Field Inspection Report

Name and Location of Facility Inspected	Rhys Vineyard, Clarke Ranch, 6501 Branscomb Road, Laytonville, CA		
Inspection Date & Time:	January 13, 2017 , 0800-1900 Travel time included	**Mendocino County Assessor Parcel Numbers (APN)**	015-050-061, 015-050-057, 015-050-056, 015-050-055, 015-050-050, 015 050-051, 014-300-019

Names & Titles of On-Site Representatives and Consenting Parties	**Consent[1] or Warrant**	**Notified of Inspection?**
Javier Tapia Meza, Ken Seckora	Consent Inspection	☒**YES**

Property Owner(s):	Rhys Vineyards LLC
Physical Address:	6501 Branscomb Road, Laytonville, CA.
Mailing Address:	11715 Skyline Blvd., Los Gatos, CA 95033
Property Representatives Present:	Randy Jacobszoon, Registered Professional Forester

Report Prepared By:

Stormer Feiler, Senior Environmental Scientist Specialist (SES), North Coast Regional Water Board (RWB)

Report Reviewed By:

Attending Agency Representatives:

Water Boards	**Ca. Department of Fish and Wildlife (DFW)**
Stormer Feiler, ES, North Coast Regional Water Board (RWB) Senior Environmental Scientist Specialist	Gordon Leppig- Sr. Env. Scientist Supervisory
Skyler Anderson, ES, State Water Resources Control Board, Division of Water Rights (Division)	Angela Liebenberg- Sr.Env. Scientist Specialist
Gil Falcone- RWB	Donald White-DFW Warden
Taro Murano- Sr. Env. Scientist Supervisory	

California Integrated Water Quality System (CIWQS) Inspection:	
Photos Taken:	Stormer Feiler took all photographs unless labeled otherwise.
Weather:	Sunny and warm
Facility Receiving Water Names:	South Fork Eel River headwaters and unnamed tributaries, and Ten Mile River and unnamed tributaries

Introduction

On January 13, of 2017 the above named staff from the RWB, Division, and DFW, met Randy Jacobszoon at the Rhys Vineyard Clarke Ranch landholdings located at 6501 Branscomb Road near Laytonville in Mendocino County to conduct an inspection of the sites and areas where violations were observed during the September 29, 2015 inspection. The body of this report provides RWB staff findings of ongoing discharges and inherent instabilities in the areas previously inspected in 2015. The January 2017 inspection was limited to the areas reviewed in 2015, and did not include evaluation of the entire Clarke Ranch road system or potentially all areas developed or considered for development by Rhys Vineyard.

Background

The project site is located on the Clarke Ranch (Property), which straddles the divide between the South Fork Eel River and the Ten Mile River watersheds. According to Parcel Quest, Rhys Vineyard purchased the Clarke Ranch on January 20, 2015.

The South Fork Eel River and the Ten Mile River are federal Clean Water Act section 303(d)-listed for sediment and temperature impairments. The Clarke Ranch is located within the Laytonville Hydrologic Subarea of the South Fork Eel River, and the Ten Mile River Hydrologic Subarea is within the Mendocino Coast Hydrologic Unit. The United States Environmental Protection Agency approved the Ten Mile River Sediment TMDL on December 16, 1999, and the South Fork Eel River temperature and sediment TMDL in December of 2000. These watersheds are also identified as follows with the two standard watershed identification methods: the Cal Water watersheds (Version 2.2) and the federal Hydrologic Unit Code (HUC) HUC 12 as follows: Ten Mile River watersheds Cal Water 1113.130102 (Patsy Creek) and as HUC 12 180101080101-North Fork Ten Mile River; and South Fork Eel River as Cal Water 1111.330305 (Laytonville) and HUC 12 as 180101060103- Elder Creek South Fork Eel River.

The Ten Mile River TMDL indicates that the primary load reductions required would come from reducing road related surface erosion and road-related landslides.

The South Fork Eel River TMDL load allocation places an emphasis on controlling sediment delivery from roads and is based on an 80% reduction in sediment from roads. The road category included: road surface erosion, road crossing failures and gullies, and skid trails. For temperature, the TMDL hypothesizes that benefits will occur through reducing the sediment loading down to the load allocation, and recommends addressing effective shade on streams, essentially encouraging the management of vegetation along streams to mimic natural shade, which the TMDL identifies as 85% canopy coverage.

Both watershed total maximum daily loads were set to protect the beneficial uses of Cold Freshwater Habitat; Spawning, Reproduction, and/or Early Development; Migration of Aquatic Organisms; and Commercial and Sport Fishing in an attempt to recover endangered salmonids such as steelhead trout, Coho Salmon, and Chinook Salmon. The Ten Mile and South Fork Eel Rivers are within the California Coastal ESU for Chinook Salmon, in which the salmon are listed as threatened by the U.S. Endangered Species Act (ESA). The South Fork Eel River is within the Southern Oregon/Northern California Coast ESU for Coho Salmon, in which they are listed as Threatened by the ESA. The Ten Mile River is within the Central California Coast ESU for Coho Salmon, in which they are listed as Endangered by the ESA. In both the South Fork Eel and the Ten Mile Rivers, steelhead trout are listed as Threatened by the ESA within the Northern California distinct population segment.

On September 29, 2015 in response to a complaint received from California Department of Fish and Wildlife a multi-agency complaint consent inspection was conducted on the Clarke Ranch Properties recently purchased by Rhys Vineyard.

On February 24, 2017, the North Coast Regional Water Quality Control Board issued a Notice of Violation (NOV) to Rhys Vineyards for the unpermitted vineyard and road construction that occurred on the Clarke Ranch in 2015. The NOV required five (5) deliverables within 45 days or by April 10, 2017.

On March 30, 2017, Jacobszoon and Associates on behalf of Rhys Vineyards requested an extension of the NOV deliverable due date. On April 7, 2017, the Regional Water Board granted an extension of the due dates for a portion of Deliverable 2., and all of deliverables 3-5.

On April 10, 2017, Jacobszoon and Associates hand delivered Rhys Vineyards response to the NOV Deliverables 1 and part of 2. As pertinent to this inspection report, some of the materials received on April 10, 2017 are utilized in this report.

Property Information:

As noted above, the Property is located off Branscomb Road, approximately five miles southwest of Laytonville, and is commonly referred to as the Clarke Ranch. Image 1 and 2 below provide a visual of the general location.

