

**ATTACHMENT A
CALIFORNIA WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

PROPOSED ORDER NO. R3-2019-0089

September 20, 2019

**GENERAL WAIVER
FOR
SPECIFIC TYPES OF DISCHARGES**

The Central Coast Water Board's Executive Officer may enroll a discharger in this General Waiver if the following conditions are met:

- 1) The discharge complies with the general conditions as stated in the General Waiver
- 2) The discharge fits the specified type of discharge and complies with the specific conditions for the applicable discharge type as defined in Sections B, C, and D of this document.

Section A discharge types do not require enrollment by the Executive Officer if the discharge complies with both the general conditions specified in the General Waiver and the specific conditions for Section A discharge types.

A summary of the specific types of discharges addressed in this General Waiver and the associated required elements is found in the summary table below.

General Waiver for Specific Types of Discharges

Attachment A

ATTACHMENT A SUMMARY TABLE		
Discharge Category	Report of Waste Discharge¹	Fee²
Section A		
Fire Sprinkler Water	Waived	Waived
Inert Wastes		
Residential Swimming Pool Water		
Water Supply Discharges from Pipelines, Storage Tanks, Pump Tests, and Well Development		
Water Supply Well Drilling Muds		
Residential Water Supply Filter Backwash		
Section B		
In-situ Groundwater Remediation	Report of Waste Discharge required if the project does not have an Executive Officer ³ approved cleanup workplan.	Waived ⁴
Section C		
Trenchless Construction Drilling Muds	Report of Waste Discharge required if the project does not have an Executive Officer approved cleanup workplan.	Required
Highway Grinding Slurry		
Highway Grooving Residues		
Sediment Removal from Waters of the State		
Treated Groundwater		
Monitoring Well Development and Aquifer and Well Pumping Test Water		
Section D		
Discharges not specified in sections A, B, or C enrollment contingent upon Central Coast Water Board consideration and approval at a regularly scheduled Central Coast Water Board hearing.	Required	Required

¹ An application/report of waste discharge general information form for waste discharge requirements (Form 200) can be found at the Central Coast Water Board web site at http://www.waterboards.ca.gov/centralcoast/publications_forms/forms/docs/form_200.pdf .

² Discharger must submit a report of waste discharge to the Central Coast Water Board and a one-time fee equal to the minimum annual fee identified in CCR, title 23, division 3, chapter 9, article 1, section 2200.6 (Fee Schedule). The fee schedule can be found at the Central Coast Water Board web site at <https://www.waterboards.ca.gov/resources/fees/>

³ References to the “Executive Officer” in this Attachment means the Executive Officer or an authorized delegate of the Executive Officer.

⁴ Enrollment under Section B does not require a fee payment. However, in most cases, oversight costs are reimbursed through the site cleanup program cost recovery program.

SECTION A**WAIVER OF REPORT OF WASTE DISCHARGE AND WASTE DISCHARGE REQUIREMENTS FOR SPECIFIC TYPES OF DISCHARGES**

Section A includes a list of discharges for which General Waiver No. R3-2019-0089 waives the requirement to submit a report of waste discharge and the requirement to obtain waste discharge requirements. Discharges are automatically enrolled if the discharge complies with the general conditions specified in the General Waiver and the conditions listed below. The discharger is not required to submit a report of waste discharge (i.e., application), pay a fee, or receive a notice of applicability or other notification from the Central Coast Water Board [Waiver of California Water Code sections 13260(a), 13260(b), 13263(a), and 13264(a)].

1. Fire Sprinkler Water

Fire sprinklers in buildings are periodically pressure tested and drained to meet fire code requirements. Testing requires a short-duration pressurized discharge. The lines are drained approximately quarterly for maintenance. Typically, the pipe contents of whole buildings are drained, usually from 4-inch, 2-inch, and 1-inch pipes. The discharge may contain an oily sheen and is often stagnant. Sometimes direct connection to a sanitary sewer is possible and is the preferred method of disposal. However, in some areas, where plumbing code restrictions do not allow such discharges, or where no sanitary sewer system exists, fire sprinkler water may be discharged to land. The discharger must comply with the general conditions found in the General Waiver and must implement appropriate management practices to dissipate energy and prevent erosion.

2. Inert Wastes

California Code of Regulations, title 27, section 20230(a) defines inert waste as “that subset of solid waste that does not contain hazardous waste or soluble pollutants at concentrations in excess of applicable water quality objectives and does not contain significant quantities of decomposable waste.” For water quality purposes, a waste must be chemically and physically inert to be considered an inert waste. However, even the most inert of wastes can cause substantial water quality problems if disposed of improperly (e.g., solid concrete dumped directly into a creek could lead to flow diversions and stream bank erosion). Conditions for inert wastes disposal include:

- a. The discharger must implement appropriate management practices to secure the disposal site and prevent unauthorized disposal by the public.
- b. Inert waste must be disposed of in a manner that reasonably maintains its chemical and physical stability.

