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September 9, 2016

VIA US Mail and Email (Shin-Roei.Lee@waterboards.ca.gov)

Shin-Roei Lee
North Coast Regional Water Quality Control Board
5550 Skylane Blvd.
Suite A
Santa Rosa, CA 95403

Re: Marble Mountain Ranch Water Quality Monitoring Plan Required under Cleanup and Abatement Order R1-2016-0031

Dear Ms. Lee:

On behalf of my clients, Douglas and Heidi Cole (the "Coles"), I am submitting the attached water quality monitoring plan ("Plan") to the North Coast Regional Water Quality Control Board ("Regional Board") for review. Paragraph 4 on page 11 of Cleanup and Abatement Order R1-2016-0031 ("CAO") requires that the Coles submit this Plan for the Regional Board's Executive Officer's review by September 10, 2016.

On August 26, 2016, I sent to Kenneth Petruzzelli, the State Water Resources Control Board ("State Water Board") attorney assigned to the Marble Mountain Ranch matter, a letter indicating that the Coles would be unable to comply with all of the deadlines in the CAO. Following that letter, the Coles requested that the State Water Board review and stay the CAO on September 6, 2016. Courtesy copies of both my letter to Mr. Petruzzelli and the request for a review and stay of the CAO have been forwarded to you. I have received no response to my August 26, 2016, letter and the request for the stay of the CAO has not yet been granted.

Therefore, in an effort to comply with the deadlines in the CAO, the Coles have drafted the attached Plan. As indicated in my August 26, 2016, letter, the September 10, 2016, deadline to establish a water quality sampling plan could not be met because it was not enough time to find a qualified water quality consultant. The Coles continue to search for an individual who is qualified and able to provide further assistance with water quality compliance. While the Coles endeavor to find that consultant, please see the attached water quality sampling plan for the Regional Board's review.

Please contact me with any questions.

Regards,

Churchwell White LLP

for:

Barbara A. Brenner
KAF/crp

Enclosures

WATER QUALITY SAMPLING PLAN
Marble Mountain Ranch

Submitted by:
Douglas Cole
September 9, 2016

TABLE OF CONTENTS

Water Quality Monitoring
Sampling and Analysis Plan

This Water Quality Monitoring Sampling and Analysis Plan ("Plan") describes the surface water quality monitoring activities undertaken at the Marble Mountain Ranch, located at 92520, Highway 96 in Somes Bar, in Siskiyou County. The water quality sampling described in this plan will occur during water discharge activities at Marble Mountain Ranch that coincide with hydroelectric generation at the ranch. Marble Mountain Ranch is owned and operated by Douglas and Heidi Cole (the "Coles"). Douglas Cole will be responsible for implementing this Plan, his contact information is as follows:

Telephone number: (530) 469-3322
Email address: guestranch@marblemountainranch.com

1. SAMPLING DESIGN

a. Number and Location of Discharge Points

Marble Mountain Ranch has a single discharge point. That discharge point is only active when water is being diverted and used for hydroelectric power generation. Discharge is made to an unnamed tributary of Irving Creek. The map attached in Appendix A identifies the discharge point from Marble Mountain Ranch to the unnamed tributary to Irving Creek as "Discharge Point".

b. Number and Location of Monitoring Points

In addition to the single discharge point, the map attached in Appendix A also shows all monitoring points that will be used under this Plan. The first monitoring point is located just above the point of diversion in Stanshaw Creek and labeled on the map in Appendix A as "Point A". The second monitoring point is located near the discharge point to the unnamed tributary to Irving Creek. The second monitoring point is labeled on the map in Appendix A as "Point B".

The selected monitoring points comply with the requirements in Cleanup and Abatement Order No. R1-2016-0031 ("CAO") for a water quality monitoring plan. Page 11, paragraph 4(b) of the CAO provides that the "sampling plan shall assess water quality above the diversion and ranch complex, and below the ranch complex to evaluate if there are any pollutants entering the surface waters from the ditch or pond." The first monitoring point, Point A, collects water "above the diversion and ranch complex" and the second monitoring point, Point B, collects water "below the ranch complex." Water taken from these sampling points will be used to "evaluate if there are any pollutants entering the surface waters from the ditch or pond."

c. Description of Typical Discharge Patterns

Marble Mountain Ranch does not engage in discharge to waters of the state year round. Discharge only occurs when the Coles divert water to use for hydroelectric power generation. During low flow periods in Stanshaw Creek, the Coles forbear exercising their full pre-1914 right to divert 3 cfs of water and do not divert water for hydroelectric power generation. Therefore, during low flow periods, there is no discharge of water. All water that is diverted during low flow periods is put to beneficial use at Marble Mountain Ranch.

