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6	Attorneys for Petitioners DOUGLAS COLE AND HEIDI COLE			
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8	STATE OF CALIFORNIA			
9	STATE WATER RESOURCES CONTROL BOARD			
10	In the Matter of the Petition of Douglas Cole and Heidi Cole for Review and Stay of the North CLEANUP AND ABATEMENT ORDER NO.			
11	Coast Regional Water Quality Control Board Issuance of Cleanup and Abatement Order No.			
12	R1-2016-0331.			
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16	Pursuant to Sections 13320 and 13321 of the California Water Code and Sections 2050			
17	and 2053 of Title 23 of the California Code of Regulations, Douglas and Heidi Cole (the			
18	"Coles"), hereby petition the State Water Resources Control Board ("State Water Board") for			
19	review and stay of the North Coast Regional Water Quality Control Board's ("Regional Board")			
20	decision to issue Cleanup and Abatement Order No. R1-2016-0031 ("CAO") to the Coles			
21	regarding their pre-1914 diversion at their property commonly referred to as Marble Mountain			
22	Ranch, located at 92520 Highway 96 in Siskiyou County. Each of the required elements for the			
23	review and stay request is discussed in turn below.			
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	{CW026124.4}			

Petition for Review and Stay

Churchwell White

Request for Review

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1. Name, address, telephone number and e-mail address (if available) of the petitioner.

Name of Petitioner	Address	Telephone Number	Email Address
Douglas and Heidi Cole	92520 Highway 96 Somes Bar, CA 95568	(530) 469-3322	guestranch@marblemountainranch.com
Barbara A. Brenner, as counsel to the Coles	1414 K Street 3rd Floor Sacramento, CA 95814	(916) 468-0625	barbara@churchwellwhite.com

2. The action or inaction of the Regional Water Board being petitioned, including a copy of the action being challenged or any refusal to act, if available. If a copy of the regional board action is not available, the petitioner must explain why it is not included.

The Coles are petitioning for review of the Regional Board's action to issue Cleanup and Abatement Order No. R1-2016-0331. A true and correct copy of the CAO is attached to this petition as **Exhibit A**.

- 3. The date the Regional Water Board acted, refused to act, or was requested to act.

 The Regional Board acted on August 4, 2016. That is the date affixed to Matthias St.

 John's digital signature on the CAO, deeming the CAO effective.
 - 4. A statement of the reasons the action or inaction was inappropriate or improper.
 - a. It is impossible to comply with the CAO's deadlines.

It is impossible to comply with the deadlines provided in the CAO. The deadlines provided in the CAO include: (1) an energy efficiency evaluation with a water quality review of water entering and exiting the Coles electricity generation system due on October 15, 2016; (2) a Restoration and Monitoring Plan regarding the "head cut and slope at the outlet of the Stanshaw Creek diversion to the unnamed tributary of Irving Creek" due on September 10, 2016; (3) an evaluation of sedimentation and erosion impacts related to the entire ditch system due on October 15, 2016; and (4) a slope assessment of the entire diversion due on September 10, 2016. (CAO, p. 8 ¶ 1, pp. 8-9 ¶ 2, p. 10 ¶ 3 & p. 11 ¶ 4.) Each of these studies require physical conditions that are not currently available at Marble Mountain Ranch.

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Petition for Review and Stay

The energy efficiency study required under paragraph 1 of page 8 of the CAO is a study the Coles have been pursuing over the last several months. However, they have not contemplated including a water quality analysis of the system within that effort. (CAO, p. 8 ¶ 1.) During the current low flow periods in Stanshaw Creek, the Coles forbear exercising their full pre-1914 water right to divert 3 cfs of water for both consumptive use and non-consumptive hydropower use to comply with a National Marine Fisheries Service bypass flow recommendation for fish habitat in Stanshaw Creek. Stanshaw Creek is currently in a low flow period. Therefore, the Coles are not diverting water for non-consumptive hydropower use. Consequently, there is no water entering or leaving the hydropower system to test for water quality purposes.

