CALIFORNIA Water Boards

GAVIN NEWSOM
GOVERNOR

JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

North Coast Regional Water Quality Control Board

April 7, 2020

Geovany Silva
37773 Mattole Road
Petrolia, CA 95558

Certified Mail 7016 2710 0000 2653 4231

Dear Mr. Silva,

Subject: **Notice of Violation** and Transmittal of Inspection Report for June 26, 2019 Inspection of Humboldt County APNs 104-071-004-000, 104-071-005-000, and 104-112-007-000

File: Freerange Holdings, LLC, Cannabis Waste Discharge Regulatory Program, CIWQS Place ID No. 854339

This letter is to notify you of observed violations of the requirements listed below for unauthorized discharges to waters of the state and/or the United States from Humboldt County Assessor Parcel Numbers (APNs) 104-071-004-000, 104-071-005-000, and 104-112-007-000 (Property).

1. Water Quality Control Plan for the North Coast Region (Basin Plan) section 4.2.1,
2. The California Water Code (Water Code) section 13264 and
3. Federal Clean Water Act sections 301 (a), 401, and 404.

A number of these features and conditions are also inconsistent with The State Water Resources Control Board Order WQ 2019-0001-DWQ, General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (CANGO).

Please provide us with a plan and schedule to address the recommendations in the enclosed inspection report within 30 days of the date of this letter.

Background

On December 13, 2018, Bret Rinehart submitted application 405851 for coverage under the Statewide Cannabis Order on behalf of Freerange Holdings, LLC; application processing is underway.

On June 26, 2019, staff from the Regional Water Board, accompanied by staff of the California Department of Fish and Wildlife (CDFW), inspected the Property. The purpose of the inspection was to evaluate onsite development and conditions associated with cannabis cultivation and associated activities and, for Regional Water Board staff to identify and assess any impacts or threatened impacts to the quality and beneficial uses of waters of the state.

Following the inspection, staff reviewed the July 25, 2019 Site Management Plan (SMP) for the Property prepared by Rinehart Engineering on behalf of Freerange Holdings, LLC.

Relevant Requirements

During the inspection, Regional Water Board staff observed features and conditions on the Property that represent violations of water quality requirements and regulations. Attachment A – Regulatory Citations, provides references to these requirements and regulations.

Observed Violations

As documented in the enclosed inspection report, Regional Water Board staff observed violations of the Basin Plan Section 4.2.1, Prohibition 2; California Water Code 13264 (a); Federal Clean Water Act sections 301 (a), 401, and 404. In addition, staff observed violations of the CANGO, Attachment A, section 1 - General Requirements and Prohibitions #25-27 and 37, and section 2 - Requirements Related to Water Diversions and Waste Discharge for Cannabis Cultivation #7, 8, 15, 17, 22, 26, 31, 49, 50, 56, 57, 62, 76, 82, 119 and 123.

Staff observed these violations at Property locations identified in the inspection report as FR1-5, 7, 8, 10-12, 15-20, 22, and 23. The SMP for the Property identifies most of these features and conditions and proposes mitigation or restoration work that appears to be adequate to correct the water quality concerns observed by staff. The inspection report identifies and provides recommendations for features not adequately addressed in the SMP.

Additional Potential Liabilities

The Regional Water Board is in the process of considering whether the violations of the Water Code and the Basin Plan warrant further enforcement. We encourage you to take steps to correct the violations as soon as possible, securing any applicable permits from this and other agencies prior to conducting work. Please note that the existing conditions, as observed and documented in the inspection report, may represent continuing violations of the Water Code and the Basin Plan.

Please note that correcting the conditions of non-compliance on the Property does not preclude enforcement for the violations alleged in this notice. As noted above, the Regional Water Board reserves its right to fully enforce the law against any violation and threatened violation by taking enforcement actions such as a cleanup and abatement order, time schedule order, administrative civil liabilities, and referral to the California Attorney General's office. Administrative civil liabilities may be assessed on a daily basis in the amount up to $5,000 for each day the violation occurs or up to $10 per gallon, but not both pursuant to Water Code section 13350.

Inspection Report Recommendations

The June 26, 2019 Inspection Report provides recommendations to correct violations, as well as to address features and conditions that threaten to impact water quality. As mentioned above, the SMP identifies and proposes mitigation or restoration work that appears to be adequate to correct most of the water quality concerns observed by staff. **Within 30 days of this letter**, please advise Kate Hawken of your intentions, plan, and schedule to implement recommendations in the inspection report. Ms. Hawken can be reached by email at Katherine.Hawken@waterboards.ca.gov or by telephone at (707) 445-6127.

