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**February 1, 2019**

Mr. Matt St. John, Executive Officer  
North Coast Regional Water Quality Control Board  
5550 Skylane Blvd Ste A  
Santa Rosa, CA 95403-1072

Dear Mr. St. John:

I apologize for the extended delay in responding to your letter of December 15, 2017 requesting input regarding the State Water Resources Control Board (SWRCB) Resolution No. 2017-0046. As you are aware, we sought and were given clarification by the SWRCB of the order in an additional letter to our counsel dated October 15, 2018. On behalf of our entire organization we are deeply disappointed, after so much effort was put into the process of adopting the Elk River TMDL and our subsequent WWDR that we find ourselves revisiting this issue. It was abundantly clear at the time of adoption of the TMDL it was the intent of your board for the WDR to be the mechanism where enforceable measures were developed. The TMDL was to provide guidance and goals and the zero-load allocation, was by its very nature, conceptual.

I want to reiterate our concern that the SWRCB and the RWQCB have now adopted a policy that, if left unchanged, will result in our company being forced to cease all operations in Elk River in 12 years. Zero sediment discharge is an unattainable standard for our operations. We have implemented necessary measures for our operations, consistent with the intent of the TMDL, to limit sediment discharge associated with our current management practices to a level of insignificance. The adoption of a policy that requires the elimination of all discharges within the next 12 years is unattainable.

It has been made clear to us, it is not the intent of the RWQCB to force us to cease all operations in Elk River. It is also clear that all parties involved in this process anticipate that progress will be made to address sedimentation, specifically within the lower Elk River watershed over this twelve-year time frame thereby allowing this order to be modified. None the less, our company is faced with the dire certainty, that without specific intervening action to modify this order within these twelve years, we will be prohibited from managing our timberlands within Elk River in 2031.

You have asked for input as to how the current WDRS (Order R1-2016-0004) should be revised to ensure the WDRs fully address the hillslope indicators and numeric targets listed in Table 2 of the Upper Elk River TMDL Action Plan; and what additional specific provision(s)

does HRC propose to ensure that all anthropogenic discharges of sediment are eliminated or minimized to the extent feasible.

HRC has carefully reviewed its current approved WDRs within the context of implementing Table 2 of the TMDL Action Plan for consistency with the SWRCB resolution. A 'crosswalk' (Attachment A) was developed to evaluate the extent to which the WDRs address all the TMDL indicator and numeric targets listed in Table 2. This crosswalk is helpful in demonstrating how the existing WDRs implement the complete suite of hillslope indicators and numeric targets. Additional provisions we are proposing to be incorporated into revised WDRs are also shown in response to your request for further certainty that all discharge be eliminated or minimized to the extent feasible. These additional provisions address wet weather road use and timber operations within 300 feet of Class I and II watercourses and 150 feet of Class III watercourses. Specific WDR revisions are proposed in Attachment B.

*The Upper Elk River: Technical Analysis for Sediment* (Tetra Tech 2015) identifies roads and stream channels as the most significant anthropogenic sediment sources of the most recent period analyzed (2004-2011) compared to other controllable sources such as landslides and surface erosion from harvest areas. Tetra Tech estimates harvest related landslides and surface erosion sediment delivery combine to be less than 2 percent of total loading compared to roads, which are estimated to deliver 16 percent, and 38 percent from in-channel sources (i.e. low order channel incision, bank erosion, and streamside landslides). While delivery from roads is effectively controlled and reduced through improved BMPs, in-channel sources are more complicated. Channel conditions have been altered by historic practices which prior to the 1970s commonly used stream channels for transportation corridors. These altered channel conditions are presumed to have higher rates of chronic erosion in response to winter storms than undisturbed channels. The practices which led to these in-channel conditions have long since been abandoned and are prohibited under the current WDRs and FPRs. Modern road building and harvesting techniques have relocated disturbance out of and away from sensitive riparian areas.

We are therefore left to consider what additional actions might be taken to eliminate and minimize the effects of these past stream channel impacts. Class I, II, and III watercourses are currently afforded substantial protection during timber operations under the current WDRs promoting the restoration of mature riparian forest structure and canopy cover, large wood recruitment to channels, slope stability, and ground cover. Harvest-related peak flow effects have been addressed through harvest acre limitations established at the sub-watershed level. Stream restoration activities reflecting the most feasible approach for addressing stream channel conditions include:

- HRC's removal of over 170,000 cubic yards of sediment from stream channels at historic crossing locations since 2008
- HRC's North Fork Elk River Coho Help Act large wood introduction project (completed)
- Cal-Trout's Wrigley floodplain restoration project (completed by HRC)
- Redwood Community Action Association (RCAA) and the North Coast Regional Land Trust (NRLT) joint floodplain restoration project on Martin Slough (completed; lower Elk River)

- HRC/Trout Unlimited North Fork Elk River riparian road decommissioning, large wood introduction, and flood plain restoration project recently submitted to the State Water Board's 319h grant program, reflect the most feasible approach for addressing stream channel conditions.

### Riparian Zones (Existing and New Provisions)

1. Recognition that the characteristics found within 300 feet of either side of Class I and II watercourses, and within 150 feet of either side of Class III watercourses are the indicators used to evaluate riparian forest conditions specific to delivery of wood to channels, slope stability, and ground cover pursuant Table 2 of the TMDL Action Plan. We continue to ensure these characteristics meet numeric targets through the combination of existing measures found in the WDRs along with new measures.
2. Existing measures occurring within these TMDL Action Plan prescribed indicator zones of influence include, but are not limited to (1) primarily selection silviculture and total exclusion of clearcutting; (2) use of a slope stability checklist and licensed geologic review for the identification and mitigation of slope stability issues; (3) no harvest zones adjacent Class I and II watercourses providing for maximum shade, wood delivery, slope and bank stability, and undisturbed ground cover; (4) established HCP riparian management zones (RMZs) which exclude the entry of heavy ground based equipment, require the retention of significant forest canopy cover and all down wood, and allow for only single-tree selection/no group harvest; (5) retention of 18 largest trees per acre within 100 feet of Class I watercourses; (6) no ignition of burning or mechanical site preparation within RMZs; (7) no harvest of Class III channel trees or trees located on unstable slopes adjacent Class III watercourses; (8) no watercourse crossings except at regulatorily permitted locations; (9) additional riparian management requirements and harvest limitations for the WDR identified High Risk Areas including the Clapp Gulch, Railroad Gulch, Tom Gulch, McCloud Creek, and portion of Lower South Fork Elk River sub-basins.
3. New proposed WDR provisions include (1) retention of a minimum of 50 percent post harvest forest canopy cover well distributed throughout the HCP Class III RMZs; (2) exclusion of group selection harvest areas from within Class III RMZs; (3) no new road construction or reconstruction, ground-based logging or site preparation within 300 feet of a Class I or II watercourse or within 150 feet of a Class III watercourse between October 15 and May 1.

