

January 19, 2016

VIA US MAIL & EMAIL

Kenneth Petruzzelli (kenneth.petruzzelli@waterboards.ca.gov)
State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

***Re: Notice of Violations Associated with Stanshaw Ditch, 92520 Highway 96, Somes Bar
File: Stanshaw Ditch, Marble Mountain Ranch-Siskiyou County APN 026-290-200, WDID
No. 1A15024NSI***

Dear Mr. Petruzzelli:

This letter responds to the package of documents Douglas and Heidi Cole (“the Coles”) received on December 3, 2015, regarding inspections of the Marble Mountain Ranch that occurred on December 17, 2014 and February 12, 2015 (the “inspection reports”). The Coles have been cooperating with the State Water Resources Control Board and the North Coast Regional Water Quality Control Board (collectively, the “Water Boards”) since 2004 regarding improvements to their diversion from Stanshaw Creek. The focus of the Coles’ efforts regarding their diversion thus far has been confirming that they have a pre-1914 right to divert 3 cfs into their diversion system. Now that they have established that right, the Coles look forward to continuing to cooperate with the Water Boards in crafting solutions to maintain their diversion and implement resource improvements.

As part of that continuing cooperative effort, the Coles organized and participated in a stakeholders meeting on January 14, 2016, regarding their diversion. That meeting further refined the Coles’ ideas for managing the diversion into the future. Discussed below are both long and short term solutions to many of the issues identified in the inspection reports, as well as some remaining concerns the Coles have about the inspection reports. Further, attached to this letter, as Exhibit A, is an outline that includes the recommendations in each of the inspection reports for actions to be taken in regard to the diversion.

A. Long Term Solutions

Discussed in brief below are three key resource improvements that will provide long term solutions to the concerns raised by the Water Boards. These improvements will require additional study and supplemental funding to implement, but are expected to resolve the issues identified by the Water Boards in each report. Exhibit A provides further details of the proposed

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improvements. As small business owners, the Coles will not be able to achieve these solutions without the continued help and cooperation of the other stakeholders in the Stanshaw Creek area. They anticipate and look forward to working with all the parties that were present at the January 14, 2016, stakeholders meeting to assess and implement these improvements.

1. Return flow to Stanshaw Creek at or near Highway 96.

Altering the course of return flow from the diversion to Stanshaw Creek, rather than to Irving Creek addresses a number of concerns the Water Boards identified regarding public trust resources and flow recommendations. This alteration will require the cooperation of several federal and state agencies and that the Coles secure a number of permits. Based on the number of agencies that will be involved to review and approve any proposed change, this solution will take a considerable amount of time to achieve. The Coles welcome the Water Boards' assistance in streamlining the process wherever possible to achieve this solution.

2. Line or Pipe the entire diversion.

Lining or piping the entire diversion will address the water quality and erosion concerns the Water Board noted relevant to the diversion. Both lining and piping the diversion will require that the berm remains and that the Coles have access to the berm to maintain the conveyance. However, the erosion and related runoff from the berm will be significantly reduced through the use of a lined or piped system. This solution will also require a number of permits and the participation of federal and state agencies to implement. Once again, the Coles welcome the Water Boards' assistance in achieving this resource improvement.

3. Install a headgate with a flow meter.

The final long term improvement the Coles propose to address the Water Boards' concerns is to install a headgate with a flow meter to manage the diversion's flow rate and to comply with any instream flow requirements. This will improve the Coles' ability to manage their rating curve and ensure that public trust resources are protected. Once again, this improvement will require approval from both federal and state agencies and permitting. The Water Boards' continued assistance is greatly appreciated in the Coles' effort to achieve the improvements that will create a long term solution to their diversion system.

B. Short Term Measures

The Coles are aware that the long term solutions proposed above will be a work in progress, but there are additional measures they can take to improve the diversion while implementation of the long term solutions occur. Those short term measures are discussed briefly below, and further detailed in Exhibit A.

1. Fix all leaking water storage tanks.

The Division of Water Rights' Inspection Report regarding the December 17, 2014 and February 12, 2015 inspections includes notation of water stored in tanks that are leaking at Marble Mountain Ranch. After receiving the inspection reports and inspecting the tanks, the Coles identified the leaks and applied epoxy patches to any area that evidenced a water leak. Attached to this letter are photos of the patched tanks, evidencing that water is not being stored in leaking structures any longer. Additionally, the Coles are researching appropriate long term replacements for the tanks to ensure that leaking tanks are not a concern in the future.