Future correspondence regarding this matter will be sent to you at this address unless an alternative address is provided to the Regional Water Board. Failure to accept mail from the Regional Water Board is not a valid excuse for non-compliance with any future enforcement orders, and a failure to respond or otherwise appear at a future enforcement proceeding could subject you to a default order and the imposition of administrative civil liability.

If you have any questions regarding this matter, please contact Kate Hawken at the phone number or email above. You may also contact me at Diana.Henrioulle@waterboards.ca.gov or (707) 576-2350. Additionally, we are available to meet with you if you wish to discuss this letter or our waste discharge regulatory programs in further detail.

Sincerely,

Digitally signed by Diana Henrioulle
Date: 2020.04.07 08:49:06 -07'00'

Water Boards

Diana Henrioulle, P.E.
Enforcement Unit

200407_KEH_dp_HUM Freerange Holdings_NOV

Enclosures: 1) Regulatory Citations
2) Water Quality Inspection Report

cc: **California Department of Fish and Wildlife**
Andrew Orahoske, Andrew.Orahoske@Wildlife.ca.gov

North Coast Regional Water Quality Control Board
Kason Grady, Kason.Grady@waterboards.ca.gov
Diana Henrioulle, Diana.Henrioulle@waterboards.ca.gov

Division of Water Rights
Stormer Feiler, Stormer.Feiler@waterboards.ca.gov

Humboldt County
Planning Department, PlanningBuilding@co.humboldt.ca.us

Bret Rinehart, rinehartengineering@gmail.com

Attachment A – Regulatory Citations

Regulatory Section	Citation
Basin Plan Section 4.2.1, Prohibition 2	Prohibits "[t]he 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."
California Water Code Section 13264 (a)	"No person shall initiate any new discharge of waste or make any material changes in any discharge, or initiate a discharge to, make any material changes in a discharge to, or construct, an injection well, prior to the filing of the report required by Section 13260…"
Federal Clean Water Act Section 301 (a)	Section 301(a) provides that except as in compliance with this section [301] and section 1342 and 1344 of the Clean Water Act, "the discharge of any pollutant by any person shall be unlawful." 33 U.S.C. § 1311(a). The relevant exceptions allowed for under the Clean Water Act are the discharge of dredged and fill material into navigable waters pursuant to section 404 or the discharge of any pollutant to navigable waters from any point source pursuant to section 402 of the Clean Water Act.
Federal Clean Water Act Section 401	Section 401 (a)(1) "Any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates"
Federal Clean Water Act Section 404	Section 404(a) provides, in relevant part, "The Secretary may issue permits…for the discharge of dredged or fill material into the navigable waters…" The Code of Federal Regulations defines the term "dredged material" as material that is excavated or dredged from waters of the United States. 33 C.F.R. § 323.2(c). The term "discharge or dredged material" mean any addition of dredge material into the waters of the United States. 33 C.F.R. § 323.2(d)(1). The Code of Federal Regulations
State Cannabis Order Attachment A, Section 1 - General Requirements and Prohibitions #25	Cannabis cultivators shall not discharge waste in a manner that creates or threatens to create a condition of pollution or nuisance, as defined by Water Code section 13050.

State Cannabis Order Attachment A, Section 1 - General Requirements and Prohibitions #26	Except as allowed and authorized in this Policy, cannabis cultivators shall not discharge: • irrigation runoff, tailwater, sediment, plant waste, or chemicals to surface water or via surface runoff; • waste classified as hazardous (California Code of Regulations, title 23, section 2521(a)) or defined as a designated waste (Water Code section 13173); or • waste in violation of, or in a manner inconsistent with, the appropriate Water Quality Control Plan(s).
State Cannabis Order Attachment A, Section 1 - General Requirements and Prohibitions #27	Unless authorized by separate waste discharge requirements, the Cannabis Cultivation General Order, or a CWA section 404/401 permit, the following discharges are prohibited: • any waste that could affect the quality of the waters of the state; or • wastewater from cannabis manufacturing activities defined in Business and Professions Code section 26100, indoor grow operations, or other industrial wastewater to an onsite wastewater treatment system (e.g., septic tank and associated disposal facilities), to surface water, or to land.
State Cannabis Order Attachment A, Section 1 - General Requirements and Prohibitions #37	Cannabis cultivators shall comply with the minimum riparian setbacks described below for all land disturbance, cannabis cultivation activities, and facilities (e.g., material or vehicle storage, petroleum powered pump locations, off-stream water storage areas, and chemical toilet placement) …
State Cannabis Order Attachment A, Section 2 - Requirements Related to Water Diversions and Waste Discharge for Cannabis Cultivation #7	Cannabis cultivators shall stage and store equipment, materials, fuels, lubricants, solvents, or hazardous or toxic materials in locations that minimize the potential for discharge to waters of the state. At a minimum, the following measures shall be implemented: a) Designate an area outside the riparian setback for equipment storage, short-term maintenance, and refueling. Cannabis cultivator shall not conduct any maintenance activity or refuel equipment in any location where the petroleum products or other pollutants may enter waters of the state as per Fish and Game Code section 5650 (a)(1). b) Frequently inspect equipment and vehicles for leaks. c) Immediately clean up leaks, drips, and spills. Except for emergency repairs that are necessary for the safe transport of equipment or vehicles to an appropriate repair facility; performing equipment or vehicle repairs, maintenance, and washing onsite is prohibited. d) If emergency repairs generate waste fluids, ensure they are contained and properly disposed or recycled off-site. e) Properly dispose of all construction debris off-site. f) Use dry cleanup methods (e.g., absorbent materials, cat litter, and/or rags) whenever possible. Sweep up, contain, and properly dispose of spilled dry materials.

