

State Water Resources Control Board

~~DRAFT~~

Cannabis Cultivation Policy

Principles and Guidelines for Cannabis Cultivation

~~July 7~~October 17, 2017

Table of Contents

| | |
|--|----|
| Acronyms and Abbreviations | 3 |
| POLICY OVERVIEW..... | 5 |
| GEOGRAPHIC AREA COVERED BY POLICY | 7 |
| REQUIREMENTS FOR CANNABIS CULTIVATION | 9 |
| Flow and Gaging Requirements | 10 |
| Surface Water Diversion Forbearance Period | 10 |
| Wet Season Surface Water Flow Requirements | 10 |
| Maintain High Flow Events..... | 11 |
| Groundwater Flow Requirements..... | 11 |
| Compliance Gages and Requirements..... | 11 |
| POLICY IMPLEMENTATION AND COMPLIANCE | 12 |
| Overview | 12 |
| Cannabis Waste Discharge Requirements General Order (Cannabis General Order) | 12 |
| Determination of Total Disturbed Area | 13 |
| Risk Determination..... | 14 |
| Exemptions for Certain Cultivation Activities | 14 |
| Personal Use Exemption..... | 14 |
| Conditional Exemption..... | 15 |
| Application Process and Fees..... | 16 |
| Third Party Programs..... | 17 |
| Cannabis Small Irrigation Use Registration | 17 |
| CDFA's CalCannabis Cultivation Licensing Program..... | 18 |
| Continuing Authority to Amend Policy..... | 18 |
| Instream Flow Dedications | 18 |
| Local Cooperative Solutions | 18 |
| Tribal Authority Savings Clause..... | 19 |
| ENFORCEMENT | 19 |
| Continuing Authority to Amend Water Rights..... | 19 |
| Prohibition Against Waste and Unreasonable Use of Water..... | 20 |
| Protection of Public Trust Resources | 20 |
| Incorporation of Policy Requirements in CDFA Cultivation Licenses | 21 |
| Watershed Enforcement Team | 21 |
| Enforcement Tools | 21 |
| Informal Enforcement..... | 21 |

| | |
|---|----|
| Formal Enforcement | 21 |
| REFERENCES: | 24 |
| Acronyms and Abbreviations | 5 |
| POLICY OVERVIEW | 7 |
| GEOGRAPHIC AREA COVERED BY POLICY | 9 |
| REQUIREMENTS FOR CANNABIS CULTIVATION | 11 |
| Flow and Gaging Requirements | 12 |
| Surface Water Diversion Forbearance Period..... | 12 |
| Wet Season Surface Water Instream Flow Requirements..... | 12 |
| Maintain High Flow Events..... | 13 |
| Groundwater Requirements..... | 13 |
| Compliance Gages and Requirements..... | 14 |
| POLICY IMPLEMENTATION AND COMPLIANCE | 15 |
| Overview | 15 |
| General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (Cannabis General Order)..... | 15 |
| Determination of Total Disturbed Area..... | 16 |
| Risk Determination | 17 |
| Exemptions for Certain Cultivation Activities..... | 18 |
| Personal Use Exemption | 18 |
| Conditional Exemption | 19 |
| Application Process and Fees | 20 |
| Third Party Programs | 21 |
| Cannabis Small Irrigation Use Registration | 21 |
| CDFA's CalCannabis Cultivation Licensing Program..... | 22 |
| Continuing Authority to Amend Policy | 22 |
| Instream Flow Dedications | 22 |
| Local Cooperative Solutions | 23 |
| Tribal Authority Savings Clause..... | 23 |
| ENFORCEMENT | 23 |
| Continuing Authority to Amend Water Rights..... | 24 |
| Prohibition Against Waste and Unreasonable Use of Water | 24 |
| Protection of Public Trust Resources | 25 |
| Incorporation of Policy Requirements in CDFA Cultivation Licenses | 25 |
| Watershed Enforcement Team | 25 |
| Enforcement Tools | 25 |

| | |
|---|----|
| <u>Informal Enforcement</u> | 26 |
| <u>Formal Enforcement</u> | 26 |
| <u>REFERENCES:</u> | 28 |

Attachments

Attachment A: [Definitions and](#) Requirements for Cannabis Cultivation

~~Attachment B: [Glossary of Terms](#)~~

DRAFT

DRAFT

Acronyms and Abbreviations

| | |
|------------------------|--|
| ACL | Administrative Civil Liability |
| Antidegradation Policy | State Water Board Resolution 68-16, the Statement of Policy with Respect to Maintaining High Quality of Waters in California |
| Army Corps | United States Army Corps of Engineers |
| AUMA | Adult Use of Marijuana Act of 2016 |
| Basin Plan | Water Quality Control Plan |
| BOF | Board of Forestry |
| BPTC | Best Practicable Treatment or Control |
| BPC | California Business and Professions Code |
| CAL FIRE | California Department of Forestry and Fire Protection |
| CAO | Cleanup and Abatement Orders |
| CDFA | California Department of Food and Agriculture |
| Cannabis Policy | Cannabis Cultivation Policy, Principles and Guidelines for Cannabis Cultivation |
| CIWQS | California Integrated Water Quality System |
| CUA | Compassionate Use Act of 1996 |
| CEQA | California Environmental Quality Act |
| CDEC | California Data Exchange Center |
| CDFA | California Department of Food and Agriculture |
| CDFW | California Department of Fish and Wildlife |
| CDO | Cease and Desist Order |
| CHRIS | California Historical Resources Information System |
| CWA | Clean Water Act |
| Deputy Director | Deputy Director for the Division of Water Rights |
| DPR | Department of Pesticides Regulation |
| DPS | Distinct Population Segments |
| DTE | Distinct Taxonomic Entities |
| DWR | California Department of Water Resources |
| e.g. | Latin exempli gratia (for example) |
| ESA | Federal Endangered Species Act |
| ESU | Evolutionary Significant Unit |
| Executive Officer | Executive Officer of the Regional Water Quality Control Board |
| FER | Flashy, Ephemeral Rain hydrologic regime |
| FPR | Forest Practice Rules |
| General Order | General Waste Discharge Requirements for Discharges of Waste associated with Cannabis Cultivation Activity |
| GW | Groundwater hydrologic regime |
| HELP | High Elevation and Low Precipitation hydrologic regime |
| HSR | High-Volume Snowmelt and Rain hydrologic regime |
| HUC | Hydrologic Unit Code |
| HSC | Health and Safety Code |
| ILRP | Irrigated Lands Regulatory Program |
| LSA Agreement | Lake and Streambed Alteration Agreement |
| LSR | Low-Volume Snowmelt and Rain hydrologic regime |
| LTO | Licensed Timber Operator |
| MCRSA | Medical Cannabis Regulation and Safety Act |
| MMRSA | Medical Marijuana Regulation and Safety Act |

| | |
|----------------------|--|
| NCRO | Department of Water Resources, North Central Region Office |
| NHD | National Hydrography Database |
| NHDPlusV2 | National Hydrography Database Plus Version 2 |
| NMP | Nitrogen Management Plan |
| NOA | Notice of Applicability |
| NONA | Notice of Non-Applicability |
| NOT | Notice of Termination |
| NOV | Notice of Violation |
| NPDES | National Pollutant Discharge Elimination System |
| NPS | Nonpoint Source Pollution Control Program |
| NRO | Department of Water Resources, North Region Office |
| NTU | Nephelometric Turbidity Units |
| OWTS | Onsite Wastewater Treatment System |
| PGR | Perennial Groundwater and Rain hydrologic regime |
| RSG | Rain and Seasonal Groundwater hydrologic regime |
| Regional Water Board | Regional Water Quality Control Board |
| Road Handbook | Handbook for Forest, Ranch, and Rural Roads |
| RPF | California Registered Professional Forester |
| RWD | Report of Waste Discharge |
| State Water Board | State Water Resources Control Board |
| SB | Senate Bill |
| SCCWRP | Southern California Coastal Water Research Project |
| SCR | Site Closure Report |
| SIC | Standard Industrial Code |
| SDR | Small Domestic Registrations |
| SEPs | Supplemental Environmental Projects |
| SIUR | Small Irrigation Use Registrations |
| SM | Snowmelt hydrologic regime |
| SW-CGP | Storm Water Construction General Permit |
| SW-IGP | Storm Water Industrial General Permit |
| SWPPP | Storm Water Pollution Prevention Plan |
| THP | Timber Harvest Plan |
| TMDL | Total Maximum Daily Load |
| UC Davis | University of California, Davis |
| US | United States |
| USBR | United States Bureau of Reclamation |
| USEPA | United States Environmental Protection Agency |
| USGS | United States Geological Survey |
| Water Boards | State Water Board and Regional Water Boards |

POLICY OVERVIEW

The purpose of this Cannabis Cultivation Policy (Policy) is to ensure that the diversion of water and discharge of waste associated with cannabis cultivation does not have a negative impact on water quality, aquatic habitat, riparian habitat, wetlands, and springs. This Policy applies to the following cannabis cultivation activities throughout California:

- Commercial Recreational
- Commercial Medical
- Personal Use Medical

This Policy does not apply to recreational cannabis cultivation for personal use, which is limited to six plants under the Adult Use of Marijuana Act (Proposition 64, approved by voters in November 2016)¹.

Cannabis cultivation legislation enacted ~~Business and Professions Code section 26060.1(b)(1), which requires the State Water Resources Control Board (State Water Board), in consultation with the California Department of Fish and Wildlife (CDFW) and the California Department of Food and Agriculture (CDFA), to ensure that the individual and cumulative effects of water diversions and discharges associated with cannabis cultivation do not affect instream flows needed for fish spawning, migration, and rearing, and the flows needed to maintain natural flow variability. In addition, cannabis-related legislation resulted in~~ California Water Code (Water Code) section 13149, which directs the State Water Board, in consultation with ~~CDFW, the California Department of Fish and Wildlife (CDFW),~~ to adopt interim and long-term principles and guidelines for the diversion and use of water for cannabis cultivation in areas where cannabis cultivation may have the potential to substantially affect instream flows. The legislation requires the State Water Board to establish these principles and guidelines as part of a state policy for water quality control². Per Water Code section 13149, the principles and guidelines:

- shall include measures to protect springs, wetlands, and aquatic habitats from negative impacts of cannabis cultivation; and
- may include requirements that apply to groundwater diversions where the State Water Board determines those requirements are reasonably necessary.

Additionally, ~~the Business and Professions Code section 26060.1(b) requires that these principles and guidelines be included as conditions in cannabis cultivation licenses issued by the California Department of Food and Agriculture (CDFA). The~~ State Water Board has primary enforcement responsibility for the principles and guidelines and shall notify CDFA of any enforcement action taken³.

¹ Recreational cannabis cultivation for personal use as defined in Health and Safety Code section 11362.1(a)(3) and section 11362.2.

² Water Code section 13149(b)(2). *The board shall adopt principles and guidelines under this section as part of state policy for water quality control adopted pursuant to Article 3 (commencing with Section 13140) of Chapter 3 of Division 7.* Water Code section 13142 outlines specific requirements for a state policy for water quality control, which this Policy implements.

³ Water Code section 13149(b)(5).

This Policy establishes principles and guidelines (~~herein~~[hereinafter](#) “Requirements”) for cannabis cultivation activities to protect water quality and instream flows. The Requirements established by this Policy will be incorporated into and implemented through five regulatory programs:

- CDFA’s CalCannabis Cultivation Licensing Program⁴;
- State Water Board’s Cannabis General Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (Cannabis General Order) or any Waste Discharge Requirements addressing cannabis cultivation activities adopted by a Regional Water Quality Control Board (Regional Water Board);
- State Water Board’s General Water Quality Certification for Cannabis Cultivation Activities (Cannabis General Water Quality Certification);
- State Water Board’s Cannabis Small Irrigation Use Registration (Cannabis SIUR); and
- State Water Board’s Water Rights Permitting and Licensing Program.

The Requirements for cannabis cultivation are located in Attachment A. Policy background information and justifications for the Requirements are located in the Cannabis Cultivation Policy Staff Report.

Water Code section 13149 authorizes the State Water Board to develop both interim and long-term requirements and update them as necessary. It is anticipated that the State Water Board will update this Policy over time to modify or add requirements to address cannabis cultivation impacts, as needed.

The State Water Board holds the dual mandates of allocating surface water rights and protecting water quality. The State Water Board is the state agency with primary authority over water quality under California’s Porter-Cologne Water Quality Control Act and the federal Clean Water Act. Under these authorities, the State Water Board may adopt water quality objectives, including flow objectives, and programs of implementation to achieve these objectives. California law directs the State Water Board and Regional Water Boards (collectively Water Boards) to adopt water quality control plans and policies that identify existing and potential beneficial uses of waters of the state and establish water quality objectives to protect these uses.

This Policy meets the requirements of Water Code section 13149(b)(1) and is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to California Code of Regulations, title 14, section 15308⁵.

The State Water Board allocates water through an administrative system that is intended to maximize the beneficial uses of water while protecting the public trust, serving the public

⁴ Business and Professions Code section 26060(b)(1). The CalCannabis Cultivation Licensing Program is anticipated to begin accepting applications for cannabis cultivation licenses by January 1, 2018.

⁵ California Code of Regulation section 15308. Actions by Regulatory Agencies for Protection of the Environment. *Class 8 consists of actions taken by regulatory agencies, as authorized by state or local ordinance, to assure the maintenance, restoration, enhancement, or protection of the environment where the regulatory process involves procedures for protection of the environment. Construction activities and relaxation of standards allowing environmental degradation are not included in this exemption.*

interest, and preventing the waste and unreasonable use or method of diversion of water. The Water Boards implement water quality control plans through both water rights- and water quality-related programs. For example, Water Code section 1258 requires the State Water Board to consider water quality control plans when acting upon applications to appropriate water and the State Water Board may impose such conditions as it deems necessary to implement such plans. Water Code section 13263(a) requires waste discharge requirements to implement applicable water quality control plans, including terms to ensure that water quality objectives will be met. In issuing water quality certifications and waste discharge requirements, the Water Boards include conditions necessary to ensure the activities will comply with applicable water quality objectives, including flow objectives⁶. The State Water Board also may implement flow objectives by specifying minimum bypass flows as a condition of a water right.

GEOGRAPHIC AREA COVERED BY POLICY

California is a large and geographically diverse state, covering 163,696 square miles, and spanning over 800 miles of coastline. California's multiple mountain ranges and valleys result in highly variable climate, precipitation and drainage patterns. To account for the state's size and geographic diversity, this Policy designates 14 Cannabis Cultivation Policy regions: Klamath, Upper Sacramento, North Eastern Desert, North Coast, Middle Sacramento, Southern Sacramento, North Central Coast, Tahoe, South Central Coast, San Joaquin, Mono, Kern, South Coast, and South Eastern Desert (Figure 1). This Policy establishes water quality and instream flow Requirements statewide. These include instream flow requirements that must be met or exceeded at specific compliance flow gages when water is being diverted for cannabis cultivation. ~~Compliance gage assignments have been developed for nine of the 14 regions as follows~~The Policy identifies 14 regions, and identifies nine regions as priority regions that support anadromous salmonids. The priority regions are: Klamath, Upper Sacramento, North Coast, Middle Sacramento, Southern Sacramento, North Central Coast, South Central Coast, San Joaquin, and South Coast. ~~It is anticipated that compliance gage assignments for the remaining five regions will be developed, as resources allow, and added to the final Policy prior to adoption by the State Water Board.~~

⁶ See [WaterWat](#). Code § 13377; Cal. Code of Regs., tit. 23, § 3859.



REQUIREMENTS FOR CANNABIS CULTIVATION

The State Water Board developed these Requirements in consultation with CDFW and CDFA. The Requirements are divided into five main categories, which are located in the following sections of Attachment A:

- Section 1. General Requirements and Prohibitions, and Cannabis General Water Quality Certification
- Section 2. Requirements Related to of Water Diversions and Waste Discharge for Cannabis Cultivation
- Section 3. Numeric and Narrative Instream Flow Requirements (including Gaging)
- Section 4. Watershed Compliance Gage Assignments
- Section 5. Planning and Reporting

General Requirements and Prohibitions implement existing State Water Board authorities and address issues such as compliance with state and local permits, discharge prohibitions, riparian setbacks, protection of tribal cultural resources, and the Water Boards' right to access properties for inspections.

The Requirements related to water diversion and waste discharge ~~of~~ for cannabis cultivation cover the following 12 best practicable treatment or control categories:

- riparian and wetland protection and management;
- water diversion, storage, and use;
- irrigation runoff;
- land development and maintenance, erosion control, and drainage features;
- soil disposal;
- stream crossing installation and maintenance;
- fertilizer and soil use and storage;
- pesticide and herbicide application and storage;
- petroleum products and other chemical use and storage;
- cultivation-related waste disposal;
- refuse and human waste disposal; and
- winterization.

The numeric and narrative instream flow Requirements address water quality and quantity through the establishment of flow Requirements that include three elements: (a) dry season forbearance period, (b) numeric flow Requirements (bypass) during the wet season (diversion period), and (c) narrative flow Requirements. ~~Instream flow Requirements also include dry season flow Requirements and provisions for the imposition of a forbearance period for cannabis groundwater diversions in areas where such restrictions are necessary. This section includes Requirements for groundwater diversions⁷, and includes establishment of a surface~~

⁷ All groundwater Requirements apply to exempt springs. To qualify as an exempt spring the cannabis cultivator must submit information and receive approval from the Deputy Director for Water Rights, as specified in Section 3 of Attachment A of the Policy. An exempt spring is a spring that does not flow off the cannabis cultivator's property by surface or subterranean (subsurface) means in the absence of diversions during any time of year in any water year type. Such springs are exempt from the Policy's Narrative Instream Flow Requirement 4 (Surface Water Dry Season Forbearance Period) and Requirement 5 (Surface Water Wet Season Diversion Period – Numeric Instream Flow Requirements).

water aquatic base flow. The surface water aquatic base flow is used to help inform whether additional requirements are needed in certain areas to help ensure the individual and cumulative impacts of groundwater diversions do not have a negative impact on the surface water flows. Section 3 includes Requirements for gage installation in areas where the density of cannabis cultivation and limited water availability may have a localized negative impact on instream flows in areas with high resource value.

The Watershed compliance gage assignments section includes the compliance gage instream flow Requirements for all the regions and the compliance gage watershed assignments for the nine priority regions. The following discussion provides an overview of the development of instream flow Requirements and compliance gage assignments for the numeric flow Requirements.

Flow and Gaging Requirements

The narrative instream flow Requirements in Section 3 of Attachment A apply to cannabis cultivators throughout the State. The numeric instream flow Requirements are developed at compliance gages statewide.

The instream flow Requirements may be updated over time, as reasonably necessary. Interested parties may submit scientifically defensible information (e.g. instream flow studies) that supports modification to the instream flow Requirements to the Deputy Director for consideration during updates to the Policy.

Surface Water Diversion Forbearance Period

Absent restrictions on water diversion, the individual and cumulative effects of water diversions for cannabis cultivation during the dry season are likely to significantly decrease instream flow and, in some instances, reduce hydrologic connectivity or completely dewater the stream. Minimum flows that provide habitat connectivity are needed to maintain juvenile salmonid passage conditions in late spring and early summer. Instream flows are also needed to maintain habitat conditions necessary for juvenile salmonid viability throughout the dry season, including adequate dissolved oxygen concentrations, low stream temperatures, and high rates of invertebrate drift from riffles to pools. Further, many species depend on spring recession flows as migratory or breeding quescues. The State Water Board is requiring a surface water diversion forbearance period to ensure adequate flows are maintained throughout the dry season and protect aquatic species, aquatic habitat, and water quality.

Wet Season Surface Water Instream Flow Requirements

Minimum instream flow requirements during the wet season are needed for the protection of aquatic species life history needs. For threatened and endangered anadromous salmonids, minimum flows are needed to address life history needs, such as:

1. maintaining natural abundance and availability of spawning habitat;
2. minimizing unnatural adult exposure, stress, predation, and delay during adult spawning migration; and
3. sustaining high quality and abundant juvenile salmonid winter rearing habitat.

To meet the timeline, scale, and purpose of this Policy, the State Water Board, in consultation with CDFW, has determined that the Tessmann Method is the best methodology to develop

interim instream flow requirements. The Tessmann Method develops instream flow requirements by using percentages of historical mean annual and mean monthly natural streamflow⁸. For the development of long-term instream flow requirements, the State Water Board, in consultation with CDFW, will evaluate other scientifically robust methods that are more reflective of regional variability and the needs of target species. The State Water Board applied the Tessmann Method to a predicted historical flow data set sourced from a flow modeling effort conducted by the United States Geological Survey (USGS) in cooperation with The Nature Conservancy and Trout Unlimited⁹ (USGS flow modeling data). The interim instream flow Requirements were calculated for compliance gages throughout the [State](#). The Tessmann Method and the USGS flow modeling data allow for instream flow requirements to be calculated at additional compliance points throughout the [State](#). This Policy allows the State Water Board to use the Tessmann Method and the USGS flow modeling data to calculate or adjust a flow requirement, as needed, throughout the [State](#).

Maintain High Flow Events

To preserve the annual first flush flow event, the surface water diversion period for cannabis cultivation will not occur until the real-time daily average flow is greater than the minimum monthly instream flow Requirement at a compliance gage for seven consecutive days or after December 15 when flows are greater than the numeric flow Requirement, whichever occurs first. The State Water Board will monitor other high flow events that occur throughout the wet season to evaluate whether additional requirements are needed to maintain high flow variability during other periods of the wet season.

Groundwater Requirements¹⁰

To address potential impacts of groundwater diversions on surface flow, the State Water Board's Deputy Director for Water Rights (Deputy Director) may require a forbearance period [or other measures](#) for cannabis groundwater diversions in areas where such restrictions are necessary to protect instream flows. Such areas may include watersheds with: high surface water-groundwater connectivity; large numbers of cannabis groundwater diversions; and/or groundwater diversions in close proximity to streams. ~~A low aquatic base flow threshold~~ was developed at each compliance gage¹¹ during the surface water forbearance period (dry season) to inform the need for additional actions to address impacts associated with cannabis groundwater diversions. ~~The low aquatic base flow threshold~~ was established in consultation with CDFW. ~~The low aquatic base flow threshold~~ is established using ~~the~~ USGS flow modeling data to calculate mean monthly flows and applying the New England Aquatic Base Flow Standard (ABF Standard) methodology at the compliance gages in the nine priority regions. ~~The low flow threshold represents the minimum flow that should be in streams during all water type years to support aquatic ecosystems, including juvenile salmonid migration and rearing and water quality. The aquatic base flow is the set of chemical, physical and biological conditions that represent limiting conditions for aquatic life in stream environments.~~ This Policy allows the State Water Board to apply the ABF Standard to the USGS flow modeling data to calculate a

⁸ In general, during the wet season the Tessmann Method compares 40 percent of the mean monthly flow to 40 percent of the mean annual flow and whichever is greater is the flow requirement for that given month (Tessmann 1979).

⁹ The USGS flow modeling effort developed empirical flow models that predict the natural (unaffected by land use or water management) monthly stream flows from 1950 to 2012 for the majority of the USGS National Hydrologic Database stream reaches in California (Carlisle, et. al. 2016).

¹⁰ [All groundwater Requirements apply to exempt springs.](#)

¹¹ ~~The low aquatic base flow threshold~~ was developed using the USGS flow modeling data.

~~low~~ ~~an aquatic base~~ flow ~~threshold~~ Requirement at additional compliance points, as needed, throughout the ~~State~~~~state~~. The State Water Board will monitor instream flows during the dry season and evaluate the number and location of cannabis groundwater diversions to determine whether imposition of a groundwater forbearance period ~~is~~ or other measures are necessary. To address potential localized effects of groundwater diversions on surface water flow, the State Water Board will also monitor where significant numbers of surface water diverters are switching to groundwater diversions to evaluate whether imposition of a groundwater forbearance period ~~is~~ or other measures are necessary. The State Water Board will notify cannabis cultivators of the possibility that a groundwater forbearance period or other measures may be imposed so that the cultivators can install storage, coordinate diversions, take measures to secure alternate water supplies, or identify other measures to address the low flow condition.

Compliance Gages and Requirements

Compliance gage assignments have been developed for watershed areas within nine priority regions (see Figure 1, Cannabis Cultivation Policy Regional Boundaries). Numeric instream flow Requirements are applied at a subset of existing gages reported on two websites: (1) the USGS – National Water Information System (NWIS)¹²; or (2) California Department of Water Resources (DWR) – California Data Exchange Center (CDEC)¹³. Watershed areas that do not have existing gages are assigned a compliance gage for a different location in the same watershed or for a nearby watershed with similar flow characteristics. Cannabis cultivators in ungaged watersheds may be required to install a gage if information indicates that use of the assigned gage does not adequately protect instream flows. Cannabis cultivators in watersheds without an assigned gage may be required to install a gage if information indicates that a gage is necessary to adequately protect instream flows. The State Water Board will monitor where cannabis cultivation diversions are located to track areas where locally concentrated cannabis cultivation water diversions within a watershed may adversely affect instream flows.

Many dams in California have existing instream flow requirements through the Federal Energy Regulatory Commission licensing program or through Biological Opinions issued by the National Marine Fisheries Service or the United States Fish and Wildlife Service, or through water right decisions. Cannabis cultivators shall comply with either existing instream flow Requirements or the Tessmann instream flow Requirements, whichever is greater.

The instream flow Requirement compliance gages are located in areas that are generally representative of the water availability and total demand occurring upstream of the gaging location or in a similar watershed. However, impacts may still occur in areas where there is significant localized cannabis cultivation compared to water availability or where the compliance gage does not accurately reflect the demand in a paired watershed. To help ensure diversion of water for cannabis cultivation does not negatively impact the flows needed for fish spawning, migration, and rearing, or the flows needed to maintain natural flow variability, the cannabis cultivator shall maintain a minimum bypass of at least 50% of the streamflow past the cannabis cultivator's point of diversion, in addition to the applicable numeric instream flow Requirements.

¹² <https://waterdata.usgs.gov/ca/nwis/rt>, viewed May 19, 2017.

¹³ <https://cdec.water.ca.gov/>, viewed May 19, 2017.

POLICY IMPLEMENTATION AND COMPLIANCE

Overview

The Requirements established by this Policy will be incorporated and implemented through the statewide Cannabis General Order, any waste discharge requirements addressing cannabis cultivation activities adopted by a Regional Water Board, Cannabis SIUR, Water Rights Permitting and Licensing Program, and CDFA's CalCannabis Cultivation Licensing Program.

CannabisGeneral Waste Discharge Requirements General Orderand Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (Cannabis General Order)

Water Code section 13260 requires that any person discharging waste or proposing to discharge waste that could affect the quality of the waters of the state must file a report of waste discharge to obtain coverage under waste discharge requirements (WDRs) or a waiver or WDRs. Water Code section 13263(a) requires that WDRs ~~must~~ implement applicable water quality control plans, taking into account the beneficial uses to be protected, applicable water quality objectives, and the need to prevent a condition of pollution or nuisance.

Water Code section 13263(i) authorizes the State Water Board to prescribe general WDRs for a category of discharges if the State Water Board determines that all of the following criteria apply to the discharges in that category: the discharges are produced by the same or similar operations; the discharges involve the same or similar type of waste; the discharges require the same or similar treatment standards; and the discharges are more appropriately regulated under general WDRs than individual WDRs. Water Code section 13269 states that the State Water Board may conditionally waive the requirements to file a Report of Waste Discharge under Water Code section 13263(a)(1) and/or to the requirements to prescribe Water Code section 13263(a) for a specific discharge or specific type of discharge where such a waiver is consistent with the applicable Regional Water Board Basin Plans and is in the public interest. Water Code section 13146 requires that WDRs comply with state policy for water quality control. The Cannabis General Order will implement this Policy and the legal authorities described above.

Applicability, Tier Designation, and Threat to Water Quality

The Cannabis General Order will provide a statewide tiered approach for permitting discharges and threatened discharges of waste from cannabis cultivation and associated activities, establish a personal use exemption standard, and provide conditional exemption criteria for activities with a low threat to water quality. Tiers are defined by the amount of disturbed area. The disturbed area indicates the threat to water quality because level of threat is proportional to the area of disturbed soil, the amount of irrigation water used, the potential for storm water runoff, and the potential impacts to groundwater (e.g., the use of fertilizers or soil amendments, the possible number of employees on site, etc.).

The criteria for the tier structure consist of three exemptions and two tiers, as follows:

- a. Personal use ~~exempt~~ cannabis cultivators are very small, non-commercial cultivators that are ~~conditionally~~ exempt from the Cannabis General Order. (See the Exemptions for Certain Cultivation Activities section.)
- b. ~~Certain indoor~~ Indoor commercial cultivation activities are conditionally exempt ~~from under~~ the Cannabis General Order. (See the Exemptions for Certain Cultivation Activities section.)
- ~~b.c.~~ Outdoor commercial cultivation activities that disturb less than 2,000 square feet may be conditionally exempt under the General Order. (See the Exemptions for Certain Cultivation Activities section.)
- ~~e.a.~~ Conditionally exempt cannabis cultivators that cultivate cannabis commercially and disturb less than 2,000 square feet. (See the Exemptions for Certain Cultivation Activities section.)
- d. Tier 1 ~~cannabis cultivators have a disturbed area~~ outdoor commercial cultivation activities disturb an area equal to or greater than 2,000 square feet and less than 1 acre (43,560 square feet).
- e. ~~Tier 2 cannabis cultivators have a disturbed~~ Tier 2 outdoor commercial cultivation activities disturb an area equal to or greater than 1 acre.

Determination of Total Disturbed Area

To determine total disturbed area for the purpose of tier determination, see the “Land Disturbance” definition in the Attachment A. In addition, cannabis cultivators shall consider the following:

- a. Cannabis cultivators that cultivate in multiple areas within a parcel or contiguous parcels shall add all the disturbed areas together to calculate the total disturbed area. For example, a cannabis cultivator that operates two cultivation areas that each disturb 1,100 square feet must report a disturbance of 2,200 square feet and is does not ~~exempt from permitting requirements. qualify for a conditional exemption under the General Order.~~ Cannabis cultivators that cultivate cannabis on non-contiguous parcels must ~~obtain~~ evaluate each parcel for regulatory coverage ~~for each parcel separately.~~
- b. Existing access roads that were constructed prior to establishment of cultivation activities that were designed, constructed, upgraded, and are maintained consistent with the guidance presented in the *Handbook for Forest, Ranch, and Rural Roads* (Road Handbook) are not considered a disturbed area for the purpose of tier

determination under the Cannabis General Order. However, the existing access roads are included as areas requiring Best Practicable Treatment or Control (BPTC) measure maintenance activities to prevent ~~further~~ impairment to water quality.

- c. Areas where plant material has been removed for the purpose of wildfire suppression and where the plant material will recover with seasonal precipitation, are not considered disturbed.

Risk Determination

~~Cannabis cultivators that must register (conditionally exempt) or enroll (Tier 1 or and Tier 2)~~ enrollees under the Cannabis General Order ~~shall~~must characterize the risk designation based on the slope of disturbed areas and the proximity to a water body.

The Cannabis General Order provides criteria to evaluate the threat to water quality based on:

- a. Slope of disturbed area: Increased slopes may be associated with decreased soil stability, especially when associated with vegetation removal. Storm water and excess irrigation water are more likely to runoff and discharge off-site from sloped surfaces.
- b. Proximity to a surface water body: Riparian setbacks from surface water bodies generally reduce impacts to water quality. Disturbed areas within the riparian setbacks are more likely to discharge waste constituents to surface water, therefore, any sites that cannot meet the riparian setback Requirements are considered to be high risk sites. Refer to the Attachment A for riparian setback Requirements.

For each site, risk determination is done based on the characteristic that poses the greatest threat to water quality. For example, if a site has multiple cultivation areas and one of the cultivation areas is located on a slope greater than 30 percent and less than 50 percent, all the cultivation areas will be classified as moderate risk-).

A summary of risk designation is presented below:

Table 1. Summary of Risk Designation

| Low Risk | Moderate Risk | High Risk |
|---|---|--|
| <ul style="list-style-type: none"> No portion of the disturbed area is located on a slope greater than 30 percent, and All of the disturbed area complies with the riparian setback Requirements. | <ul style="list-style-type: none"> Any portion of the disturbed area is located on a slope greater than 30 percent and less than 50 percent, and All of the disturbed area complies with the riparian setback Requirements. | <ul style="list-style-type: none"> Any portion of the disturbed area is located within the riparian setback Requirements. |

Exemptions for Certain Cultivation Activities

Certain cultivation activities ~~are exempt~~ qualify for exemption from the ~~requirement to register (conditionally exempt) or enroll (tiers) requirements~~ under the Cannabis General Order due to their low threat to water quality; however, the exemptions do not limit the Water Boards authority to inspect the site, evaluate the ~~conditional~~ exemption status, or evaluate other water quality or water right regulatory requirements. ~~Some facilities~~ Note that even cannabis cultivation activities that are exempt from the Cannabis General Order ~~are subject to the Policy and other wastewater discharge permitting requirements (e.g., indoor cultivation activities that discharge must comply with certain conditions in order to an onsite wastewater treatment system)-maintain their exemption.~~

Personal Use Exemption

Cultivation operations that qualify for a personal use exemption from the Cannabis General Order are those that are consistent with Health and Safety Code sections 11362.77, (medical marijuana) or Health and Safety Code section 11362.2 (non-medical marijuana) and subsequent revisions of the statutes, disturb an area (in aggregate) less than 1,000 square feet, and comply with the additional conditions below. These cultivation activities are exempt from requirements to obtain CDFA cannabis cultivation licenses because they are not a commercial activity, and also present a lower threat to water quality and thus are not required to submit any application information to ~~enroll or register~~ obtain coverage under the Cannabis General Order. The 1,000 square feet ~~conditional~~ personal use exemption criteria ~~provides~~ provide sufficient area for outdoor cultivation of six mature plants for non-medical (recreational) use, or 500 square feet of cannabis plant canopy, as allowed, for medical cultivation purposes.

The exemptions apply per parcel or contiguous parcels; no coalitions, cooperatives, or other combination of cultivation activities can claim the personal use exemption for activities on the same parcel. The personal use exemption shall not apply if the cannabis cultivator fails to comply with all applicable conditions, including the non-commercial activity requirement. If the personal use exemption does not apply, the cannabis cultivator shall contact the Regional Water Board to determine if the activity ~~is subject to the conditional exemption described below~~ qualifies for conditionally exempt status, or ~~if the cannabis cultivator instead~~ must register as an enroll under the Cannabis General Order under Tier 1 or Tier 2 ~~cannabis cultivation site~~.

To qualify for the personal use exemption, a cannabis cultivator must comply with all of the following, ~~if~~ as applicable:

- a. The cultivation area shall be contiguous (all located in one area);

- b. The ~~cultivation~~disturbed area shall comply with the riparian setback Requirements in Attachment A of this Policy and occupy less than 1,000 square feet;
- c. No part of the disturbed area shall be located on land with a slope greater than 20 percent; and
- d. The cannabis cultivator shall comply with this Policy and implement all applicable Requirements listed in Attachment A of this Policy.

~~The personal use exemption in the Cannabis General Order does not eliminate other potential~~The personal use exemption does not alter any other legal requirement (e.g., limitations on sales, distribution, or donations of cannabis). Non-commercial cultivation activities require a valid basis of right for the diversion and use of water and therefore may require a water right. The exemption for enrolling under the General Order does not affect the requirement to obtain authorization for water diversion. The personal use exemption does not affect other Policy requirements such as the Requirement to obtain authorization for water diversion.

Conditional Exemption

Cannabis cultivation activities that disturb an area (in aggregate) less than 2,000 square feet on any one parcel or on contiguous parcels managed as a single operation and that comply with all of the additional cultivation area criteria listed below are conditionally exempt from enrolling under the ~~Cannabis General Order. However, to obtain documentation of the conditionally exempt status (which is necessary to obtain a CDFA cultivation license), exempt cannabis cultivators must submit information to register under the Cannabis General Order.~~General Order but are required to obtain coverage under the waiver of WDRs (Waiver). The 2,000 square feet conditional exemption criterion allows sufficient area for outdoor cultivation for small commercial activities. Facilities with larger disturbed areas are an inherently higher threat to water quality and are subject to additional regulatory oversight. The conditional exemption applies per parcel or contiguous parcels; no coalitions, cooperatives, or other combination of cannabis cultivation activities can claim the conditional exemption for activities on the same parcel. To be conditionally exempt, a cannabis cultivator must comply with all of the following:

- a. The cultivation area shall be contiguous (all located in one area);
- b. The ~~cultivation~~disturbed area shall comply with the riparian setback Requirements in Attachment A of this Policy and occupy less than 2,000 square feet;
- c. No part of the disturbed area shall be located on land with a slope greater than 20 percent; and
- d. The cannabis cultivator shall comply with this Policy and implement all applicable Requirements listed in Attachment A of this Policy.

The conditional exemption ~~shall~~does not ~~apply if the~~alter any other legal requirement (e.g., limitations on sales, distribution, or donations of cannabis cultivator fails to comply with the applicable conditions (a-d above). Conditional exemption to enroll). Cultivation activities that are conditionally exempt under the Cannabis General Order does not still require a valid basis of right for the diversion and use of water and therefore may still require a water right. The conditional exemption under the General Order does not affect the requirement to obtain authorization for water diversion. ~~alter any other legal requirement (e.g., limitations on sales, distribution, or donations of cannabis).~~ To obtain documentation of conditionally exempt status, such cannabis cultivators must submit application information ~~to register~~ under the Cannabis

General Order. Refer to the *Application Process and Fees* section of the Cannabis General Order for information on the Cannabis General Order's [registration application](#) requirements.

Exemption for Indoor Cultivation Activities

Indoor [commercial](#) cannabis cultivation may be performed using hydroponic growing systems, soil, or other growth media. To maintain suitable growing conditions, wastewater is discharged from hydroponic systems when the irrigation water contains excessive salinity or nutrients. Irrigation tail water is generated when excess water drains from the growth media. Irrigation tail water or hydroponic wastewater may contain nutrients (e.g., phosphate or nitrate), salinity constituents (e.g., sodium, chloride, potassium, calcium, sulfate, magnesium), and other constituents (e.g., iron, manganese, zinc, molybdenum, boron, and silver)¹⁴. Other sanitation based wastewaters may also be generated at indoor [commercial](#) cannabis cultivation sites. These miscellaneous industrial wastewaters may contain biocides, bleach mixtures, or other chemical waste streams.