2. Complete diversion ditch maintenance.

The Coles continuously maintain the diversion ditch by removing sediment from the bottom of the ditch and placing that removed material on the berm to address both the overtopping and erosion issues identified in the inspection reports. While diversion ditch maintenance is an ongoing activity, the Coles anticipate that they will complete the current sedimentation removal effort in the next few months, ensuring that the ditch will continue to function properly during this wet season.

3. Install a culvert and other erosion control measures at the Irving Creek outfall point.

The current outfall of the Coles' diversion at Irving Creek includes two points that result in erosion to the surrounding area. To improve this area of the current diversion, the Coles propose installing a culvert at the top of the outfall point and placing riprap at the bottom of the outfall point. These improvements will reduce the erosion impacts to that area in the short term. Additionally, once the long term solution of returning the diversion flow to Stanshaw Creek is implemented, the erosion at the Irving Creek outfall point will be resolved.

4. Conduct audits of electric generation facility and domestic demand to identify additional potential conservation measures to implement.

The Coles recognize that there is always the potential to implement additional conservation measures to use water more efficiently. To that end, as part of the larger study of the Coles' diversion system, the Coles will conduct audits of their hydropower energy generation system, its domestic water demands that include water needs of 50 people year round and up to 700 people for fire camps, and an evaluation of an expanded stock pond capacity for stock and irrigation watering. The Coles are open to any recommendations that result from these audits relative to improving their diversion, water use and storage systems.

The Stanshaw Creek Water Conservation Assessment includes the following:

A. Energy Audit

A qualified, licensed energy analyst will conduct facility investigations to profile the facility's historical energy end-uses, survey the site for renewable energy possibilities, and develop a report to communicate the following information:

- An analysis of the facility's current energy using systems, and estimates of its historical energy end-use distribution (how much to lights, heat, processes, etc.).
- A site-specific survey for traditional and alternative energy source availability, with cursory analyses performed to quantify financial feasibility.
- Details of the most cost-effective Energy Efficiency Measures ("EEMs") available to reduce facility energy usage. EEM analyses to evaluate energy and cost savings, estimated project costs, and expected facility energy impacts.

Facility utility data, operation schedules, and maintenance information are expected to be provided in the next few months. Preliminarily, the qualified, licensed energy analyst anticipates building and calibrating a basic eQuest computer model for the facility to help establish current energy end-uses and to model the effects of proposed EEMs.

B. Water Efficiency Study and Concept Alternatives

This task will study existing water use and identify methods to reduce consumption, identify water diversion conveyance improvements that protect aquatic organisms and reduce transmission losses. The project team will develop concept alternatives that identify operation methods and infrastructure that reduce diversion flows.

The project team will document water availability, existing use, and demand for irrigation, fire protection, domestic consumption, and power generation. The water use and demand will be assessed on a seasonal basis. Information from the energy audit will be used to identify potential reductions to power needs. System modifications and upgrades will be assessed to identify means to reduce stream diversion, particularly during critical periods. Alternative power generation facilities will be evaluated to identify improvements to water use.

The existing water diversion and conveyance system will be reviewed and assessed to identify options to protect aquatic organisms and reduce sediment ingestion at the point of diversion, minimize transmission losses through the canal, and reduce maintenance needs in the canal. Specifically, alternatives will be reviewed that, if implemented, will not impact threatened Coho salmon rearing in lower Stanshaw Creek. The conveyance system will also be evaluated to

maximize static head and minimize losses to improve hydroelectric power generation output. Options will be developed and summarized in a water efficiency study and concept report.

Outstanding issues from the inspection reports

1. Allegations of unreasonable use.

The Division of Water Rights alleges in the Inspection Report regarding the December 17, 2014 and February 12, 2015, inspections that the ditch diversion system at Marble Mountain Ranch is an unreasonable use of water and an unreasonable method of diversion. The definition of what constitutes an unreasonable use of water has never been established. (*Light v. State Water Resources Control Board* (2014) 226 Cal.App.4th 1463, 1473.) Instead, the determination is made by an evaluation of the circumstances in which the water is used. (*Id.*) Using an unlined ditch has not been found to be an unreasonable use of water where that ditch was used to irrigate crops in a desert environment. (California State Water Resources Control Board, Imperial Irrigation District Alleged Waste and Unreasonable Use of Water, Decision 1600 (June 21, 1984) (finding that failing to implement a conservation plan was an unreasonable use of water, but the unlined ditches themselves were not an unreasonable use) (“Imperial Irrigation District decision”).)

