

**Regional Water Quality Control Board
Central Valley Region
Board Meeting – 8/9 June 2017**

**Response to Written Comments for Order R5-2017-xxxx;
Adoption of Waste Discharge Requirement General Order for Discharges Related
to Timberland Management Activities for Non-Federal and Federal Lands**

At a public hearing scheduled for 8/9 June 2017, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) will consider adopting Order No. R5-2017-xxxx to adopt the Waste Discharge Requirements General Order for Discharges Related to Timberland Management Activities for Non-Federal and Federal Lands (General Order). The General Order will replace the existing Conditional Waiver of Waste Discharge Requirements for Discharges Related to Timber Harvesting Activities (Waiver) Order No. R5-2014-0144.

This document contains responses to written comments received from interested parties regarding the proposed Order circulated on 17 March 2017. Written comments from interested parties were required by public notice to be submitted to the Central Valley Water Board by 5:00 p.m. on 17 April 2017 to receive full consideration. Written comments were received by the deadline from:

1. Battle Creek Alliance (BCA)
2. Center for Biological Diversity (CBD)
3. Central Sierra Environmental Resource Center (CSERC)
4. California Forestry Association (Calforests)
5. California Licensed Foresters Association (CLFA)
6. Sierra Pacific Industries (SPI)
7. The Hearst Corporation (Hearst)
8. W.M. Beaty & Associates, Inc. (WMBA)
9. Roseburg Resources Company (RRC)

Written comments were received after the 17 April 2017 deadline from:

1. California Department of Forestry and Fire Protection (CAL FIRE)

The written comments are summarized below, followed by Central Valley Water Board staff responses.

Battle Creek Alliance (BCA)

BCA – COMMENT 1: “A Negative Declaration can be prepared only when there is no substantial evidence in light of the whole record before the lead agency that the project may have a significant effect on the environment (PRC §21080(c)), (14 C.C.R. §15070). The Negative Declaration study was conducted 15 years ago and there have been substantial changes in those 15 years. The ND is outdated and irrelevant to current conditions. CEQA requirements are not being met.”

RESPONSE: When a lead agency already has an EIR or Negative Declaration, the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) does not require the preparation of a subsequent document to address changes to the Project or its circumstances unless:

- (a) substantial changes are proposed in the Project which will require major revisions of the EIR or negative declaration;
- (b) substantial changes occur with respect to the circumstances under which the Project is being undertaken which will require major revisions in the EIR or negative declaration; or
- (c) new information, which was not known and could not have been known at the time the EIR was certified as complete or the negative declaration was adopted, becomes available. (Cal. Code Regs. tit. 14, § 15162.)

California Code of Regulations, title 14, section 15164, authorizes a public agency to prepare an addendum to a previously certified CEQA document if minor technical changes or additions are necessary but are not significant enough to warrant a “subsequent EIR” or “subsequent Negative Declaration” as specified in section 15162.

The Central Valley Water Board prepared an Initial Study and Negative Declaration in connection with adoption of the first iteration of the Conditional Waiver of Waste Discharge Requirements for Discharges Related to Timber Harvesting Activities (Timber Waiver) in 2003. Board staff reviewed that Negative Declaration in light of the proposed General Order and its collective experience regulating timber management activities and concluded that none of the criteria listed in California Code of Regulations, title 14, section 15162, were satisfied. The reasoning supporting this determination is contained in a CEQA Addendum that has been posted with the tentative General Order and supporting materials. That CEQA Addendum is hereby incorporated into this response by this reference.

BCA – COMMENT 2: “The initial draft of your currently proposed order contained this statement as part of the monitoring and reporting attachment: ‘Additionally, Class I CalWater Planning Watersheds that have been subject to land disturbance activities of 20% or greater over the past 10 years may trigger additional monitoring requirements that will be developed and issued by the Executive Officer on a site-specific basis’.”

“Looking at lands zoned for timber production within the [Battle Creek] watershed, 28,483 acres of 85,385 acres of those lands have been cut, or about 33%, in ~15 years. This has occurred within the current regulations, including your Board's adoption of the Waiver of Waste Discharge Requirements (R5-2003-005) in 2003, and the renewals of it in 2005, 2010, and 2014.”

RESPONSE: Comment noted.

BCA – COMMENT 3: “The rate of harvest (ROH) contributes to significant cumulative watershed effects, which have been occurring for nearly 20 years under the current regulations. These effects have not been alleviated by Best Management Practices (BMPs). As Lewis et al. states:

‘Cumulative impact assessments in California THPs routinely state that there are no ‘reasonably potential significant adverse effects’ (possibly after mitigation) on watersheds, soil productivity, biological and other resources; and that any nearby THPs or other projects produce no significant environmental impacts. However, it is well-documented that BMPs do not completely eliminate logging impacts on accelerated sediment delivery (Ziemer and Lisle 1993; GLEC 2010; Klein et al. 2012; Wagenbrenner et al. 2015, 2016). These studies are consistent with our results indicating strongly that BMPs did not prevent major increases in turbidity and, hence, sediment delivery associated with logging in the study area.

A central issue is whether cumulative impacts from a large number of spatially and temporally proximal logging activities deemed —insignificant in THPs, are significant at the watershed scale. Our results indicate that they are significant, despite BMPs, with negative impacts on water quality, aquatic habitats, and imperiled salmonids. While regulatory agencies have assumed otherwise, removing the forest canopy affects both hydrology and slope stability/erodibility and, regardless of road design or harvest method, increases sediment delivery to waterways, especially in mountainous terrain...’ “

In general, the commenter states that the General Order does not consider post-fire salvage logging activity adequately and that current regulations have no watershed scale limits on ROH for clearcutting and even fewer restrictions on post-fire salvage logging.

RESPONSE: Please see the response to BCA Comment 1. Also, the requirements for the collection of additional information and monitoring associated with enrolled post-fire logging activities is a step towards gaining a better understanding of these operations and their impacts.

BCA – COMMENT 4: “There is misrepresentation and ignorance of the best-available science regarding fire being circulated by both CalFire and timber industry sources..... The Water Board must act to include all science sources, and make management and enforcement decisions based on all the information available, rather than maintaining a narrow focus that allows intensive logging, and its effects, to continue unabated.”

RESPONSE: The Information Sheet (Attachment D) provides the background and rationale used in the development of certain General Order requirements and contains over 60 references of the best-available science related to fire ecology, erosion, forest hydrology, and water quality impacts from pesticide use in the post-fire environment. Central Valley Water Board staff contends that this collection of scientific literature provides a fair and balanced evaluation of water quality impacts in the post-fire environment. The primary focus of the Information Sheet is on permit requirements found in Categories 2A and 5A (post-fire salvage Projects), as findings regarding the remaining categories are found in the main body of the General Order itself.

BCA – COMMENT 5: “The primary root cause which is not being addressed by the General Order is the ongoing lack of analyses of the cumulative watershed effects that occur due to multiple projects in a contiguous area. These analyses are required by CEQA, but have been circumvented by the use of planning watersheds. There is nothing

in the Draft Order to strengthen the regulations regarding this issue, which is a serious omission. We encourage you to strengthen your order to provide the protections which have been lacking. This could be done by taking a watershed-scale approach, rather than continuing on with the use of the failed planning watershed system.”

RESPONSE: Please refer to the response to BCA Comment 1, above. Additionally, although the 2003 Negative Declaration adequately analyzed the potential cumulative impacts from timber management activities covered by what at that time was a proposed Timber Waiver, it bears mentioning that most activities that would be covered by the General Order are subject to CAL FIRE’s approval process, which includes a Project-level cumulative effects analysis for major Projects. Staff does not agree that BMPs have been categorically ineffective; the Central Valley Water Board has continued to rely on a BMP-based approach precisely because it has yielded significant improvements in water quality in watersheds affected by timber management activities.

BCA – COMMENT 6: “This General Order includes self-monitoring and reporting requirements. Based on our experience investigating storm water violations, BCA has serious concerns regarding actual enforcement of an order based on self-monitoring. Without enforcement, the Order and requirements are meaningless. Specific language needs to be included in the Order with definitions and concrete enforcement measures; those measures must translate into on-the-ground enforcement. That is the purpose of a regulatory agency, not the writing of vague and unenforceable orders which only create more paperwork, but produce no tangible results.”

RESPONSE: One of the principle tenants of the General Order is that no significant threats to water quality will occur if the Forest Practice Rules, United States Forest Service (USFS) best management practices (BMPs), General Order criteria and conditions, and Central Valley Water Board staff recommendations are properly implemented. The rationale for the Monitoring and Reporting Conditions in Attachment B is to test these assumptions by providing Central Valley Water Board staff with feedback regarding the adequacy and effectiveness of the General Order. Results from monitoring reports will be used to refine the design and implementation of water quality protection measures (i.e., BMPs) – a process referred to as adaptive management. Given the resources available to the Central Valley Water Board’s Forest Activities Program, relying on dischargers to monitor and report their own discharges and other pertinent activities in compliance with the terms of the General Order is both necessary and an effective use of staff time. Additionally, the General Order requires that landowners provide incident reporting where a failure has resulted in, or threatens to result in, any violation of any applicable water quality objective (i.e., turbidity, sediment, temperature, dissolved oxygen, pesticides, etc.) As an order issued pursuant to Water Code section 13263, the provisions of the proposed General Order would certainly be enforceable as permit conditions, the violation of which could subject the discharger to monetary penalties assessed on a per-day or per-gallon basis. Similarly, the monitoring and reporting provisions of the proposed General Order are not voluntary; failure to comply with them would subject the discharger to monetary penalties and enforcement.

BCA – COMMENT 7: “Page 1 of Attachment B Monitoring and Reporting Program states: Inspection Plans shall be maintained and updated as needed by the Discharger

and/or agents thereof and shall be submitted to the Central Valley Water Board upon request.

BCA is very concerned about the phrase —submitted...upon request. It should be a requirement that the inspection plans and results are submitted automatically. As a public agency responsible for the state's waters, the Water Board should be receiving these documents and uploading them to the internet for public review to promote transparency, as they do with other reports.”

RESPONSE: Monitoring results are submitted to the Central Valley Water Board annually as part of Monitoring and Reporting Program requirements. These monitoring results are available to the public upon request. Should Central Valley Water Board staff identify concerns in reviewing required notifications and reports, the inspection plan will be requested. Otherwise, staff expects the discharger to follow the guidance for the various types of inspections as listed in the MRP and to develop an Inspection Plan that makes sense based on access and operations. In the absence of concrete water quality concerns identified through review of annual monitoring reports, receiving Inspection Plans automatically rather than on an as-needed basis serves no utility and in fact could pull Forest Activities Program staff's attention away from more pressing threats to water quality.

BCA – COMMENT 8: “Page 9 of Attachment B Monitoring and Reporting Program states: The Discharger shall report to Central Valley Water Board staff as soon as possible, but no later than 48 hours after detection of any of the following, including, but not limited to: violation(s), threatened or actual, of any applicable water quality objective (i.e. for turbidity, sediment, temperature, dissolved oxygen, pesticides, etc.) caused by: Failed management measures (e.g. watercourse crossing fill failure; watercourse diversion; major road, landing, or skid trail failure within or adjacent to a watercourse protection zone); Failure to implement appropriate management measures; Natural sediment sources (landslide/unstable areas); Legacy timber activities (as assessed during Forensic Monitoring); Non-timber harvesting related land disturbances (as assessed during Forensic Monitoring).