Site Map/Imagery

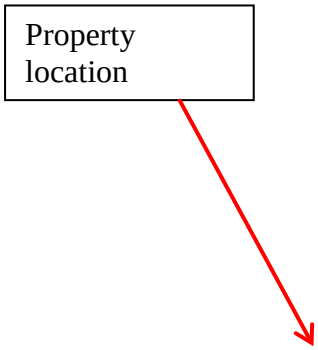

Image 1 – topographic map showing general property location

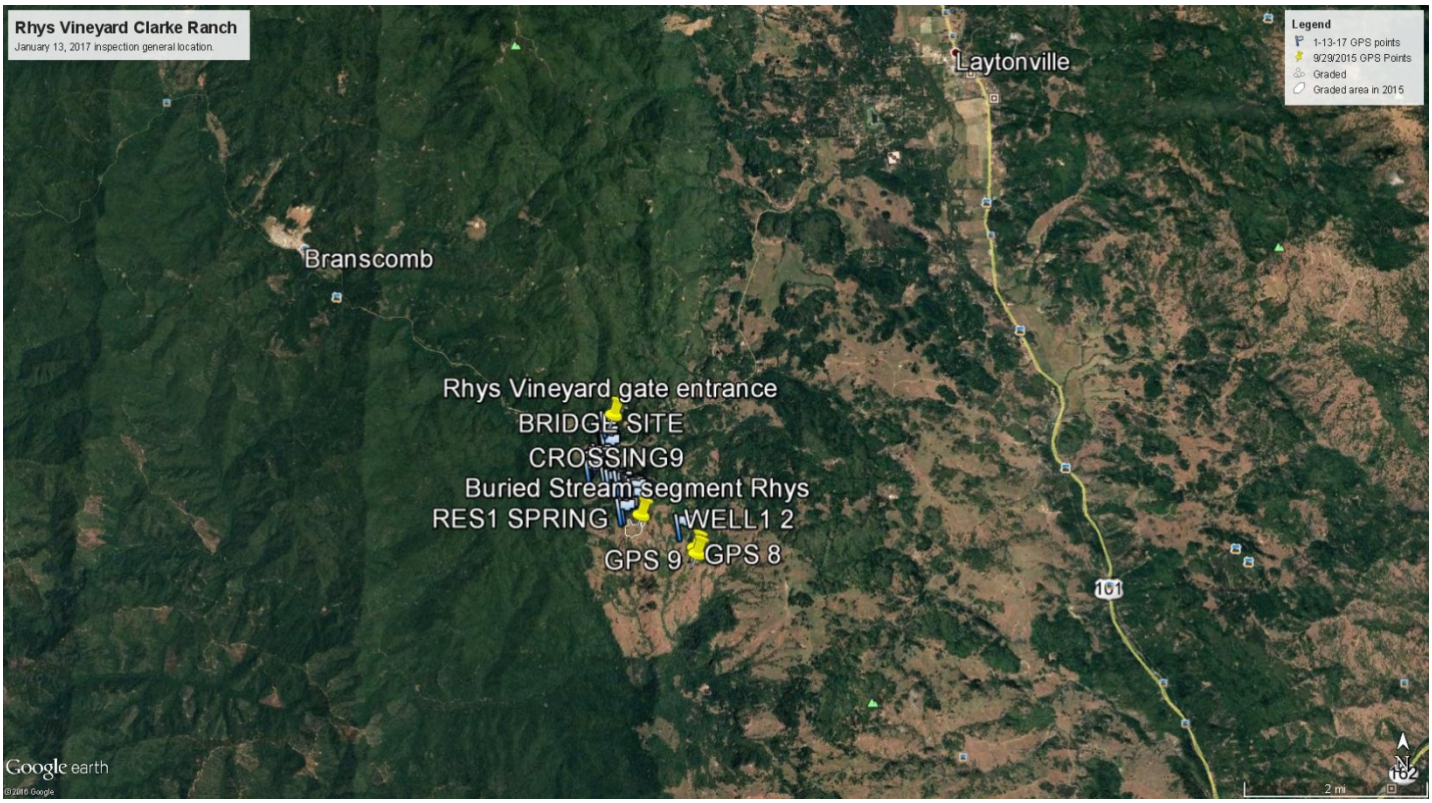

Image 2 – Aerial image from Google Earth shows the general property location and includes inspection points.

Images 3-5 below provide closer aerial views of portions of the property inspected. All aerial imagery appears to be dated prior to recent site development. Inspection points and identified features correspond to areas discussed in this report. Stormer Feiler made all observations, took all photos, and made all analyses included within this report unless otherwise noted.

