North Coast Regional Water Quality Control Board

TO: Diana Henrioulle

FROM: Brian Fuller

DATE: August 28, 2020

Inspection Report for August 7, 2020 Consent Inspection, Humboldt County Assessor's Parcel Number (APN) 214-142-012-000 (the "Property")

File: Cannabis Program Inspections, Humboldt County, August 7, 2020, California Property Solutions Property, CIWQS Place ID 843377

Property information:

County:

Humboldt

Watershed:

Eel River Hydrologic Unit; South Fork Eel River Hydrologic Area; Benbow Hydrologic Subarea (HU/HA/HSA 111.32; Table 2-1, Water Quality Control Plan for the North Coast Region)

Regulatory status with the North Coast Regional Water Quality Control Board (Regional Water Board):

Site development:

No record of permitting for site development.

Onsite activities/operations:

- Enrolled as a Tier 2 site under the Regional cannabis order, WDID 1B161040CHUM, through TRC. Diana Sodosky signed the NOI on July 21, 2016.

- On May 24, 2019, Diane Sodosky transferred enrollment of the Property from the Regional Cannabis Order to Order WQ 2019-0001-DWQ (Cannabis General Order) and was assigned WDID 1_12CC416381.

- On April 14, 2020, Diane Sodosky filed a change request, updating the classification of the site to Tier 2 High Risk in the Cannabis General Order.

Inspection information:

Date/time:
August 7, 2020/morning

Type:
Follow-up (enforcement) Inspection.

Attendance:
Skyler Twohig, Timberland Resource Consultants (TRC)
Jack Henry, TRC
Jesse Cahill, TRC
Brandon, California Property Solution's Ranch Manager
Kasey Sirkin, US Army Corps of Engineers
David Manthorne, California Department of Fish and Wildlife (CDFW)
Brian Fuller, Regional Water Board
Adona White, Regional Water Board

Background/Objective:
I previously inspected the property on August 21, 2018, as part of a multi-agency team inspecting the site under a warrant, and I documented features impacting water quality in an inspection report that I mailed to the dischargers on October 26, 2018. Features of water quality concern included an approximately three-acre area with suspected wetlands that was occupied by two greenhouses, more than 100 feet of watercourse that had been culverted, and unpermitted water diversion infrastructure in a watercourse.

On November 15, 2019, TRC submitted to the Regional Water Board an Aquatic Resources Delineation (Wetland Report), prepared by Kyle S. Wear. The Wetland Report covers the three-acre area with suspected wetland that I had documented in my 2018 inspection report, and it identifies and delineates a filled wetland on the west and east sides of the western greenhouse and at the eastern greenhouse (Picture 1).

On July 6, 2020, Jesse Cahill of TRC advised me by telephone that TRC planned to seek, on behalf of the dischargers, an exemption to the Cannabis General Order's surface water setback requirements to allow the western greenhouse to remain in place, but that the Discharger proposes to restore the area occupied by the eastern greenhouse. Following this discussion, I reviewed the wetland report and noted that none of the sample plots that had been used to inform the delineation had been dug in the vicinity of the western greenhouse, and the wetland features had been mapped up to the western and eastern edges of the western greenhouse.