BCA agrees that all of these occurrences should be reported. But, what mechanism is in place so that a discharger actually sees any of those things? In the Battle Creek watershed alone, there are tens of thousands acres of industrial timberland. Without a more specific, detailed plan for **how** to detect these occurrences, this requirement will not accomplish any protection or enforcement measures.”

RESPONSE: Monitoring requirements vary based on the Category of enrollment, as outlined in Attachment B, Monitoring and Reporting Program. Dischargers shall prepare and implement an Inspection Plan for Projects that exceed 100 acres for all Categories (*except* Category 1 and Category 5B (unless the U.S. Forest Service conducts implementation, forensic, and effectiveness monitoring in the Project area in lieu of National Core BMP Protocol monitoring)). The Inspection Plan shall be designed to ensure that management measures are installed and functioning prior to a precipitation event that generates overland flow, that the measures were effective in controlling significant sediment discharges (see definition in Attachment A) throughout the winter period, and that no new significant sediment discharge sources developed.

The Inspection Plan shall include a site map that includes monitoring points and inspection locations to be visited before, during, and after the winter period once operations have begun. This ensures several inspections are conducted each year on enrolled Projects. Central Valley Water Board staff may also conduct compliance inspections throughout the life of the Project and upon completion.

BCA – COMMENT 9: “Page 12 of Attachment B Monitoring and Reporting Program states: POTENTIAL ADDITIONAL MONITORING REQUIREMENTS. Pursuant to California Water Code section 13267, the Executive Officer has the authority to issue site-specific and individually developed monitoring and reporting requirements to any Discharger whose activities could affect the beneficial uses of waters of the state.....

As mentioned on page 4, this paragraph has been deleted: ‘Additionally, Class I CalWater Planning Watersheds that have been subject to land disturbance activities of 20% or greater over the past 10 years may trigger additional monitoring requirements that will be developed and issued by the Executive Officer on a site-specific basis.’ Although it only stated that it ‘may trigger additional monitoring requirements’ it was a step in the direction of taking an action regarding high amounts of watershed scale disturbance.”

RESPONSE: The Executive Officer maintains the authority to modify or rescind the MRP at any time or may issue site-specific and individually developed monitoring and reporting requirements to any Discharger for Projects that could affect the beneficial uses of waters of the state. Previous attempts to implement the referenced language in the Conditional Waiver resulted in frustration and little in the way of useful data. Determining the number of acres actually harvested in any specific 10 year period, versus what harvest documents indicate could be harvested, resulted in disagreements over whether the threshold had really been reached. The EO retains the authority to require additional monitoring based on site-specific circumstances. By removing the referenced language, staff has more flexibility to tailor supplemental monitoring and reporting requirements according to site-specific water quality concerns.

Center for Biological Diversity (CBD)

CBD – COMMENT 1: “The Draft Order asserts that ‘to create a General Order does not require preparation of a subsequent or supplemental environmental document ... [because there] is no evidence to indicate that substantial changes are proposed for the project, that substantial changes have occurred with respect to the circumstances of the project, or that there is new information of substantial importance with respect to the project’ This assertion is incorrect and does not account for post-fire logging an associated impacts from pesticide use, impact of climate change, and recent drought impacts in the Sierra Nevada, desire of USFS to increase logging on federal lands, recent ESA listings, and designations of critical habitat for amphibians.”

RESPONSE: Please refer to the response to BCA Comment 1 and the CEQA Addendum referenced therein. Additionally, the activities covered under the General Order have not meaningfully changed from those analyzed in the 2003 Negative Declaration. Timber harvesting, road and watercourse crossing activities are all still

managed via BMPs. While there has been an increase in drought impacts, especially in the Southern Sierras, overall commercial timber harvesting has steadily declined in the state since reaching a peak in 1988 (BOE data from 1978-2015).

CBD – COMMENT 2: “Category 2A actions have requirements that apply to them when there exist, e.g., ‘timberland management activities on soils with extreme erosion hazard rating (post-fire). . . .’ The Order, however, does not appear to define (or point to a place that defines) what “extreme erosion hazard rating” is, how it will be assessed and by whom, and moreover, does not explain why that threshold is appropriate for protecting water quality.”

RESPONSE: Erosion hazard rating (EHR) means the rating derived from the procedures specified in Forest Practice Rules (Cal. Code of Regs., tit. 14, § 912.5, 932.5, 952.5), designed to evaluate the susceptibility of soil within a given location to erosion. Central Valley Water Board staff has revised Attachment A to include the definition of EHR.

CBD – COMMENT 3: “The Order does not explain why the proposed buffers as to pesticide use are protective enough, especially with regard to rare, sensitive or ESA/CESA listed species.”

RESPONSE: Additional language has been added to pages 14 and 15 of Attachment D (Information Sheet) which discusses the literature and reasoning behind the General Order conditions, specifically for the riparian buffers (pesticide application buffers) and ground cover requirements.

The Forest Practice Act (Pub. Resources Code § 4527) defines timber operations. Both it and the Forest Practice Rules are essentially silent with regard to the application of pesticides and application buffers near waterbodies. This means that currently, landowners are only required to follow pesticide application instructions on the label, which for most of the forestry pesticides used in the Central Valley Region are zero (0) feet in a green tree environment. Based on application labels, pesticides can be applied to the water’s edge even when the riparian buffer area is void of vegetation such as in a post-fire environment.

The General Order definition of timberland management activities (Attachment A Definitions) *includes* pesticide applications since those applications have the potential to result in a discharge of waste as defined by Porter-Cologne. Based upon extensive literature review (see Information Sheet page 16), the General Order proposes using the watercourse and lake protection zone buffer widths contained in the FPR (Cal. Code of Regs., tit. 14, § 936.5) even though those buffers are slightly larger than the literature indicates is necessary.

Available literature suggests the buffer widths required in the General Order will be protective of surface waters and are: 1) conservative and so are expected to provide protection in the post-fire environment; 2) familiar to the private timber industry; 3) protective of aquatic species, whether designated a *special status species* or not.

Further, staff will conduct field inspections when conditions warrant. Porter Cologne also grants the Board authority to request additional information, technical reports, and to require cleanup when necessary to protect water quality.

CBD – COMMENT 4: “The Order does not explain why the Equipment Limitation Zone is adequate with respect to each of the actions it applies to.”

RESPONSE: The General Order only references equipment limitation zones (ELZ) (as defined in Cal. Code of Regs., tit. 14 § 895.1 and described in § 936.3 – 936.5) for Category 2A and 2B, which are post-fire salvage activities on non-federal lands. § 936.4 (c) (1) states that Class III watercourses within logging areas where the EHR is low and the slopes are less than 30% shall not require an ELZ. Further, § 936.4 (c) does not require a buffer be provided for Class IV watercourses. By requiring an ELZ in the General Order for post-fire salvage Projects, Central Valley Water Board staff ensures that equipment limitation zones will be provided for both watercourse classifications including those on slopes less than 30%.

CBD – COMMENT 5: “The Order does not provide clarity as to what specifically is meant by: ‘Any and all riparian vegetation, other than commercial species, that is found along watercourses and lakes or that is found within or bordering meadows and wet areas shall be retained and protected during timberland management activities.’”

RESPONSE: This language is similar to language provided in 14 CCR 936.3(d) for THPs which says: “Vegetation, other than commercial species, bordering and covering meadows and wet areas shall be retained and protected during timber operations unless explained and justified in the THP and approved by the Director”; the language was included for EM to recognize the value that riparian vegetation provides in the protection of watercourses, mainly through filtering and settling of upslope sediment.

CBD – COMMENT 6: “There is no assurance provided to allow the public access to all documents regarding the water quality impacts at issue, or to even ensure that such documents will be public, or even created. For example, some documents will only become public if the agency asks for them from the timberland owner whereas instead all documents should simply be required to be submitted and put in a publicly accessible database.”

RESPONSE: All documents that are produced by Dischargers as a requirement of the General Order are available to the public and can be requested at any time. To reduce the amount of document submittals and associated paperwork both for the Discharger and Central Valley Water Board staff, some documentation is made available upon agency request. Under the California Public Records Act (CPRA), any documents or other records within the possession, custody, or control of the Central Valley Water Board that do not fall within one of the CPRA’s exemptions are subject to disclosure in response to a request from the public. In the context of the Forest Activities Program, additional efforts as part of the AB 1492 implementation process are underway to create an online system that will facilitate public access to permit information.

CBD – COMMENT 7: “Water quantity does not appear to be addressed such as in regard to water drafting associated with private lands logging.”

RESPONSE: In watersheds with listed anadromous salmonids, water drafting for timber harvest operations has specific requirements found in California Code of Regulations, title 14, section 923.7(l), and “substantial diversions” must comply with Fish and Game Code section 1600, et seq. Additionally, regulation of water quantity and water use is the primary responsibility of the State Water Resources Control Board’s Division of Water Rights. Central Valley Water Board staff considers water drafting and potential impacts from drafting during plan review and monitoring and are in communication with Division of Water Rights staff on specific Projects as needed.

CBD – COMMENT 8: “The requirements for federal land (both post-fire and non post-fire) lack specificity/explanation as to how they will ensure water quality protection.”

RESPONSE: Part III.F of the General Order provides a detailed explanation of the specific requirements and actions by the U.S. Forest Service for permit compliance. For Category 5A and 5B, the U.S. Forest Service will provide NEPA scoping/analysis documents that contain site specific information on Significant Existing and Potential Erosion Sites (SEPES) and treatment schedules for those sites. During site visits to the Project area, Central Valley Water Board staff may make additional site-specific recommendations that will be incorporated into an addendum to the Notice of Intent (NOI). If pesticides will be applied post-fire (Category 5A), the U.S. Forest Service must adhere to detailed requirements in Part III.F.3.c, which will provide more specific protection measures than currently required for post-fire salvage operations on federal lands.

The inclusion of SEPES information for all enrolled Projects, including those on federal land, and the ability of Central Valley Water Board staff to provide feedback on those individual sites, will provide a greater level of site-specific information and mitigations for water quality protection than seen in previous requirements on federal lands. Further information on USFS BMPs can be found here:
https://www.fs.fed.us/biology/resources/pubs/watershed/FS_National_Core_BMPs_April_2012.pdf

CBD – COMMENT 9: “Overall, more definition/specificity/explanation with respect to the language as it is currently written, as well as enforceable measures, would improve the Order.”

RESPONSE: The Information Sheet has been revised to include additional explanation and specificity regarding the requirements of the General Order.

Central Sierra Environmental Resource Center (CSERC)

CSERC – COMMENT 1: “[CSERC] staff stresses that the RWB should require dischargers, through the general order, to submit data and information before the start of any [timberland management activity, or TMA]-related project (such as is required with an individual discharge waiver).”