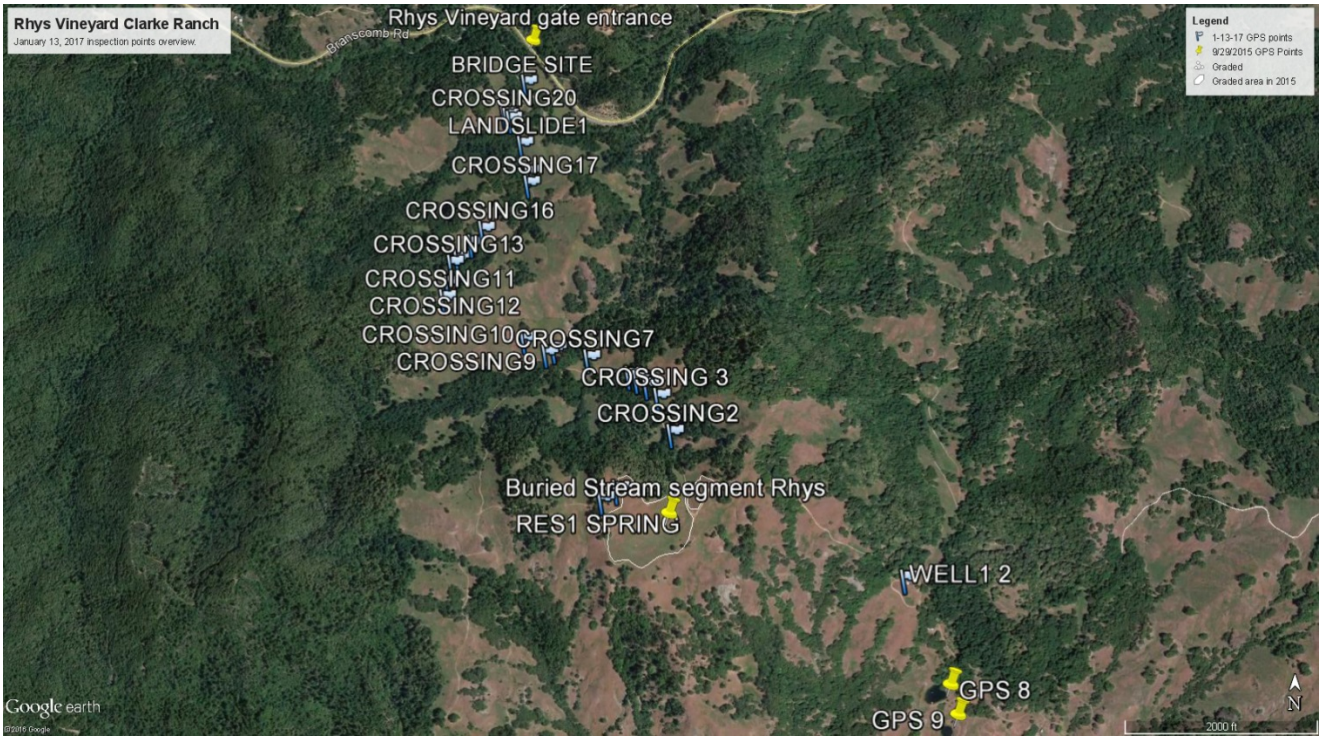

Image 3 - area inspected on January 13, 2017, 2015.

Inspection Observations:

On January 13, 2017, at approximately 9:30 am, staff of the Regional Water Board, DIV, and DFW, met at the Laytonville High School and proceeded to the inspection area.

Upon the arrival of the inspection team at the Property, Randy Jacobszoon met the inspection team as the landowner representative.

After an initial consultation with Mr. Jacobszoon, we proceeded to the graded area and began our inspection. This inspection report focuses on the points identified in the maps above. Of note is the access route we used to get to the vineyard on January 13, 2017, was not the constructed/reconstructed road that we used in 2015.

Image 4 – location of large graded area and recently constructed pond, prior to grading and excavation. The vineyard expansion observed on 1/13/2017 subsequent to the September 29 2015 inspection is drawn in red. (Google Earth Pro imagery, image date May 25, 2014)

Site 1: Vineyard Area and Pond Site Inspection Observations

Image 4, above, shows the recently graded area, prior to grading. In order to estimate the extent of ground disturbance, based upon site observations, I outlined in the 2015 inspection report, on this image, the approximate areas affected by grading. During the 2017 inspection, I noted that the graded areas (vineyard) had increased in size. In addition, the inspection team observed that the vineyard developer had installed a system of underground drainage under the developed vineyard to control surface flows and collect surface runoff. The buried stream channel remained buried.

In 2015, I observed that the grading and excavation conducted to clear and contour slopes and to create the pond resulted in the burial of the stream that was visible on 2014 Google Earth images. The length of stream channel buried by the grading is approximately 1480-1650 feet. During the 2017 inspection, I observed that the buried stream channel appeared remained buried and appeared to be flowing underground and daylighting at the far northeast corner of the vineyard area.

GPS Point Name	Latitude	Longitude	Stream Class if applicable
RES1 Inlet	39.607851	-123.554538	Reservoir inlet
RES1 Spring	39.607545	-123.555146	Reservoir spring
Crossing 2	39.609664	-123.552322	Class II Stream
Crossing 3	39.61084	-123.552869	Class III Stream
Crossing 4	39.611236	-123.55334	Large Class II Stream
Crossing 5	39.611433	-123.553756	Class II Stream
Crossing 6	39.611566	-123.55408	Class II Stream

Crossing 7	39.61213	-123.55581	Large Class II Stream
Crossing 8	39.612441	-123.557232	Class I Stream
Crossing 9	39.612301	-123.557578	Class I Stream
Crossing 10	39.612739	-123.55849	Ditch Relief Culvert
Crossing 11	39.614051	-123.561889	Class III stream
Crossing 12	39.614597	-123.561753	Class II Stream
Crossing 13	39.615243	-123.561639	Ditch Relief Culvert
Crossing 14	39.615426	-123.561391	Ditch Relief Culvert
Crossing 15	39.615979	-123.560845	Ditch Relief Culvert
Crossing 16	39.616465	-123.560404	Class II Wetland/Stream
Crossing 17	39.618107	-123.558525	Large Class II Stream
Crossing 18	39.618512	-123.558517	Class III Stream
Unstable Slope 1	39.619533	-123.558868	Unstable area
Crossing 19	39.620473	-123.559403	Large Class II or Class I Stream
Crossing 20	39.620583	-123.559556	Large Class II Stream
Unstable Slope 2	39.62066	-123.559664	Unstable area
Proposed Bridge Site	39.62184	-123.558789	South Fork Eel River
GPS 8	39°36'7.38"N	123°32'29.01"W	Existing Class I pond
GPS 9	39°36'4.14"N	123°32'28.08"W	Existing Class I Pond
Well 1 2	39.605134	-123.542885	Well

Table 1: Inspection points and descriptions

Inspection photographs and observations

In the following section, inspection photographs are captioned describing the Regional Water Board staff observation. The headings of each subsection provide context by describing the general location of photographs with a Google Earth image showing the locations of the points under discussion.

Vineyard Area and Pond

Image 5 shows an overview of the developed vineyard (5-28-2014 Google Earth Imagery).

Image 6 shows the developed pond as observed on 1/13/2017. (IMG 2921-2927 stitch)

Image 7 shows the pond looking West (note the erosion on the far bank entering the pond). (IMG 2921)

Image 8 shows the spring observed during the inspection flowing into the pond. (IMG 2969-2971)

Image 9 shows the spring flow entering the pond. (IMG 2975)

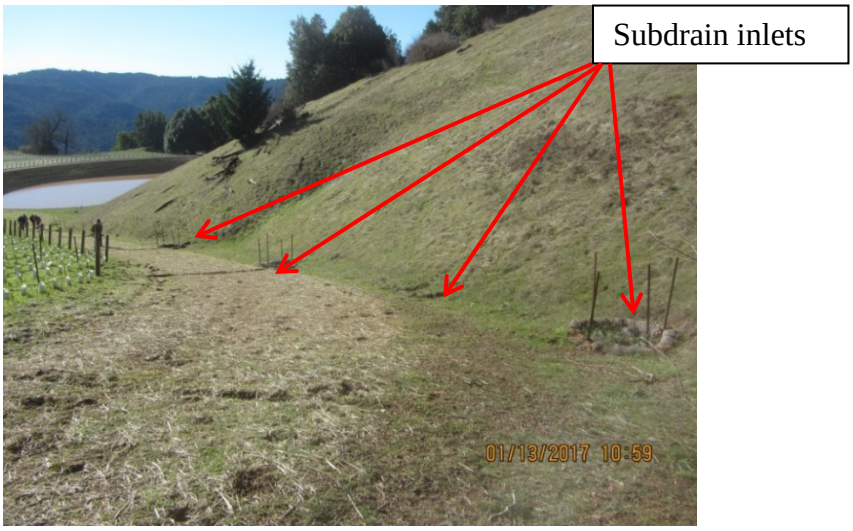

Image 10 shows a series of subdrain inlets leading to the pond along the course of the stream that once flowed here. (IMG 2942)

Image 11 shows a subdrain inlet in the location the original stream once flowed. (Image 2928)

Image 12 shows an overview of the vineyard looking west southwest from the bottom of the slope (IMG stitch 2977-2978).