The Coles’ diversion ditch is similar to those that were not found to be an unreasonable use in the Imperial Irrigation District decision. The Coles divert the water for a number of beneficial uses including domestic use for residents and guests at the ranch, hydropower generation, irrigation, and fire protection and they are in the process of implementing a plan to update and maintain the diversion just as the diverters in the Imperial Irrigation District. Therefore, the diversion is not an unreasonable use of water or method of diversion.

2. National Marine Fisheries Service (“NMFS”) flow recommendation.

The Coles can accommodate and achieve NMFS’s winter minimum bypass flow recommendation of 2 cfs from November 1st of each year through May 14th of each year. However, the Coles cannot agree to NMFS’s bypass flow recommendation for May 15th through October 31st of each year, to the extent that the bypass flow recommendation results in the Coles ceasing all diversion of water. The Coles must divert water at Marble Mountain Ranch year round for domestic use, stockwatering, and irrigation. The water the Coles divert serves the roughly 50 people who live at or are staying at Marble Mountain Ranch and provides water for irrigation and stockwatering that serves as food for the people residing at Marble Mountain Ranch, both permanently and temporarily. Therefore, the diversion serving these beneficial uses cannot be completely curtailed during the summer months, especially during those times when the Marble Mountain Ranch is being used as a fire camp with up to 700 people relying on the facilities at the ranch.

Further, at the January 14, 2016, stakeholders meeting, all stakeholders acknowledged that there are several diverters of water from the Stanshaw Creek system who must share responsibility in

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creating a solution to flow requirements for fish and public trust resources in the Stanshaw Creek system. The acknowledgement from stakeholders in concert with the Coles' need to divert water for domestic use establishes that NMFS's recommendation cannot be imposed on the Coles alone. However, the Coles acknowledge the need to limit use in low flow periods during the summer months and will work with NMFS and all other agencies and stakeholders to establish a diversion schedule that will satisfy the Coles' needs, provide for other uses in the system, and create an environment where all stakeholders share in the protection and sustainable use of the Stanshaw Creek system.

We look forward to continuing to work with the Water Boards to implement a solution that is agreeable to all parties. Please contact me at barbara@churchwellwhite.com or (916) 468-0950 if I can provide any additional information regarding this matter.

Regards,

Churchwell **White** LLP



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BAB/kaf/kro

cc: With Attachments to All

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Exhibit A
Response to Recommendations Contained in the Inspection Reports
Marble Mountain Ranch

**I. December 17, 2014 and February 12, 2015 State Water Resources Control Board,
Division of Water Rights Inspection Report**

A. Diversion Statements (pg. 15-16)

1. Sediment from Stanshaw Creek in the ditch is reducing the ditch capacity, increasing the risk of overtopping the low berm areas

The Coles routinely maintain the diversion ditch to remove excess sediment and use this material to increase the berm height in order to keep the diversion operating efficiently and prevent overtopping. The continued maintenance of the ditch in this manner is one of the short term plans until the long-term goal of lining or piping the diversion ditch can be funded and constructed.

2. Material from up-slope slumping into the ditch can result in partial or complete damming, diverting stream flow out of the ditch and downhill

As stated above, the Coles maintain the diversion ditch to remove excess sediment to keep the diversion operating efficiently. The sediment removal and buildup of the berms prevent the water flow from overtopping and running outside of the ditch. The Coles intend to continue to maintain the ditch in this manner until the preferred long term solution can be implemented.

3. Fish caught in the diversion are killed if they are caught in water that enters the penstock conveying water to the hydropower turbines

The Coles recognize the photos of dead fish from the inspection report are seriously concerning. However, there has never been a history of, nor have the Coles found any evidence of, fish killed at the penstock or during conveyances to the turbines.

B. Harm to Public Trust Resources (pg. 16-17)

1. NMFS recommends Marble Mountain Ranch implement bypass flows and return any hydroelectric portion of diverted water to avoid unnecessary public trust impacts

All parties at the recent stakeholders meeting agree that there are multiple diverters in the water system and that a solution needs to account for all diverters. Complete prohibition of the Marble Mountain Ranch diversion is unreasonable given the circumstances. A workable arrangement

needs to be created to allow some domestic diversions during low flow periods. The Coles are committed to working with NMFS and all other agencies to create a workable system that also prevents any unnecessary impacts to the public trust. There appeared to be consensus on this approach during the stakeholder meeting.