RESPONSE: Category 3A/3B non-federal Projects will have already received Timber Harvest Plan (THP) review through the interagency Review Team and approval

from CAL FIRE prior to enrollment in the General Order. The THP is an Environmental Impact Report (EIR)-equivalent CEQA document that includes detailed and site specific information on a suite of resources areas, including water quality. For federal Projects in Category 5A/5B, NEPA documents and additional information provided with the Notice of Intent (NOI) are submitted and reviewed prior to commencement of Project activities. Projects conducted under Categories 2A and 2B provide basic information on planned operations. These documents lack specific details to determine potential water quality impacts. As a result, the General Order requires the submission of additional information on specific Project details as a condition of enrollment under the General Order.

CSERC – COMMENT 2: “[CSERC] emphasizes that it is critical that the RWB require dischargers at a minimum to comply with the following: 1) authorized approval for RWB access to TMA areas to perform pre-TMA inspections and post-TMA monitoring by RWB staff for any new project; 2) compliance with all provisions of the RWB Basin Plan; 3) establishment of equipment limitation zones within TMAs in proximity to certain watercourses; 4) mandatory retention of residual shade-retention trees, 5) adequate notice given to TWB [RWB] prior to any pesticide application; 6) collection of data pertaining to volume, duration, frequency and constituents of the discharge (e.g., pesticides); 7) accurate description of the extent and type of existing discharge-related monitoring activities to take place; 8) accurate description to RWB concerning the estimated size of the project area; 9) annual reporting; and 10) assurance that discharge and water quality monitoring reports concerning the TMA-related project are made publicly available in a timely manner.”

RESPONSE: Items 1 thru 5 and 7 thru 10 of the above comments and recommendations are addressed through requirements of the California Forest Practice Rules, USFS Best Management Practices, and/or the proposed General Order. Item 5 is also a requirement of the County Agricultural Commissioner’s Office for the county where pesticides are applied. Item 6 is addressed in part by the pesticide notification conditions in the General Order, which includes: chemical to be applied, application method, and dates and locations of application; if additional information (i.e. water samples) is needed, Central Valley Water Board staff can request monitoring pursuant to the MRP and Water Code section 13267.

CSERC – COMMENT 3: “[CSERC] also supports the proposed requirements in the draft General Order (No. R5-2017-XXX) that are new or updated from the waivers, specifically pertaining to regulations for post fire TMAs, including Categories 2A and 5A, and also regulations pertaining to effective ground cover, minimum watercourse pesticide buffers, and declaration of significant existing or potential erosion sites (SEPES) and new watercourse crossings.”

RESPONSE: Comment noted.

CSERC – COMMENT 4: CSERC opposes only requiring 50% ground cover prior to pesticide application on hillslopes greater than 30% because slopes less than 30% may have substantial soil loss and pesticide runoff. CSERC recommends 50% average effective ground cover where TMAs are planned in burned areas with slopes greater than 10% for both Category 2A and 5A.

RESPONSE: The scientific literature (see Information Sheet, Attachment D) on this topic supports the selection of 50% ground cover as an effective threshold for significantly reducing erosion, regardless of slope. In addition to slope steepness, the length of the slopes (short-steep less erosion than long-steep), and hillslope position (planar hillslopes, convex, concave, swale, etc.) are factors to consider. Slope steepness factors into the erosion hazard rating. Post-fire surface roughness on slopes up to 30%, whether residual ground cover (needle cast, burned woody material, mineral fragments greater than ¾ inch, etc.) and/or roughness caused by post-fire activities (logging, skidding, ripping, etc.) is shown to sufficiently prevent rain-splash and surface erosion.

CSERC – COMMENT 5: “[CSERC] asks that the RWB consider increasing the ground cover requirement (to 60-70% average effective cover) for those burned areas that are: 1) within high severity burn areas, 2) have extremely high erosion hazard rating, or 3) have relatively steep slopes.”

RESPONSE: At the post-fire landscape scale, the ability to factor in the additional variables of slope steepness, erosion hazard rating, length of slope, hillslope position, and burn severity would be very difficult, especially given the compressed time-frames within which many management activities must be executed. Percent ground cover is consistently shown to explain most of the variability in sediment production and 50% ground cover is documented to significantly reduce erosion. Central Valley Water Board staff will be keeping track of the effectiveness of the 50% ground cover requirement and will propose any necessary changes to the General Order to ensure water quality protection.

CSERC – COMMENT 6: “[CSERC] agrees with requiring both non-federal and federal salvage TMAs to utilize pesticide riparian buffers to minimize pesticide discharges from TMAs into streams. However, our Center [CSERC] is opposed to the current language in the draft General Order pertaining to the buffer requirements, which would be the existing buffer widths for WLPZs for green tree TMAs (CA 3 Code title 14, section 936.5). Our Center recommends that RWB consider establishing pesticide buffer widths that are more applicable to burned soil characteristics and to not use pesticide buffer width requirements recommended with soils in green tree TMAs (which have higher infiltration capacity and lower erosion potential). CSERC asks that the RWB consider the potential difference in the rate of pesticide residue transported to streams due to soil erosion in burned areas compared to the potential rate of pesticide residue transported to streams due to soil erosion in non-burned (green tree) areas when finalizing the pesticide buffer width requirement for Category 2A and 5A.”

RESPONSE: See response to CBD Comment 3. Also, in many cases, riparian zones burn less severely than hill-slope positions, providing additional residual ground cover to the buffer, helping to reduce pesticide transport to surface waters.

CSERC – COMMENT 7: “CSERC recommends that the RWB require dischargers in both Category 2A and 5A to apply ground cover and pesticide buffers prior to pesticide application, and not give dischargers the option of a PFP instead of applying the above measures. The current language in the draft General Order Attachment C section 3

indicates if dischargers opt to provide a PFP instead of creating pesticide buffers and ground cover, that the discharger is only required to *describe* the pesticide type, application method, application schedule, application location, hillslopes, burn severity, annual rainfall, SEPES, etc. But the discharger does not have to take any preventative actions to minimize pesticide infiltration or runoff.”

RESPONSE: If a Discharger chooses to submit a PFP at least 30 days prior to the first scheduled pesticide application, the PFP must include protection measures (i.e., BMPs) that will provide equal or better protection than the pesticide buffers and ground cover requirements in Part III.C.3.b.ii. Specific to the minimum PFP requirements outlined in Attachment C, those requirements include an evaluation of how the pesticide applications could impact SEPES and other areas in the burn area, specific pesticide mitigation measures that will be employed by a qualified professional, additional mitigation measures that will be utilized to control general soil loss and erosion, and site-specific monitoring. Significantly, a Discharger cannot rely on a PFP to satisfy the requirements of Part III.C.3.b without the prior written approval of the Executive Officer, which ensures that any PFPs used to satisfy those requirements will be at least as effective at protecting water quality.

California Forestry Association (Calforests)

Calforests – COMMENT 1: “On page 5 the statement regarding the 1988 MAA ‘to date, that review has not occurred’ is not correct. That review did occur, and the State Board recognized the FPRs as Best Management Practices prior to submittal to USEPA Region 5.”

RESPONSE: Finding 19 of the General Order has been revised.

Calforests – COMMENT 2: “On page 5, regarding ‘Coordination with other Agencies’, it is appropriate to include a discussion regarding the Natural Resources Agency. Since the implementation of AB 1492, all the reviewing agencies have been conducting periodic meetings to coordinate interagency objectives, and to provide information on staffing needs.”

RESPONSE: Central Valley Water Board staff agrees and has revised Finding 19 on pages 5 and 6 of the General Order to include discussion of AB 1492 implementation.

Calforests – COMMENT 3: “On page 10, Part II, Item 4, regarding the description of changed conditions/new information and the requirement for incorporating management practices, we believe this is meant to incorporate post-harvest plan approval conditions, i.e., outside of the regular interagency plan approval process. Clarification in this regard is recommended.”

RESPONSE: The commenter is correct. As conditions change subsequent to an enrolled CAL FIRE approved THP, Exemption, Emergency Notice, CDFW-executed MATO or LSAA, or USFS Project, the Discharger must incorporate through an amendment (where applicable) any new or changed conditions or improved or changed

management practices into one of the above Project documents and/or as an addendum to the Notice of Intent.

Calforests – COMMENT 4: “On Page 15, Part III, Section C, regarding Categories 2A and 2B, there is a requirement to submit a Post-Fire Management and Reforestation Plan (PFP) at least 30 days prior to pesticide application. The PFP requires Executive Officer approval, but offers no commitment to a response time. Given the often tight planning windows, a sentence or comment requiring a response time is recommended and fair. This is particularly true given AB 1492 reporting requirements as to efficiency of agency review, and to provide accountability for those requirements.”

RESPONSE: Central Valley Water Board staff agrees and has revised the language to specify a response time (i.e., within 30 days).

Calforests – COMMENT 5: “On page 16, Part III, Section C, Item 3, subsection ii, Item 2, in the requirement for 50% effective groundcover documentation should, at a minimum, recognize that such a determination constitutes the practice of Forestry under the Public Resources Code and requires a Registered Professional Forester.” Calforests also expressed concerns that the 50% threshold may be “too high in many instances” and requested that the threshold be lowered to 30%.

RESPONSE: Measurements (e.g., ocular estimates, transects, point plots, etc.) of effective ground cover are not exclusive to the forest industry. Many other science disciplines such as range management, botany, and ecology utilize ground cover measurement to make evaluations. The guidance of how to measure 50% ground cover in Attachment C is intentionally vague to provide flexibility for the Discharger. Further, as explained and referenced in the Information Sheet (Attachment D) page 18, numerous studies indicate that 50% or greater ground cover is necessary to significantly reduce erosion and sediment transport in burned environments. A ground cover standard of 30% is not supported by the references.

Calforests – COMMENT 6: Calforests commented that the requirements contained in Attachment C, specifically Part III for Contents of a PFP, “are controlled and mitigated by other state and local agencies. Pesticide applicators need flexibility in timing their applications due to sometimes rapidly changing local weather and wind conditions. We recommend that “no less than 48 hours” be stricken to allow applicators the ability to adapt and change their application times and dates.”

RESPONSE: Central Valley Water Board staff respectfully disagrees. Pesticide notifications, and the 48 hour requirement for updates for changes, have been a requirement of the Timber Waiver since 2005. Central Valley Water Board staff has not encountered an issue with this requirement since the notifications are usually generalized in regard to application dates and the chemical, application method, and application locations do not typically change.

Calforests – COMMENT 7: “As a general comment, it should be noted that our membership aggressively replants and re-establishes conifer stocking post-fire. Such activities should be encouraged to the fullest extent possible, as the rapid re-capture of

these sites is imperative, in particular in order to rapidly mitigate post-fire erosion. Most post-fire erosion is rapidly cured by such efforts.”

RESPONSE: Comment noted.

California Licensed Foresters Association (CLFA)

CLFA – COMMENT 1: CLFA commented that the General Order would overlap the Forest Practice Rules and would double up on agency oversight on timber harvesting operations. Additionally, concern was expressed that CAL FIRE’s ‘lead agency’ status would be unclear with regards to reviewing and approving timber harvest Projects of various types due to the requirements of the General Order.