Further, the water quality analysis will require consultants that the Coles have not retained nor worked with before. Because the Coles have not retained or worked with a consultant for a water quality analysis of the hydroelectric power generating system, there is no historical data to rely upon for water quality information. In addition, there is not adequate time to engage a new consultant, perform the analysis and prepare the water quality analysis report. Thus, the Coles lack the information and the conditions to gather such information required to complete this element of the energy efficiency study by the October 15, 2016 deadline in the CAO.

The three remaining deliverables with looming deadlines: (1) the study required to draft the Restoration and Monitoring Plan regarding the outlet at Irving Creek due on September 10, 2016; (2) the ditch evaluation due on October 15, 2016; and (3) the slope assessment due on September 10, 2016 under the CAO require a hydrogeologist's review of the Cole's diversion. (CAO, pp. 8-9 ¶ 2, p. 10 ¶ 3 & p. 11 ¶ 4.) Rocco Fiori, of Fiori Geosciences, who has previously studied the sedimentation and erosion impacts at the Coles diversion, has reviewed the CAO and its requirements. (Declaration of Rocco Fiori in Support of Petition for Review and Stay of Cleanup and Abatement Order No. R1-2016-031 ("Fiori Declaration"), p. 2 ¶ 6.) After his review of the CAO, Mr. Fiori determined that he cannot complete any of the three studies and provide additional information regarding the Coles diversion, without more water in the diversion system with leaf off, wet conditions along the diversion ditch and at the Irving Creek outlet point. (*Ibid.*)

As detailed above, the Coles are currently limiting their diversion to consumptive use flows only to comply with a National Marine Fisheries Services bypass flow recommendation for fish habitat in Stanshaw Creek. With this limitation on their diversion, the Coles cannot provide Mr. Fiori with more water in the system for the studies required under the CAO. The current dry conditions with full vegetation further complicate the matter as current conditions will obscure Mr. Fiori's evaluation of any erosion or sedimentation that may exist along the ditch or at the Irving Creek outlet during wet season conditions. Therefore, it is impossible to comply with the CAO's deadlines as the studies cannot be accurately completed based on the current conditions at Marble Mountain Ranch.

b. The ditch assessment and slope stability studies are unnecessary

The CAO requires that Coles provide "an evaluation of the entire ditch system, identifying all features and locations susceptible to failure" and "assess slopes between the upper ditch and Stanshaw creek [sic] and the streambed of Stanshaw Creek and Irving Creek and the unnamed tributary to Irving Creek for stored sediment deposits and erosional sources associated with the past and current failures of the ditch." (CAO, p. 10 ¶ 3(a) & p. 11 ¶ 4(a).) Based on the evaluation of the entire ditch system and the slope assessment, the Coles are to identify corrective measures to avoid erosion and sedimentation impacts on waters of the state from their diversion. (*Ibid.*)

The Coles have previously provided the Regional Board, the State Water Board, and all stakeholders that have been involved in discussions regarding the Coles diversion a study addressing these issues. That study, conducted by Rocco Fiori of Fiori Geosciences addresses both the ditch system and slope of the diversion and makes recommendations to address the identified sedimentation and erosion issues related to the diversion. A copy of that study with recommended actions is attached to this request as part of Mr. Fiori's declaration as **Exhibit B**. The Coles have received no feedback regarding this study or any indication the State Water Board or Regional Board staff have reviewed it.

One of the recommendations included in the Fiori Geosciences study suggests that the Coles pipe the diversion "retaining the existing ditch alignment as an inspection and maintenance

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travel way" to address sedimentation and erosion concerns. (Rocco Fiori, Fiori Geosciences, Technical Memorandum (May 14, 2016) p. 3 § 3.4 Recommendations #3., attached hereto as **Exhibit C**) The Coles have been actively pursuing the recommendation to pipe the diversion to transport water for consumptive use to Marble Mountain Ranch and have submitted plans to the Regional Board, the United States Army Corps of Engineers, and the Department of Fish and Wildlife for review. Those agencies have reviewed the plans and affirmed that permitting under each of their jurisdictions is not required for placing a six inch pipe with a headgate in the diversion ditch. The Coles are also pursuing funding opportunities to pipe the conveyance to transport non-consumptive use water to Marble Mountain Ranch. Additional studies to make the recommendation that the conveyance system should be piped to avoid sedimentation and erosion are not required when that solution has already been identified and the Coles are in the process of implementing that solution.

c. The recommendation to remove the berm if the conveyance is piped is not necessary.