Image 13 shows the downstream slope from the vineyard where a recently dug ditch intercepts what appears to be the buried stream, which was flowing during the inspection. The spoils generated digging the ditch are likely contributing sediment to the stream. (Image 2979-2980 Stitch)

Image 14 looking due South shows the ditch intercepting the buried Class II stream in the background and a culvert leading from the developed vineyard to the detention basin installed in a Class II stream. The retention basin appears to be acting as a settling pond for sediment generated by ditch construction upstream. The road adjacent to the stream is also prone to surface erosion and likely generating sediment during rainfall. We observed that Rock fill appeared placed directly on wetland obligate plant species; Gil Falcone identified the species as sedges (carex) and rushes (juncus). (IMG 2982)

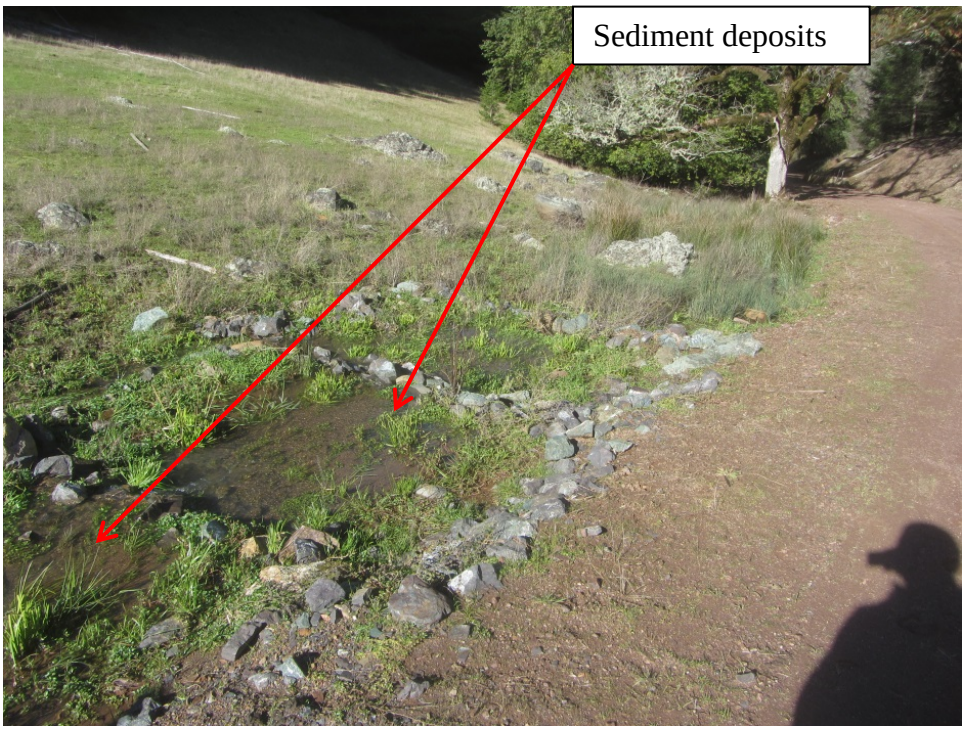

Image 15 shows the Class II stream downstream of the detention basin. (Note the check dams installed in the stream). Note the proximity of the road to the stream and the fine sediment accumulated along the bed of the stream behind check dams. These rocks used for fill were placed in areas where obligate wetland plant species were present. (IMG 2990)

In summary, the 2015 grading, excavation, and the post 2015-inspection vineyard expansion activities in this area resulted in disturbance of approximately 20 acres of land, burial of approximately 1480-1650 feet of stream channel, and alteration of natural slope drainage patterns. As we moved away from the vineyard area during the 2017 inspection, I noted that the stream below the vineyard was subject to a number of significant fine sediment deposits that appeared in part comprised of road base generated fines and native earthen materials.

Access Road Inspection Points 2 through 7

The access road is an older ranch road constructed directly adjacent to and through a series of Class I, II and III streams tributary to the South Fork Eel River. During the 2017 inspection, we observed that at the earthen fill stream crossings observed on September 29, 2015, culverts had been installed after the 2015 inspection. In addition, we observed multiple unstable features and a stream crossing the road without any drainage features in place. Staff describes observations with inspection points and representative photos of the sites.

At the start of inspecting the access road, Randy Jacobszoon explained that the M. B. C. Construciton operators (Ken Seckora, who was onsite during the 2015 inspection) standard operational procedure was to build a road through the stream and then come back later and excavate only the area necessary for the culvert crossing in the road base. Randy stated that Ken thought that this allowed better uniform compaction of road fills during construction. Constructing a road through the stream without a crossing in place would explain the number of stream crossings I observed in 2015 that did not have any drainage structure in place. Regardless, a permit is required from the Department of Fish and Wildlife prior to alterations of the bed or banks of streams, and by the North Coast Regional Water Quality Control Board, prior to the initiation of a discharge. Additional permits may be required from the local county office of building and planning, and the Army Corps of Engineers.

The following observations of GPS points 2-7 identify issues observed which, in summary, consist of unstable cut banks linked to inside ditch drainage; long lengths of inside ditch connected to the road surface and streams, and the proximity of the road to the stream through this reach

Image 16 shows an overview of inspection points 2-7. (Google Earth Imagery 2014)

Bank Slump

As the inspection team entered the forested area downstream of the vineyard, we encountered a sizeable bank slump along the recently reconstructed access road. The bank slump obliterated the inside ditch and appeared to have been treated to try to control erosion and bank failure. The erosion controls applied were minimally functioning.

Image 17 shows the bank slump along the access road; note the flow in the ditch along the front of the slump. This flow is continuous to the next cross drain at Stream Crossing 2 where the flow discharges to the culvert inlet. Bank slumps such as this are common along the recent construction of the access road.