RESPONSE: Timberland management activities on non-federal lands in California are regulated in accordance with the Z’berg-Nejedly Forest Practice Act (FPA) (Public Resources Code § 4511 et seq.) and the California Forest Practice Rules (FPR) (California Code of Regulations, title 14, § 895 et seq.). The Board of Forestry is responsible for promulgation of the FPR in accordance with the FPA while CAL FIRE is the state agency responsible for overseeing implementation and enforcement of the FPR for timber harvest activities on non-federal lands. Pursuant to the FPR, the applicable Regional Water Board is part of an interdisciplinary “Review Team” with CAL FIRE acting as the lead agency for CEQA purposes. The proposed General Order acknowledges the “Review Team” process and roles of each agency in the findings and is sufficiently clear regarding CAL FIRE’s role.

It bears emphasis that CAL FIRE does not have exclusive jurisdiction over any and all regulation of timber management activities, nor does implementation of CAL FIRE regulations, alone, ensure the protection of beneficial uses in waters of the state. The Regional Water Board has a statutory mandate to implement the Porter-Cologne Water Quality Control Act, as codified in the Water Code, including those provisions that implement the federal Clean Water Act. Additionally, the State’s Nonpoint Source Policy (NPS Policy) imposes a legally binding requirement on the Regional Water Boards to regulate nonpoint source pollution using waste discharge requirements, a waiver of waste discharge requirements, or a basin plan prohibition, in a manner that will result in timely attainment of applicable water quality objectives. These mandates apply even when a source of pollutants is regulated by one or more other agencies. Indeed, it is common for an industry to be complex and multifaceted in its impacts such that operations fall within multiple agencies’ regulatory jurisdictions.

For the reasons explained in the findings and in the Information Sheet, timber management activities are a significant source of nonpoint source pollution in the Central Valley Region, thereby triggering the Central Valley Water Board’s legal obligation to ensure protection of beneficial uses using one of the three regulatory tools referenced in the NPS Policy. Although these regulatory authorities are in addition to those exercised by CAL FIRE, they are distinct in their character and scope, and therefore are not duplicative.

CLFA – COMMENT 2: CFLA commented on part of Finding 7 of the General Order which states, “The adoption of individual WDRs for all timberland management activities

in the Central Valley Region is not feasible due to the large number of timber harvesting documents received annually for review, the short mandated timeline for the approval of non-federal timberland management activities, and the time needed to adopt individual WDRs.”

CFLA’s comment was that Central Valley Water Board staff participate in pre-harvest inspections (PHIs) for THPs and that for EMs and EXs since PHIs are not conducted that staff should conduct field visits instead of creating ‘one size fits all’ mitigation measures in the General Order, such as requiring 50% groundcover on steep slopes prior to pesticide applications for fire salvage EMs.

RESPONSE: Federal law requires the states to develop and implement plans to address nonpoint source pollution. (33 U.S.C. §1329.) Pursuant to this federal mandate, the State Water Board adopted its Nonpoint Source Policy (NPS Policy) in 2004. The NPS Policy requires the State Water Board and Regional Water Boards to regulate nonpoint source pollution by using either (1) Waste Discharge Requirements (Water Code section 13260); (2) a Waiver of Waste Discharge Requirements (Water Code section 13269); or (3) a Basin Plan Prohibition (Water Code section 13243). The adoption of the proposed General Order would satisfy the NPS Policy by issuing waste discharge requirements. Given the volume of timber management activities in the Central Valley (roughly 200 THPs, 80 USFS Projects and hundreds of EM/EXs annually), it would not be feasible to write individual waste discharge requirements for each timberland management activity. Central Valley Water Board staff participates in field inspections for more complex Projects that may require mitigation measures beyond the criteria and conditions contained in the FPRs, USFS Best Management Practice guidance documents, and the General Order. The inclusion of the PFP option is an attempt to allow landowners to explore a site-specific path in instances where the General Order’s default approach would not be as effective from a water quality and/or practicability perspective.

CLFA – COMMENT 3: CFLA commented on Finding 14 of the General Order which states, “Water Code section 13263 requires the Central Valley Water Board to prescribe WDRs, or waive WDRs, for proposed, existing, or material changes in discharges of waste that could affect water quality. The board may prescribe WDRs even if no ROWD under Water Code section 13260 has been filed. The WDRs must implement applicable water quality control plans and the Water Code. The Central Valley Water Board may prescribe general WDRs for a category of discharges if all the following criteria apply to the discharges in that category:

- a. The discharges are produced by the same or similar operations.
- b. The discharges involve the same or similar types of waste.
- c. The discharges require the same or similar treatment standards.
- d. The discharges are more appropriately regulated under general requirements than individual requirements.”

CFLA commented that a “one size fits all’ approach is not appropriate and that Central Valley Water Board staff should conduct field visits and prepare individual requirements (localized mitigations) for timber harvesting activities.

RESPONSE: See response to CLFA – Comment 2, above. In addition, CAL FIRE’s THP process allows for site specific circumstances to be addressed based on management needs, so while the General Order by definition is a “one size fits most” permitting solution, site specific issues for THPs are still addressed through the review process. Central Valley Water Board staff will continue to conduct inspections for select Projects to ensure water quality is being protected. If site-specific circumstances warrant, the Central Valley Water Board retains the authority to issue individual WDRs or individual Monitoring and Reporting Program for a Project that might otherwise enroll under the General Order.

CLFA – COMMENT 4: CFLA commented on Finding 16 of the General Order which states in part, “Whether an individual discharge of waste from timberland management activities may affect the quality of the waters of the state depends on a variety of site-specific factors, including, but not limited to.....roads or watercourse crossings in poor condition.”

CFLA commented that there is no definition of “poor condition” and questioned who would make this determination and arbitrate if there was a disagreement.

RESPONSE: Finding 16 of the General Order describes some of the site-specific factors that Central Valley Water Board staff use to evaluate timberland management activities. These factors are used to determine the relative threat to water quality, whether activities meet the criteria/conditions of the category of enrollment, and whether a site inspection is warranted. Typically the onus lies with the Discharger to identify road or watercourse crossings that are in “poor condition” in their Project documents. However, Central Valley Water Board staff and other “Review Team” members (for CAL FIRE processed plans) assess road and watercourse crossing conditions during field inspections and typically consensus is reached in the field. Although Dischargers frequently make the initial determination as to whether a road or watercourse crossing is in “poor condition,” the Central Valley Water Board has the ultimate legal responsibility to identify threats to water quality from such nonpoint source discharges and to ensure that they are remedied through appropriate best management practices. The Central Valley Water Board identifies threats to water quality based on inspections, monitoring, or other data indicating that an activity is causing or may cause or contribute to an exceedance of applicable water quality objectives, as provided in the Basin Plan.

CLFA – COMMENT 5: CFLA commented on Finding 16 of the General Order which states in part, “Whether an individual discharge of waste from timberland management activities may affect the quality of the waters of the state depends on a variety of site-specific factors, including, but not limited to.....intensity of silvicultural prescriptions and/or yarding methods, intensity of site preparation and/or road construction/reconstruction.”

CFLA commented that there is no definition of intensity and questioned who would make this determination.

RESPONSE: See response to CFLA Comment 4. Additionally, Finding 16 of the General Order describes some of the site-specific factors that Central Valley Water

Board staff use to evaluate timberland management activities; the factors are used to determine the relative threat to water quality, whether activities meet the criteria/conditions of the category of enrollment; and whether a site inspection is warranted. CAL FIRE as “lead agency” evaluates the silvicultural prescriptions. Central Valley Water Board staff takes into account these activities when evaluating a Project in its totality and the potential impacts to water quality, and intensity of harvest (i.e., rate of harvest) is one of the considerations for determining erosion potential as well as potential cumulative watershed effects.

CLFA – COMMENT 6: CFLA commented on Finding 27 of the General Order which states in part, “Timberland management activities in California are primarily regulated by other agencies, including CAL FIRE and the U.S. Forest Service. The Central Valley Water Board does not approve timberland management activities, but it does have authority to require compliance with the Water Code.”

CFLA wants to know who is the “final arbitrator” if there is disagreement on a crossing between CAL FIRE and the Central Valley Water Board.

RESPONSE: Crossings are discussed during field inspections and typically a consensus is reached between Review Team members and the Discharger. If agreement cannot be reached between Central Valley Water Board and other Review Team members or the Discharger, opportunity is provided at second review to resolve disagreements and/or thru the process detailed in section 1037.5 of the FPR. Although the FPR provides, and the Central Valley Water Board participates in, this conflict resolution procedure, the Central Valley Water Board ultimately has an overriding statutory mandate under the Water Code to ensure protection of beneficial uses in waters of the state. The FPR do not curtail that legal mandate. In the unlikely event that consensus cannot be reached and CAL FIRE’s role in the implementation of this General Order results in a Project continuing to cause or contribute to exceedances of water quality objectives or a condition of pollution or nuisance, the Central Valley Water Board will rely upon its other regulatory authorities in the Water Code to ensure protection of beneficial uses in waters of the state, including but not limited to issuance of a Cleanup and Abatement Order or Cease and Desist Order.

CLFA – COMMENT 7: CFLA commented on Finding 27 of the General Order which states in part, “Without this Order, timberland management activities would continue under authority of those other agencies, but such activities may not be subject to appropriate conditions protective of water quality.”

CFLA commented that the FPR provides adequate protection of water resources for THPs, EMs, and EXs.

RESPONSE: Central Valley Water Board staff respectfully disagrees. Please see the response to CLFA Comment 1. In the Central Valley Water Board’s nearly 15 years of experience implementing the Timber Waiver, field consultations frequently have revealed that additional mitigations were necessary that went above and beyond the FPRs in order to ensure water quality protection. Although the CAL FIRE process and the FPR contain a water quality component, the State and Regional Water Boards are the sole state agencies with the express statutory mandate to ensure the protection of

beneficial uses in waters of the state. Accordingly, ultimate determinations about water quality impacts—specifically, whether water quality objectives are being met, and if not, the sources contributing to exceedances—are properly within the jurisdiction of the Water Boards, not CAL FIRE, based on inspections and a review of monitoring data.

CLFA – COMMENT 8: CFLA commented on Finding 27 of the General Order which states in part, “This Order allows staff to continue to participate in the review of proposed timberland management Projects, providing staff the opportunity to require implementation of protective measures beyond those required by CAL FIRE and the U.S. Forest Service for the most critical timber operations.”

CFLA requested a definition of “most critical timber operations.” Additionally, CFLA commented that Central Valley Water Board is not the lead agency and may be “overstepping their jurisdiction” if additional mitigation measures are required.

RESPONSE: “Most critical timber operations” takes into account many factors, some of which are detailed in Finding 16 (i.e. impacts on beneficial uses, water quality conditions, scope of proposed activities). Central Valley Water Board staff concur that the ‘lead agency’ status does not reside with the Central Valley Water Board for the approval of timber harvesting plans on state, private or federal lands in California. However, the Water Code provides broad authority to the Regional Water Boards to require mitigation measures above the requirements of the FPR and Federal guidance documents when necessary to protect water quality. Additionally, the FPRs require compliance with the Water Code, various Basin Plans, and policies, and recognize the authority of the Regional Boards to interpret both. For additional information, please see the responses to CLFA Comments 1, 6 and 7.

CLFA – COMMENT 9: CLFA commented that the requirement for an annual notice of operations prior to startup for Category 3A could possibly be provided by the local CAL FIRE units.

RESPONSE: After recent discussions with CAL FIRE management regarding this issue, Central Valley Water Board staff concurs with the comment. The General Order has been updated to reflect this change.