### Wet Weather Road Use (New Provisions)

1. Limit log hauling operations to permanent rocked all-season roads meeting HCP storm-proof standards between November 15<sup>th</sup> and April 1<sup>st</sup>.
2. Require a minimum of 48 hours (two days) for roads to dry out following any rain-related shut down of hauling caused by a precipitation event of greater than 0.25 inches rainfall within any 24-hour period before resuming log hauling. All other existing requirements for specific road conditions to be met prior to resuming hauling continue to apply.
3. Require erosion control materials be stock-piled on site for all road construction activities occurring between September 15<sup>th</sup> and October 15<sup>th</sup>, and that these materials to be applied by the end of day prior to any day for which the National Weather Forecast is for a 'chance' (30 percent or greater) of rain.

As noted above, the TMDL Action Plan identifies the characteristics of riparian zones 300 feet on either side of Class I and II watercourses, and 150 feet on either side of Class III watercourses, as the indicator for meeting numeric targets related to recruitment of wood to channels, slope stability, and ground cover. Actual riparian zones in the ecological sense rarely if ever extend 300 feet upslope of Class I and II watercourses and 150 feet of Class III watercourses; however, activities occurring at these distances have the potential to influence processes within the actual riparian area. HRC's approach to riparian conservation and restoration involves a suite of provisions nested within the 300-foot and 150-foot indicator zones including licensed geologic review and exclusion of clearcutting throughout these zones along with limitations on road construction and ground-based yarding operations. The variable width riparian management zones (RMZ) and associated management restrictions found within the TMDL indicator widths have been established specific to the upper Elk River watershed in consultation with state and federal wildlife agencies for the purpose of maximizing large wood recruitment, riparian and aquatic temperature control, and minimization of ground disturbance and related potential for sediment delivery. The forest characteristics found within the identified TMDL riparian zones resulting from current management indicate riparian health associated with active and potential wood recruitment, slope stability, and ground cover are all improving over time consistent with the goal of the TMDL's numeric target.

The current WDR prohibition of road construction and re-construction beginning September 15<sup>th</sup>, and prohibition of ground-based yarding beginning October 1<sup>st</sup>, has proven infeasible as these restrictions are excessive in shortening the logging season, particularly where seasonal wildlife restrictions for the Northern Spotted Owl and Marbled Murrelet prohibit timber operations until September 1<sup>st</sup>, and September 15<sup>th</sup>, respectively; and have not demonstrated benefit for reducing and eliminating discharge. Analysis of coastal California weather patterns, including those performed by NCRWQCB staff, demonstrate October as a seasonally dry month with minimal potential for erosion-producing precipitation in the first half of the month. The proposed modification above linking road construction and ground-based yarding restrictions to the indicators listed in Table 2 of the Action Plan will improve the efficiency and feasibility of these measures.

We are optimistic you will find our proposed amendment to the WDR satisfy your request to address the SWRCB resolution.

Sincerely:

*/s/ Dennis Thibeault*

Dennis Thibeault  
Executive Vice-President, Forestry

**Attachment A**

<b>Table 2: Hillslope Water Quality Indicators and Numeric Targets</b>			
<b>Indicator</b>	<b>Numeric Target</b>	<b>Associated Area</b>	<b>Applicable WDR/FPR/HCP Requirements Addressing Hillslope Water Quality Indicators and Numeric Targets</b>
<b>Common Road Indicators</b>			
Hydrologic Connectivity of Roads to watercourses	100% of road segments hydrologically disconnected		(1) All haul roads stormproofed by October 15, 2018. Storm-proofed roads include 100% hydrologic disconnection to extent feasible, watercourse crossings constructed to accommodate 100-year storm flow event, unstable fill stabilized or removed from potential discharge locations, rocking or other treatment of remaining hydrologically connected road segments where disconnection is infeasible; (2) <b>No new road construction or reconstruction (November 15 - April 1); (3) No new road construction or reconstruction within 300 feet of Class I or II watercourse and 150 feet of Class III watercourse (October 15-May 1);</b> (4) No construction or re-construction of watercourse crossings on any day there is a forecast for chance (>30%) of rain that day or the next day; (5) No resulting visible increase in turbidity during or after road construction, reconstruction, and road upgrading; (6) Refueling and maintenance of equipment and vehicles to be performed only outside of RMZs; (7) All applicable measures of a CDFW streambed alteration agreement adhered to; (8) No construction or reconstruction of roads across inner gorge or headwall swale slopes or other unstable areas without licensed geologic review; (9) Exposed mineral soil within Class I, II, and III equipment exclusion zones shall be treated with effective erosion control measures; (10) All open roads shall be inspected for development of new erosion sources at least once during the winter following 3"/24 hours and 10" cumulative rainfall AND at least once annually between April 15 and October 15; (11) Any newly-discovered road-related CSDS shall be addressed within one year of discovery; (12) All hauling, construction, reconstruction, and maintenance operations on non-paved roads shall cease when precipitation is sufficient to generate overland flow off the road surface in hydrologically-connected road segments AND use of road shall not resume until overland flow has abated and the road surface within hydrologically-connected segments do not exhibit saturated soil conditions; (13) <b>No hauling shall occur from October 15 - May 1 on roads that do not meet the HCP Permanent Road standard; (14) Hauling shall not resume on any road for at least 48 hours following a precipitation event that results in 0.25 inches or more of rainfall within a 48 hour period (October 15 - May 1); (16) Between September 15 and October 15 erosion control materials shall be on-site of any new road construction or reconstruction and deployed prior to any day for which a chance of rain (30% or greater) is forecast by the National Weather Service AND no more new road construction shall be in progress than can be effectively stabilized with erosion control measures.</b>
Sediment Delivery due to surface erosion from roads	Decreasing road surface erosion	All roads	
Sediment Delivery due to road related landslides	Decrease in sediment delivery from new and reactivated road-related landslides		
<b>Common Harvest-Related Indicators</b>			
Sediment Delivery due to surface erosion from harvest areas	100% of harvest areas have ground cover sufficient to prevent surface erosion	All harvest areas	(1) HRC shall not utilize the clearcut harvest method; (2) HRC shall not utilize group selection harvest method within Class I, II, and III Riparian Management Zones; (3) Average annual harvest rate near or below 2% clear cut equivalent acreage at the sub-watershed level over rolling 10 year period minimizing cumulative ground disturbance watershed-wide; (4) No ground based logging or removal of large down wood from within Class I, II, and III Equipment Exclusion Zones minimizing ground disturbance adjacent watercourses; (5) 50' foot and 30' No Harvest zones adjacent Class I and II watercourses respectively minimizing ground disturbance and canopy removal; (6) No Harvest on Class I Inner Gorge slopes within 400 feet of Class I watercourse; (7) No Harvest on Class II inner gorge slopes or other unstable areas with potential for discharge unless reviewed and approved by state licensed geologist using an assessment consistent with California State Standards and Practices (e.g. California Geologic Survey Note 45); (8) Use of Hillslope Management Checklist for Elk River and Salmon Creek Watershed Analysis Unit to guide in identifying potential unstable areas including deep-seated landslides; (9) Requirement to treat all areas of mineral soil exceeding 100 contiguous square feet exposed by forestry/logging activities within RMZs and EEZs with 'effective erosion control measures' as defined in HCP 6.3.3.9; (10) Requirement to treat ALL areas of mineral soil exposed within RMZs and EEZs by forestry/logging activities on slopes greater than 30 percent regardless of size with 'effective erosion control measures' as defined in HCP 6.3.3.9; (11) Requirement to install waterbreaks on cable corridors, firelines, and skid trails that divert or carry water away from natural drainage pattern or channelize runoff such that sediment delivery to waters could otherwise occur; (12) Expanded riparian buffers and canopy retention requirements in the WDR delineated High Risk Areas (Hookton Soils); (13) Avoid and minimize canopy removal in areas with elevated landslide hazard including on and upslope of vulnerable portions of deep-seated landslides; (14) Tractor roads limited in number and width to minimum necessary for removal of logs; (15) No tractor operations on any of the following unless explained, justified, and approved by Lead Agency: slopes greater than 65 percent, slopes 50-65 percent where erosion hazard rating is high or extreme, or slopes over 50% which lead without flattening sufficiently to dissipate water flow and trap sediment before it reaches a watercourse; (16) <b>Prohibition of ground based yarding and mechanical site preparation within 300 feet of Class I and II watercourses and 150 feet of Class III watercourses between October 15 and May 1; (17) No ground-based yarding or mechanical site preparation between November 15 and April 1.</b>
Sediment Delivery from open slope landslides due to harvest-related activities	Decrease in sediment delivery from new and reactivated open-slope landslides	All open slopes	
Sediment Delivery from deep-seated landslides due to harvest-related activities	Zero increase in discharge from deep-seated landslides due to management related activities	All deep-seated landslides	
<b>Common Management Discharge Site Indicators</b>			
New Management Discharge Sites	No New Management discharge sites created	Class I, II, and III watercourses	(1) Class I, II, and III No Harvest Zones; (2) Class I No Harvest Inner Gorge; (3) 150' No Harvest Zone along lower 8 miles of North Fork Elk River; (4) Class I, II, and III Equipment Exclusion Zones; (5) Average annual harvest rate near or below 2% clear cut equivalent acreage at the sub-watershed level over rolling 10 year period minimizing affect on peak flows relative to channel and bank erosion; (6) Annual Erosion Control Inspection, Reporting, and Notification of Discharge requirements for THPs; (7) See Harvest-Related Indicators Applicable Erosion Control Measures above
<b>Specific Upper Elk River Watershed Indicators</b>			
Headward incision in low order channels	Zero increase in the existing drainage network	Class II/III catchments	(1) Average annual harvest rate near or below 2% clear cut equivalent acreage at the sub-watershed level over rolling 10 year period minimizing affect on peak flows relative to channel and bank erosion including headward incision in low order channels; (2) No Harvest on Headwall Swale areas unless reviewed and approved by state licensed geologist using an assessment consistent with California State Standards and Practices (e.g. California Geologic Survey Note 45) AND minimum of 50% total canopy retained; (3) 100 percent hydrologic disconnection of roads to extent feasible preventing concentration of runoff into low order channels; (4) Class III watercourse EEZs preventing ground disturbance and concentration of flows immediately upslope of low order channels; (5) Avoid tractor crossings of non-channel swales; (6) No harvest of channel trees.
Peak Flows	Less than 10% increase in peak flows in 10 years related to timber harvest	Class II/III catchments	(1) Average annual harvest rate near or below 2% clear cut equivalent acreage at the sub-watershed level over rolling 10 year period minimizing affect on peak flows relative to channel and bank erosion
Channels with actively eroding banks	Decreasing lengths of channel with actively eroding banks	Class I, II, and III watercourses	(1) Average annual harvest rate near or below 2% clear cut equivalent acreage at the sub-watershed level over rolling 10 year period; (2) No harvest adjacent Class I and II watercourses; (3) No harvest on unstable banks adjacent Class III watercourses; (4) No harvest zone adjacent Class III watercourses in High Risk Areas; (5) road stormproofing removing and stabilizing unstable fills at watercourse crossings and adjacent watercourses
Characteristics of riparian zones (i.e. 300 feet on either side of the channel) associated with Class I and II watercourses	Improvement in the quality/health of riparian stand so as to promote 1) delivery of wood to channels, 2) slope stability, and 3) ground cover	Class I and II watercourses	(1) No Clearcutting; (2) No harvest on inner gorge slopes; (3) required licensed geologic review; (4) Variable width RMZs and associated prescriptions dependent on slope sensitivity and resource risk; (5) no harvest zones adjacent Class I, II, and III watercourses including 150' no harvest zone along lower North Fork Elk River for the benefit of shade canopy and large wood recruitment; (6) Retention of 18 largest trees per acre within 100 feet of Class I watercourses; (7) retention of all down wood within Class I, II, and III RMZs; (8) ground-based equipment exclusion zones adjacent Class I, II, and III watercourses; (9) no group selection harvest openings within RMZs; (10) <b>no new road construction or re-construction, ground-based logging or site preparation within 300 feet of a Class I or II watercourse or within 150 feet of a Class III watercourse between October 15 and May 1.</b>
Characteristics of riparian zones (i.e. 150 feet on either side of the channel) associated with Class III	Improvement in the quality/health of riparian stand so as to promote 1) delivery of wood to channels, 2) slope stability, and 3) ground cover	Class III watercourses	

## Attachment B

Excerpt from Order No. R1-2016-0004

### I. SPECIFIC REQUIREMENTS<sup>1</sup>

#### A. Forest Management

1. HRC shall utilize uneven-aged single-tree and small group selection silviculture as defined in California Code of Regulations, title 14, section 913.1 within its timberlands in the UER watershed. Variable Retention may be used in some instances to address certain stand conditions, such as high levels of whitewood or hardwood species, animal damage, or general poor form and vigor due to past logging history. Other silvicultural methods that may be applied infrequently include Rehabilitation of Understocked Areas, Seed Tree Removal, and Sanitation Salvage. HRC shall not utilize the clearcut harvest method.
2. HRC shall not utilize group selection harvest method as defined in California Code of Regulations, title 14, section 913.2 within Riparian Management Zones.
3. Subwatershed average annual harvest rates from the ROWD (Attachment D) fall near or below 2% equivalent clearcut acres averaged over any 10 year period and are generally reasonable. Harvest rates above this threshold may cause concern for cumulative impacts on water quality. Where an individual, or multiple, THP(s) would result in an average annual harvest rate in any subwatershed above 2% equivalent clearcut acres over any 10 year period, the Executive Officer may decline to enroll the THP(s), or portions of the THP, or may require additional mitigations or monitoring as a condition of enrollment.
4. Harvesting in High Risk Areas
  - a. High risk areas are defined as those areas identified in HRC's ROWD amendment request dated October 4, 2016 submitted to the Regional Water Board with associated map titled Sensitive Bedrock Sub-Basin and Elk River Geologic Map.
  - b. For the first five year period (2016-2020) following adoption of this Order timber harvesting activities on HRC's timberlands in the high risk areas, as described in Findings 60 and 61 of this Order, is limited to units of THP 1-12-110 HUM.
  - c. At the required update to the Regional Water Board no later than five years from the date of adoption of this Order, the Regional Water Board will consider the Order conditions limiting harvest activities in high risk areas, and after public notice and comment, may provide staff direction on potential changes to the harvest limitations. Any changes to this Order regarding