In addition to the required energy efficiency study, paragraph 1 on page 8 of the CAO provides:

In the event that this evaluation [the energy efficiency study] concludes that a piped delivery system is appropriate, develop a plan to decommission the ditch by removing the outboard berm and restoring all affected watercourses. In addition, provide design standards for slope restoration and outsloping to ensure evenly distributed surface flows. All bare soil shall be stabilized with erosion controls and replanted with native vegetation.

In Mr. Fiori's technical memorandum, his third recommendation on page 3 of his report under, Section 3.4 Recommendations states:

If a pipeline is the selected alternative, consider retaining the existing ditch alignment as an inspection and maintenance travel way. Mild outsloping and appropriately spaced rolling dips along the travel way could be used to effectively improve the stability and drainage of the travel way, and to provide a route for rapid response in the event of a pipeline failure. (Rocco Fiori, Fiori Geosciences, Technical Memorandum (May 14, 2016) p. 3 § 3.4 Recommendations #3.)

Mr. Fiori's recommendation provides the Coles with a route to address any ditch failures that may occur even with a piping of the conveyance. Retaining the berm and existing ditch ensures that any potential future impacts to waters of the state from sedimentation or erosion can be addressed quickly and effectively.

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d. The Coles will not be able to determine whether the diversion was the result of stored sediment deposits and erosion and study of those features will not provide additional information for resource improvements

Paragraph 4(a) on page 11 of the CAO requires that the Coles "[a]ssess slopes between the upper ditch and Stanshaw creek [sic] and the streambed of Stanshaw Creek and Irving Creek and the unnamed tributary to Irving Creek for stored sediment deposits and erosional sources associated with the past and current failures of the ditch." Determining whether the source of sediment deposits and erosion is a result of a natural process in the forested land surrounding the diversion, a legacy of historical ditch failures dating back to the 1800s or a modern ditch failure that occurred during the Coles ownership of Marble Mountain Ranch is difficult at best. (Fiori Declaration, p. 2 ¶ 7.) Further, that determination will not provide clear evidence of an impact to waters of the state unless an actual discharge, or flow path and deposit can be traced from the point of origin to the discharge location. (Ibid.) Thus, this study will not provide the Coles or the Regional Board with any additional information regarding the diversion or the ditch slope to avoid any potential future impacts to waters of the state. Instead, it will add additional delay and take resources away from the Coles efforts to implement solutions.

5. How the petitioner is aggrieved.

To comply with the requirements under the CAO, the Coles must direct funding and time to studies that could be otherwise used to implement already identified solutions. Additional study of the problem, after it has already been studied and a solution has been identified, delays implementation of the identified solutions. Instead of applying time and resources to measures to correct the sedimentation and erosion issues at the diversion, the CAO requires that the Coles redirect those resources to further study. This achieves nothing and only further delays solutions that can avoid potential future impacts to waters of the state.

Additionally, the Coles are unable to comply with the requirements of the CAO under the deadlines given. The Coles have been pursuing solutions to address the issues identified in the CAO for years. Despite those efforts, the Coles are faced with either complying with the CAO's

¹ For many years the State Water Board has challenged the Coles' right to divert water under their pre-1914 claim. Until that challenged was resolved, the State Water Board and, subsequently, the Regional Water Board's other issues with the diversion works could not be addressed. The Coles have been responsive to both Board's concerns {CW026124.4}

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deadlines or having to face enforcement action that will take resources away from improving the diversion and likely place them in financial jeopardy as small business owners.

6. The action the petitioner requests the State Water Board to take.

The Coles seek an Order from the State Water Board overturning the CAO, as the studies required under the CAO that are unnecessary or impossible to provide. In the alternative, the Coles request additional time to provide the studies based on the need for leaf off, wet conditions. The ditch evaluation and slope stability study are duplicative of previous studies and unnecessary to address the Regional Water Board's concerns to find solutions to sedimentation and erosion impacts to waters of the state that may results from the Coles diversion. In the alternative, allowing the Coles more time to provide the studies will ensure the correct solutions to avoid potential future sedimentation and erosion impacts to waters of the state.