CLFA – COMMENT 10: CLFA commented that pesticide use on forestland is regulated by DPR and contends that the WLPZ and ELZ buffers contained in the FPR for watercourses are adequate to protect the resource from pesticide applications. CLFA commented that the pesticide notification required for Category 2A is redundant and unnecessary since pesticide use is documented by DPR and the county.

RESPONSE: See responses to CBD Comment 3 and Calforests Comment 6. Central Valley Water Board staff is unaware of any efforts by the California Department of Pesticide Regulation or any County Agricultural Commissioners to evaluate pesticide application methodologies in the post-fire environment. Further, the Regional Water Boards have the responsibility to ensure that any person proposing to discharge waste (pesticides and/or sediment eroded from pesticide application areas in this case) obtain the appropriate permit(s) and apply measure to protect the beneficial uses of water.

CLFA – COMMENT 11: For Category 4, CLFA commented that an “annual commencement of operations” would be more appropriate for a MATO versus a NOI.

RESPONSE: Central Valley Water Board staff respectfully disagrees. Notification pursuant to a MATO is required by CDFW for work in or near a watercourse. Central Valley Water Board staff is requesting a copy of the notification provided to CDFW and a NOI for enrollment under the General Order.

CLFA – COMMENT 12: CLFA commented that Part III.D. of Attachment C was unnecessary because pesticide applications are under the purview of DPR and county. CLFA contends that the pesticide notification requirements will not allow applicators the ability to adapt applications for changing conditions.

RESPONSE: See response to Calforests Comment 6 and to CLFA Comment 10. DPR jurisdiction over the sale, registration and use of pesticides may limit the authority of local public agencies to regulate pesticides (see Food and Ag. Code § 11501.1, subd. (a)), but it does not limit the Central Valley Water Board’s legal authority to include conditions in waste discharge requirements necessary to ensure the reasonable protection of beneficial uses. Food and Agriculture Code section 11501.1, subdivision (a) declares that DPR regulation of pesticides “occup[ies] the whole field of regulation regarding the registration, sale, transportation, or use of pesticides to the exclusion of all local regulation.” Subdivision (c), however, reads, “Neither this division nor Division 7 (commencing with Section 12501) is a limitation on the authority of a state agency or department to enforce or administer any law that the agency or department is authorized or required to enforce or administer.” Based on these provisions, and for the reasons described in the response to CLFA Comment 1, the issuance of the proposed General Order with conditions regarding pesticide use is within the Central Valley Water Board’s regulatory authorities.

Sierra Pacific Industries (SPI)

SPI – COMMENT 1: SPI commented that the General Order should include information on the CEQA/NEPA processes and the corresponding lead agency that support each of the categories; SPI suggested the following language to incorporate into Part II.4. of the General Order to make this clear to the reader:

“The Discharger shall incorporate management practices and/or water quality protective measures resulting from Central Valley Water Board staff participation in CAL FIRE’s Review Team process, the Federal review process, the CDFW review process, and/or during project enrollment that arising from changed conditions/new information into the Project document(s) and/or NOI addendum.”

RESPONSE: Central Valley Water Board staff agrees and has made the suggested change.

SPI – COMMENT 2: SPI commented on Part II.4. of the General Order stating that the effectiveness of alternative mitigation measures provided by the Discharger should be

measured against established water quality requirements and not Central Valley Water Board staff recommendations. SPI suggested the following underline strikeout language:

“The Discharger may propose alternative management practices if it can demonstrate to the satisfaction of the Executive Officer that the proposed alternatives ~~are at least as effective as those recommended by Central Valley Water Board staff.~~ meet the water quality objective (narrative or numeric), prohibition, Total Maximum Daily Load implementation plan, policy, or other requirement contained in a water quality control plan adopted by the Regional Board and approved by the State Water Boards.”

RESPONSE: Central Valley Water Board staff agrees and has made changes to the General Order. In lieu of the suggested underline language, staff inserted the term ‘water quality requirements’, which is defined in the 14 CCR 895.1 as including: water quality objectives, prohibitions, total maximum daily load implementation plan, policy, or other requirement contained in a water quality control plan adopted by the Regional Board and approved by the State Water Boards.

SPI – COMMENT 3: For Category 3A and 3B enrollment, SPI commented that a 15 day timeline for Central Valley Water Board staff to respond to a NOI submittal should be included in the General Order.

RESPONSE: Central Valley Water Board staff agrees and has made revisions to Category 2B, 3A, and 3B conditions.

SPI – COMMENT 4: For Category 2A enrollment, SPI commented that the 30 day timeline for NOI submittal subsequent to the CAL FIRE EM Notice acceptance should be changed to 45 days or the winter period (November 15), whichever occurs first.

RESPONSE: Central Valley Water Board staff respectfully disagrees. *Prior* to submittal of the EM Notice to CAL FIRE, Dischargers must evaluate the EM Notice area roads, crossings, unstable areas, EHR, watercourses, and for silvicultural prescription considerations; this evaluation does not have a time period associated with it and is solely at the discretion of the landowner. The 30 day time period for NOI submittal for Category 2A, begins *after* the EM Notice is submitted and accepted by CAL FIRE. Further, the proposed language (or by “the winter period”) could represent a significantly shorter period in the case of a late season fire occurring in October.

SPI – COMMENT 5: For Category 2A, Part III.C.3.b.ii.2, SPI requested that the condition to demonstrate 50% cover on slopes greater than 30% be increased to slopes greater than 35% based on Chou et al (1994a, 1994b).

RESPONSE: Central Valley Water Board staff respectfully disagrees with the comment based on the Information Sheet (Attachment D) which contains the rationale on which the post-fire General Order conditions were developed. The Information Sheet contains over 60 references of the best-available science related to fire ecology, erosion, forest hydrology, and water quality impacts in the post-fire environment. Central Valley Water Board staff contends that this collection of scientific literature provides a rigorous evaluation of water quality impacts in the post-fire environment.

The Central Valley Water Board strives to use the best available science in all actions. The available literature includes peer-reviewed published sources, technical notes, gray literature, and anecdotal and observation sources. The material from Chou et al. (1994a, 1994b) was presented at two different symposia in 1994 and has not been published in any peer-reviewed format. Even if the study had been peer-reviewed and published, the timing of the post-fire logging events used in the study (summer 1988 and fall 1989) makes the findings less relevant to the factors involved in the General Order's post-fire requirements. The Chou study was in response to the 1987 Stanislaus Complex Fires (Stanislaus National Forest - SNF). By the time logging occurred in 1988 and 1989 (one and two years after the fire, respectively), vegetative re-growth was most certainly providing at least 50% ground cover and likely more, which is documented to significantly reduce erosion and sediment production. Forestry herbicides were not used on the Stanislaus National Forest until 1995, eight years after the fire. If pesticides, especially pre-emergents, are not used in post-fire landscapes, vegetative re-growth/recovery can provide dense ground cover, which would mask any sediment production differences between logged and unlogged. Also, the authors themselves conclude that basin to basin surface disturbance variability, in addition to logging variability in the timing of the post-fire logging events lead only to preliminary conclusions requiring additional work. These factors likely account for why the study had difficulty establishing a significant relationship between logging and sedimentation.

The Hearst Corporation (Hearst)

Hearst – COMMENT 1: Hearst commented that the General Order does not recognize Program Timberland Environmental Impact Reports (PTEIR), which Hearst completed in 1998 (PTEIR # 970-72103). Hearst requested that language be incorporated into the General Order to address PTEIRs at the following locations: General Order Part II (Provisions), Part III.D.2., and Part III.E.; Attachment A (include in definition of a Project); Attachment B (Monitoring and Reporting Program). Specifically, Hearst requested that the following language be incorporated:

General Order, Part II, Provisions – *Activities conducted in accordance with a certified CEQA project permit that provides inventory, mitigation, monitoring, and reporting will be deemed compliant with and satisfy the conditions of this General Order.*

RESPONSE: The Central Valley Water Board is relying on a previously-prepared Negative Declaration to inform its analysis of the potential environmental impacts of approving the General Order, in compliance with CEQA. The scope of the Negative Declaration encompasses the whole of the proposed action—namely, all timber management activities within the Central Valley Region that are eligible for enrollment under the General Order. Separate CEQA compliance for a subset of those activities is not legally required, and in fact would result in improperly segmented CEQA analysis. The Central Valley Water Board does not agree that a “deemed in compliance” option would be appropriate for an individual PTHP, as that would negate several provisions of the General Order that ensure compliance with the State Water Board’s NPS Policy.

It should be noted that the proposed General Order does include Program Timber Harvesting Plans (PTHPs), which are prepared under a PTEIR, and are provided regulatory coverage under Category 3A and 3B of the General Order.

W.M. Beaty & Associates, Inc. (WMBA)

WMBA – COMMENT 1: “The effort by the CVRWQCB to heavily and prescriptively regulate voluntary reforestation activities should be re-evaluated.....The short-term impact of surface vegetation control versus the long-term gain of successful and effective reforestation with deep rooted conifers should be thoroughly considered.”

RESPONSE: Comment noted.

WMBA – COMMENT 2: “The Category 2A requirements are a one-size fits all response to a few problems that could be addressed in a much more focused, surgical manner.”

RESPONSE: Comment noted. See response to CLFA Comments 2 and 3.

WMBA – COMMENT 3: “The intent of Category 2A appears to be to prohibit the use of herbicides and incentivizes the use of non-chemical manual and mechanical weed control methods such as grubbing, terracing, and windrowing. These methods displace nutrient rich top soil, reduce soil fertility, result in greater soil disturbance, and reduced reforestation efficacy.”

RESPONSE: It is not the intent of Category 2A to prohibit the use of pesticides (herbicides); however, it is the intent to incentivize retention of effective ground cover and watercourse buffer zones in the post-fire Project area to mitigate short-term and long-term erosion, sediment delivery, and water quality problems. Should the requirements for buffers and 50% ground cover not meet a landowners specific management goals, the option of developing a PFP exists.

WMBA – COMMENT 4: “Timberland management activities as defined in this section appear to be all inclusive and incorporate noncommercial activities. However, Attachment A includes an exclusion for Notices of Exemption which is inconsistent with the inclusion of Exemptions in Table 1.”

RESPONSE: The definition of “timberland management activities’ as defined in Attachment A only includes commercial activities; the definition specifically excludes Exemption Notices associated with the cutting and removal of timber and other solid wood forest products for Christmas trees, structure protection (150 and 300 feet), and woody debris and slash removal (CCR, title 14, section 1038). All other CAL FIRE Exemption Notices are proposed to be automatically covered under the General Order in Category 1. For clarity, a footnote has been added to Table 1 of the General Order to cite these exclusions. However, the Central Valley Water Board retains the discretion to enroll any of these ‘excluded’ EX Notice types if a threat to water quality exists.

WMBA – COMMENT 5: “Category 1 includes EX Notices which is in conflict with the exclusion of CCR, Title 14, Section 1038 Exemptions in the definition of Timberland Management Activities in Attachment A.”

RESPONSE: See response to WMBA Comment 4 above for explanation. Additionally, text has been added to page 15 under the Category 1 eligibility criteria to state the EX Notice types that are specifically excluded.