2. CDFW recommends that diversions be limited to ensure a minimum 2.5 cfs in stream flow at the Highway 96 Bridge

In the recent stakeholder meeting, CDFW acknowledged that if the Coles redirected the diversion to meet the NMFS flows, this will satisfy the 2.5 cfs requirement without having to put any additional water back into the system. The Coles have committed in their long-term goals to work with the group of agencies and stakeholders to attain funding and construct the new diversion system to transfer return flows back into Stanshaw Creek at Highway 96. As indicated by CDFW, maintaining the recommended 1.5 cfs upstream and rediverting the water to Stanshaw creek, should satisfy the CDFW recommendation.

C. Corrective Action (pg. 17-18)

1. Install a water diversion control mechanism at the POD. The SWRCB seeks a time schedule for installation and photographic evidence of installation.

The Coles plan to install a head gate flow meter under their long term goals. There will also be a timeline provided with an implementation plan. Over the next three to six months, the Coles will be working with a physical engineer, electrician, and other stakeholders to develop an implementation plan for physical solutions that address the conditions specified in the December 3, 2015, documents provided to the Coles by the SWRCB. Possible funding sources for this project include the National Fish and Wildlife Foundation's Coho Enhancement Fund (PacifiCorp), California Department of Fish and Wildlife Fisheries Restoration Grants Program (FRGP), US Fish and Wildlife Service Partners Program, etc. Solicitations for this funding are all between February-June, 2016, so it is imperative we reach agreement on physical solutions as soon as possible to be able to apply for implementation funds this spring. Funding sources also vary in how long it takes for contracts to be awarded (three months to one plus years after award notification). Funding source also affects the cost and timeline for project permitting, which could greatly affect the project timeline. As George Frey, Lands and Minerals officer from USFS Six Rivers National Forests, said on the January 14, 2016, conference call, any projects including modifications on USFS lands such as a diversion control mechanism would need to first make it on to their Scope of Work before any work could be done.

2. Return diverted water to Stanshaw Creek that is not put to a beneficial use or water put to non-consumptive use. The SWRCB seeks a time schedule for installation of such a system and photographic evidence of installation.

The Coles plan to return diverted water to Stanshaw Creek under their long term goals. There will also be a timeline provided with an implementation plan. Timelines are contingent on feedback from Caltrans, who will most likely need to analyze and permit the return flow line along Highway 96. Existing fiber optic lines in this vicinity may require more engineering and coordination with Siskiyou Telephone to engineer and implement this system. Implementation of any return flow system would occur, at the earliest, in the fall of 2017.

3. Fix all leaks and confirm that additional leaks are not present

The Coles have already repaired the leaking tanks by applying an epoxy substance to seal the leaks (see attached photos). The Coles will periodically inspect the tanks to ensure leaks have not occurred and will continue to repair the tanks until replacement tanks are available. They are continuing to research long-term replacement tanks that will not be as susceptible to damage.

4. Diverted water must be piped or conveyed in a lined ditch to prevent unnecessary ditch loss. The SWRCB seeks a time schedule of the completion of a system or an alternative approach to prevent unnecessary water loss, for Division of Water Rights review.

The Coles plan to install pipes or line the diversion ditch under their long term goals. This is an extremely costly and time consuming update and the Coles are working with other agencies and stakeholders to attain funding to perform the construction. Once prepared, a timeline will be provided with an implementation plan.

5. Implement NMFS and CDFW flow recommendations and cease impacts to public trust resources

All parties at the recent stakeholders meeting agree that there are multiple diverters in the water system and that a solution needs to account for all diverters. Complete prohibitions of diversion are unreasonable and a workable arrangement needs to be created to allow some domestic diversions during low flow periods. The Coles are committed to working with NMFS and all other agencies to create a workable system that also prevents any unnecessary impacts to the public trust.

6. Consult with CDFW regarding the needs for a fish screen or an alternative method or design to prevent fish entrainment.

The Coles plan to work collaboratively with CDFW and will establish a mutually agreeable method to prevent any unreasonable harm to fish. There has been preliminary surveys of the

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Point of Diversion by CDFW, Siskiyou RCD, Cascade Stream Solutions, NRCS and others to inform future efforts to come up with an agreeable design.

II. March 9, 2015 North Coast Regional Water Quality Control Board Inspection Report

A. General research and analysis suggestions (pg. 19-20)

1. Water balance review of domestic use needs, opportunities to optimize use for power generation, opportunities to reduce water loss, and design a system that meets needs and conserves water

The Coles are already evaluating the amount of water used in the diversion system and are analyzing ways to reduce use, make the system more efficient, and conserve water. The analysis includes review of domestic needs, reducing water requirements to operate the hydropower system, and performing an energy audit to determine ways to reduce, and then meet, electrical demands as they vary between seasons. After the analysis is complete, the Coles long term goal is to work collaboratively with all agencies to create a system that can support Marble Mountain Ranch operations and perform even more efficiently by enclosing the ditch and redirecting the diversion.

