





North Coast Regional Water Quality Control Board

Shadow Light Ranch LLC Property CIWQS Place ID No. 825542 Inspection Date November 2, 2017 WDID No. 1B16868CHUM

Property Information

Inspection Date: November 2, 2017

Time: 0900 – 1530 hours

Humboldt County Assessor Parcel Numbers (APNs):

223-073-004-000, 223-073-005-000, 223-061-003-000, 223-061-038-000, 223-061-039-000, 223-061-043-000, 223-061-046-000 (together hereinafter referred to as the Property)

Property Representative Information

Consent Provided?

YES

Notified of Inspection?

YES

Names of On-Site Representatives and Consenting Parties:

Joshua Sweet, principal owner of Shadow Light Ranch, LLC and enrollee under Order R1-2015-0023 (hereafter referred to as Responsible Party)

Elan Puno, business services consultant for Shadow Light Ranch, LLC

Property Owner: Shadow Light Ranch LLC (ParcelQuest)

Mailing Address:

773 Redwood Dr., Ste E, Garberville, CA 95542 (Shadow Light Ranch LLC) (LandVision)

P.O. Box 250, Garberville, CA 95542 (per Notice of Intent for enrollment under Order No. R1-2015-0023)

Attending Agency Representatives:

Shannon Utley, Engineering Geologist, North Coast Regional Water Quality Control Board (Regional Water Board)

David Manthorne, Senior Environmental Scientist Specialist, CA Department of Fish and Wildlife (CDFW)

Kyle Shaw, Game Warden, CDFW

Brian Bowes, County of Humboldt Planning and Building Department

John Ford, Director, County of Humboldt Planning and Building Department

Christopher Van de Wyngard, Water Resource Control Engineer State Water Resources Control Board (State Water Board), Division of Water Rights (DIV)

Michael Vella, Environmental Scientist, State Water Board, DIV

Inspection Report Information

Report Prepared By: Shannon Utley, Engineering Geologist, Regional Water Board

Report Reviewed By: Kason Grady, Senior Water Resource Control Engineer, Regional Water Board

Photos Taken: All photographs taken by Shannon Utley unless labeled otherwise and are included in Attachment A

California Integrated Water Quality System (CIWQS) Inspection ID: 30771447

Enrollment Status

Property Enrolled Under Regional Water Board Order No. R1-2015-0023 (Regional Cannabis Order): Yes

Enrollment Date: 6/16/2016

Pre-Inspection Compliance Status: 3/31/2017 Annual Report identified anticipated compliance dates¹ for Standard Conditions 1 (12/2020), 2 (12/2020), 5 (12/2018), 7 (3/31/2017), 8 (3/31/2017), 9 (3/31/2017), and 11 (3/31/2018). The Annual Report also identified anticipated disturbance of a stream or wetland.

1. Enrollee self-reported anticipated compliance dates for each Standard Condition shown above, in parentheses.

Enrolled Cultivation Area: initially enrolled for ">5,000 sq ft", then enrolled for 10,000 square feet

Inspected Property Background

Parcel Ownership Information: Property purchased on 11/22/2006 by Joshua Sweet and transferred to Shadow Light Ranch, LLC on 8/22/2016 (ParcelQuest)

Historic Imagery Reviewed: Google Earth images dated 6/12/1993, 11/4/2004, 12/31/2004, 10/12/2006, 5/24/2009, 4/24/2010, 8/23/2012, and 5/28/2014. NAIP imagery dated 2005, 2009, 2010, 2012, 2014, 2016 (CDFW GIS Services)

Site Development: The large upper pond (POND1 on Site Map) is not visible on available Google Earth images through May 28, 2014, and is not visible on 2016 NAIP imagery. The smaller lower pond (POND2) is first visible in the 10/12/2006 Google Earth imagery. In the next available Google Earth image (5/24/2009), POND2 appears to be full of water. The smallest pond (POND3) is visible in all available Google Earth images (6/12/1993 through 5/28/2014) and NAIP imagery (2005 through 2016). Following the inspection, CDFW staff provided images taken October 27, 2017, of POND1 and POND2 (Photo 1).