7. A statement of points and authorities for any legal issues raised in the petition, including citations to documents or hearing transcripts that are referred to.

Water Code section 13267(b)(1) provides that the Regional Board may require a discharger to produce technical reports as required under the CAO. However, that section goes on to state that the "burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports." (Water Code § 13267(b)(1).) The State Water Board's Resolution No. 92-49, Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under Water Code section 13304, underscores the requirement under Water Code section 13267(b)(1), requiring the Regional Board to "consider whether the burden, including costs, of reports required of the discharger ... bears a reasonable relationship to the need for the reports and the benefits to be obtained from the reports." This provision is part of a section of Resolution 92-49 that ensures "that dischargers shall have the opportunity to select cost-effective methods for detecting discharges or threatened discharges and methods for cleaning up and abating the effects" of discharges or threatened discharges.

over this multiple year period, allowing inspections, implementing conservation measures, decreasing diversions for fishery resources, investigating alternative power sources (solar, grid connection, wind) and participating in stakeholder meetings.

The CAO states the technical reports "are necessary to assure compliance with this Order and to protect the waters of the state. The technical reports are further necessary to demonstrate that appropriate methods will be used to clean up waste discharged to surface waters and watercourses and to ensure that clean up complies with Basin Plan requirements." (CAO, p. 7 ¶ 12.)

As discussed above, the Coles have already completed a study of the diversion and proposed the solution of piping the diversion to avoid erosion or sedimentation impacts to waters of the state from their diversion by submitting construction and implementation plans to all permitting agencies for review. The Fiori Geosciences report suggests a solution that will protect waters of the state and the Coles have already provided plans for the six inch pipe solution to implement it. Thus, the Coles have confirmed that "appropriate methods" are being used to implement the six inch pipe solution and are working on a design for a secondary pipe design to convey water to generate electricity for Marble Mountain Ranch. Those designs will also be submitted to all regulatory agencies for review and approval. Conducting further study of the diversion ditch and slope will not result in protection of waters of the state nor will it provide further appropriate methods for a solution for the sedimentation and erosion concerns. Therefore, the costs of the technical reports required under the CAO do not bear a "reasonable relationship to the need for the reports and the benefits to be obtained from" them. (Water Code § 13267(b)(1).)

8. A statement that copies of the petition have been sent to the Regional Water Board and to the discharger, if different from the petitioner.

This petition and its exhibits have been sent to the Regional Board as required under this element of the petition to review.

9. A statement that the issues raised in the petition were presented to the regional board before the regional board acted, or an explanation of why the petitioner could not raise those objections before the regional board.

The CAO was issued following extensive conversations with both Regional Board and State Water Board staff as well as many other stakeholders in the Stanshaw Creek system. The actions outlined in the CAO have been part of those conversations throughout this process and the Coles have provided materials addressing the issues contained in the CAO, including the Fiori

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Geosciences report and construction design and implementation plans to pipe the diversion to transport water for consumptive use to Marble Mountain Ranch. During all of those conversations, the Coles have continued to propose solutions to address the Regional Board and the State Water Board's concerns and have continued to engage with the Regional Board and the State Water Board to implement those solutions. The CAO was issued following discussion that indicated all stakeholders, including the State Water Board and the Regional Board agreed to a proposed solution of installing a six inch pipe in the Coles diversion to carry consumptive use flow and subsequently will install a larger pipe to carry their pre-1914 right of 3 cfs of water during high flow periods. That solution, once implemented will address the sediment and erosion concerns in the CAO relative to the Coles' pre-1914 water right conveyed through their diversion ditch.

B. Stay Request

The stay request requires that the Coles allege facts that demonstrate the following three elements:

- a. There will be substantial harm to the petitioner or to the public interest if a stay is not granted;
- b. There will be no substantial harm to other interested persons and to the public interest if a stay is granted; and
- c. There are substantial questions of fact or law regarding the disputed action.