State Cannabis Order Attachment A, Section 2 - Requirements Related to Water Diversions and Waste Discharge for Cannabis Cultivation #8	The cannabis cultivator shall use appropriate erosion control measures to minimize erosion of disturbed areas, potting soil, or bulk soil amendments to prevent discharges of waste. Fill soil shall not be placed where it may discharge into surface water. If used, weed-free straw mulch shall be applied at a rate of two tons per acre of exposed soils and, if warranted by site conditions, shall be secured to the ground.
State Cannabis Order Attachment A, Section 2 - Requirements Related to Water Diversions and Waste Discharge for Cannabis Cultivation #15	Access roads shall be constructed consistent with the requirements of California Code of Regulations Title 14, Chapter 4. The Road Handbook describes how to implement the regulations and is available at http://www.pacificwatershed.com/PWA-publications-library. Existing access roads shall be upgraded to comply with the Road Handbook.
State Cannabis Order Attachment A, Section 2 - Requirements Related to Water Diversions and Waste Discharge for Cannabis Cultivation #17	Cannabis cultivators shall ensure that all access roads are hydrologically disconnected to receiving waters to the extent possible by installing disconnecting drainage features, increasing the frequency of (inside) ditch drain relief as needed, constructing out-sloped roads, constructing energy dissipating structures, avoiding concentrating flows in unstable areas, and performing inspection and maintenance as needed to optimize the access road performance.
State Cannabis Order Attachment A, Section 2 - Requirements Related to Water Diversions and Waste Discharge for Cannabis Cultivation #22	Cannabis cultivators shall ensure that access road surfacing, especially within a segment leading to a waterbody, is sufficient to minimize sediment delivery to the wetland or waterbody and maximize access road integrity. Road surfacing may include pavement, chip-seal, lignin, rock, or other material appropriate for timing and nature of use. All access roads that will be used for winter or wet weather hauling/traffic shall be surfaced. Steeper access road grades require higher quality rock (e.g., crushed angular versus river-run) to remain in place. The use of asphalt grindings is prohibited.

State Cannabis Order Attachment A, Section 2 - Requirements Related to Water Diversions and Waste Discharge for Cannabis Cultivation #26	Cannabis cultivators shall ensure that access roads are not allowed to develop or show evidence of significant surface rutting or gullying. Cannabis cultivators shall use water bars and rolling dips as designed by a Qualified Professional to minimize access road surface erosion and dissipate runoff.
State Cannabis Order Attachment A, Section 2 - Requirements Related to Water Diversions and Waste Discharge for Cannabis Cultivation #31	Cannabis cultivators shall ensure that all permanent watercourse crossings that are constructed or reconstructed are capable of accommodating the estimated 100-year flood flow, including debris and sediment loads. Watercourse crossings shall be designed and sized by a Qualified Professional.
State Cannabis Order Attachment A, Section 2 - Requirements Related to Water Diversions and Waste Discharge for Cannabis Cultivation #49	Cannabis cultivators shall ensure that all access road watercourse crossing structures allow for the unrestricted passage of water and shall be designed to accommodate the estimated 100-year flood flow and associated debris (based upon an assessment of the streams potential to generate debris during high flow events). Watercourse crossings shall be designed and sized by a Qualified Professional. Consult CAL FIRE 100-year Watercourse Crossings document for examples and design calculations, available at: http://calfire.ca.gov/resource_mgt/downloads/100%20yr%20revised%208-08-17%20(final-a).pdf.
State Cannabis Order Attachment A, Section 2 - Requirements Related to Water Diversions and Waste Discharge for Cannabis Cultivation #50	Cannabis cultivators shall ensure that watercourse crossings allow migration of aquatic life during all life stages supported or potentially supported by that stream reach. Design measures shall be incorporated to ensure water depth and velocity does not inhibit migration of aquatic life. Any access road crossing structure on watercourses that support fish shall be constructed for the unrestricted passage of fish at all life stages, and should use the following design guidelines: • CDFW's Culvert Criteria for Fish Passage; • CDFW's Salmonid Stream Habitat Restoration Manual, Volume 2, Part IX: Fish Passage Evaluation at Stream Crossings; and • National Marine Fisheries Service, Southwest Region Guidelines for Salmonid Passage at Stream Crossings.