Previous Site Inspections: On January 29, 2016, Regional Water Board staff inspected the Shadow Light Ranch, LLC Property (then owned by Mr. Sweet) and observed an on-stream wetland area (identified as WET on Figures 1 and 2, below), which Mr. Sweet reportedly wanted to turn into a recreational pond.

Watershed	Section 303 d Listings	TMDL Development:
Eel River Hydrologic Unit; South Fork Eel River Hydrologic Area; Benbow Hydrologic Subarea 111.32 Ohman Creek HUC-12: 1801060403 CalWater: 1111.320806	South Fork Eel River: Sediment and Temperature	South Fork Eel River Sediment and Temperature TMDL December 1999

Beneficial Uses and Threatened and Endangered Species

Listed Species:

The South Fork Eel River watershed is within the following evolutionarily significant units (ESU) and distinct population segment (DPS): the Southern Oregon and Northern California Coast Coho Salmon ESU; and the Northern California Steelhead DPS. The National Oceanic and Atmospheric Administration National Marine Fisheries Service define these ESUs and DPSs for salmonid species listed on the U. S. Endangered Species Act (ESA).

Inspection Findings Summary:

On November 2, 2017, I inspected the Property as part of a multi-agency inspection team. During the inspection, I observed a recently constructed pond (identified by DIV staff as being an onstream pond) that outflows to a lower on-stream pond and subsequently to a Class II watercourse (as classified by CDFW). Construction of the new pond (POND1 on Figures 1 and 2, below) disturbed more than one acre of soil, including streams and/or wetlands. POND1 is considered a water of the State. There is no record of Regional Water Board permitting for this work. Applicable necessary permitting includes Clean Water Act section 401 Water Quality Certification for work within or adjacent to surface waters and Order No. 2009-0009-DWQ (hereinafter the Construction General Permit or CGP¹) for disturbance of an acre or more of soil.

In enrollment documents filed for coverage under the Regional Cannabis Order, Mr. Sweet executed documents that identified ">5,000 sq ft" of cultivation area, then subsequently enrolled for 10,000 square feet of cannabis cultivation on the Property. The 2016 annual monitoring report, received March 31, 2017, also reports 10,000 square feet of cannabis cultivation. During the inspection, I observed more than an acre of cannabis cultivation. I also observed newly installed stream crossing culverts that were poorly installed or misaligned with the stream channel (C2 through C8 on Figures 1 through 3). Following the inspection, in a December 14, 2017, email, Ms. Elan Puno (who we understand to be a consultant for Shadow Light Ranch, LLC) provided information regarding pond and culvert construction. Specifically, Ms. Puno reported that Curran Equipment had constructed the upper pond (POND1) and stream crossings (see Figures 1 through 3, below) between June and September 2016, using designs developed by Manhard Consulting.

During the inspection, Ms. Puno advised us that Pacific Watershed Associates had prepared a CDFW Lake or Streambed Alteration (LSA) application. CDFW staff stated that they had received the LSA in 2015, and had directed the Responsible Party to work with Humboldt County to meet California Environment Quality Act (CEQA) requirements prior to doing any work. Humboldt County staff present on the inspection told us that the Responsible Party had not applied for the CEQA compliance process before doing project work.

¹ Order No. 2009-0009-DWQ: National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities

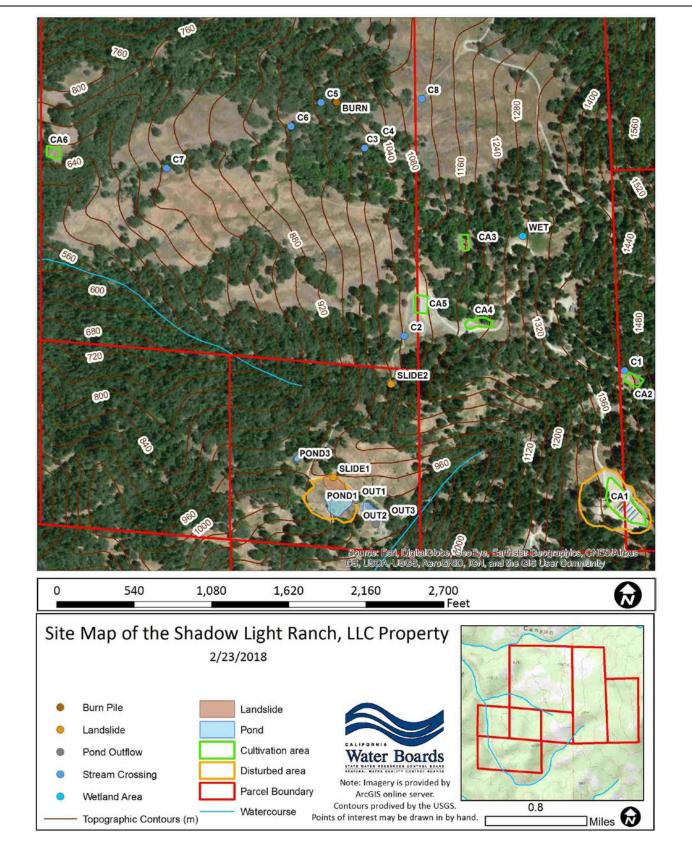


Figure 1: Site map of Shadow Light Ranch, LLC Property

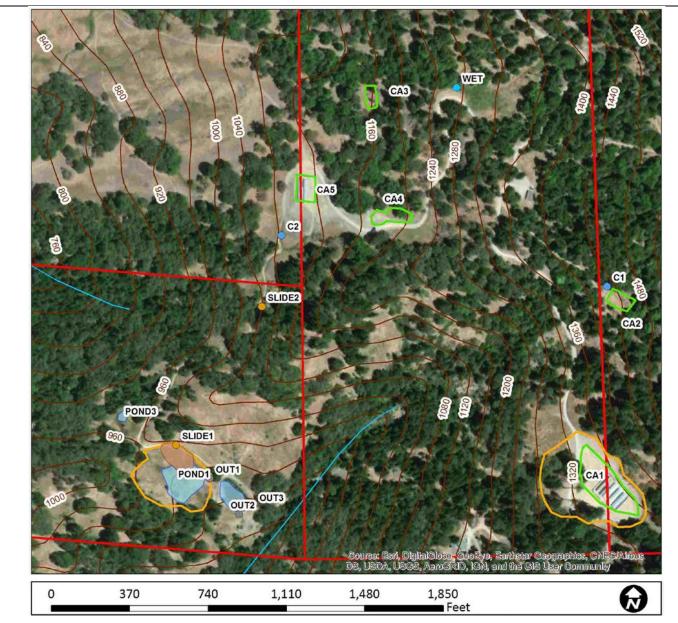


Figure 2: Site map of southern portion of Shadow Light Ranch, LLC Property

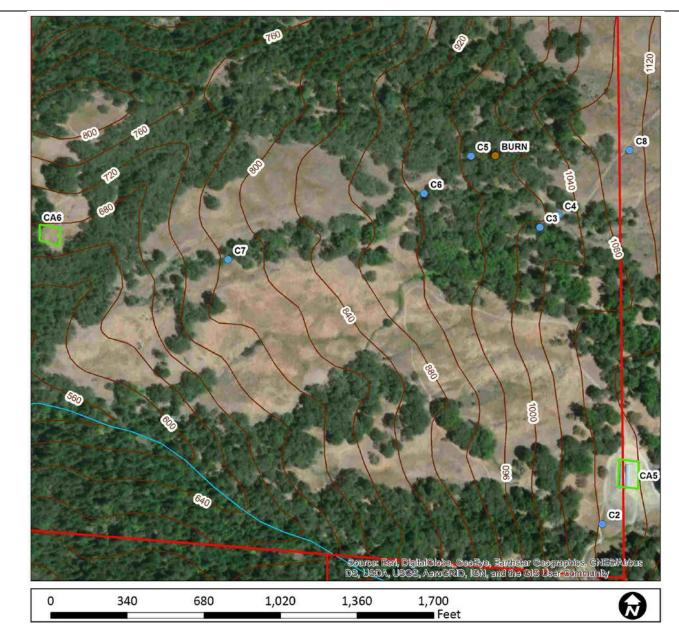


Figure 3: Site map of northern portion of the Shadow Light Ranch, LLC Property.

