

North Coast Regional Water Quality Control Board

March 30, 2017

Mr. Thomas E. Mason
Sierra Pacific Industries
90 Center Street
Weaverville, CA 96093

Dear Mr. Mason:

Subject: **Notice of Violation** of the *Water Quality Control Plan for the North Coast Region* and Order No. R1-2004-0030, *General Waste Discharge Requirements for Discharges Related to Timber Harvest Activities on Non-Federal Lands in the North Coast Region*; and
13267 Investigative Order Pursuant to California Water Code section 13267, for Sierra Pacific Industries

File: THP 2-15-021 TRI "YESMON" (CW-814600)

Sierra Pacific Industries (Discharger) is hereby given notice that it is in violation of the *Water Quality Control Plan for the North Coast Region* (Basin Plan) and Order No. R1-2004-0030 for THP 2-15-021 TRI, *General Waste Discharge Requirements for Discharges Related to Timber Harvest Activities on Non-Federal Lands in the North Coast Region* (GWDR). Specifically, the Discharger is in violation of Basin Plan Prohibitions 1 and 2 of the Action Plan for Logging, Construction, and Associated Activities, and the GWDR for unpermitted discharges of waste, threatened discharges of waste, and failure to implement GWDR required provisions. This Notice of Violation and Water Code section 13267 Investigative Order (NOV/13267 Order) also documents the failure of the Discharger to implement the conditions of the approved timber harvest plan (hereinafter THP 2-15-021 TRI or THP) and to install effective erosion control measures approved by CAL FIRE on March 7, 2016.

This NOV/13267 Order applies to the areas affected by construction and reconstruction of the appurtenant roads to access Unit 3527, which was part of the approved THP, as well as unauthorized activities, which were not part of the approved THP. The NOV/13267 Order also requires the Discharger to prepare and submit technical reports to the North Coast Regional Water Quality Control Board (Regional Water Board). The unauthorized activities occurred in an area approximately one mile east of the Trinity Alps Resort and 14 miles north northeast of Weaverville. The area is located south of Trinity Alps Road and encompasses portions of the riparian zone and floodplain north and south of Stuart Fork of the Trinity River (Stuart Fork), a Class I watercourse. Stuart Fork and the unnamed Class II watercourse identified in this NOV/13267 Order are waters of the state and/or United

States. After two CAL FIRE inspections on October 14 and 19, 2016, the Discharger filed Amendment 3 (AM3) to enroll the unauthorized activities on October 31, 2016.

This NOV/13267 Order requires that by **May 15, 2017, the Discharger shall prepare and submit a plan to control the discharge of pollutants from the AM3 area.** The plan shall contain the information listed below under the heading Information Required.

Additionally, the Discharger shall provide monthly reports, due on the last business day of each month, and document progress in implementing the needed corrective action(s).

Monthly reports shall be required until the Assistant Executive Officer determines the threatened discharge of pollutants to Stuart Fork and its tributaries is eliminated and notifies the Discharger in writing that the requirement for monthly reports is terminated.

The first monthly report is due on April 28, 2017.

This NOV/13267 Order is supported by observations made by Regional Water Board, CAL FIRE, and California Department of Fish and Wildlife (CDFW) staff. Support for this NOV/13267 Order are contained in:

1. Attachment A is the October 31, 2016 CAL FIRE Notice of Inspection documenting two inspections of the AM3 area on October 14 and 19, 2016.
2. Attachment B is the December 1, 2016 CAL FIRE NOV. The NOV documented a violation of California Code of Regulations, title 14, section 1035.3(d). Attachment B also contains observations by the CAL FIRE inspector during an inspection of the AM3 area on November 14, 2016.
3. Attachment C is the December 19, 2016 CDFW staff's inspection memo documenting their November 18, 2016 inspection to evaluate compliance with the Code of Fish and Game section 1600 streambed alterations agreement contained in the approved THP.
4. Attachment D is the December 7, 2016 Regional Water Board Pre-Harvest Inspection (PHI) report for AM3 to the approved THP, documenting a November 29, 2016 PHI.
5. Attachment E is the January 9, 2017 Regional Water Board staff's inspection report documenting a December 20, 2016 follow-up compliance inspection of the northern portion of the AM3 area

I. Introduction

THP 2-15-021 TRI includes 197 acres of timber harvest area contained within nine harvest units including Unit 3527 located in the Stuart Fork Watershed in the Trinity River Upper Hydrologic Area. The Discharger submitted the proposed AM3 to CAL FIRE on October 31, 2016. On November 29, 2016 CAL FIRE, California Geological Survey, and the Regional Water Board staff conducted a PHI for AM3. Agency staff determined during the PHI that the Discharger had already implemented all activities and THP revisions proposed in AM3 in violation of the conditions of the approved THP, the Basin Plan, and the GWDR. The Discharger subsequently withdrew AM3 on December 9, 2016.

II. Chronology

June 23, 2015 - Regional Water Board staff participated in a PHI for THP 2-15-021 TRI.

March 7, 2016 - CAL FIRE approved THP 2-15-021 TRI. The approved THP included the following activities within the AM3 area:

1. construction of approximately 400 linear feet of new seasonal road on the north side of Stuart Fork in order to access Unit 3527;
2. rocking of the running surface of the newly constructed seasonal road described in item 1 above was required between the intersection with Trinity Alps Road and the edge of the Stuart Fork floodplain;
3. construction of a switchback on the new seasonal road that required installation of an approximately 125-foot long culverted watercourse crossing (referred to as P1 and P2 in the approved THP) on a Class II watercourse;
4. connection of the new culvert at P1 and P2 to the existing 18-inch diameter culvert that carries flow from the Class II watercourse under Trinity Alps Road;
5. installation of a seasonal bridge crossing Stuart Fork (referred to as T1 in the approved THP);
6. construction of approximately 250 linear feet of new temporary road and reconstruction of an additional 300 linear feet of temporary road within the Watercourse and Lake Protection Zone (WLPZ) of Stuart Fork; and
7. rocking of the entire running surface of all new road construction and all road reconstruction within the WLPZ of Stuart Fork.

June 15, 2016 - The Discharger submitted a request for GWDR enrollment to the Regional Water Board.

June 23, 2016 - The Regional Water Board enrolled the approved THP under the GWDR.

September 2, 2016 - Timber harvest activities commenced on THP 2-15-021 TRI. As described in the CAL FIRE NOV (see Attachment B) and the Regional Water Board AM3 PHI report (see Attachment D), during construction of the new seasonal road in the AM3 area, the Licensed Timber Operator (LTO) enlarged the size of the switchback on the road in several phases between September and October 2016. The Discharger determined the turn radius of the switchback alignment in the approved THP was too tight for log trucks to execute without striking the outlet of the existing culvert under Trinity Alps Road, so the LTO continued to widen the new seasonal road into the cutslope.

October 14, 2016 and October 19, 2016 - CAL FIRE inspector Daniel Dresselhaus conducted inspections (see Attachment A - CAL FIRE Notice of Inspection) of the AM3 area. A rain gauge located at Trinity Center¹, located approximately 18 miles northwest of the AM3 area, recorded a total of 3.65 inches of rainfall between October 14 and October 19.

¹ Staff accessed on March 28, 2017: <http://northtrinitylake.com/wxsys/wxgrafix/month/NOAA1610.TXT>

October 31, 2016 - The Discharger submitted AM3 after the fact to CAL FIRE for interagency review. AM3 proposed to:

1. convey flow from the Class II watercourse from the outlet of the existing culvert crossing on Trinity Alps Road into a rock-lined drainage ditch, instead of installing the previously reviewed and approved culvert at P1 and P2;
2. convey flow from the Class II watercourse in the proposed rock-lined drainage ditch around the switchback to an inlet structure located on the edge of the fill slope of the constructed seasonal road;
3. convey flow from the Class II watercourse to the floodplain of Stuart Fork through a six-inch diameter plastic flexible pipe laid along the ground surface; and
4. allow the Discharger to stabilize the running surface of roads in the WLPZ of Stuart Fork with straw mulch instead of rock as required in the approved THP.

November 14, 2016 - CAL FIRE staff conducted a third inspection (see Attachment B - CAL FIRE NOV) of the AM3 area.

November 18, 2016 - CDFW inspector Andrew Yarusso conducted an inspection (see Attachment C - CDFW Inspection memo) of the AM3 area.

November 29, 2016 - Regional Water Board staff participated in the PHI (see Attachment D - Regional Water Board PHI Report) for AM3 along with representatives from CAL FIRE, California Geological Survey (CGS), and the Discharger.

December 1, 2016 - CAL FIRE issued the LTO responsible for construction activities at AM3, DG McDonald Construction, a Notice of Violation (see Attachment B). The LTO was cited for violating California Code of Regulations title 14, section 1035.3(d), failure to “Comply with all provisions of the Act, Board rules and regulations, the applicable approved plan and any approved amendments to the plan” for not installing the watercourse crossing associated with P1 and P2 as described in the approved THP.

December 1, 2016 - The CAL FIRE inspector submitted his PHI report for AM3. The CAL FIRE inspector recommended denial of AM3 because “the proposed crossing change at P1 and P2 already having been installed prior to PHI and prior to amendment approval.”

December 1, 2016 - Pursuant to GWDR requirements, the Discharger notified the Regional Water Board of a failure of the newly-constructed cutslope adjacent to Trinity Alps Road. The failure buried the rock-lined drainage ditch and blocked the outlet of the 18-inch diameter culvert under Trinity Alps Road. The Discharger constructed a temporary drainage channel to convey flow from the Class II watercourse to the six-inch diameter flexible plastic pipe.

December 9, 2016 - The Discharger submitted a request to CAL FIRE to withdraw AM3, and on December 12, 2016 CAL FIRE returned AM3 to the Discharger.

December 20, 2016 - Regional Water Board staff Tim Walcott and Graham Brown conducted a compliance inspection (see Attachment E - GWDR Compliance Inspection memo) of the AM3 area. They documented and measured the cutbank failure adjacent to Trinity Alps Road leading to a discharge of sediment into the Class II watercourse and the floodplain of Stuart Fork. They also observed continued erosion along the outboard edge of the seasonal road and discharge of earthen material to Stuart Fork.