~~Cannabis~~[Commercial cannabis](#) cultivation activities that occur within a structure with a permanent roof, a permanent relatively impermeable floor (e.g., concrete or asphalt paved), and that discharge all industrial wastewaters generated to a community sewer system consistent with the sewer system requirements, are [classified as conditionally exempt from the Cannabis General Order and permitting requirements. \(Water Code section 13260\(a\)\(1\).\)](#) However, to [To](#) obtain documentation of ~~this~~[the conditionally](#) exempt status, ~~(necessary to obtain a CDFA commercial cannabis cultivation license)~~ [such, conditionally exempt commercial](#) cannabis cultivators ~~must submit information to register~~[are required to obtain coverage](#) under the ~~Cannabis General Order Waiver~~. Refer to the *Application Process and Fees* section of the Cannabis General Order for information on the Cannabis General Order's [registration application](#) requirements.

Discharges of irrigation tail water, hydroponic wastewater, or other miscellaneous industrial wastewaters from indoor cannabis cultivation activities to an on-site wastewater treatment system (such as a septic tank and leach field), to land, or to surface water must obtain separate regulatory authorization (e.g., WDRs, conditional waiver of WDRs, or other permit mechanism) to discharge the wastewater. [Such cannabis cultivators are classified as conditionally exempt. To obtain documentation of the conditionally exempt status to obtain a CDFA cultivation license, conditionally exempt cannabis cultivators are required to obtain coverage under the Waiver.](#) Refer to the *Application Process and Fees* section of the Cannabis General Order for information on the Cannabis General Order's [registration application](#) requirements.

[Indoor commercial cultivation activities that are conditionally exempt under the General Order still require a valid basis of right for the diversion and use of water and therefore may still require a water right. The exemption for enrolling under the General Order does not affect the requirement to obtain authorization for water diversion.](#)

Application Process and Fees

Personal use exempt cannabis cultivators meeting the criteria described in the *Exemptions for Certain Cultivation Activities* section do not need to ~~register with~~[apply for coverage from](#) the State Water Board. ~~Indoor cultivation sites and conditionally exempt sites or Regional Water Board.~~ [Cannabis cultivators that qualify for a personal use exemption under the General Order](#)

¹⁴City of Littleton – City of Englewood Pretreatment Pipeline. Third Quarter 2011. “Medical Marijuana – an Exploding New Industry.” Webpage: <http://www.lewwtp.org/home/showdocument?id=5674>. Accessed 17 January 2017.

are not required to ~~register with the State Water Board and~~ pay an application fee or a subsequent annual fee.

New facilities

Conditionally exempt sites (indoor or outdoor) are required to apply for coverage under the Waiver on-line with the State Water Board and pay an application fee.

Facilities that are classified as either Tier 1 or Tier 2 are required to enroll under the Cannabis General Order, apply on-line ~~and~~, pay an application fee, and pay an annual fee. Details regarding the on-line application process are described in the Cannabis General Order. The application fee serves as the first year's annual fee; cannabis cultivators will be billed on an annual basis.

Sites that pose a higher threat to water quality (e.g., disturb a larger area, located on a steeper slope, or located close to a surface water body) require a greater level of regulatory oversight, which translates to higher costs to achieve water quality protection. High risk sites (any portion of the disturbed area is located within the riparian setback Requirements), ~~with the exception of activities authorized by CDFW with a Lake or Streambed Alteration Agreement or under a Clean Water Act section 401/section 404 permit (e.g. watercourse crossing, installation of diversion works),~~ will be assessed the high-risk fee until the activities comply with the riparian setback Requirements. This does not apply to disturbed areas resulting from activities authorized under 404/401 Clean Water Act permits, a CDFW Lake and Streambed Alteration Agreement, coverage under the Cannabis General water quality certification, or site-specific WDRs issued by the Regional Water Board. The Cannabis General Order includes a compliance schedule to achieve compliance with riparian setback Requirements. It is the cannabis cultivator's responsibility to notify the Regional Water Board of compliance with the riparian setback Requirements to reassess the annual fee. If the site is unable to meet the compliance schedule contained in the Cannabis General Order for complying with the riparian setback Requirements, the Regional Water Board may issue a site-specific enforcement order and compliance schedule.

Third Party Programs

Some Regional Water Boards may approve third party programs to assist cannabis cultivators with enrollment and compliance with the Cannabis General Order. Some cannabis cultivators may elect to designate a Regional Water Board approved third party to represent them in issues related to application and compliance with the Cannabis General Order. The cannabis cultivator, property owner, and third party shall all be identified in the Cannabis General Order application. This Policy requires the cannabis cultivator to immediately notify the appropriate Regional Water Board if the third party is changed or terminated.

Cannabis Small Irrigation Use Registration

Since January 1, 1989, the Water Rights Registration Program has been available for expedited acquisition of appropriative water rights for certain small projects. In accordance with the Water Code section 1228, water right registrations are available for small irrigation, small domestic, and livestock stockpond users. SIURs are applicable to irrigated crops for sale or trade, including commercial cannabis cultivation once general conditions are adopted. Small Domestic Registrations (SDR) may be used for small, incidental watering and personal gardens and are not subject to this Policy (SDRs may not be used for obtaining CDFA commercial cannabis cultivation licenses). Livestock stockpond registrations are not available for cannabis cultivation.

Although cultivators often have multiple options to establish a water right for their water supply, the State Water Board anticipates that many cultivators will choose the Cannabis SIUR because

it is a faster and easier way to obtain a water right in comparison to the application process for a new appropriative water right, which can take many years. In accordance with this Policy, cultivators who rely on surface water to irrigate their cannabis operation are required to divert to storage during the wet season (portions of fall/winter/spring) and forebear from diverting during the dry season (summer/portions of fall). Because riparian water rights do not allow for water storage, riparian water right holders who intend to cultivate cannabis will also be required to obtain an appropriative (storage) water right (most likely through the Cannabis SIUR) in order to comply with the Policy. Cultivators should be aware that ~~the Cannabis SIUR and~~ SIURs, like other appropriative water rights: 1) will not be issued for fully appropriated streams in the restricted diversion season, as it has been determined that water is unavailable for appropriation; 2) may not be available in certain watersheds/streams, including on rivers and streams that are or may become designated as Fully Appropriated Streams or Wild and Scenic under The National Wild and Scenic Rivers System (Public Law 90-542; 16 U.S.C. 1271 et seq.); and 3) are not available where the water source is in a CDFW Instream Flow Study area with a final flow recommendation from CDFW submitted to the State Water Board under Public Resource Code section 10002.

The Requirements established in this Policy serve as General Conditions for the Cannabis SIUR water right registrations for commercial cannabis cultivation statewide. Cultivators will submit their registration filing (application), have the ability to make payments, and receive a water right registration certificate through the State Water Board's online portal. Cultivators will be subject to all terms and conditions set forth in this Policy as well as any additional conditions assigned by CDFW.

CDFA's CalCannabis Cultivation Licensing Program

In accordance with California Business and Professions Code (BPC) sections 26012, 26013, and 26060, CDFA is establishing a commercial cannabis cultivation licensing program. BPC section 26051.5(b)(7) requires the CDFA to consult with the State Water Board on the source or sources of water the applicant will use for cultivation. BPC section 26060.1(b)(1) requires that CDFA include ~~in any license, conditions as requested by the State Water Board~~ in any license, including but not limited to the principles, guidelines, and requirements established under Section 13149 of the Water Code.

Compliance with the Requirements of this Policy is a pre-requisite for obtaining a CDFA Cannabis Cultivators license. The law requires that cannabis cultivators provide evidence of compliance with the Water ~~Boards~~ Boards Requirements (or certification by the appropriate Water Board stating a permit is not necessary) as part of their application for a CDFA cannabis cultivation license. The State Water Board has primary enforcement responsibility for the Requirements and shall notify CDFA of any enforcement action taken¹⁵.

Continuing Authority to Amend Policy

Pursuant to Water Code Section 13149(a)(2), the State Water Board has continuing authority to amend this Policy as it deems reasonably necessary.

Instream Flow Dedications

Water Code section 1707 allows any person entitled to the use of water, whether based upon an appropriative, riparian, or other right, to petition the State Water Board for a change for

¹⁵ Water Code section 13149(b)(5)

purposes of preserving or enhancing wetlands habitat, fish and wildlife resources, or recreation in, or on, the water.

Local Cooperative Solutions

If CDFW enters into an agreement with one or more cannabis cultivators and determines that the agreement provides watershed-wide protection for the fishery that is comparable to or greater than the instream flow Requirements provided by this Policy, the cannabis cultivator or cultivators may request approval from the Deputy Director ~~for~~ to implement the agreement in place of the instream flow Requirements (numeric, narrative, and forbearance) in this Policy. The Deputy Director may approve the request subject to such conditions, including reporting requirements, that the Deputy Director deems necessary to prevent injury to other legal users of water or the environment.

Other local cooperative solutions may also be proposed by cannabis cultivators to the Deputy Director as an alternative means of reducing water use to preserve the required instream flows. Requests to implement local cooperative solutions may be submitted to the Deputy Director at any time. Local cooperative solutions may include proposals to coordinate diversions or share water. Cannabis cultivators may also submit a local cooperative solution to the Deputy Director that ~~request~~requests to use or install, maintain, and operate a local gage and move the flow Requirement compliance point to that gage location. The Deputy Director may approve a request, or approve it subject to any conditions that the Deputy Director determines to be appropriate, if the Deputy Director determines:

- (a) The continued diversion is reasonable;
- (b) That other users of water will not be injured;
- (c) That the relevant minimum instream flows identified in this Policy will be met; and
- (d) Gages used as compliance points will be installed, maintained, and operated in accordance with the gage installation, maintenance, and operation Requirements in Section 3 of Attachment A of this Policy.

Diversions in violation of a local cooperative solution or agreement approved by the Deputy Director are subject to enforcement as a violation of this Policy. ~~Notice~~Interested parties will be provided notice of agreements, local cooperative solutions, and decisions under this section will be posted as soon as practicable via: (1) the State Water Board's "Cannabis Cultivators" email subscription mailing list; and (2) posting on the State Water Board's cannabis webpage as soon as practicable. The Deputy Director may issue a decision under this section prior to providing notice. Any interested person may file an objection to the proposed agreement, proposed local cooperative solution, or decision. The objection shall indicate the manner of service upon the certifier or petitioner. The State Water Board will consider any objection, and may hold a hearing thereon, after notice to all interested persons.

Tribal Authority Savings Clause

Nothing in this Policy shall be construed to amend or modify in any way the authority of California Native American tribes to regulate cannabis cultivation on Tribal lands recognized as "Indian country" within the meaning of title 18, United States Code, section 1151.

ENFORCEMENT

Compliance with this Policy is mandatory to ensure that the diversion of water and discharge

of waste associated with cannabis cultivation does not have a negative impact on water quality, aquatic habitat, riparian habitat, wetlands, or springs. Timely and appropriate enforcement is critical to ensure that cannabis cultivators enroll under the regulatory framework and anticipate, identify, and correct any violations. Enforcement action may be taken against cultivators who continue to grow cannabis in violation of state law and against cultivators who enroll in regulatory programs but fail to fully comply with the Requirements. Appropriate penalties and other consequences for violations prevent cultivators that do not comply with the Requirements from obtaining an unfair competitive advantage and help ensure public confidence in the regulatory framework.

Continuing Authority to Amend Water Rights

The State Water Board has continuing authority to amend or modify water right permits and licenses pursuant to Water Code sections 100 and 275. If, after investigation, the State Water Board determines that a permitted diversion results in an adverse impact to public trust resources or results in a waste or unreasonable use or unreasonable method of use or method of diversion of water, the State Water Board may modify a permit or license term or may adopt additional requirements in order to protect the public trust, ensure that the waste is abated, and ensure that the diversion and use of water is reasonable. Similarly, the State Water Board may modify existing permits or licenses if the State Water Board determines that such modification is necessary to meet water quality objectives contained in water quality control plans or policies for water quality control established or modified pursuant to Division 7 (commencing with section 13000) of the Water Code. Such a modification will be made after providing affected permit and license holders with any legally required notice, hearing or other procedures.

Prohibition Against Waste and Unreasonable Use of Water

The State Water Board has continuing authority under Water Code sections 100 and 275 to enforce the requirements of the California Constitution, Article X, section 2, which directs that the water resources of the state be put to beneficial use to the fullest extent, and that water not be wasted or unreasonably used. It further provides that rights to the use of water are limited to such water as is reasonably required for the beneficial use served, and does not extend to the waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of the water.

The reasonable use doctrine applies to both surface water and groundwater, and it applies irrespective of the type of water right held by the diverter or user. (*Peabody v. Vallejo* (1935) 2 Cal.2d 351, 366-367.) What constitutes an unreasonable use, method of use, or method of diversion depends on the facts and circumstances of each case. (*People ex rel. State Water Resources Control Board v. Forni* (1976) 54 Cal.App.3d 743, 750.) Under the reasonable use doctrine, water right holders may be required to endure some inconvenience or to incur reasonable expenses. (*Id.* at pp. 751-752.) The State Water Board's continuing authority includes the power to enact regulations that preclude unreasonable use. (~~Wat-~~[Water](#) Code § 1058; *Light v. State Water Resources Control Board* (2014) 226 Cal.App.4th 1463, 1482.)

In light of limited available water supply and the need for water to protect public trust resources, the State Water Board has determined that it is a waste and unreasonable use of water under Article X, section 2 of the California Constitution to: 1) divert or use water for cannabis cultivation in a manner inconsistent with this Policy, regardless of water right seniority; 2) to divert or use water for cannabis cultivation, where prohibited by [State-state](#) law, this Policy, on public lands, or on tribal land without authorization; and 3) overwater cannabis

plants and cause runoff.

If, after investigation, the State Water Board determines that a water diversion is wasteful or constitutes an unreasonable use, unreasonable method of use, or unreasonable method of diversion of water, the State Water Board may require a person who diverts and uses water to comply with measures to abate the waste or ensure the reasonable use of water, method of use, and method of diversion. Such a requirement will be adopted subject to applicable State Water Board procedures.

Protection of Public Trust Resources

The State Water Board has an affirmative duty to take the public trust into account in the planning and allocation of water resources, and to protect the public trust uses whenever feasible. In the exercise of that duty, the State Water Board may use its legal authority to set requirements protecting public trust resources and order water users to comply.

Incorporation of Policy Requirements in CDFA Cultivation Licenses

Implementation of the Requirements in this Policy is not solely the purview of the Water Boards. Pursuant to Business and Professions Code section 26060.1(b)(1), CDFA will incorporate this Policy's Requirements (referenced in the statute as "principles, guidelines, and requirements") into cultivation licenses issued under its CalCannabis Cultivation Licensing Program and will consult with the State Water Board regarding their implementation. If the State Water Board or CDFW finds, based on substantial evidence, that cannabis cultivation is causing significant adverse impacts on the environment in a watershed or other geographic area, CDFA shall not issue new licenses or increase the total number of plant identifiers within that watershed or area¹⁶.

Watershed Enforcement Team

In addition to the Water Boards' dedicated enforcement staff, legislation¹⁷ directed the Water Boards and CDFW to expand the scope of the Watershed Enforcement Team (<https://www.wildlife.ca.gov/Conservation/Cannabis/WEP>) from its initial North Coast/Central Valley focus to address cannabis cultivation activities statewide. In addition to pursuing enforcement related to cannabis cultivation, this team also provides public outreach and education, performs site inspections, and responds to complaints.

Enforcement Tools

The Water Boards have a variety of enforcement tools to correct noncompliance. The Policy may be implemented directly per Water Code section 1847. The Policy Requirements will be implemented through the Cannabis General Order, the Cannabis SIUR, and General Water Quality Certification for Cannabis Cultivation Activities. The following summary includes types of enforcement actions that may be taken by the Water Boards. The Water Boards will make every effort to coordinate any enforcement action among its various divisions, offices, and regions and not initiate duplicative enforcement on the same violations. The Water Boards will coordinate enforcement with other agencies where appropriate.

¹⁶ [Business and Professions Code section 26069 \(c\)\(1\).](#)

¹⁷ Water Code section 13276(a) and Fish and Game Code section 12029(c), as established in Assembly Bill 243 (Statutes 2015, Chapter 688, Wood).

Informal Enforcement

An informal enforcement action is any enforcement action taken by Water Boards staff that is not defined in statute or regulation.

Verbal and Written Contacts

An informal enforcement action can include any form of communication (verbal, written, or electronic) between Water Boards staff and a cannabis cultivator concerning an actual, threatened, or potential violation.

Notice of Violation

A Notice of Violation (NOV) letter is the most significant level of informal enforcement action for cannabis cultivators and should be used only where a violation has occurred. NOV letters must be signed by the appropriate staff and provided to the cannabis cultivator.

Formal Enforcement

Formal enforcement actions are statute-based actions to address a violation or threatened violation of water rights and/or water quality laws, regulations, policies, plans, or orders. The actions listed below present options available for water right and/or water quality enforcement.

Notice to Comply

The Water Boards may issue a Notice to Comply for certain minor violations.

Order Technical Reports and Investigations

The Water Boards may conduct investigations and require technical or monitoring reports from any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste.

Administrative Civil Liability

Administrative Civil Liability (ACL) refers to monetary penalties that may be imposed by the Water Boards.

Supplemental Environmental Projects

The Water Boards may allow a person or entity to satisfy no more than 50 percent of the monetary assessment imposed in an ACL order by completing or funding one or more Supplemental Environmental Projects (SEPs). SEPs are projects that enhance the beneficial uses of the waters of the [Statestate](#), provide a benefit to the public at large, and are not otherwise required of the person or entity.

Cleanup and Abatement Orders

Cleanup and Abatement Orders (CAOs) may be issued to any person who has discharged or discharges waste into the waters of the [Statestate](#) in violation of any waste discharge requirement or other order or prohibition issued by the Water Boards, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the [Statestate](#) and creates, or threatens to create, a condition of pollution or nuisance. The CAO requires the cannabis cultivator to clean up the waste or abate the effects of the waste, or both, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts.

Time Schedule Orders

Water Boards can require the cannabis cultivators to submit time schedules that sets forth the actions the cannabis cultivators will take to address actual or threatened discharges of waste in violation of requirements.

Cease and Desist Orders

To remedy water quality violations, a Regional Water Board or the State Water Board may issue a Cease and Desist Order (CDO) against the discharger. The State Water Board also may issue a CDO for water rights violations. In addition to its general authority to issue CDOs, the State Water Board has specific legal authority to issue a CDO against any unlawful diversion or discharge for cannabis cultivation, any diversion or discharge that violates this Policy, and any cultivation activity that violates other applicable requirements that protect the environment.

Revocation of Water Right Permits and Licenses

The State Water Board may revoke a water right permit, license, or registration pursuant to certain sections of the Water Code.

Modification or Rescission of Waste Discharge Requirements

The Water Boards may modify or rescind waste discharge requirements (WDRs) in response to violations.

Enforcement Referral

Depending on the nature of the violation, the Water Boards may refer violations to the State Attorney General, County District Attorney, City Attorney, US Attorney, or United States Environmental Protection Agency.

REFERENCES:

- Bauer, S., Olson, J., Cockrill, A., van Hattem, M., Miller L., Tauzer M., et al. (March 18, and Leppig, G. 2015). Impacts of Surface Water Diversions for Marijuana Cultivation on Aquatic Habitat in Four Northwestern California Watersheds. PLoS ONE 10(3): e0120016. <https://doi.org/10.1371/journal.pone.0120016>
- Bentrup, G. and J. C. Hoag, J. C. 1998. The Practical Streambank Bioengineering Guide. United States Department of Agriculture, Interagency Riparian/Wetland Plant Development Project. Available at: http://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/idpmcpu116.pdf
- Brown and Caldwell, Kennedy/Jenks Consultants. 2007. Manual of Good Practice of Land Application of Food Processing/Rinse Water. California League of Food Processors. Available at: [http://clfp.com/documents/Manualofgoodpractice/CLFP%20Manual_COMPLETE_FINAL_3-14-07%20\(2\).pdf](http://clfp.com/documents/Manualofgoodpractice/CLFP%20Manual_COMPLETE_FINAL_3-14-07%20(2).pdf)
- Cafferata, P. 2015. California Road Rules for 2015 and Beyond. Associated California Loggers Annual Meeting January 15, 2015. California Department of Forestry and Fire Protection. Available at: [http://www.fire.ca.gov/resource_mgt/downloads/Cafferata_RoadRules2013_ACL-talk_January2015\(final\).pdf](http://www.fire.ca.gov/resource_mgt/downloads/Cafferata_RoadRules2013_ACL-talk_January2015(final).pdf). Accessed 4 May 2017.
- California Department of Fish and Wildlife (CDFW). 2017a. Fish Species of Special Concern. Accessed at: <https://www.wildlife.ca.gov/Conservation/SSC/Fishes>. Viewed on 15 March 2017.
- CDFW. 2017b. State & Federally Listed Endangered & Threatened Animals of California. Accessed at: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109405&inline>. Viewed on 23 Jan. 2017.
- CDFW. 2015. California State Wildlife Action Plan, 2015 Update: A Conservation Legacy for Californians. Edited by Armand G. Gonzales and Junko Hoshi, PhD. Prepared with assistance from Ascent Environmental, Inc., Sacramento, CA.
- California Department of Fish & Game (CDFG) 2003. Atlas of the biodiversity of California. Sacramento, CA. 103. pp. Accessed at: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=116547>. Accessed March 10, 2017.
- CDFG 2002. California climate based on the Köppen Classification System. GIS coverage. Wildlife and Habitat Data Analysis Branch. Sacramento, CA.
- California Department of Food and Agriculture (CDFA). 2016. Licensing Survey Results. Available at: <https://static.cdfa.ca.gov/MCCP/document/2016%20Licensing%20Survey%20Results.pdf>. Viewed 27 December 2016.

- California Department of Transportation (Caltrans). 2017. Construction Site BMP Fact Sheets. Division of Construction. Sacramento, CA. Accessed at: <http://www.dot.ca.gov/hq/construc/stormwater/factsheets.htm>
- Caltrans. 2003. Solid Waste Management, Construction Site Best Management Practices Manual. Available at: <http://www.dot.ca.gov/hq/construc/stormwater/WM-05.pdf>
- California Department of Water Resources (DWR). 2013. Division of Safety of Dams Jurisdiction Over Dams and Reservoirs. Division of Safety of Dams. Sacramento, CA. Accessed at: <http://www.water.ca.gov/damsafety/jurischart/>
- California Geologic Survey (CGS). 2002. Map of California Geomorphic Provinces, Note 36. California Department of Conservation, California Geological Survey. Sacramento, CA. Accessed at: http://www.conservation.ca.gov/cgs/information/publications/cgs_notes/note_36/Documents/note_36.pdf. Accessed March 10, 2017.
- California Plant Health Association (CPHA). 1980. Western Fertilizer Handbook Sixth Edition. Soil Improvement Committee.
- California Regional Water Quality Control Board, Central Coast Region. 2016. "Water Quality Control Plan for the Central Coastal Basin". Available at http://www.waterboards.ca.gov/centralcoast/publications_forms/publications/basin_plan/index.shtml.
- California Regional Water Quality Control Board, Central Valley Region. 2016. "Water Quality Control Plan for the California Regional Water Quality Control Board Central Valley Region". Available at http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/index.shtml.
- California Regional Water Quality Control Board, North Coast Region. 2011. "Water Quality Control Plan for the North Coast Region". Available at http://www.waterboards.ca.gov/northcoast/water_issues/programs/basin_plan/basin_plan.shtml.
- California Storm Water Quality Association. 2003. Section 4: Source Control BMPs and California Stormwater BMP Handbook. Accessed at: <https://www.casqa.org/sites/default/files/BMPHandbooks/sd-12.pdf> and <https://www.casqa.org/sites/default/files/BMPHandbooks/sd-32.pdf>
- Carlisle, D.M., Wolock, D.M., Howard, J.K., Grantham, T.E., Fesenmyer, [Kurt, K.](#), and Wieczorek, [Michael, M.](#) 2016. Estimating natural monthly streamflows in California and the likelihood of anthropogenic modification: U.S. Geological Survey Open-File Report 2016–1189, 27 p., <https://doi.org/10.3133/ofr20161189>.
- Cobourn, J. 2011. How to Install Residential Scale Best Management Practices (BMPs) in the Lake Tahoe Basin. University of Nevada Cooperative Extension. Available at: <http://www.tahoebmp.org/Documents/Contractors%20BMP%20Manual.pdf>
- Critchfield, [Howard H.](#) J. 1983. General Climatology, 4th Ed. Englewood Cliffs: Prentice Hall.

Crozier, ~~Carl C.~~ 1986. Soil Conservation Techniques for Hillside Farms, A Guide for Peace Corps Volunteers. Peace Corps Information Collection and Exchange Reprint Series No.R-62. November 1986. Available at: <http://files.eric.ed.gov/fulltext/ED288044.pdf>.

Five Counties. 2002. A Water Quality and Stream Habitat Protection Manual for County Road Maintenance in Northwestern California Watersheds. Five Counties Salmon Conservation Program. Available at: <http://www.5counties.org/roadmanual.htm>.

Forrest, ~~Charlene C.~~ and ~~Jane~~-Young, ~~J. P.~~ 2006. The Effects of Organic and Inorganic Nitrogen Fertilizer on the Morphology and Anatomy of Cannabis sativa “Fédrina” (Industrial Fibre Hemp) Grown in Northern British Columbia, Canada. Journal of Industrial Hemp Vol. 11, Iss.2, 2006.

Freeze, ~~R. A.~~ and ~~J. A.~~-Cherry, ~~J.~~ 1979. Groundwater, 604 pp. Available at: <http://hydrogeologistswithoutborders.org/wordpress/1979-toc/>.

Gale, D.B., ~~T. R.~~-Hayden, ~~L. S.~~ ~~T. R.~~, Harris, ~~L. S.~~, and ~~H. N.~~-Voight, ~~H. N.~~ 1998. Assessment of anadromous fishstocks in Blue Creek, lower Klamath River, California, 1994-1996. Yurok Tribal Fisheries Program.

Griggs, F. T. 2009. California Riparian Habitat Restoration Handbook. River Partners. Available at: http://www.conservation.ca.gov/dlrp/watershedportal/InformationResources/Documents/Restoration_Handbook_Final_Dec09.pdf.

Hausback, ~~Brian B.~~ P., Muffler, ~~Patrick L. J.~~ ~~P.~~, and Clynne, ~~Michael M.~~ ~~A.~~ 2011. Sutter Buttes-The Lone Volcano in California’s Great Valley, United States Geological Survey Fact Sheet 2001-3024, Menlo Park, CA.

Haver, D. 2007. Best Management Practices; A Water Quality Field Guide for Nurseries. University of California Cooperative Extension. Available at: http://www.waterboards.ca.gov/sandiego/water_issues/programs/wine_country/docs/updates081910/ucce_bmps.pdf.

Lane, ~~Belize B.~~, Dahlke, ~~Helen H.~~, Pasternack, ~~Gregory G.~~, and Sandoval-Solis, ~~Samuel~~, ~~2016 S.~~ ~~2017~~. Revealing the Diversity of Natural Hydrologic Regimes in California with Relevance for Environmental Flows Applications. Journal of the American Water Resources Association, JAWRA-16-0071-P. ~~R3. In press.~~

[Lane, B., Sandoval, S., and Stein, E. 2017. Characterizing diverse river landscapes using hydrologic classification and dimensionless hydrographs. In Prep](#)

Legislative Analyst’s Office (LAO). 2016. Ballot Analysis Proposition 64 Marijuana Legislation Initiative Statute. <http://www.lao.ca.gov/BallotAnalysis/Proposition?number=64&year=2016>. Accessed 17 January 2017.

Ludington, ~~Steve S.~~, Moring, ~~Barry B.~~, Miller, ~~Robert R.~~, Stone, ~~Paul P.~~, Bookstrom, ~~Arthur A.~~, Bedford, ~~David D.~~, Evans, ~~James J.~~, Haxel, ~~Gordon G.~~, Nutt, ~~Constance C.~~, Flynn, ~~Katherine K.~~, and Hopkins, ~~Melanie M.~~ 2007. Preliminary Integrated Geologic Map Databases for the United States: Western States, United States Geologic Survey Open File

Report 2005-1305, Version 1.3, December 2007. Accessed at:
<https://pubs.usgs.gov/of/2005/1305/>. Accessed March 10, 2017.

Markham, C. 1970. Seasonality of Precipitation in the United States. *Annals of the Association of American Geographers* 60(3):593-597.

Michigan Department of Environmental Quality. 1992. Spoil Piles. Available at:
http://michigan.gov/documents/deq/deq-wb-nps-sp_250905_7.pdf

Moore, E.M., and Twiss, T.J. 1995. Tectonics. W.H. Freeman and Company, New York.

Moyle, P.B., P.I. Samuel, and R. Lusardi. 2017. State of the Salmonids II: Fish in Hot Water by California Trout and UC Davis Center for Watershed Sciences. San Francisco, CA.

National Marine Fisheries Service (NMFS). 2017. Proactive Conservation Program: Species of Concern. Accessed at <http://www.nmfs.noaa.gov/pr/species/concern/>. Viewed on 15 Mar. 2017.

NMFS. 2015. Public Draft Coastal Multispecies Recovery Plan. National Marine Fisheries Service, West Coast Region, Santa Rosa, California.

NMFS. 2014a. Final Recovery Plan for the Southern Oregon/Northern California Coast Evolutionarily Significant Unit of Coho Salmon (*Oncorhynchus kisutch*). National Marine Fisheries Service. Arcata, CA.

NMFS. 2014b. Recovery Plan for the Evolutionarily Significant Units of Sacramento River Winter-run Chinook Salmon and Central Valley Spring-run Chinook Salmon and the Distinct Population Segment of California Central Valley Steelhead. California Central Valley Area Office. July 2014.

NMFS. 2013. South-Central California Coast Steelhead Recovery Plan. West Coast Region, California Coastal Area Office, Long Beach, California.

NMFS. 2012a. Final Recovery Plan for Central California Coast coho salmon Evolutionarily Significant Unit. National Marine Fisheries Service, Southwest Region, Santa Rosa, California.

NMFS. 2012b. Southern California Steelhead Recovery Plan. Southwest Region, Protected Resources Division, Long Beach, California.

NMFS. 2007a. 2007 Federal Recovery Outline for the Distinct Population Segment of Central California Coast Steelhead. National Marine Fisheries Service, Southwest Regional Office, Long Beach, California.

NMFS. 2007b. 2007 Federal Recovery Outline for the Distinct Population Segment of Northern California Steelhead. National Marine Fisheries Service, Southwest Regional Office, Long Beach, California.

NMFS. 1998. "Factors Contributing to the Decline of Chinook Salmon: An Addendum to the 1996 West Coast Steelhead Factors for Decline Report," Portland, Oregon: Protected Resources Division, National Marine Fisheries Service.

NMFS. 1996. Status Review of West Coast Steelhead from Washington, Idaho, Oregon and California. NOAA [National Oceanic and Atmospheric Administration] Technical Memorandum NMFS-NWFSC-27.

Natural Resources Conservation Service. 2005. Prevent Soil Erosion on Your Property. California Watershed Recovery Project. Available at:
https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_063808.pdf

PRISM Climate Group, 2016. 30-year Normals (1981-2010) Annual: Precipitation, Minimum Temperature, Maximum Temperature; Elevation. Accessed at:
<http://prism.oregonstate.edu/>, retrieved December 5, 2016.

R2 Resource Consultants, Inc. and Stetson Engineers, Inc., 2007. North Coast Instream flow Policy: Scientific Basis and Development of Alternatives Protecting Anadromous Salmonids.

Resource Conservation District of Monterey County (RCDMC) and Monterey County Agricultural Commissioner's Office. 2014. Hillslope Farming Runoff Management Practices Guide. Available at: <http://www.rcdmonterey.org/pdf/rcdmc-hillslope-guide-rvsd-2.11.14.pdf>.

Ricketts T. H. 1999. Terrestrial Ecoregions of North America: A Conservation Assessment. Washington (DC): Island Press.

Ruddiman, W.F., 2001, Earths Climate, Past and Future. W.H. Freeman and Company, New York.

Sanctuary Forest. 2008. Water Storage Guide; Storing water to benefit streamflows and fish in North Coast creeks and rivers. Available at: https://greywateraction.org/wp-content/uploads/2014/11/SanctuaryForrest_Water_Storage_Guide.pdf.

Santos, N.R., [Katz, J.V.](#), ~~E. Katz, P.~~, Moyle, [P.](#) and ~~J.H.~~ Viers, [J.H.](#) 2014. A programmable information system for management and analysis of aquatic species range data in California. Environmental Modelling & Software, Vol. 53, 13-26. Retrieved from <http://www.sciencedirect.com/science/article/pii/S1364815213002673>.

Snyder Industries, Inc. 2008. Guidelines for Use and Installation of Above Ground Water Tanks. Available at: http://www.waterandseptic tanks.com/Portals/0/files/GUIDELINES-FOR-INSTALLATION-OF-WATER-TANKS-_rev1_-03-20-08-_2_.pdf.

State Water Resources Control Board (State Water Board). 2012. Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems. Available at:
http://www.waterboards.ca.gov/water_issues/programs/owts/docs/owts_policy.pdf

State Water Board. 2010. Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem. Sacramento, CA. August 2010.

Tennant, D.L. 1976. Instream flow regimens for fish, wildlife, recreation and related environmental resources.

Tessman, S.A. 1979. Environmental Assessment. Technical Appendix E, in “Reconnaissance Elements” of the Western Dakotas Region of South Dakota Study. Water Resource Research Institute, South Dakota University.

United States Department of Agriculture. 1997. Ponds – Planning, Design, Construction, Agriculture Handbook. Natural Resources Conservation Service. Available at: http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_030362.pdf.

United States Environmental Protection Agency (USEPA). [2013. SPCC Guidance for Regional Inspectors. Office of Emergency Management. Available at: http://www2.epa.gov/sites/production/files/2014-04/documents/spcc_guidance_fulltext_2014.pdf](http://www2.epa.gov/sites/production/files/2014-04/documents/spcc_guidance_fulltext_2014.pdf) ~~1999. Riparian Forest Buffer. Chesapeake Bay Foundation.~~

USEPA. 2006. The Volunteer Estuary Monitoring Manual, Ch. 15 Turbidity and Total Solids. EPA-842-B-06-003. Available at: https://www.epa.gov/sites/production/files/2015-09/documents/2009_03_13_estuaries_monitor_chap15.pdf.

[USEPA. 1999. Riparian Forest Buffer. Chesapeake Bay Foundation.](#)

United States Fish and Wildlife Service. 2001. Juvenile salmonid monitoring on the mainstem Klamath River at Big Bar and mainstem Trinity River at Willow Creek, 1997-2000. Annual Report of the Klamath River Fisheries Assessment Program. Arcata Fish and Wildlife Office, Arcata, CA.

United States Geological Survey (USGS) National Hydrography Dataset. Available at: <https://nhd.usgs.gov/>.

Vannice, C. 2011. Medical Marijuana – an Exploding New Industry. Pretreatment Pipeline, Third Quarter 2011. City of Littleton/Englewood WWTP Pretreatment Division. Available at: <http://www.lewwtp.org/home/showdocument?id=5674>. Accessed 17 January 2017.

Weaver, W., ~~E.~~ Weppner, ~~E.~~, and ~~D.~~ Hagans, ~~D.~~ 2015. Handbook for Forest, Ranch & Rural Roads. The Mendocino County Resource Conservation District. Ukiah, CA. Available at: <http://www.pacificwatershed.com/sites/default/files/RoadsEnglishBOOKApril2015b.pdf>.

Wenger, S. J. and ~~L.~~ Fowler, ~~L.~~ 2000. Protecting Stream and River Corridors: Creating Effective Local Riparian Buffer Ordinances. Carl Vinson Institute of Government, University of Georgia. Available at: http://www.ohioenvironmentallawblog.com/uploads/file/UGA%20riparian_buffer_guidebook.pdf.

Western Regional Climate Center, 2015. California Climate Data Archive, National Weather Service- Cooperative Observer Program data, <http://www.calclim.dri.edu/>. Last updated July 21, 2015, data retrieved December 6-13, 2016.

Whittaker, R. H. 1960. Vegetation of the Siskiyou Mountains, Oregon and California. Biology Department, Brooklyn College, New York.

Whittaker, R. H. 1961. Estimation of Net Primary Production of Forest and Shrub Communities. Biology Department, Brooklyn College, New York.

Yarnell, S.M., ~~J.~~Viers, [J.H.](#), and ~~J.~~Mount, [J.](#). 2010. Ecology and Management of the Spring Snowmelt Recession. *Bioscience* 60(2):114-127.