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<sup>1</sup> Several of the Specific Requirements are from HRC's ROWD. These include: I.A.1-2; I.B.1.a-d; I.B.2.b; I.B.4-6.a-b; I.D.1-8; I.E.1-4; I.G.1-2; I.I.1-2; IV.A.1-2

harvest limitations in the subsequent five year period or beyond shall consider available data and information to assess watershed conditions, including beneficial use recovery in the impacted reach, and shall be subject to a 30-day review and public comment period and Regional Water Board hearing. In the absence of changes to this Order, harvesting in high risk areas for the next five year period (2021-2025) shall be limited to 550 acres total.

B. Riparian Zones

1. The Action Plan for the Upper Elk River TMDL identifies characteristics of riparian zones within 300 feet on either side of Class I and II watercourses and within 150 on either side of Class III watercourses as the *Indicator* associated with numeric targets for riparian forest conservation and restoration specific to delivery of wood to channels, slope stability, and ground cover.
2. HRC shall implement ERSC WA prescriptions for Class I and II watercourse riparian protection as specified in sections 6.3.3.7, 6.3.4.1.2, and 6.3.4.1.3 of the HCP and as outlined in the ROWD submitted by HRC on September 22, 2015.
3. HRC shall implement ERSC WA prescriptions for Class III watercourse riparian protection as specified in sections 6.3.3.7 and 6.3.4.1.4 of the HCP and as outlined in the ROWD submitted by HRC on September 22, 2015; and in addition, shall:
  - a. retain a minimum of 50% post harvest forest canopy cover well distributed throughout the HCP Class III riparian management zones.
  - b. Exclude group selection areas from the HCP Class III riparian management zones.
4. No ground-based logging or site preparation shall occur within 300 feet of a Class I or II watercourse or within 150 feet of a Class III watercourse between October 15<sup>th</sup> and May 1<sup>st</sup>.
5. No new road construction or reconstruction shall occur within 300 feet of a Class I or II watercourse or within 150 feet of a Class III watercourse between October 15<sup>th</sup> and May 1<sup>st</sup> except in response to failure of a road segment or watercourse crossing that is resulting in ongoing or imminent sediment discharge.
6. Only single tree selection shall be utilized in RMZs for Class I, II, and III watercourses. No group clearing shall take place in these RMZs.
7. Additional Riparian Zone Protection in High Risk Areas (Clapp Gulch, Railroad Gulch, Tom Gulch, McCloud Creek, and portion of Lower South Fork Elk River sub-basins):
  - a. Class II Watercourse Riparian Protection (High Risk Areas)
    - a. Riparian Management Zones (RMZs) for Class II watercourses extend up to 200 feet or to the hydrologic divide on both sides of the channel;
    - b. No harvesting within 30 feet of Class II watercourses; and
    - c. Between 30 feet and 200 feet or to the hydrologic divide of Class II watercourses, retain a minimum of 60% post-harvest conifer canopy coverage.
  - b. Class III Watercourse Riparian Protection (High Risk Areas)

- a. Riparian Management Zones for Class III watercourses extend to 100 feet or to the hydrologic divide on both sides of the channel;
  - b. No harvesting within 20 feet of Class III watercourses; and
  - c. Between 20 feet and 100 feet or the hydrologic divide of Class III watercourse, retain a minimum of 70% post-harvest conifer canopy coverage.
- c. No use of ground based equipment within (High Risk Areas):
    - a. 150 feet of a Class I watercourses;
    - b. 100 feet of a Class II watercourse;
    - c. 50 feet of a Class III watercourse, or to the closest hydrologic divide; except on existing roads and permitted watercourse crossings
  - d. Erosion control practices in riparian management zones (High Risk Areas):
    - a. Implement erosion controls including surfacing all segments of road and skid trails within riparian areas with pavement, rock, slash, mulch, straw, or other adequate materials to prevent the discharge of sediment to a watercourse;
    - b. Trap and filter all road and skid trail surface drainage within riparian areas to prevent the discharge of sediment to watercourse; and
    - c. Cover all disturbed soil areas with slash, mulch, straw, or other adequate materials, or apply other effective erosion control measures to prevent the discharge of sediment to a watercourse.
  - e. Avoid tractor crossings in unchanneled swales (High Risk Areas).
  - f. Retain trees along the center line of swales and areas of subsurface flow paths (High Risk Areas).

### C. Road Management

1. All roads shall be hydrologically disconnected from watercourses to the extent feasible.
2. HRC shall implement management practices and specifications described in Appendix B of the ROWD to prevent and minimize sediment discharge from active roads.
3. By October 15, 2018, HRC shall upgrade all roads to meet the storm-proofed standard as described above in Finding 46 and Appendix B of the ROWD.
4. By October 15, 2018, HRC shall treat those road related controllable sediment discharge sources currently identified in Attachment C.
5. HRC shall address any newly-discovered road-related CSDSs within a year of discovery in accordance with the ARIP (section 6.2 of the ROWD).



6. HRC shall inspect all roads (accessible by standard 4-wheel drive pick-up or ATV) within their Elk River ownership at least annually between April 1 and October 15.
7. HRC shall inspect storm-proofed roads as soon as conditions permit following any storm event that generates 3 inches or more of precipitation in a 24-hour period, as measured at the Elk River rain gauge.
8. Within one year of identifying new sediment discharge sources from roads HRC shall document, notify the Regional Water Board, and implement measures to prevent or minimize sediment discharge at any new controllable sediment discharge sources identified during the road inspections.

#### D. Landslide Prevention

1. Prior to conducting timber harvesting activities or construction or decommissioning roads and watercourse crossings on its ownership in the UER, HRC shall prepare and submit an engineering geologic report to the Regional Water Board Executive Officer for review and approval.  
The engineering geologic report shall be prepared by a California Licensed Professional Geologist (PG) in conformance with the guidelines of California Geologic Survey Note 45 to evaluate the potential impacts of the proposed harvesting to water quality. At a minimum, the report shall characterize geologic hazards using a combination of the following data and methods of investigation:
  - Existing hazard maps derived from slope stability models;
  - Available maps and reports;
  - Aerial photographs;
  - Field investigation and mapping; and
  - Applicable studies and technical models.
2. The PG shall evaluate potential effects on slope stability and surface soil erosion, and landslide related sediment discharge from the proposed management activity, identify vulnerable areas, and describe specific mitigation measures needed to avoid and minimize potential effects for identified areas of concern.