3. Residential Swimming Pool Water

Residential swimming pools are occasionally drained for maintenance. In the Central Coast, private swimming pools are not frequently drained due to the high cost of water and low chance that weather conditions would cause pool water to freeze. Possible water quality issues associated with swimming pool discharges include erosion potential, high bromine or chlorine concentrations, and high or low pH. Conditions for swimming pool water disposal include:

- a. The discharger must implement appropriate management practices to dissipate energy and prevent erosion.
- b. The discharge must not have chlorine, bromine, or total dissolved solids concentrations that could impact groundwater quality.
- c. The discharge pH must not be depressed below 6.5 nor raised above 8.3.

4. Water Supply Discharges from Pipelines, Storage Tanks, Pump Tests, and Well Development

Water supply discharges covered in this section include water discharges from supply pipelines and tanks, supply well pump testing, and supply well development that do not contain known or suspected pollutants⁵. These discharges often have high flow rates; large production wells pump in the range of 1,000 gallons per minute. Erosion may result if best management practices are not implemented. Discharges from water supply pipelines and tanks may be chlorinated as a result of disinfection. Aquifer and well pumping tests are used to determine the hydraulic characteristics (the ability to yield water) of an aquifer or well. Well development repairs damage to the well screen interval caused by drilling and increases the porosity and permeability of the materials surrounding the well's intake zone. Well development clears fine-grained soils from the well and the formation surrounding the well's intake zone. The fine-grained soils could migrate to surface waters and cause siltation. If the aquifer being pumped has water of lesser quality than the receiving groundwater, then either activity could potentially degrade receiving water quality. However, since these discharges are temporary in nature and involve a finite discharge volume, they may be considered low threat. Conditions for water supply discharges include:

- a. The discharger must implement appropriate management practices to dissipate energy and prevent erosion.
- b. The discharger must implement appropriate management practices to preclude discharge to surface waters or conveyances thereto that are subject to federal Clean Water Act requirements for NPDES permits. The discharger must

⁵ Discharges from well development and well pumping tests that have known or suspected pollutants can be considered for enrollment under the Monitoring Well Development and Aquifer and Well Pumping Test discharge category found in Section C.

immediately notify the Central Coast Water Board of any discharge to any such surface waters or surface water drainage courses.

- c. The discharge must not have chlorine or bromine concentrations that could impact groundwater quality.

5. Water Supply Well Drilling Muds

This section applies to drilling muds from water supply well drilling and specifically excludes muds from monitoring wells at cleanup sites and oil wells. Drilling muds consist of a clay slurry. Clay and water are added to the borehole to provide lubrication in the drilling process and to aid in the removal of material from the bore. The mud used typically does not contain appreciable levels of hazardous materials or soluble waste constituents. Typically, water supply well drilling activities occur in remote areas having less of a potential to affect water quality. The threat to water quality of such materials depends primarily on the additives used. Additives are selected based on soil conditions. Typically, bentonite is used in coarse soils (sands and gravels), polymers are used in fine soils (clays and shales), and surfactants are used in sticky clays. Often, two or more additives are used in combination. With bentonite providing a filter cake and polymer providing inhibition, the mud usually achieves the properties required to drill successfully in most soil formations. If the slurry material to be spread is free of appreciable additives (additive quantities in conformance with industry standards), the used slurry may be spread on pastures or fields, provided that contact with surface water is avoided and runoff is prevented. Conditions for water supply well drilling mud disposal include:

- a. The discharge must be spread over an undisturbed, vegetated area capable of absorbing the top-hole water and filtering solids in the discharge and spread in a manner that prevents a direct discharge to surface waters or conveyances thereto that are subject to federal Clean Water Act requirements for NPDES permits.
- b. The discharge pH must not be depressed below 6.5 nor raised above 8.3.
- c. The discharge must not contain oil or grease.

6. Residential Water Supply Filter Backwash

Homeowners sometimes install treatment systems to remove oxidizing soluble metals, such as iron, manganese, and/or arsenic from the water entering their homes. The soluble metals are filtered to form a particulate, which is then captured by the filter. The filter requires periodic backwashing to remove the accumulated particulates. The backwash water is commonly discharged to land, where the liquid component of the backwash water evaporates or percolates to groundwater while the solid component of the backwash water remains in the soil where the disposal occurred. If the disposal area soil conditions do not present a reducing environment, the solid component of the backwash water will accumulate in the soil and need periodic removal so as to maintain the soil's percolative capacity and prevent

accumulation of metals in soil. If the disposal area soil conditions present a reducing environment, the solid component of the backwash water will go into solution and percolate to the receiving groundwater. If the receiving groundwater is of better quality than the supply water aquifer, then percolating soluble (i.e., mobile) iron, manganese, and/or arsenic could potentially degrade receiving groundwater water quality. Conditions for water supply filter backwash disposal include:

- a. The discharge must not degrade groundwater quality.
- b. The discharge must not cause solids accumulation in soils to reach hazardous waste concentrations.