Inspection Map

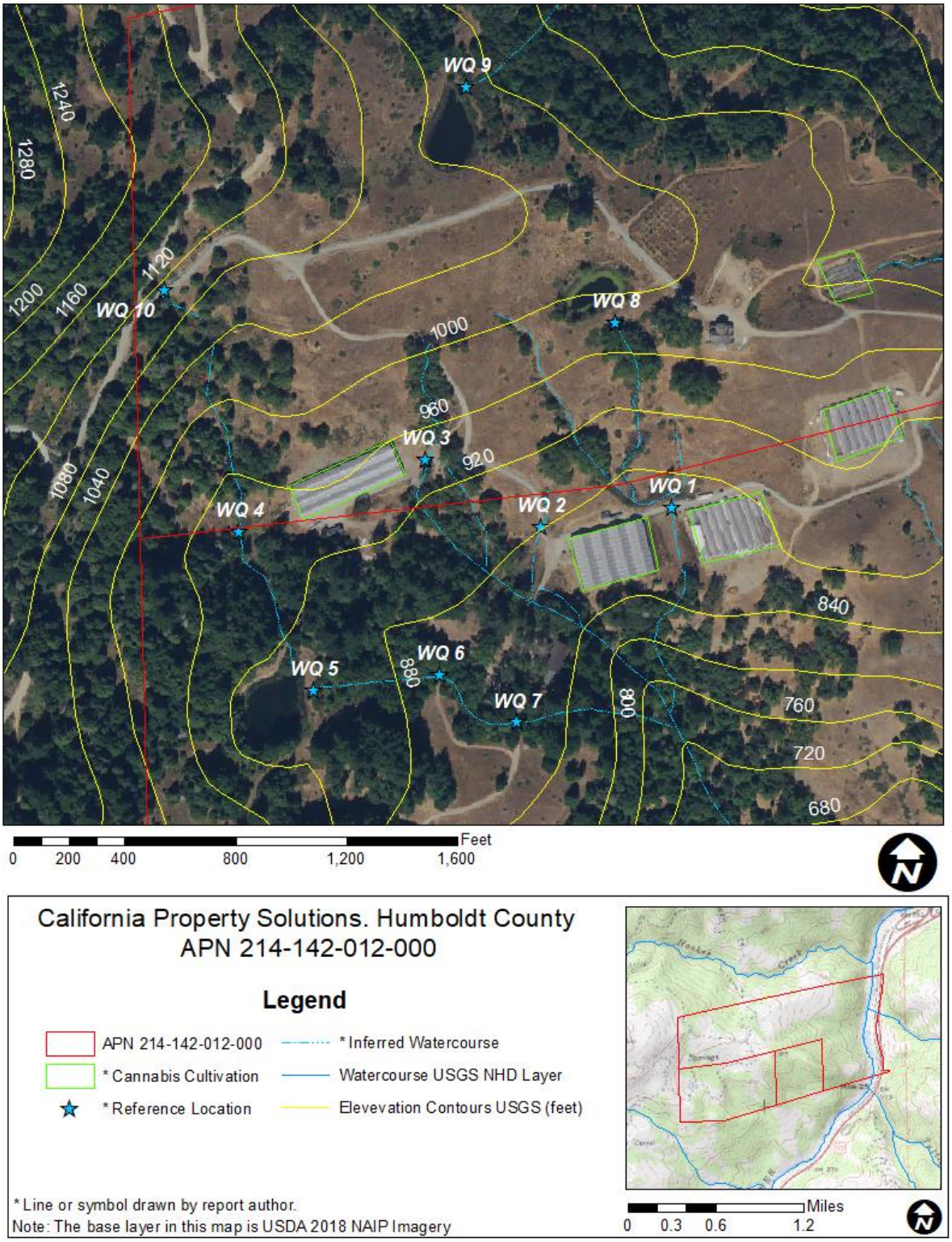


Figure 1: Annotated map of property.

Inspection Narrative:
The Inspection Map, above, shows inspection points referenced and discussed below. Inspection participants met north of Redway at the east side of the bridge over the South Fork Eel River near Wood Ranch Road and agreed to inspect the Wetland Report study area at WQ 1 (Picture 1 and Picture 2) first. We entered the Property from the west, drove to WQ 1 and parked on the road crossing the feature from west to east. I observed that the wetland feature upslope and north of the road was intact. I observed that the road diverted all water from the wetland north to a single culvert in the middle of the study area, concentrating the flow. A watercourse, which is not visible in the pre-impact aerial imagery (Picture 2), had channelized from the culvert outlet to the southern extent of the cleared area where topography steepens, and the channel incises more deeply (Picture 3).