During high flow periods in Stanshaw Creek, the Coles divert water for hydroelectric power generation that is then discharged at the discharge point to the unnamed tributary to Irving Creek. High flow periods generally coincide with the wet season and last until late May or early June. While this time period is the general trend of when discharge from Marble Mountain Ranch is expected to occur, when high flow periods exist outside this timeframe, discharge may also occur.

d. Timing of Monitoring

During discharge periods, samples for water quality monitoring will be taken from each monitoring point once every two (2) weeks. Reports of the testing of these samples will be provided on a quarterly basis with the progress reports the Coles are required to submit under paragraph 5 on Page 11 of the CAO on January 1, April 1, July 1, and October 1 of each year until January 1, 2022 unless an exceedance is detected by the monitoring. Water quality monitoring will continue during any discharge periods through January 1, 2022.

2. SAMPLING METHODS

Water temperature will be collected using a standard temperature gauge capable of detecting water temperature to one tenth of a degree Celsius. A field data sheet for documenting sampling conditions is attached in Appendix B.

Sampling Protocol

a) At each monitoring point, label all bottles with the monitoring point name, date, and time with pencil or indelible marker.
b) Sample near the middle of the channel flow when safe. The location should be deep enough to submerge the sampling probes and the bottles without disturbing bottom sediment.
c) If the flow is not deep enough to submerge the probes, a bucket grab can be used. To do this, a clean bucket is rinsed three times with water from the flowing channel, and then filled to use for probe sampling. Care should be taken to take a representative sample from the center of the water column (not just from the surface flow).
d) Document any field condition that may affect the result on the Field Data Sheet. This may include timing and amount of most recent rain, amount of flow, etc.
e) Collecting a Grab Sample.
    i) Wear clean disposable gloves.
    ii) Rinse each bottle with stream water by partially filling the bottle, replacing the bottle cap, shaking and pouring out water downstream of where you are standing. Do this three times so that the bottle has been thoroughly rinsed. Omit this step if the bottle contains sample preservative (typical in nutrient sampling bottles).
    iii) Collect a sample from the center of the flow, facing up-stream. Submerge the bottle slowly, obtaining a sample representing the entire water column (not just the surface).
f) Samples will be chilled on wet ice and maintained at <6°C until testing.
g) Toxicity laboratory tests must be initiated within 48 hours of sampling. Nutrient tests must be initiated within 48 hours unless the sample is preserved with acid.

3. Sample Handling and Custody

The container requirements, sample volume, initial preservation and holding times for samples being sent to the laboratory for analysis will be determined by the laboratory retained to test the samples. No matter the water quality lab retained, the water quality samples will arrive at the lab within 48 hours unless the samples are preserved.

a. Chain of Custody:

A chain of custody ("COC") form is used to document the change in possession of the samples from the time they are collected to the time they are analyzed. This is standard sampling practice and is a way to ensure that the samples arrive at the laboratory with the proper information and proper handling en route. A copy of the COC will be retained with the field data sheet. The Sampler must sign off on the COC (relinquishing signature) upon shipping or transfer to laboratory staff (receiving signature). The following information will be included on the COC form:

- Project name and contact info: Marble Mountain Ranch, Doug Cole, (530) 469-3322
- Sampling site names: Monitoring Point A or Monitoring Point B
- Sample date and time
- Name of sample collector
- Analysis requested
- Receiving signature, time and date
- Relinquishing signature, time and date

A sample COC form is attached to this Plan as Appendix C.

b. Transport

Prior to transport to the laboratory, ice chests will be filled with wet ice (preferably in tied-off plastic bags). Bottle lids will be checked for tightness prior to shipping. All sample containers will be clearly labeled with the unique site name, date, and time, with an indelible marker. Samples will be shipped in insulated containers using same day delivery or overnight freight.

4. Analytical Methods

Table 4 describes the constituents to be monitored under this Plan and the reporting limit for that constituent. The constituents included in Table 4 are those that are required under the paragraph 4(b) on page 11 of the CAO. All nutrients listed for testing are those that are also tested by the Karuk Tribe. The Karuk Tribe are stakeholders in the Stanshaw Creek system and have been involved in the discussions regarding the diversion at Marble Mountain Ranch for years.