[Zimmerman, J.K.H., Carlisle, D.M., May, J.T., Howard, J.K., Klausmeyer, K.R., Brown, L.R., and Grantham, T.E. 2017. Patterns and Magnitude of Flow Alteration in California, USA.](#)

DRAFT

DRAFT

State Water Resources Control Board

~~DRAFT~~

Cannabis Cultivation Policy

ATTACHMENT A

Definitions and Requirements for Cannabis Cultivation

~~July 7, 2017~~

October 17, 2017

~~DRAFT~~

Table of Contents

| | |
|--|------|
| OVERVIEW | 53 |
| Definitions | 53 |
| SECTION 1—GENERAL REQUIREMENTS AND PROHIBITIONS | 188 |
| General Requirements and Prohibitions | 188 |
| Cannabis General Water Quality Certification | 3117 |
| SECTION 2—REQUIREMENTS RELATED TO WATER DIVERSIONS AND WASTE DISCHARGE FOR CANNABIS CULTIVATION | 3319 |
| Land Development and Maintenance, Erosion Control, and Drainage Features | 3319 |
| Limitations on Earthmoving | 3319 |
| Construction Equipment Use and Limitations | 3420 |
| Erosion Control | 3524 |
| Private Road/Land Development and Drainage | 3722 |
| Drainage Culverts | 4024 |
| Cleanup, Restoration, and Mitigation | 4025 |
| Stream Crossing Installation and Maintenance | 4126 |
| Limitations on Work in Watercourses and Permanently Poned Areas | 4126 |
| Temporary Watercourse Diversion and Dewatering: All Live Watercourses | 4226 |
| Watercourse Crossings | 4428 |
| Soil Disposal and Spoils Management | 4529 |
| Riparian and Wetland Protection and Management | 4630 |
| Water Storage and Use | 4630 |
| Water Supply, Diversion, and Storage | 4630 |
| Water Conservation and Use | 5234 |
| Irrigation Runoff | 5235 |
| Fertilizers, Pesticides, and Petroleum Products | 5436 |
| Fertilizers and Soils | 5537 |
| Pesticides and Herbicides | 5537 |
| Petroleum Products and Other Chemicals | 138 |
| Cultivation-Related Waste | 138 |
| Refuse and Domestic Waste | 138 |
| Winterization | 239 |
| SECTION 3—NUMERIC AND NARRATIVE INSTREAM FLOW REQUIREMENTS (INCLUDING GAGING) | 441 |
| Narrative Instream Flow Requirements | 441 |
| Instream Flow Requirements for Surface Water Diversions | 441 |

| | |
|---|-------------|
| Requirements for Groundwater Diversions..... | 843 |
| Gage Installation, Maintenance, and Operation Requirements..... | 843 |
| SECTION 4 – WATERSHED COMPLIANCE GAGE ASSIGNMENTS..... | 1045 |
| Watershed Compliance Gage Assignments..... | 1045 |
| Table 1. Klamath Region Compliance Gage Numeric Instream Flow Requirements..... | 1146 |
| Table 2. Upper Sacramento Region Compliance Gage Numeric Instream Flow Requirements..... | 1348 |
| Table 3. North Eastern Region Compliance Gage Numeric Instream Flow Requirements..... | 1449 |
| Table 4. North Coast Region Compliance Gage Numeric Instream Flow Requirements..... | 1550 |
| Table 5. Middle Sacramento Region Compliance Gage Numeric Instream Flow Requirements..... | 1651 |
| Table 6. Southern Sacramento Region Compliance Gage Numeric Instream Flow Requirements..... | 1852 |
| Table 7. North Central Coast Region Compliance Gage Numeric Instream Flow Requirements..... | 2154 |
| Table 8. Tahoe Region Compliance Gage Numeric Instream Flow Requirements..... | 2356 |
| Table 9. South Central Coast Region Compliance Gage Numeric Instream Flow Requirements..... | 2457 |
| Table 10. San Joaquin Region Compliance Gage Numeric Instream Flow Requirements..... | 2759 |
| Table 11. Mono Region Compliance Gage Numeric Instream Flow Requirements..... | 2961 |
| Table 12. Kern Region Compliance Gage Numeric Instream Flow Requirements..... | 3062 |
| Table 13. South Coast Region Compliance Gage Numeric Instream Flow Requirements..... | 3163 |
| Table 14. South Eastern Desert Region Compliance Gage Numeric Instream Flow Requirements..... | 3567 |
| SECTION 5 – PLANNING AND REPORTING..... | 3668 |
| Technical Report Preparation Requirements for Cannabis General Order..... | 3668 |
| Site Management Plan..... | 3769 |
| Site Erosion and Sediment Control Plan..... | 3769 |
| Disturbed Area Stabilization Plan..... | 3870 |
| Nitrogen Management Plan..... | 3970 |
| Site Closure Report..... | 3971 |
| SECTION 6 – USEFUL GUIDANCE DOCUMENTS..... | 4072 |
| OVERVIEW..... | 53 |
| Definitions..... | 53 |
| SECTION 1 – GENERAL REQUIREMENTS AND PROHIBITIONS..... | 1846 |
| General Requirements and Prohibitions..... | 1846 |

| | |
|--|--------------------|
| <u>Cannabis General Water Quality Certification.....</u> | <u>3126</u> |
| <u>SECTION 2 – REQUIREMENTS RELATED TO WATER DIVERSIONS AND WASTE DISCHARGE FOR CANNABIS CULTIVATION.....</u> | <u>3329</u> |
| <u>Land Development and Maintenance, Erosion Control, and Drainage Features</u> | <u>3329</u> |
| <u>Limitations on Earthmoving.....</u> | <u>3329</u> |
| <u>Construction Equipment Use and Limitations.....</u> | <u>3430</u> |
| <u>Erosion Control.....</u> | <u>3530</u> |
| <u>Access Road/Land Development and Drainage</u> | <u>3732</u> |
| <u>Drainage Culverts (See also Watercourse Crossings).....</u> | <u>4034</u> |
| <u>Cleanup, Restoration, and Mitigation.....</u> | <u>4034</u> |
| <u>Stream Crossing Installation and Maintenance</u> | <u>4135</u> |
| <u>Limitations on Work in Watercourses and Permanently Poned Areas</u> | <u>4135</u> |
| <u>Temporary Watercourse Diversion and Dewatering: All Live Watercourses.....</u> | <u>4236</u> |
| <u>Watercourse Crossings.....</u> | <u>4238</u> |
| <u>Soil Disposal and Spoils Management</u> | <u>4539</u> |
| <u>Riparian and Wetland Protection and Management.....</u> | <u>4640</u> |
| <u>Water Storage and Use</u> | <u>4640</u> |
| <u>Water Supply, Diversion, and Storage.....</u> | <u>4640</u> |
| <u>Water Conservation and Use</u> | <u>5245</u> |
| <u>Irrigation Runoff.....</u> | <u>5246</u> |
| <u>Fertilizers, Pesticides, and Petroleum Products</u> | <u>5447</u> |
| <u>Fertilizers and Soils</u> | <u>5548</u> |
| <u>Pesticides and Herbicides.....</u> | <u>5548</u> |
| <u>Petroleum Products and Other Chemicals.....</u> | <u>150</u> |
| <u>Cultivation-Related Waste</u> | <u>150</u> |
| <u>Refuse and Domestic Waste.....</u> | <u>150</u> |
| <u>Winterization.....</u> | <u>251</u> |
| <u>SECTION 3 – NUMERIC AND NARRATIVE INSTREAM FLOW REQUIREMENTS (INCLUDING GAGING).....</u> | <u>453</u> |
| <u>Narrative Instream Flow Requirements</u> | <u>453</u> |
| <u>Instream Flow Requirements for Surface Water Diversions.....</u> | <u>453</u> |
| <u>Requirements for Groundwater Diversions and Springs Qualifying for an Exemption under Narrative Instream Flow Requirement 3 (Exempt Springs).....</u> | <u>856</u> |
| <u>Gage Installation, Maintenance, and Operation Requirements.....</u> | <u>856</u> |
| <u>SECTION 4 – WATERSHED COMPLIANCE GAGE ASSIGNMENTS</u> | <u>1058</u> |
| <u>Watershed Compliance Gage Assignments</u> | <u>1058</u> |
| <u>Table 1. Klamath Region Compliance Gage Numeric Instream Flow Requirements</u> | <u>1159</u> |

| | |
|---|-------------|
| <u>Table 2. Upper Sacramento Region Compliance Gage Numeric Instream Flow Requirements</u> | <u>1361</u> |
| <u>Table 3. North Eastern Region Compliance Gage Numeric Instream Flow Requirements</u> | <u>1462</u> |
| <u>Table 4. North Coast Region Compliance Gage Numeric Instream Flow Requirements</u> | <u>1563</u> |
| <u>Table 5. Middle Sacramento Region Compliance Gage Numeric Instream Flow Requirements</u> | <u>1664</u> |
| <u>Table 6. Southern Sacramento Region Compliance Gage Numeric Instream Flow Requirements</u> | <u>1866</u> |
| <u>Table 7. North Central Coast Region Compliance Gage Numeric Instream Flow Requirements</u> | <u>2168</u> |
| <u>Table 8. Tahoe Region Compliance Gage Numeric Instream Flow Requirements</u> | <u>2370</u> |
| <u>Table 9. South Central Coast Region Compliance Gage Numeric Instream Flow Requirements</u> | <u>2471</u> |
| <u>Table 10. San Joaquin Region Compliance Gage Numeric Instream Flow Requirements</u> | <u>2774</u> |
| <u>Table 11. Mono Region Compliance Gage Numeric Instream Flow Requirements</u> | <u>2976</u> |
| <u>Table 12. Kern Region Compliance Gage Numeric Instream Flow Requirements</u> | <u>3077</u> |
| <u>Table 13. South Coast Region Compliance Gage Numeric Instream Flow Requirements</u> | <u>3178</u> |
| <u>Table 14. South Eastern Desert Region Compliance Gage Numeric Instream Flow Requirements</u> | <u>3582</u> |
| <u>SECTION 5 – PLANNING AND REPORTING</u> | <u>3683</u> |
| <u>Technical Report Preparation Requirements for Cannabis General Order</u> | <u>3683</u> |
| <u>Site Management Plan</u> | <u>3784</u> |
| <u>Site Erosion and Sediment Control Plan</u> | <u>3784</u> |
| <u>Disturbed Area Stabilization Plan</u> | <u>3885</u> |
| <u>Nitrogen Management Plan</u> | <u>3985</u> |
| <u>Site Closure Report</u> | <u>3985</u> |
| <u>SECTION 6 – USEFUL GUIDANCE DOCUMENTS</u> | <u>4087</u> |

OVERVIEW

This Attachment A contains diversion and discharge Requirements for cannabis cultivation activities. The cannabis cultivator shall comply with all Requirements in this Policy, and applicable federal, state, and local laws, regulations, and permitting requirements. In the event of duplicate or conflicting requirements, the most stringent requirements shall apply. There are five main categories of cannabis cultivation Requirements to protect water quality and instream flows, which are organized into the following sections:

- Section 1. General Requirements and Prohibitions, and General Water Quality Certification for Cannabis Cultivation Activities
- Section 2. Requirements Related to Water Diversions and Waste Discharge for Cannabis Cultivation
- Section 3. Numeric and Narrative Instream Flow Requirements (including Gaging)
- Section 4. Watershed Compliance Gage Assignments
- Section 5. Planning and Reporting

Definitions

The following are definitions of terms used in the ~~five sections of the Requirements Policy,~~ Attachment A, Staff Report, and General Order.

| No. | TERM DEFINITION |
|-------------|--|
| <u>1.</u> | <u>Access Road</u> – A road, other than a completely paved road regularly maintained by a governmental entity, that provides access to one or more cannabis cultivation areas. |
| <u>4.2.</u> | Agronomic Rate – the The rate of application of irrigation water and nutrients to plants necessary to satisfy the plants’ evapotranspiration requirements and growth needs and minimize the movement of nutrients below the plants root zone. The agronomic rate considers allowances for supplemental water (e.g., effective precipitation), irrigation distribution uniformity, nutrients present in irrigation water, leaching requirement, and plant available nitrogen. |
| <u>3.</u> | <u>Anadromy (adj. form: anadromous)</u> — Migration of fish, as adults or subadults, from salt water to fresh. |
| <u>4.</u> | <u>Aquatic Base Flow</u> — The set of chemical, physical, and biological instream flow conditions that represent limiting conditions for aquatic life in stream environments. The aquatic base flow is determined using defined scientific methodology that equates the aquatic ecosystem health with the flow in the stream, calculated by applying the New England Aquatic Base Flow Standard. |
| <u>5.</u> | <u>Aquatic benthic macroinvertebrate</u> — Aquatic animals without backbones that can be seen by the unaided eye and typically dwell on rocks, logs, sediment or plants. Examples |

| No. | TERM <u>DEFINITION</u> |
|--------------|---|
| | <u>include, but are not limited to, insects, mollusks, amphipods, and aquatic worms. Common aquatic insects include, but are not limited to, mayflies, stoneflies, caddisflies, true flies, water beetles, dragonflies, and damselflies.</u> |
| <u>6.</u> | <u>Aquatic non-fish vertebrate — Include, but are not limited to: aquatic mammals, such as beavers, river otters, and muskrats; amphibians, such as frogs and salamanders; and aquatic reptiles, such as snakes and turtles.</u> |
| <u>7.</u> | <u>Average, also called mean — The sum of measured values divided by the number of samples.</u> |
| <u>2-8.</u> | California Native American tribe – As defined in section 21073 of the Public Resources Code: a Native American tribe located in California that is on the contact list maintained by the Native American Heritage Commission for the purposes of Chapter 905 of the Statutes of 2004. |
| <u>3-9.</u> | Cannabis Cultivation – any <u>Any</u> activity involving or necessary for the planting, growing, pruning, harvesting, drying, curing, or trimming of cannabis. This term includes, but is not limited to: (1) water diversions for cannabis cultivation, and (2) activities that prepare or develop a cannabis cultivation site or otherwise support cannabis cultivation and which discharge or threaten to discharge waste to Waters <u>waters</u> of the State <u>state</u> . |
| <u>4-10.</u> | Cannabis Cultivation Area – is defined by the following: a. For in-ground plants, the cultivation area is defined by the perimeter of the area planted, including any immediately adjacent surrounding access pathways. b. For plants grown outdoors in containers (e.g., pots, grow bags, etc.) the cultivation area is defined by the perimeter of the area that contains the containers, including any immediately adjacent surrounding access pathways. The area is not limited to the sum of the area of each individual container. c. For plants grown indoors, that do not qualify for the conditional exemption under the Cannabis General Order, the cultivation area is defined by the entire area contained in the structure where cultivation occurs, excluding any area used solely for activities that are not cultivation activities (e.g., office space). Areas used for storage of materials, equipment, or items related to cannabis cultivation shall be included in the cultivation area calculation. |
| <u>5-11.</u> | Cannabis Cultivation Site – a <u>A</u> location where cannabis is planted, grown, pruned, harvested, dried, cured, graded, or trimmed, or where any combination of these activities occurs. |
| <u>6-12.</u> | Cannabis Cultivator – any <u>Any</u> person or entity engaged in cultivating cannabis that <u>who</u> diverts water (i.e., diverter) or discharges or threatens to discharge waste (i.e., discharger). This <u>Thi</u> se term includes business entities; employees; contractors; land owners <u>landowners</u> ; cultivators; lessees; and tenants of private land where cannabis is cultivated and of lands that are modified or maintained to facilitate cannabis cultivation. |

| No. | TERM <u>DEFINITION</u> |
|--------------|---|
| <u>13.</u> | <u>Waterbody Canopy Area — The overhead branches and leaves of streamside woody vegetation.</u> |
| <u>14.</u> | <u>Cannabis Canopy Area (Canopy Area) – The anticipated canopy acreage at plant maturity.</u> |
| <u>15.</u> | <u>Cesspool — An excavation in the ground receiving domestic wastewater, designed to retain organic matter and solids, while allowing the liquids to seep into the soil. Cesspools do not have a septic tank providing primary treatment of wastewater prior to discharge. A cesspool is distinguished from an outhouse, pit-privy, or pit-toilet because liquid wastewater (e.g., from toilet flushing, shower, or kitchen sources) is discharged to a cesspool.</u> |
| <u>16.</u> | <u>Channel maintenance flows — Peak streamflows needed for maintaining stream channel geometry, gravel and woody debris movement, and the natural flow variability needed for protection of various habitat needs of anadromous salmonids.</u> |
| <u>17.</u> | <u>Channel thalweg — The line connecting the lowest or deepest points along a stream channel.</u> |
| <u>18.</u> | <u>Coarse sediment — Particle sizes of ¼ inch or larger, including particles derived from debris flows, that either contribute directly to spawning gravel, or that reduce to a smaller usable size, or influence stream channel morphology by forming a substrate framework.</u> |
| <u>7-19.</u> | <u>Construction Storm Water Program – refers<u>Refers</u> to implementation of Water Quality Order 2009-0009-DWQ and National Pollutant Discharge Elimination System No. CAS000002, as amended by Order No. 2010-0014-DWQ, Order No. 2012-0006-DWQ, and amendments thereto. <u>Activities located in the Lake Tahoe Hydrologic Unit shall comply with the National Pollutant Discharge Elimination System No. CAG616002, Order No. R6T-2016-0010 and amendments thereto.</u> Cannabis cultivators whose activities disturb one or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan<u>plan</u> of development<u>development</u> that in total disturbs one or more acres may need to obtain coverage under the Construction Storm Water Program. Construction activities covered under the Construction Storm Water Program may include clearing, grading, and disturbances to the ground such as stockpiling, or excavation, but does not include agricultural stormwater discharges, silviculture road construction and maintenance from which there is natural runoff, regular maintenance activities performed to restore the original line, grade, or capacity of a facility, or other non-point source discharges. Contact the appropriate Regional Water Board Storm Water Program for a determination of the need for storm water permitting.</u> |
| <u>8-20.</u> | <u>Day – is the mean solar day of 24 hours beginning at midnight (12:00 am). All references to day in this Policy <u>and the General Order</u> are calendar days.</u> |
| <u>21.</u> | <u>Deep percolation — Infiltration of water through soil when storm water or excess irrigation water is applied and percolates below the plant root zone.</u> |
| <u>9-22.</u> | <u>Discharger – any person or entity engaged in developing land for cannabis cultivation or to provide, providing access to adjacent properties for cultivation activities and/or any person or entity, or engaged in the legal cultivation of cannabis that discharges or threatens to</u> |

| No. | TERM <u>DEFINITION</u> |
|---------------|--|
| | discharge waste. |
| <u>23.</u> | <u>Disturbed Area – see Land Disturbance</u> |
| <u>24.</u> | <u>Disturbed Land – see Land Disturbance</u> |
| <u>25.</u> | <u>Diversion — Taking water, by gravity or pumping, from a surface stream or groundwater, into a canal, pipeline, or other conduit, including impoundment of water in a reservoir.</u> |
| <u>10-26.</u> | <u>Diverter – anyAny person or entity that diverts water from waters of the state, including surface waterbodies and groundwater.</u> |
| <u>27.</u> | <u>Dredged material — Any material that is excavated or dredged from a waterbody. This includes but is not limited to “dredged material” as defined at title 33, section 323.2, subdivision (c) of the Code of Federal Regulations.</u> |
| <u>28.</u> | <u>Ecological functions and values (of riparian habitat) — Functions are onsite and offsite natural riparian habitat processes. Values are the importance of the riparian habitat to society in terms of health and safety; historical or cultural significance; ecological characteristics, education, research, or scientific significance; aesthetic significance; economic significance; or other reasons.</u> |
| <u>29.</u> | <u>Ephemeral watercourse — See Watercourse definitions.</u> |
| <u>30.</u> | <u>Exceedance probability — The probability that a specified streamflow magnitude will be exceeded. The exceedance probability is equal to one divided by the recurrence interval.</u> |
| <u>31.</u> | <u>Face value —The maximum amount of water that is authorized to be diverted under a water right permit, license, registration, or livestock stockpond certificate, and the maximum amount of water claimed under a statement of water diversion and use.</u> |
| <u>32.</u> | <u>Face value demand — The sum of the face values of all water rights above an identified location in a stream channel.</u> |
| <u>33.</u> | <u>Fill material — Material placed into a waterbody that has the effect of either replacing any portion of the water with dry land or changing the bottom elevation of the waterbody. This includes but is not limited to “fill material” as defined at title 33, section 323.2, subdivision (e) of the Code of Federal Regulations.</u> |
| <u>34.</u> | <u>Fish – Wild fish, mollusks, crustaceans, invertebrates, or amphibians, including any part, spawn, or ova thereof (California Fish and Code section 45). For the purposes of stream classification, fish are defined as finfish.</u> |
| <u>35.</u> | <u>Flow frequency analysis — A statistical technique used by hydrologists for estimating the average rate at which floods, droughts, storms, stores, rainfall events, etc., of a specified magnitude recur.</u> |
| <u>36.</u> | <u>Flow path — The direction water flows along its stream course from the point of diversion to the Pacific Ocean. If a project will have a <i>de minimis</i> effect on flows in a flow-regulated</u> |

| No. | TERM DEFINITION |
|------------|--|
| | <u>mainstem river, then the flow path may terminate at the flow-regulated mainstem river.</u> |
| <u>37.</u> | <u>Flow-regulated mainstem river</u> — A river or stream in which scheduled releases from storage are made to meet minimum instream flow requirements established by a State Water Board Order or Decision. |
| <u>38.</u> | <u>Forbearance Period</u> —The calendar days or otherwise defined conditions during which no water may be diverted. See also <i>Surface Water Diversion Period</i> . |
| <u>39.</u> | <u>Habitat suitability criteria</u> — Structural and hydraulic characteristics of a stream that are indicators of habitat suitability for different fish species and life stages. |
| <u>40.</u> | <u>Hazardous material</u> — Any item or agent (biological, chemical, radiological, and/or physical), which has the potential to cause harm to humans, animals, or the environment, either by itself or through interaction with other factors. |
| <u>41.</u> | <u>Heavy equipment</u> — Large pieces of machinery or vehicles, especially those used in the building and construction industry (e.g., bulldozers, excavators, backhoes, bobcats, or tractors). |
| <u>42.</u> | <u>Hydraulic conductivity</u> — The capacity of a porous medium to transmit water. The rate at which fluid can move through a permeable medium depends on the properties of the fluid (viscosity and specific weight) and properties of the medium (intrinsic permeability). Hydraulic conductivity is generally measured in units of feet/day or centimeters/second. |
| <u>43.</u> | <u>Hydrograph</u> — A graph showing the rate of flow versus time past a specific point in a river, or other channel or conduit carrying flow; generally measured in units of cubic meters or cubic feet/second. |
| <u>44.</u> | <u>Hyporheic</u> — Denoting an area or ecosystem beneath the bed of a river or stream that is saturated with water and that supports invertebrate fauna which play a role in the larger ecosystem. |
| <u>45.</u> | <u>Impervious surface</u> — A permanent improvement affixed to the earth which does not allow water or liquid to pass through it or permeate into the earth. Impervious surface includes a house or primary structure, driveway, parking lot, walkways, sidewalks, patios, decks, green houses, accessory structure(s), and other hardscape. |
| <u>46.</u> | <u>Instream cover</u> — Areas of shelter in a stream channel that provide aquatic organisms protection from predators or competitors and/or a place in which to rest and conserve energy due to a reduction in the force of the current. |
| <u>47.</u> | <u>Integrated Pest Management (IPM)</u> — An ecosystem-based strategy that focuses on long-term prevention of pests or their damage through a combination of techniques such as biological control, habitat manipulation, modification of cultural practices, and use of resistant varieties. Pesticides are used only after monitoring indicates they are needed according to established guidelines, and treatments are made with the goal of removing only the target organism. Pest control materials are selected and applied in a manner that minimizes risks |

| No. | TERM DEFINITION |
|---------------|--|
| | <u>to human health, beneficial and non-target organisms, and the environment.</u> |
| <u>48.</u> | Intermittent watercourse — see <i>Watercourse</i> definitions. |
| <u>49.</u> | Invasive Species — Organisms (plants, animals, or microbes) that are not native to an environment and that, once introduced, establish, quickly reproduce and spread, and cause harm to the environment, economy, or human health. For guidance on decontamination methods and species of concern, see CDFW's invasive species webpage: https://www.wildlife.ca.gov/Conservation/Invasives . |
| <u>50.</u> | <p>Lake and Streambed Alteration Agreement — Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following:</p> <ul style="list-style-type: none"> • <u>Substantially divert or obstruct the natural flow of any river, stream or lake;</u> • <u>Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or</u> • <u>Deposit debris, waste or other materials that could pass into any river, stream or lake.</u> <p><u>"Any river, stream or lake" includes those that are episodic (they are dry for periods of time) as well as those that are perennial (they flow year round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water.</u></p> |
| <u>44-51.</u> | <p>Land Disturbance – landLand areas where natural conditions have been modified in a way that may result in an increase in turbidity in water discharged from the site. Disturbed land includes areas where natural plant growth has been removed whether by physical, animal, or chemical means, or natural grade has been modified for any purpose. Land disturbance includes all activities whatsoever associated with developing or modifying land for cannabis cultivation related activities or access. Land disturbance activities include, but are not limited to, construction of roads, buildings, water storage areas; excavation, grading, and site clearing. Disturbed land includes cultivation areas, storage areas where soil or soil amendments (e.g., potting soil, compost, or biosolids) are located.</p> <p><u>Access roads that are designed, constructed, and maintained, or are reconstructed consistent with the Handbook for Forest, Ranch, and Rural Roads (Road Handbook), and that implement the interim and long term erosion prevention and soil stabilization measures contained in Attachment A, are not considered disturbed areas for the purpose of tier determination under the Cannabis General Order.</u></p> |
| <u>42-52.</u> | <p>Land Owner — anyLandowner – Any person or entity who owns, in whole or in part, the parcel of land on which cannabis cultivation is occurring or will occur. A land ownerlandowner need not be a cannabis cultivator.</p> |
| <u>53.</u> | Laterals (in the context of irrigation water lines) — Pipes between the control valve and the sprinkler heads. |
| <u>43-54.</u> | Legacy Conditionsconditions – are sites of historie historical activity, which may not be related to cannabis cultivation activities that may discharge sediment or other waste constituents to waters of the state. Legacy conditions are caused or affected by human |

| No. | TERM <u>DEFINITION</u> |
|-----|---|
| | activity. Implementation of corrective actions can reduce or eliminate the waste discharge. |
| 55. | <p><u>Licensed Contractor</u> - In California, anyone who contracts to perform work that is valued at \$500 or more in combined labor and material costs must hold a current, valid license from the California Contractors' State License Board. Licensed contractors are classified as general engineering, general building, or specialty contractors.</p> <ul style="list-style-type: none"> • <u>General engineering ("A" contractors) principally work with fixed works that require specialized engineering knowledge and skill. A general engineering contractor may perform the work or hire specialty contractors for specific tasks.</u> • <u>General building ("B" contractors) work on existing or new structures that require at least two unrelated types of work. In some cases a general building contractor can perform the work, but often must hire subcontractors with specialty licenses.</u> • <u>Specialty contractors ("C" contractors) are those who specialize in a particular skill or trade. Specialty or subcontractors usually are hired to perform a single task.</u> <p><u>Because there is significant overlap between specialty contractor skills, more than one specialty contractor may be licensed to contract for a project.</u></p> |
| 56. | <u>Licensed Timber Operators (LTOs)</u> — Persons who have been licensed under the Forest Practice Act law and are authorized to conduct forest tree cutting and removal operations. |
| 57. | <u>Local Environmental Health Department</u> — To identify ones local environmental health department, enter your address information into the following website directory: http://cersapps.calepa.ca.gov/public/directory . |
| 58. | <u>Mainlines (in the context of irrigation water lines)</u> — Pipes that run from the water source to the control valves. |
| 59. | <u>Maximum cumulative diversion rate</u> — The sum of the rates of diversion of all diversions upstream of a specific location in the watershed. |
| 60. | <u>Mean, also called average</u> — The sum of measured values divided by the number of samples. |
| 61. | <u>Minimum bypass flow</u> — In the context of a diversion Requirement, it is the minimum instantaneous flow rate of water that must be moving past the point of diversion before water may be diverted. |
| 62. | <u>Natural monthly streamflows</u> — Modeled monthly streamflows that are unaffected by land use or water management. |
| 63. | <u>Offset well</u> — A well drilled at an offset distance from a river or stream that is considered pumping from the underflow of the river or stream. |
| 64. | <u>Perennial watercourse</u> — See <i>Watercourse</i> definitions. |
| 65. | <u>Period of record</u> — The time period for which flow measurements have been recorded. The period of record may be continuous or interrupted by intervals during which no data were |

| No. | TERM <u>DEFINITION</u> |
|---------------|---|
| | <u>collected.</u> |
| <u>66.</u> | Permeability —The property of a porous rock or soil for transmitting a fluid. It measures the relative ease of flow under unequal pressure. See <i>hydraulic conductivity</i> . |
| <u>67.</u> | <p>Pesticide — Pesticide is defined as follows:</p> <p>- Per California Code of Regulations Title 3, Division 6, Section 6000:</p> <p>(a) Any substance or mixture of substances that is a pesticide as defined in the Food and Agricultural Code and includes mixtures and dilutions of pesticides;</p> <p>(b) As the term is used in Section 12995 of the California Food and Agricultural Code, includes any substance or product that the user intends to be used for the pesticidal poison purposes specified in Sections 12753 and 12758 of the Food and Agricultural Code.</p> <p>- Per California Food and Agricultural Code section 12753(b), the term “Pesticide” includes any of the following: Any substance, or mixture of substances which is intended to be used for defoliating plants, regulating plant growth, or for preventing, destroying, repelling, or mitigating any pest, as defined in Section 12754.5, which may infest or be detrimental to vegetation, man, animals, or households, or be present in any agricultural or nonagricultural environment whatsoever.</p> <p>- In laymen’s terms: “pesticide” includes: rodenticides, herbicides, insecticides, fungicides, and disinfectants.</p> |
| <u>68.</u> | Point of Diversion — A location at which water is withdrawn from a surface waterbody. |
| <u>69.</u> | Pool — A deeper area of water in a stream channel; usually quiet and often with no visible flow. |
| <u>70.</u> | Professional Archeologist — An Archeologist that is qualified by the Secretary of Interior, Register of Professional Archaeologists, or Society for California Archaeology. |
| <u>14.71.</u> | Qualified Biologist – an individual who possesses, at a minimum, a bachelor’s or advanced degree, from an accredited university, with a major in biology, zoology, wildlife biology, natural resources science, or a closely related scientific discipline, at least two years of field experience in the biology and natural history of local plant, fish, and wildlife resources present at the Cannabis Cultivation Site <u>cannabis cultivation site</u> , and knowledge of state and federal laws regarding the protection of sensitive and endangered species. |
| <u>15.72.</u> | <p>Qualified Professional – Qualified Professional means:</p> <ol style="list-style-type: none"> 1. individuals licensed in California under the Professional Engineer Act (e.g., Professional Engineer), Geologist and Geophysicist Act (e.g., Professional Geologist <u>and</u>, Certified Engineering Geologist, <u>or Certified Hydrogeologist</u>), and Professional Land Surveyors’ Act (e.g., Professional Land Surveyor)¹, 2. a California Registered Professional Forester (RPF), and |

¹ See Business and Professions Code sections 6700-6799, 7800-7887, and 8700-8805, respectively.

| No. | TERM <u>DEFINITION</u> |
|---------------|--|
| | <p>3. a Qualified Storm Water Pollution Prevention Plan (SWPPP) Practitioner<u>Developer</u> (QSD). <u>Qualified QSDs are California licensed civil engineers; professional geologists; landscape architects; professional hydrologists; certified professionals in erosion and sediment control; certified inspectors of sediment and erosion control; and certified erosion, sediment, and storm water inspectors.</u></p> <p>A Qualified Professional shall only perform work he/she is qualified to complete, consistent with applicable licensing and registration restrictions, and shall certify any work completed. Cannabis cultivation land development in timberland may be designed by a qualified California RPF.</p> |
| <u>73.</u> | <u>Range of anadromy — Length of stream reach between the Pacific Ocean and the upper limit of anadromy (see definition of <i>Anadromy</i>), where migration, spawning and rearing of salmonids occur.</u> |
| <u>74.</u> | <u>Recurrence interval — The average time between occurrences of streamflows of a given or greater magnitude, sometimes referred to as the return period. The recurrence interval is equal to one divided by the exceedance probability.</u> |
| <u>75.</u> | <u>Redd — Spawning areas or nests made by a salmon or trout</u> |
| <u>46-76.</u> | Requirements - Principles and guidelines established in accordance with Water Code section 13149 for the diversion and use of water for cannabis cultivation. Principles and guidelines include: (i) measures to protect springs, wetlands, and aquatic habitats from negative impacts of cannabis cultivation; and (ii) requirements that apply to groundwater diversions where the State Water Board determines those requirements are reasonably necessary. |
| <u>77.</u> | <u>Residual pool depth — The difference between the depth of a pool at its deepest point and at its outlet.</u> |
| <u>78.</u> | <u>Restricted materials — Restricted materials are defined in California Code of Regulations, title 3, section 6400. Restricted materials include all “restricted use pesticides,” as defined in the Federal Insecticide, Fungicide, and Rodenticide Act section 3(d)(1)(C). Information on restricted materials is available at: http://www.cdpr.ca.gov/docs/enforce/compend/vol_3/chap2.pdf.</u> |
| <u>79.</u> | <u>Riffle — A shallow area in which water flows rapidly over a rocky or gravelly streambed.</u> |
| <u>80.</u> | <u>Riffle crest — The highest point along the channel thalweg at a riffle.</u> |
| <u>81.</u> | <u>Riparian habitat — Vegetation growing close to a stream, lake, swamp, or spring that is generally critical for wildlife cover, fish food organisms, stream nutrients and large organic debris, and for streambank stability.</u> |
| <u>82.</u> | <u>Riparian Setback – setbacks from a watercourse or waterbody established to protect water quality and/or aquatic life. For the purposes of this document, riparian setbacks also apply to wetlands and surface water bodies such as lakes or reservoirs. Please refer to the Minimum</u> |

| No. | TERM DEFINITION |
|------------------------|---|
| | Riparian Setback table (Section 1, Requirement 37) |
| 83. | Road Handbook - The Handbook for Forest, Ranch, and Rural Roads, available at: http://www.pacificwatershed.com/PWA-publications-library . |
| 84. | Salmonid — Of, belonging to, or characteristic of the family Salmonidae, which includes salmon, trout, and whitefish. |
| 85. | Sheet flow length — The length that shallow, low velocity flow travels across a site. |
| 17-86. | Site Mitigation – efforts Efforts to mitigate the impacts of Legacy Conditions conditions or cannabis cultivation activities on the cannabis cultivation site or its surroundings. |
| 18-87. | Site Remediation – efforts Efforts to restore the cannabis cultivation site and its surroundings to its pre-legacy conditions or condition before cannabis cultivation activities began, or to restore the cannabis cultivation site and its surroundings to its natural condition. |
| 19-88. | <p>Slope – shall be determined across the natural topography (preconstruction) of the land to be disturbed land. Measure the highest and lowest elevations of the land to be disturbed land, then measure the horizontal distance separating the highest and lowest elevations. Determine the slope using the formula below. (Multiple the ratio by 100 to find the percent value.) There may be more than one slope value if the low elevation has higher elevations in different directions. The highest slope value calculated (highest percentage numerically) is the value to be reported.</p> $\text{Slope} = \frac{\text{elevation difference}}{\text{horizontal distance}} \times 100$ <p>Slope – Value of slope expressed as a percentage.</p> <p>Elevation difference – Report in feet to an accuracy of one inch or one tenth of a foot.</p> <p>Horizontal distance – Report in feet to an accuracy of one inch or one tenth of a foot.</p> |
| 20-89. | Soil Materials – include Include soil, aggregate (rock, sand, or soil), potting soil, compost, manure, or biosolid biosolids. |
| 90. | Spring — See Watercourse definitions . |
| 21-91. | Stabilized Areas – consist Consist of areas previously disturbed that have been successfully reclaimed to minimize the increase in sediment or turbidity in water discharged from the site. Areas where vehicles may travel or be parked may not be considered stabilized. |
| 92. | Substrate —The material (e.g., sand, gravel, cobbles, boulders, bedrock, and combinations thereof) that forms the bed of a stream. |
| 93. | Surface Water Diversion Period — The calendar period during which water may be diverted. See also Forbearance Period . |
| 94. | Thalweg — See channel thalweg . |

| No. | TERM DEFINITION |
|------------------|---|
| 22-95 | Timberland – pursuant <u>Pursuant</u> to Public Resources Code section 4526, means land, other than land owned by the federal government and land designated by the Board of Forestry as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species, on a district basis, are defined in California Code of Regulations, title 14, section 895.1. |
| 23-96 | Tribal lands – lands recognized as “Indian country” within the meaning of title 18, United States Code, section 1151. |
| 24-97 | Turbidity – a measure of water clarity: how much the material suspended in water decreases the passage of light through the water. Suspended materials include soil particles (clay, silt, and sand), algae, plankton, and other substances. The turbidity test is reported in Nephelometric Turbidity Units (NTUs). |
| 98. | <u>Upper limit of anadromy — The upstream end of the range of anadromous fish that currently are or have been historically present year-round or seasonally, whichever extends the furthest upstream.</u> |
| 25-99 | Waterbody – any significant accumulation of water above the ground surface, such as: lakes, ponds, rivers, streams, creeks, springs, seeps , artesian wells, wetlands, and canals. |
| 26-10 | <p>Watercourse – a natural or artificial channel through which water flows.</p> <ul style="list-style-type: none"> Perennial watercourse (Class I):-*): <ol style="list-style-type: none"> In the absence of diversions, water is flowing for more than nine months during a typical year, Fish always or seasonally present onsite or includes habitat to sustain fish migration and spawning, and/or Spring or seep: <u>a place; an area</u> where <u>there is concentrated discharge of ground</u> water <u>that</u> flows <u>out of at</u> the ground <u>surface</u>. A spring or seep may flow the whole year or any part of the year. <u>For the purpose of this Policy, a spring does not have a defined bed and banks.</u> Intermittent watercourse (Class II):-*): <ol style="list-style-type: none"> <u>1.</u> In the absence of diversions, water is flowing for three to nine months during a typical year, <u>2. Provides aquatic habitat for non-fish aquatic species,</u> <u>4-3. Fish always or seasonally present within 1,000 feet downstream,</u> <u>and/or</u> <u>2-4.</u> Water is flowing less than three months during a typical year and the stream supports riparian vegetation. Ephemeral watercourse (Class III):-*): In the absence of diversion, water is flowing less than three months during a typical year and the stream does not support riparian vegetation or aquatic life. Ephemeral watercourses typically have water flowing for a short duration after precipitation events or snowmelt and show evidence of being capable of sediment transport. Ephemeral watercourses include channels, swales, |

| No. | TERM <u>DEFINITION</u> |
|--------------|---|
| | <p>gullies, rills, and any other drainage features that channelize and transport runoff.</p> <ul style="list-style-type: none"> • <u>Other watercourses (Class IV):*</u>: Class IV watercourses do not support native aquatic species and are man-made, provide established domestic, agricultural, hydroelectric supply, or other beneficial use. <p><u>*Except where more restrictive, stream class designations are equivalent to the Forest Practice Rules Water Course and Lake Protection Zone definitions (California Code of Regulations, title 14, Chapter 4. Forest Practice Rules, Subchapters 4, 5, and 6 Forest District Rules, Article 6 Water Course and Lake Protection).</u></p> |
| <u>101.</u> | <p><u>Watershed</u> — <u>The land area that drains into a stream. An area of land that contributes runoff to one specific delivery point; large watersheds may be composed of several smaller "subsheds", each of which contributes runoff to different locations that ultimately combine at a common delivery point. Often considered synonymous with a drainage basin or catchment. Watershed (drainage basin) boundaries follow topographic highs. The term watershed is also defined as the divide separating one drainage basin from another.</u></p> |
| <u>102.</u> | <p><u>Watershed drainage area</u> — <u>The land area that comprises a watershed.</u></p> |
| <u>103.</u> | <p><u>Water hauler</u> — <u>Any person who hauls water in bulk by any means of transportation.</u></p> |
| <u>27-10</u> | <p>Waters of the State – any surface water or groundwater, including saline waters, within the boundaries of the state (Water Code section 13050(e)). Includes all waters within the state's boundaries, whether private or public, including waters in both natural and artificial channels. Waters of the state includes waters of the United States.</p> |
| <u>105.</u> | <p><u>Weed-free mulch</u> — <u>A certified weed-free protective covering (e.g. bark chips, straw, etc.) placed on the ground around plants to suppress weed growth, retain soil moisture, or prevent freezing of roots.</u></p> |
| <u>28-10</u> | <p>Wetland – an area is a wetland if, under normal circumstances:</p> <ol style="list-style-type: none"> 1. the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; 2. the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and 3. the area's vegetation is dominated by hydrophytes or the area lacks vegetation. |
| <u>29-10</u> | <p>Winter Period – calendar dates from November 15 to April 1, except as noted under special County Rules in California Code of Regulations, title 14, sections 925.1, 926.18, 927.1, and 965.5. <u>A Regional Water Board Executive Officer may impose a more restrictive winter period to protect water quality based on special county rules or as specified in a Basin Plan. The following special rules or basin plan requirements apply:</u></p> <ol style="list-style-type: none"> <u>i. Santa Clara County, Santa Cruz County, and Monterey County: October 15 to April 15;</u> <u>ii. Marin County: October 1 to April 15; and</u> |

| No. | TERM <u>DEFINITION</u> |
|-----|--|
| | i.iii. <u>Lahontan Regional Water Board: October 15 to May 1 (for elevations above 6,000 feet).</u> |

DRAFT

SECTION 1 – GENERAL REQUIREMENTS AND PROHIBITIONS

The following general requirements and prohibitions apply to any cannabis cultivator.