SECTION B**WAIVER OF WASTE DISCHARGE REQUIREMENTS FOR IN-SITU GROUNDWATER REMEDIATION**

Section B includes a list of discharges for which this General Waiver waives the requirement to submit a report of waste discharge and the requirement to obtain waste discharge requirements provided an approved cleanup plan has been approved by the Executive Officer for the proposed discharge [Waiver of California Water Code section 13260(a), 13260 (b), 13263(a), and 13264(a)]. Enrollment of discharges described in Section B does not require a fee payment because in most cases, Central Coast Water Board oversight costs will be reimbursed through the site cleanup cost recovery program. A discharger may enroll in this General Waiver if the discharge complies with the specific conditions identified in this section as well as the general conditions specified in this General Waiver.

Wastes, including pollutants such as volatile organic compounds (VOCs), perchlorate, nitrogen compounds (i.e., nitrate, ammonia, etc.), select pesticides, semi-volatile compounds (SVOCs), metals and sulfate, and petroleum hydrocarbon compounds, have impaired soil and groundwater at various cleanup sites throughout the Central Coast region and cause or threaten to cause adverse impacts to existing and potential beneficial uses of the region's groundwater resources. Subsurface remediation at these cleanup sites generally includes the use of in-situ biological, chemical, and/or physical treatment processes to degrade pollutants or change them to less toxic or less mobile forms. In-situ remediation processes utilized within the central coast region include, but are not limited to, the use and application of chemical oxidants, chemical reductants, carbon sources, nutrients, bacteria, metals precipitation/stabilization compounds, co-amendments (i.e., buffering and pH adjustment compounds, enzymes, etc.), and anti-scaling agents.

The application of such materials or amendments can be deployed via injection to soil or groundwater in-situ, or via groundwater recirculation (extraction and treatment with return of amended groundwater to the same treatment zone within the same groundwater formation). The implementation of in-situ cleanup may require a small-scale pilot testing program or demonstration study prior to the design and implementation of a full-scale remediation project. Discharges from a pilot test or demonstration study are also required to enroll in this General Waiver prior to implementing the pilot test or demonstration study.

State Water Board Resolution No. 92-49, *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304* (Resolution No. 92-49) requires the Central Coast Water Board to require actions for cleanup and abatement of discharges that cause or threaten to cause pollution or nuisance to conform to the provisions of Resolution No. 68-16 and the Basin Plan. Pursuant to Resolution No. 92-49, the Central Coast Water Board must ensure that dischargers are required to clean up and abate the effects of discharges in a manner that promotes attainment of either background water quality, or if background levels of water quality

cannot be restored, the best water quality that is technologically and economically reasonable and complies with the Basin Plan, including applicable water quality objectives.

Resolution No. 68-16 requires the Central Coast Water Board, in regulating waste discharges, to maintain high-quality waters of the State until it is demonstrated that any change in quality will be consistent with the maximum benefit to the people of the State, will not unreasonably affect present and potential beneficial uses, and will not result in water quality less than that described in plans and policies (e.g., quality that exceeds water quality objectives). Discharges of waste are required to meet requirements that result in best practicable treatment or control of the discharge. The application of material amendments into the subsurface may cause temporary degradation of groundwater within the defined treatment zone at cleanup sites subject to this General Waiver. The temporary degradation allowed by this waiver is consistent with Resolution No. 68-16 if (1) the purpose is to accelerate and enhance remediation of groundwater pollution and such remediation will benefit the people of the State; (2) the discharge facilitates a project to evaluate the effectiveness of cleanup technology in accord with Resolution No. 92-49; (3) the degradation is limited in scope and duration; (4) best practicable treatment and control, including adequate monitoring and hydraulic control to assure protection of water quality, are required; (5) the discharge will not cause water quality objectives to be exceeded beyond the treatment zone; (6) it is expected that increases in concentrations above water quality objectives caused by the treatment will be reduced over time; and (7) groundwater quality will be monitored before the application of any material amendments to the subsurface, during treatment, and after treatment is completed to affirm no long-term adverse impact to water quality.

Section B addresses water quality as it relates to the material amendments being injected, the byproducts and degradants produced by the reactions of the injectants, and wastes being treated. Site-specific cleanup criteria for groundwater are established in an appropriate enforcement document such as a record of decision, cleanup and abatement order, or remedial action plan and not described further in this General Waiver.

1. List of Authorized Injection Material Amendments

The materials approved under this General Waiver do not represent any endorsement of products or materials by the Central Coast Water Board. Users of these product and materials must comply with any regulations and laws applicable to the use of the products and materials.