Stream Crossing 2

Identifies the location a Class II stream crossing that consists of an 18-inch plastic culvert. The inside ditch on the upstream side of the road is connected to the Class II stream and culvert crossing. Fine sediment and bank erosion is evident along and in the inside ditch leading to the stream.

Image 18 shows stream crossing 2 inlet and inside ditch; note the fine sediment in the ditch and erosion of ditch banks delivering to the stream. (IMG 3003)

Image 19 shows the stream crossing 2-culvert outlet to the Large Class II stream originating at the vineyard. (IMG 3001)

Image 20 shows the Class II stream associated with stream crossing 2 upstream of the crossing. (IMG 3005)

Stream Crossing 3

The image of the outlet of Stream Crossing 3 below shows the amount of fine sediment observed in stream channels associated with the recently constructed/reconstructed access road. The inside ditches and connection to the recently graded and ditched vineyard area appear to be generating large volumes of surface erosion visible as sediment deposits in stream depositional areas.

Image 21 shows the outlet of Stream Crossing 3 and an example of instream fine sediment deposited upstream of the culvert outlet. The observation is of background fine sediment loading in the stream flowing from the developed vineyard, and not one associated with the functionality of this culvert. (IMG 3014-3015 stitch)

Inside Ditches

The access road was constructed/reconstructed with an inside ditch along most of the road length, the inside ditches are often capturing Class III streams in addition to road surface flows and cut bank seepage. In some instances the outlets of inside ditch cross drains are exhibiting erosion due to the concentration of flows in the ditch from more than one source.

I observed multiple locations along the access road where inside ditches intercepted streams and/or extended for long distances without adequate ditch relief, resulting in ditch erosion and discharges of sediments to surface streams at ditch relief outlets. The connection of these inside ditches to the roadway, Class III and Class II streams increases the potential for the road system to contribute sediments to an impaired water body.

Image 22 shows the inside ditch along the access road near stream crossings 2 and 3. (IMG 3008-3009-3010 stitch)

Image 23 shows the inside ditch along the access road delivering to the inlet of Stream Crossing 4. (IMG 3019)

Image 24 shows the inside ditch North of Stream Crossing 4 – note the long length of uninterrupted ditch capturing road surface runoff. (IMG 3027)

Image 25 shows the inside ditch intercepting a Class III stream originating upslope from a meadow area. (IMG 3030)

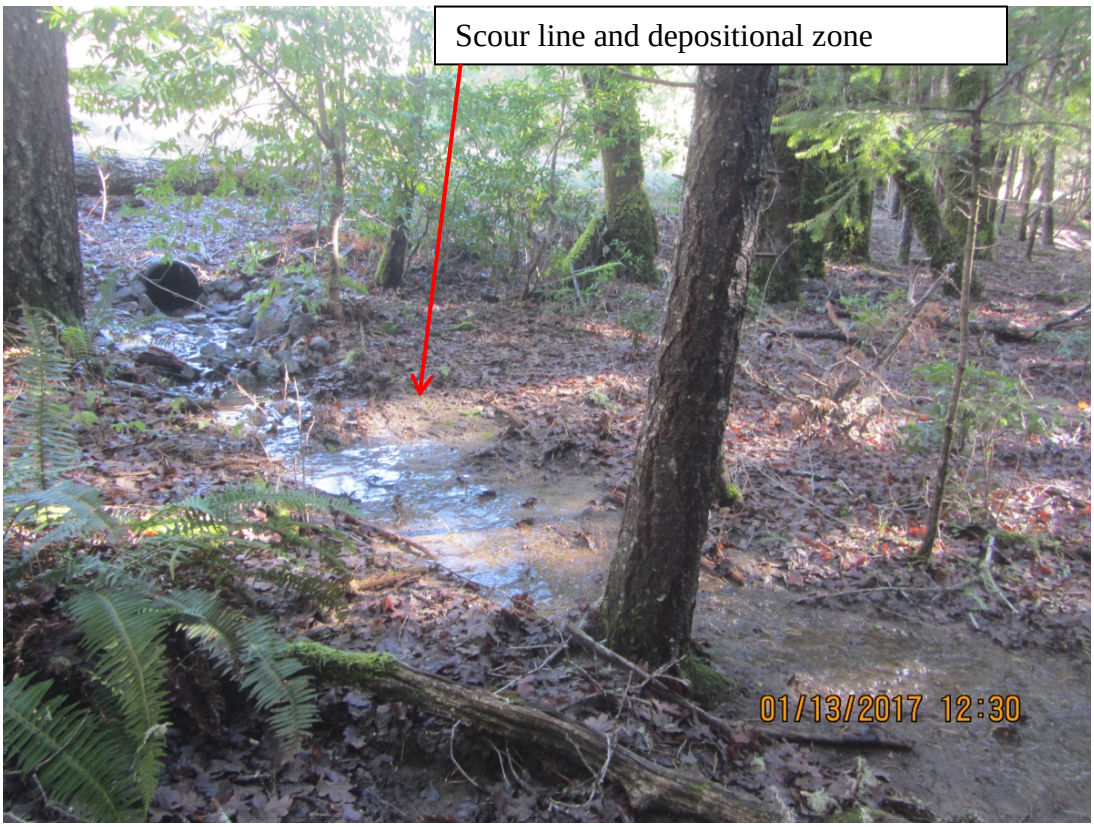

Image 26 shows the outlet of Stream Crossing 5; note the scour line from high flows and deposition of fine sediments along the stream margins. (IMG 3032)

Image 27 shows the connection of the inside ditch to the stream at Stream Crossing 6. (IMG 3035)

Image 28 shows the connection of an inside ditch and intercepted Class II/III stream to the outlet of Stream Crossing 7. Note the visible sediment deposits in the foreground of the image. (IMG 3044)

Image 29 shows the stream and ditch in Image 28 discharging to a Large Class II stream at the outlet of Stream Crossing 7. Note the sediment deposits throughout the flow path and along the margins of the stream flow. (IMG 3048)

Image 30 shows a close up of the fine sediment deposits mentioned in the caption of image 29 preceding this image. These fine materials are transporting and delivering to the Class III stream intercepted by the inside ditch and to the Large Class II stream at Stream Crossing 7. (IMG 3047)

Image 31 shows the inlet of Stream Crossing 7. (IMG 3049)

Image 32 shows the outlet of Stream Crossing 7, note the connection of the inside ditch and intercepted stream in the upper left hand corner of the image.

Image 33 shows the inside ditch and intercepted stream leading to the culvert outlet of Stream Crossing 7 in image 32 above. (IMG 3053)

Access Road Inspection Points Crossing 8 through Crossing 12

Image 34 shows 2014 Google Earth aerial overview of stream crossings 7-12.