General Requirements and Prohibitions

| No. | TERM |
|-----|---|
| 1. | <p>Prior to commencing any cannabis cultivation activities, including cannabis cultivation land development or alteration, the cannabis cultivator shall comply with all applicable federal, state, and local laws, regulations, and permitting requirements, as applicable, including but not limited to the following:</p> <ul style="list-style-type: none"> • The Clean Water Act (CWA) as implemented through permits, enforcement orders, and self-implementing requirements. When needed per the requirements of the CWA, the cannabis cultivator shall obtain a CWA section 404 (33 U.S.C. § 1344) permit from the United States Army Corps of Engineers (Army Corps) and a CWA section 401 (33 U.S.C. § 1341) water quality certification from the State Water Board or the Regional Water Board with jurisdiction. If the CWA permit cannot be obtained, the cannabis cultivator shall contact the appropriate Regional Water Board or State Water Board prior to commencing any cultivation activities. The Regional Water Board or State Water Board will determine if the cannabis cultivation activity and discharge is covered by the Requirements in the Policy and Cannabis General Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (Cannabis General Order). • The California Water Code as implemented through applicable water quality control plans (often referred to as Basin Plans), waste discharge requirements (WDRs) or waivers of WDRs, enforcement orders, and self-implementing requirements issued by the State Water Resources Control Board (State Water Board) or Regional Water Quality Control Boards (Regional Water Boards). • All applicable state, city, county, or local regulations, ordinances, or license requirements including, but not limited to those for cannabis cultivation, grading, construction, and building. • All applicable requirements of the California Department of Fish and Wildlife (CDFW). • All applicable requirements of the California Department of Forestry and Fire Protection (CAL FIRE), including the Board of Forestry. • California Environmental Quality Act and the National Environmental Policy Act. |
| 2. | <p>If applicable, cannabis cultivators shall obtain coverage under all of the following:</p> <ol style="list-style-type: none"> a. The State Water Board's Construction Storm Water Program and any successors, amendments, or revisions thereto when applicable. b. Activities performed in areas subject to California Code of Regulations title 14, |

| No. | TERM |
|------|--|
| | Chapter 4. Forest Practices (Forest Practice Rules) shall be implemented consistent with the permitting, licensing, and performance standards of the Forest Practice Rules, and the Requirements of this Policy, whichever is more stringent. |
| 3. | <p>The cannabis cultivator shall consult with CDFW to determine if a Lake and Streambed Alteration Agreement (LSA Agreement) is needed prior to commencing any activity that may substantially:</p> <ul style="list-style-type: none"> • divert or obstruct the natural flow of any river, stream, or lake; • change or use any material from the bed, channel, or bank of any river, stream, or lake; or • deposit debris, waste, or other materials that could pass into any river stream or lake. <p>"Any river, stream or lake²," as defined by CDFW, includes those that are episodic (they are dry for periods of time) as well as those that are perennial (they flow year round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water.</p> |
| 4. | Cannabis cultivators shall not take any action which results in the taking of Special-Status Plants (state listed and California Native Plant Society 1B.1 and 1B.2)), <u>Fully Protected species (Fish and Game Code sections 3511, 4700, 5050, and 5515)</u> , or a threatened, endangered, or candidate species under either the California Endangered Species Act (ESA) (Fish & Game Code §§ 2050 et seq.) or the federal ESA (16 U.S.C. § 1531 et seq.). If a "take," as defined by the California ESA (Fish and Game Code section 86) or the federal ESA (16 U.S.C. § 1532(21)), may result from any act authorized under this Policy, the cannabis cultivator must obtain authorization from CDFW, National Marine Fisheries Service, and United States Fish and Wildlife Service, as applicable, to incidentally take such species prior to land disturbance or operation associated with the cannabis cultivation activities. The cannabis cultivator is responsible for meeting all requirements under the California ESA and the federal ESA. |
| 5. | <p><u>A Regional Water Board may adopt site-specific WDRs or an enforcement order for a cannabis cultivation facility that does not include requirements consistent with the following if the site-specific WDRs or enforcement order contains sufficient requirements to be protective of water quality:</u></p> <ul style="list-style-type: none"> • <u>The maximum slope limit of 50 percent in disturbed areas.</u> • <u>The minimum riparian setbacks described herein.</u> • <u>The prohibition against land disturbance activities during the winter period.</u> |
| 5.6. | <p>To avoid water quality degradation from erosion and sedimentation, land disturbance activities shall only not occur between April 1 and November 15 of each year, during the winter period unless authorized by a Regional Water Board Executive Officer² approved² work plan and compliance schedule.. Cannabis cultivators shall ensure land</p> |

² ~~The Regional Water Board Executive Officer may delegate, in writing, receipt, review, and approval of work plans or other documents required by this Policy.~~

| No. | TERM |
|-------|---|
| | disturbance disturbing activities are completed and site stabilization measures are in place prior to the onset of fall and the winter precipitation period. All land disturbance disturbing activities between November 16 and March 31 during the winter period shall be supervised by a Qualified Professional. ³ |
| 6-7. | A California Licensed Timber Operator (LTO) ⁴ shall be used if any commercial tree species are to be removed from the cannabis cultivation site. All timberland conversions shall be permitted and compliant with the Forest Practice Rules and CAL FIRE permitting requirements. |
| 8. | <u>Site improvements and limited repairs may be performed by the cannabis cultivator or contractors as allowed by the Business and Professions Code (Bus. & Prof. Code, section 7044 and/or section 7048). All contracts to perform work that is valued at \$500 or more in combined labor and material costs shall be performed by an appropriately qualified and licensed contractor as required by the California Contractors' State License Board.</u> |
| 7-9. | <p>During land disturbance activities the cannabis cultivator shall review and evaluate the applicable daily weather forecast and any applicable 24 hour forecast⁵ at least once per 24 hour period and maintain records of the weather forecast for each day land disturbance activities are conducted. The cannabis cultivator shall cease land disturbance activities and shall implement erosion control Requirements described in this Policy during any 24 hour period in which the applicable daily weather forecast or any 24 hour forecast reports a 50 percent or greater chance of precipitation greater than 0.5 inch per 24 hours.</p> <p><u>Consistent with Lahontan Regional Water Board Order No R6T-2016-0010, an anticipated precipitation event within the Lake Tahoe Hydrologic Unit (Department of Water Resources Hydrologic Unit No.634.00) is any weather pattern that is forecast to have a 30 percent or greater chance of producing 0.1 inch of precipitation as rainfall in the project area. Cannabis cultivators located in the Lake Tahoe Hydrologic Unit shall cease land disturbance activities and shall implement erosion control Requirements described in this Policy during any 24 hour period in which the applicable daily weather forecast or any 24 hour forecast reports a 30 percent or greater chance of precipitation greater than 0.1 inch per 24 hours. This requirement may be updated based on amendments to the Lahontan Regional Water Board construction storm water general order.</u></p> |
| 8-10. | Prior to commencing any cannabis land development or site expansion activities the cannabis cultivator shall secure retain a qualified biologist. The to identify sensitive plant, |

³ Although emergency mitigation measures may not require obtaining coverage under the Construction Storm Water Program, the elevated threat to water quality caused by emergency mitigation or remediation work performed ~~from November 15 to April 1~~during the winter period requires planning and supervision by an appropriately qualified professional to protect water quality, such as an appropriately certified or registered Storm Water Pollution Prevention Plan ~~Practitioner~~Developer.

⁴ Licensed Timber Operators or "LTOs" are persons who have been licensed under the Forest Practice Act law and are authorized to conduct forest tree cutting and removal operations.

⁵ If available, the cannabis cultivator shall refer to the weather forecast developed by the National Oceanic and Atmospheric Administration (NOAA) for the local National Weather Service Office (<http://www.weather.gov>). If the NOAA forecast is not available, a forecast by a local television news or radio broadcast shall be used.

| No. | TERM |
|--------|--|
| | wildlife species, or communities at the proposed development site. If sensitive plant, wildlife species, or communities are identified, the cannabis cultivator and the Qualified Biologist shall consult with CDFW and CAL FIRE and to designate and mark a no-disturbance buffer to protect identified sensitive plant and wildlife species, and communities. <u>A copy of the report shall be submitted to the appropriate Regional Water Board.</u> |
| 9-11. | All <u>To prevent transfer of invasive species,</u> ⁶ all equipment used at the <u>Cannabis Cultivation Site</u> cannabis cultivation site , including excavators, graders, etc., which may have come in contact with invasive species ⁷ shall be cleaned before arriving and before leaving the site. |
| 10-12. | The cannabis cultivator shall comply with all applicable requirements of the State Water Board and Regional Water Boards' (collectively Water Boards) water quality control plans and policies. |
| 11-13. | The cannabis cultivator shall immediately report any significant hazardous material release or spill that causes a film or sheen on the water's surface, leaves a sludge or emulsion beneath the water's surface, or a release or threatened release of a hazardous material that may potentially discharge to waters of the state, to the California Office of Emergency Services at (800) 852-7550 and the local Unified Program Agency. ⁸ The cannabis cultivator shall also immediately notify the appropriate Regional Water Board and CDFW of the release. |
| 12-14. | The cannabis cultivator shall comply with all water quality objectives/standards, policies, and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act (California Water Code section 13000, et seq.) or CWA section 303 (33 U.S.C. § 1313). The cannabis cultivator shall protect the beneficial uses of the waterbody and its tributaries from any diversions or discharges related to cannabis cultivation activities. |
| 13-15. | The <u>During reasonable hours, the</u> cannabis cultivator shall permit <u>allow</u> the Water Boards, CDFW, CAL FIRE, and any other authorized representatives of the Water Boards, CDFW, or CAL FIRE upon presentation of a badge, employee identification card, or similar credentials, to: 1. enter premises and facilities where cannabis is cultivated; where water is diverted, stored, or used; where wastes are treated, stored, or disposed of; or in which any records are kept; |

⁶ CDFW defines invasive species as organisms (plants, animals, or microbes) that are not native to an environment, and once introduced, they establish, quickly reproduce and spread, and cause harm to the environment, economy, or human health. Cannabis cultivators may refer to CDFW Internet webpage for guidance on decontamination methods and species of concern. See CDFW's invasive species webpage at: <https://www.wildlife.ca.gov/Conservation/Invasives>.

⁷ ~~CDFW defines invasive species as organisms (plants, animals, or microbes) that are not native to an environment, and once introduced, they establish, quickly reproduce and spread, and cause harm to the environment, economy, or human health. Cannabis cultivators may refer to CDFW Internet webpage for guidance on decontamination methods and species of concern. See CDFW's invasive species webpage at: <https://www.wildlife.ca.gov/Conservation/Invasives>.~~

⁸ Visit the Unified Program Agency website at <http://cersapps.calepa.ca.gov/public/directory> for local contact information. If internet service is not available call 911 to report the hazardous material release.

| No. | TERM |
|--------|---|
| | <p>2. access and copy, during daylight hours or other reasonable hours, any records required to be kept under the terms and conditions of this Policy;</p> <p>3. inspect, photograph, and record audio and video, during daylight hours or other reasonable hours, any cannabis cultivation sites, and associated premises, facilities, monitoring equipment or device, practices, or operations regulated or required by this Policy; and</p> <p>4. sample, monitor, photograph, and record audio and video of site conditions, any discharge, waste material substances, or water quality parameters at any location for the purposes of assuring compliance with this Policy.</p> |
| 44-16. | The State Water Board has the authority to may modify this Policy to implement: new or revised water quality standards, policies, or water quality control plans; total maximum daily loads (TMDLs), TMDL implementation plans, or revisions to the California Water Code or CWA. |
| 45-17. | The State Water Board reserves authority to may modify this Policy and the terms and conditions of water right registrations if monitoring results indicate that continued cannabis cultivation activities could violate instream flow requirements or , water quality objectives, or impair the beneficial uses of a waterbody and/or its tributaries. |
| 46-18. | Cannabis cultivators shall not commit trespass. Nothing in this Policy or any program implementing this Policy shall be construed to authorize cannabis cultivation activities: (a) on land not owned by the cannabis cultivator without the express written permission of the land owner/landowner; or (b) inconsistent with a conservation easement, open space easement, or greenway easement. This includes but is not limited to land owned by the United States or any department thereof, the State of California or any department thereof, any local agency, or any other person who is not the cannabis cultivator. This includes but is not limited to any land owned by a California Native American tribe, as defined in section 21073 of the Public Resources Code, whether or not the land meets the definition of tribal lands and includes lands owned for the purposes of preserving or protecting Native American cultural resources of the kinds listed in Public Resources Code section 5097.9 and 5097.993. This includes but is not limited to conservation easements held by a qualifying California Native American tribe pursuant to Civil Code section 815.3 and greenway easements held by a qualifying California Native American tribe pursuant to Civil Code section 816.56. |
| 47-19. | The cannabis cultivator shall not cultivate cannabis on tribal lands or within 600 feet of tribal lands without the express written permission of the governing body of the affected tribe or from a person deputized by the governing body of the affected tribe to authorize cannabis cultivation on tribal lands. ⁹ |

⁹ Tribal lands means lands recognized as "Indian country" within the meaning of title 18, United States Code, section 1151.

| No. | TERM |
|-------------------|---|
| 18-20. | No cannabis cultivation activities shall occur within 600 feet of an identified tribal cultural resource site. The cannabis cultivator is solely responsible for identifying any tribal cultural resource sites ¹⁰ within the cannabis cultivation area. |
| 19-21. | <p>Prior to land disturbance activities for new or expanded cannabis cultivation activities, the cannabis cultivator shall perform a records search of potential Native American archeological or cultural resources (CHRIS potential discovery) at a California Historical Resources Information System (CHRIS) information center. A CHRIS qualified archaeologist shall<u>Any person who meets qualification requirements for access to the CHRIS may</u> perform the <u>initial CHRIS</u> records search and document the results. <u>The requirement to perform a CHRIS records search may be satisfied by using the results of a previous CHRIS records search completed within the previous 10 years for the specific parcel or parcels where new or expanded cannabis cultivation activities are proposed to occur.</u></p> <p><u>Prior to land disturbance activities for new or expanded cannabis cultivation activities, the cannabis cultivator shall also request a search of the Sacred Lands Inventory that is maintained by the Native American Heritage Commission pursuant to Public Resources Code sections 5097.94, subdivision (a), and 5097.96 (Sacred Lands Inventory). If the Sacred Lands Inventory search reveals the presence or potential presence of Native American places of special or social significance to Native Americans, Native American known graves or cemeteries, or Native American sacred places, the cannabis cultivator shall consult with the tribe or tribes that are culturally affiliated with the area in which these Native American cultural resources exist or potentially exist prior to any ground disturbing activities. The information provided by tribes through consultation with the cannabis cultivator shall be maintained as confidential by the cannabis cultivator and its agents. A new Sacred Lands Inventory search is always required prior to ground disturbing activities for new or expanded cannabis cultivation.</u></p> <p>If any buried archeological materials or indicators¹¹ are uncovered or discovered during any cannabis cultivation activities, all ground disturbing activities shall immediately cease within 100 feet of the find.</p> <p>The cannabis cultivator shall notify the Appropriate Person within 48 hours of any discovery or within seven days of <u>receiving</u> a CHRIS potential discovery<u>positive result or Sacred Lands Inventory positive result</u>. The Appropriate Person is the Deputy Director for Water Rights (Deputy Director) if the cannabis cultivator is operating under the Cannabis <u>SIUR, Small Irrigation Use Registration (SIUR)</u>, the Executive Officer of the applicable Regional Water Board (Executive Officer) if the cannabis cultivator is operating under the Cannabis General Order or Cannabis General Water Quality Certification, or both if the cannabis cultivator is</p> |

¹⁰ Identified tribal cultural resource site means a tribal cultural resource that meets the requirements of section 21074, subdivision (a)(1) of the Public Resources Code.

¹¹ ~~Prehistoric archeological indicators include, but are not limited to: obsidian and chert flakes and chipped stone tools; bedrock outcrops and boulders with mortar cups; ground stone implements (grinding slabs, mortars, and pestles) and locally darkened midden soils containing some of the previously listed items plus fragments of bone, fire affected stones, shellfish, or other dietary refuse.~~

~~Historic period site indicators generally include, but are not limited to: fragments of glass, ceramic and metal objects; milled and split lumber; and structure and feature remains such as building foundations, privy pits, wells and dumps; and old trails.~~

| No. | TERM |
|-----|--|
| | <p>operating under both programs.</p> <p>In the event that prehistoric archeological materials or indicators are discovered<u>identified in a CHRIS positive result</u>, the cannabis cultivator shall also notify the Native American Heritage Commission within 48 hours of any discovery or within seven days of <u>receiving the CHRIS potential discovery positive result</u> and request a list of any California Native American tribes that are potentially culturally affiliated with the discovery or CHRIS potential discovery<u>positive result</u>. The cannabis cultivator shall notify any potentially culturally affiliated California Native American tribes of the discovery or CHRIS potential discovery<u>positive result</u> within 48 hours of receiving a list from the Native American Heritage Commission.</p> <p>The cannabis cultivator shall promptly retain a professional archeologist¹² to evaluate the discovery or CHRIS potential discovery<u>positive result</u> and recommend appropriate conservation measures. <u>In the event of a Sacred Lands Inventory positive result, the cannabis cultivator shall develop appropriate mitigation and conservation measures in consultation with the affected California Native American tribe, and shall promptly retain a professional archeologist to assist in this task in the event of a Sacred Lands Inventory positive result related to human remains or archeological resources.</u> The cannabis cultivator shall submit proposed <u>mitigation and</u> conservation measures to the appropriate person(s) (Deputy Director for the Cannabis SIUR and Executive Officer for the Cannabis General Order or Cannabis General Water Quality Certification) for written approval. The appropriate person may require all appropriate measures necessary to conserve archeological resources <u>and tribal cultural resources</u>, including but not limited to Native American monitoring, <u>preservation in place, and archeological data recovery.</u></p> <p>In the event that prehistoric archeological materials or indicators are discovered<u>identified in a CHRIS positive result, or in the event of a Sacred Lands Inventory positive result</u>, the cannabis cultivator shall also provide a copy of the <u>final</u> proposed <u>mitigation and</u> conservation measures to any culturally affiliated California Native American tribes identified by the Native American Heritage Commission. The appropriate person will carefully consider any comments <u>or mitigation measure recommendations</u> submitted by culturally affiliated California Native American tribes with the goal of conserving <u>tribal cultural resources and</u> prehistoric archeological resources with appropriate dignity.</p> <p>Ground-disturbing activities shall not resume within 100 feet of the discovery<u>commence</u> until all approved measures have been completed to the satisfaction of the Deputy Director and/or Executive Officer, as applicable.</p> |
| 22. | <p><u>If any buried archeological materials or indicators¹³ are uncovered or discovered during any cannabis cultivation activities, all ground-disturbing activities shall immediately cease within 100 feet of the find.</u></p> |

¹² A professional archeologist is one that is qualified by the Secretary of Interior, Register of Professional Archaeologists, or Society for California Archaeology.

¹³ Prehistoric archeological indicators include, but are not limited to: obsidian and chert flakes and chipped stone tools; bedrock outcrops and boulders with mortar cups; ground stone implements (grinding

| No. | TERM |
|--------|--|
| | <p><u>The cannabis cultivator shall notify the Appropriate Person within 48 hours of any discovery. The Appropriate Person is the Deputy Director if the cannabis cultivator is operating under the Cannabis SIUR, the Regional Water Board Executive Officer if the cannabis cultivator is operating under the Cannabis General Order or Cannabis General Water Quality Certification, or both if the cannabis cultivator is operating under both programs.</u></p> <p><u>In the event that prehistoric archeological materials or indicators are discovered, the cannabis cultivator shall also notify the Native American Heritage Commission within 48 hours of any discovery and request a list of any California Native American tribes that are potentially culturally affiliated with the discovery. The cannabis cultivator shall notify any potentially culturally affiliated California Native American tribes of the discovery within 48 hours of receiving a list from the Native American Heritage Commission.</u></p> <p><u>The cannabis cultivator shall promptly retain a professional archeologist¹⁴ to evaluate the discovery. The cannabis cultivator shall submit proposed mitigation and conservation measures to the appropriate person(s) (Deputy Director for the Cannabis SIUR and Regional Water Board Executive Officer for the Cannabis General Order or Cannabis General Water Quality Certification) for written approval. The appropriate person may require all appropriate measures necessary to conserve archeological resources and tribal cultural resources, including but not limited to Native American monitoring, preservation in place, and archeological data recovery.</u></p> <p><u>In the event of a discovery of prehistoric archeological materials or indicators are discovered, the cannabis cultivator shall also provide a copy of the final proposed mitigation and conservation measures to any culturally affiliated California Native American tribes identified by the Native American Heritage Commission. The appropriate person will carefully consider any comments or mitigation measure recommendations submitted by culturally affiliated California Native American tribes with the goal of conserving prehistoric archeological resources and tribal cultural resources with appropriate dignity.</u></p> <p><u>Ground-disturbing activities shall not resume within 100 feet of the discovery until all approved measures have been completed to the satisfaction of the Deputy Director and/or Executive Officer, as applicable.</u></p> |
| 20-23. | <p>Upon discovery of any human remains, cannabis cultivators shall immediately comply with Health and Safety Code section 7050.5 and, <u>if applicable</u>, Public Resources Code section 5097.98. The following actions shall be taken immediately upon the discovery of human remains:</p> <p>All ground-disturbing activities in the vicinity of the discovery shall stop immediately. The cannabis cultivator shall immediately notify the county coroner. Ground disturbing activities shall not resume until the requirements of Health and Safety Code section 7050.5 and, <u>if</u></p> |

slabs, mortars, and pestles) and locally darkened midden soils containing some of the previously listed items plus fragments of bone, fire affected stones, shellfish, or other dietary refuse.

Historic period site indicators generally include, but are not limited to: fragments of glass, ceramic and metal objects; milled and split lumber; and structure and feature remains such as building foundations, privy pits, wells and dumps; and old trails.

¹⁴ A professional archeologist is one that is qualified by the Secretary of Interior, Register of Professional Archaeologists, or Society for California Archaeology.

| No. | TERM |
|--------|--|
| | <p><u>applicable</u>. Public Resources Code section 5097.98 have been met. The cannabis cultivator shall ensure that the human remains are treated with appropriate dignity.</p> <p>Per Health and Safety Code section 7050.5, the coroner has two working days to examine human remains after being notified by the <u>person</u> responsible <u>personfor the excavation, or by their authorized representative</u>. If the remains are Native American, the coroner has 24 hours to notify the Native American Heritage Commission.</p> <p>Per Public Resources Code section 5097.98, the Native American Heritage Commission will immediately notify the <u>personpersons</u> it believes to be the most likely <u>descendent of descended from</u> the deceased Native American. The most likely descendent has 48 hours to make recommendations to the <u>cannabis cultivatorlandowner</u> or representative for the treatment or disposition, with proper <u>appropriate</u> dignity, of the human remains and any <u>associated</u> grave goods. If the <u>Native American Heritage Commission is unable to identify a descendant; the mediation provided for pursuant to subdivision (k) of Public Resources Code section 5097.94, if invoked, fails to provide measures acceptable to the landowner; or the</u> most likely descendent does not make recommendations within 48 hours,<u>the cannabis cultivator shall reinter the remains in an area; and the most likely descendants and the landowner have not mutually agreed to extend discussions regarding treatment and disposition pursuant to subdivision (b)(2) of the property secure from Public Resources Code section 5097.98, the landowner or their authorized representative shall reinter the human remains and items associated with the Native American human remains with appropriate dignity on the property in a location not subject to further and future disturbance; consistent with subdivision (e) of Public Resources Code section 5097.98..</u> If the <u>cannabis cultivatorlandowner</u> does not accept the descendant's recommendations, the <u>cannabis cultivatorlandowner</u> or the <u>descendentdescendants</u> may request mediation by the Native American Heritage Commission.<u>If mediation fails, the cannabis cultivator shall reinter the human remains and any grave goods with appropriate dignity on the property in a location not subject to future subsurface disturbance; pursuant to Public Resources Code section 5097.94, subdivision (k).</u></p> |
| 21.24. | <p>Pursuant to Water Code sections 100 and 275 and the common law public trust doctrine, all rights and privileges, including method of diversion, method of use, and quantity of water diverted, are subject to the continuing authority of the State Water Board in accordance with law and in the interest of the public welfare to protect public trust uses and to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of said water.</p> |
| 22. | <p>The cannabis cultivator shall control all dust related to cannabis cultivation activities to ensure dust does not produce sediment-laden runoff. The cannabis cultivator shall implement dust control measures, including, but not limited to, pre-watering of excavation or grading sites, use of water trucks, track-out prevention, washing down vehicles or equipment before leaving a site, and prohibiting land disturbance activities when instantaneous wind speeds (gusts) exceed 25 miles per hour. Diversion of surface water for dust control is prohibited unless authorized under a valid water right.</p> |
| 23. | <p>To minimize the risk of ensnaring and strangling wildlife, cannabis cultivators shall not use synthetic (e.g., plastic or nylon) monofilament netting materials for erosion control or any cannabis cultivation activities. This prohibition includes photo- or bio-degradable plastic</p> |

| No. | TERM |
|-------------------|--|
| | netting. |
| 24-25. | Cannabis cultivators shall not discharge <u>waste</u> in a manner that creates or threatens to create a condition of pollution or nuisance, as defined by Water Code section 13050. |
| 25-26. | Except as allowed and authorized in this Policy, cannabis cultivators shall not discharge: <ul style="list-style-type: none"> • irrigation runoff, tailwater, sediment, plant waste, or chemicals to surface water or via surface runoff; • waste classified as hazardous (California Code of Regulations, title 23, section 2521(a)) or defined as a designated waste (Water Code section 13173); or • waste in violation of, or in a manner inconsistent with, the appropriate Water Quality Control Plan(s). |
| 26-27. | Unless authorized by separate waste discharge requirements, <u>the Cannabis General Order</u> , or, a CWA section 404 permit, the following discharges are prohibited: <ul style="list-style-type: none"> • any waste that could affect the quality of the waters of the state; or • wastewater from cannabis manufacturing activities defined in Business and Professions Code section 26100, indoor grow operations, or other industrial wastewater to an onsite wastewater treatment system (e.g., septic tank and associated disposal facilities), to surface water, or to land. |
| 27-28. | Unless authorized by a Regional Water Board site-specific WDR, cannabis cultivators shall not cultivate cannabis or have cannabis cultivation related land disturbance on slopes greater than 50 percent. This prohibition does not apply to roads that are constructed consistent with the design, construction, and maintenance guidelines presented in this Policy and the Handbook for Forest, Ranch, and Rural Road¹⁶ (hereafter, Road Handbook). |
| 28-29. | Cannabis cultivators shall not use a cesspool for domestic or industrial wastewater <u>disposal</u> . Cannabis cultivators shall not install or continue use of an outhouse, pit-privy, pit-toilet, or similar device without approval from the Regional Water Board Executive Officer of the applicable Regional Water Board. |
| 29-30. | In timberland areas, unless authorized by CAL FIRE or the Regional Water Board Executive Director, Cannabis cannabis cultivators shall not remove trees commercial tree species or <u>other vegetation</u> within 150 feet of fish bearing water bodies or 100 feet of aquatic habitat for non-fish aquatic species (e.g., aquatic insects). (Public Resources Code section 4526-.) <u>prior to obtaining all applicable permits required from CAL FIRE, CDFW (i.e., LSA Agreement), and/or the Regional Water Board Executive Officer.</u> |
| 30-31. | After July 1, 2017, and prior to initiating any land disturbance, Tier Tier 1 or 2 cannabis cultivators located on slopes greater than 30% and less than 50% must submit a Site Erosion and Sediment Control Plan to the Regional Water Board Executive Officer for any cannabis-related land development or alteration. The Site Erosion and Sediment Control |

¹⁶ ~~The Handbook for Forest, Ranch, and Rural Roads (Weaver 2015) describes how to implement the Forest Practice Rules requirements for road construction and is available at:~~
<http://www.pacificwatershed.com/sites/default/files/RoadsEnglishBOOKApril2015b.pdf>.

| No. | TERM |
|--------|--|
| | <p>Plan shall be approved by the applicable Regional Water Board Executive Director<u>Officer</u> prior to the cannabis cultivator initiating <u>or expanding</u> any land disturbance. If any land disturbance was conducted on sites with slopes greater than 30% prior to July 1, 2017, cannabis cultivators must maintain substantial documentation and evidence of the <u>The Regional Water Board Executive Officer may deny the request to conduct new land disturbance activities, and have it on for cannabis cultivation if local conditions (e.g., soil type, site and available for review upon request instability, proximity to a waterbody, etc.) do not allow for adequate erosion and sediment control measures to ensure discharges to waters of the state will not occur.</u></p> |
| 31.32. | <p>Enrollees under any Cannabis General Order implementing this Policy shall self-certify that all applicable Requirements in this Policy have been or will be implemented no later than November 15 of the same year as the enrollment date and each year thereafter. If enrollment occurs after November 15, enrollees shall self-certify that all applicable Requirements in this Policy will be implemented by November 15 of the next calendar year, and each year thereafter. Those cannabis cultivators that cannot implement all applicable Requirements by November 15 shall, within 90 days of application submittal, submit to the Executive Officer of the applicable Regional Water Board a time schedule and scope of work for use by the Regional Water Board in developing a compliance schedule. Tier 1 or 2 cannabis cultivators with any portion of the disturbed areas existing within the setbacks shall submit a Disturbed Area Stabilization Plan to the Regional Water Board Executive Officer. The Disturbed Area Stabilization Plan shall be approved by the applicable Regional Water Board Executive Officer prior to the cannabis cultivator initiating any land stabilization activities. This requirement does not apply to disturbed areas resulting from activities authorized under 404/401 CWA permits, a CDFW LSA Agreement, coverage under the Cannabis General Order water quality certification, or site-specific WDRs issued by the Regional Water Board.</p> |
| 32.33. | <p>Tier 2 cannabis cultivators located on slopes greater than 30 percent and less than 50 percent shall not conduct new land disturbance activities for cannabis cultivation land development or alteration on slopes between 30 percent and 50 percent unless the cannabis cultivator either:</p> <ul style="list-style-type: none"> • has substantial documentation and evidence maintained on site and available upon request, that any land disturbance activities for cannabis cultivation on slopes greater than 30 percent were completed prior to July 1, 2017, or <p>within 90 days of Cannabis General Order application submittal submit a <i>Site Erosion and Sediment Control Plan</i> to the Regional Water Board Executive Officer, for approval, prior to any new land development or alteration for cannabis cultivation that occurs after July 1, 2017. The Regional Water Board Executive Officer may deny the request to conduct new land disturbance activities for cannabis cultivation if local conditions (e.g., soil type, site instability, proximity to a waterbody, etc.) do not allow for adequate erosion and sediment control measures to ensure discharges to waters of the state will not occur. If the cannabis cultivator does not submit a <i>Site Erosion and Sediment Control Plan</i> for approval prior to new land disturbance and within 90 days of application submittal the authorization pursuant to the Cannabis General Order may be revoked. Cannabis cultivators under any Cannabis General Order or individual WDR implementing this Policy shall self-certify that they have complied or will comply with all applicable Requirements in this Policy no later than the onset of the winter period of the same year as the application date and each year thereafter. If</p> |

| No. | TERM |
|--------|--|
| | <u>application occurs after the onset of the winter period, cannabis cultivators shall self-certify that all applicable Requirements in this Policy will be implemented by the onset of the winter period of the next calendar year, and each year thereafter. Those cannabis cultivators that cannot implement all applicable Requirements by the onset of the winter period shall, within 90 days of application submittal, submit to the Executive Officer of the applicable Regional Water Board a time schedule and scope of work for use by the Regional Water Board in developing a compliance schedule.</u> |
| 33-34. | Cannabis cultivators shall implement interim Requirements immediately following land disturbance, to minimize discharges of waste constituents. Interim Requirements are those that are implemented immediately upon site development cannabis . <u>Cannabis</u> cultivators shall complete all winterization Requirements prior to the onset of fall and the winter precipitation and no later than November 15 of each year, period to prevent waste discharges that may result in water quality degradation. |
| 34-35. | Cannabis cultivators shall not cause downstream exceedance of applicable water quality objectives identified in the applicable water quality control plan(s). |
| 35-36. | The land owner <u>landowner</u> is ultimately responsible for any water quality degradation that occurs on or emanates from its property and for water diversions that are not in compliance with this Policy. Land owners <u>Landowners</u> will be named as responsible parties and will be notified if a Cannabis General Order Notice of Applicability (NOA) or conditional exemption has been issued for cannabis activities on their property. The cannabis cultivator and the land owner <u>landowner</u> will be held responsible for correcting non-compliance with this Policy . |
| 36-37. | <p>Cannabis cultivators shall comply with the minimum riparian setbacks described below for all land disturbance, cannabis cultivation activities, and facilities (e.g., material or vehicle storage, diesel<u>petroleum</u> powered pump locations, water storage areas, and chemical toilet placement). The riparian setbacks shall be measured from the waterbody's bankfull stage (high flow water levels that occur every 1.5 to 2 years¹⁶) or from the top edge of the waterbody bank in incised channels, whichever is more conservative. Riparian setbacks for springheads shall be measured from the springhead in all directions (circular buffer). Riparian setbacks for wetlands shall be measured from the edge of <u>wetland as delineated by a qualified professional with experience implementing the bankfull water level</u>. <u>Corps of Engineers Wetlands Delineation Manual (with regional supplements)</u>. The cannabis cultivator shall increase <u>Regional Water Board Executive Officer may require additional</u> riparian setbacks <u>or additional requirements</u>, as needed or implement additional <u>Requirements</u>, to meet the performance Requirement<u>requirement</u> of protecting surface water from discharges that threaten water quality. If the cannabis cultivation Site<u>site</u> cannot be managed to protect water quality, the Executive Officer of the applicable Regional Water Board may revoke authorization for cannabis cultivation activities at the cannabis cultivation site.</p> <p>Minimum Riparian Setbacks^{1,2}</p> |

¹⁶ ~~California Forest Practice Rules Title 14, California Code of Regulations Chapter 4, section 895.1.~~

| No. | TERM | | | | |
|-----|---|--------------------------------|--|-----------------------------------|-----------------------|
| | Common Name | Watercourse Class ³ | Distance (Low Risk ²) | Distance (Mod Risk ²) | Variance ³ |
| | Perennial watercourses, <u>springs, waterbodies (e.g. lakes, ponds), or seeps</u> ⁴ | I | 150 ft. | 200 ft. | Compliance Schedule |
| | Intermittent watercourses <u>or wetlands</u> | II | 100 ft. | 150 ft. | Compliance Schedule |
| | Ephemeral watercourses | III | 50 ft. | 100 ft. | Compliance Schedule |
| | <u>Other waterbodies (lakes, etc.) and wetlands</u> <u>Man-made irrigation canals, water supply reservoirs, or hydroelectric canals that support native aquatic species</u> | IV | 150 ft. <u>Established Riparian Vegetation Zone</u> | 200 ft. | Compliance Schedule |
| | <u>All other man-made irrigation canals, water supply reservoirs, or hydroelectric canals</u> | IV | N/A | | |

¹ Riparian- A Regional Water Board may adopt site-specific WDRs or an enforcement order for a cannabis cultivator with requirements that are inconsistent with the setbacks ~~do not apply~~ in this table if the Executive Officer determines that the site-specific WDRs or enforcement order contains sufficient requirements to ~~man-made irrigation canals, be protective of water supply reservoirs, and hydroelectric canals (Watercourse Class IV) that do not support native aquatic species, however cannabis quality.~~

² Cannabis cultivators shall ensure land disturbance, enrolled in a Regional Water Board order adopting WDRs or a waiver of WDRs for cannabis cultivation activities prior to October 17, 2017, may retain reduced setbacks applicable under that Regional Water Board order unless the Regional Water Board's Executive Officer determines that the reduced setbacks applicable under that order are not protective of water quality.