Note: Stream lines depicted on Figures 1, 2, and 3 come from the United States Geological Survey National Hydrography Dataset and are not reflective of all streams on the property or the full lengths of the respective streams depicted. For example, the blue line stream on Figure 2 was observed by staff to extend up to, through, and past C1.

Inspection Observations:

Upper Pond

During the inspection, I observed a large newly constructed pond with an earthen berm presumably constructed from material excavated to deepen the pond (POND1 on Figures 1 and 2). DIV staff estimated POND1 to be approximately 24,670 square feet (0.5 acre), up to 18 feet deep, and two thirds full at the time of inspection (Photos 1 through 12). Pond construction resulted in disturbance of approximately 87,000 square feet (2 acres) of possible wetland area based on the 2016 NAIP imagery, which shows the pre-pond area to have been well-vegetated with denser, darker vegetation on the northwest side of the pond (Photo 4 and Figure 2).

Pond construction reactivated a portion of a historic landslide amphitheater complex of approximately 15,000 square feet (SLIDE1 on Figure 1 and 2), which delivered sediment into POND1, and damaged the access road to the lower pond to make it impassable by any motorized vehicle (Photos 3 and 4). Mr. Sweet indicated that prior to pond construction, there had been a topographic knob-like feature that Mr. Sweet had requested to be removed for aesthetic reasons. Removal of this topographic knob, along with a particularly wet winter, caused this portion of the landslide complex to activate and deliver earthen material into the pond. The slide material in the pond reduced the pond capacity and likely resulted in increased sediment discharges from POND1 into the lower pond (POND2).

The outflow pipe from POND1 (OUT1) is a 24-inch corrugated metal culvert set into an earthen berm (Photos 5 and 6). Water from POND1 flows through OUT1 (Photos 7 through 10) into the older, lower, on-stream pond (POND2 on Figures 1 and 2), which in turn outflows to a Class II watercourse.

Lower Pond

The lower older onstream pond (POND2 on Figures 1 and 2) is first visible in the available aerial imagery in October 2006 and the Regional Water Board has no record of an application for, or issuance of, the required permit(s) for this pond. As noted above, the Responsible Party purchased the Property in November 2006. DIV staff estimated POND2 to be approximately 11,480 square feet (0.25 acres), up to 14 feet deep, three quarters full during the inspection, and fed by a combination of outflow from POND1, a Class III watercourse, rainwater, and stormwater runoff (Photo 1 and Photos 7 through 18). I observed two outflow features for POND2; one was a single 24-inch corrugated plastic pipe (OUT3) that flows to a Class II watercourse (Photos 13 through 16); the other outflow was a set of two 24-inch corrugated plastic pipes (OUT2) that flows to a wetland-type area and then to the Class II watercourse (Photos 17 and 18) and was constructed between June and September 2016.

Smallest Pond

During the inspection I observer a third pond (POND3) located on the opposite side of the ridgeline from POND1 and POND2. This on-stream pond is much smaller (approximately 3,000 square feet) than either POND1 and POND2 and was dry during the inspection (Photo 55). POND3 is visible in all of the available imagery dating back to June 1993 (Google Earth image dated 6/12/1993).

Cultivation Areas

During the inspection, I observed six cannabis cultivation areas across the Property totaling approximately 80,000 square feet of cultivation area, based on measurements provided by DIV staff (CA1 through CA6 on Figures 1 through 3) (Photos 19 through 30).

Cultivation area CA1 is a large, graded pad, approximately 150,000 square feet, with approximately 44,100 square feet of cannabis cultivation (Photos 19 through 22, and Figures 1 and 2). I observed several minor erosional areas associated with slope failures along the graded hillside and the constructed drainage ditch to convey irrigation and storm water runoff to a bio-swale (Photo 22).

Outdoor cultivation area CA2 is located approximately 28 feet from a Class III watercourse and stream crossing C1 (Photos 23, 33, and 34).