III. Applicable Requirements:

A. Basin Plan

The Basin Plan contains specific standards and provisions for maintaining high quality waters of the state that provide protection to the beneficial uses listed below. The Basin Plan's Action Plan for Logging, Construction and Associated Activities prohibits the following:

Prohibition 1: *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.*

Prohibition 2: *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.*

Section 3 of the Basin Plan contains water quality objectives that specify limitations on certain water quality parameters not to be exceeded as a result of waste discharges. This includes water quality objectives regarding color, suspended material, settleable material, sediment, turbidity, biostimulatory substances, oil and grease, and floating material.

The existing and potential beneficial uses of waters of the North Coast Region are outlined in Table 2-1 of the Basin Plan. Stuart Fork is located within the Upper Trinity River HA. Existing and potential beneficial uses for the Upper Trinity River HA potentially affected by the activities described herein include the following:

Municipal and Domestic Supply (MUN); Agricultural Supply (AGR); Industrial Service Supply (IND); Groundwater Recharge (GWR); Freshwater Replenishment (FRSH); Navigation (NAV); Hydropower Generation (POW); Water Contact Recreation (REC-1); Non-Contact Water Recreation (REC2); Commercial and Sport Fishing (COMM); Cold Freshwater Habitat (COLD); Wildlife Habitat (WILD); Rare, Threatened, or Endangered Species (RARE); Migration of Aquatic Organisms (MIGR); Spawning, Reproduction, and/or Early Development (SPWN); and Aquaculture (AQUA). The potential beneficial use is Industrial Process Supply

(PRO). Beneficial uses of any specifically identified water body generally apply to all of its tributaries.

B. GWDR

Section III.A: Discharge Prohibitions:

1. *Discharges of waste, which are not otherwise authorized by waste discharge requirements issued by this Regional Board or the State Water Resources Control Board, to waters of the state are prohibited, except as allowed in section III.A.5.*
2. *Discharges shall not cause or threaten to cause pollution, contamination, or nuisance.*
3. *Discharges shall not adversely impact human health or the environment or the beneficial uses of water set out in the Basin Plan.*
4. *Authorization pursuant to these General WDRs does not constitute an exemption to applicable water quality requirements.*
5. *Discharges are authorized only where they do not cause or contribute to a violation or exceedance of applicable water quality requirements and are controlled through implementation of appropriate project design and management measures for prevention and minimization of waste discharges.*

Section III.C: Specific Provisions:

To the extent feasible, the Discharger shall design Project features, such as but not limited to, silviculture methods, road alignment, yarding methods, tractor operations and timing of timber harvest activities to prevent waste discharges in amounts that would violate applicable water quality requirements or other provisions of these General WDRs.

Section V.A.1-3: Rescission and Denial of Coverage:

- A. *The Executive Officer shall rescind or deny the applicability of these General WDRs to a specific Project if the Executive Officer makes any of the following determinations:*
 1. *The Project does not comply with any provision of these General WDRs.*
 2. *The Project is reasonably likely to result or has resulted in a violation or exceedance of any applicable water quality requirement.*
 3. *The Project has varied in whole or in any part from the approved Project in any way that could adversely affect water quality.*

IV. Alleged Violations and Findings

- A. CAL FIRE Inspections (October 14, October 19, and November 14, 2016)
On October 14, 2016, CAL FIRE inspector Daniel Dresselhaus inspected the AM3 area and observed that construction of the new seasonal road was not complete, as "P1 and P2 have not yet been installed." On October 19, Mr. Dresselhaus documented that conditions in the AM3 area had deteriorated after the rainfall in the area between October 14 and October 19. Flow from the Class II watercourse

through the 18-inch diameter culvert under Trinity Alps Road had diverted down the new seasonal road and eroded out a portion of the fill slope. He also documented that Stuart Fork had overtopped the southern seasonal bridge abutment and eroded off the running surface (see Attachment A - CAL FIRE Notice of Inspection).

On November 14, 2016, CAL FIRE conducted a third inspection of the AM3 area and documented that the Discharger had failed to install P1 and P2 prior to the winter period (see Attachment B - CAL FIRE Notice of Violation). The CAL FIRE report of its November 14 inspection documents the following conversation with the Registered Professional Forester (RPF) representing the Discharger:

The RPF explained that the turn radius of the switchback was insufficient for log haul if the crossing was installed as proposed in the THP. So as a result, P1 and P2 were not installed, but the road was constructed through the crossing and utilized for log haul during this time. The class II channel remained in a dirt fill condition with no installed drainage structure since that initial construction. During the inspection, it was observed the watercourse had been diverted around the crossing as the RPF had described on the phone and in Amendment 3. The RPF stated this action was taken to stabilize the site, to avoid the watercourse from running through the road prism. It is noted, that the reason this stabilization/diversion was necessary was due to P1 and P2 never being installed and the absence of any drainage structure (culvert) through this crossing.

Review of Attachment A, the CAL FIRE Notice of Inspection, and Attachment B, the CAL FIRE NOV, we identified the following violations of the Basin Plan and section III.A.1-5 and section III.C of the GWDR.

1. *Watercourse Crossing P1 and P2 from the approved THP not installed*
The Discharger constructed the seasonal road without installing the required culvert at P1 and P2. Instead, the Discharger filled the original alignment of the Class II watercourse and diverted flow from the Trinity Alps Road culvert outlet into a rock-lined drainage ditch around the switchback of the newly constructed seasonal road.

The fill into the Class II watercourse violates Basin Plan Prohibition 1, and GWDR section III.A. Discharge Prohibitions 1, 2, and 3. The Discharger's failure to implement appropriate project design caused or contributed to the unauthorized fill in violation of GWDR section III.A. Discharge Prohibition 5.

2. *Unauthorized Fill and Diversion of Class II Watercourse*
The Discharger did not install the approved culvert at P1 and P2 and flow from the Class II watercourse is currently diverted out of its natural alignment. The Discharger filled the Class II watercourse and constructed a

rock-lined drainage ditch to convey flow around the switchback and into an inlet structure instead of the culvert outlet described in the approved THP. The inlet structure is constructed of coarse floodplain material and bags of concrete placed in the rock-lined drainage ditch. Flow is currently conveyed to the floodplain of Stuart Fork through an approximately 98-foot long segment of six-inch diameter plastic flexible pipe.

The original channel of the Class II watercourse from the outfall of the culvert on Trinity Alps Road to the floodplain of Stuart Fork was completely obliterated by the road construction. As a result, measurement of the original channel width is impossible. During the PHI for AM3, Regional Water Board staff determined that approximately 125 linear feet of the Class II watercourse was filled. The approximate length of the filled channel was determined by measuring the slope distance between the original location of the outlet of the 18-inch diameter culvert under Trinity Alps Road and the base of the fill slope on the Stuart Fork floodplain using a tape measure. The length of filled channel is consistent with the 125-foot long culvert proposed in the approved THP for installation at P1 and P2. Assuming the filled Class II channel averaged two-feet deep and two-feet wide, the volume of fill material placed in the Class II watercourse is approximately 500 cubic feet.

The fill into the Class II watercourse violates Basin Plan Prohibition 1, and GWDR section III.A. Discharge Prohibitions 1, 2, and 3. The Discharger's failure to implement appropriate project design caused or contributed to the unauthorized fill in violation of GWDR section III.A. Discharge Prohibition 5 and section III.C. Specific Provisions.

3. *Fillslope Failure and Associated Sediment Discharges to the Floodplain of Stuart Fork*

Between October 14, 2016, and October 19, 2016, flows from the Class II watercourse diverted down the surface of the new seasonal road and eroded a gully into the road fillslope, resulting in the discharge of earthen material onto the floodplain of Stuart Fork. The Discharger failed to construct an appropriate watercourse crossing to convey flow from the existing culvert outlet to the floodplain of Stuart Fork.

The discharge onto the floodplain of Stuart Fork violates Basin Plan Prohibition 1, and GWDR section III.A. Discharge Prohibitions 1, 2, and 3. The Discharger's failure to implement appropriate project design caused or contributed to the unauthorized discharge in violation of GWDR section III.A. Discharge Prohibition 5 and section III.C. Specific Provisions.

4. *Sediment from Bridge Abutment Discharged to Stuart Fork*

The approved THP required the Discharger to remove the temporary bridge over Stuart Fork prior to the winter period. The Discharger failed to remove

the bridge prior to rainfall and associated high flows in October. As a result, Stuart Fork overtopped the southern approach to the bridge. The cap of fine earthen material that formed the running surface of the crossing eroded and discharged to Stuart Fork. During the October 19, 2016 inspection, the CAL FIRE inspector documented that Stuart Fork had overtopped T1. The seasonal bridge was still in place but the "dirt cap" of fine-grained earthen material had eroded off the southern bridge abutment. Mr. Dresselhaus estimated the thickness of the dirt cap was between one-half foot and two-foot thick. Regional Water Board staff estimate the dimensions of the southern bridge abutment to be 40-feet long by 10-feet wide, yielding a volume of 22 cubic yards.

The discharges into Stuart Fork violate Basin Plan Prohibition 1, and GWDR section III.A. Discharge Prohibitions 1, 2, and 3. The Discharger's failure to implement appropriate project design caused or contributed to the unauthorized discharge in violation of GWDR section III.A. Discharge Prohibition 5 and section III.C. Specific Provisions.

B. CDFW Fish and Game Code section 1600 Streambed Alteration Agreement (1600 Agreement) Inspection (November 18, 2016)

On November 18, 2016, CDFW inspector Andrew Yarusso conducted an inspection of the AM3 area. Mr. Yarusso documented several deviations from the language in the 1600 Agreement contained in the approved THP and one Fish and Game Code violation. Mr. Yarusso observed the following threatened discharges to Stuart Fork that are violations of the Basin Plan and GWDR section III.A.2:

1. *Fill Stockpile Placed in Class I Watercourse and Lake Protection Zone (WLPZ)*

The CDFW inspector identified an uncovered fill stockpile staged directly above the southern approach to the seasonal bridge over Stuart Fork (see Figure 5 in Attachment C). Placement of the fill within the Class I WLPZ constitutes a threatened discharge of sediment to waters of the state and was documented in the CDFW report as a violation of Fish and Game Code section 5650(a)(1)(6).

The seasonal bridge was removed between the November 14, 2016, CAL FIRE inspection and the November 18, 2016, CDFW inspection. The Discharger covered the fill stockpile with straw mulch prior to the PHI on November 29, 2016, but the fill stockpile was left in place. This fill stockpile left in the WLPZ constitutes the FGC violation documented in the CDFW inspection report. Leaving the stockpile of fill material adjacent to Stuart Fork is also a threatened discharge of earthen material to waters of the state.