³ Except where more restrictive, the stream class designations are equivalent to the Forest Practice Rules Water Course and Lake Protection Zone definitions (California Code of Regulations, title 14, Chapter 4. Forest Practice Rules, Subchapters 4, 5, and facilities are not located in or disturb the existing⁶ Forest District Rules, Article 6 Water Course and Lake Protection).

| No. | TERM |
|-----|--|
| | <p>⁴ Spring riparian and wetland setbacks default to the applicable watercourse riparian vegetation associated with these Watercourse Class IV waterbodies setback 150 feet downstream and/or upstream of the spring's confluence with the watercourse or 150 feet downstream of the point where the spring forms a watercourse with defined bed and banks.</p> <p>1. Risk is defined in Table 1 of this Policy and is based on the natural (prior to land disturbance activities) surface topography.</p> <p>2. Variance to riparian setbacks is only allowed if consistent with this Policy and a work plan and compliance schedule are approved by the applicable Regional Water Board Executive Officer.</p> |

Cannabis General Water Quality Certification

The State Water Board certifies that cannabis cultivation activities in compliance with the conditions of the Policy and General Order will comply with sections 301, 302, 303, 306, and 307 of the Clean Water Act, and with applicable provisions of State law, subject to the following additional terms and conditions:

| No. | TERM |
|-----|--|
| 1. | This certification action is subject to modification or revocation upon administrative or judicial review; including review and amendment pursuant to Water Code section 13330 and California Code of Regulations, title 23, section 3867. |
| 2. | This certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to California Code of Regulations, title 23, section 3855, subdivision (b), and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought. |
| 3. | This certification is conditioned upon total payment of any fee required under California Code of Regulations, title 23, division 3, chapter 28. |
| 4. | A cannabis cultivator seeking water quality certification coverage for activities in surface waters shall notify the Executive Officer of the Regional Water Board or State Water Board Executive Director at least 60 days prior to commencement of the activity and submit information regarding the construction schedule and other relevant information. Work may not commence until the cannabis cultivator is provided authorization by the appropriate Executive Officer of the Regional Water Board or Executive Director of the State Water Board. The Executive Officer of the Regional Water Board or Executive Director of the State Water Board may include specific monitoring requirements for turbidity and other constituents that may be associated with the activity to ensure applicable state water quality standards are met. |
| 5. | The authorization of this certification for any coverage under this Cannabis General Water Quality Certification or dredge and fill activities expires five years from the date this Policy is approved by the Office of Administrative Law. |

| No. | TERM |
|------------|---|
| 6. | Upon completion of the discharges of dredged or fill material, the cannabis cultivator shall submit a Notice of Completion certifying that all the conditions and monitoring and reporting requirements of this General Water Quality Certification, including the Policy, Cannabis General Order (if applicable), and conditions imposed by the Regional Water Board Executive Officer or State Water Board Executive Director, have been met. |
| 7. | All Policy and Cannabis General Order Requirements, standard conditions, general terms and provisions, and prohibitions are enforceable conditions of this General Water Quality Certification. |
| 8. | In the event of any violation or threatened violation of the conditions of this General Water Quality Certification, the violation or threatened violation shall be subject to any remedies, penalties, processes, or sanctions as provided for under state law. For purposes of section 401(d) of the Clean Water Act, the applicability of any state law authorizing remedies, penalties, process, or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this certification. |
| 9. | This General Water Quality Certification may be modified as needed by the Executive Director of the State Water Board. |

SECTION 2 – REQUIREMENTS RELATED TO WATER DIVERSIONS AND WASTE DISCHARGE FOR CANNABIS CULTIVATION

The following Requirements apply to any water diversion or waste discharge related to cannabis cultivation.

| No. | Term <u>TERM</u> |
|---|---|
| Land Development and Maintenance, Erosion Control, and Drainage Features | |
| Limitations on Earthmoving | |
| 1. | <p><u>Cannabis cultivators shall not conduct grading activities for cannabis cultivation land development or alteration on slopes exceeding 50 percent grade, or as restricted by local county or city permits, ordinances, or regulations for grading, agriculture, or cannabis cultivation; whichever is more stringent shall apply.</u></p> <p><u>All grading and earthwork shall be done by a state-licensed C-12 Earthwork and Paving contractor¹⁷, as applicable. The grading prohibition on slopes exceeding 50 percent does not apply to site mitigation or remediation if the cannabis cultivator is issued separate WDRs or an enforcement order for the activity by the Regional Water Board Executive Officer.</u></p> |
| 2. | <p><u>Finished cut and fill slopes, including side slopes between terraces, shall not exceed slopes of 50 percent and should conform to the natural pre-grade slope whenever possible.</u> Cannabis cultivators shall not conduct grading activities for cannabis cultivation land development or alteration on slopes exceeding 50 percent grade, or as restricted by local county or city permits, ordinances, or regulations for grading, agriculture, or cannabis cultivation; whichever is more stringent shall apply.</p> <p><u>Cannabis cultivators shall not conduct grading activities for cannabis cultivation land development or alteration on slopes between 30 percent and 50 percent unless the cannabis cultivator either:</u></p> <ul style="list-style-type: none"> <u>• has substantial documentation and evidence maintained on site and available upon request, that any grading activities for cannabis cultivation on slopes greater than 30 percent were completed prior to July 1, 2017, or</u> <u>• submits a <i>Site Erosion and Sediment Control Plan</i> to the Regional Water Board Executive Officer, for approval, prior to any land development or alteration for cannabis cultivation that occurs after July 1, 2017 on slopes between 30 percent and 50 percent. The Regional Water Board Executive Officer may deny the request to conduct grading activities for cannabis cultivation land development or</u> |

¹⁷ ~~An earthwork and paving contractor digs, moves, and places material forming the surface of the earth, other than water, in such a manner that a cut, fill, excavation, grade, trench, backfill, or tunnel (if incidental thereto) can be executed, including the use of explosives for these purposes. This classification includes the mixing, fabricating and placing of paving and any other surfacing materials. See California Code of Regulations Title 16, Division 8, Article 3. Classifications.~~

| | |
|---|--|
| | <p>alteration on slopes greater than 30 percent if local conditions (e.g., soil type, site instability, proximity to a waterbody, etc.) do not allow for adequate erosion and sediment control measures to ensure discharges to waters of the state will not occur.</p> <p>The grading prohibition on slopes exceeding 50 percent does not apply to:</p> <ul style="list-style-type: none"> • site mitigation or remediation if the cannabis cultivator is issued separate WDRs for the activity by the Regional Water Board Executive Officer, or • roads that are constructed consistent with the design, construction, and maintenance guidelines presented in this Policy and Road Handbook. |
| 3. | <p>Finished cut and fill slopes, including side slopes between terraces, shall not exceed slopes of 50 percent (1:2 slope) and should conform to the natural pre-grade slope whenever possible. Cannabis cultivators shall not drive or operate vehicles or equipment within the riparian setbacks or within waters of the state unless authorized under 404/401 CWA permits, a CDFW LSA Agreement, coverage under the Cannabis General Order water quality certification, or site-specific WDRs issued by the Regional Water Board. This requirement does not prohibit driving on established, maintained access roads that are in compliance with this Policy.</p> |
| 4. | <p>Cannabis cultivation land development and access road construction shall be designed by qualified professionals. Cannabis cultivators shall conduct all construction or land development activities to minimize grading, soil disturbance, and disturbance to aquatic and terrestrial habitat. Cannabis cultivators shall not fuel, clean, maintain, repair, or store vehicles or equipment within the riparian setbacks or within waters of the state. Cannabis cultivators shall not drive or operate vehicles or equipment within the riparian setbacks or within waters of the state unless authorized by a CWA section 404 permit, a CDFW LSA Agreement, or WDRs issued by the State Water Board or Regional Water Board.</p> |
| 5. | <p>The cannabis cultivator shall control all dust related to cannabis cultivation activities to ensure dust does not produce sediment-laden runoff. The cannabis cultivator shall implement dust control measures, including, but not limited to, pre-watering of excavation or grading sites, use of water trucks, track-out prevention, washing down vehicles or equipment before leaving a site, and prohibiting land disturbance activities when instantaneous wind speeds (gusts) exceed 25 miles per hour. Cannabis cultivation land development and road construction shall be designed by a qualified professional. Cannabis cultivators shall grade access roads in dry weather while moisture is still present in soil to minimize dust and to achieve design soil compaction, or when needed use a water truck to control dust and soil moisture. Cannabis cultivators shall conduct all construction or land development activities to minimize grading, soil disturbance, and disturbance to aquatic and terrestrial habitat. Cannabis cultivators shall conduct all road design, land development, and construction activities in compliance with the California Forest Practices Act and any state, county, city, or local requirements, as applicable.</p> |
| Construction Equipment Use and Limitations | |
| 6. | <p>Cannabis cultivators shall employ spill control and containment practices to prevent the discharge of fuels, oils, solvents and other chemicals to soils and <u>Waters</u> of the <u>State</u>.</p> |

| | |
|------------------------|---|
| 7. | <p>Cannabis cultivators shall not stage or <u>and</u> store any equipment, materials, fuels, lubricants, solvents, or hazardous or toxic materials where they have in <u>locations that minimize the potential for discharge to contact or enter Waters</u> <u>waters</u> of the <u>State</u> (e.g., via <u>storm water runoff, percolation, etc.</u>). <u>state</u>. At a minimum, the following <u>precautionary</u> measures shall be implemented:</p> <p>1. Schedule land disturbance activities for dry weather periods.</p> <p>2.1. Designate an area outside the riparian setback for equipment storage, short-term maintenance, and refueling. Cannabis cultivator shall not conduct any maintenance activity or refuel equipment in any location where the petroleum products or other pollutants may enter <u>Waters</u> <u>waters</u> of the <u>State</u> <u>state</u> as per Fish and Game Code section 5650 (a)(1).</p> <p>3.2. Frequently inspect equipment and vehicles for leaks, and immediately make necessary repairs.</p> <p>4.3. Immediately clean up leaks, drips, and other spills to avoid soil, surface water, and/or groundwater contamination. Except for emergency repairs that are <u>immediately necessary, conduct for safe transport of equipment/ or vehicles to an appropriate repair facility, equipment or</u> vehicle repairs, maintenance, and washing <u>offsite</u> <u>onsite is prohibited</u>.</p> <p>5.4. Do not generate any waste fluids (e.g., motor oil, radiator coolant, etc.) at the cannabis cultivation site. If emergency repairs generate waste fluids, ensure they are contained and properly disposed or recycled <u>off-site</u>.</p> <p>6.5. Do not <u>Properly</u> dispose of <u>all</u> construction debris <u>on</u> <u>off</u> <u>site</u>. All debris shall be properly disposed of or recycled.</p> <p>7. Use dry cleanup methods (e.g., absorbent materials, cat litter, and/or rags) whenever possible.</p> <p>6. <u>Sweep up, contain, and properly dispose of spilled dry materials.</u></p> <p>8.</p> |
| Erosion Control | |
| 8. | <p>The cannabis cultivator shall implement control measures for erosion, excessive sedimentation, and turbidity. Control measures shall be in place at the commencement of, during, and after any activities that could result in erosion or sediment discharges to surface waters and shall be maintained until the land disturbance is stabilized. The cannabis cultivator shall consult with a qualified professional to identify potential erosion or sediment discharges and the appropriate control measures.</p> |
| 9.8. | <p>The cannabis cultivator shall use <u>erosion control blankets, liners, or other appropriate</u> erosion control measures <u>for any unstabilized stockpiles to minimize erosion of excavated material to control runoff resulting from precipitation and disturbed areas, potting soil, or bulk soil amendments</u> to prevent <u>material from contacting or entering Waters</u> <u>discharges of the State</u> <u>waste</u>. Fill soil shall not be placed where it may discharge into <u>Waters of the State</u>. <u>Wattles shall be installed on contours and mats/blankets shall be installed per manufacturer's guidelines</u> <u>surface water</u>. If used, weed-free straw mulch shall be applied at a rate of two tons per acre of exposed soils and, if warranted by site conditions, shall be secured to the ground. Erosion control measures shall be placed and maintained until the</p> |

| | |
|---------------|--|
| | threat of erosion ceases. Consultation with a qualified professional is recommended for successful storm water pollution prevention. |
| <u>10.9.</u> | The cannabis cultivator shall not plant or seed noxious weeds. Prohibited plant species include those identified in the California Exotic <u>Invasive</u> Pest Plant Council's database, available at: www.cal-ipc.org/paf/ . Locally native, non-invasive, and non-persistent grass species may be used for temporary erosion control benefits to stabilize disturbed land and prevent exposure of disturbed land to rainfall. Nothing in this term may be construed as a ban on cannabis cultivation that complies with the terms of this Policy. |
| <u>11.10.</u> | <p>Cannabis cultivators shall incorporate erosion control and sediment detention devices and materials into the design, work schedule, and implementation of the cannabis cultivation activities. The erosion prevention and sediment capture measures shall be effective in protecting water quality.</p> <ul style="list-style-type: none"> • <u>Interim erosion prevention and sediment capture measures shall be implemented within seven days of completion of grading and land disturbance activities, and shall consist of erosion prevention measures and sediment capture measures including:</u> <ul style="list-style-type: none"> • <u>Erosion prevention measures are required for any earthwork that uses heavy equipment (e.g., bulldozer, compactor, excavator, etc.). Erosion prevention measures may include surface contouring, slope roughening, and upslope storm water diversion. Other types of erosion prevention measures may include mulching, hydroseeding, tarp placement, revegetation, and rock slope protection.</u> • <u>Sediment capture measures include the implementation of measures such as gravel bag berms, fiber rolls, straw bale barriers, properly installed silt fences, and sediment settling basins.</u> • Cannabis cultivators shall implement long<u>Long</u>-term erosion prevention and sediment capture measures <u>shall be implemented</u> as soon as possible and prior to the onset of fall and winter precipitation. Long-term measures may include the use of heavy equipment to reconfigure <u>access</u> roads or improve <u>access</u> road drainage, installation of properly-sized culverts, gravel placement on steeper grades, and stabilization of previously disturbed land. • Cannabis cultivators shall continually maintain<u>Maintenance of</u> all erosion <u>prevention</u><u>protection</u> and sediment capture measures <u>is required year round</u>. Early monitoring allows for identification of problem areas or underperforming erosion or sediment control measures. Verification of the effectiveness of all erosion prevention and sediment capture measures is required as part of winterization activities. |
| <u>12.11.</u> | Cannabis cultivators shall only use geotextiles, fiber rolls, and other erosion control measures made of loose-weave mesh (e.g., jute, coconut (coir) fiber, or from other products without welded weaves). <u>To minimize the risk of ensnaring and strangling wildlife, cannabis cultivators shall not use synthetic (e.g., plastic or nylon) monofilament netting materials for erosion control for any cannabis cultivation activities. This prohibition includes photo- or bio-degradable plastic netting.</u> |

| | |
|---|---|
| 13.12. | Cannabis cultivators shall not cultivate cannabis or engage in any land disturbance or site preparation activities <u>Cultivation sites constructed on or near slopes until with a qualified professional has slope greater than or equal to 30 percent shall be</u> inspected the slope for indications of instability. Indications of instability include the occurrence of slope failures at nearby similar sites, weak soil layers, geologic bedding parallel to slope surface, hillside creep (trees, fence posts, etc. leaning downslope), tension cracks in the slope surface, bulging soil at the base of the slope, and groundwater discharge from the slope. If indicators of instability are present, the cannabis cultivator shall consult with a qualified professional to design measures to stabilize the slope to prevent sediment discharge to surface waters. Cannabis cultivators shall not cultivate cannabis or engage in any land disturbance or site preparation activities until all slope stabilization measures have been implemented. |
| 14.13. | For areas outside of riparian setbacks or for upland areas, cannabis cultivators shall ensure that rock placed for slope protection is the minimum amount necessary and is part of a design that provides for native plant revegetation. If retaining walls or other structures are required to provide slope stability, they shall be designed by a qualified professional. |
| 15.14. | Cannabis cultivators shall monitor erosion control measures during and after each storm event <u>that produces at least 0.5 in/day or 1.0 inch/7 days of precipitation</u> , and repair or replace, as <u>applicable needed</u> , ineffective erosion control measures immediately. |
| <u>Private Access Road/Land Development and Drainage</u> | |
| 16.15. | Cannabis cultivators shall obtain all required permits and approvals prior to the construction of any road constructed for cannabis cultivation activities. <u>Access roads shall be constructed consistent with the requirements of California Code of Regulations Title 14, Chapter 4. The Road Handbook describes how to implement the regulations and is available at <http://www.pacificwatershed.com/PWA-publications-library>. Existing access roads shall be upgraded to comply with the Road Handbook.</u> <u>Permits may include section 404/401 CWA permits, Regional Water Board WDRs (when applicable), CDFW LSA Agreement, and county or local agency permits.</u> |
| 17.16. | Cannabis cultivators shall ensure that any new roads <u>obtain all required permits</u> and existing roads are constructed or upgraded <u>approvals prior to be consistent with the requirements of the Forest Practice Rules.</u> The Road Handbook describes how to implement the Forest Practice Rules requirements for road construction of any access road constructed for cannabis cultivation activities. <u>Permits may include section 404/401 CWA permits, Regional Water Board WDRs (when applicable), CDFW LSA Agreement, and county or local agency permits.</u> |
| 18.17. | Cannabis cultivators shall ensure that all <u>new access</u> roads as of July 1, 2017, are designed to: <u>1) maximize the distance between the road and all watercourses; 2) minimize the number of watercourse crossings; 3) be hydrologically disconnected from to receiving waters; to the extent possible; by installing disconnecting drainage features, increasing the frequency of (inside) ditch drain relief as needed, constructing out-sloped roads, constructing energy dissipating structures, avoiding concentrating flows in unstable areas, and performing inspection and 4) reduce erosion and sediment transport</u> <u>maintenance as needed to streams.</u> <u>optimize the access road performance.</u> |

| | |
|----------------------|--|
| <u>19.18.</u> | Cannabis cultivators shall ensure that all roadways are hydrologically disconnected to receiving waters to the extent possible by: 1) installing disconnecting drainage features; 2) increasing the frequency of (inside) ditch drain relief; 3) constructing out-sloped roads; 4) applying treatment to dissipate energy, disperse flows, and filter sediment; and 5) avoiding concentrating flows in unstable areas. <u>New access road alignments should be constructed with grades (slopes) of 3- to 8-percent, or less, wherever possible. Forest access roads should generally be kept below 12-percent except for short pitches of 500 feet or less where road slopes may go up to 20-percent. These steeper access road slopes should be paved or rock surfaced and equipped with adequate drainage. Existing access roads that do not comply with these limits shall be inspected by a qualified professional to determine if improvements are needed.</u> |
| <u>20.19.</u> | Cannabis cultivators shall decommission or relocate existing roads away from riparian setbacks whenever possible. Roads that are proposed for decommissioning shall be abandoned and left in a condition that provides for long-term, maintenance-free function of drainage and erosion controls. Abandoned roads shall be blocked to prevent unauthorized vehicle traffic. |
| <u>21.20.</u> | If site conditions prohibit drainage structures (including rolling dips and ditch-relief culverts) at adequate intervals to avoid erosion, the cannabis cultivator shall use bioengineering techniques ¹⁸ as the preferred measure to minimize erosion (e.g., live fascines). If bioengineering cannot be used, then engineering fixes such as armoring (e.g., rock of adequate size and depth to remain in place under traffic and flow conditions) and velocity dissipaters (e.g., gravel-filled “pillows” in an inside ditch to trap sediment) may be used for problem sites. The maximum distance between water breaks shall not exceed those defined in the Road Handbook. |
| <u>22.21.</u> | Cannabis cultivators shall only grade roads in dry weather while moisture is still present in soil to minimize dust and to achieve design soil compaction. When needed, cannabis cultivators may use a water truck to control dust and soil moisture. A valid water right is required for any surface water diverted for soil moisture and dust control. <u>Cannabis cultivators shall have a qualified professional design the optimal access road alignment, surfacing, drainage, maintenance requirements, and spoils handling procedures.</u> |
| <u>23.22.</u> | <u>Cannabis cultivators shall ensure that access road surfacing, especially within a segment leading to a waterbody, is sufficient to minimize sediment delivery to the wetland or waterbody and maximize access road integrity. Road surfacing may include pavement, chip-seal, lignin, rock, or other material appropriate for timing and nature of use. All access roads that will be used for winter or wet weather hauling/traffic shall be surfaced. Steeper access road grades require higher quality rock (e.g., crushed angular versus river-run) to remain in place. The use of asphalt grindings is prohibited. Cannabis cultivators shall have a qualified professional design the optimal road alignment, surfacing, drainage, maintenance requirements, and spoils handling procedures.</u> |

¹⁸ A Primer on Stream and River Protection for the Regulator and Program Manager: Technical Reference Circular W.D. 02-#1, San Francisco Bay Region, California Regional Water Board (April 2003) http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stream_wetland/streamprotection/circular.pdf.

| | |
|----------------------|--|
| <u>24.23.</u> | <p>Cannabis cultivators shall ensure that road surfacing, especially within a segment leading to a wetland or waterbody, is sufficient to minimize sediment delivery to the wetland or waterbody and maximize road integrity. Cannabis cultivators shall install erosion control measures on all access road approaches to surface water diversion sites to reduce the generation and transport of sediment to streams. Road surfacing may include pavement, chip seal, lignin, rock, or other material appropriate for timing and nature of use. All roads that will be used for winter or wet weather hauling/traffic shall be surfaced. Steeper road grades require higher quality rock (e.g., crushed angular versus river run) to remain in place. The use of asphalt grindings is prohibited.</p> |
| <u>25.24.</u> | <p>Cannabis cultivators shall install erosion control measures on all <u>ensure that access roads are out-sloped whenever possible to promote even drainage of the access road approaches to surface, prevent the concentration of storm water diversion sites to reduce the generation flow within an inboard or inside ditch, and transport of sediment to minimize disruption of the natural sheet flow pattern off a hill slope to streams a stream.</u></p> |
| <u>26.25.</u> | <p>Cannabis cultivators shall ensure that roads are out-sloped whenever possible to promote even drainage of the road surface, prevent the concentration of storm water flow within an inboard or inside ditch, and to minimize disruption of the natural sheet flow pattern off a hill slope to a stream. If unable to eliminate inboard or inside ditches, the cannabis cultivator shall ensure adequate ditch relief culverts to prevent down-cutting of the ditch and to reduce water runoff concentration, velocity, and erosion. Ditches shall be designed and maintained as recommended by a qualified professional. To avoid point-source discharges, inboard ditches and ditch relief culverts shall be discharged onto vegetated or armored slopes that are designed to dissipate and prevent runoff channelization. Inboard ditches and ditch relief culverts shall be designed to ensure discharges into natural stream channels or watercourses are prevented.</p> |
| <u>27.26.</u> | <p>Cannabis cultivators shall ensure that neither in-sloped nor out-sloped <u>access</u> roads are <u>not</u> allowed to develop or show evidence of significant surface rutting or gullyng. Cannabis cultivators shall use water bars and rolling dips as designed by a qualified professional to minimize <u>access</u> road surface erosion and dissipate runoff.</p> |
| <u>28.27.</u> | <p>Cannabis cultivators shall only grade ditches when necessary to prevent erosion of the ditch, undermining of the banks, or exposure of the toe of the cut slope to erosion. Cannabis cultivators shall not remove more vegetation than necessary to keep water moving, as vegetation prevents scour and filters out sediment.</p> |
| <u>28.</u> | <p><u>Access road storm water drainage structures shall not discharge onto unstable slopes, earthen fills, or directly to a waterbody. Drainage structures shall discharge onto stable areas with straw bales, slash, vegetation, and/or rock riprap.</u></p> |
| <u>29.</u> | <p>Cannabis cultivators shall ensure that all road surface storm water drainage is discharged to a stable location away from wetlands and waterbodies as designed by a qualified professional. Sediment control devices (e.g., check dams, sand/gravel bag barriers, etc.) shall be used when it is not practical to disperse storm water before discharge to a waterbody. Where potential discharge to a wetland or waterbody exists (e.g., within 200 feet of a waterbody) <u>access</u> road surface drainage shall be filtered through vegetation, slash, other appropriate material, or settled into a depression with an outlet with adequate drainage. Sediment basins shall be engineered and properly sized to allow sediment</p> |

| | |
|---|---|
| | settling, spillway stability, and maintenance activities. |
| Drainage Culverts (See also Watercourse Crossings) | |
| 30. | Cannabis cultivators shall regularly inspect ditch-relief culverts and clear them of any debris or sediment. To reduce ditch-relief culvert plugging by debris, cannabis cultivators shall use 15- to 24-inch diameter pipes, at minimum, for ditch-relief culverts. Ditch-relief culverts shall be designed by a qualified professional based on site-specific conditions. In forested areas with a potential for woody debris, a minimum 18-inch diameter pipe shall be used to reduce clogging. Ditch relief culverts shall be designed by a qualified professional based on site-specific conditions. |
| 31. | Cannabis cultivators shall ensure that all permanent watercourse crossings that are constructed or reconstructed are capable of accommodating the estimated 100-year flood flow, including debris and sediment loads. Watercourse crossings shall be designed and sized by a qualified professional. |
| Cleanup, Restoration, and Mitigation | |
| 32. | Cannabis cultivators shall limit disturbance to existing grades and vegetation to the actual site of the cleanup or remediation and any necessary access routes. |
| 33. | <p>Cannabis cultivators shall avoid damage to native riparian vegetation. All exposed or disturbed land and access points within the stream and riparian setback with damaged vegetation shall be restored with regional native vegetation of similar native species. Riparian trees over four inches diameter at breast height shall be replaced by similar native species at a ratio of three to one (3:1). Restored areas must be mulched, using at least 2 to 4 inches of weed-free, clean straw or similar biodegradable mulch over the seeded area. Revegetation and mulching shall be completed within 30 days after land disturbance activities in the areas cease. Revegetation planting shall occur at a seasonally appropriate time until vegetation is restored to pre-cannabis or pre-Legacy condition or better.</p> <p>Cannabis cultivators shall stabilize and restore any temporary work areas with native vegetation to pre-cannabis cultivation or pre-Legacy conditions or better. Vegetation shall be planted at an adequate density and variety to control surface erosion and re-generate a diverse composition of regional native vegetation of similar native species.</p> |
| 34. | Cannabis cultivators shall avoid damage to oak woodlands. Cannabis cultivator shall plant three oak trees for every one oak tree damaged or removed. Trees may be planted in groves in order to maximize wildlife benefits and shall be native to the local county. |
| 35. | <p>Cannabis cultivators shall develop a revegetation plan for:</p> <ul style="list-style-type: none"> • All exposed or disturbed riparian vegetation areas, • any oak trees that are damaged or removed, and • temporary work areas. <p>Cannabis cultivators shall develop a monitoring plan that evaluates the revegetation plan for five years. Cannabis cultivators shall maintain annual inspections for the purpose of assessing an 85 percent survival and growth of revegetated areas within a five-year</p> |

| | |
|--|---|
| | period. The presence of exposed soil shall be documented for three years following revegetation work. If the revegetation results in less than an 85 percent success rate, the unsuccessful vegetation areas shall be replanted. Cannabis cultivators shall identify the location and extent of exposed soil associated with the site; pre- and post-revegetation work photos; diagram of all areas revegetated, the planting methods, and plants used; and an assessment of the success of the revegetation program. Cannabis cultivators shall maintain a copy of the revegetation plan and monitoring results onsite and make them available, upon request, to Water Boards staff or authorized representatives. An electronic copy of monitoring results is acceptable in Portable Document Format (PDF). |
| 36. | Cannabis cultivators shall revegetate soil exposed as a result of cannabis cultivation activities with native vegetation by live planting, seed casting, or hydroseeding within seven days of exposure. |
| 37. | Cannabis cultivators shall prevent the spread or introduction of exotic plant species to the maximum extent possible by cleaning equipment before delivery to the cannabis cultivation Site and before removal, restoring land disturbance with appropriate native species, and post-cannabis cultivation activities monitoring and control of exotic species. Nothing in this term may be construed as a ban on cannabis cultivation that complies with the terms of this Policy. |
| Stream Crossing Installation and Maintenance | |
| Limitations on Work in Watercourses and Permanently Poned Areas | |
| 38. | Cannabis cultivators shall obtain all applicable permits and approvals prior to doing any work in or around waterbodies or within the riparian setbacks. Permits may include section 404/401 CWA permits, Regional Water Board WDRs (when applicable), and a CDFW LSA Agreement. |
| 39. | Cannabis cultivators shall avoid or minimize temporary stream crossings. When necessary, temporary stream crossings shall be located in areas where erosion potential and damage to the existing habitat is low. Cannabis cultivators shall avoid areas where runoff from access roadway side slopes and natural hillsides will drain and flow into the temporary crossing. Temporary stream crossings that impede fish passage are strictly prohibited on permanent or seasonal fish-bearing streams. |
| 40. | Cannabis cultivators shall avoid or minimize use of heavy equipment ¹⁹ in a watercourse. If use is unavoidable, heavy equipment may only travel or work in a waterbody with a rocky or cobbled channel. Wood, rubber, or clean native rock temporary work pads shall be used on the channel bottom prior to use of heavy equipment to protect channel bed and preserve channel morphology. Temporary work pads and other channel protection shall be removed as soon as possible once the use of heavy equipment is complete. |
| 41. | Cannabis cultivators shall avoid or minimize work in or near a stream, creek, river, lake, pond, or other waterbody. If work in a waterbody cannot be avoided, activities and associated workspace shall be isolated from flowing water by directing the water around |

¹⁹ Heavy equipment is defined as large pieces of machinery or vehicles, especially those used in the building and construction industry (e.g., bulldozers, excavators, backhoes, bobcats, tractors, etc.).

| | |
|--|--|
| | the work site. If water is present, then the cannabis cultivator shall develop a site-specific plan prepared by a qualified professional. The plan shall consider partial or full stream diversion and dewatering. The plan shall consider the use of coffer dams upstream and downstream of the work site and the diversion of all flow from upstream of the upstream dam to downstream of the downstream dam, through a suitably sized pipe- <u>with intake screens that protect and prevent impacts to fish and wildlife.</u> Cannabis cultivation activities and associated work shall be performed outside the waterbody from the top of the bank to the maximum extent possible. |
| Temporary Watercourse Diversion and Dewatering: All Live Watercourses | |
| 42. | Cannabis cultivators shall ensure that coffer dams are constructed prior to commencing work and as close as practicable upstream and downstream of the work area. Cofferdam construction using offsite materials, such as clean gravel bags or inflatable dams, is preferred. Thick plastic may be used to minimize leakage, but shall be completely removed and properly disposed of upon work completion. If the coffer dams or stream diversion fail, the cannabis cultivator shall repair them immediately. |
| 43. | When any dam or other artificial obstruction is being constructed, maintained, or placed in operation, the cannabis cultivator shall allow sufficient water at all times to pass downstream to maintain aquatic life below the dam pursuant to Fish and Game Code section 5937. |
| 44. | If possible, gravity flow is the preferred method of water diversion. If a pump is used, the cannabis cultivator shall ensure that the pump is operated at the rate of flow that passes through the cannabis cultivation site. Pumping rates shall not dewater or impound water on the upstream side of the coffer dam. When diversion pipe is used it shall be protected from cannabis cultivation activities and maintained to prevent debris blockage. |
| 45. | Cannabis cultivators shall only divert water such that water does not scour the channel bed or banks at the downstream end. Cannabis cultivator shall divert flow in a manner that prevents turbidity, siltation, and pollution and provides flows to downstream reaches. Cannabis cultivators shall provide flows to downstream reaches during all times that the natural flow would have supported aquatic life. Flows shall be of sufficient quality and quantity, and of appropriate temperature to support fish and other aquatic life both above and below the diversion. Block netting and intake screens shall be sized to protect and prevent impacts to fish and wildlife. |
| 46. | Once water has been diverted around the work area, cannabis cultivators may dewater the site to provide an adequately dry work area. Any muddy or otherwise contaminated water shall be pumped to a settling tank, dewatering filter bag, or upland area, or to another location approved by CDFW or the appropriate Regional Water Board Executive Officer prior to re-entering the watercourse. |
| 47. | Upon completion of work, cannabis cultivators shall immediately remove the flow diversion structure in a manner that allows flow to resume with a minimum of disturbance to the channel substrate and that minimizes the generation of turbidity. |
| 48. | A qualified biologist shall, in consultation with CDFW, develop, implement, and oversee a site-specific Capture and Relocation Plan that addresses all potential aquatic life found in dewatered areas. Under the Capture and Relocation Plan all reasonable efforts shall be |

| | |
|--|---|
| | <p>made to avoid stranding aquatic life and include information regarding how aquatic life observed in dewatered areas will be captured and relocated. Capture methods may include fish landing nets, dip nets, buckets, and by hand. Captured aquatic life shall be released immediately in the waterbody closest to the work site. Efforts will be made to reduce collecting and handling stress, minimize the time that animals are held in buckets, and minimize handling stress during processing and release. Cannabis cultivators or contractors shall not remove any fish, dead or alive, from the site for personal use. If listed species are captured, the cannabis cultivator shall contact CDFW. The cannabis cultivator shall fully implement the Capture and Relocation Plan prior to dewatering.</p> |
|--|---|

| Watercourse Crossings | |
|-----------------------|---|
| <u>49.48.</u> | Cannabis cultivators shall ensure that watercourse crossings are designed by a qualified professional. |
| <u>50.49.</u> | Cannabis cultivators shall ensure that all <u>access</u> road watercourse crossing structures allow for the unrestricted passage of water and shall be designed to accommodate the estimated 100-year flood flow and associated debris (based upon an assessment of the streams potential to generate debris during high flow events). Consult CAL FIRE 100 year Watercourse Crossings document for examples and design calculations, available at: http://www.calfire.ca.gov/resource_mgt/downloads/reports/ForestryReport1.pdf . http://calfire.ca.gov/resource_mgt/downloads/100%20yr%20revised%208-08-17%20(final-a).pdf . |
| <u>51.50.</u> | Cannabis cultivators shall ensure that watercourse crossings allow migration of aquatic life during all life stages supported or potentially supported by that stream reach. Design measures shall be incorporated to ensure water depth and velocity does not inhibit migration of aquatic life. Any <u>access</u> road crossing structure on watercourses that supports fish shall be constructed for the unrestricted passage of fish at all life stages, and should use the following design guidelines: <ul style="list-style-type: none"> • CDFW's <i>Culvert Criteria for Fish Passage</i>; • CDFW's <i>Salmonid Stream Habitat Restoration Manual, Volume 2, Part IX: Fish Passage Evaluation at Stream Crossings</i>; and • National Marine Fisheries Service, Southwest Region <i>Guidelines for Salmonid Passage at Stream Crossings</i>. |
| <u>52.51.</u> | Cannabis cultivators shall conduct regular inspection and maintenance of stream crossings to ensure crossings are not blocked by debris. Refer to California Board of Forestry Technical Rule No. 5 available at: http://www.calforests.org/wp-content/uploads/2013/10/Adopted-TRA5.pdf . |
| <u>53.52.</u> | Cannabis cultivators shall only use rock fords for temporary seasonal crossings on small <u>water bodies</u> <u>watercourses</u> where aquatic life passage is not required during the time period of use. Rock fords shall be oriented perpendicular to the flow of the watercourse and designed to maintain the range of surface flows that occur in the watercourse. When constructed, rock shall be sized to withstand the range of flow events that occur at the crossing and rock shall be maintained at the rock ford to completely cover the channel bed and bank surfaces to minimize soil compaction, rutting, and erosion. Rock must extend on either side of the ford up to the break in slope. The use of rock fords as watercourse crossings for all-weather <u>access</u> road use is prohibited. |
| <u>54.53.</u> | Cannabis cultivators shall ensure that culverts used at watercourse crossings are designed to direct flow and debris toward the inlet (e.g., use of wing-walls, pipe beveling, rock armoring, etc.) to prevent erosion of road fill, debris blocking the culvert, and watercourses from eroding a new channel. |
| <u>55.54.</u> | Cannabis cultivators shall regularly inspect and maintain the condition of <u>access</u> roads, <u>access</u> road drainage features, and watercourse crossings. At a minimum, cannabis cultivators shall perform inspections prior to the onset of fall and winter precipitation and |

| | |
|--|---|
| | <p>following storm events, <u>that produce at least 0.5 in/day or 1.0 inch/7 days of precipitation.</u> Cannabis cultivators are required to perform all of the following maintenance:</p> <ul style="list-style-type: none"> • Remove any wood debris that may restrict flow in a culvert. • Remove sediment that impacts <u>access</u> road or drainage feature performance. Place any removed sediment in a location outside the riparian setbacks and stabilize the sediment. • Maintain records of <u>access</u> road and drainage feature maintenance and consider redesigning the <u>access</u> road to improve performance and reduce maintenance needs. |
| <u>56-55.</u> | <p>Cannabis cultivators shall compact <u>access</u> road crossing approaches and fill slopes during installation and shall stabilize them with rock or other appropriate surface protection to minimize surface erosion. Cannabis<u>When possible, cannabis</u> cultivators shall ensure that <u>access</u> roads over culverts are equipped with a critical dip to ensure that, if the culvert becomes blocked or plugged, water can flow over the <u>access</u> road surface without washing away the fill prism. Road<u>Access road</u> crossings where specific conditions do not allow for a critical dip or in areas with potential for significant debris accumulation, shall include additional measures such as emergency overflow culverts or oversized culverts that are designed by a qualified professional.</p> |
| <u>57-56.</u> | <p>Cannabis cultivators shall ensure that culverts used at watercourse crossings are: 1) installed parallel to the watercourse alignment to the extent possible, 2) of sufficient length to extend beyond stabilized fill/sidecast material, and 3) <u>embedded or</u> installed at the same level and gradient of the streambed in which they are being placed to prevent erosion.</p> |
| Soil Disposal and Spoils Management | |
| <u>58-57.</u> | <p>Cannabis cultivators shall only store soil, construction, and waste materials outside the riparian setback except as needed for immediate construction needs. Such materials shall not be stored in locations of known slope instability or where the storage of construction or waste material could reduce slope stability.</p> |
| <u>59-58.</u> | <p>Cannabis cultivators shall separate large organic material (e.g., roots, woody debris, etc.) from soil materials. Cannabis cultivators shall either place the large organic material in long-term, upland storage sites, or properly dispose of these materials offsite.</p> |
| <u>60-59.</u> | <p>Cannabis cultivators shall store erodible soil, soil amendments, and spoil piles to prevent sediment discharges in storm water. Storage practices may include use of tarps, upslope land contouring to divert surface flow around the material, or use of sediment control devices (e.g., silt fences, straw wattles, etc.).</p> |
| <u>61-60.</u> | <p>Cannabis cultivators shall contour and stabilize stored spoils to mimic natural slope contours and drainage patterns (as appropriate) to reduce the potential for fill saturation and slope failure.</p> |
| <u>61.</u> <u>62.</u> | <p>For soil disposal sites cannabis cultivators shall:</p> <ul style="list-style-type: none"> • revegetate soil disposal sites with a mix of native plant species, |

| | |
|---|--|
| | <ul style="list-style-type: none"> cover the seeded and planted areas with mulched straw at a rate of two tons per acre, and apply non-synthetic netting or similar erosion control fabric (e.g., jute) on slopes greater than 2:1 if the site is erodible. |
| <u>63-62.</u> | Cannabis cultivators shall haul away and properly dispose of excess soil and other debris as needed to prevent discharge to <u>Waterswaters</u> of the <u>Statestate</u> . |
| Riparian and Wetland Protection and Management | |
| <u>64-63.</u> | Cannabis cultivators shall not disturb aquatic or riparian habitat, such as pools, spawning sites, large wood, or shading vegetation unless authorized under a CWA section 404 permit, CWA section 401 certification, Regional Water Board WDRs (when applicable), or a CDFW LSA Agreement. |
| <u>65-64.</u> | Cannabis cultivators shall maintain existing, naturally occurring, riparian vegetative cover (e.g., trees, shrubs, and grasses) in aquatic habitat areas to the maximum extent possible to maintain riparian areas for streambank stabilization, erosion control, stream shading and temperature control, sediment and chemical filtration, aquatic life support, wildlife support, and to minimize waste discharge. |
| Water Storage and Use | |
| Water Supply, Diversion, and Storage | |
| <u>66-65.</u> | Cannabis cultivators shall only install, maintain, and destroy <u>groundwater</u> wells in compliance with county, city, and local ordinances and with California Well Standards as stipulated in California Department of Water Resources Bulletins 74-90 and 74-81. ²⁰ |
| <u>67-66.</u> | All water diversions for cannabis cultivation from a surface stream, <u>groundwater diversions from a</u> subterranean stream flowing through a known and definite channel, <u>(e.g., groundwater well diversions from subsurface stream flows)</u> , or other surface waterbody are subject to the surface water <u>forbearance period</u> <u>Numeric</u> and <u>instream flow</u> <u>Narrative</u> <u>Instream Flow</u> Requirements. This includes lakes, ponds, and <u>all</u> springs <u>or seeps</u> , <u>including those that do not flow off</u> <u>(unless the property spring is deemed exempt by the Deputy Director)</u> . See Section 3. Numeric and Narrative Instream Flow Requirements of this <u>Appendix</u> <u>Attachment A</u> for more information. |
| <u>68.—</u> | <u>Cannabis cultivators diverting under riparian water right claims shall submit a Cannabis SIUR application within 60 days of when the program becomes available or commence use of another water source during the forbearance period.</u> |
| <u>69-67.</u> | Groundwater <u>extractions</u> <u>diversions</u> may be subject to additional requirements, such as a forbearance period, if the State Water Board determines those requirements are reasonably necessary— <u>to implement the purposes of this Policy.</u> |

