeding TMDL-related NALs through SMARTS no later than 10 days after receiving the analytical laboratory results.
- c. Risk Level 3 dischargers shall prepare an NAL Exceedance Report upon written request from a Regional Water Board delegate. The Risk Level 3 discharger shall certify and submit each NAL Exceedance Report through SMARTS within 30 days of receiving the written request, in accordance with the Special Provisions of this General Permit's Order Section IV.
- d. Risk Level 3 dischargers shall certify each NAL Exceedance Report in accordance with the Special Provisions for Construction Activity in this General Permit's Order.
- e. Risk Level 3 dischargers shall retain an electronic or paper copy of each NAL Exceedance Report for a minimum of three years after the date the exceedance report is certified and submitted.
- f. Risk Level 3 dischargers shall include in the NAL Exceedance Report:
  - i. The analytical method(s), method reporting unit(s), and method detection limit(s) of each analytical parameter (analytical results that are less than the method detection limit shall be reported as "less than the method detection limit");
  - ii. The date, place, time of sampling, visual inspections, and/or measurements, including precipitation; and,

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<sup>8</sup> Terms including, but not limited to, numeric action level and exceedances are defined in Appendix 2 of this General Permit.

- iii. A description of the current BMPs associated with the effluent sample that exceeded the NAL, the proposed corrective actions taken, and date of implementation.

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**Table 4 - Risk Level 3 Test Methods, Detection Limits, Reporting Units for Applicable NALs and NELs**

Parameter	Test Method / Protocol	Discharge Type	Method Detection Limit	Reporting Units	Numeric Action Level (NAL)	Numeric Effluent Limitation (NEL)	Receiving Water Monitoring Trigger
pH	Field test with calibrated portable instrument using approved EPA procedures	Risk Level 3 Discharges	0.2	pH units	lower NAL = 6.5 upper NAL = 8.5	N/A	lower limit = 6.0 upper limit = 9.0
pH	Field test with calibrated portable instrument	For ATS Discharges (if applicable)	0.2	pH units	N/A	lower limit = 6.0 upper limit = 9.0	lower limit = 6.0 upper limit = 9.0
Turbidity	EPA 0180.1 and/or field test with calibrated portable instrument	Risk Level 3 Discharges other than ATS	1	NTU	250 NTU	N/A	500 NTU
Turbidity	EPA 0180.1 and/or field test with calibrated portable instrument	For ATS Discharges	1	NTU	N/A	10 NTU for Daily Weighted Average & 20 NTU for Any Single Sample	10 NTU for Daily Weighted Average & 20 NTU for Any Single Sample