WMBA – COMMENT 6: “III.B. Category 1: Low Threat Exemption and Emergency Notices on Non-Federal Lands. The header of this section implies that all other activities including fire salvage and reforestation are ‘high threat’ which is certainly not the case. Salvage and reforestation under Category 2 is restorative and should not be conveyed as a high threat.”

RESPONSE: The Central Valley Water Board respectfully disagrees. Identifying Projects that can be enrolled under Category 1 as low threat does not automatically imply that all other Projects are “high threat,” only that some are low threat. It is true that some fire salvage and reforestation activities do not pose a significant threat to water quality. The degree to which these activities do threaten water quality is largely dependent on slope, topography, soils, precipitation, burn severity, method of harvest, road density, presence of functional riparian buffers, percent ground cover, and many other factors. In the Central Valley Water Board’s experience, many fire salvage Projects result in an increased threat to water quality.

WMBA – COMMENT 7: “Although the Erosion Site Table must be submitted within 30 days of Emergency Notice acceptance, are operations allowed to commence upon acceptance of the Erosion Site Table and without a review period?”

RESPONSE: Operations may commence prior to submittal of the Erosion Site Table and prior to Central Valley Water Board review/acceptance of that table. However, if upon review, the Central Valley Water Board disagrees with specific mitigation or timing/prioritization of those mitigations, the landowner may be required to conduct repairs or modify work performed at those sites.

WMBA – COMMENT 8: “III.C.3.b Provide justification/basis for the standard pesticide buffers that the Post Fire Management and Reforestation Plan measures must meet or exceed.”

RESPONSE: See response to CBD Comment 3 and CLFA Comment 10.

WMBA – COMMENT 9: “III.C.3.b The requirement to comply with item i. or ii is problematic. The conditions in item ii are so restrictive such that equal to or better protection is difficult or impossible to achieve in the short term. The requirement to achieve and document 50% average affected groundcover prior to pesticide application is severely restrictive to effective reforestation and unnecessary.”

RESPONSE: Fifty-percent ground cover may be achievable in the first year following wildfire based largely on the intensity of the fire and burn severity. For those areas that have burned at low to moderate severity, it is likely that 50% ground cover can be measured within the first year of salvage operations prior to pesticide application. For those areas that burned at high severity, 50% effective ground cover may be more difficult to achieve, and may require leaving slash behind, and/or delaying pesticide

application and reforestation until sprouting and revegetation has occurred. Central Valley Water Board staff respectfully disagrees with the statement that the requirement of 50% ground cover is unnecessary, as many cases of erosion and water quality impacts from fires across the region have been documented; based on the literature, ground cover has proven to be the most cost effective and efficient way to address erosion following wildfire (see Information Sheet pages 14-15, 18-19).

WMBA – COMMENT 10: “Retention of 50% effective groundcover encourages retention of excessive fuel loading which is counterproductive to establishment of a healthy and fire resilient forest.”

RESPONSE: The definition of Effective Ground Cover includes “any combination of slash (lopped and in close contact with the ground), mulch (large wood chips, wood shreds, wood strand blends, straw, bark, or surface rock fragments larger than ¾ inch), plants, and plant litter. Large wood chips should be a minimum of 2 inches in length and at least four (4) times longer than they are wide.”

Attainment of a minimum average of 50% ground cover on slopes greater than 30% does not mean that an area will also have high fuel loading; large slash and debris can be removed from the hillslope and pile burned as long as the remaining material meets the ground cover conditions of the General Order. It should also be noted that the Discharger has the option to prepare a PFP if the attainment of 50% ground cover competes with the landowner’s management objectives.

Absent effective ground cover and/or other mitigation measures, accelerated erosion may occur, which can lead to soil loss, depletion of soil nutrients, and in-stream impacts. This process can also result in poor site conditions for conifer regeneration and thus unhealthy forests.

WMBA – COMMENT 11: “III.C.3.c.iii Clarification of ‘any and all riparian vegetation’ is needed. A) Is the intent to include the vegetation within watercourse and lake protection zones, equipment limitation zones, and/or no-spray buffers? B) What distance from watercourses, lakes, wet meadows, and wet areas is encumbered by this restriction? Who determines ‘to the extent feasible?’ C) Consider changing requirement to ‘retention of existing vegetation within California Forest Practice Rule watercourse and lake protection zones to the extent feasible as determined by the RPF or PCA.’”

RESPONSE: Please see response to CBD Comment 5. A) Yes, the intent is to include the vegetation within WLPZ, ELZ/EEZ and no-spray buffers. B/C) The distance is the standard WLPZ or ELZ/EEZ width provided in the 14 CCR 936.4 and 936.5. While the RPF will make the initial determination as “to the extent feasible” for retaining existing vegetation, it should be noted that the Central Valley Water Board has an overriding statutory mandate under the Water Code to ensure protection of beneficial uses of waters of the state. The Forest Practice Rules do not curtail that legal mandate.

WMBA – COMMENT 12: Attachment A: Definitions

A) “Timberland management activities: The description in the General Order under Scope of Coverage should be revised to exclude Title 14 CCR § 1038 Exemptions from this definition.”

B) “Effective Groundcover: Consider expanding the definition to include needles and leaves.”

C) “Significant Existing or Potential Erosion Site [SEPES]: Consider linking “in quantities that violate a water quality objective (narrative or numeric) to the Basin Plan.”

RESPONSE: A) See response to WMBA Comment 4. B) The definition already includes “plants and plant litter”, which includes needles and leaves. C) This is already included in the definition of SEPES in Attachment A.

WMBA – COMMENT 13: Attachment B: Monitoring and Reporting Program

A) “Inspection Plan: Identify the rationale for the 100-acre threshold. Why not 1,000 acres or other threshold that includes parameters for soil type, slope, proximity to watercourses, etc.?”

B) “Visual Monitoring Points: The list of inspection items suggest that all occurrences of these features shall be included in the inspection plan and delineated on the monitoring points site map. Clarification is needed on this for projects that have a high number of these features.”

C) “Implementation Monitoring: If the intent is to monitor a sample of representative sites for each type of feature in the list, please so state. The ‘note’ at the end of this section regarding additional implementation monitoring should apply to all types of monitoring (not just implementation monitoring).”

D) “Incident Report: Consider changing the phrase ‘report to’ in the text to ‘notify the’.”

E) “Submission of Reports/Data: The sentence ‘I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment’ is unnecessary and degrading.”

F) “What is the authority of the CVRWQCB to require that ‘[t]he Discharger shall also report monitoring data and results, in a timely manner, for all water quality related monitoring conducted independent of the requirement of this Order’?”

RESPONSE: A) The 100 acre threshold has been in place since 2003 and was chosen to exclude the smallest landowners from the requirement of inspection plan development as they are unlikely to have a significant number of potential sites that could impact water quality such that a plan of inspection would be necessary. It should be noted that it does not relieve them of conducting the monitoring and annual reporting.

B) The “list of inspection items” is composed of suggested areas for the Discharger to focus on when preparing an inspection plan; a more detailed list is provided under each inspection type. Dischargers must use the lists provided and their discretion when preparing inspection plans. “Plans that have a high number of these features” will require a thorough inspection plan/inspections due to the increased potential to impact water quality.

C) See response to B) above. The “note” on implementation monitoring is applicable only to this type of monitoring, not forensic or effectiveness; implementation monitoring is tied to the implementation of new management measures (e.g. water bars).

D) Central Valley Water Board staff agrees and revisions have been made to Attachment B.

E) Central Valley Water Board staff has revised the language in Attachment B to acknowledge that monitoring and technical reports submitted pursuant to Water Code section 1326 are submitted under penalty of perjury.

F) Water Code section 13267, subdivision, provides, in pertinent part:

(a) A regional board, in establishing or reviewing any water quality control plan or waste discharge requirements, or in connection with any action relating to any plan or requirement authorized by this division, may investigate the quality of any waters of the state within its region.

(b)(1) In conducting an investigation specified in subdivision (a), the regional board may require that [any discharger] shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires.

(Emphasis added.) This Water Code section provides the basis for Regional Water Boards’ legal authority to require monitoring and technical reports, either as part of WDRs or as a stand-alone reporting requirement.

WMBA – COMMENT 14: Attachment C: Post-Fire Management and Reforestation Plan

A) “Consider changing the title of this attachment to ‘Pesticide Management Plan’ and removing all references to and discussion of salvage operations since it appears that the intent of this plan is primarily to address and manage pesticide applications.”

B) “Since the contents of a Post Fire Management and Reforestation Plan must be prepared by a Registered Professional Forester or Pest Control Advisor, will the CVRWQCB staff that reviews these plans be required to possess the same credentials to effectively review and evaluate the Post Fire Management and Reforestation Plan?”

C) “Flow Chart Category 2A and 5A: This flow chart clearly discourages the use of pesticides. Reforestation without the use of herbicides has proven to be ineffective.”

D) “Effective Groundcover: Why restate the definition from Attachment A again in this section? Is visual determination of 50% ground cover a permitted methodology? Has

there been an economic analysis of the time required to estimate and document the effective ground cover? What is the basis for the 50% effective ground cover? What is the basis for estimating down to 20 acres and 10 acres for high to severe burn severity? Is there a consideration of soil type? Is there a parameter to consider mechanical subsoiling and the benefits of salvage operations and the resultant disruption of hydrophobic soil layers prior to herbicide application?"

RESPONSE: A) Central Valley Water Board staff respectfully disagrees with changing the title of the Plan since some mitigations proposed in the Plan can be tied to salvage operations.

B) The PFP will be reviewed by Central Valley Water Board staff experienced in evaluating impacts or threatened impacts to water quality.

C) The category conditions only discourage the use of pesticides until 50% ground cover is reached. As explained previously, 50% ground cover can be achieved through logging practices, and retention of dead/dying vegetation, including vegetation killed through use of pesticides.

D) Restating the definition of ground cover in the PFP is intended to provide clarity to a landowner choosing the PFP option in one place. Visual determination of 50% ground cover is a permitted methodology. There have been evaluations of the time required to estimate and document effective ground cover, some methodologies take longer than others with line segment plots taking roughly ½ hour each. The basis for the 50% effective ground cover was distilled from the numerous references listed and described in Attachment D (Information Sheet pgs. 14-15, 18-19). The basis for estimating effective ground cover down to 20 acres and 10 acres for high to extreme burn severity is the process for EHR evaluation (see 14 CCR 912.5 and Technical Rule Addendum #1), which also looks at vegetation remaining post-harvest. The PFP provides an option for a landowner to consider subsoiling and the benefits of that, or other emerging methods.

WMBA – COMMENT 15: Attachment C. - III. Contents of a Post-Fire Management and Reforestation Plan

A) "Why are "other areas" required to adhere to the Post Fire Management and Reforestation Plan if they are not commercially salvaged and only voluntarily reforested?"

B) "A list of the beneficial uses, 303(d) listings, critical habitat, and aquatic resources is unnecessary, cumbersome, and costly to provide. It requires the preparer to regurgitate publicly available information for no purpose."

C) "What is the purpose of describing the chemicals to be applied? This information has limited utility if the pesticide product in which a chemical is the active ingredient is not identified. How will this information be used and for what purpose?"