²⁰ California Well Standards are available at:

http://www.water.ca.gov/groundwater/well_info_and_other/california_well_standards/well_standards_content.html.

| | |
|-----------------------------------|---|
| 70-68. | Cannabis cultivators are encouraged to use appropriate rainwater catchment systems to collect from impermeable surfaces (e.g., roof tops, etc.) during the wet season and store storm water in tanks, bladders, or off-stream engineered reservoirs to reduce the need for surface water or groundwater diversions. |
| 71-69. | Cannabis cultivators shall not divert surface water unless it is diverted in accordance with an existing water right that specifies, as appropriate, the source, location of the point of diversion, purpose of use, place of use, and quantity and season of diversion. Cannabis cultivators shall maintain documentation of the water right at the cannabis cultivation site. Documentation of the water right shall be available for review and inspection by the Water Boards, CDFW, and any other authorized representatives of the Water Boards or CDFW. |
| 72-70. | Cannabis cultivators shall ensure that all water diversion facilities are designed, constructed, and maintained so they do not prevent, impede, or tend to prevent the passing of fish, as defined by Fish and Game Code section 45, upstream or downstream, as required by Fish and Game Code section 5901. This includes but is not limited to the supply of water at an appropriate depth, temperature, and velocity to facilitate upstream and downstream aquatic life movement and migration. Cannabis cultivators shall allow sufficient water at all times to pass past the point of diversion to keep in good condition any fish that may be planted or exist below the point of diversion as defined by Fish and Game Code section 5937. Cannabis cultivators shall not divert water in a manner contrary to or inconsistent with these Requirements. |
| 73-71. | Cannabis cultivators issued a Cannabis SIUR by the State Water Board shall not divert surface water unless in compliance with all additional Cannabis SIUR conditions required by CDFW. |
| 74-72. | Water diversion facilities shall include satisfactory means for bypassing water to satisfy downstream prior rights and any requirements of policies for water quality control, water quality control plans, water quality certifications, waste discharge requirements, or other local, state or federal instream flow requirements. Cannabis cultivators shall not divert in a manner that results in injury to holders of legal downstream senior rights. Cannabis cultivators may be required to curtail diversions should diversion result in injury to holders of legal downstream senior water rights or interfere with maintenance of downstream instream flow requirements. |
| 75-73. | Cannabis cultivators shall only use fuel Fuel powered (e.g., gas, diesel, etc.) diversion pumps that are shall be located in a stable and secure location outside of the riparian setbacks. All unless authorized under a 404/401 CWA permits, a CDFW LSA Agreement, coverage under the Cannabis General Order water quality certification, or site-specific WDRs issued by the Regional Water Board. Use of non-fuel powered diversion pumps (solar, electric, gravity, etc.) is encouraged. In all cases, all pumps shall: <ol style="list-style-type: none"> 1. be properly maintained, 2. have suitable secondary containment to ensure any spills or leaks do not enter surface waterbodies or groundwater, and 3. have sufficient overhead cover to prevent exposure of equipment to precipitation. |
| 76-74. | No water shall be diverted unless the cannabis cultivator is operating the water diversion |

| | |
|---------------|---|
| | facility with a CDFW-approved <u>water-intake screen (e.g. fish screen-)</u> . The <u>fishwater intake</u> screen shall be designed and maintained in accordance with screening criteria approved by CDFW. The screen shall prevent wildlife from entering the diversion intake and becoming entrapped. The cannabis cultivator shall contact the regional CDFW Office, LSA Program for information on screening criteria for diversion(s). ²¹ The cannabis cultivator shall provide evidence that demonstrates that the <u>fishwater intake</u> screen is in good condition whenever requested by the Water Boards or CDFW. Points of re-diversion from off-stream storage facilities that are open to the environment shall have a <u>fishwater intake</u> screen, as required by CDFW. |
| <u>77-75.</u> | Cannabis cultivators shall inspect, maintain, and clean <u>fishwater intake</u> screens and bypass appurtenances <u>as directed by CDFW</u> to ensure proper operation for the protection of fish and wildlife. |
| <u>78-76.</u> | Cannabis cultivators shall not obstruct, alter, dam, or divert all or any portion of a natural watercourse prior to obtaining all applicable permits and approvals. Permits may include a valid water right, <u>CWA section 404 permit, CWA section 401 CWA permits, a CDFW LSA Agreement, coverage under the Cannabis General Order water quality certification, or site-specific WDRs issued by the</u> Regional Water Board WDRs (when applicable), and/or a CDFW LSA Agreement. |
| <u>79-77.</u> | Cannabis cultivators shall plug, block, cap, disconnect, or remove the diversion intake associated with cannabis cultivation activities during the surface water forbearance period, unless the diversion intake is used for other beneficial uses, to ensure no water is diverted during that time. |
| <u>80-78.</u> | Cannabis cultivators shall not divert <u>from a surface water or from a subterranean stream for cannabis cultivation at a rate</u> more than a maximum instantaneous diversion rate of 10 gallons per minute, unless authorized under an existing appropriative water right. |
| <u>82.</u> | Onstream storage reservoirs are prohibited unless the <u>either:</u> <ul style="list-style-type: none"> <u>The</u> cannabis cultivator has an existing water right <u>with irrigation as a designated use</u>, issued prior to January 1<u>October 31</u>, 2017, that authorizes the onstream storage reservoir. Cannabis cultivators who do not have an existing water right as of January 1, 2017, that authorizes the onstream reservoir storage, including, or <u>The</u> cannabis cultivators with a pending application, an unpermitted onstream storage reservoir, and those who want to install a new onstream storage reservoir, are required to obtain <u>cultivator obtains</u> an appropriative water right permit <u>with irrigation as a designated use</u> prior to diverting water from an onstream storage reservoir for cannabis cultivation. <u>Cannabis cultivators with a pending application or an unpermitted onstream storage reservoir shall not divert for cannabis cultivation until the cannabis cultivator has obtain a valid water right.</u> |

²¹ CDFW's Lake and Streambed program information is available at:
<https://www.wildlife.ca.gov/Conservation/LSA> .

| | |
|-----|---|
| 83. | Cannabis cultivators are encouraged to install separate storage systems for water diverted for cannabis irrigation and water diverted for any other beneficial uses, ²² or otherwise shall install separate measuring devices to quantify diversion to and from each storage facility, including the quantity of water diverted and the quantity, place, and purpose of use (e.g., cannabis irrigation, other crop irrigation, domestic, etc.) for the stored water. |
| 84. | The cannabis cultivator shall install and maintain a measuring device(s) <u>that meets for surface water or subterranean stream diversions. The measuring device shall be, at a minimum equivalent to</u> the requirements for direct diversions greater than 10 acre-feet per year in California Code of Regulations, Title 23, Division 3, Chapter 2.7 ²³ . The measuring device(s) shall be located <u>at or near as close to</u> the point of diversion <u>as reasonable</u> . Cannabis cultivators shall maintain records of daily diversion with separate records that document the amount of water used for cannabis cultivation <u>separate separated out</u> from the amount of water used for other irrigation purposes and other beneficial uses of water (e.g., domestic, fire protection, etc.). Cannabis cultivators shall maintain daily diversion records at the cultivation site and shall make the records available for review or by request by the Water Boards CDFW, or any other authorized representatives of the Water Boards or CDFW. <u>Daily diversion records shall be retained for a minimum of five years.</u> |
| 85. | The State Water Board intends to develop and implement a basin-wide program for real-time electronic monitoring and reporting of diversions, withdrawals, releases and streamflow in a standardized format if and when resources become available. Such real-time reporting will be required upon a showing by the State Water Board that the program and the infrastructure are in place to accept real-time electronic reports. Implementation of the reporting requirements shall not necessitate amendment to this Requirement. |
| 86. | Cannabis cultivators shall not use off-stream storage reservoirs <u>and ponds</u> to store water for cannabis cultivation unless <u>the reservoir is properly they are</u> sited and <u>has been</u> designed <u>or approved</u> by a qualified professional— <u>in compliance with Division of Safety of Dams (DSOD), county, and/or city requirements, as applicable. If the DSOD, county, and/or city do not have established requirements they shall be designed consistent with the Natural Resource Conservation Service National Engineering Manual. Reservoirs shall be designed with an adequate overflow outlet that is protected and promotes the dispersal and infiltration of flow and prevents channelization.</u> <u>All off-stream storage reservoirs and ponds shall be designed, managed, and maintained to accommodate average annual winter period precipitation and storm water inputs to reduce the potential for overflow.</u> Cannabis cultivators shall plant native vegetation along the perimeter of the <u>off-stream storage-reservoir in locations where it does not impact the structural integrity of the reservoir berm or spillway. The cannabis cultivator shall control vegetation around the reservoir berm and spillway to allow for visual inspection of berm and spillway condition</u> |

²² Other beneficial uses of water include: domestic, irrigation, power, municipal, mining, industrial, fish and wildlife preservation and enhancement, aquaculture, recreational, stockwatering, water quality, frost protection, and heat control. (California Code of Regulations, Title 23 sections 659-672).

²³ Additional information on measuring devices may be found at:
https://www.waterboards.ca.gov/waterrights/water_issues/programs/diversion_use/water_use.shtml#measurement

| | |
|-----|---|
| | <u>and control burrowing animals as necessary.</u> |
| 87. | <u>Cannabis cultivators shall implement an invasive species management plan prepared by a Qualified Biologist for any existing or proposed water storage facilities that are open to the environment. The plan shall include, at a minimum, an annual survey for bullfrogs and other invasive aquatic species. If bullfrogs or other invasive aquatic species are identified, eradication measures shall be implemented under the direction of a qualified biologist, if appropriate after consultation with CDFW (pursuant to Fish and Game Code section 6400). Eradication methods can be direct or indirect. Direct methods may include hand-held dip net, hook and line, lights, spears, gigs, or fish tackle under a fishing license (pursuant to Fish and Game Code section 6855). An indirect method may involve seasonally timed complete dewatering and a drying period of the off-stream storage facility under a Permit to Destroy Harmful Species (pursuant to Fish and Game Code section 5501) issued by CDFW. Cannabis cultivators shall design and manage off-stream storage facilities that are open to the environment, such as storage ponds and reservoirs, to maintain sufficient freeboard to capture stormwater runoff of a representative 25-year, 24-hour storm event.</u> |
| 88. | <u>Cannabis cultivators shall provide adequate outlet drainage for overflow of reservoirs that are not closed to the environment, including low impact designs, to promote dispersal and infiltration of flows. Reservoirs shall be designed with an adequate overflow outlet and protected spillway which disperses flow and discourages channelization. Water storage bladders are not encouraged for long-term use. If bladders are used, the cannabis cultivator shall ensure that the bladder is designed and properly installed to store water and that the bladder is sited to minimize the potential for water to flow into a watercourse in the event of a catastrophic failure. If a storage bladder has been previously used, the cannabis cultivator shall carefully inspect the bladder to confirm its integrity and confirm the absence of any interior residual chemicals prior to resuming use. Cannabis cultivators shall periodically inspect water storage bladders and containment features to ensure integrity. Water storage bladders shall be properly disposed of or recycled and not resold when assurance of structural integrity is no longer guaranteed.</u> |
| 89. | <u>Cannabis cultivators shall not use water storage bladders unless the bladder is safely contained within a secondary containment system with sufficient capacity to capture 110 percent of a bladder's maximum possible contents in the event of bladder failure (i.e., 110 percent of bladder's capacity). Secondary containment systems shall be of sufficient strength and stability to withstand the forces of released contents in the event of catastrophic bladder failure. In addition, secondary containment systems that are open to the environment shall be designed and maintained with sufficient capacity to accommodate precipitation and storm water inputs from a 25-year, 24-hour storm event. Cannabis cultivators shall implement an invasive species management plan prepared by a Qualified Biologist for any existing or proposed water storage facilities that are open to the environment. The plan shall include, at a minimum, an annual survey for bullfrogs and other invasive aquatic species. If bullfrogs or other invasive aquatic species are identified, eradication measures shall be implemented by a qualified biologist. Eradication methods can be direct or indirect. Direct methods may include hand-held dip net, hook and line, lights, spears, gigs, or fish tackle under a fishing license (pursuant to Fish and Game Code section 6855). An indirect method may involve seasonally timed complete dewatering and a drying period of the off-stream storage facility under a Permit to Destroy Harmful Species (pursuant to Fish and Game Code section 5501) issued by</u> |

| | |
|-----------------|---|
| | CDEFW |
| 90. | Cannabis cultivators shall not cause or allow any overflow from off-stream water storage facilities that are closed to the environment (e.g., tanks and bladders) if the off-stream facilities are served by a diversion from surface water or groundwater. Cannabis cultivators shall regularly inspect for and repair all leaks of the diversion and storage system. |
| 91. | Water storage tanks, bladders, and other off-stream water storage facilities that are closed to the environment shall not be located in a riparian setback or next to equipment that generates heat. Cannabis cultivators shall place water storage tanks, bladders, and other off-stream water storage facilities that are closed to the environment in areas that allow for ease of installation, access, maintenance, and minimize road development. |
| 92. | Cannabis cultivators shall install vertical and horizontal tanks according to manufacturer's specifications and shall place tanks on properly compacted soil that is free of rocks and sharp objects and capable of bearing the weight of the tank and its maximum contents with minimal settlement. Tanks shall not be located in areas of slope instability. Cannabis cultivators shall install water storage tanks capable of containing more than 8,000 gallons only on a reinforced concrete pad providing adequate support and enough space to attach a tank restraint system (anchor using the molded-in tie down lugs with moderate tension, being careful not to over-tighten) per the recommendations of a qualified professional. |
| 93. | To prevent rupture or overflow and runoff, cannabis cultivators shall only use water storage tanks and bladders equipped with a float valve, or equivalent device, to shut off diversion when storage systems are full. Cannabis cultivators shall install any other measures necessary to prevent overflow of storage systems to prevent runoff and the diversion of more water than can be used and/or stored. |
| 94. | Cannabis cultivators shall ensure that all vents and other openings on water storage tanks are designed to prevent the entry and/or entrapment of wildlife. |
| 95.— | Water storage bladders are not encouraged for long-term use. If bladders are used, the cannabis cultivator shall ensure that the bladder is designed and properly installed to store water and that the bladder is sited to minimize the potential for water to flow into a watercourse in the event of a catastrophic failure. If a storage bladder has been previously used, the cannabis cultivator shall carefully inspect the bladder to confirm its integrity and confirm the absence of any interior residual chemicals prior to resuming use. Cannabis cultivators shall periodically inspect water storage bladders and containment features to ensure integrity. Water storage bladders shall be properly disposed of or recycled and not resold when assurance of structural integrity is no longer guaranteed. |
| 96.— | Cannabis cultivators shall not use water storage bladders unless the bladder is safely contained within a secondary containment system with sufficient capacity to capture 150 percent of a bladder's maximum possible contents in the event of bladder failure (i.e., 150 percent of bladder's capacity). Secondary containment systems that are open to the environment shall be designed and maintained with sufficient freeboard to capture storm water runoff of a representative 25-year, 24-hour storm event. |

| | |
|-----------------------------------|---|
| <u>97.95.</u> | <p>Cannabis cultivators shall retain, <u>for a minimum of five years</u>, appropriate documentation for any hauled water²⁴ used for cannabis cultivation. Documentation for hauled water shall include, for each delivery, all of the following:</p> <ol style="list-style-type: none"> 1. A receipt that shows the date of delivery and the name, address, license plate number, and license plate issuing state for the water hauler, 2. A copy of the Water Hauler's License (California Health and Safety Code section 111120), 3. A copy of proof of the Water Hauler's water right, groundwater well, or other <u>authorization to take</u> water source, and the location of the water source, and 4. The quantity of water delivered or picked up from a legal water source, in gallons. <p>Documentation shall be made available, upon request, to Water Boards or CDFW staff and any other authorized representatives of the Water Boards or CDFW.</p> |
| Water Conservation and Use | |
| <u>98.96.</u> | Cannabis cultivators shall regularly inspect their entire water delivery system for leaks and immediately repair any leaky faucets, pipes, connectors, or other leaks. |
| <u>99.97.</u> | Cannabis cultivators shall use weed-free mulch in cultivation areas that do not have ground cover to conserve soil moisture and minimize evaporative loss. |
| <u>100.98.</u> | Cannabis cultivators shall implement water conserving irrigation methods (e.g., drip or trickle irrigation, micro-spray, or hydroponics). |
| <u>101.99.</u> | <p>Cannabis cultivators shall maintain daily records of all water used for irrigation of cannabis. Daily records may be calculated by the use of a measuring device or, if known, by calculating the irrigation system rates and duration of time watered (e.g., irrigating for one hour twice per day using 50 half-gallon drips equates to 50 gallons per day (1*2*50*0.5) of water used for irrigation). Cannabis cultivators shall retain, <u>for a minimum of 5 years</u>, irrigation records at the cannabis cultivation site and shall make all irrigation records available for review by the Water Boards, CDFW and any other authorized representatives of the Water Boards or CDFW.</p> |
| Irrigation Runoff | |
| <u>102.100.</u> | Cannabis cultivators shall regularly inspect for leaks in mainlines ²⁵ , laterals ²⁶ , in irrigation connections, sprinkler heads, or at the ends of drip tape and feeder lines and immediately repair any leaks found upon detection. |
| <u>103.101.</u> | The irrigation system shall be designed to include redundancy (e.g., safety valves) in the event that leaks occur, so that waste of water and runoff is prevented and minimized. |
| <u>104.102.</u> | Cannabis cultivators shall regularly replace worn, outdated, or inefficient irrigation system components and equipment to ensure a properly functioning, leak-free irrigation system at |

²⁴ Water hauler means any person who hauls water in bulk by any means of transportation.

²⁵ Mainlines are pipes that go from the water source to the control valves.

²⁶ Laterals are the pipes between the control valve and the sprinkler heads.

| | |
|---------------------|---|
| | all times. |
| 105.103. | Cannabis cultivators shall minimize irrigation deep percolation ²⁷ to the maximum extent possible <u>by applying irrigation water at agronomic rates.</u> |

²⁷ Deep percolation occurs when excess irrigation water is applied and percolates below the plant root zone.

| Fertilizers, Pesticides, and Petroleum Products | |
|---|--|
| 406.10 | Cannabis cultivators shall not mix, prepare, over apply, or dispose of agricultural chemicals/products (e.g., fertilizers, pesticides ²⁸ , and other chemicals as defined in the applicable water quality control plan) in any location where they could enter the riparian setback or waters of the state. The use of agricultural chemicals inconsistently with product labeling, storage instructions, or DPR requirements for pesticide applications ²⁹ is prohibited. Disposal of unused product and containers shall be consistent with labels. |
| 407.10 | Cannabis cultivators shall keep and use absorbent materials designated for spill containment and spill cleanup equipment on-site for use in an accidental spill of fertilizers, petroleum products, hazardous materials, and other substances which may degrade waters of the state. The cannabis cultivator shall immediately notify the California Office of Emergency Services at 1-800-852-7550 and immediately initiate cleanup activities for all spills that could enter a waterbody or degrade groundwater. |
| 408.10 | Cannabis cultivators shall establish and use a separate storage area for pesticides, and fertilizers, and another storage area for petroleum or other liquid chemicals (including diesel, gasoline, oils, etc.). All such storage areas shall comply with the riparian setback Requirements, be in a secured location in compliance with label instructions, outside of areas of known slope instability, and be protected from accidental ignition, weather, and wildlife. All storage areas shall have appropriate secondary containment structures, as necessary, to protect water quality and prevent spillage, mixing, discharge, or seepage. Storage tanks and containers must be of suitable material and construction to be compatible with the substances stored and conditions of storage, such as pressure and temperature. |
| 409.10 | Throughout the wet season, Cannabis Cultivators shall ensure that any temporary storage areas have a permanent cover and side-wind protection or be covered during non-working days and prior to and during rain events. |

²⁸ Pesticide is defined as follows:

- Per California Code of Regulations Title 3. Division 6. Section 6000:
 - (a) Any substance or mixture of substances that is a pesticide as defined in the Food and Agricultural Code and includes mixtures and dilutions of pesticides;
 - (b) As the term is used in Section 12995 of the California Food and Agricultural Code, includes any substance or product that the user intends to be used for the pesticidal poison purposes specified in Sections 12753 and 12758 of the Food and Agricultural Code.
- Per California Food and Agricultural Code section 12753(b), the term "Pesticide" includes any of the following: Any substance, or mixture of substances which is intended to be used for defoliating plants, regulating plant growth, or for preventing, destroying, repelling, or mitigating any pest, as defined in Section 12754.5, which may infest or be detrimental to vegetation, man, animals, or households, or be present in any agricultural or nonagricultural environment whatsoever.
- In laymen's terms: "pesticide" includes: rodenticides, herbicides, insecticides, fungicides, and disinfectants.

²⁹ More information on DPR requirements is available at:

http://www.cdpr.ca.gov/docs/legbills/laws_regulations.htm,
<http://www.cdpr.ca.gov/docs/county/cacfltrs/penfltrs/penf2017/2017atch/attach0301.pdf>, and
<http://www.cdpr.ca.gov/docs/cannabis/index.htm>

| | |
|----------------------------------|--|
| 440.10 | Cannabis cultivators shall only use hazardous materials ³⁰ in a manner consistent with the product's label. |
| 441.10 | Cannabis cultivators shall only keep hazardous materials in their original containers with labels intact, and shall store hazardous materials to prevent exposure to sunlight, excessive heat, and precipitation. Cannabis cultivators shall provide secondary containment for hazardous materials to prevent possible exposure to the environment. Disposal of unused hazardous materials and containers shall be consistent with the label. |
| 442.11 | Cannabis cultivators shall only mix, prepare, apply, or load hazardous materials outside of the riparian setbacks. |
| 443.11 | Cannabis cultivators shall not apply agricultural chemicals within 48 hours of a predicted rainfall event of 0.25 inches or greater: <u>with a probability greater than 50-percent. In the Lake Tahoe Hydrologic Unit, cannabis cultivators shall not apply agricultural chemicals within 48 hours of any weather pattern that is forecast to have a 30 percent or greater chance of precipitation greater than 0.1 inch per 24 hours. This requirement may be updated based on amendments to the Lahontan Regional Water Board construction storm water general order.</u> |
| Fertilizers and Soils | |
| 444.11 | To minimize infiltration and water quality degradation, Cannabis cultivators shall only irrigate and apply fertilizer to cannabis cultivation areas consistent with <u>the</u> crop need (i.e., agronomic rate). |
| 445.11 | When used, cannabis cultivators shall only apply nitrogen to cannabis cultivation areas consistent with crop need (i.e., agronomic rate). Cannabis cultivators shall not apply nitrogen at a rate <u>that may result in a discharge to surface water or groundwater that causes or contributes to exceedance of water quality objectives, and no</u> greater than 319 pounds/acre/year unless plant tissue analysis performed by a qualified individual demonstrates the need for additional nitrogen application. The analysis shall be performed by an agricultural laboratory certified by the State Water Board's Environmental Laboratory Accreditation Program. |
| 446.11 | Cannabis cultivators shall ensure that potting soil or soil amendments, when not in use, are placed and stored with covers, when needed, to protect from rainfall and erosion, to prevent discharge to Waterswaters of the <u>Statestate</u> , and to minimize leaching of waste constituents into groundwater. |
| Pesticides and Herbicides | |
| 447.11 | Cannabis cultivators shall not apply restricted materials, including restricted pesticides, or allow restricted materials to be <u>appliedstored</u> at the cannabis cultivation site. |

³⁰ A hazardous material is any item or agent (biological, chemical, radiological, and/or physical), which has the potential to cause harm to humans, animals, or the environment, either by itself or through interaction with other factors.

| | |
|-------------------|---|
| 148.11 | Cannabis cultivators shall implement integrated pest management strategies where possible to reduce the need and use of pesticides and the potential for discharges to waters of the state. ³¹ |
|-------------------|---|

³¹ <https://www.epa.gov/safepestcontrol/integrated-pest-management-ipm-principles>

| Petroleum Products and Other Chemicals | |
|--|--|
| 119.11 | Cannabis cultivators shall only perform maintenance or refueling of <u>refuel</u> vehicles or equipment outside of riparian setbacks. Cannabis cultivators shall inspect all equipment using oil, hydraulic fluid, or petroleum products for leaks prior to use and shall monitor equipment for leakage. Stationary equipment (e.g., motors, pumps, generators, etc.) and vehicles not in use shall be located outside of riparian setbacks. Spill and containment equipment (e.g., oil spill booms, sorbent pads, etc.) shall be stored onsite at all locations where equipment is used or staged. |
| 120.11 | Cannabis cultivators shall only store petroleum, petroleum products, and similar fluids in a manner that provides chemical compatibility; <u>provides secondary containment, and</u> protection from accidental ignition, the sun, wind, <u>and</u> rain; and secondary containment . |
| 121.11 | Cannabis cultivators shall not install <u>Use of an</u> underground storage tank <u>tank(s)</u> for the storage of petroleum products for cannabis cultivation activities. Use of an existing underground storage tank already located on the cannabis cultivation site for storage of petroleum products for cannabis cultivation activities is subject to <u>allowed if compliant with</u> <u>all</u> applicable federal, state, and local laws; <u>i</u> regulations; <u>i</u> and permitting requirements. |
| Cultivation-Related Waste | |
| 122.12 | Cannabis cultivators shall contain and regularly remove all debris and trash associated with cannabis cultivation activities from the cannabis cultivation site. Cannabis cultivators shall only dispose of debris and trash at an authorized landfill or other disposal site in compliance with state and local laws, ordinances, and regulations. Cannabis cultivators shall not allow litter, plastic, or similar debris to enter the riparian setback or waters of the state. Cannabis plant material may be disposed of onsite in compliance with any applicable CDFA license conditions. |
| 123.12 | Cannabis cultivators shall only dispose or reuse spent growth medium (e.g., soil and other organic media) in a manner that prevents discharge of soil and residual nutrients and chemicals to the riparian setback or Waters <u>waters</u> of the State <u>state</u> . Spent growth medium shall be covered with plastic sheeting or stored in water tight dumpsters prior to proper disposal or reuse. Spent growth medium should be disposed of at an authorized landfill or other disposal site in compliance with state and local laws, ordinances, and regulations. Proper reuse of spent growth medium may include incorporation into garden beds or spreading on a stable surface and revegetating the surface with native plants. Cannabis cultivators shall use erosion control techniques, as needed, for any reused or stored spent growth medium to prevent polluted runoff. |
| Refuse and Domestic Waste | |
| 124.12 | Cannabis cultivators shall ensure that debris, soil, silt, bark, slash, sawdust, rubbish, creosote-treated wood, raw cement and concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to any life stage of fish and wildlife or their habitat (includes food sources) does not contaminate soil or enter the riparian setback or Waters <u>waters</u> of the State <u>state</u> . |
| 125.12 | Cannabis cultivators shall not dispose of domestic wastewater unless it meets applicable |

| | local agency and/or Regional Water Board requirements. Cannabis cultivators shall ensure that human or animal waste is disposed of properly. Cannabis cultivators shall ensure onsite wastewater treatment systems (e.g., septic system) are permitted by the local agency or applicable Regional Water Board. | | | | | | | | |
|------------------------|--|--------------------|---|--------|----|---------|----|-----|----|
| 426.12 | If used, chemical toilets or holding tanks shall be maintained in a manner appropriate for the frequency and conditions of usage, sited in stable locations, and comply with the riparian setback Requirements. | | | | | | | | |
| Winterization | | | | | | | | | |
| 427.12 | Cannabis cultivators shall implement all applicable Erosion Control and Soil Disposal and Spoils Management Requirements in addition to the Winterization Requirements below by November 15 of each year, or earlier, if needed to prevent waste discharges that result in water quality degradation. <u>the onset of the winter period.</u> | | | | | | | | |
| 428.12 | Cannabis cultivators shall block or otherwise close any temporary <u>access</u> roads to all motorized vehicles no later than November 15 <u>the onset</u> of <u>the winter period</u> each year. | | | | | | | | |
| 429.12 | Cannabis cultivators shall not operate heavy equipment of any kind at the cannabis cultivation site during the winter period (November 16 to March 31), unless authorized for emergency repairs contained in an enforcement order issued by the State Water Board, Regional Water Board, or other agency having jurisdiction. | | | | | | | | |
| 430.12 | <p>Cannabis cultivators shall apply linear sediment controls (e.g., silt fences, wattles, etc.) along the toe of the slope, face of the slope, and at the grade breaks of exposed slopes to comply with sheet flow length³² at the frequency specified below.</p> <table border="1"> <thead> <tr> <th>Slope (percent)</th><th>Sheet Flow Length Not to Exceed (feet)</th></tr> </thead> <tbody> <tr> <td>0 – 25</td><td>20</td></tr> <tr> <td>25 – 50</td><td>15</td></tr> <tr> <td>>50</td><td>10</td></tr> </tbody> </table> | Slope (percent) | Sheet Flow Length Not to Exceed (feet) | 0 – 25 | 20 | 25 – 50 | 15 | >50 | 10 |
| Slope (percent) | Sheet Flow Length Not to Exceed (feet) | | | | | | | | |
| 0 – 25 | 20 | | | | | | | | |
| 25 – 50 | 15 | | | | | | | | |
| >50 | 10 | | | | | | | | |
| 431.12 | Cannabis cultivators shall maintain all culverts, drop inlets, trash racks and similar devices to ensure they are not blocked by debris or sediment. The outflow of culverts shall be inspected to ensure erosion is not undermining the culvert. Culverts shall be inspected prior to the onset of fall and winter precipitation and following precipitation events <u>that produce at least 0.5 in/day or 1.0 inch/7 days of precipitation</u> to determine if maintenance or cleaning is required. | | | | | | | | |
| 432.13 | Cannabis cultivators shall stabilize all disturbed areas and construction entrances and exits to control erosion and sediment discharges from land disturbance. | | | | | | | | |

³² Sheet flow length is the length that shallow, low velocity flow travels across a site.

| | |
|-------------------------------|---|
| <u>133.13</u> | Cannabis cultivators shall cover and berm all loose stockpiled construction materials (e.g., soil, spoils, aggregate, etc.) that are not actively (scheduled for use within 48 hours) being used. <u>as needed to prevent erosion by storm water. The cannabis cultivator shall have adequate cover and berm materials available onsite if the weather forecast indicates a probability of precipitation.</u> |
| <u>134.13</u> | Cannabis cultivators shall apply erosion repair and control measures to the bare ground (e.g., cultivation area, access paths, etc.) to prevent discharge of sediment to <u>Waterswaters</u> of the <u>Statestate</u> . |
| <u>135.13</u> | As part of the winterization plan approval process, the Regional Water Board may require cannabis cultivators to implement additional site-specific erosion and sediment control requirements if the implementation of the Requirements in this section do not adequately protect water quality. |

SECTION 3 – NUMERIC AND NARRATIVE INSTREAM FLOW REQUIREMENTS (INCLUDING GAGING)

This section outlines the numeric and narrative instream flow Requirements established in this Policy.

~~The narrative~~

Narrative instream flow Requirements apply to all diversions of surface water and groundwater for cannabis cultivation throughout California, ~~in all 14 Regions.~~ Numeric instream flow requirements are developed at compliance gages ~~for the 14 Regions throughout California. The compliance gages are divided into 14 geographic regions (Section 4).~~

Narrative Instream Flow Requirements

Instream Flow Requirements for Surface Water Diversions

1. **Applicability:** Surface water instream flow Requirements apply to anyone diverting water for cannabis cultivation from a waterbody. A waterbody is defined as any significant accumulation of water, such as: lakes, ponds, rivers, streams, creeks, springs ~~or seeps~~³³, artesian wells, wetlands, and canals. Surface water instream flow Requirements also apply to water diverted from a subterranean stream flowing through a known and definite channel.
2. **Retail Water Suppliers**³⁴: The instream flow Requirements and forbearance period listed in this section shall not apply to retail water suppliers, as defined in Section 13575 of the Water Code³⁵, whose primary beneficial use is municipal or domestic, unless any of the following circumstances are present:
 - a. the retail water supplier has 10 or fewer customers; and delivers water that is used for cannabis cultivation;
 - b. the retail water supplier delivers 10 percent or more of the diverted water to one or more cannabis cultivator(s) or cannabis cultivation site(s), as established by an assessor's parcel number;
 - c. 25 percent or more of the water delivered by the retail water supplier is used for cannabis cultivation; or
 - d. a cannabis cultivator and the retail water supplier are affiliates, as defined in California Code of Regulations, title 23, section 2814.20.
3. **Exempt Springs:** Cannabis cultivators claiming, pursuant to Business and Professions Code section 26060.1(a)(2)(A)(iv) or section 26060.1(a)(2)(B)(iii), that a spring or artesian well does not flow off their property by surface or subterranean (subsurface) means in the absence of diversion, may request an exemption from the Policy's Narrative Instream Flow Requirements 4 (Surface Water Dry Season Forbearance

³³ A spring ~~or seep~~ is a place an area where water there is concentrated discharge of groundwater that flows out of at the ground- surface. A spring ~~or seep~~ may flow ~~the whole year or any~~ part of the year. For the purpose of this Policy, a spring does not have a defined bed and banks. Surface water instream flow Requirements apply to both natural springs and ~~seeps and~~ springs ~~and seeps~~ that are modified to improve production such as, installing piping and spring boxes/wells.

³⁴ Business and Professions Code section 26060.1(a)(1)(B).

³⁵ Under Water Code section 13575(b)(5), "Retail water supplier" means any local entity, including a public agency, city, county, or private water company that provides retail water service.

Period) and 5 (Surface Water Wet Season Diversion Period). When requesting such an exemption, cannabis cultivators shall provide substantial evidence demonstrating that, in the absence of diversions, the spring or artesian well does not have surface or subsurface hydrologic connectivity to a surface water at any time of year during all water year types³⁶. The substantial evidence must be documented by a qualified professional. For purposes of this Requirement, qualified professionals include California-registered Professional Geologists or other classifications of professions approved by the Deputy Director for Water Rights (Deputy Director). A list of qualified professionals that may document the substantial evidence required per this Requirement will be maintained on the Water Rights section of the State Water Board's Cannabis Cultivation webpage³⁷. The Deputy Director may require additional information from the cannabis cultivator to support the request. If, after reviewing the submitted evidence and analysis, the Deputy Director concurs that the cannabis cultivator has made the required showing, the cannabis cultivator may be exempted from the Policy's Narrative Instream Flow Requirements 4 and 5. Springs or artesian wells that are deemed exempt shall comply with the Policy's 50 percent visual bypass requirement (Narrative Instream Flow Requirement 6) to support aquatic and riparian habitat. In addition, springs or artesian wells that are deemed exempt shall be subject to the Requirements for Groundwater Diversions (Narrative Instream Flow Requirement 8) to address the potential cumulative impacts of groundwater diversions, to which diversions from the spring or artesian well may contribute. Notwithstanding such exemptions, all other applicable Requirements of this Policy remain in force.

3.4. Surface Water Dry Season Forbearance Period: Cannabis cultivators shall not divert surface water for cannabis cultivation activities at any time from April 1 through October 31 of each calendar year, unless the water diverted is delivered from storage in compliance with Narrative Flow Requirement 4.

- a. The following requirements apply only to cannabis cultivators diverting under a valid riparian or pre-1914 appropriative claim of right and without authorized storage:
 - i. The first year of the Surface Water Dry Season Forbearance Period (April 1, 2018 through October 31, 2018) is waived. Cannabis cultivators subject to Requirement 4.a. may only divert during this period in a manner consistent with their permit/license or claim of right. All other applicable requirements of the Policy shall remain in force.
 - ii. Cannabis cultivators subject to Requirement 4.a shall file for a Cannabis SIUR or submit an application for an appropriative water right permit to obtain storage sufficient to support their cannabis cultivation during the forbearance period prior to diverting water for cannabis cultivation during the 2018 forbearance period.
 - iii. As soon as possible after storage has been authorized, following the conclusion of the winter period, cannabis cultivators subject to Requirement 4.a shall begin installing and diverting to off-stream storage to prepare for a potential curtailment during the dry season of 2018

³⁶ Including during any precipitation and runoff events.