Wetland-Pond Area

During the inspection, I observed a wetland area (WET on Figures 1 and 2) with standing water, dominated by cattails (Photos 31 and 32). Mr. Sweet indicated that he would like to "clean up" the area by removing the swampy vegetation and re-digging the pond to improve the aesthetics. Any proposed work in this area would require compliance with the California Environmental Quality Act and an authorization through an individual Clean Water Act section 401 water quality certification, which requires avoidance and minimization of impacts and mitigation for any unavoidable impacts. Regional Water Board staff have previously informed Mr. Sweet and Ms. Puno of permitting requirements for dredge/fill in wetlands during a January 2016 site inspection and during a phone call with Ms. Puno in approximately August 2017. Staff again advised Mr. Sweet and Ms. Puno of these permitting requirements during the November 2017 site inspection.

Stream Crossings

During the inspection, I observed eight stream crossings, depicted as inspection features C1 through C8 on Figures 1 through 3 (Photos 33 through 49) that were causing discharges or threatened discharges of sediment to waters of the State (dimensions of stream bank erosion were taken by CDFW staff during the inspection and are available separately). During the inspection, Mr. Sweet and Ms. Puno informed staff that the stream crossings were installed at the same time as POND1, between June and September 2016 without the required permits (e.g., Water Quality Certification). According to the Water Resource Protection Plan, submitted December 14, 2017, via an email from Ms. Elan Puno, the Property contains twenty-three stream crossings. In that same email, Ms. Puno indicated that Curran Equipment completed all work associated with the pond, road, and culvert development between June and September 2016.

Stream crossing C1 consists of fill placed in the stream channel for an ATV trail approximately 28 feet away from outdoor cultivation area CA2 (Photos 33 and 34). Culverts C5 and C7 are Class III stream crossings, neither installed at the grade of the stream channel of the respective Class III streams (Photos 47, 48, 51, and 52). Stream crossing C6 is on a Class II stream and was not placed in alignment with the natural stream channel, increasing the erosion of the stream channel causing sediment delivery (Photos 49 and 50).

Summary/Discussion/Preliminary Violation Assessment

Comparison of Observed Site Conditions to the Standard Conditions of Order No. R1-2015-0023 $\,$

- 1) Site Maintenance, Erosion Control and Drainage Features: The majority of the road surfaces had some erosion and drainage issues with surface ruts, gullies and surface erosion where there was evidence of discharge, hydrologic connectivity, and slope failure (e.g., SLIDE2) and threatened discharges to surface waters in others (Photos 37 through 42). The Order requires, among other requirements, road maintenance to avoid developing surface ruts that results in sediment delivery to surface waters (I.A.1.a); drainage away from unstable slopes and engineered structures where drainage controls are insufficient to prevent slope failure (I.A.1.c); maintenance to hydrologically disconnect site features from surface waters (I.A.1.d).
- 2) Stream Crossing Maintenance: All eight stream crossings observed during the inspection were improperly sized, designed, installed, and/or maintained. The Order requires, among other requirements, stream crossings to be sized to pass the expected 100-year peak streamflow (I.A.2.a); to be designed and maintained to address debris associated with the expected 100-year peak streamflow (I.A.2.b); to allow passage of aquatic organisms on perennial or intermittent streams (I.A.2.c); to be maintained to prevent or minimize erosion from exposed surfaces adjacent to and in the channel and on the banks (I.A.2.d); to be aligned with the stream grade and natural stream channel at the inlet and outlet (I.A.2.e); and be maintained to prevent stream diversion including employment of critical dips (I.A.2.f).
- 3) Riparian and Wetland Protection and Management: Cultivation area CA2 is located 28 feet from a Class III watercourse at C1 (Photos 23, 33, and 34). The Order requires cultivation areas to be located at least 50 feet away from any Class III watercourse or wetland.
- 4) Spoils Management: I observed one burn pile (BURN on Figure 1 and Figure 3) located adjacent to a Class III watercourse upstream of stream crossing C5, with no containment or cover to prevent it from entering or being transported into the watercourse (Photo 54).
- 5) Water Storage and Use: Water storage for the Property consists of two ponds (POND1 and POND2) each with points of diversion, a ponded wetland area (WET) with a point of diversion, twenty-one plastic water storage tanks scattered around the Property, and other points of diversion, see the Division of Water Rights inspection report. POND1 and POND2 are on-stream ponds and discharge to waters of the State (Photos 1 through 18). The Order prohibits the placement of earthen materials into any stream or watercourse or in a location where they may discharge into streams or watercourses. Additionally, any new site development involving dredge or fill in waters of the United States must apply for and receive coverage under Clean Water Act section 401 water quality certification.
- 6) Irrigation Runoff: The cultivation areas all had minor irrigation, nutrient, and soil amendment runoff issues that could be easily addressed by better cultivation practices such as implementation of water conservation measures and applying water and nutrients at agronomic rates (Photos 22 through 30).