State Cannabis Order Attachment A, Section 2 - Requirements Related to Water Diversions and Waste Discharge for Cannabis Cultivation #56	Cannabis cultivators shall ensure that culverts used at watercourse crossings are: 1) installed parallel to the watercourse alignment to the extent possible, 2) of sufficient length to extend beyond stabilized fill/sidecast material, and 3) embedded or installed at the same level and gradient of the streambed in which they are being placed to prevent erosion.
State Cannabis Order Attachment A, Section 2 - Requirements Related to Water Diversions and Waste Discharge for Cannabis Cultivation #57	Cannabis cultivators shall store soil, construction, and waste materials outside the riparian setback except as needed for immediate construction needs. Such materials shall not be stored in locations of known slope instability or where the storage of construction or waste material could reduce slope stability.
State Cannabis Order Attachment A, Section 2 - Requirements Related to Water Diversions and Waste Discharge for Cannabis Cultivation #62	Cannabis cultivators shall haul away and properly dispose of excess soil and other debris as needed to prevent discharge to waters of the state.
State Cannabis Order Attachment A, Section 2 - Requirements Related to Water Diversions and Waste Discharge for Cannabis Cultivation #76	Cannabis cultivators shall not obstruct, alter, dam, or divert any portion of a natural watercourse prior to obtaining all applicable permits and approvals. Permits may include a valid water right, 404/401 CWA permits, a CDFW LSA Agreement, coverage under the Cannabis Cultivation General Order water quality certification, or site-specific WDRs issued by the Regional Water Board.

State Cannabis Order Attachment A, Section 2 - Requirements Related to Water Diversions and Waste Discharge for Cannabis Cultivation #82	The cannabis cultivator shall install and maintain a measuring device(s) for surface water or subterranean stream diversions. The measuring device shall be, at a minimum equivalent to the requirements for direct diversions greater than 10 acre-feet per year in California Code of Regulations, Title 23, Division 3, Chapter 2.7 and Chapter 2.820. The measuring device(s) shall be located as close to the point of diversion as reasonable. Cannabis cultivators shall maintain daily diversion records for water diverted for cannabis cultivation. Cannabis cultivators shall maintain separate records that document the amount of water used for cannabis cultivation separated out from the amount of water used for other irrigation purposes and other beneficial uses of water (e.g., domestic, fire protection, etc.). Cannabis cultivators shall maintain daily diversion records at the cultivation site and shall make the records available for review or by request by the Water Boards, CDFW, or any other authorized representatives of the Water Boards or CDFW. Daily diversion records shall be retained for a minimum of five years. Compliance with this term is required for any surface water diversion for cannabis cultivation, even those under 10 acre-feet per year.
State Cannabis Order Attachment A, Section 2 - Requirements Related to Water Diversions and Waste Discharge for Cannabis Cultivation #119	Cannabis cultivators shall contain and regularly remove all debris and trash associated with cannabis cultivation activities from the cannabis cultivation site. Cannabis cultivators shall only dispose of debris and trash at an authorized landfill or other disposal site in compliance with state and local laws, ordinances, and regulations. Cannabis cultivators shall not allow litter, plastic, or similar debris to enter the riparian setback or waters of the state. Cannabis plant material may be disposed of onsite in compliance with any applicable CDFA license conditions.
State Cannabis Order Attachment A, Section 2 - Requirements Related to Water Diversions and Waste Discharge for Cannabis Cultivation #123	Cannabis cultivators shall ensure that debris, soil, silt, bark, slash, sawdust, rubbish, creosote-treated wood, raw cement and concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to any life stage of fish and wildlife or their habitat (including food sources) does not contaminate soil or enter the riparian setback or waters of the state.

Inspection Report

Site: Freerange Holdings
CIWQS Place ID: 854339
Inspection Date: June 26, 2019

Property Information

County: Humboldt
Physical Address: 37773 Mattole Road, Petrolia
Assessor's Parcel Numbers: 104-071-004-000, 104-071-005-000, 104-112-007-000
Owner: Freerange Holdings LLC
Size (acres): 160 (104-071-004-000); 160 (104-071-005-000); 82 (104-112-007-000)

Inspection Information

Date/Time: June 26, 2019
Inspection Type: Compliance
Attendance: Kate Hawken, Water Resource Control Engineer, North Coast Regional Water Quality Control Board (Regional Water Board)
Andrew Orahoske, California Department of Fish and Wildlife (CDFW)
Bret Rinehart, Juliette Bohn, and Steve Perrel, consultants
Louis and Joe, property representatives