The mitigations shall be based on the potential hazard, and where appropriate, shall include, but are not necessarily limited to the following:

- Avoid and minimize canopy removal in areas with elevated landslide hazard;
  - Avoid and minimize activities upslope of existing landslide and on vulnerable portions of deep seated landslides; and
  - Stabilization of existing landslides where applicable by methods such as planting, manipulating drainage, buttressing, and other feasible engineering techniques.
3. The engineering geologic report may be submitted before or during the THP review process conducted by CAL FIRE, or by request of the Executive Officer. The Regional Water Board staff shall review the engineering geologic report and may request additional information or require additional conditions be incorporated to further reduce or mitigate the potential for sediment discharge. If additional information or mitigation is required, HRC shall not proceed with the proposed activity until demonstration that the potential impacts to the beneficial uses of water will be adequately mitigated.
  4. HRC shall maintain and update the landslide inventory included in Appendix C of the ROWD according to the specifications described in the Monitoring and Reporting Program in Section IV of this Order.

E. Wet Weather Requirements

1. Between November 15 and April 1, hauling shall be limited to permanent rocked all-season roads that meet the HCP stormproofed standard.
2. Between November 15 and April 1, hauling on permanent rocked all-season roads shall cease for a period of at least 48 hours (two days) following a precipitation event that results in 0.25 inches or more of rainfall within any 24 hour period.
3. Road construction or reconstruction is prohibited between November 15 and April 1 except in response to failure of a road segment or watercourse crossing that is resulting in ongoing or imminent sediment discharge.
4. No new road construction or reconstruction shall occur within 300 feet of a Class I or II watercourse or within 150 feet of a Class III watercourse between October 15<sup>th</sup> and May 1<sup>st</sup> except in response to failure of a road segment or watercourse crossing that is resulting in ongoing or imminent sediment discharge.
5. Between September 15 and October 15, erosion control materials shall be stockpiled on the site of any road construction or reconstruction operations. Erosion control measures shall be applied using BMPs prior to any day for which the National Weather Forecast is for a 'chance' of rain 30 percent or greater.

Erosion control measures shall be fully in place by the end of the day prior to the day for which a chance of rain is forecast.

6. Ground-based yarding and mechanical site preparation are prohibited between November 15 and April 1st. No ground-based logging or site preparation shall occur within 300 feet of a Class I or II watercourse or within 150 feet of a Class III watercourse between October 15<sup>th</sup> and May 1<sup>st</sup>.
7. Additional wet weather operations shall be consistent with the ROWD and HCP wet weather prescriptions.

B. Erosion Control Plans

1. HRC shall prepare and submit an inventory of CSDS within, and in the vicinity of, the logging area for all THPs it submits in the UER. Any CSDS not previously inventoried and treated as part of the Road Management activities described in Section I.D. of this Order shall be inventoried and scheduled for treatment concurrently with THP operations, including those off-road sites from the master treatment schedule in the vicinity of the THP.
2. These CSDS will be subject to the following:
  - a. Each CSDS shall be inventoried in an ECP, which will include: a description of the current condition of each site, an estimate of the potential sediment volume that could discharge from the site, a narrative description of the proposed management measures, and a schedule for implementation;
  - b. Inventoried CSDS must be treated per the site specific ECP schedule;
  - c. The ECP shall be submitted to the Regional Water Board for review and approval with the THP it is associated with; and
  - d. If treatment of such sites “strands” any other CSDS, HRC does not relinquish responsibility for also treating the stranded sites. For logistical reasons, it is recommended that measures be taken to prevent sites from becoming stranded.

C. Feasibility Study for Control of In-channel Sediment Sources within HRC’s Ownership Boundaries

HRC shall conduct a feasibility study to evaluate potential methods to control, trap, or meter sediment from in-channel sources in the UER before such sediment can be transported to the impacted reach. The feasibility study shall identify potential methods to reduce transport of sediment from tributaries in the UER to the impacted reach that may include design and implementation of small scale pilot projects. If the pilot projects demonstrate the success of methods to reduce sediment discharge from in-channel sources, HRC shall develop a plan to implement these methods on a wider scale throughout the UER.

1. By October 15, 2017, HRC shall submit to the Regional Water Board Executive Officer for approval, an initial plan describing in-channel sediment sources,

potential methods to control, meter, or trap sediment from these sources, and propose pilot scale projects to test the effectiveness of proposed methods.

2. Starting October 15, 2018, HRC shall submit to the Regional Water Board Executive Officer for approval, annual updates on progress in implementing the feasibility study.
3. By October 15, 2020, HRC shall submit to the Regional Water Board Executive Officer for approval, the final feasibility study, including results of pilot scale projects, description of feasible methods to control sediment from in-channel sources, and a detailed workplan to implement full scale projects to control in-channel sediment sources throughout their ownership, including an implementation schedule.

D. Implementation and Maintenance of the Sediment Reduction and Master Treatment Schedule

1. This Order supersedes and incorporates the requirements of Cleanup and Abatement Order (CAO) R1-2004-0028 for HRC's ownership in the Mainstem Elk River and South Fork Elk River and CAO R1-2006-0055, for HRC's ownership in the North Fork Elk River.
2. By October 15, 2018, HRC shall complete corrective action for all remaining road related CSDS described in the master treatment schedule in Attachment C. HRC will continue to prioritize and treat CSDS associated with legacy skid trails according to the schedule described in the master treatment schedule. The annual report described in Section IV.B.1. shall include a list of those sites treated during the previous year and those scheduled for treatment during the upcoming year.

E. Alternatives Methods of Compliance

Many measures proposed in the ROWD are incorporated as enforceable specific requirements above. Additional water quality protection measures include subwatershed harvest rates, limited harvesting and additional riparian protections for Class II and III streams in high risk areas, and a feasibility study for controlling in-channel sediment sources. HRC may propose and submit for approval by the Regional Water Board, alternative measures that can be demonstrated to provide beneficial uses protection and nuisance abatement that is equal or better than that provided by these specific requirements. Any proposed alternative measures shall be submitted in writing to the Regional Water Board Executive Officer. The proposal shall include a description of the alternative measure(s), accompanied by supporting documentation that the alternative measures will achieve equal or better protection than those specific requirements. The Executive Officer shall bring any meritorious proposal to the Regional Water Board for its consideration after public notice and a hearing.