The fill stockpile in the Class I WLPZ violates Basin Plan Prohibition 2, and GWDR section III.A. Discharge Prohibition 2 by threatening to discharge

pollutants into a watercourse in an amount deleterious to fish, wildlife, or other beneficial uses.

2. *Use of an Undersized Plastic Flexible Pipe for Class II watercourse crossing*
The CDFW inspector noted that the culvert sizing calculation for P1 and P2 required installation of a minimum 18-inch diameter culvert. Instead, the Discharger attempted to use a six-inch diameter plastic flexible pipe to convey flow from the inlet structure at the downstream end of the unauthorized channel that was installed around the switchback on the new seasonal road to the floodplain of Stuart Fork.

On February 4, 2017, the Discharger notified the Regional Water Board that the undersized six-inch diameter flexible plastic pipe failed and the inlet structure blew out, delivering approximately 40 cubic yards of the fill slope material to Stuart Fork. Failure to install a properly sized culvert violates Basin Plan Prohibition 1 and 2, as well as GWDR section III.A. Discharge Prohibitions 1, 2 and 3 by discharging and threatening to discharge pollutants into a watercourse in an amount deleterious to fish, wildlife, or other beneficial uses.

C. Pre-Harvest Inspection for AM3 (November 29, 2016)

On November 29, 2016, Regional Water Board staff David Fowler and Forest Fortescue attended the PHI for AM3 (see Attachment D). Representatives from CAL FIRE, CGS, and the Discharger also attended the PHI. Regional Water Board staff observed the discharges and threatened discharges described above during the inspection of the AM3 area. Regional Water Board staff observed the following additional discharges and threatened discharges to Stuart Fork in violation of the Basin Plan and sections III.A.1-5 and section III.C of the GWDR:

1. *Failure to Install Rock Surface on Roads within the AM3 area*

The approved THP required the Discharger to rock the running surface of all road construction within the AM3 area, including:

- an approximately 400-foot long section of new road constructed between the intersection with Trinity Alps Road and the edge of the floodplain of Stuart Fork;
- an approximately 250-foot long section of new road constructed within the WLPZ of Stuart Fork southwest of the seasonal bridge T1; and
- an approximately 300-foot long section of road reconstructed within the WLPZ of Stuart Fork southeast of the seasonal bridge T1.

The Discharger constructed and used these roads to haul the majority of the log volume out of unit 3527. The Discharger failed to rock the seasonal road prior to the winter period as required by the approved THP. During the PHI we only observed one place within the entire AM3 area that was rocked; an

approximately 20-foot long segment of the southern approach to the seasonal bridge crossing over Stuart Fork that was not washed away during the October rains. The remainder of the road surfaces in AM3 area were covered with straw mulch.

During the PHI we also observed that the new road in the WLPZ southwest of the seasonal bridge was constructed with an outboard berm that channelized flow on the road surface. Additionally, we observed insufficient waterbar sizing and/or spacing, and insufficient straw mulch to provide adequate stabilization. On December 7, 2016, the Discharger informed the Regional Water Board that additional straw mulch was applied to the road surface and the existing waterbars were enlarged.

Failure to construct the roads within the AM3 area with the sediment control measures contained in the approved THP has resulted in discharges of sediment to Stuart Fork. Discharges of sediment from the running surfaces of the roads in the AM3 area violate Basin Plan Prohibition 1, and GWDR section III.A. Discharge Prohibitions 1, 2, and 3. The Discharger's failure to implement appropriate project design caused or contributed to the unauthorized discharge in violation of GWDR section III.A. Discharge Prohibition 5 and section III.C. Specific Provisions.

D. Regional Water Board Compliance Inspection (December 20, 2016)

On December 20, 2016, Regional Water Board staff Timothy Walcott and Graham Brown conducted a compliance inspection of the AM3 area (see Attachment E). Regional Water Board staff observed the following additional discharges and threatened of discharges to Stuart Fork in violation of the Basin Plan and GWDR sections III.A.1, 2, and 5 and section III.C:

1. *Discharge of Sediment to Class II Watercourse and Stuart Fork from Failing Cutslope*

During the inspection, Regional Water Board staff inspected the failure of the new cutslope documented in the Discharge Notification provided to the Regional Water Board by the Discharger on December 1, 2016. They measured the dimensions of the void in the cutslope and estimated that a total volume of 113 cubic yards of earthen material had deposited on the switchback of the seasonal road. Staff observed that approximately half of the total volume of earthen material deposited on the switchback by the failure, 57 cubic yards, had been delivered to Stuart Fork.

The cutslope failure buried the outlet of the culvert under Trinity Alps Road and the unauthorized rock-lined ditch constructed by the Discharger. Regional Water Board staff observed that the Class II watercourse was flowing across the running surface of the switchback on the seasonal road

into the inlet structure and the unauthorized six-inch diameter plastic flexible pipe described in Alleged Violation B.2 above.

Regional Water Board staff documented a plume of fine earthen material originating from the outlet of the pipe onto the floodplain of Stuart Fork. They observed that the plume entered a high-flow channel on the floodplain. The plume extended 220 feet to the low-flow channel of Stuart Fork.

Regional Water Board staff documented an additional discharge of earthen material to the floodplain of Stuart Fork from the fillslope of the new seasonal road described in Alleged Violation A.3 above. Between the PHI on November 29, 2016, and the December 20, 2016 inspection, erosion of the fillslope deposited an estimated 26 cubic yards of fine earthen material onto the floodplain of Stuart Fork.

The cutslope failure and discharges of fine earthen material onto the floodplain violates Basin Plan Prohibition 2, and GWDR section III.A: Discharge Prohibitions 1, 2, and 5.

- E. The permanent diversion of the Class II watercourse proposed in AM3 and implementation prior to CAL FIRE review and approval is out of compliance with the GWDR. As the work conducted in the AM3 area has resulted in multiple discharges of waste to waters of the state and the erosion control measures were insufficient, the Regional Water Board enforcement staff is recommending the Executive Officer rescind the GWDR for this project pursuant to sections V.A.1 and 3. The Discharger has failed to comply with all GWDR provisions, and the project has varied in part from the approved THP in a manner that has, or has threatened to, adversely affect water quality.

V. Information Required

VI.

The Discharger is required to submit the reports and documentation listed below pursuant to Water Code section 13267. Send reports by email to the attention of Regional Water Board staff Dean Prat at northcoast@waterboards.ca.gov. All technical reports shall include a statement by the Discharger, or an authorized representative of the Discharger, certifying (under penalty of perjury in conformance with the laws of the State of California) that the signer has examined and is familiar with the report and that to his or her knowledge, that the report is true, complete, and accurate. The Discharger shall also state if it agrees with any recommendations or proposals, and whether it approves implementation of said proposals. Any person signing a document submitted under this Order shall make the following certification:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my knowledge

and on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

By May 15, 2017, the Discharger shall submit a plan to control the discharge of pollutants from the AM3 area, acceptable to the Assistant Executive Officer including the elements specified in sections A. through F. below. By April 28, 2017 the Discharger shall submit the first monthly report as specified in section G. below:

- A. The Discharger shall submit a description and chronology of erosion and sediment controls implemented to prevent the discharge of earthen material into the Class II watercourse and Stuart Fork prior to March 30, 2017. This description shall include, but is not limited to, the following:
 1. dates that specific erosion control measures were applied to control erosion and sediment discharges from the AM3 area;
 2. locations where specific erosion control measures were applied;
 3. site-specific purpose for each erosion control measure;
 4. a summary of inspection and/or monitoring activities to assess the effectiveness of each erosion control measure; and
 5. a summary of maintenance activities of each erosion control measure.
- B. The Discharger shall submit any documentation available prior to March 30, 2017, including photographic evidence, confirming installation of erosion and sediment control measures and removal of earthen materials placed in or discharged into the Class II watercourse and the floodplain of Stuart Fork within the AM3 area.
- C. The Discharger shall submit an estimate of the total area disturbed by road construction, road repairs, and logging activities as of March 30, 2017 within the AM3 area, including but not limited to, areas of soil exposed by clearing, grading, grubbing, and excavation activities; stockpiles; storage and staging areas; and access roads within the AM3 area.
- D. The Discharger shall submit an estimate of the volume of earthen material discharged to the Class II watercourse and Stuart Fork prior to March 30, 2017. The estimated volume shall be based on:
 1. runoff estimates based on soil type;
 2. measurements of erosion channels and/or erosional voids;
 3. steepness of slopes; and
 4. rainfall data including a Revised Universal Soil Loss Equation (RUSLE) analysis.

- E. A description of the Class II watercourse filled during construction of the seasonal road (see Alleged Violations and Findings A.1.). This report shall include, but is not limited to:
1. the beginning and end dates when the new seasonal road was constructed;
 2. the method of construction;
 3. the extent (width, depth and length) of the Class II watercourse that was disturbed or altered by construction of the switchback on the new seasonal road; and
 4. the location(s) where the excavated material was deposited or disposed of.
- F. The Discharger shall submit a work plan to address all unpermitted impacts to waters of the state in the AM3 area. The work plan shall incorporate the recommendations made by CAL FIRE, CDFW, CGS and Regional Water Board staff during inspections of the AM3 area. Watercourse crossings P1 and P2, as well as seasonal bridge T1, shall be identified as Controllable Sediment Discharge Source (CSDS) sites and added to the Erosion Control Plan (ECP) for the THP. The work plan shall include a schedule of implementation.
- G. Monthly reports shall document the current conditions in the AM3 area and document any interim erosion control measures implemented. Monthly reports shall be required until the Assistant Executive Officer determines the threatened discharge of pollutants to Stuart Fork and its tributaries is eliminated and notifies the Discharger in writing that the requirement for monthly reports is terminated. The first monthly report is due on April 28, 2017.

VII. Basis for Requirements in this Letter

The reports required by this NOV/ 13267 Order pursuant to California Water Code section 13267 are necessary for the Regional Water Board to determine the state of compliance in the AM3 area, and whether the Discharger has taken, or will take, necessary actions to protect water quality and the beneficial uses of water in Stuart Fork. The burden, including costs of the reports, bears a reasonable relationship to the need for the reports and the benefits obtained from them. The reports required in this Order are reasonable and would be required by point and non-point source dischargers in similar circumstances, including those at construction, dairy, commercial and industrial sites. The burden of preparing such a report bears a direct relationship to the benefits of protecting Stuart Fork from unauthorized discharges that could impair its beneficial uses.