Mr. Cahill provided me with a copy of the Site Management Plan (SMP) for the property and inspection participants discussed options for restoring the wetland. I found that there was consensus that the flow from north of the road should not be concentrated; instead, it should be allowed to pass in a broad swath to the wetlands to the south. TRC personnel informed me that the road predated the development of the greenhouses and suggested multiple culverts could be installed to convey the flow across the road. I replied that this would create multiple points of concentrated flow and other participants suggested a bridge could be an option. I walked to the western greenhouse within the wetland area and observed that this area was higher in elevation than the eastern greenhouse.

I told the inspection participants that the Wetland Report did not provide sufficient evidence to show that wetlands were not present at the site of the western greenhouse prior to construction and we discussed what additional information could support the wetland delineation. Ms. White asked if the dischargers had hired an engineer to work on the restoration design. TRC personnel replied that they had not. Ms. White recommended they include an engineer on their restoration design team and that they perform a detailed topographic survey of the area. I recommended the survey identify locations of non-impacted areas at the boundary of the earthwork as a reference of what the pre-impact topography was. The pre-impact topography should be compared to the current topography to show how much material was moved, where it was moved from, and where it was moved to.

West of the westernmost greenhouse in the wetland study area at WQ 2, there is an area of bare earth where a north-south trending road intersects with the east-west trending road (Picture 1). Wetland features are still visible northeast of the road intersection and the SMP identifies a culvert carrying flow from the northeast to the western side of the intersection and two culverts returning the flow to the east side of the road further south (Picture 1). I recommended this area be included in the more detailed topographic survey area.

We walked west to WQ 3 where more than 100 feet of watercourse had been culverted. I waked from the culvert inlet to the culvert outlet and observed another watercourse parallel to the current culvert outlet channel that was closer to the culvert inlet and appeared to have been the likely continuation of the culverted watercourse before the culvert was installed. I also observed that the edges of the pad occupying the culverted watercourse had been covered with straw and demarcated to prevent traffic (Picture 4). I observed that the watercourse that the culvert is currently discharging into is deeply incised, and also receives several flexible plastic pipes that collect and transport the stormwater runoff from the roof of the nearby greenhouse. The inspection team discussed redirecting the culverted watercourse to the more proximal channel and minimizing the length of channel that is culverted for the intended use of the area as an access road to reach the greenhouse immediately to the west.

We continued west past the greenhouse and walked along an old berm impounding a watercourse at WQ 4. Mr. Twohig stated that the berm had been in place so long that wetland features had developed behind the berm. He proposed that rather than removing the berm immediately upstream from where the natural watercourse is, they could breach the berm farther south, so that the artificial wetland could remain intact and allow for excess stormflows to flow back north into the historical watercourse. I examined the berm and, although it seemed steep, I did not see any signs of instability such as tension cracks, sloughing or scouring from overflowing water. I was receptive to this proposal and stated that we would need to see a full plan.

We continued walking south to a larger reservoir at WQ 5. I walked to the downstream side of the impounding berm and observed water seeping from the ground over a broad area north of the reservoir outlet. I observed that the reservoir outlet was a rusted corrugated metal pipe with no water flowing through it. I observed a void, several feet high and deep, that had eroded into the berm structure below the outlet (Picture 5). TRC personnel proposed lowering the berm at the outlet location. Ms. White suggested the dischargers consider a plan that removed a longer portion of the berm than just immediately above the outlet.

We walked back to WQ 4 and then southeast to WQ 6 where I observed that the water diversion infrastructure, that I had observed in August 2018, had been removed from the watercourse. The SMP proposes decommissioning the culvert. We then proceeded east to WQ 7, where Mr. Twohig told us that the 36-inch diameter culvert was in good condition, however the expected 100-year flow event dictated a 54” culvert at the location. Mr. Twohig asked if there were site-specific considerations that would permit the smaller sized culvert to remain. I said we could consider site-specific conditions. I did not observe either local bed aggradation or degradation in the watercourse upstream or downstream from the culvert; however, I observed that the upstream watercourse averaged roughly 4 feet wide within a wider topographic trough and ascertained that the 36-inch culvert was likely undersized. Mr. Twohig proposed decreasing the road prism height above the culvert and adding a critical dip instead of

full replacement. It was not clear that this would be preferable to full replacement and increase of culvert diameter at this location.