- 7) Fertilizers and Soil Amendments: Fertilizers and soil amendments were appropriately stored in a shed and not exposed to the elements.
- 8) Pesticides/Herbicides: I did not observe any pesticides or herbicides during the inspection.
- 9) Petroleum Products and Other Chemicals: Petroleum products were stored appropriately.
- 10) Cultivation-related Wastes: The small amount of cultivation related waste I observed onsite during the inspection was properly managed and in compliance with the Order.
- 11) Refuse and Human Waste: We observed two portable toilets on the Property, and Mr. Sweet told us that the residence near cultivation area CA1 had a septic system.
- 12) Remediation, Cleanup, and Restoration Activities: The two landslides near the ponds will require remediation (SLIDE1 and SLIDE2) because onsite development and activities are influencing these features, resulting in adverse impacts to waters of the State (Photos 1 through 4, and 37 through 42). The stream crossings discussed in detail above (C1, C5, C6, and C7) will likely need to be reconstructed or decommissioned.

Discussion

Site conditions that I observed on November 2, 2017, were not consistent with those described in initial enrollment documents, the revised Reporting Form for enrollment, and the 2016 annual monitoring report (the latter two prepared by different parties and submitted on the same date, March 31, 2017). The Water Resource Protection Plan submitted for the site on December 14, 2017, does not adequately characterize/address site conditions with respect to standard conditions, but rather appears to be an incomplete collection of information about various aspects of the site and operation.

Recent development and construction on the site, including development of cultivation areas, and construction/replacement of watercourse crossings and pond construction occurred without required permitting or environmental review. Work associated with stream crossings and ponds (C1 through C8, POND1, and POND2/OUT3) constructed without the appropriate permits for dredge and fill activities within waters of the State resulted in discharges of sediment to waters of the State. Stream crossings C5, C6, and C7 continued to represent threats to water quality based on the improper installation of the culverts. There are various features that may need to be removed altogether with restoration of impacted surface waters and mitigation for temporal/permanent impacts.

Potential Water Quality Violations

Conditions observed by staff and reported above represent potential water quality violations of the Regional Cannabis Order, the Water Quality Control Plan for the North Coast Region, the Water Code, and Clean Water Act.

Recommendations

Developed Areas, Roads, and Crossings: Retain a licensed professional to inventory, assess, and develop a workplan and schedule to implement measures to ensure that all

developed features, roads, and crossings throughout the parcel are corrected, restored, and/or maintained to prevent or minimize erosion, sediment transport/delivery, and adverse impacts to water quality and beneficial uses. Include measures to ensure that unstable features caused or affected by onsite development and operations are removed or otherwise protected to minimize the potential for these features to cause adverse impacts to water quality and beneficial uses. Dispose of or stabilize all development and restoration-related earthen spoils in a manner to prevent/minimize transport and delivery to receiving waters. As a reference for the goal of this recommendation, review Standard Conditions 1, 2, 3, and 4 of the Order.

Prepare a restoration and protection plan that includes plans for removal of both POND1 and POND2, delineation of wetland extent prior to pond development, and restoration of natural stream and wetland conditions including mitigation for temporal impacts and an immediate stability analysis of the ponds assessing the threat to water quality from potential failure of POND1 and POND2.

Obtain approval from the Water Boards through a Water Quality Certification for any proposed work in streams or wetlands prior to doing any such work.