GPS points 8-12 identify areas where stream diversions and surface drainage from roads and landings are exacerbating sediment loads in the watershed. In addition, drainage practices are noted that are unlikely to function over the long term effectively and in the short term in some instances appear to be contributing to sediment delivery. This road segment emphasizes the importance of avoiding diversion of stream flows onto roads.

Stream Crossing 8

Stream Crossing 8 is likely a Class I stream crossing. This culvert appears functional with minor evidence of erosion at the inlet and outlet of the crossing. However, the road associated with a ¼ acre flat landing area and Stream Crossing 9 serves as a catchment for overland flows from a Class II stream diverted down the inside ditch of the road accessing Stream Crossing 9. This stream diversion has delivered a significant amount of sediment to the inlet of Stream Crossing 8.

Image 35 shows the outlet of Stream Crossing 8. (IMG 3056)

Image 36 shows the inlet of Stream Crossing 8 and the fine sediment deposit from the upstream diversion and overland flow. Also of note is the placement of rock armoring along the left bank of the image. (IMG 3063)

Image 37 shows the Class II stream diverted down the inside ditch of the road west of Crossing 9. (IMG 3064)

Image 38 shows the Class II stream diversion crossing the road in a shallow ford (installed subsequent to the 2015 inspection,) and the stream diversion leading to the flat that then flows into the inlet of Stream Crossing 8. (IMG 3065)

Image 39 shows a closer view of the shallow ford and the diversion of flows out of the channel and down the road surface to the flat area in the far right of the image. (IMG 3065 cropped)

Image 40 shows the flat and the erosional channel off the flat at the inlet of Stream Crossing 8. (IMG 3059-3060 Stitch)

Image 41 shows the erosional channel off the flat as it is leading to the inlet of Stream Crossing 8. (IMG 3058)

Stream Crossing 10

Image 42 shows the outlet of Stream Crossing 10 which is a ditch relief culvert installation on the recently constructed/reconstructed access road; the culvert was installed to relieve the inside ditch drainage; the outlet discharge, onto an open meadow slope, has been mitigated with hay bales placed to disperse flows. This type of installation will require regular seasonal monitoring and maintenance and may result in erosion of the meadow slope over time. (IMG 3068)

Stream Crossing 11

Image 43 shows the Stream Crossing 11 inlet. Note again hay bales and jute netting are applied to try to limit sediment discharges from the excavated inlet to the culvert. (IMG 3071)

Stream Crossing 12

Image 44 shows the outlet of Stream Crossing 12; note the flows from the culvert outlet support a wetland. (IMG 3076-3080 stitch)

Access Road Inspection Points 11-18

Image 45 shows the access road segment from Crossing 11 to Crossing 18. (2014 Google Earth Imagery)

Crossings 13 through 15

GPS Points 13-15 identify three ditch relief culverts relieving the inside ditch along a road segment that parallels a Class II stream. The cut bank of the road upslope of ditch relief crossing 14 is unstable and failing. Each outlet was delivering sediments to the stream during the inspection. Above Crossing 14, the unstable cut bank slope was treated with jute netting, and the slope was visibly failing; the slope failure is likely to pose a potential plugging problem for the inside ditch and to increase the delivery rate of sediment to the stream through the inside ditch connection to the failing slope and the stream.

Image 46 shows the failing cut bank treated with jute netting. (IMG 3085-3086 stitch)

Image 47 shows the inside ditch and the failing cut bank connection. This ditch relief culvert corresponds to Crossing 14 in table 1. (IMG 3088)

Image 48 shows the outlet of the ditch relief culvert at Crossing 14. (IMG 3089)

Stream Crossing 16

Image 49 shows Stream Crossing 16 inlet; note the connection of the inside ditch along the road to the culvert inlet. The road is constructed through a wetland in this location. (IMG 3092-3094 stitch)

Image 50 shows the outlet of Crossing 16, note the heavily grazed juncus and spread of water through wetland vegetation. (IMG 3097)

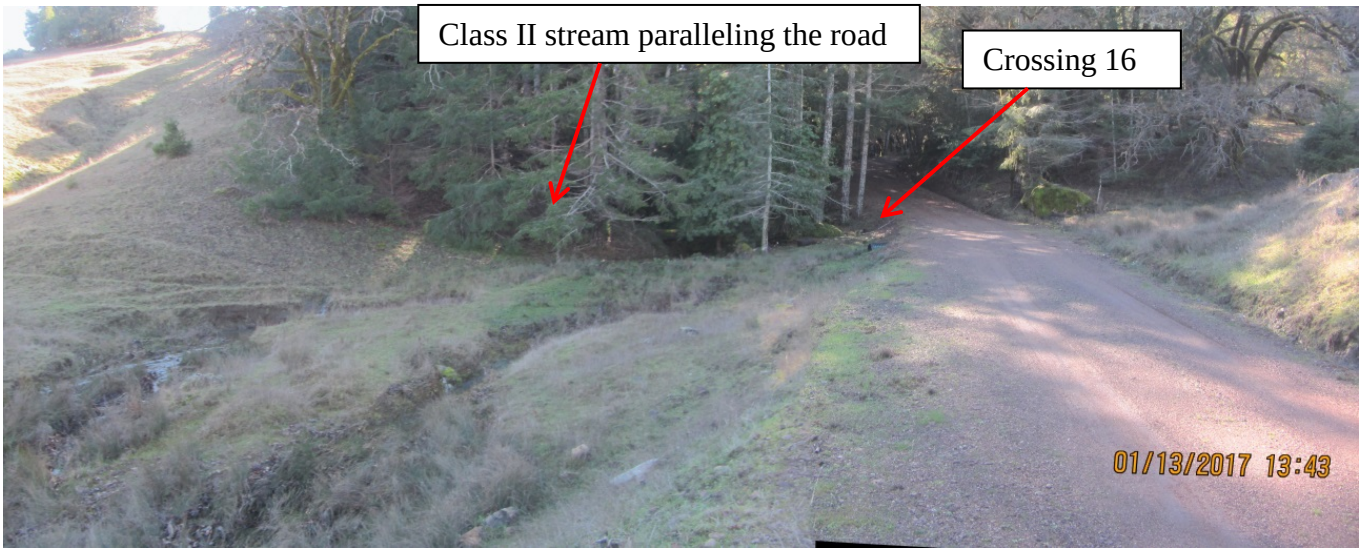

Image 51 shows the Stream Crossing 16 wetlands and the Class II stream that parallels the access road. (IMG 3103-3104 stitch)