The list of authorized material amendments is not intended to limit the selection of injectants (remedial compounds) available to the discharger. The discharger is required to provide the chemical composition of all proposed proprietary or non-proprietary injected materials, including all chemical compounds contained in injected materials. The injection of chemical additives for the purpose of well rehabilitation will be considered on a case-by-case basis and is contingent upon approval of the cleanup workplan by the Executive Officer.

- a. Oxidation/Aerobic Degradation Enhancement Compounds:
Oxidation/aerobic degradation enhancement compounds (i.e., amendments that provide oxygen or otherwise gain electrons) include, but are not limited to, air, oxygen, ozone, oxygen releasing compounds, hydrogen peroxide, Fenton's reagent (hydrogen peroxide, ferrous iron catalyst, and pH buffer), potassium and sodium permanganate, sodium percarbonate, sodium persulfate, and magnesium peroxide.
- b. Reducing/Reductive Degradation Enhancement Compounds:
Reducing/reductive degradation enhancement compounds (i.e. amendments that provide electrons) include, but are not limited to, zero-valent metals (such as iron or zinc), polysulfide, hydrogen releasing compounds, and polyacetate ester.
- c. Carbon Sources/Electron Donors and Acceptors:
Carbon sources/electron donors and acceptors include, but are not limited to, (1) easily degradable carbon sources such as glucose, acetate, citric acid, acetic acid, ethanol, methanol, propane, molasses and (2) slowly degradable carbon sources such as edible oils, poly-lactate, and other hydrogen releasing compounds.
- d. Nutrients/Enhancements
Nutrients/enhancements include, but are not limited to, nitrogen compounds, phosphate, potassium, Vitamin B, and bacteria (microorganisms) for bioaugmentation purposes.
- e. Metals Precipitation/Stabilization
Metals precipitation/stabilization compounds include, but are not limited to, calcium phosphate, calcium polysulfide, ferrous sulfate, and sodium tripolyphosphate.
- f. Co-amendments
Co-amendments include, but are not limited to, buffering and pH adjustment compounds, microbes, enzymes, anti-scaling amendments, and nutrients.
- g. Study Tracer Compounds:
The tracer compounds must highly contrast and should be non-reactive with the formation, formation water, waste constituents, and/or materials injected. The tracers may be dyes, deionized water, chloride, potassium, iodide, and bromide-based salts.

2. Cleanup Workplan Requirements

A discharger may seek coverage under this General Waiver for existing and future discharges of material amendments to the subsurface for the purpose of the cleanup of degraded sites. Dischargers will use the injection methods at cleanup sites that are regulated by the Central Coast Water Board. To be covered under this General Waiver, the discharger must have a cleanup workplan approved by the Executive

Officer and comply with site-specific monitoring and reporting required by the Central Coast Water Board. Enrollment in this General Waiver will subject the discharger to a public notification as part of the approval of the cleanup workplan.

The cleanup workplan must include the following information (unless the Central Coast Water Board agrees it is not applicable for a specific case).

- a. Characterization and extent of pollutants of concern.
- b. Site-specific geology (lithology and physical parameters), calculated groundwater flow velocity and direction, and complete definition of all preferential pathways and buried utilities.
- c. Figure showing the following:
 - a. water supply wells within one mile of the site, along with any available information regarding construction, use, and pumping rates.
 - b. potential receptors such as sensitive wildlife habitat, surface water or conveyance thereto, or other features that may be impaired by groundwater remediation activities.
- d. Baseline data or a plan for collecting baseline (i.e., current site conditions) data. Baseline water quality data may include total dissolved solids, chlorides, dissolved oxygen, nitrogen (NH_4 , NO_3 , NO_2), iron, sulfate, dissolved carbon dioxide, methane, oxygen reduction potential, chemical oxygen demand, electrical conductivity, pH, temperature, alkalinity, total organic carbon, metals (including iron, arsenic, manganese, total chromium, and hexavalent chromium), and any additional groundwater, soil, or soil gas data that the Central Coast Water Board may require.
- e. Description of the treatment systems and injectants to be used for remediation and/or for anti-scaling, biofouling control, and well rehabilitation.
- f. Results of any available demonstration study or Central Coast Water Board-approved pilot-scale test performed for the proposed treatment technology. If the data provided is from a different project location, the provided information needs to support that the tested site is substantially similar to the proposed project site in regard to soil and hydrogeologic properties.
- g. Description and plan view map or cross-section of the treatment area of application and any schematics/engineering designs of treatment systems.
- h. Description of the application area including application rates, materials to be used, injection pressures, injection volume, applied concentrations, designed infiltration rate, and/or radius of influence.