RESPONSE: A) The PFP asks the Discharger to include "a list of any 'other areas' in the burn area that will adhere to the PFP (if they are not included in an

Emergency Notice or Project area), such as old plantations that burned over and will receive pesticide applications but did not have timber salvaged.” It is not required that the ‘other areas’ be included; however, Central Valley Water Board staff strongly encourages Dischargers to include these ‘other areas’ in the PFP since these areas sometimes experience extreme erosion post-fire post-pesticide application.

B) The purpose for this information is so that the landowner understands the resources that their activities have the potential to impact and so that appropriate mitigations can be developed to protect these resources.

C) The Central Valley Water Board requests post-fire pesticide information to determine potential risk to aquatic resources. Clarifying language was added to Attachment C and to the pesticide notification sections of the General Order to clarify that pesticide product name, not the chemical to be applied, is the information that should be submitted to the Central Valley Water Board; active Ingredient of any pesticide formulation is easily available to Central Valley Water Board staff. Recent wildfires and subsequent use of pesticides to reduce vegetative regrowth, has resulted in sediment discharges to surface waters, impacting beneficial uses. Sampling, conducted by the Central Valley Water Board and the California Department of Fish and Wildlife, Water Pollution Control Lab, has detected multiple forestry pesticides applied in post-fire environments. Notification information will be used by Central Valley Water Board staff to better evaluate proposed projects and if necessary to work with the Discharger to modify the PFP to mitigate discharges of pesticides to waterbodies.

WMBA – COMMENT 16: Notice of Intent and Instructions for Completing Category 2A Fire Salvage – No Residence

A) “The Notice of Intent is overly comprehensive and time consuming to prepare. The Notice of Intent is far more intensive than a Notice of Emergency Timber Operations and is much more of a plan that will take time to prepare which is counterintuitive to the intent of an Emergency Notice.”

B) “Geospatial file: Is inclusion of a geospatial file required, optional, or unnecessary?”

C) “Post-Fire EHR: Delete or indicate that inclusion of this information is optional since it is duplicative of the California Forest Practice Rules and not required to be provided with Emergency Notices.”

D) “Watercourses: Should Class IV watercourses be listed?”

RESPONSE: A) Central Valley Water Board staff agrees that preparation of the NOI will take time to prepare. In recognition of this, EM Notices for Category 2A are automatically enrolled under the General Order upon submittal of the CAL FIRE EM Notice to the Central Valley Water Board. A condition of the automatic enrollment is submittal of the NOI within 30 days after the EM Notice acceptance by CAL FIRE allowing operations to begin before NOI submittal.

B) The submittal of a geospatial file for the Category 2A NOI is optional.

C) Central Valley Water Board staff disagrees with removing the post-fire EHR requirements from the Category 2A NOI. Post-fire EHR evaluation is required by the FPRs for determining implementation of operational rules (i.e. water bar spacing) and will aid the Discharger and Central Valley Water Board staff in assessing erosion risk and potential impacts to water quality.

D) Central Valley Water Board staff intentionally left Class IV man-made watercourses off the NOI/Erosion Site Table to focus Discharger and Central Valley Water Board staff time/resources on higher order watercourses. The primary interest that Central Valley Water Board staff would have regarding CI IV watercourses would be downstream domestic supply. Domestic supply should be adequately addressed by the NOI because 1) watercourses with an identified domestic use within the salvage area should be considered Class I per 14 CCR 936.4 and 936.5 and 2) information regarding downstream domestic intakes within one mile of the salvage area are collected on the NOI form.

WMBA – COMMENT 17: Erosion Site Table for Category 2A (no residence)

A) “GPS Coordinates: Delete column as this information is unnecessary when quality maps are provided in compliance with the mapping standards.”

B) “Sediment Discharge: Indicate in the column headers that these values are estimates. Delete “taped” measurements and allow ocular estimates.”

RESPONSE: A) GPS coordinates are optional and not required but can be provided if the landowner chooses.

B) The NOI for 2A and 5A does not contain the word “taped” with regards to estimates on fill; however, the language will be clarified to make it clear to the reader that ocular estimates are acceptable.

WMBA – COMMENT 18: Instructions for Completion of NOI for Category 2A Fire Salvage (No Residence)

A) “Location: Delete requirement for providing a geospatial file. Delete requirements for providing average elevation, planning watershed name(s), and CalWater number(s) as this is not a requirement of the Emergency Notice process.”

B) “Erosion Hazard Rating: Delete or indicate that inclusion of this information is optional since it is duplicative of the California Forest Practice Rules and not required to be provided with Emergency Notices.”

C) “Roads: Should deactivated roads be included here?”

RESPONSE: A) The submittal of a geospatial file for the Category 2A NOI is optional. Central Valley Water Board staff respectfully disagrees with removing the requirements to disclose the average elevation, planning watershed name(s), and CalWater number(s) as this information will aid Central Valley Water Board staff in assessing potential impacts to water quality from the Project and/or adjacent Projects.

B) See response to WMBA Comment 16C, above, for EHR comments.

C) The NOI includes deactivated roads.

WMBA – COMMENT 19: Map(s) for Category 2A NOI

“EHR: Delete or indicate that inclusion of this information is optional since it is duplicative of the California Forest Practice Rules and not required to be provided with Emergency Notices.”

RESPONSE: Central Valley Water Board staff respectfully disagrees. See response to WMBA Comment 16C, above, for EHR comments.

Roseburg

Roseburg – COMMENT 1: Roseburg commented that the General Order is a regulation, “as defined by the State’s Administrative Procedures Act (Gov. Code, §§ 11340 et seq., 11370.) They [regulations] consequently need to affirmatively demonstrate Clarity, Consistency, Necessity and Nonduplication, as well [as] requiring appropriate Noticing and Review by the Office of Administrative Law.”

RESPONSE: The Administrative Procedures Act (APA) does not apply to the issuance, denial, or revocation of waste discharge requirements or waivers of waste discharge requirements. The APA is contained within Chapter 3.5 of the Government Code. Within that chapter, section 11352 reads, in pertinent part:

The following actions are not subject to this chapter:

...

(b) The issuance, denial, or revocation of **waste discharge requirements and permits pursuant to Sections 13263 and 13377** of the Water Code and waivers issued pursuant to Section 13269 of the Water Code.

(Emphasis added.) The General Order comprises waste discharge requirements issued pursuant to Water Code section 13263, subdivision (i). Therefore, the issuance of the General Order is not subject to the APA.

Roseburg – COMMENT 2: Roseburg commented that the General Order fails to explain why the existing Waiver is inadequate, stating that “not a single instance was cited indicating any adverse incident occurred under the existing Waiver program.”

RESPONSE: The Information Sheet, which is an attachment to General Order, and the findings in the General Order contain the background, rationale, and references used in support of the major modifications contained in the General Order.

Roseburg – COMMENT 3: Roseburg commented on Finding 8 of the General Order stating that it is “speculative insofar as the *Working Forest Management Plan* is not an

implemented regulation, but something [Central Valley Water Board] staff thinks might occur in the future.”

RESPONSE: Central Valley Water Board staff has participated in the development of the BOF’s Working Forest Management Plan regulations and have been informed that it is anticipated to be implemented in January 2018 and is thus considered a reasonably foreseeable action. Staff is proactively including the Working Forest Management Plan in the General Order so that a regulatory tool is available in 2018 for coverage of those Projects.

Roseburg – COMMENT 4: Roseburg commented on the rigor of the Monitoring and Reporting Program contained in the General Order and the impact/costs associated with field inspections and report submittals on landowners. Roseburg questioned what Central Valley Water Board staff does with the monitoring reports (review, comment letters, data compilation). Roseburg stated that the General Order does not provide sufficient examples/justification to support the monitoring program requirements; that is “fails the Necessity test.”

RESPONSE: Please see the Information Sheet section entitled “Cost of Monitoring for Non-Federal Project” for a discussion on monitoring costs as provided by industry representatives, inspection requirements as they relate to the FPR, and a reduction of forensic inspections for certain Projects. Central Valley Water Board staff review all the monitoring reports submitted under the current Waiver and contacts landowners when reports are not submitted, deficient, and/or violations are noted. For claims as to the Necessity test, please refer to the response to Roseburg Comment 1.

Roseburg – COMMENT 5: Roseburg commented that the General Order “creates 7 new categories where there were once only 4. We are left only able to guess what actual incidents necessitated this enormous expansion. So again, this fails to demonstrate Necessity.”

RESPONSE: The current Waiver has five categories and the General Order proposes eight. After conducting multiple stakeholder workshops, Central Valley Water Board staff created a low threat non-federal Plan category (3B) for Dischargers that has reduced monitoring and reporting associated with it so that Plans that meet an established list of low threat criteria would not be subject to the full suite of monitoring required for Category 3A. Category 4 was created at the request of non-federal landowners that propose watercourse crossing work on their land under a Lake and Streambed Alteration Agreement or Master Agreement for Timber Operations but outside of a CAL FIRE approved Plan. Two additional categories (2A-non-federal and 5A-federal) were created to address only post-fire salvage activities; these categories include additional Notice of Intent requirements and conditions and were separated out from other Project types for ease of understanding and to reflect growing concerns related to impacts from these activities. For claims as to the Necessity test, please refer to the response to Roseburg Comment 1.

Roseburg – COMMENT 6: Roseburg commented that the “Regulatory Considerations” section of the findings “completely fails to note the existing approval process for a THP, which requires an interdisciplinary review and forbids the approval of any plan that

‘...would cause a violation of any requirement of an applicable water quality control plan...’ (14-CCR-898.2(h)). Thus compliance with the basin plan and any other WQ [Water Quality] requirement is already mandated. As a result, the proposed general orders fail the Non-Duplication test.”

RESPONSE: The General Order discusses the interdisciplinary review team process at length under Finding 19 in the General Order. Additionally, see responses to CFLA comments 1 and 2 for a response regarding Regional Board authority and responsibility to ensure water quality protection. For claims as to the Non-Duplication test, please see the response to Roseburg Comment 1.

Roseburg – COMMENT 7: “Nothing in this order creates a new requirement that affirmatively remediates or prevents any demonstrable pollution. All the current requirements of the Water Code, Public Resources Code, Fish and Game Code and Forest Practice Rules already provide for every requirement that the proposed General Order purports to address. All the Prohibitions listed in the General Order are already legal requirements.”

RESPONSE: See responses to CFLA comments 1 and 2. Additionally, water quality objectives are not directly enforceable under the Water Code. Implementing water quality objectives through appropriate and enforceable requirements at the permit level is a crucial component of the Regional Water Boards’ legal mandate to ensure the reasonable protection of beneficial uses. Because the Water Boards are the sole state agency whose primary mandate is the protection of water quality, the proposed General Order imposing waste discharge requirements for timber management activities is essential to ensuring that the Water Boards’ enforcement authority is available as a backstop if implementation of the CAL FIRE process fails to result in attainment of water quality objectives.

Roseburg – COMMENT 8: “California Environmental Quality Act, noted in items #24 & #25 fails to make any analysis of potential alternatives to the General Order. For example, most other States recognize forestry regulations as BMP’s, thus that is one alternative that should be discussed. In addition, the proposed General Order Notice fails to acknowledge what provisions specifically have failed water quality standards under the existing Waiver program.”