Inspection Report Information

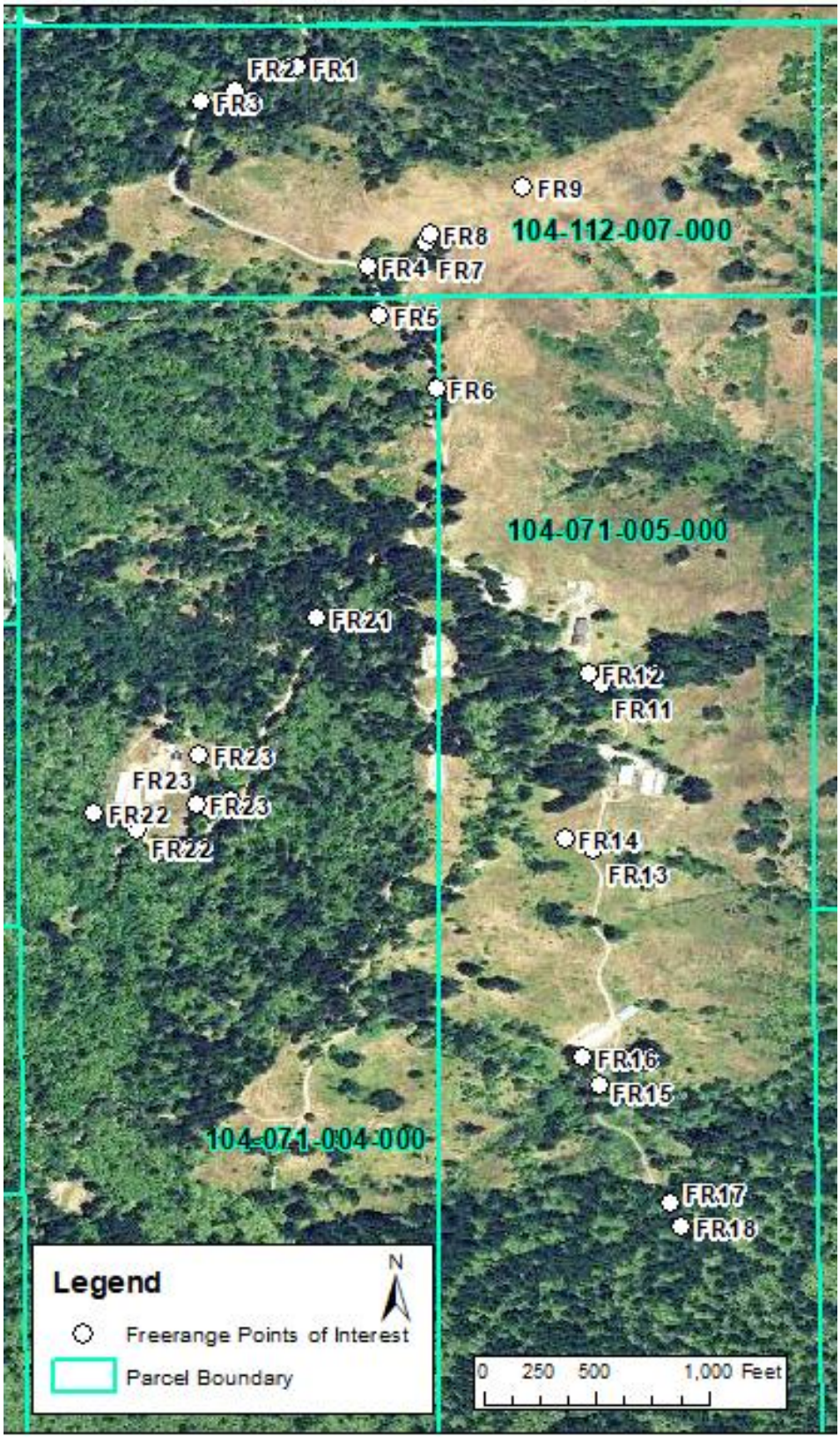
Prepared by/Date: Kate Hawken, August 15, 2019
Reviewed by/Date: Diana Henrioulle, P.E., on February 20, 2020
Photograph Source(s): Photos taken by Kate Hawken unless otherwise noted
CIWQS Report ID: 37277030

Property Background

Watershed: Cape Mendocino Hydrologic Unit; Mattole River Hydrologic Area
West side: Cal Water 1112.300504; Squaw Creek HUC-12 180101070207

East side: Cal Water 1112.300501; Lower Mattole River HUC-12 180101070209
Clean Water Act Section 303(d) Listings: Sedimentation/ Siltation and Temperature
TMDLs: Sediment and Temperature 2002
Development (Google Earth Pro):
Road developed and flats cleared prior to earliest available imagery 6/11/1993
-004 Trees removed between 8/8/2004 and 8/23/2012
-004 Hoop house first visible in 9/4/2006 imagery
-005 Hoop houses first visible in 4/24/2010 imagery
-005 Trees removed and more hoop houses added between 4/24/2010 and 8/23/2012
Regulatory/Enforcement: On December 13, 2018, Bret Rinehart submitted application 405851 for coverage under the Statewide Cannabis Order on behalf of Freerange Holdings, LLC; application processing is underway.