The Regional Water Board reserves its rights to take any enforcement action authorized by law, such as issuing a cleanup and abatement order, a cease and desist order, time schedule order, administrative civil liabilities, and referral to the State Attorney General.

Pursuant to California Water Code sections 13385(a)(4) and (c), the Regional Board may impose administrative civil liability for a violation of the Basin Plan prohibition up to

\$10,000 a day for each of violation, and up to \$10 per gallon discharged over 1,000 gallons not cleaned up. Pursuant to Water Code section 13350, the Regional Board may impose administrative civil liability for a violation of the GWDR up to \$5,000 a day for each day of violation, or up to \$10 per gallon of waste discharged. Failure to comply with this NOV/13267 Order may subject the Discharge to \$1,000 for each violation, each day pursuant to Water Code section 13268.

VIII. Right to Petition

Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 calendar days after the date of this NOV/13267 Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:
http://www.waterboards.ca.gov/public_notices/petitions/water_quality_or_will_be_provided_upon_request.

Should you have any questions regarding this matter, please contact Dean Prat of my staff at (707) 576-2801 or Dean.Prat@waterboards.ca.gov, or Senior Staff Counsel Laura Drabandt at (916) 341-5180 or Laura.Drabandt@waterboards.ca.gov.

Sincerely,

Shin-Roei Lee
Assistant Executive Officer

170330_FQF_er_2-15-021TRI_AM3NOV13267Order

Attachments: Attachment A: October 31, 2016 CAL FIRE Notice of Inspection
Attachment B: December 1, 2016 CAL FIRE Notice of Violation
Attachment C: December 19, 2016 CDFW 1600 Inspection Report
Attachment D: December 7, 2016, Regional Water Board PHI Report for AM3
Attachment E: January 9, 2016, Regional Water Board Compliance Inspection Report

Certified - Return Receipt Requested

cc: Tom Walz, SPI
Leslie Hubbard, Trinity County
John Ramaley, CAL FIRE
Daniel Dresselhaus, CAL FIRE
Andrew Yarusso, CDFW



DEPARTMENT OF FORESTRY AND FIRE PROTECTION

875 CYPRESS AVE
REDDING, CA 96001
Website: www.fire.ca.gov
(530) 225-2086



October 31, 2016

DONALD G MCDONALD CONSTRUCTION
DONALD G MCDONALD
P O BOX 86
TRINITY CENTER, CA 96091

NOTICE OF INSPECTION

Section 4604 of the Public Resources Code (PRC) requires the Department to inspect timber operations for compliance with the Forest Practice Act and rules of the Board of Forestry.

Harvest Document: 2-15-021-TRI, YESMON
Inspection Date: October 14, 2016
Inspection Type: Inactive
Inspection Number: 2
Contact Person: EMIL MASON, LTO, RPF
Inspection Duration: 4

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FOREST PRACTICE

On October 14, 2016, I inspected 2-15-021-TRI. On-site contact was Emil Mason with SPI. Operations were inactive at the time of inspection due to saturated soil conditions. More rain was expected over the following days.


The new road construction and temporary bridge crossing (T1) at unit 3527 were inspected. The road construction was not complete as P1 and P2 have not yet been installed. The entire road prism had been stabilized with straw, including the running surface. The temporary bridge was in place. The bridge had been constructed with logs cabled together. The running surface of the bridge had fabric placed over the logs with cobble material over top to create the running surface. The southern approach to T1 was constructed of cobble material with a soil cap of varying depth (approximately ½ -2 feet deep). The entire roads surface on the southern side of T1 within the WLPZ had been stabilized with straw. The WLPZ new constructed had not yet been rocked as required in the THP. Future inspections will be required to verify compliance.

The observed skid trails within the harvest unit had waterbreaks installed. Harvest within this unit were not complete as portions of the unit had not been harvested. Final evaluation of the seed tree seed step will be determined once the harvest is complete.

On October 19, 2016, I again inspected the road construction and T1. Tom Walz (RPF) and DG McDonald Construction, Bud McDonald (LTO) were present during the inspection. Based on this inspection, the road had formed rills with fill erosion due to concentrated road runoff. The waterbreaks were in need of maintenance to mitigate the rills and fill erosion. T1 had overtopped, but the bridge and cobble remained in place. The dirt cap was eroded away. No evidence of diversion of the watercourse was observed. At the time of this inspection, the flow had receded back into the natural channel and T1 was functioning as designed. The RPF and LTO agreed that maintenance was required on both the road and T1. Due to saturated soil conditions, maintenance was set to occur on October 21, 2016, pending soil conditions. The discussed mitigations were to install new and maintain existing waterbreaks along the road and pull back and rock armor the southern approach to T1. These mitigations are not final, but are designed to minimize erosion until weather conditions are appropriate to complete construction.

The RPF stated that he will be proposing an amendment to change P1 and P2, although no amendment has been received to my knowledge. It is anticipated that this road segment will require regular maintenance until the final construction and long term erosion control is complete.

If you have questions regarding this inspection, please contact me at (530) 448-2493



DANIEL DRESSELHAUS

Forester II, RPF 2919
Shasta-Trinity Unit
875 Cypress Ave.
Redding, CA 96001
530-623-5681 office
530-448-2493 cell

cc: Unit, Region, LTO, RPF



DEPARTMENT OF FORESTRY AND FIRE PROTECTION
 Shasta-Trinity Unit
 875 Cypress Ave.
 Redding, CA 96001
 (530)-225-2418
 Website: www.fire.ca.gov



RECEIVED
DEC 15 2016
 REDDING
 FOREST PRACTICE

December 01, 2016

THOMAS WALZ
 P O BOX 478
 WEAVERVILLE, CA 96093

NOTICE OF VIOLATION OF FOREST PRACTICE LAWS

Section 4604 of the Public Resources Code (PRC) requires the department to inspect timber operations for compliance with the Forest Practice Act and rules of the Board of Forestry and Fire Protection. Violations may be cause for prosecution as a misdemeanor (Public Resources Code 4601), action against a Timber Operator License (PRC 4573 and 4576), injunction action (PRC 4605 and 4606), or a combination of the foregoing actions. Civil penalties may also be imposed (see PRC 4601.1). The following letter details code sections violated, mitigations required and date by which all work must be completed.

Harvest Document: 2-15-021-TRI YESMON
 Inspection Date: November 14, 2016
 Inspection Type: Inactive
 Inspection Number: 3
 Person Contacted: RPF, LTO, EMIL MASON, BEN ROWE

Violator(s):	Violation(s):	Count(s):
DG McDonald Construction	14 CCR 1035.3(d)	1

Narrative:

On November 14, 2016, I inspected timber harvest plan 2-15-021-TRI, Yesmon. Tom Walz (RPF), Emil Mason (SPI), Bud McDonald (LTO), and Ben Rowe (CAL FIRE) were present for the inspection. This inspection was arranged due to information obtained during a conversation with the RPF regarding proposed amendment 3, in which the RPF was proposing to change P1 and P2. During that conversation, I learned that the watercourse at P1 and P2 had been diverted around the road at the crossing location. I had also previously documented in an inspection report that crossings P1 and P2 had not been installed going back to an inspection which occurred on October 14, 2016.

Upon inspection, P1 and P2 still had not been installed as proposed in the THP. According to the RPF, road construction had begun at the end of September. The RPF explained that the turn radius of the switchback was insufficient for log haul if the crossing was installed as proposed in the THP. So as a result, P1 and P2 were not installed, but the road was constructed through the crossing and utilized for log haul during this time. The class II channel remained in a dirt fill condition with no installed drainage structure since that initial construction. During the inspection, it was observed the watercourse had been diverted around the crossing as the RPF had described on the phone and in Amendment 3. The RPF stated this action was taken to stabilize the site, to avoid the watercourse from running through the road prism. It is noted, that the reason this stabilization/diversion was necessary was due to P1 and P2 never being installed and the absence of any drainage structure (culvert) through this crossing.

The THP states that P1 and P2 were to be a culvert extension of an existing crossing upslope. In its observed condition, the existing culvert discharged into a rock lined inside ditch which carried the water around the road prism to a plastic pipe, which discharged at the base of the road fill into the flood plain. No culverts through P1 and P2 were present. Additionally, the THP states that P1 and P2 were to be "applied concurrent with operations that would affect the site," and "These crossings will be built in conjunction with the proposed seasonal road." Construction of the seasonal road began at the end of September, and P1 and P2 remained uninstalled since that time. The road however was constructed through this crossing and utilized for log haul during this period.

Based upon these facts, I determined the LTO failed to comply with the approved THP by not installing P1 and P2 as described in the THP. This is a violation of 14 CCR 1035.3(d) (1 count).

The following VIOLATIONS were identified during the inspection:

1. Violation of

Rule: 14CCR 1035.3(d) Comply with all provisions of the Act, Board rules and regulations, the applicable approved plan and any approved amendments to the plan.

Violation: The LTO failed to comply with the approved plan by not installing P1 and P2 in accordance with the approved THP.

Correction or Mitigation: The actions taken by the RPF and LTO to stabilize/divert the watercourse were necessary for the protection of water quality due to the described violation associated with P1 and P2, not being installed in accordance with the THP. While this diversion is not desired, it serves as the best available temporary mitigation for the protection of water quality, until such time as a permanent crossing may be installed. This diversion discharges the class II flow back into the same flood plain as before, but approximately 15-20 feet up the channel from the original location. Additional discussions with the RPF and other review agencies will be ongoing to determine the most appropriate mitigation for this site.

Since the inspection on November 14, 2016, the PHI for amendment #3 was conducted with WQ and CGS. Options were discussed with the RPF for a permanent crossing at P1 and P2 given the observed conditions at the site. Two options were discussed for the inlet. One was a rock or concrete basin with a drop inlet with perforations on the vertical surface to allow for water flow or a culvert inlet on the side of the basin. From the inlet, an appropriately sized culvert would run through the road prism and either discharge directly onto the flood plain below the fill or utilized a downspout to carry the flow over the fill to the flood plain. The outlet would retain the rip rap as described in the current plan. Also discussed was constructing a rolling dip below the switchback with a rock armored outlet for the entire length of the fill slope to serve as the critical dip to prevent diversion. Any change in THP would require the submittal of an amendment by the RPF, and be subject to the full review process.