B. Outfall/Irving Creek Tributary (Pg. 20)

1. Hire a professional in geology and stream restoration to create a stream restoration plan.

To address this issue in the short term, the Coles plan to insert a culvert and riprap into the Irving Creek outfall to prevent erosion of the stream. In the long term, the Coles will work with other agencies and stakeholders to obtain funding to redirect to Stanshaw Creek and enclose or line the diversion and the outfall will no longer be used. Cascade Stream Solutions believes the erosion located along the hillslope and streambank caused by flows from the Marble Mountain return flows can be treated using bioengineering techniques that stabilize the gully and eroded bank. Cascade proposes to provide technical support to Mid Klamath Watershed Council and Marble Mountain Ranch regarding appropriate slope stabilization and vegetation restoration techniques.

2. Replant slopes and streamside areas with native vegetation

The Coles will continue to work collaboratively with all agencies to create a plan for managing vegetation. At this time, there does not appear to be any need to replant slopes or streamside vegetation.

C. Upper Ditch (Pg. 20-21)

1. If the ditch or any portions of it is retained:
 - a. Hire a professional to evaluate system for areas susceptible to failure, potential for sediment delivery, develop mitigation designs and constructions standards

The Coles will continue to use the diversion ditch but plan to pipe or line the conveyance under their long term goals. This is an extremely costly and time consuming update and the Coles are working with other agencies and stakeholders to attain funding to perform the construction. Many professionals will be consulted to develop a workable system. Once prepared, a timeline will be provided with an implementation plan for the updates.

- b. Develop and submit for approval a ditch operation and maintenance plan that includes an inspection and maintenance schedule

The Coles intend to include a designated operation and maintenance calendar with their long term implementation plan for updates to the system. This will include a timeline and specific schedules.

2. The ditch repair or decommissioning plan under either scenario shall include restoration of the affected stream/unnamed tributary, planting native vegetation, and future protection from discharges

The Coles will work with all agencies and stakeholders to ensure that the long term implementation plan will include all necessary aspects to manage the streams and water diversion system.

D. Additional Water Quality Measures (Pg. 21)

1. Hire a professional to review and develop plans for:
 - a. Assess slopes between the upper ditch and Stanshaw Creek for erosion, identify corrections, provide a schedule for implementing corrective measures

These concerns will be addressed through the long term solutions and Best Management Practices that will result from the forthcoming study of the Coles' diversion.

- b. Assess Stanshaw and Irving Creeks to identify and map damage or sediment storage and possible restoration. Develop a plan to remediate areas with potential to erode and describe concerns associated with the implementation.

These concerns will be addressed through the long term solutions and Best Management Practices that will result from the forthcoming study of the Coles' diversion.

- c. Assess potential for pollutants or changes to water quality for the lower ditch that discharges to Irving Creek by visual inspection and water sampling.

These concerns will be addressed through the long term solutions and Best Management Practices that will result from the forthcoming study of the Coles' diversion and the abandoning of the Irving Creek outfall point.

E. Recommendations for Restoration Plans (Pg. 21-23)

1. Shall include designs, standards specifications, implementation schedule, a monitoring and reporting plan, and success criteria

The Coles' long term implementation plan will include all necessary aspects.

2. Map existing conditions and the projected restoration

The Coles' long term implementation plan will include maps of existing conditions and future plans for improvement.

3. Best Management Practices for all work

The Coles' long term implementation plan will include all necessary Best Management Practices to effectively operate and maintain the water diversion system.

4. Proposed time schedule (must adhere to Water Board deadlines if there are any)

The Coles' long term implementation plan will include all timelines for each phase.

5. Proposed monitoring program to evaluate plan success. Including regular inspections, photo documentation points, monitoring reports.

The Coles' long term implementation plan will include all necessary aspects including inspection and monitoring requirements.

6. When restoration sites are stable and monitoring plans are fulfilled, the Coles must submit a summary to Water Board staff for determination as to whether restoration has been adequately completed and conditions corrected.

The Coles' long term implementation plan will be created collaboratively with input from all agencies and stakeholders, including the Water Board. The Water Board will have the opportunity to review the plan and comment on drafts throughout the process. The Coles hope this positive working relationship will produce the most successful end product for all parties and the environment.