³⁷ State Water Board's Cannabis Cultivation webpage:

http://www.waterboards.ca.gov/water_issues/programs/cannabis/index.shtml<http://www.waterboards.ca.gov/cannabis/>

(triggered by the Aquatic Base Flow Numeric Instream Flow Requirement).

- iv. Requirement 4 shall apply with full force to cannabis cultivators described in Requirement 4.a who fail to comply with Requirement 4.a.ii and/or 4.a.iii.

5. **Surface Water Wet Season Diversion Period:** The authorized surface water diversion period is November 1 through March 31. During this diversion period, cannabis cultivators may only divert surface water for cannabis cultivation when water is available for diversion under the cannabis cultivator's priority of right and the applicable Numeric Flow Requirement (Section 4) is met at the assigned compliance gage. This includes direct diversion and diversion to storage.

From November 1 through December 14 of each year, the surface water diversion period shall not begin until after seven consecutive days in which the surface waterbody's real-time daily average flow is greater than the Numeric Flow Requirement (applicable minimum monthly instream flow Requirement in Section 4). The first day of the seven consecutive days must occur on or after October 25. After the seventh consecutive day with average flow greater than the Numeric Flow Requirement, surface water diversions may occur on any subsequent days in which the real-time daily average flow is greater than the Numeric Instream Flow Requirement (applicable minimum monthly instream flow Requirement in Section 4)³⁸.

4. ~~Numeric instream flow Requirements are established throughout the State and are calculated for the majority of USGS National Hydrologic Database plus 2 stream reaches where the USGS flow modeling data are available.~~

Cannabis cultivators that divert water from a waterbody with an assigned compliance gage in Section 4 of this Policy are required to ensure that the real-time daily average flow, as published on a designated compliance gage website identified by the Deputy Director for Water Rights, exceeds the minimum monthly instream flow Requirement at the cannabis cultivator's assigned compliance gage. Cannabis cultivators shall verify and document compliance with the applicable Numeric Flow Requirement on a daily basis for each day of surface water diversion.

- 5.6. **Surface Water Flow Bypass:** In addition to Narrative Flow Requirement 45, at all times ~~the~~ cannabis cultivators shall bypass a minimum of 50 percent of the surface water flow past their point of diversion, as estimated based on visually observing surface water flow at least daily. The surface water flow bypass requirement applies to cannabis cultivators diverting under a riparian or a pre-1914 appropriative claim of right and without authorized storage even if they qualify for the 2018 Surface Water Dry Season Forbearance Period waiver (Requirement 4.a.)

³⁸ For example, if the daily average flows on each day from October 27 through November 2 of a given year are greater than the Numeric Instream Flow Requirement for November (applicable November monthly minimum flow Requirement), diversion may begin on November 3 if the daily average flow on November 3 is also greater than the November Numeric Instream Flow Requirement. From December 15 through March 31 of each surface water diversion period, surface water diversions may occur on any day in which the surface waterbody's real-time daily average flow is greater than the Numeric Instream Flow Requirement (applicable minimum monthly instream flow Requirement).

~~Cannabis cultivators claiming, pursuant to Business and Professions Code section 26060.1, that a spring does not flow off their property by surface or subterranean means in the absence of diversion, may request an exemption from the minimum of 50 percent bypass requirement. In requesting such an exemption, cannabis cultivators shall provide substantial evidence demonstrating that the spring, seep, or artesian well does not have surface or subsurface hydrologic connectivity at any time of year during all water year types³⁹. The substantial evidence must be documented by a qualified professional. For purposes of this Requirement, qualified professionals include California-registered Professional Geologists or other classifications of professions approved by the Deputy Director for Water Rights (Deputy Director). A list of qualified professionals that may document the substantial evidence required per this Requirement will be maintained on the Water Rights section of the State Water Board's Cannabis Cultivation webpage⁴⁰. The Deputy Director may require additional information from the cannabis cultivator to support the request. If the Deputy Director concurs with the evidence provided, the cannabis cultivator may be exempted from the Policy's Requirement to bypass a minimum of 50 percent of the surface water flow. Compliance with the Policy's minimum monthly flow Requirement (Narrative **Numeric Instream Flow Requirement 4**) shall still apply. Notwithstanding such an exemption, all other applicable Requirements of this Policy remain in force.~~

- ~~6. From November 1 through December 14 of each year, the surface water diversion period shall not begin until after seven consecutive days in which the surface waterbody's real-time daily average flow is greater than the Numeric Flow Requirement (applicable minimum monthly instream flow Requirement in Section 4). The first day of the seven consecutive days must occur on or after November 1. After the seventh consecutive day with average flow greater than the Numeric Flow Requirement, surface water diversions may occur on any subsequent days in which the real-time daily average flow is greater than the Numeric Flow Requirement (applicable minimum monthly instream flow Requirement in Section 4). For example, if the daily average flows on each day from November 1 through November 7 of a given year are greater than the Numeric Flow Requirement for November (applicable November monthly minimum flow Requirement), diversion may begin on November 8 if the daily average flow on November 8 is also greater than the November Numeric Flow Requirement. From December 15 through March 31 of each surface water diversion period, surface water diversions may occur on any day in which the surface waterbody's real-time daily average flow is greater than the Numeric Flow Requirement (applicable minimum monthly instream flow Requirement).~~
7. The State Water Board has developed Numeric instream flow**Instream Flow** Requirements (minimum instream flow requirements) for each compliance gage in Section 4, Table 1 through Table 14, to ensure that individual and cumulative effects of water diversion and discharge associated with cannabis cultivation do not affect the instream flows needed for fish spawning, migration, and rearing, and the flows needed to maintain natural flow variability. If the individual and cumulative effects of diversions

³⁹ ~~Including during any precipitation and runoff events.~~

⁴⁰ ~~State Water Board's Cannabis Cultivation webpage:~~

~~http://www.waterboards.ca.gov/water_issues/programs/cannabis/index.shtml<http://www.waterboards.ca.gov/cannabis/>~~

result in unanticipated impacts, however, the State Water Board may revise the narrative and/or numeric instream flow Requirements to better protect instream resources, habitat, and natural flow variability.

Requirements for Groundwater Diversions and Springs Qualifying for an Exemption under Narrative Instream Flow Requirement 3 (Exempt Springs)

8. **Aquatic Base Flow:** This Policy establishes ~~a low flow threshold~~ Aquatic Base Flow, calculated by applying the New England Aquatic Base Flow Standard, as one mechanism to help monitor whether groundwater diverters and diverters from exempt springs are having a cumulative negative impact on surface flows. The State Water Board may develop additional requirements for groundwater diversions and diversions from exempt springs for cannabis cultivation in locations where there are a significant number of groundwater diversions and/or diversions from exempt springs or locations where significant numbers of surface water diverters are switching to groundwater diversions and those diversions have the potential to have negative localized impact on surface flows.
9. **Retail Water Suppliers⁴¹:** The instream flow Requirements listed in narrative flow Requirement 8 (~~low flow threshold~~ Aquatic Base Flow) shall not apply to retail water suppliers, as defined in Section 13575 of the Water Code⁴², whose primary beneficial use is municipal or domestic, unless any of the following circumstances are present:
 - a. the retail water supplier has 10 or fewer customers; and delivers water that is used for cannabis cultivation;
 - b. the retail water supplier delivers 10 percent or more of the diverted water to one or more cannabis cultivator(s) or cannabis cultivation site(s), as established by an assessor's parcel number;
 - c. 25 percent or more of the water delivered by the retail water supplier is used for cannabis cultivation; or
 - d. a cannabis cultivator and the retail water supplier are affiliates, as defined in California Code of Regulations, title 23, section 2814.20.

Gage Installation, Maintenance, and Operation Requirements

The Deputy Director for Water Rights (Deputy Director) may require cannabis cultivators to install and operate a local telemetry gage in ungaged watersheds or localized watershed areas if the Deputy Director determines that use of the assigned compliance gage does not adequately protect instream flows or does not adequately represent the localized water demand. The Deputy Director may also require the installation and operation of a local telemetry gage in watersheds with no gage assignment if the Deputy Director determines that a gage is necessary to adequately protect instream flows.

Cannabis cultivators shall ensure that gages required by the Deputy Director are installed, maintained, and operated by a qualified professional. For purposes of this Requirement, qualified professionals include California-registered Professional Civil Engineers, or other

⁴¹ Business and Professions Code section 26060.1(a)(1)(B).

⁴² Water Code Chapter 7.5. Water Recycling Act of 1991, Section 13575(b)(5) "Retail water supplier" means any local entity, including a public agency, city, county, or private water company that provides retail water service.

classifications of professions approved by the Deputy Director. A list of qualified professionals that may document compliance with this Requirement will be maintained in the Water Rights section of the State Water Board's Cannabis Cultivation webpage⁴³. Gage equipment shall meet the applicable technical specifications for telemetered measuring devices in California Code of Regulations, title 23, section 933, that apply to diversions of over 10,000 acre-feet per year or more. Gages shall record data at a minimum of 15-minute intervals and report the recorded real-time data hourly, at a minimum, via a public website designated by the State Water Board's Division of Water Rights (Division of Water Rights).

Cannabis cultivators, or an entity acting on behalf of cannabis cultivators, shall submit a gage operation and maintenance (O&M) plan prepared by a qualified professional, as defined in the preceding paragraph, to the Deputy Director or the Deputy Director's designee for approval. At a minimum, the gage O&M plan shall include qualifications and names of entities responsible for gage installation, maintenance, and operation; gage specifications and accuracy; gage location; gage installation procedures that ensure accurate operation during the wet season and stability during high flow events; stream flow measurement procedures for development of rating curves that represent wet season flows; telemetry equipment; and an O&M schedule and procedures. The Deputy Director may require additional information from the cannabis cultivator to support the request. The Deputy Director may include additional requirements as part of any approval of a gage O&M plan.

Prior to October 31, during each water year of gage operation, an annual maintenance and operation summary report prepared by a qualified professional, as defined above in this Requirement, shall be submitted to the Division of Water Rights that includes, at a minimum: qualifications and names of entities responsible for maintenance and operation; maintenance activities or operational issues for the prior water year of operation; quality assured gage stage and flow data collected and analyzed for prior water year; rating curves for prior and upcoming water year of operation; data collected to establish rating curves for prior and upcoming water year of operation; and any anticipated maintenance plans or operational issues for the upcoming water year. The gage data shall be provided to the Division of Water Rights in a format retrievable and viewable using Microsoft Excel, Microsoft Access, or other software program authorized by the Deputy Director.

⁴³ State Water Board's cannabis cultivation webpage:
http://www.waterboards.ca.gov/water_issues/programs/cannabis/index.shtml

SECTION 4 – WATERSHED COMPLIANCE GAGE ASSIGNMENTS

Watershed Compliance Gage Assignments

The following tables show the compliance gage numeric instream flow Requirements by Region. The State Water Board is developing an online mapping tool to assist cannabis cultivators with determining which compliance gage applies to them and whether they may divert water. It is anticipated that the online mapping tool will allow cannabis cultivators to enter their address or otherwise locate their point of diversion to identify their assigned watershed compliance gage. The compliance gage assignments may change as more information becomes available. To ensure cannabis cultivators are reporting in accordance with the appropriate gage, the cannabis cultivator is required to check the website for their compliance gage assignment at least daily and prior to diverting water to ensure water is available to divert at that gage (i.e., the real-time daily average flow is greater than the Numeric Flow Requirement at the assigned compliance gage).

Table 1. Klamath Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | SourceAgency | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater or LowAquatic Base Flow Threshold (cfs) |
|-------------|--|--------------|-------------------|-------------------|------------------|-------------------|----------------|--|
| 11516530 | KLAMATH R BL IRON GATE DAM CA | USGS | 828 | 828 | 828 | 828 | 1,013 | 1,287 |
| 11517000 | SHASTA R NR MONTAGUE CA | USGS | 114 | 114 | 114 | 176 | 194 | 469 107 |
| 11517500 | SHASTA R NR YREKA CA | USGS | 128 | 128 | 129 | 197 | 222 | 488 119 |
| 11519500 | SCOTT R NR FORT JONES CA | USGS | 293 | 327 | 467 | 454 | 379 | 161 |
| 11520500 | KLAMATH R NR SEIAD VALLEY CA | USGS | 1,364 | 1,364 | 1,364 | 1,433 | 2,354 | 1,807 687 |
| 11521500 | INDIAN C NR HAPPY CAMP CA | USGS | 181 | 368 | 372 | 365 | 319 | 35 |
| 11522500 | SALMON R A SOMES BAR CA | USGS | 758 | 1,035 | 1,306 | 1,265 | 1,243 | 202 |
| 11523000 | KLAMATH R A ORLEANS | USGS | 2,631 | 2,631 | 2,631 | 3,424 | 5,131 | 1,156 |
| 11523200 | TRINITY R AB COFFEE C NR TRINITY CENTER CA | USGS | 162 | 162 | 185 | 220 | 257 | 39 |
| 11525530 | RUSH C NR LEWISTON CA | USGS | 15 | 22 | 29 | 31 | 31 | 2 |
| 11525630 | GRASS VALLEY C NR LEWISTON CA | USGS | 23 | 32 | 48 | 51 | 47 | 3.7 |
| 11525670 | INDIAN C NR DOUGLAS CITY CA | USGS | 20 | 28 | 40 | 44 | 43 | 3 |
| 11525854 | TRINITY R A DOUGLAS CITY CA | USGS | 957 | 1,022 | 1,388 | 1,628 | 1,492 | 228 |
| 11526400 | TRINITY R AB NF TRINITY R NR HELENA CA | USGS | 1,122 | 1,237 | 1,702 | 1,951 | 1,782 | 273 |
| 11526500 | NF TRINITY R A HELENA CA | USGS | 146 | 175 | 246 | 269 | 253 | 32 |
| 11527000 | TRINITY R NR BURNT RANCH CA | USGS | 1,320 | 1,534 | 2,105 | 2,415 | 2,239 | 324 |

DRAFT

| Gage Number | Gage Name | SourceAgency | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater or LowAquatic Base Flow Threshold (cfs) |
|--------------------|-----------------------------------|---|---------------------------|---------------------------|--------------------------|---------------------------|------------------------|--|
| 11528700 | SF TRINITY R BL HYAMPOM CA | USGS | 572 | 898 | 1,331 | 1,372 | 1,255 | 77 |
| 11530000 | TRINITY R A HOOPA CA | USGS | 2,349 | 3,440 | 4,712 | 5,165 | 4,772 | 423 |
| 11530500 | KLAMATH R NR KLAMATH CA | USGS | 9,785 | 10,162 | 14,400 | 13,657 | 16,450 | 4,789 |
| 11532500 | SMITH R NR CRESCENT CITY CA | USGS | 1,758 | 3,261 | 3,382 | 2,865 | 2,623 | 288 |
| CLE | TRINITY LAKE | US Bureau of Reclamation | 749 | 849 | 1,117 | 1,288 | 1,169 | 188 |
| SPU | SHASTA R AT GRENADA PUMP PLANT | DWRCA Dept of Water Resources , NRO | 47 | 47 | 47 | 68 | 77 | 47 |

Table 2. Upper Sacramento Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source Agency | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater Low Aquatic Base Flow Threshold (cfs) |
|-------------|--------------------------------------|-------------------------------|-------------------|-------------------|------------------|-------------------|----------------|---|
| 11342000 | SACRAMENTO R A DELTA CA | USGS | 486 | 645 | 800 | 1,037 | 894 | 139 |
| 11345500 | SF PIT R NR LIKELY CA | USGS | 28 | 28 | 28 | 28 | 28 | 35 |
| 11348500 | PIT R NR CANBY CA | USGS | 125 | 132 | 116 | 116 | 116 | 122 |
| 11361000 | BURNEY C A BURNEY FALLS NR BURNEY CA | USGS | 84 | 84 | 94 | 123 | 132 | 58 |
| HCB | HAT CK BLW HAT CK | DWRCA Dept of Water Resources | 85 | 85 | 85 | 85 | 99 | 83 |
| HCN | HAT CK NR HAT CK | DWRCA Dept of Water Resources | 73 | 74 | 74 | 74 | 76 | 60 |
| SDT | SACRAMENTO R AT DELTA | US Bureau of Reclamation | 486 | 645 | 800 | 1,037 | 894 | 139 |
| SHA | SHASTA DAM (USBR) | US Bureau of Reclamation | 1,792 | 1,792 | 2,207 | 3,096 | 4,145 | 904 |

Table 3. North Eastern Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater Low Aquatic Base Flow Threshold (cfs) |
|-------------|-------------------------------|---|-------------------|-------------------|------------------|-------------------|----------------|---|
| SSD | SUSAN R NR STANDISH | DWRCA Dept of Water Resources | 65 | 65 | 65 | 73 | 81 | 44 |
| SSU | SUSAN RIVER AT SUSANVILLE | DWRCA Dept of Water Resources | 54 | 54 | 54 | 56 | 71 | 39 |
| WCD | WILLOW CREEK NEAR STANDISH | DWRCA Dept of Water Resources | 99 | 99 | 99 | 106 | 115 | 76 |

Table 4. North Coast Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater or Low Aquatic Base Flow Threshold (cfs) |
|-------------|-------------------------------------|--------|-------------------|-------------------|------------------|-------------------|----------------|---|
| 11473900 | MF EEL R NR DOS RIOS CA | USGS | 621 | 1,138 | 1,592 | 1,450 | 1,279 | 18 |
| 11475000 | EEL R A FORT SEWARD CA | USGS | 1,918 | 3,768 | 5,252 | 4,850 | 3,814 | 73 |
| 11475560 | ELDER C NR BRANSCOMB CA | USGS | 11 | 25 | 31 | 25 | 22 | 0.97 1.3 |
| 11475610 | CAHTO C NR LAYTONVILLE CA | USGS | 7.9 | 18 | 23 | 19 | 15 | 0.51 2.4 |
| 11475800 | SF EEL R A LEGGETT CA | USGS | 347 | 783 | 980 | 851 | 665 | 25 |
| 11476500 | SF EEL R NR MIRANDA CA | USGS | 749 | 1,708 | 2,125 | 1,857 | 1,424 | 54 |
| 11476600 | BULL C NR WEOTT CA | USGS | 45 | 102 | 123 | 112 | 88 | 1.9 |
| 11477000 | EEL R A SCOTIA CA | USGS | 3,293 | 7,218 | 9,280 | 8,443 | 6,013 | 145 |
| 11478500 | VAN DUZEN R NR BRIDGEVILLE CA | USGS | 323 | 728 | 814 | 748 | 627 | 12 |
| 11480390 | MAD R AB RUTH RES NR FOREST GLEN CA | USGS | 100 | 213 | 257 | 247 | 203 | 0.57 1.1 |
| 11481000 | MAD R NR ARCATA CA | USGS | 641 | 1,406 | 1,555 | 1,453 | 1,245 | 57 |
| 11481200 | LITTLE R NR TRINIDAD CA | USGS | 54 | 127 | 132 | 111 | 101 | 6.3 |
| 11481500 | REDWOOD C NR BLUE LAKE CA | USGS | 96 | 197 | 221 | 211 | 203 | 6.7 |
| 11482500 | REDWOOD C A ORICK CA | USGS | 406 | 901 | 987 | 856 | 794 | 28 |
| ERS | EEL RIVER AT SCOTIA | CDFW | 3,293 | 7,218 | 9,280 | 8,443 | 6,013 | 145 |

Table 5. Middle Sacramento Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater Low Aquatic Base Flow Threshold (cfs) |
|-------------|--|---|----------------|----------------|---------------|----------------|-------------|---|
| 11370500 | SACRAMENTO R A KESWICK CA | USGS | 1,786 | 1,786 | 2,275 | 3,155 | 3,802 | 914 |
| 11372000 | CLEAR C NR IGO CA | USGS | 197 | 296 | 403 | 503 | 406 | 35 |
| 11374000 | COW C NR MILLVILLE CA | USGS | 284 | 500 | 722 | 690 | 557 | 29 |
| 11376000 | COTTONWOOD C NR COTTONWOOD CA | USGS | 461 | 758 | 1,215 | 1,265 | 995 | 45 |
| 11376550 | BATTLE C BL COLEMAN FISH HATCHERY NR COTTONWOOD CA | USGS | 185 | 185 | 255 | 284 | 264 | 171 |
| 11377100 | SACRAMENTO R AB BEND BRIDGE NR RED BLUFF CA | USGS | 2,550 | 2,676 | 3,841 | 5,157 | 5,106 | 1,291 |
| 11379500 | ELDER C NR PASKENTA CA | USGS | 46 | 70 | 123 | 129 | 101 | 3 |
| 11381500 | MILL C NR LOS MOLINOS CA | USGS | 101 | 101 | 142 | 148 | 159 | 46 |
| 11383500 | DEER C NR VINA CA | USGS | 165 | 171 | 246 | 267 | 289 | 49 |
| 11390500 | SACRAMENTO R BL WILKINS SLOUGH NR GRIMES CA | USGS | 5,668 | 7,679 | 14,170 | 12,964 | 12,083 | 854 |
| BIC | BIG CHICO CREEK NEAR CHICO | DWRCA Dept of Water Resources | 66 | 74 | 125 | 138 | 135 | 16 |
| BLB | BLACK BUTTE | US Army Corps of Engineers | 278 | 422 | 749 | 796 | 615 | 29 |
| GRI | GRINDSTONE CK NR GRINDSTONE RANCHERIA | US Bureau of Reclamation | 93 | 136 | 228 | 222 | 179 | 12 |
| MUC | MUD CREEK NEAR CHICO | DWRCA Dept of Water Resources | 78 | 89 | 162 | 180 | 181 | 14 |
| NCO | N FK COTTONWOOD CK ABV LK AT BRDG NR ONO | DWRCA Dept of Water Resources , NRO | 9.5 | 14 | 20 | 22 | 19 | 1.5 |
| SCG | STONY CK NR GRIZZLY FLAT (CO RD 200A) | US Bureau of Reclamation | 258 | 391 | 698 | 732 | 572 | 26 |

DRAFT

| Gage Number | Gage Name | Source | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater LowAquatic Base Flow Threshold (cfs) |
|--------------------|---|---|---------------------------|---------------------------|--------------------------|---------------------------|------------------------|---|
| SUW | STONY CREEK NR SUWANNA RANCH (CO RD 410) | US Bureau of Reclamation | 119 | 185 | 328 | 343 | 257 | 12 |
| THO | THOMES CREEK AT PASKENTA | DWRCA Dept of Water Resources | 149 | 217 | 334 | 348 | 281 | 17 |

Table 6. Southern Sacramento Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater Low Aquatic Base Flow Threshold (cfs) |
|-------------|--|--------|-------------------|-------------------|------------------|-------------------|----------------|---|
| 11335000 | COSUMNES R A MICHIGAN BAR CA | USGS | 170 | 190 | 323 | 391 | 382 | 23 |
| 11336580 | MORRISON C NR SACRAMENTO CA | USGS | 3.4 | 4.1 | 12 | 13 | 9.2 | 0.941 |
| 11336585 | LAGUNA C NR ELK GROVE CA | USGS | 2.5 | 3.1 | 9.4 | 10 | 7 | 0.731.1 |
| 11401920 | SPANISH C A QUINCY CA | USGS | 55 | 58 | 74 | 86 | 91 | 17 |
| 11402000 | SPANISH C AB BLACKHAWK C AT KEDDIE CA | USGS | 118 | 118 | 154 | 182 | 190 | 34 |
| 11413000 | N YUBA R BL GOODYEARS BAR CA | USGS | 292 | 321 | 385 | 416 | 435 | 84 |
| 11421000 | YUBA R NR MARYSVILLE CA | USGS | 1,102 | 1,380 | 1,736 | 1,929 | 1,964 | 324 |
| 11425500 | SACRAMENTO R A VERONA CA | USGS | 10,548 | 14,051 | 25,774 | 24,889 | 22,688 | 1,424 |
| 11427000 | NF AMERICAN R A NORTH FORK DAM CA | USGS | 284 | 354 | 429 | 471 | 456 | 85 |
| 11447360 | ARCADE C NR DEL PASO HEIGHTS CA | USGS | 3.3 | 4.4 | 13 | 13 | 11 | 0.841.2 |
| 11447650 | SACRAMENTO R A FREEPORT CA | USGS | 7,256 | 7,645 | 12,738 | 16,071 | 14,817 | 2,601 |
| 11449500 | KELSEY C NR KELSEYVILLE CA | USGS | 29 | 54 | 78 | 84 | 58 | 3.3 |
| 11451000 | CACHE C NR LOWER LAKE CA | USGS | 277 | 446 | 814 | 821 | 610 | 19 |
| 11451100 | NF CACHE C A HOUGH SPRING NR CLEARLAKE OAKS CA | USGS | 43 | 77 | 125 | 123 | 93 | 1 |
| 11451300 | NF CACHE C NR CLEARLAKE OAKS CA | USGS | 60 | 93 | 166 | 176 | 135 | 5.2 |
| 11451715 | BEAR C AB HOLSTEN CHIMNEY CYN NR RUMSEY CA | USGS | 16 | 33 | 67 | 74 | 49 | 1.5 |

DRAFT

| Gage Number | Gage Name | Source | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater Low Aquatic Base Flow Threshold (cfs) |
|-------------|---|--|-------------------|-------------------|------------------|-------------------|----------------|---|
| 11451800 | CACHE C A RUMSEY CA | USGS | 437 | 645 | 1,346 | 1,300 | 979 | 30 |
| 11453500 | PUTAH C NR GUENOC CA | USGS | 82 | 137 | 234 | 251 | 172 | 4 |
| 11455420 | SACRAMENTO R A RIO VISTA CA | USGS | 14,009 | 19,070 | 35,609 | 34,051 | 30,009 | 1,715 |
| BPG | BEAR RIVER AT PLEASANT GROVE RD | DWRCA Dept of Water Resources | 133 | 150 | 252 | 301 | 270 | 18 |
| CMF | COSUMNES R MID FORK NR SOMERSET | DWRCA Dept of Water Resources | 53 | 53 | 73 | 91 | 98 | 19 |
| CNF | COSUMNES R N FORK NR EL DORADO | DWRCA Dept of Water Resources | 91 | 94 | 146 | 173 | 177 | 32 |
| FOL | FOLSOM LAKE | US Bureau of Reclamation | 1,177 | 1,228 | 1,603 | 1,838 | 1,904 | 413 |
| FSB | FEATHER R ABV STAR BEND | DWR, CA Dept of Water Resources/NCRO | 3,331 | 3,331 | 4,258 | 5,051 | 5,297 | 1,165 |
| GRL | FEATHER RIVER NEAR GRIDLEY | DWR, O&MCA Dept of Water Resources/O & M | 2,152 | 2,179 | 2,537 | 3,050 | 3,162 | 704 |
| ICR | INDIAN CREEK BELOW INDIAN FALLS | DWRCA Dept of Water Resources | 188 | 188 | 203 | 302 | 362 | 54 |
| KCK | KELSEY CK BLW KELSEYVILLE | DWRCA Dept of Water Resources | 32 | 56 | 88 | 95 | 66 | 2.9 |
| MCU | MIDDLE CK NR UPPER LAKE | DWRCA Dept of Water Resources | 31 | 52 | 83 | 85 | 72 | 1.8 |
| MER | FEATHER RIVER AT MERRIMAC | DWR, O&MCA Dept of Water Resources/O & M | 514 | 514 | 586 | 771 | 921 | 167 |
| MFP | MIDDLE FORK FEATHER RIVER NEAR PORTOLA | DWRCA Dept of Water Resources | 94 | 94 | 94 | 112 | 127 | 83 |
| ORO | OROVILLE DAM | DWR, O&MCA Dept of Water Resources/O & M | 2,128 | 2,147 | 2,509 | 3,014 | 3,036 | 696 |

~~DRAFT~~

| Gage Number | Gage Name | Source | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater Low Aquatic Base Flow Threshold (cfs) |
|-------------|-----------------------------------|--|-------------------|-------------------|------------------|-------------------|----------------|---|
| SFH | SOUTH HONCUT CREEK NEAR BANGOR | DWR, CA Dept of Water Resources/NCRO | 22 | 38 | 61 | 62 | 50 | 0.862 |

Table 7. North Central Coast Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater Low Aquatic Base Flow Threshold (cfs) |
|-------------|---|--------|----------------|----------------|---------------|----------------|-------------|---|
| 11456000 | NAPA R NR ST HELENA CA | USGS | 52 | 88 | 153 | 159 | 110 | 1.6 |
| 11458000 | NAPA R NR NAPA CA | USGS | 109 | 172 | 335 | 342 | 229 | 3.5 |
| 11458500 | SONOMA C A AGUA CALIENTE CA | USGS | 38 | 65 | 110 | 117 | 76 | 3.7 |
| 11459500 | NOVATO C A NOVATO CA | USGS | 7.5 | 13 | 23 | 24 | 15 | 0.461.1 |
| 11460000 | CORTE MADERA C A ROSS CA | USGS | 10 | 20 | 32 | 32 | 20 | 0.71 |
| 11460151 | REDWOOD C A HWY 1 BRIDGE A MUIR BEACH CA | USGS | 4.6 | 8.2 | 13 | 11 | 7.3 | 0.361.5 |
| 11461000 | RUSSIAN R NR UKIAH CA | USGS | 69 | 138 | 197 | 189 | 143 | 3.8 |
| 11463000 | RUSSIAN R NR CLOVERDALE CA | USGS | 324 | 606 | 940 | 935 | 677 | 8.9 |
| 11463200 | BIG SULPHUR C NR CLOVERDALE CA | USGS | 63 | 115 | 181 | 190 | 128 | 2.9 |
| 11463900 | MAACAMA C NR KELLOGG CA | USGS | 35 | 61 | 103 | 103 | 73 | 1.4 |
| 11464000 | RUSSIAN R NR HEALDSBURG CA | USGS | 521 | 972 | 1,522 | 1,539 | 1,082 | 14 |
| 11465200 | DRY C NR GEYSERVILLE CA | USGS | 131 | 253 | 391 | 379 | 253 | 6.7 |
| 11465750 | LAGUNA DE SANTA ROSA C NR SEBASTOPOL CA | USGS | 33 | 53 | 103 | 101 | 66 | 3.8 |
| 11466320 | SANTA ROSA C A WILLOWSIDE RD NR SANTA ROSA CA | USGS | 44 | 76 | 132 | 135 | 89 | 2 |
| 11466800 | MARK WEST C NR MIRABEL HEIGHTS CA | USGS | 134 | 226 | 407 | 412 | 273 | 7.2 |
| 11467000 | RUSSIAN R NR GUERNEVILLE CA | USGS | 878 | 1,645 | 2,585 | 2,592 | 1,829 | 26 |
| 11467200 | AUSTIN C NR CAZADERO CA | USGS | 64 | 139 | 184 | 179 | 120 | 1.3 |

DRAFT

| Gage Number | Gage Name | Source | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater Low Aquatic Base Flow Threshold (cfs) |
|--------------------|--|---------------|---------------------------|---------------------------|--------------------------|---------------------------|------------------------|--|
| 11467510 | SF GUALALA R NR THE SEA RANCH CA | USGS | 149 | 323 | 437 | 424 | 279 | 4.9 |
| 11467553 | NF GUALALA R AB SF GUALALA R NR GUALALA CA | USGS | 39 | 77 | 117 | 107 | 80 | 3.9 |
| 11468000 | NAVARRO R NR NAVARRO CA | USGS | 200 | 407 | 611 | 557 | 422 | 8.4 |
| 11468500 | NOYO R NR FORT BRAGG CA | USGS | 82 | 169 | 240 | 212 | 175 | 5.5 |
| 11468900 | MATTOLE R NR ETTERSBURG CA | USGS | 113 | 268 | 306 | 265 | 212 | 7.8 |
| 11469000 | MATTOLE R NR PETROLIA CA | USGS | 406 | 942 | 1,118 | 960 | 769 | 27 |

Table 8. Tahoe Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater Low Aquatic Base Flow Threshold (cfs) |
|-------------|--|--------|-------------------|-------------------|------------------|-------------------|----------------|---|
| 10296000 | W WALKER RV BLW L WALKER RV NR COLEVILLE, CA | USGS | 89 | 102 | 102 | 102 | 102 | 79 |
| 10296500 | W WALKER RV NR COLEVILLE, CA | USGS | 103 | 106 | 106 | 106 | 106 | 92 |
| 10308200 | E FK CARSON RV BLW MARKLEEVILLE CK NR MARKLEEVILLE | USGS | 117 | 137 | 137 | 137 | 137 | 71 |
| 10310000 | W FK CARSON RV AT WOODFORDS, CA | USGS | 35 | 41 | 41 | 41 | 41 | 22 |
| 10336610 | UPPER TRUCKEE RV AT SOUTH LAKE TAHOE, CA | USGS | 27 | 35 | 35 | 35 | 35 | 11 |
| 10336645 | GENERAL C NR MEEKS BAY CA | USGS | 5 | 6.2 | 6.2 | 6.2 | 6.2 | 1.2 |
| 10336660 | BLACKWOOD C NR TAHOE CITY CA | USGS | 11 | 13 | 13 | 13 | 13 | 2.1 |
| 10336780 | TROUT CK NR TAHOE VALLEY, CA | USGS | 14 | 14 | 14 | 14 | 14 | 15 |
| 10343500 | SAGEHEN C NR TRUCKEE CA | USGS | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 2.2 |

Table 9. South Central Coast Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater Low Aquatic Base Flow Threshold (cfs) |
|-------------|--|--------|----------------|----------------|---------------|----------------|-------------|---|
| 11141280 | LOPEZ C NR ARROYO GRANDE CA | USGS | 3.8 | 3.8 | 8.1 | 10 | 8.4 | 2.2 |
| 11143000 | BIG SUR R NR BIG SUR CA | USGS | 38 | 43 | 90 | 102 | 85 | 13 |
| 11143200 | CARMEL R A ROBLES DEL RIO CA | USGS | 40 | 67 | 158 | 210 | 162 | 3.9 |
| 11143250 | CARMEL R NR CARMEL CA | USGS | 40 | 71 | 175 | 244 | 181 | 5.5 |
| 11147500 | SALINAS R A PASO ROBLES CA | USGS | 20 | 43 | 117 | 149 | 114 | 1.9 |
| 11148500 | ESTRELLA R NR ESTRELLA CA | USGS | 22 | 28 | 61 | 96 | 91 | 0.99 1.5 |
| 11148900 | NACIMIENTO R BL SAPAQUE C NR BRYSON CA | USGS | 27 | 63 | 156 | 177 | 124 | 0.4 7 |
| 11149400 | NACIMIENTO R BL NACIMIENTO DAM NR BRADLEY CA | USGS | 16 | 34 | 108 | 118 | 80 | 0.28 4.7 |
| 11149900 | SAN ANTONIO R NR LOCKWOOD CA | USGS | 33 | 65 | 140 | 168 | 113 | 6. 8 2 |
| 11150500 | SALINAS R NR BRADLEY CA | USGS | 75 | 136 | 350 | 411 | 399 | 4.4 |
| 11151300 | SAN LORENZO C BL BITTERWATER C NR KING CITY CA | USGS | 3.9 | 7.7 | 18 | 24 | 23 | 0.47 1.2 |
| 11151700 | SALINAS R A SOLEDAD CA | USGS | 107 | 167 | 429 | 519 | 497 | 11 |
| 11152000 | ARROYO SECO NR SOLEDAD CA | USGS | 64 | 99 | 206 | 280 | 209 | 9.8 |
| 11152050 | ARROYO SECO BL RELIZ C NR SOLEDAD CA | USGS | 57 | 96 | 208 | 278 | 189 | 8.4 |
| 11152500 | SALINAS R NR SPRECKELS CA | USGS | 125 | 219 | 539 | 666 | 618 | 16 |
| 11153000 | PACHECO C NR DUNNEVILLE CA | USGS | 4.2 | 9.7 | 27 | 36 | 24 | 0.37 2.3 |

DRAFT

| Gage Number | Gage Name | Source | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater Low Aquatic Base Flow Threshold (cfs) |
|-------------|---|--------|----------------------|-------------------|------------------|-------------------|----------------|---|
| 11153650 | LLAGAS C NR GILROY | USGS | 11 | 18 | 59 | 53 | 37 | 0.871.3 |
| 11156500 | SAN BENITO R NR WILLOW CREEK SCHOOL CA | USGS | 7 | 17 | 34 | 59 | 50 | 0.551.5 |
| 11157500 | TRES PINOS C NR TRES PINOS CA | USGS | 3.5 | 10 | 29 | 35 | 26 | 0.581.4 |
| 11158600 | SAN BENITO R A HWY 156 NR HOLLISTER CA | USGS | 15 | 32 | 79 | 99 | 80 | 1.8 |
| 11159000 | PAJARO R A CHITTENDEN CA | USGS | 50 | 91 | 288 | 279 | 210 | 3.5 |
| 11159200 | CORRALITOS C A FREEDOM CA | USGS | 10 | 16 | 29 | 28 | 22 | 2.3 |
| 11160000 | SOQUEL C A SOQUEL CA | USGS | 17 | 26 | 45 | 48 | 37 | 2.3 |
| 11160500 | SAN LORENZO R A BIG TREES CA | USGS | 52 | 71 | 129 | 145 | 110 | 16 |
| 11161000 | SAN LORENZO R A SANTA CRUZ CA | USGS | 57 | 83 | 144 | 159 | 119 | 17 |
| 11162500 | PESCADERO C NR PESCADERO CA | USGS | 12 | 23 | 43 | 47 | 36 | 2.5 |
| 11162570 | SAN GREGORIO C A SAN GREGORIO CA | USGS | 16 | 25 | 45 | 45 | 35 | 0.91.3 |
| 11162630 | PILARCITOS C A HALF MOON BAY CA | USGS | 8.59 | 11 | 21 | 21 | 17 | 1.72 |
| 11164500 | SAN FRANCISQUITO C A STANFORD UNIVERSITY CA | USGS | 11 | 17 | 38 | 40 | 29 | 0.591.3 |
| 11166000 | MATADERO C A PALO ALTO CA | USGS | 1.4 | 1.6 | 4.8 | 5.4 | 3.2 | 0.341.6 |
| 11169025 | GUADALUPE R ABV HWY 101 A SAN JOSE CA | USGS | 38 | 58 | 168 | 161 | 104 | 1.5 |
| 11169500 | SARATOGA C A SARATOGA CA | USGS | 3.1 | 5.1 | 9 | 10 | 8 | 0.591 |
| 11169800 | COYOTE C NR GILROY CA | USGS | 7.3 | 19 | 57 | 65 | 45 | 02.1 |
| 11172175 | COYOTE C AB HWY 237 A MILPITAS CA | USGS | 20 | 52 | 134 | 147 | 100 | 1.6 |