The appropriate timeframe for completing the installation of the new permanent crossing shall be coordinated with the RPF and other agencies. The installation of the permanent crossing at P1 and P2 shall be as soon as practicle but not extend beyond October 15, 2017.

**ADDITIONAL ENFORCEMENT OPTIONS INCLUDING CRIMINAL OR CIVIL PENALTIES MAY BE
PURSUED.**

If you have any question about this matter, please contact Daniel Dresselhaus at 530-448-2493.



Signature

DANIEL DRESSELHAUS
Forester II
Shasta-Trinity Unit
875 Cypress Ave.
Redding, CA 96001
(530) 623-5681- office
(530) 448-2493- cell

cc: Unit, Region.



DSC01926- Culvert crossing above P1 and P2.



DSC01927- Location of P1 and P2.



DSC01928- Inside ditch used to divert flow around P1 and P2.



DSC01929- Overview of site.

Memorandum

Date: December 19, 2016

To: John Ramaley, Forest Practice Manager
Cascade Area Office
Department of Forestry and Fire Protection
6105 Airport Road
Redding, CA 96002

From: **Robert Hawkins**, Senior Environmental Scientist (Supervisor)
Northern Region
Department of Fish and Wildlife
601 Locust Street
Redding, CA 96001



Subject: **California Department of Fish and Wildlife Inspection Report for Lake and Streambed Alteration Agreement # 1600-2015-0201-R1 for Timber Harvest Plan 2-15-021-TRI "Yesmon."**

PROJECT OVERVIEW

Timberland Owner/Permittee:	Sierra Pacific Industries (SPI) represented by Mr. Tom Walz
County and Project Location:	Trinity County, Township 35N, Range 9W, Section 27, Mount Diablo Base and Meridian
Watercourse(s):	Stuart Fork Creek
CalWater Planning Watershed (v 2.2.1)	Stoney Creek (1106.400907)
Sensitive Species and Habitat Specific Evaluations:	Resident trout, amphibians, fish bearing and non-fish bearing riparian habitat
Inspection Date Attendees:	<u>November 18, 2016</u> <ul style="list-style-type: none">• Tom Walz (SPI)• Andrew Yarusso (CDFW)

This memorandum documents observations by the California Department of Fish and Wildlife (CDFW) of deviations to the Lake and Streambed Alteration Agreement (Agreement) # 1600-2015-0201-R1 and a violation to Fish and Game Code (FGC) Section § 5650.

The project is located on Stuart Fork Creek approximately one mile up stream along the Trinity Alps Road from the north western bridge across Trinity Lake (**Figure 1; Map**). The Stuart Fork of the Trinity River is not listed for impairment or water quality associated with sedimentation or siltation of the Clean Water Act Section 303 (d) nor does it contain or is upstream from anadromous fish species.

Utilizing FGC § 1611 within the Timber Harvest Plan (THP) the Registered Professional Forester (RPF) Mr. Tom Walz notified for four encroachments including two permanent culverts, one rocked ford and a temporary bridge on June 3, 2015. The plan was approved on March 7, 2016 and an Agreement was issued on May 25, 2016. As described in the Agreement, the culvert pipe that discharges onto crossing P1 shall be cut and collared to extend the culvert. Crossing P2 shall be placed below road surface, sized to pass the estimated 100-year flood flow and shall discharge onto sufficiently sized rock rip rap to dissipate flow. A trench dug to install P1 and P2 shall be rocked.

OBSERVATIONS

On November 10, 2016 amendment # 3 was filed with the California Department of Forestry and Fire Protection (CALFIRE). This amendment proposed modifications to the approved watercourse crossing description within the THP and the Agreement. During review, CDFW discussed these changes with other agencies and learned that the work proposed in the amendment had already occurred during timber operations. This discovery prompted an inspection.

On November 11, 2016, CDW representative Mr. Yarusso contacted the RPF utilizing condition 1.5 within the agreement to schedule a site visit upon 24 hour notice. On November 18, 2016, Mr. Yarusso and Mr. Walz met on site to evaluate the work described in the Agreement. Upon inspection work outside of agreed conditions had occurred and there were deviations including but not limited to; "Project Description" and "Permanent Culverts"; conditions 2.25, 2.26, and 2.27.

During the inspection, it was found that crossing P2 was constructed using a flexible 6 inch PVC pipe (**Figures 2 and 3**). This crossing is a permanent crossing and as such shall be sized for a 100-year flow event. Calculations by the RPF determined this pipe shall be 18 inches or larger to fulfill this requirement. The road approaches to crossings P1 and P2 had erosion control measures applied but did not contain rocked approaches per condition 2.26 (**Figure 4**).

VIOLATIONS OF FGC

In addition to work conducted outside of the conditions in the Agreement, there was evidence of deposition of fine sediment from road surfaces and fills on the south side of temporary crossing T1 (**Figure 5**). This material has a high chance of depositing directly into the watercourse during high rain events. This practice is prohibited under FGC Section 5650(a)(1)(6);

Section 5650(a)(1)(6) states:

(a)...It is unlawful to deposit in, permit to pass into, or place where it can pass into the waters of this State any of the following:

- *Any substance or material deleterious to fish, plant life, or bird life.*

CONCLUSIONS AND RECOMMENDATIONS

During the inspection, CDFW and the RPF agreed that all crossing work originally proposed and authorized shall be adhered to and commence as soon as possible under the standard operating period. This shall include rocking the new road and constructing P2 as originally proposed and approved. Because work conducted under the THP, proposed amendment #3, and the Agreement concluded days before the winter period, immediate remedy of undesirable conditions cannot occur at this time.

CDFW recommends the RPF revise the Agreement to change language providing a date when all work shall be completed. The RPF may submit an amendment request or CDFW may utilize condition 1.4 Minor Language Changes (page 3) within the Agreement to do so. CDFW recognizes that crossing conditions in time and over winter may require additional mitigation measures. Other agency recommendations will also be considered when changes to the Agreement are made.

A Pre-Harvest Inspection (PHI) for Amendment # 3 occurred on November 29, 2016. CDFW was unable to attend the PHI but has reviewed and agrees to the findings and recommendations by all agencies. One finding during the PHI was in hopes to thwart any sediment deposition into the watercourse, the RPF applied additional erosion and sediment material (straw) onto exposed surfaces including the mound of loose material at T1. This finding was provided by Mr. Forest Fortescue with the North Coast Regional Water Quality Control Board.

Upon 24 hour notification CDFW may conduct inspections at any time during the winter period to evaluate crossing function and response of fill material to adverse weather conditions.

John Ramaley
LSA 1600-2015-0201-R1 and THP 2-15-021-TRI
December 19, 2016
Page 4

If you have any questions regarding this letter, please contact Environmental Scientist, Andrew Yarusso by phone at (530) 841-2566, or by e-mail at andrew.yarusso@wildlife.ca.gov

Attachments: See pages 5-7

ecs: California Department of Fish and Wildlife
John Straatman and R1 Timberland Conservation Planning
john.straatman@wildlife.ca.gov , R1 Timberland Conservation Planning

California Department of Forestry and Fire Protection
Daniel Dresselhaus
Daniel.dresselhaus@fire.ca.gov

Sierra Pacific Industries
Tom Walz
twalz@spi-ind.com

North Coast Regional Water Quality Control Board
Forest Fortescue
forest.fortescue@waterboards.ca.gov

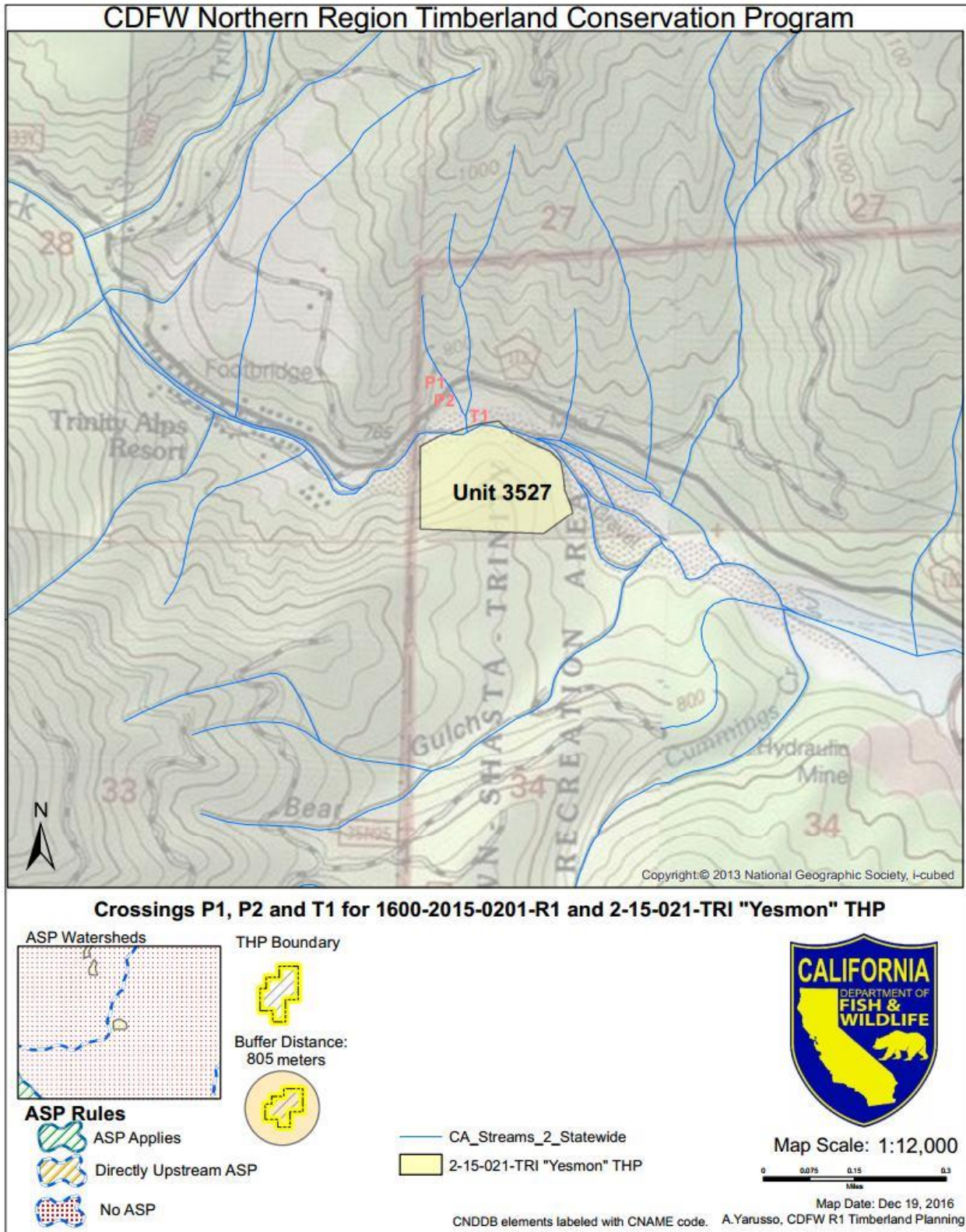


Figure 1: Map of project location



Figure 2: Crossing P2 Inlet



Figure 3: Crossing P2 side view



Figure 4: Road Approaches to and from P1 and P2



Figure 5: Loose fill placed at T1

North Coast Regional Water Quality Control Board

Date: December 7, 2016

To: Dean Prat, Senior Engineering Geologist, North Coast Regional Water Quality Control Board (Regional Water Board) – Northern Nonpoint Source and Forestry Unit
CALFIRE Review Team Chair, Redding
Tom Walz, Registered Professional Forester (RPF)
Dan Dresselhaus, CALFIRE (CF)
File