Site Maps


FR2
FR1
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FR9
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104-112-007-000
FR4
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FR5
FR6
104-071-005-000
FR21
FR12
FR11
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FR22
FR23
FR22
FR14
FR13
FR16
FR15
104-071-004-000
FR17
FR18
Legend
N
Freerange Points of Interest
Parcel Boundary
0 250 500 1,000 Feet

Inspection Observations

On June 26, 2019, I inspected the above-referenced property in the company of staff from CDFW. Three consultants and two property representatives were also present for the inspection. The site map above shows inspection points referenced and discussed in this report.

FR1: I observed a 30-inch diameter culvert receiving flow from a steep Class III watercourse and a rocked inboard ditch (photo 1). The culvert outlet was perched about 2 feet above the channel with a half-round downspout. The adjacent slope was bare, and fill from the road had been pushed above the culvert outlet and had entered the stream (photo 2, 3).

FR2: I observed an 18-inch diameter culvert receiving flow from a Class III watercourse and an inboard ditch (photo 4). The culvert outlet was perched about 2 feet above the channel. I observed sediment that had been placed on the road above the culvert and sediment that had been pushed or discharged over the hillside (photo 5).

FR3: I observed a section of road draining to an inboard ditch. The inspection participants agreed on the need to add a ditch relief culvert and/or outslope the road in this area to push water off the road and onto a vegetated flat (photo 6).

FR4: I observed an 18-inch diameter culvert receiving flow from a Class II watercourse/ spring and an inboard ditch (photo 7). I observed that the bed and banks of the stream channel were bare and eroding, apparently as a result of cattle activity in the stream (photo 8). I observed cow footprints in the stream and the property representatives confirmed cows congregate in the stream. The culvert outlet was perched about six inches above the channel, and the culvert was partially occluded with sediment.

FR5: I observed an 18-inch diameter culvert receiving flow from a watercourse and an inboard ditch (photo 9). The culvert outlet had a downspout attachment but was still perched about 6 feet above the channel, and I observed a scour pool below the downspout (photo 10). I also observed fill that had been sidecast into the watercourse.

FR6: I observed a well-vegetated stretch of ditch and a functioning ditch relief culvert (photo 11).

FR7: I observed a large chasm in a hillside where water originating from a spring/ seep traveled across a road and eroded down a hillside (photo 12).

FR8: I observed a spring/ seep adjacent to a road. I observed a muddy path across the road starting at FR8 and discharging to the chasm at FR7 (photo 13). The inspection participants agreed on the need for a rocked ford or culvert to convey spring/ seep flow across the road without eroding the road surface and hillside.

FR9: At this location, the property representatives advised the inspection group that they were proposing to develop a cannabis cultivation area. I observed prairie habitat (photo 14). The inspection participants discussed alternative cannabis cultivation locations that were already disturbed. Access to this location for cannabis cultivation would require conformance of the steep access road to the Handbook for Forest, Ranch and Rural Roads guidelines, stabilization of the chasm observed at FR7, and development of an appropriate crossing structure for surface water observed at FR8.

FR10: I observed pipes in a Class II watercourse, serving as a surface water diversion. At the road, the Class II watercourse crossing consisted of a partially crushed, undersized culvert with a buried inlet, causing the watercourse to divert down a ditch alongside the road (photo 15). The surface water diversion did not have a meter.

FR11: I observed a Class II watercourse with a culverted stream crossing. The culvert outlet was perched approximately 3 feet above the stream channel, and the stream channel was littered with water diversion infrastructure (photo 16). The bottom of the culvert had rusted out.

FR12: I observed a stretch of insloped road with an inboard ditch discharging to stream crossings FR10 and FR11 (photo 17). The inspection participants agreed on the need to outslope the road and/or add water bars to hydrologically disconnect the road from the watercourse.

FR13: I observed a functioning ditch relief culvert (photo 18).

FR14: I observed a developed spring, not attached to piping, and a wetland feature downhill (photo 19). The wetland feature supported hydrophytic vegetation and had about 4 inches of standing water.

FR15: I observed a 30-inch diameter culvert with an outlet perched 8-10 feet above the channel (photo 20). I observed water flowing under the culvert. I observed straw covering the bare soil adjacent to the culvert outlet.