## II. GENERAL REQUIREMENTS

- A. HRC shall comply with all applicable water quality standards, requirements, and prohibitions specified in the Basin Plan as modified, and policies adopted by the State Water Board.
- B. HRC shall allow Regional Water Board staff entry onto all land within the Elk River Watershed covered by the WDR including appurtenant roads for the purposes of observing, inspecting, photographing, videotaping, measuring, and/or collecting samples or other monitoring information to document compliance or non-compliance with this Order.
- C. HRC shall comply with all water quality related HCP prescriptions, conditions included in an approved THP, and any additional mitigation measures identified and required pursuant to CAL FIRE CEQA process.
- D. HRC shall comply with all mitigation measures identified in Attachment A of the Initial Study and Mitigated Negative Declaration.
- E. This Order does not authorize discharges from the aerial application of herbicides or pesticides. HRC shall submit a ROWD prior to any proposed aerial application of pesticides that could discharge to waters of the state.
- F. HRC shall notify the Regional Water Board in writing at least 30 days prior to any proposed ground-based application of pesticides within 100 feet of Class I, Class II or Class III watercourses. The notification shall include the type of pesticide(s), method and area of application, projected date of application, and measures that will be employed to assure compliance with applicable water quality requirements.
- G. Water quality issues identified on any particular THP and not resolved prior to THP approval by CAL FIRE, shall be resolved to the satisfaction of Regional Water Board Executive Officer, prior to commencement of that THP.
- H. HRC shall maintain copies of all correspondence and records collected and prepared to document compliance with this Order and provide access to Regional Water Board to review and copy.
- I. No discharge of waste into the waters of the state, whether or not the discharge is made pursuant to waste discharge requirements, shall create a vested right to continue the discharge. All discharges of waste into waters of the state are privileges, not rights. (Wat. Code, § 13262, subd.(g).)
- J. Prior to implementing any change to the project or activity that may have a significant or material effect on the findings, conclusions, or conditions of this Order, HRC shall obtain the written approval of the Regional Water Board Executive Officer.

- K. The Regional Water Board may reopen this Order to add to or modify the conditions of this Order, with notice and as appropriate in response to monitoring results or to implement any new or revised water quality standards and implementation plans adopted and approved pursuant to the Porter-Cologne Water Quality Control Act or the Clean Water Act.
- L. In the event of any violation or threatened violation of the conditions of this Order, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under applicable state law.
- M. Should it be determined by HRC or the Regional Water Board that unauthorized discharge of waste are causing or contributing to a violation or an exceedance of an applicable water quality requirement or a violation of a WDR prohibition (below), HRC shall:
1. Implement corrective measures immediately following discovery that applicable water quality requirements were exceeded or a prohibition violated, followed by notification to the Regional Water Board by telephone or email as soon as possible, but no later than 48 hours after the discharge has been discovered. This notification shall be followed by a report within 14 days to the Regional Board, unless otherwise directed by the Executive Officer, that includes:
    - a. the date the violation was discovered;
    - b. the name and title of the person(s) discovering the violation;
    - c. a map showing the location of the violation site;
    - d. a description of recent weather conditions prior to discovering the violation;
    - e. the nature and cause of the water quality requirement violation or exceedance or WDR prohibition violation;
    - f. photos of the site documenting the violation;
    - g. a description of the management measure(s) currently being implemented to address the violation;
    - h. any necessary maintenance or repair of management measures;
    - i. any additional management measures which will be implemented to prevent or reduce discharges that are causing or contributing to the violation or exceedance of applicable water quality requirements or WDR prohibition violation;
    - j. an implementation schedule for corrective actions; and,
    - k. the signature and title of the person preparing the report.
- N. HRC shall revise the appropriate technical report (i.e. ECP, Inventory, or other required information as applicable) immediately after the report to the Regional Board to incorporate the additional management measures that have been and will be implemented, the implementation schedule, and any additional inspections or monitoring that is needed.

#### O. Emergency Maintenance

If there is an imminent threat to life, property, or public safety, or a potential for sediment discharge with catastrophic environmental consequences, HRC will notify Regional Water Board staff of the emergency and the planned or implemented action within 14 calendar days. HRC shall meet with the Regional Water Board Executive Officer within six months of a major fire to discuss modifications to this Order as may be warranted due to changed conditions.

### III. DISCHARGE PROHIBITIONS

- A. The discharge of soil, silt, bark, slash, sawdust, or other organic and earthen material from any logging, construction, or associated activity of whatever nature into any stream or watercourse in the basin in quantities deleterious to fish, wildlife, or other beneficial uses is prohibited.
- B. The placing or disposal of soil, silt, bark, slash, sawdust, or other organic and earthen material from any logging, construction, or associated activity of whatever nature at locations where such material could pass into any stream or watercourse in the basin in quantities which could be deleterious to fish, wildlife, or other beneficial uses is prohibited.

### IV. MONITORING AND REPORTING

This Monitoring and Reporting Program (MRP) is issued pursuant to Water Code section 13267, subdivision (b) and requires HRC to implement the monitoring and reporting described below. The Regional Water Board has delegated its authority to the Executive Officer to revise, modify, and reissue the MRP.

#### A. Monitoring

HRC shall monitor watershed conditions according to the monitoring program described below.

##### 1. Inspections

###### Roads

- a. HRC shall inspect all roads within the UER according to the following schedule:
  - i. At least once annually between April 1 and October 15 to ensure that drainage structures and facilities are intact and fully functional, and to identify any active or imminent road-related failures of the road prism, cutbanks, or fills which can deliver sediment to streams, and identify and schedule any corrective action needed to control sediment discharge;

- ii. As soon as conditions permit following any storm event that generates 3 inches or more of precipitation in a 24-hour period, as measured at HRC's UER rain gauge.

THP areas

- b. HRC shall inspect the entire logging area of all active THPs, including roads, harvest units, and CSDS sites, a minimum of three times per year according to the following schedule:
  - i. By October 15 to assure project areas are secure for the winter; and/or immediately following cessation of winter period timber harvest activities;
  - ii. Between October 15 and April 1 after at least 10 inches of cumulative rainfall has fallen to assess the effectiveness of management measures designed to address controllable sediment discharges and to determine if any new CSDS sites have developed;
  - iii. Between April 1 and June 15 to assess the effectiveness of management measures designed to address existing CSDS sites and to identify if any new CSDS sites have developed.

2. Landslides Monitoring

HRC shall conduct the following monitoring to identify new or reactivated mass wasting activity:

- a. HRC shall maintain and update the landslide inventory included in Appendix C of the ROWD according to the specifications described below;
- b. HRC shall inspect harvest THP units at least annually during the life of the THP and through the three year erosion control maintenance period following completion of the plan. The inspections shall cover both harvested areas as well as RMZs and channel zones and shall be designed to identify any new, or reactivated mass wasting, including open slope landslides and streamside landslides;
- c. Additional on-the-ground monitoring and reporting to identify new, or reactivated mass wasting activity shall include HRC field staff (i.e. forestry, physical sciences), notifying the HRC Geology Department in the event a new or recently active landslide is observed during the course of daily duties (i.e. road inspections, wildlife surveys, aquatics monitoring, THP layout and logging supervision);
- d. HRC shall obtain new aerial photographs of the Upper Elk River watershed at intervals no greater than 5 years;
- e. HRC shall utilize color, high-angle, stereo pair aerial photographs at a scale of 1:12,000 of the UER to update the landslide inventory; and
- f. By June 15, 2022, HRC shall conduct a representative survey of streamside landslides.