- i. Safety data sheet information and other product information for any materials to be added to the subsurface.
- j. Description of potential impurities of applied material and the breakdown reactants and products.
- k. Information regarding any potential adverse impacts to groundwater quality (e.g., development and mobilization of metals due to reduction/oxidation changes) and whether the impacts will be localized and short-term.
- l. A proposed performance monitoring program to evaluate the effectiveness of the treatment and to monitor any potential degradation byproducts caused by the treatment. Identification of monitoring wells to be used or to be installed to determine water quality upgradient (background monitoring wells), within the application area (performance monitoring wells), and downgradient of the application area (compliance monitoring wells). The performance monitoring program must include monitoring for any potential pollutants of concern (e.g., mobilization of metals; formation of ketones; aldehydes; biofouling of the well/formation; generation of volatiles that causes vapor intrusion concerns; etc.). Chemical, bacteriological, and bioassay analyses must be conducted at an (Environmental Laboratory Accreditation Program (ELAP) accredited laboratory certified for such analyses.
- m. Contingency and emergency plans for an unanticipated release or surface overflow of the injected material and possible byproducts. The contingency and emergency plans must detail appropriate actions to be taken in General Waiver to protect human health and the environment. The plans must be maintained on the site.

3. Discharge Conditions

In addition to the general conditions the discharger must comply with the conditions listed below for any proposed in-situ remediation.

- a. The discharger must submit the cleanup workplan and receive written approval from the Executive Officer prior to injection of the material.
- b. A discharge to land that is not under the control of the discharger is prohibited, unless the discharger obtains written consent from the landowner.
- c. A discharge other than the materials identified and concurred with in the cleanup workplan is prohibited.
- d. The discharge of approved material amendments in geologically unstable areas or that which will cause earth movement is prohibited.
- e. Outside the treatment zone, the waste discharged must not cause:

- 1) The pH of the receiving groundwater to be depressed below 6.5 nor raised above 8.3.
 - 2) Groundwater to contain residual taste- or odor-producing substances that cause nuisance or adversely affect beneficial uses.
 - 3) Groundwater to contain concentrations of chemical substances or their by-products in amounts that adversely affect any designated beneficial use.
 - 4) Groundwater to exhibit concentrations in excess of the concentrations⁶ set forth in the following provisions of title 22, California Code of Regulations: Table 64431-A (Inorganic Chemicals) of section 64431, Table 64444-A (Organic Chemicals) of Section 64444, and Table 64449-A (Secondary Maximum Contaminant Levels-Consumer Acceptance Limits) of section 64449, and creation of pollution, contamination, or nuisance, as defined by Section 13050 of the California Water Code. The Basin Plan's incorporation of these provisions by reference is prospective and includes future changes to the incorporated provisions as the changes take effect.
 - 5) Groundwater to exceed the water quality objectives for selected basin/sub-areas prescribed in the Basin Plan, except where natural background conditions exceed water quality objectives. Where sufficient background groundwater quality data is present, the Central Coast Water Board Executive Officer may issue project-specific requirements.
- f. The rate and volume of materials injected must not cause undesirable migration of materials or pollutants. Nor must the materials or by-products produced be discharged to surface waters or conveyances thereto that are subject to federal Clean Water Act requirements for NPDES permits.
 - g. The discharge of materials that create fugitive emissions in excess of federal, state, and/or local air quality standards is prohibited. The discharge of materials that create fugitive air emissions producing indoor air vapor intrusions threatening human health or the environment is prohibited.
 - h. The Central Coast Water Board will notify any potentially affected water management agency prior to enrollment under this General Waiver. The discharger must provide local water management agency contact information to the Central Coast Water Board.
 - i. The discharger must submit a written request (i.e., workplan addendum or field modification report) to the Executive Officer if changes to the approved workplan are proposed. The discharger must receive approval from the Executive Officer prior to implementing the requested change.

⁶ Exceedances are permitted in cases where natural background concentrations of a particular constituent exceed concentrations set forth in title 22, California Code of Regulations.

j. In the event the discharger is unable to comply with any of the conditions of this General Waiver due to:

- 1) breakdown of any facility or control system or monitoring equipment installed by the discharger to achieve compliance with the General Waiver;
- 2) migration or application of materials, pollutants, or byproducts outside the specified treatment area;
- 3) accidents caused by human error or negligence; or
- 4) other causes such as acts of nature,

the discharger must notify the Central Coast Water Board by telephone within 24 hours after the discharger's representatives have knowledge of the incident and confirm this notification in writing within two weeks of the telephone notification. The written notification must include pertinent information explaining reasons for the noncompliance and must indicate the steps taken to correct the problem and the dates thereof, and the steps being taken to prevent the problem from recurring. The discharger must also provide photo documentation and a summary of corrective actions taken, if applicable. The reporting of migration or application of materials, pollutants, or byproducts outside the specified treatment area must include an assessment of, and schedule for, implementation of the contingency plans.