From: Forest Fortescue, Engineering Geologist, Regional Water Board (RWB)

Subject: Water Quality Pre-Harvest Inspection Report for THP 2-15-021 TRI, YESMON, Amendment 3

I. INTRODUCTION

On November 29, 2016, I participated in a Pre-Harvest Inspection (PHI) for Timber Harvest Plan (THP) 2-15-021 TRI Amendment 3 (AM3). The THP proposes to harvest a total of 195 acres contained within numerous harvest units. The portion of the THP area covered by this amendment is located within the Stuart Fork Watershed, located within the Upper Trinity River Watershed. Currently, the Stuart Fork of the Trinity River is the only watershed in the Upper Trinity River HA that is not listed on the Clean Water Act Section 303(d) List for impairment or threat of impairment to water quality associated with sedimentation/siltation.

The purpose of this PHI was to evaluate protection of beneficial uses of waters of the state for the Upper Trinity River Watershed and to evaluate whether the proposed amendment to the THP complies with all substantive and procedural requirements of the Basin Plan and the Porter-Cologne Water Quality Control Act. In addition, this inspection provided an opportunity for Regional Water Board staff to verify the proposed amendment to the THP's compliance with current California Forest Practice Rules (FPRs). Comments and recommendations in this memorandum are provided in accordance with California Public Resources Code (PRC) Section 4582.6(a) and (b).

II. PHI PARTICIPANTS

Tom Walz, RPF, Sierra Pacific Industries (SPI)
Emil Mason, SPI
Don Lindsay, California Geologic Survey
Daniel Dresselhaus, CF
Forest Fortescue, Engineering Geologist, RWB
David Fowler, Engineering Geologist, RWB

III. GENERAL AMENDMENT SUMMARY

On June 23, 2015, RWB staff participated in the PHI for the THP. On June 15, 2016, the landowner requested coverage of the THP under *General Waste Discharge Requirements for Discharges Related to Timber Harvest Activities on Non-Federal Lands in the North Coast Region*, Order No. R1-2004-0030 (GWDR). The THP was determined to be complete and was enrolled under the GWDR on June 23, 2015.

The proposed AM3 is located in the Upper Trinity River HA approximately fourteen miles north northeast of the town of Weaverville. The activities proposed in AM3 are located in the south west corner of Section 27 of Township 35 North, Range 9 West of the Mount Diablo Base and Meridian. The Erosion Hazard Rating (EHR) for the AM3 area is calculated as moderate.

The approved THP includes construction of approximately 800 feet of new seasonal road to access THP Unit 3527 (Figure 1) including a switchback located over a Class II watercourse. Two new culverted watercourse crossings, P1 and P2, were proposed to be installed and connected to the existing 18-inch diameter corrugated metal pipe (CMP) that conveys flow from the Class II watercourse under Trinity Alps Road. Trinity Alps Road is a Trinity County road and is located immediately upstream of the new seasonal road construction. The outlet of P2 was proposed to convey stream flow onto the floodplain of Stuart Fork.

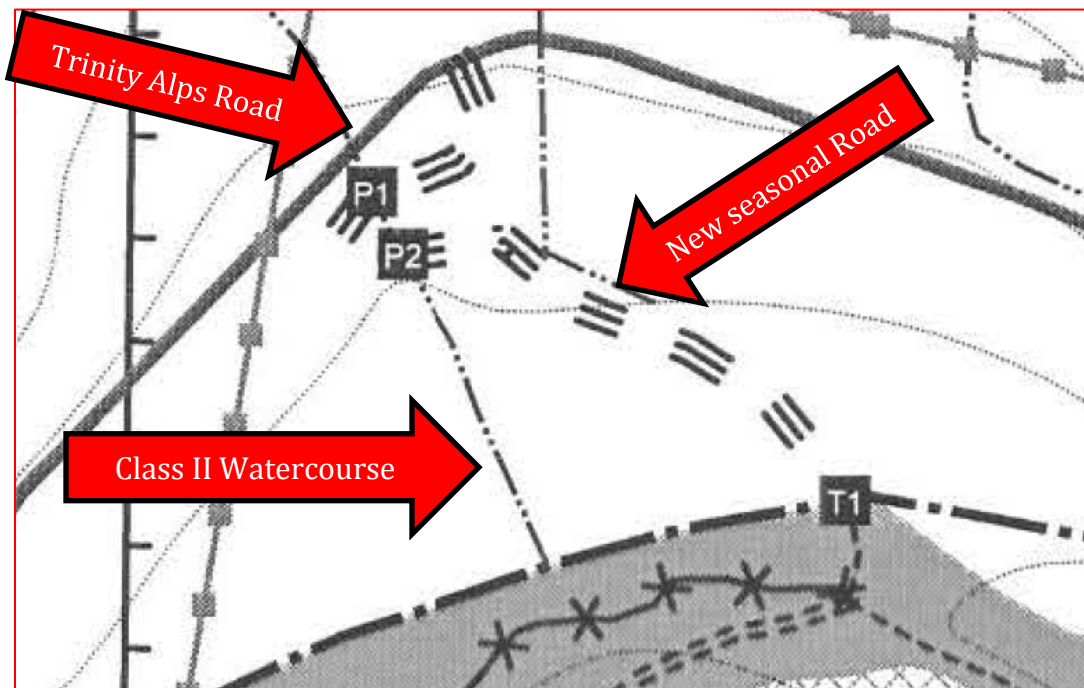


Figure 1: Excerpt from page 55 of Section II of the approved THP

AM3 was submitted by the landowner to CF on October 31, 2016. AM3 proposes to replace the approved culvert crossings at map points P1 and P2 with a permanent diversion structure. AM3 also proposes the use of straw mulch to stabilize a portion of Class I WLPZ road constructed during THP operations instead of using rock as proposed in the approved THP. During first review of AM3, and through consultation with CF and CDFW staff, RWB staff was informed that the work proposed in AM3 was started prior to the submittal of AM3 to CF and completed prior to the PHI. Approximately 9.61 inches of rain fell in Weaverville during the month of October 2016¹.

The PHI inspection participants met at the SPI office in Weaverville at 0845. The weather at the time of our inspection was partly cloudy and cool.

IV. PHI OBSERVATIONS

The PHI focused on the proposed changes to the approved road construction, unstable areas, and watershed protection measures proposed in AM3. The PHI inspection team arrived at the AM3 location at approximately 0925. We walked the new seasonal road from the intersection with Trinity Alps Road to where the new seasonal road meets the floodplain of Stuart Fork.

¹ CDEC, Accessed 12/7/16: <http://cdec.water.ca.gov/cgi-progs/queryMonthly?s=WVR&d=11%2F1%2F16>

A six-inch diameter plastic culvert had been installed and conveyed flow in the Class II watercourse referenced in AM3 to a discharge point on the floodplain of Stuart Fork (Figure 2). We observed deposition of fine earthen material on the edge of the floodplain of Stuart Fork below the outfall.



Figure 2: Six-inch plastic culvert discharging to the edge of the floodplain of Stuart Fork

Continuing around the base of the fill slope, we observed a recent fill failure on the lower portion of the new seasonal road construction onto the floodplain of Stuart Fork. We observed that the fill failure had deposited fine earthen material onto the floodplain of Stuart Fork, and the fill had been stabilized with river rock sourced from the adjacent floodplain (Figure 3).



Figure 3: Failure in fill slope of new seasonal road construction, from below (left) and above (right)

The PHI inspection team assessed the Class II watercourse and switchback on the new seasonal road construction where P1 and P2 were proposed to be installed (Figure 4). Exposed fill on the new seasonal road construction was stabilized with straw mulch, but the road was not rocked as proposed in the THP.

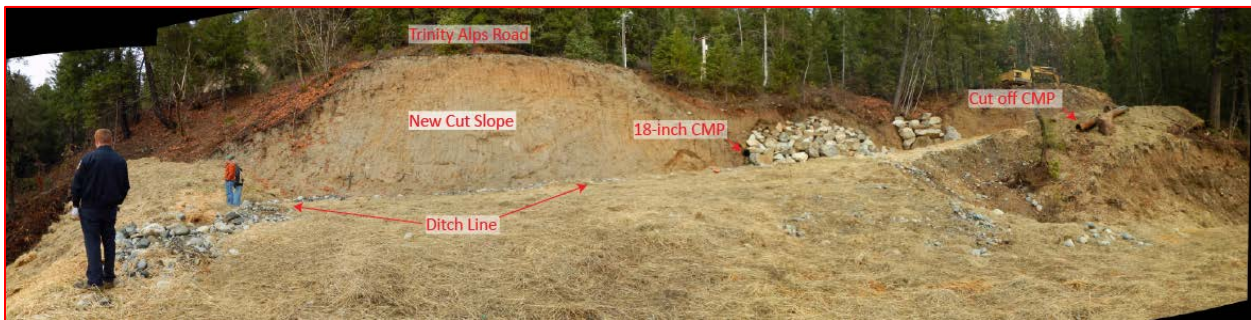


Figure 4: Annotated panorama of the seasonal road switchback

During the PHI, Tom Walz from SPI discussed the chronology of events at the site with the PHI inspection team. In order to pass log truck traffic through the tight switchback, the new road construction expanded the size of the switchback, requiring the excavation of a cut slope adjacent to Trinity Alps Road. The existing 18-inch diameter CMP was cut flush with the fill slope of Trinity Alps Road (Figure 5). P1 and P2 were not installed at the time the road was constructed.