We returned to our vehicles at WQ 1 and drove east, then northwest, to a reservoir located at WQ 8. I observed some scour below the culvert outlet, but I did not observe any sloughing, cracks or evidence of water seeping through the reservoir berm. We then drove northwest to the reservoir at WQ 9. The impounding berm was heavily vegetated. I observed the corrugated metal pipe reservoir outlet extending several feet from the reservoir berm (Picture 6) and discharging into a scour pool downstream from the berm (Picture 7). I observed pooled water in the watercourse receiving the pond outflow.

We drove west towards the property exit and stopped at WQ 10. I looked at an aged culvert that drains an area north of the roadside to the hillslope to the south above a reservoir. The SMP includes a proposal to clean and maintain the ditch north of the road and clean out or replace the culvert. I looked at the culvert outlet and did not identify any signs of progressive scour, or flow outside of the culvert so I responded that the proposed treatment in the SMP seemed reasonable at this location.

Required permits from the Regional Water Board:

Clean Water Act section 401 Water Quality Certification (WQC)

All work conducted in waters of the United States and/or waters of the state of California, including decommissioning stream crossings, requires a WQC or waiver thereof from the Regional Water Board. Application for Water Quality Certification under the Cannabis General Order can be found at the following website:

https://www.waterboards.ca.gov/northcoast/water_issues/programs/cannabis/pdf/200204/RB1_Cannabis_WQC_401_App.pdf

Discussion

Wetland study area:

Although vehicles may have driven across the wetland area historically, aerial imagery suggests the compaction and placement of earthen fill that makes up the east-west trending road at WQ 1 and the north-south trending road at WQ 2 were constructed at the time of the greenhouse pad developments, between June 2015 and July 2016. The existing roads interfere with the hydrology of the wetlands; the single culvert at WQ 1 concentrates flow scouring a watercourse within the wetland and the flow at WQ 2 is routed through culverts away from areas that may have formerly hosted wetland habitat.

The SMP proposes armoring the culvert outlet at WQ 1 this fall. Treating this location at this stage would be temporary pending a full wetland restoration plan. The temporary work of armoring the culvert outlet would require a WQC.

Culverted Channel at WQ 3

Aerial imagery suggests that the watercourse was culverted at this location to access the greenhouse constructed for cannabis cultivation to the west. Culverting the watercourse at this location occurred without authorization. The entire length of culverted channel in addition to the part that is armored with rock is considered a permanent impact.

Recommendations:

1. Engage an appropriately qualified licensed professional to develop a detailed topographic survey of the wetland feature(s) at WQ 1 and WQ 2 to assist in identifying the extent of the wetlands that were present before the site was impacted in 2015. The survey should identify locations of non-impacted areas at the boundary of the earthwork as a reference of what the pre-impact topography was. The pre-impact topography should be compared to the current topography to show how much material was moved, where it was moved from, and where it was moved to.

2. Retain an appropriately qualified, licensed engineer to develop/review the plans described under recommendations 3 and 5 below.

3. Develop a plan to restore the wetland features at WQ 1 and WQ 2 to their extent and quality prior to the impacts discussed above, and a proposal for compensatory mitigation for the temporal impacts to these features.

4. Develop a plan to restore the watercourse at WQ 3 that avoids all permanent impacts that are practicable, minimizes the impacts that are not avoidable and mitigates for any remaining impacts.

5. Develop a plan to decommission the impoundments at WQ 4 and WQ 5. Ensure any remaining portions of the berms are stable and do not threaten to discharge earthen material to receiving waters.