Refuse: Immediately contain and properly dispose of all refuse, including burned refuse/waste consistent with standard conditions 10 and 11 of the Order.

Enrollment Documentation: Submit revisions to enrollment documents as appropriate to reflect actual site conditions.

WRPP: Revise WRPP as appropriate to reflect actual site conditions. Ensure that WRPP identifies all features not meeting standard conditions, specifies necessary corrective actions for each of these features, and provides a schedule to implement these corrective actions, including first securing any necessary permits and/or approvals. Ensure that WRPP describes manage practices/measures to be implemented to ensure that the Property and onsite operations are maintained and conducted in a manner consistent with standard conditions.







North Coast Regional Water Quality Control Board

Attachment A:

Photographic Record of November 2, 2017, Inspection of Shadow Light Ranch, LLC (formerly Joshua Sweet) Property including Humboldt County Assessor's Parcel Numbers 223-073-004-000, 223-073-005-000, 223-061-003-000, 223-061-039-000, 223-061-043-000, 223-061-046-000 (All pictures taken by Shannon Utley during November 2, 2017, inspection unless otherwise noted)



Photo 1: Image taken on October 25, 2017, by Warden Kyle Shaw provided by California Department of Fish and Wildlife (CDFW) showing large upper pond with landslide and smaller lower pond.



Photo 2: Image taken on November 2, 2017 by Chris Van de Wyngard provided by the Division of Water Rights of large upper pond (POND1) looking downhill. Landslide delivery to pond seen on left side of image.



Photo 3: View uphill of upper pond (POND1) from earthen berm. Landslide into pond seen on right side of image (see orange circle).



Photo 4: Closer view of landslide scarp (SLIDE1) and delivery into POND1. Blue arrow shows location of possible wetland area.



Photo 5: Image taken on November 2, 2017, by Chris Van de Wyngard provided by the Division of Water Rights of earthen berm (BERM) containing upper pond (POND1) on left and lower pond (POND2) on right.



Photo 6: View of POND1 earthen berm (BERM) from western side of POND2.



Photo 7: POND1 outflow pipe (OUT1), which delivers into POND2 below.



Photo 8: Closer view of POND1 outflow pipe (OUT1) with a layer of sediment covering the bottom of intake.



Photo 9: Image taken November 2, 2017, by Chris Van de Wyngard provided by the Division of Water Rights of POND1 outflow pipe (OUT1) into POND2.



Photo 10: Closer view of POND1 outflow pipe outlet (OUT1) set on rip-rap into POND2.



Photo 11: View downhill at lower pond (POND2) from POND1 berm with outflow (OUT1) from POND1 on left of image.



Photo 12: View uphill of POND2 and Class III watercourse (blue arrow shows Class III channel) from downhill side of pond.



Photo 13: View of single outflow pipe from POND2 (blue arrow shows outflow pipe) (OUT3).



Photo 14: View of single outflow pipe below POND2 (OUT3).



Photo 15: Image taken November 2, 2017, by Chris Van de Wyngard provided by the Division of Water Rights of single outflow pipe set into Class II channel looking upstream (OUT3).



Photo 16: Image taken on November 2, 2017, by Chris Van de Wyngard provided by the Division of Water Rights of single outflow pipe set into Class II channel looking downstream (OUT3).



Photo 17: Image of double outflow pipes from POND2 into wetland type area (OUT2).



Photo 18: Closer view of wetland area below double outflow pipes from POND2 (OUT2).



Photo 19: Image of graded area with timber removal adjacent to large outdoor cultivation area CA1 looking northwest. Disturbed area is shown on Site Map as disturbed area surrounding CA1 (approximately 150,000 square feet of disturbed area).



Photo 20: Image taken on November 2, 2017, by Chris Van de Wyngard provided by the Division of Water Rights of cultivation area CA1 (approximately 44,100 square feet).



Photo21: Image of large outdoor cultivation area CA1 grow bags with grass growing around the bases from potential over watering of cannabis plants.



Photo 22: Image of drainage trench at outdoor cultivation area CA1. Image also shows fiber rolls disturbed by soil slumps caused by vegetation removal and erosion of the graded hillside. The fiber rolls were not functioning.