Figure 5: 18-inch CMP outlet of the Class II watercourse crossing on Trinity Alps Road

Log hauling activities continued until mid-October, when a rain event stopped hauling just prior to completing operations in Unit 3527. After the rain event, the fill slope failure shown in Figure 3 occurred and the landowner constructed the drainage diversion structure to contain the flow of the Class II watercourse and convey the flow to the floodplain of Stuart Fork. Mr. Walz asserted that construction on the road was still not complete, and the landowner was under no obligation to install the watercourse crossings P1 or P2, or install rock to stabilize the roads as described in the approved THP until completion of timber harvest operations.

The steep cut slope seen in Figure 2 was cut into the fill slope of Trinity Alps Road and decomposed granite (DG) rock. We observed a small fill failure in the DG material adjacent to the existing 18-inch CMP. Rock armor was added to several points along the new seasonal road segment just uphill from the culvert outlet and was stabilized with rip rap. During the PHI, CGS staff Mr. Lindsay expressed concern about the stability of the cut slope and requested that the landowner work with staff from Trinity County to develop a long-term fix for any instability that might endanger Trinity Alps Road (see CGS PHI report for additional information).

During the PHI, Mr. Walz described the original condition of the Class II watercourse associated with AM3 as a gully formed by an eight-foot portion of shotgunned 18-inch CMP that extended over the fill slope of Trinity Alps Road. We observed that the Class II

watercourse now flows from the outlet of the remaining portion of the CMP down an inboard ditch that extends along the base of the DG cut slope (Figure 6).



Figure 6: Panorama of the new seasonal road switchback and ditch, taken from top of the DG cut slope on the shoulder of Trinity Alps Road

The inboard ditch discharges into a small inlet structure formed by river rock and concrete bags placed around the inlet of the six-inch diameter flexible plastic (Figure 7). The flexible pipe extends down the fill slope and discharges to the floodplain of Stuart Fork.



Figure 7: Inlet of six-inch plastic pipe that extends to the floodplain of Stuart Fork

During the October rains, flow from the road surface and the Class II watercourse diverted across the switchback and formed a gully below a water bar about half way down the lower portion of the new road construction (see Figure 3). The PHI inspection team assessed the current conditions of this site and recommended against accepting the proposal in AM3 for treatment of the site, based on:

- the sensitivity of the site in relation to the adjacent floodplain of Stuart Fork,
- the risk of future diversion of the Class II watercourse,
- the possibility of ongoing failures along the DG cut slope filling the ditch line,
- the undersized plastic culvert currently conveying stream flow to the floodplain of Stuart Fork, and
- the proposal in AM3 to construct a permanent diversion of a Class II watercourse.

The PHI inspection team agreed that the current configuration would function as a temporary solution to overwinter the site, assuming constant monitoring of the inboard ditch line throughout the winter period. However, the landowner shall revise the amendment to include installation of crossings P1 and P2, using a drop inlet to collect flow from the outlet of the 18-inch CMP on Trinity Alps Road. The culvert shall be of sufficient size to pass the 100-year flood flow and debris calculated for the watercourse and shall discharge to a downspout that will carry flow from the Class II watercourse to the floodplain of Stuart Fork (**Recommendation 1**). We concluded our assessment of the new seasonal road construction at around 1100.

The temporary bridge over Stuart Fork, identified as T1 in the THP, was removed prior to the PHI. In order to access the second portion of AM3 we walked over the permanent bridge at the nearby Trinity Alps Resort then walked east on a hiking trail along the south side of Stuart Fork to reach THP Unit 3527 and the location of the proposed amendment. We arrived at the south abutment to T1 at approximately 1120.

AM3 proposes change the approved running surface of the temporary roads within the Class I WLPZ of Stuart Fork (Figure 8) to straw mulch instead of rock, as originally proposed in the THP. We observed that temporary road construction and reconstruction proposed in AM3 had already occurred, and according to Mr. Walz, the majority of log hauling on these temporary roads had also already occurred. Only a few loads of logs remain on the landings, and the landowner proposes to haul those logs next year.

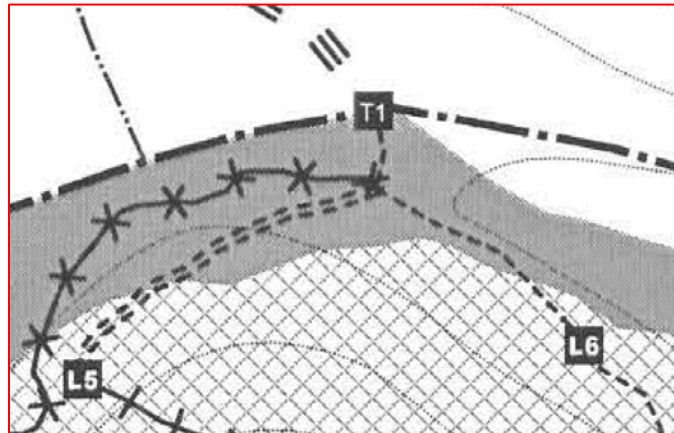


Figure 8: Excerpt from Page 55 of the approved THP.

All exposed fill on the temporary road construction and reconstruction was stabilized with straw mulch within the Class I WLPZ. We observed that the temporary road reconstruction that extends south east from T1 to landing L6 is relatively flat. However, the new temporary road segment that extends southwest from T1 to landing L5 is relatively steep, with an outboard berm breached at only two points with hand-dug water bars providing road drainage (Figure 9).



Figure 9: Portion of the new temporary road construction between T1 and L5

The two- to three- foot high outboard berm on the new temporary road construction makes the current condition of the road a through cut. We observed transport of earthen material through the straw mulch placed on the new temporary road construction and coverage of the native surface appeared to be less than 90 percent (Figure 9). Although Mr. Walz stated that the majority of log hauling on the temporary road had already occurred, he also stated that the new temporary road was still under construction and the final road design would remove the outboard berm on the steep portion of the temporary road.

The PHI inspection team agreed that placement of straw mulch on the portion of temporary road reconstruction extending from T1 to L6 through the Class I WLPZ appeared appropriate. However, the segment of new temporary road construction between T1 and L5 shall be rocked once access to Unit 3527 at temporary crossing T1 is restored in the spring (**Recommendation 2**).

The PHI inspection team discussed the condition of the short rocked segment of the southern approach to temporary bridge crossing T1 and a discharge of earthen material to Stuart Fork that occurred during the October rains. T1 was left in place during the increased stream flow that followed the first rain and Stuart Fork overtopped the bridge and eroded away an approximately ten-foot length of the cap of fine native material placed over the abutment's coarser substrate (Figure 10).



Figure 10: South approach to T1

Mr. Dresselhaus of CF estimated that one to two cubic yards of the fine native material may have been discharged to Stuart Fork from erosion of the bridge approach. By the date of the PHI for AM3 no discharge notification was provided to the RWB regarding this discharge, as required by the GWDR. The landowner shall provide a discharge notification to the RWB regarding the erosion of the southern abutment associated with temporary bridge T1 (**GWDR Recommendation 1**).

V. GENERAL WASTE DISCHARGE REQUIREMENTS

Timber Harvest Projects on private lands within the North Coast Region must be permitted under either Waste Discharge Requirements or a Waiver of Waste Discharge Requirements. The RWB has adopted General Waste Discharge Requirements (General WDRs) under Order No. R1-2004-0030 to provide coverage for THPs and Program THPs (PThPs).

The RWB also adopted a Waiver, Order No. R1-2014-0011 (supersedes Order No. R1-2009-0038), which can provide coverage for low impact THPs, Modified THPs (MThPs), Emergencies, Exemptions, and timber harvest projects in compliance with the Garcia River TMDL.

RWB staff has conducted a cursory review of the THP and have assessed the THP for compliance with the General WDRs. The General WDRs require the submittal of technical reports, including an Erosion Control Plan (ECP) with an inventory of controllable sediment discharge sources (CSDSs), an estimate of sediment volumes, an estimate of the relative potential for sediment delivery, an implementation schedule, and an inspection plan.

A final review of the necessary elements for General WDR coverage will be conducted when the application for coverage under General WDRs is submitted to the RWB.

Copies of the GWDR and Waiver, as well as other timber related information, can be found at the following web address:

http://www.waterboards.ca.gov/northcoast/water_issues/programs/timber_operations/timber_waiver/

VI. RECOMMENDATIONS

Recommendations and comments are provided pursuant to the statutory authority contained in the Porter Cologne Water Quality Control Act (California Water Code Section 13000 et seq.), the Basin Plan, and the Z'Berg Nejedly Forest Practice Act (PRC Section 4582.6), and in accordance with the Forest Practice Rules 14 CCR 1037.5(f).

1. The landowner shall revise the amendment to include installation of crossings P1 and P2, using a drop inlet to collect flow from the outlet of the existing 18-inch

CMP on Trinity Alps Road. The culvert shall be of sufficient size to pass the 100-year flood flow and debris calculated for the watercourse, and shall discharge to a downspout that will carry flow from the Class II watercourse to the floodplain of Stuart Fork.

2. The landowner shall rock segment of new temporary road within the Class I WLPZ between T1 and L5 once access to Unit 3527 at temporary crossing T1 is restored in the spring and prior to any log hauling.

VII. RECOMMENDATIONS FOR COMPLIANCE WITH THE GENERAL WASTE DISCHARGE REQUIREMENTS

1. The landowner shall provide a discharge notification to the RWB regarding the erosion of the southern abutment associated with temporary bridge T1.