FR16: I observed a decommissioned cannabis cultivation area where infrastructure had been removed and straw placed on bare soil. I observed cultivation waste including potting soil, cannabis stems, and green plastic ties had been pushed over the side of the flat and into a Class III watercourse (photo 21). Property representatives began removing the waste during the inspection.

FR17: I observed a skid road with surface erosion (photo 22).

FR18: I observed a 4-foot diameter plastic culvert on a Class I or II watercourse with its outlet perched above the watercourse (photo 23-24). I observed yellow-legged frogs and a coastal giant salamander in the channel.

FR19: I observed an 18-inch diameter culvert receiving flow from a watercourse and an inboard ditch (photo 25). The inspection participants agreed on the need to outslope the road uphill of the culvert.

FR20: I observed an 18-inch diameter culvert stream crossing with its outlet perched about 1 foot above the stream channel. I observed evidence the stream overtopped the culvert. Road fill surrounding the culvert outlet had eroded away (photo 26).

FR21: I observed a functioning 24-inch diameter ditch relief culvert with its outlet on a steep slope (photo 27). The culvert outlet was surrounded by rock.

FR22: I observed a stream segment that appeared to have been recently disturbed adjacent to a decommissioned cultivation area (photo 28). I observed multiple frogs and tadpoles in the stream.

FR23: I observed a stream diverted down a lightly-used road (photo 29). I observed dry, historic channels perpendicular to the road. I observed pooled water that went subsurface adjacent to a decommissioned cultivation area.

Photos

Photo 1 – FR1; inboard ditch and stream entering culvert

Photo 2 – FR1; looking down at culvert outlet standing on fill placed above the watercourse

Photo 3 – FR1; side view of culvert outlet with sediment discharge visible in the foreground and the steep, bare, adjacent slope visible in the background

Photo 4 – FR2; culvert inlet surrounded by rock and view of road ditch discharging to culvert

	
Photo 5 – FR2; perched outlet of culvert with sediment placed above the culvert from roadwork	Photo 6 – FR3; insloped portion of road with inboard ditch
	
Photo 7 – FR4; disturbed stream channel and inlet of culvert	Photo 8 – FR4; disturbed stream channel

	
Photo 9 – FR5; inboard ditch and stream meet at culvert inlet	Photo 10 – FR5; looking downhill at culvert downspout
	
Photo 11 – FR6; well vegetated ditch and ditch relief culvert	Photo 12 – FR7; chasm in hillside adjacent to road

	
Photo 13 – FR8; spring/ seep	Photo 14 – FR9; potential cannabis cultivation area
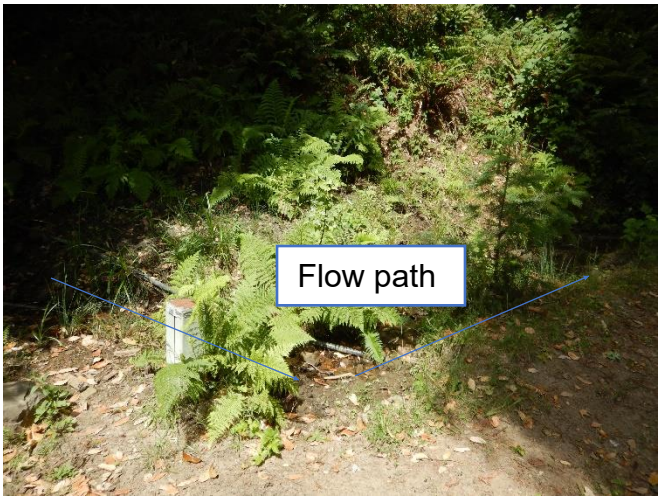	
Photo 15 – FR10; watercourse with diversion pipe running through buried culvert and water diverted down ditch along road	Photo 16 – FR11; culvert stream crossing with water diversion infrastructure in stream

	
Photo 17 – FR12; stretch of insloped road with inboard ditch discharging to stream crossings FR10 and FR11	Photo 18 – FR13; ditch relief culvert
	
Photo 19 – FR14; developed spring and wetland feature on slope	Photo 20 – FR15; culvert outlet perched above the watercourse channel

	
Photo 21 – FR16; view looking up from watercourse channel at cultivation waste pushed over edge of hillside	Photo 22 – FR17; skid road with rut down middle
	
Photo 23 – FR18; aggraded inlet of culvert stream crossing	Photo 24 – FR18; perched outlet of culvert stream crossing