Stream Crossing 17

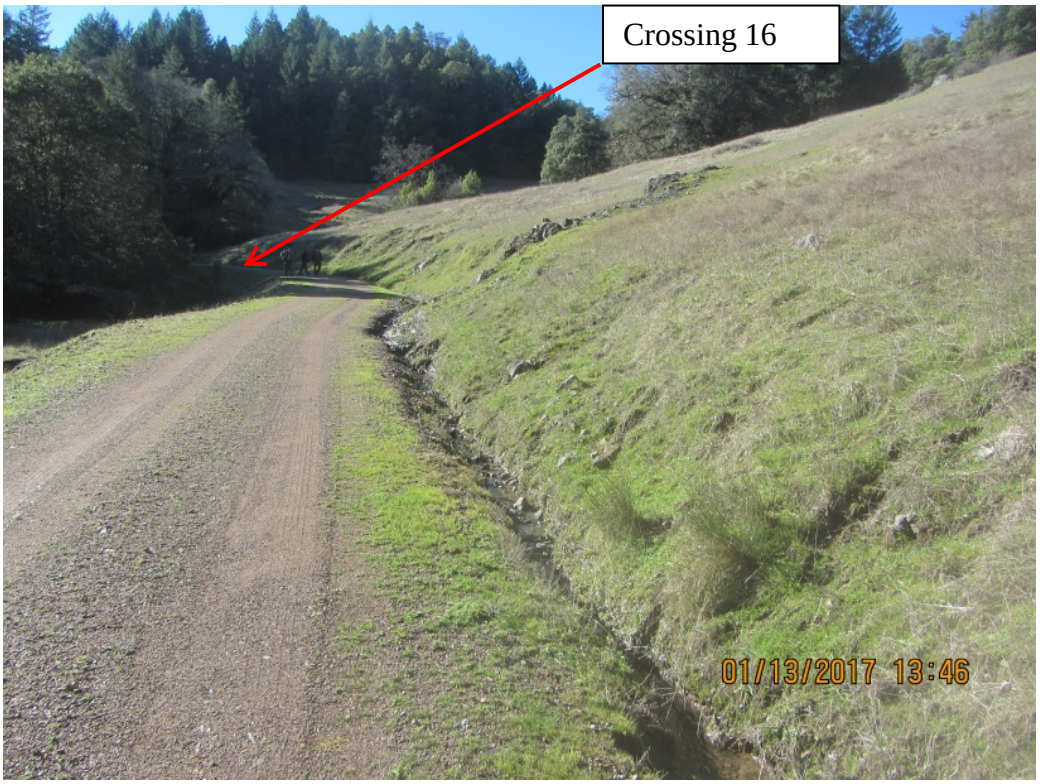

Image 52 shows the long extent of inside Ditch leading from Crossing 16 to an unstable cut bank above Ditch Relief Crossing 17. (IMG 3105)

Image 53 shows one of several unstable cut banks on the approach to Stream Crossing 17. (IMG 3106)

Image 54 shows the top of the second unstable cut bank on the approach to Stream Crossing 17. (IMG 3112)

Image 55 shows a series of unstable cut banks on the approach to Stream Crossing 17. Note the long unbroken stretch of inside ditch. The truck in the distance is parked at the crossing.(IMG 3113)

Image 56 shows the inlet of Stream Crossing 17 note the poor alignment of the inlet and the unstable cut bank in the background. (IMG 3117)

Image 57 shows the Stream Crossing 17 outlet; note the fine sediment deposits from road surface runoff and the active high flow channel. (IMG 3126)

Stream Crossing 18

Image 58 shows the Stream Crossing 18 location, which identifies a Class III stream intersecting the road without a drainage structure in place to catch the flows. (Note the rock fill placed in the stream)(IMG 3128)

Access Road Inspection Points 19-the bridge site

Image 59 shows Google Earth 2014 imagery of inspection points 17 through the bridge site.

GPS points 19 through the bridge site continue to show the connection of the inside ditch to the road surface, unstable cut banks, and streams.

Landslide 1

Image 60 shows GIS point Landslide 1; note the multiple scarps slumping towards the road. (IMG 3132_3133 stitch)

Image 61 shows the Landslide 1 from a different vantage point- of note is that access road in this vicinity parallels a Class I or Large Class II stream for a significant distance, increasing the delivery potential of these unstable slopes. In these images one can also see the connection of the inside ditch along the road with the landslide materials. (IMG 3135)

Image 62 shows the inside ditch along the road beneath a series of unstable slopes at inspection point Landslide 1. (IMG 3137)

Image 63 shows the stream flowing parallel to the road; in the background the inside ditch and road segment shown in Image 62 is visible. (IMG 3141)

Stream Crossing 19

Image 64 shows the inlet of Stream Crossing 19, note the rock fill placed in the stream. (IMG 3143)

Image 65 shows the outlet of Stream Crossing 19 and rock fill placed in the stream. (IMG 3147)

Landslide 2

Image 66 shows inspection point Landslide 2 . (IMG 3150-3151 stitch)

Image 67 shows the bridge location proposed for the South Fork Eel River. (IMG 3160)

Access Road Summary Discussion

Locating a bridge on the South Fork Eel River and constructing a road such as the access road described in the prior pages generally requires a standard approach in terms of project development. The strategy is premised on first developing a project to avoid as many impacts as possible; this means analyzing alternatives to the proposed project. The second step of project development is minimization of all potential impacts through planning and mitigation and project design and implementation strategies, the third step is any disturbance to the streams that cannot be avoided requires mitigation; generally at a two to one ratio often this ratio is higher for projects developed illegally. Not all projects are approved; those that insist upon attempting to construct a road or bridge without adequate analysis are seldom permitted. As visible in the previous images and the inspection report for the September 29, 2015 inspection of the Rhys Vineyard Clarke Ranch property, an access road was constructed through multiple streams, wetlands, and unstable ground without strategic consideration as required when planned and permitted.

As previously stated, information has been received from Rhys Vineyard in response to a section 13267 Order and Notice of Violation issued on February 24, 2017. On April 10, 2017, we received a variety of information indicating that the work conducted to construct/reconstruct the vineyard area, pond and access road was done with minimal pre-project design and no permitting from any agency.

Existing Ponds

To conclude the inspection we investigated the existing ponds to evaluate the current conditions as compared to previously observed conditions. Inspection Points GPS 8 and GPS 9 as identified in Image 3 on page 4 of this inspection report identify these ponds.