The stay request must be accompanied by a declaration of a person having knowledge of the facts alleged. Attached are declarations from Rocco Fiori, of Fiori Geosciences and Douglas Cole, the discharger, asserting under penalty of perjury the facts alleged herein demonstrate the need for a stay, attached as **Exhibit B** and **Exhibit D**, respectively. Each of the three required elements of the factual circumstances required for the issuance of a stay are discussed in turn below.

1. There will be substantial harm to the petitioner if a stay is not granted.

The Coles are small business owners with limited resources to address the concerns associated with the diversion. They rely on a combination of their own personal finances and

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grant funding to implement improvements to the diversion at Marble Mountain Ranch. The additional studies required under the CAO, with their existing scope would be prohibitively expensive for the Coles to personally fund. The studies required under the CAO are unlikely to be grant funded and with the looming deadlines associated with those reports, September 10, 2016 and October 15, 2016, there is no time to seek grant funding.

Further, the report required under the CAO must be completed and submitted to the Regional Board by either September 10, 2016 or October 15, 2016. Both of these dates fall well before the Coles will be able to complete the studies required. The studies require physical conditions not currently available at Marble Mountain Ranch. Mr. Fiori requires more water in the diversion system and leaf off, wet conditions to complete the studies. These conditions will not be available until the wet season which can begin as late as early December in a dry year.

Moreover, the current deadlines contained in the CAO fall well before the State Water Board will have time to review and consider the Coles request for review of the CAO. Therefore, the Coles will have to either comply with the CAO's requirements and provide studies that do not provide any additional information regarding sedimentation and erosion at Marble Mountain Ranch, or not comply with the deadlines contained in the CAO and face enforcement action while the State Water Board's review of the CAO is pending.

2. There will be no substantial harm to other interested persons and to the public interest if a stay is granted.

Granting the stay will result in no substantial harm to other interested persons and to the public interest. During low flow periods in Stanshaw Creek, which are currently occurring, the Coles reduce the amount of water they divert to consumptive use water only instead of exercising their full pre-1914 water right to divert 3 cfs of water. This reduced flow means that concerns of overtopping are reduced to negligible levels as there is less water in the ditch at all times during low flow periods. The low flow conditions coincide with dry conditions in the ground that serves as the diversion's base. Thus, seepage and other factors that contribute to erosion are at a minimum during this time. The Water Board has ninety (90) days to decide if it will review the CAO, meaning the stay need only remain in place until sometime in early December, during the

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Petition for Review and Stav

early part of the wet season. (California Code of Regulations, tit. 23, § 2050.5(e).) Seepage impacts to erosion will not be fully developed until much later in the winter wet season.

The Coles are also preparing to install the six inch pipe to convey consumptive use water. Once that pipe is in place, even during wetter, high flow conditions, the concerns about overtopping and seepage resulting in sedimentation and erosion impacts to waters of the state will be reduced. The Coles will be submitting a ditch operation and monitoring plan for the Regional Board's approval before the wet season commences. This monitoring plan will provide for regular inspections and repair to the diversion system during the wet season, avoiding substantial harm to other interested persons and to the public interest.

3. There are substantial questions of fact or law regarding the disputed action.

As discussed above, the Coles cannot comply with the deadlines contained in the CAO and the studies required under the CAO do not comply with the requirements under Water Code section 13267(b)(1) and State Water Board Resolution No. 92-49 that the burdens of the technical reports, including their costs, must be rationally related to the need for the reports and the benefits to be obtained from the reports. Based on current conditions in Stanshaw Creek and along the Coles' diversion, they lack the natural conditions to further study the sedimentation and erosion impacts to waters of the state from the diversion ditch.

The Coles have completed a ditch analysis and a slope study regarding sedimentation and erosion impacts from their diversion to waters of the state. They have identified the solution of piping the diversion to address these potential impacts. The methods for implementing that solution have been reviewed. The Coles require time and funds to actually put the six inch pipe in place. The additional studies required under the CAO will not provide any addition information that will be useful in determining what resource improvements to pursue at Marble Mountain Ranch, especially if the Coles complete the studies before the required leaf off, wet conditions exist.