SECTION C**WAIVER OF WASTE DISCHARGE REQUIREMENTS FOR LISTED SPECIFIC TYPES OF DISCHARGES**

Section C lists discharges for which Order No. R3-2019-0089 grants a waiver of the requirement to obtain waste discharge requirements, but not a waiver of the requirement to submit a report of waste discharge (i.e., permit application, cleanup workplan, notice of intent, or form 200).

To be enrolled in this General Waiver, the discharger must submit a report of waste discharge to the Central Coast Water Board and a one-time fee equal to the minimum annual fee identified in the fee schedule [waiver of California Water Code section 13263(a)]. The discharger may not discharge under this General Waiver until the discharger has received notification in writing from the Executive Officer.

1. Trenchless Construction Drilling Muds

This discharge type applies to drilling muds from horizontal directional drilling, tunneling, microtunneling, and other trenchless construction methods that use drilling muds for the installation of pipelines and cables below ground and specifically excludes muds from monitoring wells at cleanup sites and oil wells⁷. Drilling muds consist of a clay slurry. Clay and water are added to the borehole to provide lubrication in the drilling process and to aid in the removal of material from the bore. The mud used in trenchless pipeline and directional, onshore drilling projects for cable placement is typically composed of water and fine clay (usually bentonite) and typically does not contain appreciable levels of hazardous materials or soluble waste constituents. Typically, microtunneling and directional drilling activities occur in areas that have a greater potential to affect water quality. The threat to water quality of such materials depends primarily on the additives used. Additives are selected based on soil conditions. Typically, bentonite is used in coarse soils (sands and gravels), polymers are used in fine soils (clay and shale), and surfactants are used in sticky clays. Most often, however, two or more additives are used in combination. With bentonite providing a filter cake and polymer providing inhibition, the mud usually achieves the properties required to drill successfully in most soil formations. If the slurry material to be spread is free of appreciable additives (additive quantities in conformance with industry standards), the used slurry may be spread on pastures or fields, provided that contact with surface water is avoided and runoff is prevented. Conditions for trenchless construction drilling mud disposal include:

⁷ Drilling muds from cleanup sites and oil sites are excluded because they may have pollutants that come into contact with the drilling muds, and as such, may have a greater potential impact on water quality. Discharges of drilling muds that have not come into contact with pollutants may be considered for enrollment under the discharge category Water Supply Well Drilling Muds found in Section A.

- a. To the extent possible, cuttings must be separated prior to discharge of the drilling slurry.
- b. The discharge must be spread over an undisturbed, vegetated area capable of absorbing the top-hole water and filtering any remaining solids in the discharge. In addition, the discharge must be spread in a manner that prevents a direct discharge to surface waters.
- c. The pH of the discharge must be between 6.5 and 8.3.
- d. The discharge must not contain oil or grease.

2. Highway Grinding Slurry

Grinding is generally performed to improve the riding quality of new or existing cement concrete or asphalt concrete pavement. Existing pavements are ground as a rehabilitation strategy and new pavements may be ground to meet smoothness requirements. Typically, concrete grinding activities involve use of water to cool grinding blades and surfaces. These activities may produce large volumes of slurry and water. Conservation of water is encouraged by allowing slurry solids to settle out, then decanting water for reuse in grinding. Water that mixes with ground particles may create a high-pH slurry. Conditions for highway grinding slurry disposal include:

- a. The discharger must implement appropriate management practices to capture and contain grinding slurry (i.e., standard operating procedures, pollution prevention plans, or other material/waste management documents).
- b. The discharge pH must not be depressed below 6.5 nor raised above 8.3.
- c. Each temporary or permanent highway grinding slurry reuse or disposal site must be approved by the Executive Officer prior to use.
- d. Slurry must be stored or disposed of only during the dry season (May through October).

3. Highway Grooving Residues

Grooving is generally performed on roads to increase friction on new or existing cement concrete or asphalt concrete pavement. Conditions for highway grooving residue disposal include:

- a. Each temporary or permanent highway grooving residue reuse or disposal site must be approved by the Executive Officer prior to use.
- b. The discharger must implement appropriate management practices to confine grooving residues to lined trenches without overflow (i.e., standard operating

procedures, pollution prevention plans, or other material/waste management documents).

- c. Lined trenches must not intercept groundwater.
- d. Residues must be disposed of only during the dry season (May through October).