DRAFT

| Gage Number | Gage Name | Source | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater Low Aquatic Base Flow Threshold (cfs) |
|-------------|--|--------|-------------------|-------------------|------------------|-------------------|----------------|---|
| 11172945 | ALAMEDA C AB DIV DAM NR SUNOL CA | USGS | 4.2 | 10 | 21 | 23 | 19 | 0.18 1.6 |
| 11173200 | ARROYO HONDO NR SAN JOSE CA | USGS | 8.8 | 20 | 44 | 49 | 39 | 0.66 1.2 |
| 11173800 | INDIAN C NR SUNOL CA | USGS | 0.8 | 2 | 4.1 | 4.2 | 3.8 | 0.2 7 |
| 11174600 | ALAMO CN NR PLEASANTON CA | USGS | 2.9 | 5.1 | 16 | 15 | 11 | 0.26 1.7 |
| 11176400 | ARROYO VALLE BL LANG CYN NR LIVERMORE CA | USGS | 5.2 | 16 | 43 | 51 | 38 | 0 1 |
| 11176500 | ARROYO VALLE NR LIVERMORE CA | USGS | 6 | 18 | 48 | 58 | 41 | 0.54 1.3 |
| 11176900 | ARROYO DE LA LAGUNA A VERONA CA | USGS | 12 | 36 | 117 | 114 | 85 | 0.84 1.2 |
| 11180500 | DRY C A UNION CITY CA | USGS | 0.52 | 1.5 | 3.4 | 3.9 | 2.9 | 0 1.2 |
| 11180825 | SAN LORENZO C AB DON CASTRO RES NR CASTRO V CA | USGS | 1.6 | 3.3 | 7.7 | 8.2 | 6 | 0 1.5 |
| 11180900 | CROW C NR HAYWARD CA | USGS | 1.1 | 2.6 | 5.9 | 6.3 | 4.8 | 0 1.3 |
| 11180960 | CULL C AB CULL C RES NR CASTRO VALLEY CA | USGS | 0.57 | 1.5 | 3.5 | 3.8 | 3 | 0 1.9 |
| 11181040 | SAN LORENZO C A SAN LORENZO CA | USGS | 4 | 9.5 | 24 | 23 | 18 | 0.18 1.5 |

Table 10. San Joaquin Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater Low Aquatic Base Flow Threshold (cfs) |
|-------------|--|--------|----------------|----------------|---------------|----------------|-------------|---|
| 11224000 | MF SAN JOAQUIN R NR MAMMOTH LAKES CA | USGS | 23 | 25 | 28 | 27 | 31 | 13 |
| 11251000 | SAN JOAQUIN R BL FRIANT CA | USGS | 518 | 711 | 711 | 711 | 768 | 307 |
| 11255575 | PANOCH C A I-5 NR SILVER CREEK CA | USGS | 3.8 | 6.3 | 11 | 22 | 20 | 01 |
| 11264500 | MERCED R A HAPPY ISLES BRIDGE NR YOSEMITE CA | USGS | 75 | 108 | 132 | 135 | 145 | 22 |
| 11266500 | MERCED R A POHONO BRIDGE NR YOSEMITE CA | USGS | 138 | 225 | 259 | 259 | 259 | 41 |
| 11274500 | ORESTIMBA C NR NEWMAN CA | USGS | 1.1 | 6.2 | 18 | 26 | 16 | 02.5 |
| 11274630 | DEL PUERTO C NR PATTERSON CA | USGS | 0.7 | 2.7 | 6.8 | 10 | 7.6 | 02.2 |
| 11274790 | TUOLUMNE R A GRAND CYN OF TUOLUMNE AB HETCH HETCHY | USGS | 170 | 197 | 225 | 211 | 237 | 66 |
| 11276500 | TUOLUMNE R NR HETCH HETCHY CA | USGS | 272 | 362 | 406 | 409 | 409 | 94 |
| 11276900 | TUOLUMNE R BL EARLY INTAKE NR MATHER CA | USGS | 276 | 377 | 414 | 414 | 414 | 98 |
| 11284400 | BIG C AB WHITES GULCH NR GROVELAND CA | USGS | 3.7 | 5.1 | 9.4 | 11 | 9.5 | 01.1 |
| 11285500 | TUOLUMNE R A WARDS FERRY BR NR GROVELAND CA | USGS | 601 | 761 | 761 | 761 | 816 | 292 |
| 11289650 | TUOLUMNE R BL LAGRANGE DAM NR LAGRANGE CA | USGS | 653 | 767 | 767 | 793 | 950 | 340 |
| 11299600 | BLACK C NR COPPEROPOLIS CA | USGS | 2.3 | 4.4 | 11 | 11 | 8.8 | 01.8 |

DRAFT

| Gage Number | Gage Name | Source | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater Low Aquatic Base Flow Threshold (cfs) |
|-------------|---|--|-------------------|-------------------|------------------|-------------------|----------------|---|
| 11303000 | STANISLAUS R A RIPON CA | USGS | 481 | 504 | 504 | 526 | 639 | 222 |
| BAR | BEAR | US Army Corps of Engineers | 6 | 8.5 | 19 | 22 | 20 | 0.071.4 |
| BDV | BLACK RASCAL DIVERSION | US Army Corps of Engineers | 1.6 | 1.6 | 3.8 | 4.6 | 3.3 | 0.561.1 |
| BUR | BURNS CREEK DAM | US Army Corps of Engineers | 4.2 | 4.8 | 12 | 13 | 12 | 0.641.3 |
| DCM | DRY CREEK AT MODESTO AT CLAUS ROAD | DWRCA Dept of Water Resources | 12 | 12 | 29 | 34 | 28 | 1.8 |
| FHL | FRESNO R ABV HENLEY LAKE | US Army Corps of Engineers | 46 | 58 | 103 | 120 | 133 | 2.1 |
| GDW | GOODWIN DAM | US Bureau of Reclamation | 479 | 543 | 543 | 543 | 653 | 224 |
| GRF | SAN JOAQUIN RIVER AT GRAVELLY FORD | US Bureau of Reclamation | 518 | 697 | 697 | 697 | 759 | 332 |
| LDC | LITTLE DRY CREEK (USBR) | US Bureau of Reclamation | 3.3 | 4.1 | 8.9 | 12 | 11 | 0.241.2 |
| MIL | FRIANT DAM (MILLERTON) | US Bureau of Reclamation | 516 | 720 | 720 | 720 | 764 | 307 |
| MSN | MERCED RIVER NEAR SNELLING | DWRCA Dept of Water Resources | 344 | 392 | 460 | 531 | 620 | 146 |
| MST | MERCED RIVER NEAR STEVINSON | DWR, CA Dept of Water Resources/SCRO | 348 | 348 | 436 | 520 | 597 | 130 |
| NHG | NEW HOGAN LAKE | US Army Corps of Engineers | 146 | 200 | 411 | 400 | 346 | 4.4 |
| NML | NEW MELONES RESERVOIR | US Bureau of Reclamation | 481 | 550 | 550 | 550 | 619 | 218 |
| OBB | STANISLAUS R AT ORANGE BLOSSOM BRIDGE | DWRCA Dept of Water Resources | 486 | 533 | 533 | 533 | 656 | 219 |
| TUM | TUOLUMNE MEADOWS | DWRCA Dept of Water Resources | 24 | 24 | 28 | 25 | 32 | 12 |

Table 11. Mono Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater Low Aquatic Base Flow Threshold (cfs) |
|-------------|--|--------|----------------|----------------|---------------|----------------|-------------|---|
| 10251330 | AMARGOSA RV ABV CHINA RANCH WASH NR TECOPA, CA | USGS | 47 | 47 | 48 | 75 | 137 | 54 17 |
| 10251335 | WILLOW CK AT CHINA RANCH, CA | USGS | 2.1 | 2.1 | 2.1 | 3.3 | 4.6 | 2.95 |
| 10260500 | DEEP C NR HESPERIA CA | USGS | 33 | 36 | 59 | 75 | 91 | 7.8 |
| 10260950 | WF MOJAVE R AB MOJAVE R FORKS RES NR HESPERIA CA | USGS | 11 | 13 | 28 | 37 | 35 | 2.2 |
| 10261500 | MOJAVE R A LO NARROWS NR VICTORVILLE CA | USGS | 39 | 42 | 69 | 99 | 98 | 4.3 |
| 10262500 | MOJAVE R A BARSTOW CA | USGS | 63 | 104 | 164 | 150 | 144 | 7.7 |
| 10263500 | BIG ROCK C NR VALYERMO CA | USGS | 6.5 | 6.5 | 8.3 | 13 | 13 | 3.9 |
| 10265150 | HOT C A FLUME NR MAMMOTH LAKES CA | USGS | 22 | 25 | 27 | 27 | 27 | 22 |

Table 12. Kern Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater Low Aquatic Base Flow Threshold (cfs) |
|-------------|--|----------------------------|----------------|----------------|---------------|----------------|-------------|---|
| 11189500 | SF KERN R NR ONYX CA | USGS | 61 | 61 | 61 | 65 | 61 | 39 |
| 11200800 | DEER C NR FOUNTAIN SPRINGS CA | USGS | 6.1 | 8.3 | 11 | 17 | 18 | 0.75 .5 |
| 11203580 | SF TULE R NR CHOLLOLO CAMPGROUND NR PORTERVILLE CA | USGS | 4.9 | 6.3 | 6.3 | 7.5 | 9.8 | 2.7 |
| 11204100 | SF TULE R NR RESERVATION BNDRY NR PORTERVILLE CA | USGS | 11 | 14 | 19 | 25 | 29 | 3.7 |
| 11206820 | MARBLE FORK KAWEAH R AB HORSE C NR LODGEPOLE CA | USGS | 4.7 | 6.1 | 6.9 | 6.8 | 8.3 | 2.3 |
| 11224500 | LOS GATOS C AB NUNEZ CYN NR COALINGA CA | USGS | 1 | 3 | 6.2 | 10 | 9.3 | 0.3 .2 |
| 11253310 | CANTUA C NR CANTUA CREEK CA | USGS | 0.53 | 1.3 | 2.5 | 4 | 4.3 | 0.1 .8 |
| ISB | ISABELLA DAM | US Army Corps of Engineers | 274 | 274 | 274 | 274 | 274 | 310 |
| KKV | KERN R AT KERNVILLE | US Army Corps of Engineers | 255 | 290 | 290 | 290 | 290 | 172 |
| KRT | KINGS R NR TRIMMER | US Army Corps of Engineers | 441 | 695 | 759 | 759 | 759 | 277 |
| LCV | DRY CREEK NEAR LEMONCOVE | US Army Corps of Engineers | 13 | 19 | 33 | 40 | 42 | 0.6 1 |
| PDR | MILL CREEK NEAR PIEDRA | US Army Corps of Engineers | 16 | 27 | 50 | 59 | 64 | 0.66 1.2 |
| PNF | PINE FLAT DAM | US Army Corps of Engineers | 475 | 715 | 715 | 715 | 715 | 329 |
| SCC | SUCCESS DAM | US Army Corps of Engineers | 51 | 61 | 75 | 104 | 111 | 16 |
| TRM | TERMINUS DAM | US Army Corps of Engineers | 149 | 177 | 177 | 197 | 226 | 89 |
| TRR | KAWEAH RIVER AT THREE RIVERS | US Army Corps of Engineers | 125 | 186 | 186 | 186 | 207 | 62 |

Table 13. South Coast Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater Low Aquatic Base Flow Threshold (cfs) |
|-------------|--|--------|----------------|----------------|---------------|----------------|-------------|---|
| 11014000 | JAMUL C NR JAMUL CA | USGS | 1.8 | 2.9 | 5.8 | 11 | 9.9 | 0.3 4 |
| 11015000 | SWEETWATER R NR DESCANSO CA | USGS | 5.1 | 6.3 | 11 | 16 | 19 | 0.55 2.9 |
| 11016200 | SWEETWATER R A DEHESA CA | USGS | 6.2 | 9.4 | 18 | 28 | 29 | 0.44 3.5 |
| 11023000 | SAN DIEGO R A FASHION VALLEY AT SAN DIEGO CA | USGS | 14 | 21 | 42 | 64 | 71 | 0.64 4 |
| 11023340 | LOS PENASQUITOS C NR POWAY CA | USGS | 1.5 | 1.8 | 5.1 | 6.5 | 6.4 | 0.1 6 |
| 11027000 | GUEJITO C NR SAN PASQUAL CA | USGS | 1.3 | 1.5 | 3.7 | 5.5 | 4.4 | 0.2 2 |
| 11028500 | SANTA MARIA C NR RAMONA CA | USGS | 3.2 | 3.2 | 7.4 | 11 | 9.6 | 0.39 1 |
| 11042000 | SAN LUIS REY R A OCEANSIDE CA | USGS | 17 | 30 | 70 | 96 | 89 | 1.2 |
| 11042400 | TEMECULA C NR AGUANGA CA | USGS | 7.4 | 7.7 | 16 | 24 | 21 | 0.46 1.6 |
| 11044300 | SANTA MARGARITA R A FPU D SUMP NR FALLBROOK CA | USGS | 24 | 24 | 55 | 78 | 71 | 3.2 8 |
| 11044350 | SANDIA C NR FALLBROOK CA | USGS | 0.28 | 0.76 | 2 | 3.4 | 2.2 | 0.1 |
| 11044800 | DE LUZ C NR DE LUZ CA | USGS | 0.52 | 1.3 | 3.1 | 5.8 | 4 | 0.1 |
| 11046000 | SANTA MARGARITA R A YSIDORA CA | USGS | 25 | 27 | 59 | 93 | 81 | 3 |
| 11046100 | LAS FLORES C NR OCEANSIDE CA | USGS | 0.66 | 1 | 2.6 | 3.9 | 2.9 | 0.19 1 |
| 11046300 | SAN MATEO C NR SAN CLEMENTE CA | USGS | 1.8 | 4.7 | 11 | 19 | 14 | 0.1 1 |
| 11046360 | CRISTIANITOS C AB SAN MATEO C NR SAN CLEMENTE CA | USGS | 0.88 | 1.4 | 3.6 | 6 | 4 | 0.1 2 |
| 11047300 | ARROYO TRABUCO A SAN JUAN CAPISTRANO CA | USGS | 1.4 | 2.9 | 7.8 | 10 | 9.6 | 0.13 4 |

DRAFT

| Gage Number | Gage Name | Source | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater Low Aquatic Base Flow Threshold (cfs) |
|-------------|--|--------|----------------|----------------|---------------|----------------|-------------|---|
| 11048200 | AGUA CHINON WASH NR IRVINE CA | USGS | 0.05 | 0.15 | 0.41 | 0.64 | 0.45 | 0.1 |
| 11051499 | SANTA ANA R NR MENTONE (RIVER ONLY) CA | USGS | 39 | 39 | 41 | 58 | 69 | 18 |
| 11055800 | CITY C NR HIGHLAND CA | USGS | 3.6 | 4.4 | 8 | 11 | 11 | 1.3 |
| 11057500 | SAN TIMOTEO C NR LOMA LINDA CA | USGS | 6.5 | 7.3 | 14 | 24 | 20 | 0.6 1.2 |
| 11058500 | E TWIN C NR ARROWHEAD SPRINGS CA | USGS | 1.6 | 1.7 | 3.3 | 4.7 | 4.4 | 0.5 1 |
| 11062000 | LYTLE C NR FONTANA CA | USGS | 22 | 22 | 37 | 47 | 47 | 11 |
| 11063510 | CAJON C BL LONE PINE C NR KEENBROOK CA | USGS | 10 | 10 | 19 | 28 | 25 | 3.1 |
| 11063680 | DEVIL CYN C NR SAN BERNARDINO CA | USGS | 1.7 | 1.7 | 4.1 | 4.8 | 3.8 | 0.4 1.8 |
| 11069500 | SAN JACINTO R NR SAN JACINTO | USGS | 12 | 13 | 21 | 32 | 30 | 3.6 5 |
| 11070365 | SAN JACINTO R NR SUN CITY CA | USGS | 22 | 25 | 62 | 75 | 66 | 2.9 |
| 11073360 | CHINO C A SCHAEFER AVENUE NR CHINO CA | USGS | 8.9 | 11 | 23 | 29 | 27 | 3 |
| 11073495 | CUCAMONGA C NR MIRA LOMA CA | USGS | 9.5 | 10 | 26 | 37 | 25 | 0.8 1.5 |
| 11078000 | SANTA ANA R A SANTA ANA CA | USGS | 140 | 166 | 368 | 502 | 425 | 16 |
| 11098000 | ARROYO SECO NR PASADENA CA | USGS | 3.7 | 3.7 | 8.1 | 11 | 9.2 | 0.6 1.8 |
| 11109000 | SANTA CLARA R NR PIRU CA | USGS | 43 | 43 | 87 | 157 | 120 | 0.6 21.1 |
| 11109600 | PIRU CREEK ABOVE LAKE PIRU CA | USGS | 31 | 31 | 61 | 95 | 80 | 3.7 |
| 11109800 | PIRU CREEK BELOW SANTA FELICIA DAM CA | USGS | 34 | 34 | 67 | 113 | 90 | 2.6 |
| 11111500 | SESPE CREEK NEAR WHEELER SPRINGS CA | USGS | 4.9 | 7.6 | 16 | 28 | 22 | 0.26 1.7 |
| 11113000 | SESPE C NR FILLMORE | USGS | 34 | 40 | 91 | 150 | 104 | 1 |
| 11113500 | SANTA PAULA C NR SANTA PAULA | USGS | 5.1 | 6.1 | 14 | 23 | 16 | 0.27 1.4 |

DRAFT

| Gage Number | Gage Name | Source | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater Low Aquatic Base Flow Threshold (cfs) |
|-------------|--|--------|----------------|----------------|---------------|----------------|-------------|---|
| 11114495 | MATILIJ C NR RES NR MATILIJ HOT SPRINGS CA | USGS | 8.4 | 12 | 27 | 43 | 30 | 1.8 |
| 11118500 | VENTURA R NR VENTURA | USGS | 24 | 34 | 90 | 135 | 83 | 0.83 1.9 |
| 11119500 | CARPINTERIA C NR CARPINTERIA CA | USGS | 2.3 | 3.2 | 8.7 | 13 | 7.6 | 0.43 1.3 |
| 11119750 | MISSION C NR MISSION ST NR SANTA BARBARA CA | USGS | 1.3 | 1.7 | 4.4 | 6.8 | 4.1 | 0.46 1.8 |
| 11120000 | ATASCADERO C NR GOLETA CA | USGS | 1.9 | 2.9 | 7.7 | 11 | 7.7 | 0.27 1.4 |
| 11120500 | SAN JOSE C NR GOLETA CA | USGS | 0.86 | 1.2 | 3.2 | 4.4 | 3 | 0.1 1 |
| 11123500 | SANTA YNEZ R BL LOS LAURLS CYN NR SNTA YNEZ CA | USGS | 34 | 55 | 124 | 213 | 147 | 2.2 |
| 11124500 | SANTA CRUZ C NR SANTA YNEZ CA | USGS | 5.1 | 11 | 22 | 36 | 32 | 0.2 6 |
| 11128250 | ALAMO PINTADO C NR SOLVANG CA | USGS | 2 | 3.3 | 8.5 | 12 | 9.1 | 0.48 1.8 |
| 11128500 | SANTA YNEZ R A SOLVANG CA | USGS | 56 | 95 | 239 | 341 | 255 | 3 |
| 11129800 | ZACA C NR BUELLTON CA | USGS | 1.9 | 3.6 | 9.6 | 13 | 10 | 0.49 2.2 |
| 11132500 | SALSIPUEDES C NR LOMPOC CA | USGS | 2.4 | 4.7 | 12 | 18 | 13 | 0.28 2.1 |
| 11134000 | SANTA YNEZ R A H ST NR LOMPOC CA | USGS | 62 | 110 | 281 | 368 | 312 | 9.6 |
| 11135800 | SAN ANTONIO C A LOS ALAMOS CA | USGS | 2 | 3.8 | 9.8 | 15 | 10 | 0.34 1.1 |
| 11136100 | SAN ANTONIO C NR CASMALIA CA | USGS | 5.2 | 8.5 | 23 | 37 | 26 | 0.88 1.2 |
| 11136600 | SANTA BARBARA CYN C NR VENTUCOPA CA | USGS | 2.5 | 3.2 | 5.8 | 10 | 8.8 | 0.27 2 |
| 11136800 | CUYAMA R BL BUCKHORN CYN NR SANTA MARIA CA | USGS | 22 | 33 | 59 | 98 | 92 | 3 |
| 11137900 | HUASNA R NR ARROYO GRANDE CA | USGS | 4.1 | 9.2 | 21 | 31 | 23 | 3.4 |
| 11138500 | SISQUOC R NR SISQUOC CA | USGS | 9.4 | 24 | 41 | 77 | 77 | 1.3 |

DRAFT

| Gage Number | Gage Name | Source | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater Low Aquatic Base Flow Threshold (cfs) |
|-------------|---|--|----------------|----------------|---------------|----------------|-------------|---|
| 11140000 | SISQUOC R NR GAREY | USGS | 17 | 44 | 96 | 134 | 143 | 2.6 |
| 11140585 | SANTA MARIA R A SUEY CROSSING NR SANTA MARIA CA | USGS | 44 | 81 | 148 | 266 | 241 | 7.6 |
| 11141050 | ORCUTT C NR ORCUTT CA | USGS | 0.84 | 1.2 | 2.8 | 5.1 | 3.2 | 0.2 1.4 |
| CCH | CACHUMA LAKE | US Bureau of Reclamation | 47 | 78 | 175 | 295 | 212 | 2.7 |
| CSK | CASTAIC CANYON CK Z3-2388 | DWRCA Dept of Water Resources, Southern Field Division | 2.1 | 2.1 | 3.7 | 7.8 | 6.1 | 0.2 5 |
| ECC | ELIZABETH CANYON CK | DWRCA Dept of Water Resources, Southern Field Division | 4.1 | 4.9 | 10 | 18 | 13 | 0.4 92.5 |
| FCK | FISH CANYON CK | DWRCA Dept of Water Resources, Southern Field Division | 2.6 | 2.8 | 5.5 | 10 | 7.6 | 0.4 71.5 |
| PIR | PIRU CREEK BLW BUCK CR NR PYRAMID LAKE | DWRCA Dept of Water Resources | 19 | 23 | 42 | 70 | 59 | 3.8 |

Table 14. South Eastern Desert Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November (cfs) | December (cfs) | January (cfs) | February (cfs) | March (cfs) | Groundwater Low Aquatic Base Flow Threshold (cfs) |
|-------------|------------------------------------|--------|----------------|----------------|---------------|----------------|-------------|---|
| 10254050 | SALT C NR MECCA | USGS | 2.6 | 1.2 | 3 | 4.4 | 2.6 | 2 |
| 10256500 | SNOW C NR WHITE WATER CA | USGS | 1.8 | 1.8 | 2.4 | 3 | 3.2 | 1.5 |
| 10257600 | MISSION C NR DESERT HOT SPRINGS CA | USGS | 1.5 | 1.5 | 2.2 | 3.4 | 3.1 | 0.59 1.1 |
| 10258000 | TAHQUITZ C NR PALM SPRINGS CA | USGS | 1.7 | 2.4 | 3.2 | 3.7 | 4.6 | 0.22 1.5 |
| 10258500 | PALM CYN C NR PALM SPRINGS CA | USGS | 1.2 | 1.9 | 4.1 | 6.2 | 5.8 | 0 1 |
| 10259000 | ANDREAS C NR PALM SPRINGS CA | USGS | 1.1 | 1.2 | 1.7 | 1.9 | 1.9 | 0.85 1 |
| 10259100 | WHITEWATER R A RANCHO MIRAGE CA | USGS | 40 | 50 | 69 | 98 | 86 | 15 |
| 10259200 | DEEP C NR PALM DESERT CA | USGS | 0.57 | 0.71 | 1.5 | 2.2 | 1.8 | 0 1 |
| 10259300 | WHITEWATER R A INDIO CA | USGS | 47 | 71 | 83 | 116 | 95 | 20 18 |
| 9423350 | CARUTHERS C NR IVANPAH CA | USGS | 0.25 | 0.29 | 0.39 | 0.48 | 0.86 | 0 1 |

SECTION 5 – PLANNING AND REPORTING

Technical Report Preparation Requirements for Cannabis General Order

Enrollees under the Cannabis General Order are required to submit technical reports to the appropriate Regional Water Board. The report(s) shall be transmitted in portable document format (PDF) to the e-mail address provided in the notice of receipt provided to the Cannabis General Order Enrollee as proof of enrollment. A description of each report and deadline for its submittal is provided below. The table below summarizes report submittal requirements, by tier and risk level, and Cannabis General Order Attachment D contains guidance regarding contents of required reports.

Summary of Technical Reports Required by Tier and Risk Level

| Tier | Risk Level | Technical Reports |
|--|-------------------|--|
| Exempt or Conditionally Exempt | Not Applicable | Site Closure Report |
| Tier 1 | All | Site Management Plan |
| Tier 1 | Moderate | Site Erosion and Sediment Control Plan |
| Tier 1 | High | Disturbed Area Stabilization Plan |
| Tier 1 | All | Site Closure Report |
| Tier 2 | All | Site Management Plan |
| Tier 2 | Moderate | Site Erosion and Sediment Control Plan |
| Tier 2 | High | Disturbed Area Stabilization Plan |
| Tier 2 | All | Nitrogen Management Plan |
| Tier 2 | All | Site Closure Report |

Conditionally exempt cannabis cultivators that can no longer meet the requirements to qualify for conditional exemptions may have to enroll as a Tier 1 or Tier 2 site. If so, cannabis cultivators that no longer qualify for the conditionally exempt cannabis cultivation site status shall submit the technical and monitoring reports associated with their tier status [and risk level](#).

Applicants or current cannabis cultivators that do not comply with the conditional exemptions (enrolled as Tier 1 or Tier 2) must comply with the riparian setback and slope limits and are classified as [low](#), moderate or high risk, as described below:

- [Low Risk: A cannabis cultivation site is classified as low risk if no part of the disturbed area is located on a slope of 30% or greater. Such cannabis cultivators shall register as low risk and submit a Site Management Plan.](#)
- Moderate Risk: A cannabis cultivation site is classified as moderate risk if any part of the disturbed area is located on a slope greater than 30 percent and less than 50 percent. Such cannabis cultivators shall register as moderate risk and submit a *Site Erosion and Sediment Control Plan*.

- High Risk: A cannabis cultivation site is classified as high risk if any part of the disturbed area exists within the riparian setback limits. Such cannabis cultivators shall register as high risk, submit a *Disturbed Area Stabilization Plan*, and shall address the compliance issue as described below. Because such cannabis cultivators pose a higher risk to water quality and will require a higher level of Regional Water Board oversight, they are subject to a higher application and annual fee. When the cannabis cultivation site is reconfigured to comply with the riparian setbacks, the cannabis cultivator can request the Regional Water Board reclassify the site to a lower risk level and allow a lower annual fee to be assessed.

Site Management Plan

Within 90 days of the issuance of a notice of receipt, Tier 1 and Tier 2 cannabis cultivators shall submit and implement a *Site Management Plan* that describes how the cannabis cultivator is complying with the Requirements listed in Attachment A. The description shall describe how the Best Practicable Treatment or Control (BPTC) measures are implemented (e.g., for petroleum fuel storage, specify the specific product or means of compliance). Cannabis cultivators that are ~~land owners~~landowners of cannabis cultivation sites in North Coast Regional Water Board jurisdiction are required to submit and implement *Site Management Plans* that describe how the Requirements are implemented property-wide, including Requirements implemented to address discharges from legacy activities. The *Site Management Plan* may include a schedule to achieve compliance, but all work must be completed by November 15th the onset of the winter period each year. (The November 15th winter period start date does not relieve a cannabis cultivator from implementing the interim soil stabilization Requirements described in Attachment A of this Policy. Interim measures are those that are implemented immediately upon site development.) Attachment D of the Cannabis General Order provides guidance on the contents of the *Site Management Plan*.

Site Erosion and Sediment Control Plan

~~Within 90 days of the issuance of a notice of receipt,~~ Tier 1 or Tier 2 cannabis cultivators classified as moderate risk (any portion of the disturbed area is located on a slope greater than 30 percent and less than 50 percent), shall submit a *Site Erosion and Sediment Control Plan* that describes how the cannabis cultivator will implement the Requirements listed in Attachment A of this Policy. Because moderate risk sites are located on steeper slopes, additional Requirements, or a higher density of Requirements may be appropriate to achieve the goal of minimizing the discharge of sediment off-site. The report shall include an analysis of slope stability. The report shall be approved by the Regional Water Board Executive Officer prior to implementation

Consistent with the Business and Professions Code, the Forest Practice Act, and other state laws, certain technical report preparation, design calculations, and report preparation must be prepared under the supervision of a California licensed civil engineer, professional forester, or professional geologist. When required, the *Site Erosion and Sediment Control Plan* shall be prepared by an individual qualified as described below:

- i. A California Registered Professional Civil Engineer.
- ii. A California Registered Professional Geologist.
- iii. A California Certified Engineering Geologist.
- iv. A California Registered Landscape Architect.

- v. A Professional Hydrologist registered through the American Institute of Hydrology.
- vi. A Certified Professional in Erosion and Sediment Control (CPESC)TM registered through ~~Enviro-Cert~~EnviroCert International, Inc.
- vii. A Certified Professional in Storm Water Quality (CPSWQ)TM registered through ~~Enviro-Cert~~EnviroCert International, Inc.
- viii. A Professional in Erosion and Sediment Control registered through the National Institute for Certification in Engineering Technologies (NICET).

Attachment D of the Cannabis General Order, provides guidance on the contents of the *Site Erosion and Sediment Control Plan*.

Disturbed Area Stabilization Plan

~~Within 90 days of the issuance of a notice of receipt,~~ Tier 1 or Tier 2 cannabis cultivators classified as high risk (any portion of the disturbed area exists within the riparian setbacks Requirements specified in Section 1 of this Policy except as authorized ~~by a CDFW Lake or Streambed Alteration permit under 404/401 CWA permits, a CDFW LSA Agreement, coverage under the Cannabis General Order water quality certification, or site-specific WDRs issued by the Regional Water Board~~), shall submit a *Disturbed Area Stabilization Plan* that describes how compliance with the riparian setbacks will be achieved. The report shall be approved by the Regional Water Board Executive Officer prior to implementation.

Areas disturbed upon initial site development that are located within the riparian setback specified in the Policy are considered disturbed area and will place the ~~Cannabis Cultivation Site~~cannabis cultivation site under the high risk level. ~~Roads~~Access roads and watercourse crossings designed, constructed, and maintained consistent with the Road Handbook are not considered disturbed areas.

Consistent with the Business and Professions Code, the Forest Practice Act, and other state laws, certain technical report preparation, design calculations, and report preparation must be prepared under the supervision of a California licensed civil engineer, professional forester, or professional geologist.

When required, the *Disturbed Area Stabilization Plan* shall be prepared by ~~an individual~~a qualified professional as described ~~below in this attachment (Attachment A).~~

- ~~i. A California Registered Professional Civil Engineer.~~
- ~~ii. A California Registered Professional Geologist.~~
- ~~iii. A California Certified Engineering Geologist.~~
- ~~iv. A California Registered Landscape Architect.~~
- ~~v. A Professional Hydrologist registered through the American Institute of Hydrology.~~
- ~~vi. A Certified Professional in Erosion and Sediment Control (CPESC)TM registered through Enviro-Cert International, Inc.~~
- ~~vii. A Certified Professional in Storm Water Quality (CPSWQ)TM registered through Enviro-Cert International, Inc.~~
- ~~viii. A Professional in Erosion and Sediment Control registered through the National Institute for Certification in Engineering Technologies (NICET).~~

If the cannabis cultivator cannot achieve compliance by the next ~~November 15 date~~onset of the winter period (stabilization work will continue ~~past November 15~~into the winter period or will continue the following year), the Cannabis Cultivator must include a time schedule and scope of work for approval by the Regional Water Board Executive Officer and use in preparing an enforcement order. Attachment D of the Cannabis General Order provides guidance on the contents of the *Disturbed Area Stabilization Plan*.

Nitrogen Management Plan

Within 90 days of the issuance of a notice of receipt, all Tier 2 cannabis cultivators with a cannabis cultivation area, or aggregate of cultivation areas, greater than one acre shall submit a *Nitrogen Management Plan* (NMP) for the cannabis cultivation site. The NMP shall calculate all the nitrogen applied to the cannabis cultivation area (dissolved in irrigation water, originating in soil amendments, and applied fertilizers) and describe procedures to limit excessive fertilizer application. Attachment D of the Cannabis General Order provides guidance on the contents of a *Nitrogen Management Plan*.

Site Closure Report

At least 90 days prior to ending cannabis cultivation at a site, a registered (conditionally exempt) or enrolled (Tier 1 or Tier 2) cannabis cultivator shall submit a *Site Closure Report* that describes how the site will be decommissioned to prevent sediment and turbidity discharges that degrade water quality. If construction activities are proposed in the *Site Closure Report*, a project implementation schedule shall be included in the report. Attachment D of the Cannabis General Order provides guidance on the contents of the *Site Closure Report*. A Notice of Termination must be submitted (Attachment C of the Cannabis General Order) with the *Site Closure Report*.

~~Cannabis cultivators with cultivation activities on slopes greater than 30 percent and less than 50 percent shall submit a *Site Erosion and Sediment Control Plan*; cannabis cultivators with any portion of their disturbed area within the riparian setbacks must submit a *Disturbed Area Stabilization Plan*. When required, the reports shall be prepared by an individual qualified as described below:~~

- ~~i. A California Registered Professional Civil Engineer.~~
- ~~ii. A California Registered Professional Geologist.~~
- ~~iii. A California Certified Engineering Geologist.~~
- ~~iv. A California Registered Landscape Architect.~~
- ~~v. A Professional Hydrologist registered through the American Institute of Hydrology.~~
- ~~vi. A Certified Professional in Erosion and Sediment Control (CPESC)TM registered through Enviro Cert International, Inc.~~
- ~~vii. A Certified Professional in Storm Water Quality (CPSWQ)TM registered through Enviro Cert International, Inc.~~
- ~~viii. A Professional in Erosion and Sediment Control registered through the National Institute for Certification in Engineering Technologies (NICET).~~

SECTION 6 – USEFUL GUIDANCE DOCUMENTS

1. Handbook for Forest, Ranch, & Rural Roads: A Guide for Planning, Designing, Constructing, Reconstructing, Upgrading, Maintaining, and Closing Wildland Roads
<http://www.pacificwatershed.com/sites/default/files/RoadsEnglishBOOKapril2015b.pdf>
2. A Water Quality and Stream Habitat Protection Manual for County Road Maintenance in Northwestern California Watersheds
<http://www.5counties.org/roadmanual.htm>
3. Construction Site BMP Fact Sheets
<http://www.dot.ca.gov/hq/construc/stormwater/factsheets.htm>
4. United States Environmental Protection Agency Riparian/Forested Buffer
<https://nepis.epa.gov/Exe/ZyPDF.cgi/2000W45Y.PDF?Dockkey=2000W45Y.PDF>
5. Creating Effective Local Riparian Buffer Ordinances
http://www.ohioenvironmentallawblog.com/uploads/file/UGA%20riparian_buffer_guidebook.pdf
6. How to Install Residential Scale Best Management Practices (BMPs) in the Lake Tahoe Basin
<http://www.tahoebmp.org/Documents/Contractors%20BMP%20Manual.pdf>
7. Spoil Pile BMPs
http://michigan.gov/documents/deq/deq-wb-nps-sp_250905_7.pdf
8. Sanctuary Forest Water Storage Guide
https://greywateraction.org/wp-content/uploads/2014/11/SanctuaryForrest_Water_Storage_Guide.pdf
9. Natural Resources Conservation Service-USDA, “Ponds – Planning, Design, Construction”, Agriculture Handbook
http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_030362.pdf
10. Division of Safety of Dams Size Requirements
<http://www.water.ca.gov/damsafety/jurischart/>
11. Water Tanks: Guidelines for Installation and Use
http://www.waterandseptictanks.com/Portals/0/files/GUIDELINES-FOR-INSTALLATION-OF-WATER-TANKS-_rev1_-03-20-08-_2_.pdf
12. Guidelines for Use and Installation of Above Ground Water Tanks
http://www.waterandseptictanks.com/Portals/0/files/GUIDELINES-FOR-INSTALLATION-OF-WATER-TANKS-_rev1_-03-20-08-_2_.pdf
13. BEST MANAGEMENT PRACTICES (BMP's) University of California Cooperative Extension
http://www.waterboards.ca.gov/sandiego/water_issues/programs/wine_country/docs/updates081910/ucce_bmps.pdf

14. California Storm Water Quality Association, Section 4: Source Control BMPs
<https://www.casqa.org/sites/default/files/BMPHandbooks/sd-12.pdf>
15. CA DOT Solid Waste Management Plan
<http://www.dot.ca.gov/hq/construc/stormwater/WM-05.pdf>
16. State Water Resources Control Board Onsite Wastewater Treatment System (OWTS) policy
http://www.waterboards.ca.gov/water_issues/programs/owts/docs/owts_policy.pdf
17. California Storm Water Quality Association
Section 4: Source Control BMPs
<https://www.casqa.org/sites/default/files/BMPHandbooks/sd-32.pdf>
18. California Riparian Habitat Restoration Handbook
http://www.conservation.ca.gov/dlrp/watershedportal/InformationResources/Documents/Restoration_Handbook_Final_Dec09.pdf
19. The Practical Streambank Bioengineering Guide
http://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/idpmcpu116.pdf
20. Watershed Best Management Practices for Cannabis Growers and other Rural Gardeners
<http://mcrd.org/resources/publications>
21. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region
http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/reg_supp/trel08-28.pdf
22. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region
http://www.usace.army.mil/Portals/2/docs/civilworks/regulatory/reg_supp/west_mt_finals_upp2.pdf