Table 4. Individual discharge monitoring methods

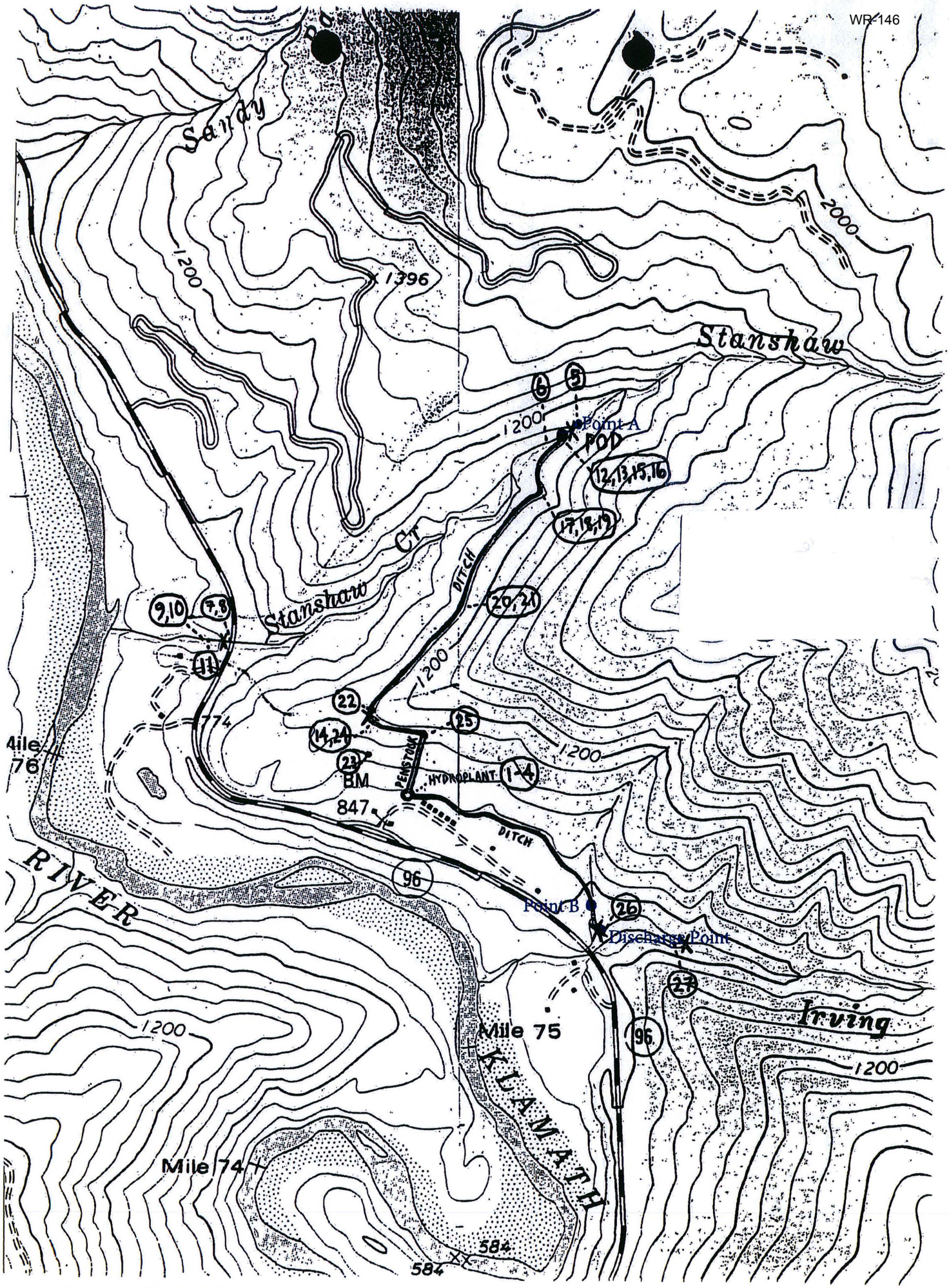
Parameter	Reporting Limit	Units
Fecal Coliform	EPA standard	CFU/100 ml
Total Coliform	EPA standard	CFU/100 ml
Total petroleum hydrocarbons	50-100	µg/l
Temperature	0.1	°C
Nutrients, including:	---	---
Total Phosphorus	0.002	mg/l
Soluble Reactive Phosphorus	0.001	mg/l
Ammonia	0.010	mg/l
NO3 + NO2	0.010	mg/l
Total Nitrogen	0.050	mg/l
Chloro A	0.1	mg/l
Phaeo A	0.1	mg/l
Total Suspended Solids	0.5	mg/l
Volatile Suspended Solids	0.5	mg/l
Dissolved Organic Carbon	0.250	mg/l
Turbidity	0.10	FNU/NTU
Alkalinity	1.00	mg/l
CBOC	2.00	mg/l