4. Sediment Removal in Waters of the State

This type of discharge includes impacts from activities to remove sediment from waterbodies (e.g., stock ponds, sediment detention basins, streams, harbors, etc.) as part of a minor dredging operation, flood control project, construction project, or habitat restoration project. Leachate (water draining out of the removed sediment) may be high in suspended and dissolved solids and could cause turbidity if allowed back into surface waters. Removed sediment stockpiled near streams may discharge into surface water, especially during rain events. Conditions for sediment removal include:

- a. General Waiver enrollees must seek review and obtain any necessary approvals for their projects by all applicable regulatory agencies (e.g. the National Oceanic and Atmospheric Administration, National Marine Fisheries Services, U.S. Fish and Wildlife Service, and California Department of Fish and Wildlife).
- b. Discharges of leachate must be adequately confined to prevent discharge to surface water.
- c. Removed sediment must be adequately confined to prevent discharge of sediment into waters of the state.
- d. Temporary and final disposal sites for removed sediment must be described in the report of waste discharge.
- e. When final disposal of excavated material to any site other than a permitted disposal site is proposed, the discharger must demonstrate the material will not present an unacceptable risk to human health or the environment. Sampling and analysis of material for pesticides, pH, polynuclear aromatic compounds, soluble metals, total extractable petroleum hydrocarbons, total metals, total organic carbon and other potential constituents of concern may be required. Final disposal to locations other than permitted disposal sites requires Executive Officer approval.
- f. Riparian or wetland vegetation must not be impacted as a result of the sediment removal activities unless the Executive Officer has approved an implementation plan. The area of vegetation disturbed must not exceed 0.2 acre. The plan must describe how the discharger will sequentially avoid, minimize, or compensate for any impacts to waters of the state. The implementation plan must also describe how any other environmental impacts will be kept to a less-than-significant level,

such as by replacing vegetation elsewhere. The discharger must implement and comply with the approved implementation plan.

- g. If water is present on the site and habitat for special status aquatic/riparian species is not present, the discharger must develop a dewatering/diversion plan for Executive Officer approval. The discharger must implement and comply with the approved diversion/dewatering plan.
- h. If temporary water diversion (in association with the project) is proposed, then a qualified monitor must be on the site during any activities related to water diversion and must inspect the diversion system regularly to ensure proper functioning and protection of water quality and biological resources.
- i. Sediment removal activities are limited to the dry season (June 1 through September 30), unless otherwise approved by the Executive Officer.
- j. Sediment removal must not destabilize the bed or banks of a channel; result in erosion above natural levels; cause a significant cumulative impact in combination with other discharges; cause adverse impacts to rare, candidate, or threatened species; significantly conflict with a U.S. Fish and Wildlife Service habitat conservation plan or a California Department of Fish and Wildlife natural community conservation plan; significantly impact a historical or archeological resource; or cause a conflict with an existing zoning for agricultural use or a Williamson Act contract.

5. Treated Groundwater

Cleanup or containment of groundwater polluted by spills or leaks of wastes, including possibly hazardous substances or hazardous wastes, often involves extracting groundwater from an aquifer that is used, or could be used, as a source of drinking water. A discharger may seek coverage under this General Waiver for re-injection, percolation, or infiltration of treated groundwater from a pump-and-treat remediation system or similar system, provided the treated groundwater meets the applicable discharge limits established in the notice of applicability,⁸ and that the discharge of treated water is managed so that no degradation to surface water occurs. Discharge of groundwater remediated by a pump-and-treat system typically does not pose a significant threat to water quality if the treatment system is designed and operated to adequately remove pollutants before discharge.

For organic compounds, treatment often includes an adequate number of in-series carbon vessels or ion-exchange units, each capable of treating the entire waste stream. Difficult-to-treat pollutants such as 1,4-dioxane may necessitate groundwater treatment technologies (e.g., advanced oxidation added to the above ground treatment system) that may create chemical byproducts. These byproducts

⁸ The Notice of Applicability is a letter issued by Central Coast Water Board approving enrollment of discharge under the General Waiver with additional information including, but not limited to, discharge limits, cleanup limits, and monitoring and reporting requirements.

must be monitored to ensure any associated groundwater degradation from the treated discharge is localized and temporary. In addition, the physical processes of extraction and treatment may cause precipitation of naturally occurring dissolved minerals or biofouling. This may require addition of anti-scaling amendments⁹ to avoid clogging of piping and injection wells with mineral precipitates. This section addresses water quality as it relates to the material amendments being injected, the byproducts and degradants produced by the reactions of the injectants, and wastes being treated.

Requirements for treated groundwater disposal are as follows:

- a. The treatment system design must be approved by Executive Officer prior to discharge. The discharge must have an approved cleanup workplan or report of waste discharge. For the purposes of Water Code section 13260(a), the cleanup workplan is equivalent to a report of waste discharge.
 - The cleanup workplan must include the following information: influent water quality data, treatment selection and design, and nature of pollutants that might be discharged. Influent water quality must be characterized for pollutants known to be present at the site and other constituents/parameters as specified by the Executive Officer.
- b. The waste discharged must not cause waters of the state (i.e., underlying groundwater) to contain:
 - Concentrations of pollutants or related by-products in amounts that exceed water quality objectives or degrade high-quality waters, unless it is demonstrated that any change in quality will be consistent with the maximum benefit to the people of the state, will not unreasonably affect present and potential beneficial uses, and will not result in water quality less than that described in plans and policies (e.g., quality that exceeds water quality objectives).
 - Concentrations of pollutants in excess of the limiting concentrations set forth in the following provisions of title 22, California Code of Regulations: Tables 64431-A (Inorganic Chemicals) of section 64431, Table 64444-A (Organic Chemicals) of section 64444, and Table 64449-A (Secondary Maximum Contaminant Levels-Consumer Acceptance Contaminant Levels) of section 64449. The Basin Plan's incorporation of these provisions by reference is prospective and includes future changes to the incorporated provisions as the changes take effect.