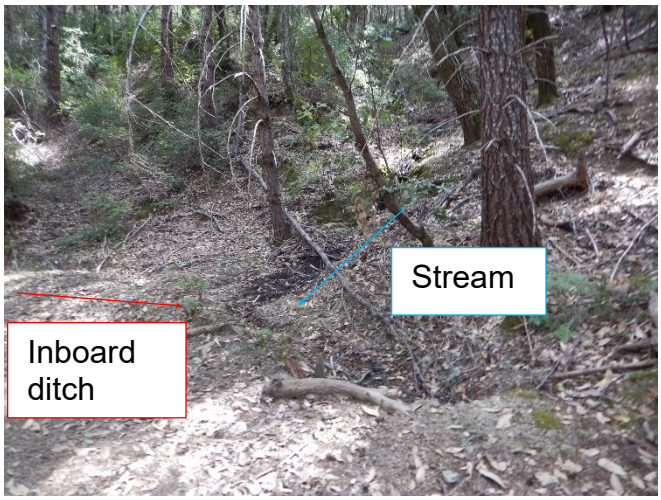

Photo 25 – FR19; stream and inboard ditch converge near culvert stream crossing inlet

Photo 26 – FR20; culvert stream crossing outlet

Photo 27 – FR21; culvert stream crossing outlet with rock armoring

Photo 28 – FR22; stream segment adjacent to decommissioned cultivation area

	
Photo 29 – FR23; stream diverted down road adjacent to decommissioned cultivation area	

Summary

A comparison of conditions observed on the site with categories of activities typically associated with water quality concerns at cannabis cultivation sites:

a. Site Maintenance, Erosion Control and Drainage Features: I observed multiple road segments with surface erosion and inadequate drainage. I observed ditches hydrologically connected to watercourses.
b. Stream Crossing Maintenance: I observed multiple culvert stream crossings that were undersized and/or misaligned with the streams. I also observed evidence of stream diversion at some crossings.
c. Riparian and Wetland Protection and Management: I observed water diversion and storage infrastructure and cultivation waste in streams. I observed a decommissioned cultivation area near two altered stream segments.
d. Spoils Management: I observed spoils associated with road maintenance that had been placed or sidecast where they may discharge into streams, and I observed spoils that had discharged to streams.
e. Water Storage and Use: As noted above, I observed water diversion and storage infrastructure in streams.
f. Irrigation Runoff: I observed no water quality issues associated with irrigation runoff.
g. Fertilizers and Soil Amendments: I observed no water quality issues associated with storage or use of fertilizers and soil amendments.
h. Pesticides/Herbicides: I observed no water quality issues associated with storage/use of pesticides.
i. Petroleum Products and Other Chemicals: I observed no water quality issues associated with storage or use of petroleum products and other chemicals.

j. Cultivation-related Wastes: As noted above, I observed cannabis cultivation-related waste in a stream.
k. Refuse and Human Waste: I did not observe or review human waste collection/disposal systems or facilities on the property.

Discussion: Site Management Plan Review

Following the inspection, Rinehart Engineering submitted an updated Site Management Plan (SMP) on July 31, 2019. The SMP provides general prescriptions for road improvement including re-grading and modification of the inboard ditches to include ditch-relief culverts upstream of all natural drainages, armoring culvert outlets, adding rock slope protection, and adding cattle exclusion fencing. The Road System Assessment & Improvement Plan enclosed in the SMP provides detailed descriptions of road reaches and proposed treatments.

The SMP does not include an evaluation of stream crossings' capacity to convey the 100-year flood flow and associated debris. The SMP does not address erosional feature FR7 or spring FR8 on the access road to the proposed cultivation area. The SMP also does not address the disturbed stream sections FR22 and FR23.

Recommendations

1. Submit an updated Site Management Plan that includes:
    a. An evaluation of all stream crossings for capacity to convey the 100-year flood flow and associated debris. Provide a schedule to address all crossings needing upgrade
    b. A delineation of the extent of FR22 and FR23. Provide plans to reconnect/ restore the watercourse to its historic stream channel. Do not cultivate cannabis or place cannabis-related infrastructure within the riparian setback to this watercourse
    c. Installation of an appropriately sized and aligned crossing at FR8 or decommissioning of the road stretch
2. Improve road alignment, surfacing, and drainage to minimize erosion and sediment transport. Hydrologically disconnect road and road ditches from watercourses
3. Prior to stream crossing and stream restoration work, submit design plans, construction schedule, and other relevant information to the Regional Water Board through the 401 Water Quality Certification. Work may not commence until authorization is received from the Regional Water Board. See 401 Water Quality Certification application here: www.waterboards.ca.gov/northcoast/water_issues/programs/cannabis/pdf/200204/RB1_Cannabis_WQC_401_App.pdf
4. Remove water diversion and storage infrastructure, including water lines and tanks, from the riparian setbacks to the extent possible
5. Install water meter(s) as appropriate to measure water diverted for cannabis cultivation

6. Remove potting soil, cannabis stems, and green plastics from the watercourse and place or dispose of in a location and manner so as to prevent discharge into receiving waters