Both of the existing ponds are spring fed and were overflowing during the inspection. The larger pond, GPS8, is constructed on top of or directly adjacent to a slope evincing hummocky topography. The dam of earthen materials is steep along this northern side. Native American arrowhead chips and broken chert tools were evident in gopher and squirrel holes and along the margins of the springs feeding the ponds. Spillways of both ponds remained as observed previously. The spillways are a concern, as the outlets concentrate flows into eroding channels below the ponds. In addition, due to the way the outlets were installed and constructed these drainage features likely increase the discharge velocity of water leaving the pond increasing the erosive force of the discharge. I observed that the outlet of GPS8 is head cutting into the dam face due to the erosion of earthen materials at the outlet.

Image 68 existing pond located at GPS8. ((IMG 3170-3172)

Image 69 shows the spillway to GPS8. (IMG 3178)


Image 70 shows the Spillway in a closer view note the head cut visible behind the falling water. (IMG 3179 cropped)

Image 71 shows the pond located at GPS9. (IMG 3182-3184)

Image 72 shows the spillway of the pond located at GPS8. At the outlet of this structure there is about an 8’ drop into an earthen channel that shows signs of down cutting and erosion. (IMG 3188)

Image 73 shows the outfall of the half-round spillway of the pond located at GPS8. (IMG 3200)

Summary of Water Quality Violations

Basin Plan Violations

Basin Plan Prohibitions

The Water Quality Control Plan for the North Coast Region (Basin Plan)contains specific standards and provisions for maintaining high quality waters of the state that provide protection to the beneficial uses listed above. The Basin Plan's Action Plan for Logging, Construction, and Associated Activities (Action Plan) includes two prohibitions (Page 4-29.00 of the 2011 Basin Plan):

i. 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."

ii. 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."

Basin Plan Objectives

Section 3 of the Basin Plan contains water quality objectives not to be exceeded as a result of waste discharges. The water quality objectives that are considered of particular importance in protecting the beneficial uses from unreasonable effects due to waste discharges from land development and roads include the following:

Suspended Material: "Waters shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses."

Settleable Material: "Waters shall not contain substances in concentrations that result in deposition of material that causes nuisance or adversely affect beneficial uses."

Sediment: "The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses."

Turbidity: "Turbidity shall not be increased more than 20 percent above naturally occurring background levels. Allowable zones of dilution within which higher percentages can be tolerated may be defined for specific discharges upon the issuance of discharge permits or waiver thereof."

Clean Water Act Violations

Section 301(a) of the Clean Water Act provides that subject to certain exceptions, "the discharge of any pollutant by any person shall be unlawful." 33 U.S.C. § 1311(a). One of the exceptions allowed for under the Clean Water Act is the discharge from a dredge and fill activity under the auspices of § 404 and 401 of the Clean Water Act. 33 U.S.C. § 1342. The Clean Water Act prohibits the discharge of any pollutant from a point source into waters of the United States without a section 404 dredge and fill permit and a section 401 state water quality certification. Regional Water Board staff observed multiple areas where deposits of earthen material were visible in streams or wetlands due to erosion and transport of sediment from failing slopes, road surfaces, inside ditches, and drainage features. Staff also observed evidence that approximately 1480-1650 feet of stream channel had been removed or buried as part of development of the vineyard area and pond or hole.

Water Code section 13376 requires any person discharging or proposing to discharge pollutants to waters of the United States to file a report of the discharge.

Water Code Violations

Water Code section 13376 requires any person discharging or proposing to discharge pollutants to waters of the United States to file a report of the discharge. The Discharger violated Water Code section 13376 by discharging earthen materials into waters of the United States, and by maintaining a road system with failing slopes and undersized stream crossings, without first filing a report of discharge.

The unpermitted site development and onsite conditions created by that development work represent violations of the Basin Plan, federal Clean Water Act, and the California Water Code.

Violations Summary

During the inspection on January 13, 2017, I observed numerous locations where earthen material had been placed where it could enter waters of the State and U.S. I also observed multiple locations where sediment had eroded from areas along roads such as failing hillslopes, road surfaces, road inside ditches, and at stream crossings resulting in the visible deposition of earthen materials in streams.

As described and discussed above, those include, but are not limited to:

- 20 acres of cleared/graded area with no apparent erosion/drainage controls
- 1480-1650 feet of fill in a stream channel in the graded area
- Nine locations where evidence of instream sediment deposits were attributable to road surface erosion.
- At instream crossings, rock fill was placed into the active channel likely decreasing channel and riparian functions and contributing to channel instability over time.
- Several road segments with high rates of instability as exhibited by landslides and failing cuter banks.
- Poorly installed and/or maintained outfalls from the two existing instream ponds, with erosion and sediment delivery in the downstream watercourse channels
- Eroded dam and stream below the larger of the two ponds
- Eroded stream channel below the pond Located at GPS9.

Recommendations

Staff recommend that the Discharger engage licensed professional(s) with experience in road design and mitigation and stream restoration to perform the following work:

1. Develop an alternatives analysis to evaluate if there are any options other than the existing road that was illegally constructed/reconstructed that would result in fewer impacts to streams.
2. If an alternate route exists and can be utilized, then decommission the constructed/reconstructed access road and restore the natural hydrology to streams and slopes affected by the unpermitted development.
3. Assess the Clarke Ranch for opportunities to conduct instream watershed restoration, restore natural flows, decommission roads, and mitigate for the temporal and permanent loss of streams and wetlands.
4. If no alternatives exist, then Inventory/assess roads, stream crossings, and graded areas and develop a remediation work plan and time schedule to ensure that:
   a) roads, stream crossing, and graded areas are where possible relocated out of and away from watercourses and wetlands and reshaped to prevent and minimize erosion of road surfaces and the volume of road-related runoff that discharges or that may discharge into surface waters;
   b) all stream crossings are properly sized, designed and installed so as to pass flows of a 100-year storm and associated debris; and
   c) all road surfaces are hydrologically disconnected from streams
   d) each stream crossing provide an assessment of the delivery potential of the existing fill volumes.

e) Where it is not possible to remove the roadbed from the wetland or stream crossings cannot be restored provide designs and a time schedule for work required in accordance with a)-d) above, including a list and discussion of any necessary permits from other agencies.

Any activities in surface waters (streams or wetlands) require a Water Quality Certification from the Regional Water Board or waste discharge requirements, through a formal application process. Permits may also be required from other agencies (local, tribal, state, and/or federal), for work associated with carrying out the recommendations, and should be secured prior to beginning work.

Enforcement Discretion

The observations in this report will be assessed for violations of the California Water Code. The Regional Water Board and the State Water Board reserve the rights to take any enforcement action authorized by law.