North Coast Regional Water Quality Control Board

Date: January 9, 2016

To: Dean Prat, Senior Engineering Geologist, Northern NPS & Forestry Unit

From: Graham Brown, Engineering Geologist

File: THP 2-15-021 TRI – Yesmon Amendment 3 (CW-814600)

Subject: December 20, 2016 GWDR Compliance Inspection

I. INTRODUCTION

On December 20, 2016, North Coast Regional Water Quality Control Board (Regional Water Board) staff Tim Walcott and Graham Brown inspected a portion of timber harvest plan (THP) 2-15-021 TRI for compliance with Order No. R1-2004-0030 (GWDR). The THP was enrolled under the GWDR on June 23, 2016. This inspection focused on the portion of the THP that Sierra Pacific Industries (SPI) identified in proposed Amendment 3 (AM3). The AM3 area is located south of Trinity Alps Road and encompasses portions of the riparian zone and floodplain on the north side of Stuart Fork of the Trinity River (Stuart Fork), a Class I watercourse. Recent road construction activities in the AM3 area and subsequent rain events led to erosion and unauthorized discharges of soil and other earthen materials from the AM3 area to Stuart Fork.

A pre-harvest inspection (PHI) for proposed AM3 was conducted on November 29, 2016 and Regional Water Board staff submitted a PHI report (AM3 PHI Report) to CAL FIRE on December 7, 2016. The AM3 PHI Report documented that flow from the outlet of the 18-inch diameter culvert that conveys a Class II watercourse under Trinity Alps Road had been intentionally diverted into a constructed rock lined channel and down to the floodplain of Stuart Fork. On December 1, 2016, SPI submitted a discharge notification to the Regional Water Board stating that after the AM3 PHI the cutslope failed and buried the outlet of the 18-inch diameter culvert under Trinity Alps Road.

Tim and I arrived at the AM3 area at approximately 10:00 a.m. on December 20, 2016. We met briefly with Bob Taylor of SPI at the beginning of the inspection. Mr. Taylor left the inspection area by 10:15 a.m. The weather at the time of the inspection was mostly clear with brief periods of rain. We used a 300-foot long contractor's tape measure to take measurements during the inspection.

II. OBSERVATIONS

Tim and I began our inspection by looking at the Class II watercourse upstream of the 18-inch diameter culvert that conveys the watercourse under Trinity Alps Road. Upstream of the 18-inch diameter culvert this Class II channel was not disturbed by THP activities. Based on our measurements, the Class II channel upstream of Trinity Alps Road averages two-feet wide and six-inches deep.

Next, we crossed Trinity Alps Road and began inspecting the AM3 area. We observed that the failed cutslope had buried the rock-lined channel and the outlet of the 18-inch diameter culvert under Trinity Alps Road (see Photo 1). The observed conditions were consistent with the December 1, 2016 discharge notification. We also observed tension fractures in the asphalt of Trinity Alps Road. Trinity County staff had placed traffic cones along the road to divert traffic away from the road shoulder adjacent to the failing cutslope. Mr. Taylor stated that SPI staff had installed the blue tarp over the failing cutslope.



Photo 1: The failing cutslope
(Graham Brown, December 20, 2016)

We measured the void in the failed cutslope to be approximately 48-feet long and 26-feet high (see Photo 2). We estimated an average depth of the failure to be 5-feet and calculated the volume of the wedge-shaped void to be 113-cubic yards. Based on our visual assessment, we estimated that half the earthen material from the failed cutslope,

approximately 56-cubic yards, had already been discharged to Stuart Fork with an additional 56-cubic yards still on the switchback at risk of discharge.



**Photo 2: Annotated figure illustrating dimensions of the failed cutslope
(Graham Brown, December 20, 2016)**

We observed that flow from the buried culvert outlet and seepage from the cutslope was diverted into a hand dug drainage channel constructed by SPI personnel (see Photo 3). The hand dug channel was installed on or adjacent to the unauthorized rock lined channel which was mostly buried under earthen materials originating from the failing cutslope. We measured the hand dug drainage channel to be 103-feet long, 1-foot wide, and 4-inches deep.



**Photo 3: Hand dug drainage channel across the switchback
(Graham Brown, December 20, 2016)**

We also observed a seep flowing out from under the tarp placed over the failed cutslope (see Photo 4). The seep had cut a channel through the earthen material deposited at the toe of the failed cutslope (see Photo 5).



**Photo 4: Seep on west side of cutslope failure
(Graham Brown, December 20, 2016)**



**Photo 5: Seep channel flowing into hand dug channel
(Graham Brown, December 20, 2016)**

Combined flow from the culvert outlet of the Class II watercourse and the seep was conveyed in the hand dug drainage channel across the apex of the switchback to the inlet of the unauthorized six-inch diameter flexible plastic pipe. We measured the unauthorized pipe from the inlet end to the outlet end on the floodplain of Stuart Fork to be 100-feet long. During the PHI for AM3, Regional Water Board staff documented the discharge of sediment to a discrete area at the outlet of the unauthorized pipe (see Photo 6). We

measured a 22-foot long sediment plume that fanned out from the pipe outlet to a high flow channel (secondary channel) on the floodplain of Stuart Fork (see Photo 7).



**Photo 6: Plastic flexible pipe discharging onto Class I floodplain of Stuart Fork
(Forest Fortescue, November 29, 2016)**



**Photo 7: Plastic flexible pipe discharging onto Class I floodplain of Stuart Fork
(Graham Brown, December 20, 2016)**

Tim and I then inspected impacts to the secondary channel and the floodplain of Stuart Fork. We observed that the secondary channel upstream of the plume contained only native material and was not impacted with material from the plastic flexible pipe. We measured a 110-foot long segment of continuous deposition in the channel downstream from the confluence of the plume and secondary channel. We measured the secondary channel beyond this point an additional 110-feet before meeting the primary channel. In this lower segment the channel banks become vegetated, the channel widens to 42 feet, and deposition becomes intermittent as the flow begins to slow and move subsurface (see Figure 1).

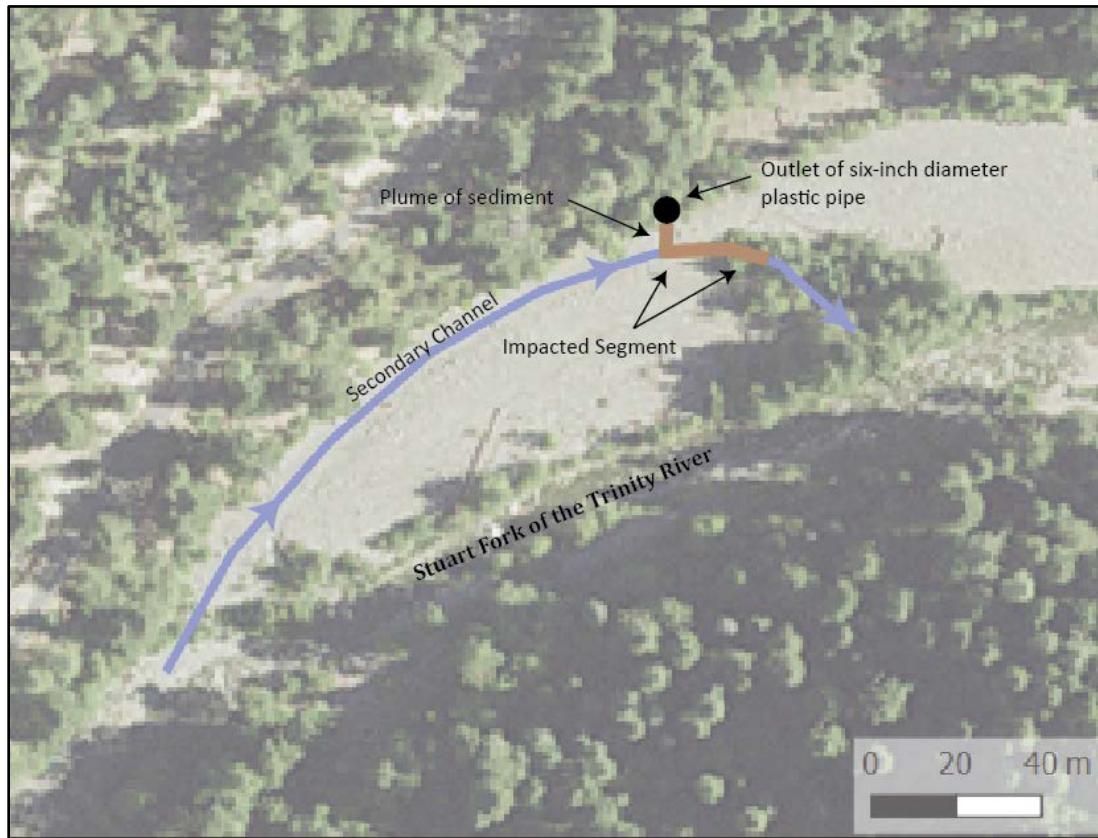


Figure 1: Map showing the spatial layout of the floodplain of Stuart Fork

In the upper portion of the secondary channel we observed ripple marks in sediment deposited on the floodplain and above the water line (see Photo 8). In the lower portion of the secondary channel we observed thin intermittent deposits of fine sediment on the cobbles (see Photo 9). Based on our observations it appeared that recent high flows had delivered sediment from the secondary channel into the primary channel of Stuart Fork.



**Photo 8: Ripple marks on the bank of the secondary channel
(Graham Brown, December 20, 2016)**



**Photo 9: Deposition of fines in the secondary channel
(Graham Brown, December 20, 2016)**

We then inspected the northern abutment to the temporary bridge crossing over Stuart Fork identified as T1 in the THP. SPI had removed the temporary bridge in October 2016. We also looked across Stuart Fork at the southern bridge approach. The southern approach was constructed with native floodplain material and extended from the south bank of Stuart Fork into the primary flow channel. Stuart Fork was overtopping the southern abutment (see Photo 10).



**Photo 10: View to the south across Stuart Fork
(Graham Brown, December 20, 2016)**

We walked north across the floodplain back towards the switchback and Trinity Alps Road. We observed a series of gullies and erosion on the fillslope below the southern extent of the seasonal road below the switchback (see Photo 11). The erosion had deposited road embankment fill materials into an elliptical-shaped depression on the floodplain at the base of the fillslope (see Photo 12). We measured the deposit to be 90-foot long and 16-foot wide with an estimated average depth of 6-inches. Based on our measurements and the elliptical shape the sediment deposit we estimated 20-cubic yards of eroded fill material had been deposited in the depression.



**Photo 11: Erosion of the fillslope
(Graham Brown, December 20, 2016)**



**Photo 12: Deposition on floodplain below the
switchback
(Graham Brown, December 20, 2016)**

III. RECOMMENDATIONS

Implement the mitigation measures contained in Regional Water Board staff's December 7, 2016 PHI report.