### 3. Water Quality Monitoring

HRC shall continue to conduct the following water quality trend monitoring, including Aquatic Trends Monitoring (ATM) every three years and Hydrology Trends Monitoring (HTM) annually, according to the sampling procedures described in detail in the ROWD and applicable Standard Watershed Operating Protocols for the following parameters:

- a. Pebble counts
- b. Pool dimension and frequency
- c. Large wood
- d. Riparian and overstory canopy measurements
- e. Water temperature
- f. Fish surveys
- g. Channel cross section measurements
- h. Hydrology and suspended sediment

### B. Reporting

HRC shall provide the following reports to the Regional Water Board Executive Officer according to schedule specified below. Reports must contain sufficient information that Regional Water Board staff can clearly identify the types of work planned and monitoring conducted throughout the UER including key results, findings, problems encountered, and corrective actions taken. HRC shall summarize any information pertinent to corrective actions that have been or need to be taken to ensure adequate water quality protection.

#### 1. Annual Summary Report and Work Plan

By January 31 of each year, HRC shall submit to the Regional Water Board a summary report of all management activities, including monitoring, conducted during the previous calendar year and a work plan, describing all management activities planned for the current calendar year (January 1 to December 31). HRC shall certify that the activities included in the report are in compliance with the provisions of this Order.

Regional Water Board staff will review and may provide written comments and or request additional information as necessary by February 15. If requested, HRC shall submit a revised final annual work plan to the Regional Water Board by March 1.

Regional Water Board and HRC staff shall also meet annually, if requested by either party, to review proposed work to discuss the timing of and type of activities planned for the year.

The annual work plan is a planning document. The actual work conducted in the upcoming year may differ from what is described in the plan due to changes in conditions or other considerations. HRC shall notify the Regional Water Board

no less than quarterly in writing when it becomes apparent that a deviation from the current annual work plan is necessary. The notification shall include a description of how the work differs from the annual work plan and an explanation for the change. The annual summary shall describe all of the management activities actually conducted during the previous year.

The annual report shall include, at a minimum, the following information:

a. Timber harvest

The report shall at a minimum describe all harvesting conducted during the previous year as well as anticipated harvest planned for the coming year pursuant to Section I.A. of the Order, including;

- i. Acres by subwatershed;
- ii. Silviculture method;
- iii. THP name and number;

b. Roads

HRC shall describe all road work conducted during the previous year and work planned for the upcoming year, including a description and map locations of all road construction, reconstruction, and maintenance work, pursuant to Section I.D. of the Order.

c. Inventory of CSDS

HRC shall provide a detailed list of CSDS sites treated during the previous year and sites that are proposed for treatment prior to that calendar year's winter period. The list of sites shall include remaining CSDS from the master treatment schedule, road related CSDS identified during annual road inspections, CSDS identified in ECPs for individual THPs, and any other CSDS identified during the previous year, including those associated with watercourse crossings, roads, skid trails, gullies, road-related and non-road-related landslides, and any other sediment generating features associated with timber harvest activities. For each CSDS site scheduled for treatment, the annual work plan shall contain:

- i. A treatment site identification number and location shown on a scaled map;
- ii. The volume of sediment to be treated;
- iii. Treatment status (pending or completed); and
- iv. A description of the selected treatment alternative.

d. Restoration Projects

HRC shall provide a description of any restoration projects conducted during the previous year and that are scheduled for implementation during the upcoming year. Restoration projects that shall be included in the annual report include any projects implemented as part of the Feasibility Study for control of in-channel sediment sources or the Stewardship Program, including:

- i. Large wood augmentation for the purposes of improving fish habitat and sediment routing. Methods could include falling riparian zone trees or placement of logs using heavy equipment;
- ii. Construction of off-channel sediment detention basins;
- iii. Streambank stabilization using large wood, excavation, planting, or other bioengineering methods;
- iv. Removal or reconstruction of watercourse crossings and near stream road segments;
- v. Excavation of in-stream sediment deposits.

e. Inspections

The annual summary report shall describe all inspections of roads, erosion control plans associated with timber harvest plans, and landslides conducted during the previous year according to the specifications described in Section IV.A. The annual summary report shall include at a minimum, the following information for each inspection:

- i. date of the inspection;
- ii. inspector(s) name;
- iii. area or sites inspected;
- iv. observations, including problems identified that result, or have the potential to result in controllable sediment discharge, including discharge notifications;
- v. actions needed to prevent or minimize sediment discharge;
- vi. actions taken to prevent or minimize sediment discharge;
- vii. a brief evaluation of the causes of the erosional problems and the adaptive management measures that must be taken to prevent recurrence.

f. Landslide Reporting

The annual summary report shall include an updated landslide inventory, describing any landslide activity observed within the past year, including;

- i. A map showing locations of landslide activity;
- ii. Whether landslide is new or reactivation of existing landslide;
- iii. Estimated volume of sediment discharged; and
- iv. Management activities (such as timber harvesting or road work) that may reasonably be considered to have caused or affected landslide activity.

g. Water Quality Trends Monitoring Data

The annual summary report shall include water quality and hydrology monitoring data collected during the previous year as specified in Section IV.A., including: stream flow, sediment, water temperature, channel form, and large wood in the channel, according to the specifications of the ROWD.

h. Watershed Stewardship Report

The annual report shall describe HRC's participation in Elk River Watershed Stewardship. The report shall provide a brief description of its participation in meetings as well as its contributions supporting stewardship efforts.

2. Five-year Synthesis Report

Following adoption of this Order, HRC shall provide a five-year synthesis and evaluation of the effectiveness of its management activity in preventing and minimizing discharges of sediment and protection of water temperature increases that may impact the beneficial uses of water in UER.

By no later than November 15, 2021, HRC shall submit the first five year synthesis report to the Regional Water Board for approval by the Executive Officer. By no later than October 15, 2020, the content of the report will be developed in consultation with Regional Water Board staff in order to assure that the report will be useful to evaluate compliance with the General and Specific requirements of the Order and inform decisions regarding potential revisions to the Order. The five year update and evaluation shall include the following information:

a. Harvest Summary

HRC shall submit a summary of total acres harvested over the previous five year period, by:

- i. Acres harvested by subwatershed;
- ii. Silviculture method;
- iii. THP name and number.

b. Road update

HRC shall submit a summary report of roadwork conducted throughout their ownership in the UER. The purpose of the report is to provide a status report on the road network and the effectiveness of their program for controlling sediment discharge from roads. The report shall include the following:

- i. Total length of active roads, including total amount of seasonal and permanent roads;
- ii. Total length of road that meets the stormproofed standard (this shall confirm that HRC's entire road network has been stormproofed);
- iii. Total length of road decommissioned over the previous five year period;
- iv. A map of the current road network.

c. Landslide Summary

An updated landslide inventory and evaluation of the effectiveness of management measures intended to reduce the potential for management related landslides. The updated inventory shall be prepared by a PG and shall include a description of all landslide activity identified during the previous

five years based on field observations, interpretation of updated aerial photographs, and other available data sources, including;