⁹ References to anti-scaling amendment in the Treated Groundwater discharge category refer to amendments that are introduced into the treatment above-ground. Discharges resulting from the use of similar amendments in in-situ remediation, which are by contrast injected directly into the groundwater, can be considered for enrollment under Section B.

- Concentrations of pollutants in excess of the water quality objectives for selected basin/sub-areas prescribed in the Basin Plan. Some must be below groundwater zones contain naturally occurring general minerals (dissolved solids, chloride, sulfate, nitrate, etc.) or metals in concentrations that exceed Basin Plan water quality objectives but are not the result of the pollution. Where sufficient background groundwater quality data are present, the re-injection or land disposal of treated groundwater exhibiting natural or anthropogenic derived general mineral content may be extracted and returned to the same groundwater formation from which it is withdrawn, provided that the concentrations do not exceed original background concentrations.
- c. Treated groundwater land application areas must be limited to those expressly described and mapped in the approved cleanup workplan or report of waste discharge.
- d. The discharge or reuse of treated groundwater on land that is not under the control of the discharger is prohibited unless specifically authorized by the Executive Officer.
- e. The discharge of treated groundwater to surface waters or conveyances thereto that are subject to federal Clean Water Act requirements for NPDES permits is prohibited.
- f. Land application of treated groundwater must be managed to prevent ponding, runoff, and erosion.
- g. Treated groundwater must not be applied to land within 24 hours of a forecasted rain event, during rainfall, 24 hours after a rainfall event, or when soils are saturated.
- h. Central Coast Water Board will notify any potentially affected water management agencies prior to enrolling the discharger in the General Waiver. The discharger must provide local water management agency contact information to the Central Coast Water Board.
- i. The discharger must comply with discharge monitoring and reporting requirements, if any, issued by the Executive Officer.
- j. The date, volume of treated groundwater, copies of analytical laboratory reports, and description of the volume of water applied to specific areas may be required to be reported by the discharger. If required, the notice of applicability¹⁰ and/or monitoring and reporting program issued to the discharger will specify the

¹⁰ The Notice of Applicability is a letter issued by Central Coast Water Board approving enrollment of discharge under the General Waiver with additional information including, but not limited to, discharge limits and monitoring and reporting requirements.

monitoring requirements, including analytical testing requirements (analytical method, practical quantitation limit) and discharge/effluent limits.

6. Monitoring Well Development and Aquifer and Well Pumping Test Water

Well development activities that repair damage to the well formation caused by drilling increases the porosity and permeability of the materials surrounding the well's intake zone. Aquifer and well pumping tests are used to determine the hydraulic characteristics (the ability to yield water) of an aquifer or well. These activities can produce high-volume flows of groundwater. Such flows can cause erosion if appropriate practices are not implemented. Well development clears fine-grained soils from the well and the formation surrounding the well's intake zone. The fine-grained soils can migrate to surface waters and cause siltation. If the aquifer being pumped has poorer water quality than the receiving groundwater, then either activity can potentially degrade receiving water quality. However, since well development and aquifer and well pumping tests are temporary in nature and involve a finite discharge volume, they may be considered low threat. Conditions for monitoring well development and aquifer and well pump test water disposal are listed below:

- a. For wells in areas of known or suspected pollution, wells associated with groundwater cleanup projects, or wells that have had chemical additives used for development purposes, prior to discharge, the applicant must submit data that completely characterize the nature of the pollutants that might be discharged. Samples must be analyzed for pollutants of concern known to be present at the site and other parameters (e.g., pH, dissolved oxygen, etc.) as specified by the Executive Officer.
- b. The discharger must implement appropriate and effective management practices to dissipate energy of the discharged water and prevent erosion.
- c. The discharger must implement appropriate and effective management practices to preclude discharge to surface waters or conveyances thereto that are subject to federal Clean Water Act requirements for NPDES permits.

SECTION D

**WAIVER FOR WASTE DISCHARGE REQUIREMENT FOR DISCHARGES NOT
SPECIFIED IN SECTIONS A, B, OR C**

Enrollment for discharges not specified in Sections A, B or C is contingent upon Central Coast Water Board consideration and approval at regularly scheduled Central Coast Water Board hearing.

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