1	The State Water Board must review these facts and how they relate to the law in order to
2	overturn the Regional Board's decision to issue the CAO.
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4	DATED: September 6, 2016 CHURCHWELL WHITE LLP
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6	ByBARBARA A. BRENNER
7	Attorneys for Douglas and Heidi Cole
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DECLARATION OF SERVICE 1 I am a citizen of the United States, over the age of 18 years, and not a party to or interested in this 2 action. I am employed by Churchwell White LLP and my business address is 1414 K Street, 3rd Floor, Sacramento, CA 95814. On this day I caused to be served the following document(s): 3 PETITION FOR REVIEW AND STAY 4 \boxtimes By United States Mail. I enclosed the documents in a sealed envelope or package 5 addressed to the persons at the addresses set forth below. 6 deposited the sealed envelope with the United States Postal Service, with the postage fully prepaid. 7 placed the envelope for collection and mailing, following our ordinary business 8 practices. I am readily familiar with this business's practice for collecting and processing correspondence for mailing. On the same day that correspondence is placed for 9 collection and mailing, it is deposited in the ordinary course of business with the United States Postal Service, in a sealed envelope with postage fully prepared. 10 By personal delivery. I personally delivered the documents to the persons at the 11 addresses set for the below. For a party represented by an attorney, delivery was made to 12 the attorney or at the attorney's office by leaving the documents in an envelope or package clearly labeled to identify the attorney being served, with a receptionist or an 13 individual in charge of the office, between the hours of 9:00 am and 5:00 pm. For a party, delivery was made to the party or by leaving the documents at the party's residence 14 with some person not younger than 18 years of age between the hours of 8:00 am and 6:00 pm. 15 16 By Express Mail or another method of overnight delivery to the person and at the address set forth below. I placed the envelope or package for collection and overnight delivery at 17 an office or a regularly utilized drop box of the overnight delivery carrier. 18 By electronically transmitting a true copy to the persons at the electronic mail addresses \bowtie 19 set forth below. 20 State Water Resources Control Board Office of Chief Counsel 21 Attn: Adrianna M. Crowl P.O. Box 100 22 Sacramento, CA 95814 wataerqualitypetitions@waterboards.ca.gov 23 I declare under penalty of perjury under the laws of the State of California that the 24 foregoing is true and correct. 2.5 Executed on September 6, 2016, at Sacramento, California. 26 27 28 CHRISTINA M. PRITCHARD

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Petition for Review and Stay

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD NORTH COAST REGION

CLEANUP AND ABATEMENT

AND

WATER CODE SECTION 13267(b) ORDER NO. R1-2016-0031 DOUGLAS AND HEIDI COLE, ASSESSOR PARCEL NUMBER 026-290-200 WDID 1A15024NSI

SISKIYOU COUNTY

This Order is issued to Douglas and Heidi Cole (hereinafter referred to as Dischargers) based on provisions of Water Code section 13304, which authorizes the North Coast Regional Water Quality Control Board (Regional Water Board) to issue a Cleanup and Abatement Order ("Order"), and Water Code section 13267, which authorizes the Regional Water Board to require the preparation and submittal of technical and monitoring reports.

The Executive Officer finds, with respect to the Dischargers' acts, or failure to act, the following:

1. Purpose of the Order: This Order requires the Dischargers to eliminate the threat of future discharges and to clean up and abate the effects of discharges of soil, rock and miscellaneous debris into Irving Creek, Stanshaw Creek, and the Klamath River. These watercourses are considered waters of the state, as well as waters of the United States. (References hereinafter to waters of the United States are inclusive of waters of the state.)¹ The Dischargers maintain a diversion ditch from Stanshaw Creek to Irving Creek. The Dischargers operate the ditch to provide water to the Marble Mountain Ranch (Ranch), for domestic uses, as well as to generate electricity, and to fill and maintain a small pond for recreational use and potentially fire protection. The upper segment of the ditch carries water from Stanshaw Creek to the Marble Mountain Ranch. Tailwater from the Pelton wheel used for power generation flows through the property to the pond. Overflows from the pond flow to a discharge point where they enter Irving Creek. Water in the upper segment of the ditch periodically overtops or breaches portions of its outboard containment berm, eroding slopes below the ditch.