- i. An updated landslide inventory, describing all landslide activity observed within the past five years and whether observed landslides are new or reactivation of existing landslides;
- ii. Estimated volume of sediment discharged by landslides over the previous five year period by subwatershed;
- iii. A map showing locations of landslide activity that has occurred during the previous five years;
- iv. A description of data sources (aerial photograph, road inspection, THP layout, etc.);
- v. Copies of aerial photographs of the UER from the previous five year period (may be scanned); and
- vi. A discussion of overall landslide activity during the previous five years and any conclusions that can be made with respect to an association between management and landslide activity. This section shall include a discussion of potential modifications to management practices necessary to further minimize management related sediment discharge.

d. Water Quality Trends

HRC shall submit a water quality trends reports, providing a summary of water quality monitoring results for the previous five years. This report shall be developed in coordination with the Watershed Stewardship Program, to the extent possible. The summary should provide a discussion of any observable water quality trends detected during the previous five years and any conclusions that can be made, in particular with respect to sediment loads, anadromous salmonid habit, and any possible association between management activities and in-stream conditions. This section shall include a discussion of potential modifications to management practices necessary to further minimize management related sediment discharge.

e. Restoration Summary

HRC shall submit a summary report of all restoration projects it has conducted, participated in, or contributed to, within the Elk River watershed. Restoration activities are those projects designed to control in-stream sediment production and transport, improve beneficial uses of water, and abate nuisance conditions, and may include, but are not necessarily limited to:

- i. Stabilizing banks through provision of root cohesion on banks and floodplains;
- ii. Filtering sediment, chemicals, and nutrients from upslope sources;
- iii. Supplying large wood to the channel, which maintains channel form and improves in-stream habitat complexity;

- iv. Maintaining channel form, in-stream habitat, and an appropriate sediment regime through the restriction of sediment inputs or metering of sediment through the system;
- v. Moderating downstream flood peaks through temporary upstream off-channel storage of water;
- vi. Maintaining cool water temperatures through provision of shade and creation of a cool and humid microclimate over the stream;
- vii. Providing both plant and animal food resources for the aquatic ecosystem in the form of, for example, leaves, branches, and terrestrial insects.

f. Effectiveness Monitoring Summary

HRC shall submit a summary report(s) describing the results of their effectiveness monitoring programs for roads throughout the UER and timber harvest related management practices in Railroad Gulch. The reports shall include a description of monitoring methods used, the location of sites evaluated, the results of the monitoring, a discussion the results, and any conclusion regarding the effects of their management practices with respect to sediment production from roads, watercourse crossings, harvest units, landslides, in-channel sources, and sensitive riparian zones.

## V. APPLICATION AND ENROLLMENT PROCEDURE

Pursuant to this Order, for the first five years following adoption of this Order, HRC must apply to the Regional Water Board Executive Officer for coverage of individual THPs as described below. After five years, an enrollment process is not required to commence operations for CAL FIRE-approved THPs that fully comply with requirements of this Order, unless notified in writing by the Regional Water Board Executive Officer that the plan is not eligible for coverage.

For the first five years, before operations may commence on an approved THP, HRC must apply for enrollment of the THP under this Order by submitting an enrollment application to the Regional Water Board Executive Officer. The enrollment application must be signed by a designated representative of HRC certifying that the THP complies with the terms and provisions of this Order. Prior to enrollment, Regional Water Board staff will evaluate the THP for compliance with the Order, and at that time may require additional measures for water quality protection as warranted. Timber harvesting activities may not commence until HRC receives written notification from the Regional Water Board Executive Officer that the THP is covered under this Order. It is anticipated that Projects which have had thorough Regional Water Board staff involvement in the review and approval process will receive written notification of coverage within ten (10) working days of receipt of a complete application.

After the first five years, HRC must submit a notice of commencement of operation to the Regional Water Board at least 10 days prior to commencement of operations for a specific THP.

The Regional Water Board Executive Officer, upon finding that a plan may violate any of the terms of the Order, may at any time notify HRC that they must refrain from commencing, or cease, operations.

## VI. RESCISSION AND DENIAL OF COVERAGE

The Executive Officer may rescind or deny coverage for a THP under this Order if, based on substantial evidence, the Executive Officer makes any of the following determinations:

1. The THP does not comply with Terms and Provisions of this Order;
2. The THP is reasonably likely to result in or has resulted in a violation or exceedence of any applicable Water Quality Standards, US EPA approved load allocation, or other water quality requirement<sup>2</sup>;
3. The THP has varied in whole or in any part from the approved THP in any way that could adversely affect water quality;
4. The THP is the subject of an unresolved water quality or procedural issue including, but not limited to, a non-concurrence filed by the Regional Water Board staff with CAL FIRE;
5. The THP meets the Terms and Provisions of this Order, but may still result in a discharge of waste that could adversely affect water quality from any of the following:
  - a. An observable increase in sediment discharge from landslides, channel or streambank erosion, or surface or gully erosion associated with harvest activities;
  - b. A measurable and significant increase in turbidity or suspended sediment concentration as a result of harvest related activities;
6. Any operations on an individual, or multiple, THP(s) that would result in an average annual harvest rate in any subwatershed above 2% equivalent clearcut acres over

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<sup>2</sup> "Water Quality Requirements" means a water quality objective (narrative or numeric), prohibition, TMDL implementation plan, policy, or other requirement contained in a Water Quality Control Plan (Basin Plan) adopted by the Regional Water Board and approved by the State Water Board, and all other applicable plans or policies adopted by the Regional Water Board or State Water Board, including, but not limited to, State Water Board Resolution No. 68-16, (Statement of Policy with Respect to Maintaining High Quality Waters in California).

any 10 year period that has resulted, or would be likely to result in any of the following:

- a. An observable increase in sediment discharge from landslides, channel or streambank erosion, or surface or gully erosion associated with harvest activities;
  - b. A measurable and significant increase in turbidity or suspended sediment concentration as a result of harvest related activities; or
7. There are substantive errors or inaccuracies found in information submitted as part of the THP and enrollment application package that, if known at the time of application, would have resulted in a denial or limitation of coverage under this Order.

Upon receipt of a written notice of rescission or denial of coverage for a THP under this Order, the coverage of the THP under this Order is immediately terminated. Upon termination, Discharger shall immediately cease all THP activities other than activities necessary to control further discharges. Projects that are denied coverage may be required to submit a report of waste discharge for site-specific individual WDRs.

#### CERTIFICATION

All reports required by this Monitoring and Reporting program or other information requested by the Regional Water Board determination of compliance shall be signed by a duly authorized representative of HRC. Any person signing a document under this requirement shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Any person failing to furnish technical or monitoring reports or falsifying any information therein is guilty of a misdemeanor, and may be subject to civil liability. (Water Code section 13268)



VII. Certification:

I, Matthias St. John, Executive Officer do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, North Coast Region, on November 30, 2016.

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Matthias St. John  
Executive Officer

LIST OF ATTACHMENTS

Attachment A – Map

Attachment B – Upper *Elk River: Technical Analysis for Sediment* (Tetra Tech, 2015)

Attachment C – Master Sediment Reduction and Master Treatment Schedule

Attachment D – HRC’s August 28, 2015, Report of Waste Discharge with amendments dated March 11, 2016 and October 4, 2016.