Photo 23: Image of outdoor cultivation area CA2 (approximately 7,800 square feet) located 28 feet from Class III watercourse at stream crossing C1.



Photo 24: Image of outdoor cultivation area CA3 (approximately 4,800 square feet).



Photo 25: Image taken on November 2, 2017, by Chris Van de Wyngard provided by the Division of Water Rights of outdoor cultivation area CA4 (approximately 10,600 square feet).



Photo 26: Image of cultivation area CA5 (approximately 7,000 square feet).



Photo 27: Image of cultivation area CA5 greenhouses (approximately 7,000 square feet).



Photo 28: Image of potting soil on the ground at cultivation area CA5 that has been transported across the fence line by runoff.



Photo 29: Image of muddy bare soil between greenhouses at cultivation area CA5.



Photo 30: Image of outdoor cultivation area CA6 (approximately 6,500 square feet).



Photo 31: Image of wetland-pond area (WET on Figure 1 and 2) dominated by cattails.



Photo 32: Closer view of wetland-pond area showing standing water and wetland-pond vegetation.



Photo 33: Image of ATV stream crossing C1 blocking Class III watercourse located approximately 28 feet from outdoor cultivation area CA2.



Photo 34: Image of downstream side of stream crossing C1 blocking Class III watercourse and showing erosion of the streambank.



Photo 35: Image of upstream side of stream crossing C2.



Photo 36: Image of downstream side of stream crossing C2 showing streambank erosion and stream bed armoring.



Photo 37: Image of landslide slope failure (SLIDE2) upgradient of the road, located between stream crossing C2 and POND1 caused by road development, grading and surface runoff.



Photo 38: Image of landslide (SLIDE2) downgradient of the road located between stream crossing C2 and POND1 caused by road development, grading and surface runoff.



Photo 39: Image of SLIDE2 looking downgradient



Photo 40: Image of transported sediment downgradient of SLIDE2 looking upgradient.



Photo 41: Image of transported sediment from SLIDE2 discharging into a headwaters stream at a headcut.



Photo 42: Image downslope of SLIDE2 showing stream channel degradation influenced by the SLIDE2 discharge to the Class III stream channel and hydrologic connectivity of the road network.



Photo 43: Image of upstream side of stream crossing C3 showing erosion of streambanks and armoring of streambed.



Photo 44: Image of downstream side of stream crossing C3 showing armoring of streambed and streambank.



Photo 45: Image of upstream side of stream crossing C4 showing armoring of streambed and banks.



Photo 46: Image of downstream side of stream crossing C4 showing armoring of streambed and banks.



Photo 47: Image of upstream side of stream crossing C5 showing erosion of streambed.



Photo 48: Image of downstream side of stream crossing C5 showing the culvert not set to the grade of the streambed.



Photo 49: Image of upstream side of stream crossing C6 armoring of streambank of Class II watercourse.



Photo 50: Image of downstream side of stream crossing C6 showing culvert was not placed in alignment with the Class II stream channel.

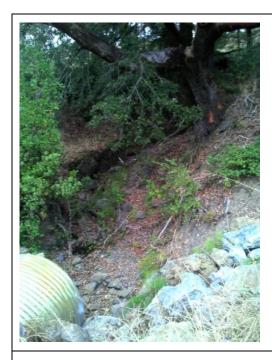


Photo 51: Image of upstream side of stream crossing C7 showing armoring of stream channel.

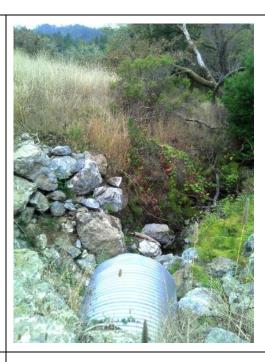


Photo 52: Image of downstream side of stream crossing C7 showing culvert was not set to the grade of the stream channel.



Photo 53: Image of downstream side of stream crossing C8 showing armoring of stream channel.



Photo 54: Image showing burn pile (BURN) located adjacent to stream channel upstream of stream crossing C5 (blue arrow is placed above stream channel and shows flow direction).



Photo 55: Image of oldest onstream pond (POND3).