RESPONSE: The Central Valley Water Board prepared a Negative Declaration to inform issuance of the first iteration of the Timber Waiver in 2003. The impact analysis in that Negative Declaration also accurately reflects the environmental impacts of the proposed General Order, so the Central Valley Water Board is relying on that document as the basis for its CEQA compliance. Although CEQA requires an alternatives analysis for an environmental impact report (EIR) (see Cal. Code of Regs., tit. 14, § 15126.6), no such analysis is required for a Negative Declaration. (See Cal. Code of Regs., tit. 14, § 15071 [Contents of a Negative Declaration].) The precise information that the commenter asserts was not in the public notice is not required by the Water Code, the Bagley-Keene Act, or State or Regional Water Board regulations—the only public notice laws applicable to this proposed action. However, information regarding the reasons for the proposed General Order, including outstanding water quality challenges, is contained in the findings and Information Sheet.

Roseburg – COMMENT 9: “This General Order also imposes an entirely new and redundant layer of regulation over the use of pesticides, which are already regulated by another State agency charged with safe application and use. Not one single incident is noted by staff in the General Order. Again, this provision too, fails the Necessity and Non-Duplication test.”

RESPONSE: For claims regarding the Non-Duplication test, please see the response to Roseburg Comment 1. Additional responsive information can be found in the responses to CLFA Comment 1 and Roseburg Comment 7.

Roseburg – COMMENT 10: Roseburg commented that the “General Order fails to follow existing California law, because it is unclear, duplicative and ignores lesser Alternatives” and urged the Central Valley Water Board to “reject” adoption of it.

RESPONSE: Please see the responses to CLFA Comments 1, 2 and 6; and the response to Roseburg Comment 7.

COMMENTS RECEIVED AFTER 4/17/2017 5 PM DEADLINE

California Department of Forestry and Fire Protection (CAL FIRE)

CAL FIRE – COMMENT 1: General Order - Page 14.

“Certification of notice of non-applicability on federal and non-federal lands. The certification states, in part, that enrollment is not required for projects that do not contain watercourses, wet meadows, and other wet areas in or directly adjacent to the project area and do not pose a threat to water quality.

Recommendation 1. Considering that the certification applies to all projects, including emergencies and exemptions, there is potential for a considerable workload to the Water Board that may be driven by severe fire years, drought mortality, and other unforeseen conditions. This condition of the General Order has the potential to affect a large number of landowners who are not familiar with the Water Board regulation and permitting processes (i.e., small nonindustrial landowners that have the potential to be affected by wildfire) and places them in potential violation of this General Order.

- A. Does the Water Board have a process developed for how this will be conducted?
- B. How long will the permit process take for Water Board approval?
- C. When will this form be available for review?”

RESPONSE: A) Certification of non-applicability does not necessarily apply to “all projects, including emergencies and exemptions.” Emergencies and exemptions related to drought mortality and fire are automatically enrolled in Category 1 of the General Order. A Project can only receive a certification of non-applicability if it does not contain watercourses, wet meadows, and other wet areas adjacent to the Project area and does not pose a threat to water quality. This is a current requirement of the existing Waiver of WDRs and has been in place for many years; including through years of severe drought and wildfire. The number of notifications currently received for non-applicability annually is relatively low (<30 region wide).

B) Currently there is no timeframe specified for Central Valley Water Board review and approval of Notices of Non-Applicability. Operations may commence 10 days after submittal unless otherwise notified by the Central Valley Water Board.

C) The Notice of Non-Applicability form will be available immediately upon adoption by the board. It is anticipated that the form will be very similar to what is currently available on the Central Valley Water Board website:

http://www.waterboards.ca.gov/centralvalley/water_issues/forest_activities/timber_waiver_non_appl.pdf

CAL FIRE – COMMENT 2: Information Sheet - Page 7.

“The second paragraph, second sentence begins with ‘The ubiquitous nature of non-point source water quality pollution....’ The use of the term ubiquitous suggests that

significant and controllable non-point source pollution is everywhere which can be misleading.

Recommendation 2. Remove reference to ‘ubiquitous’ and begin the sentence from ‘Non-point source pollution...’ This change will not affect the intent of the sentence.”

RESPONSE: Central Valley Water Board staff agrees; the General Order has been revised accordingly.

CAL FIRE – COMMENT 3: Information Sheet - Pages 8 and 9.

“Literature is dismissed that shows no hydrogeomorphic impacts from salvage logging. It is CAL FIRE's understanding that the literature remains unresolved about whether post-fire salvage logging increases hydrogeomorphic impacts at larger scales that can significantly impact water quality. Salvage logging can greatly enhance runoff and erosion at the small plot scale, but many studies show decreasing effects as watershed area increases (e.g., Wagenbrenner et al. 2015; Silins et al., 2009). Will Olsen's recent Master of Science thesis (pgs. 31-33) provides a very recent synopsis of the literature on the effects of post fire salvage logging on erosion.¹ Data is currently being collected at Boggs Mountain Demonstration State Forest that will provide more certainty regarding the water quality response from post fire salvage logging and associated cultural treatments.

Recommendation 3. The Information Sheet should recognize that considerable uncertainty remains regarding the effects of post-fire salvage logging related to water quality impacts and cite Olsen (2016).”

RESPONSE: Staff acknowledges that the literature on hydrogeomorphic and water quality impacts from salvage logging is mixed. As with many contentious scientific issues, there is often competing and opposing studies supported by both sides of the issue. Absent conclusive evidence on the issue, the Central Valley Water Board still has a responsibility to proactively address known water quality issues until a time when the scientific literature is able to provide more conclusive evidence to either support more regulation or reducing regulatory requirements. As new studies are conducted on the effects of post-fire salvage logging, the Central Valley Water Board will be continuously evaluating this new information and will modify conditions of the proposed General Order as appropriate.

CAL FIRE – COMMENT 4: Attachment B, Monitoring and Reporting Program, Reporting Requirements.

“Requirement to Document SEPES on Burned Hillslopes - It is reasonable to require the documentation of Significant Existing or Potential Erosion Sites (SEPES) for roads within salvage areas, as roads are defined features with noted influences on runoff and erosion processes in both unburned and burned watersheds (Sosa-Perez and MacDonald 2016; Luce and Wemple, 2001). It is less clear why SEPES identification is required on burned hillslopes. Hillslopes burned at moderate and high soil burn severity typically produce erosion orders of magnitude higher than unburned areas, potentially making much of the burned area a SEPES.

Recommendation 4. Remove or deemphasize the requirement for hillslope SEPES and focus on the interaction between the burned/logged area and the road network.”

RESPONSE: The intent of this SEPES requirement is to identify upslope erosional features (e.g. landslides, debris flows, significantly gully networks) within the burned/logged area that have the potential to significantly influence the downslope road network and water quality. Additional language has been incorporated into the General Order to clarify that the documentation of hillslope SEPES is only required where there is, or there is the potential for, an interaction of that feature with the downslope road network and water quality.

CAL FIRE – COMMENT 5: Attachment C. “Compliance with the Numeric Cover Requirement - Focusing on ground cover, and logging/cultural practices that increase ground cover, is reasonable given that the literature indicates that ground cover and rainfall intensity are the most important controls on post-fire runoff and erosion (e.g., MacDonald and Robichaud 2008). The concern with a numeric limit for ground cover is one of sampling logistics and potential sampling ...sample size for estimating cover at an 80% confidence level (i.e., 80% confident that you are accurately estimating the population parameter) for insect-related salvage logging in northwest Wyoming (Kvamme, 2010). We estimate the logging unit sizes for this study to be approximately 70 acres, and that sampling intensity would range from approximately 0.5 to 1.0 plot per acre (i.e., a plot every 1 to 2 acres). Since the estimated time for sampling does not include walking or travel time, it indicates a substantial time and resource investment to obtain accurate data for moderate to large sized burn areas. Without sufficient sampling intensity, sampling error will become too large to provide an accurate estimate of effective ground cover and the exercise of providing cover estimates essentially becomes meaningless.

Recommendation 5. Considering the rigor involved in meeting the objective of ground cover targets to achieve meaningful results with reliable confidence, develop alternate performance-based approaches that encourages the establishment of ground cover during logging (e.g., leaving slash on site) and does not significantly impede the natural recovery of ground cover.”

RESPONSE: Central Valley Water Board staff recognizes that Attachment C of the General Order does not provide a lot of guidance and specificity on how 50% effective ground cover will be achieved or measured. This lack of specificity was intentional to allow the maximum amount of flexibility possible to the Discharger, both in terms of the on-the-ground practices to achieve ground cover (e.g., leaving slash on site, delaying application of pesticides to allow natural regeneration), and the methods for measuring that ground cover. It is not the intent to require sampling methods that are overly burdensome and “meaningless”. Should further refinement of the requirements be necessary over time, the Central Valley Water Board will consider modifications to the General Order.

CAL FIRE – COMMENT 6: Information Sheet, General Comment.

“CAL FIRE believes that at the small catchment scale, impacts of salvage logging on sediment yields are variable. One recent study has shown a net decrease in sediment yields after salvage logging and subsequent herbicide applications (James 2014), two studies have shown no detectable change in sediment yields because of salvage logging (Wagenbrenner et al. 2015) Hayman and Kraft Springs Fires; Olsen, 2016), and one study has documented an increase in sediment yields because of salvage logging (Wagenbrenner et al. 2015-Red Eagle Fire) (Wagenbrenner 2017). Observations from the 2012 Ponderosa Fire (James 2014), 2013 Rim Fire (Olsen 2016), and 2015 Valley Fire (D. Coe, CAL FIRE, unpublished data) should also be included in the Information Sheet.

The earlier literature on salvage logging impacts is also mixed. For example, Dr. George Ice (Ice and Beschta, 1999 in NCASI) disputed the assertions in the Beschta, et al. (1995) paper critical of salvage logging. He stated that contrary to the report's conclusion, the greatest opportunities for reducing undesired environmental and economic impacts following wildfires are immediate, and that if salvage logging is going to occur it should be conducted as soon as possible after a wildfire. He cited Poff (1989), who reported that ... salvage logging can improve watershed condition by increasing ground cover, by removing a source of large, high energy water drops, and by breaking up hydrophobic soil layers. Salvage logging also has the potential to generate funds for watershed improvement work, and the potential to reduce the future risk of high intensity fires by reducing fuel loading.

Recommendation 6. The Information Sheet should acknowledge the mixed observations of salvage operations impacts based on available literature and ongoing studies in the discussion.”

RESPONSE: Comment noted. Staff believes that the literature review on the subject of post-fire salvage logging impacts to water quality is fair and balanced and acknowledges the referenced mixed results. As ongoing or new studies on the issue become available, Central Valley Water Board staff will consider revising the applicable requirements of the General Order.

CAL FIRE – COMMENT 7: Information Sheet, References.

“For the following citation:

Wagenbrenner, J., D. Coe, and D. Lindsay. (2017). Runoff response to rainfall in small catchments burned by the 2015 Valley Fire. Poster. American Geophysical Union Meeting, December, 2017. San Francisco, CA.

This poster was presented in December 2016, not in December 2017.

Recommendation 7. Please change the reference to the correct date, as well as any uses of the citation within the document.”

RESPONSE: Central Valley Water Board staff agrees; the citation has been revised accordingly.