6. Proceed with the scope of work proposed in the SMP for the culverts at WQ 6 and WQ 7.

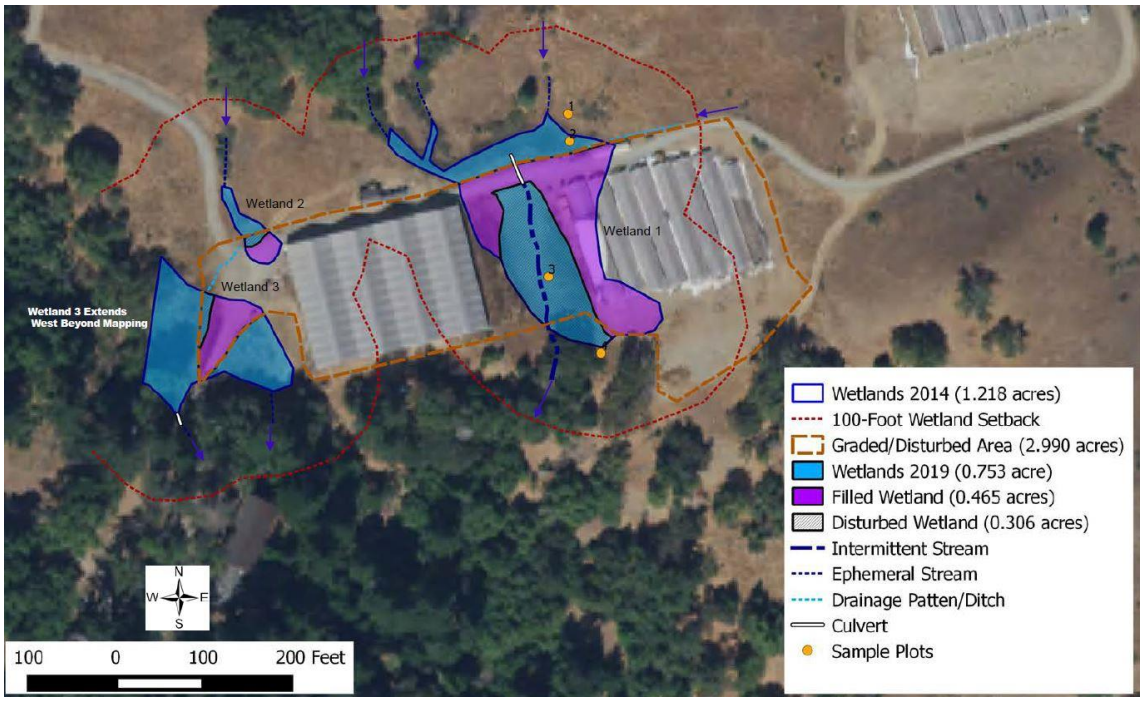
7. Add to the SMP annual monitoring for the reservoirs at WQ 8 and WQ 9 that includes inspection for discernible cracks in any portion of the berm, freeboard height above the outlet structure, and any signs of underflow at the outflow exit or localized scour immediately downstream from the outlet.

8. Submit to the Regional Water Board an application for WQC for any proposed instream work, at least 60 days before the proposed start work date. This includes instream work associated with recommendations 3, 4, 5, and 6 above.

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.

Photo Appendix



Picture 1—Aquatic Resources and Impacts Map from November 15, 2019, Wetland Report, prepared by Kyle S. Wear.

Picture 2—Aerial Image dated June 9, 2015, accessed with Digital Map Products' Land Vision service.

Picture 3—Looking upstream at a stream channel from the south of the wetland study area. The channel originates at the culvert at WQ1.

Picture 4—Looking north from road leading to greenhouse at WQ 3.

Picture 5—Looking at reservoir outlet located at WQ 5. Note the the edge of the outflow pipe is vidible at the top of the image.

Picture 6—Looking upstream at reservoir outlet located at WQ 9.

Picture 7—Looking downstream from reservoir outlet located at WQ 9.