5. REPORTING

Data collected by this Plan will be submitted quarterly to the North Coast Regional Water Quality Control Board as part of the Coles quarterly progress reports on January 1, April 1, July 1, and October 1 of each year until January 1, 2022 during any discharge period unless an exceedance is detected. The report will include:

- A narrative description of the discharge period;
- Location of sampling sites and a map detailing that location;
- Sampling and analytical methods used;
- Photos obtained from all monitoring sites, clearly labeled with location and date;
- Laboratory data reports (including quality assurance (QA) data);

Appendix A. Map of discharge locations, sampling site locations, and adjacent receiving water


Saray
1200
1396
2000
Stanshaw
Point A
POD
12,13,15,16
17,18,19
Stanshaw Ct
DITCH
20,21
9,10
7,8
11
22
25
14,24
23
BM
847
PENSTOCK
HYDROPLANT
1-4
DITCH
774
Mile 76
RIVER
96
Point B
26
Discharge Point
27
Irving
Mile 75
KLAMATH
Mile 74
584
584

Appendix B. Field Data Sheet

Water Quality Data Sheet

Sample Location Information:

Sample Site Name:

Latitude: _____ **Longitude:** _____ **Datum** (circle one): NAD 83 NAD 27

Sample Location: (circle one) Bank Mid channel

Sample Collection Information:

Sample Date: _____ **SampleTime:** _____

Sample Event Type (circle one): Wet (Storm Runoff) or Dry (Irrigation Runoff) **Precipitation last 18 hours** (circle one): None <1" >1"

Sampling Personnel: _____ **Site Photo Numbers**: _____

Grab Samples Collected:

Bottle Types (circle all that apply): Amber Glass, Polyethylene

Parameters to be analyzed (circle all that apply):

Field Probe Measurements:

Instrument Used: _____ Pre-monitoring calibration date/time: _____

Turbidity (FNU/NTU)	Water Temp (°C)

Comments: (Useful comments include water color, odor, presence of trash or other debris that can influence water quality and any special conditions encountered

Appendix C. Example Chain of Custody Form

CHAIN OF CUSTODY RECORD

WKO#_____

CLIENT NAME:	PROJECT:
ADDRESS:	PHONE: FAX: EMAIL:
PROJECT MANAGER	SAMPLER

ANALYSES REQUESTED

SPECIAL HANDLING

- ☐ Same Day Rush 150%
- ☐ 24 Hour Rush 100%
- ☐ 48-72 Hour Rush 75%
- ☐ 4 - 5 Day Rush 30%
- ☐ Rush Extractions 50%
- ☐ 10 - 15 Business Days
- ☐ QA/QC Data Package

Charges will apply for weekends/holidays

Method of Shipment:

COMMENTS

ID# (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SMPL TYPE	Cl_2 Y/N	SAMPLE IDENTIFICATION/SITE LOCATION	# OF CONT.

RELINQUISHED BY	DATE / TIME	RECEIVED BY	DATE / TIME
RELINQUISHED BY	DATE / TIME	RECEIVED BY	DATE / TIME
RELINQUISHED BY	DATE / TIME	RECEIVED BY	DATE / TIME

SAMPLE CONDITION:

Actual Temperature:

Received On Ice	Y / N
Preserved	Y / N
Evidence Seals Present	Y / N
Container Attacked	Y / N
Preserved at Lab	Y / N

SAMPLE TYPE CODE:

AQ=Aqueous
NA= Non Aqueous
SL = Sludge
DW = Drinking Water
WW = Waste Water
RW = Rain Water
GW = Ground Water
SO = Soil
SW = Solid Waste
OL = Oil
OT = Other Matrix

SPECIAL REQUIREMENTS / BILLING INFORMATION

COC version 042707