¹ The Regional Water Board administers and enforces the Clean Water Act (CWA). The CWA regulates what it refers to as "navigable waters" and defines those waters as "waters of the United States." Waters of the United States have been interpreted broadly by the agencies responsible for implementing the CWA to include all traditionally navigable waters and their tributaries. (40 C.FR. § 122.2) The Porter-Cologne Water Quality Control Act (Porter Cologne) provides the Regional Water Board additional authority to regulate discharges of waste into "waters of the state." (Water Code § 13260.) The term "water of the state" is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." (Water Code § 13050(3).) All waters of the United States that are within the boundaries of California are also waters of the state for purposes of Porter-Cologne.

In some cases, water escaping from the ditch flows to and transports earthen material into downslope watercourses, including Stanshaw Creek and, potentially, the Klamath River.

Outflows to Irving Creek have created a significant active erosional feature, representing a chronic source of sediment discharges into Irving Creek. Point source discharges of sediment-laden waters associated with ditch containment failures and chronic sediment discharges from the Irving Creek outfall occur without authorization from applicable federal, state, and local agencies, including the Regional Water Board. This Order requires investigation and cleanup in compliance with the Water Code, the Water Quality Control Plan for the North Coast Region (Basin Plan), and other applicable Regional Water Board plans, policies, and regulations.

- 2. **Responsible Parties:** The Dischargers, as the property owners and operators of the ditch are discharging or creating a threat of discharge, and are responsible parties for purposes of this Order.
 - a. Per records from the Siskiyou County Assessor-Recorder's Office, Douglas and Heidi Cole are the owners of record for the property identified as Assessor Parcel 026-290-200.
 - b. The Regional Water Board reserves the right to amend this CAO to add additional responsible parties when/if those parties are identified.
- 3. Location and Description: The Marble Mountain Ranch is located approximately 8 miles north of Somes Bar, in Siskiyou County at 92520 Highway 96. The ditch supplying water to the Ranch originates in Stanshaw Creek (tributary to Klamath River at river mile 76.1) and discharges into Irving Creek (tributary to Klamath River at river mile 75). The Point of Diversion (POD) is located on Stanshaw Creek, about 0.68 miles upstream of the Highway 96 crossing.
- **4. History:** According to records from the Siskiyou County Assessor-Recorder's Office, Douglas and Heidi Cole purchased the Ranch in March of 2007. There is no record of the Ranch or the diversion ditch having prior regulatory oversight or history with the Regional Water Board. The diversion has reportedly been in place since the 1800s, supplying a variety of uses to landowners over the years with the most recent landowners being the Dischargers.
- **5. Basis of Order:** Periodic failure of the ditch, and the Dischargers' activities to operate and maintain the ditch, as detailed below, created and/or threaten to create, conditions of pollution or nuisance in waters of the state by unreasonably impacting water quality and beneficial uses.

- a. During an inspection of the diversion ditch and the Ranch on February 12, 2015, Regional Water Board staff identified 19 locations along the upper ditch where the ditch has failed or has the potential to fail.
- b. The primary failure mechanisms were identified as: 1) cut bank slumps that block the ditch and cause flows to overtop the berm; 2) water infiltrates into and seeps through the berm, and causes the berm to fail eroding underlying soils and hillslopes; and 3) as noted above, cumulative sediment inputs reduce the ditch capacity and increase the risk of overtopping as ditch capacity is diminished, particularly increasing the potential for failure in areas where the berm is low or has been damaged. Due to the operation and maintenance of the ditch, failures and repairs constitute an annual and chronic discharge of sediment to waters of the state, including Stanshaw and Irving Creeks, and potentially directly to the Klamath River.
- c. The diversion ditch outfall discharges onto a steep slope with an abrupt drop into a short unnamed tributary to Irving Creek. This discharge causes significant slope erosion and chronic delivery of substantial volumes of sediment into Irving Creek and the Klamath River.
- 6. Beneficial Uses and Water Quality Objectives: The Basin Plan designates beneficial uses, establishes water quality objectives, contains implementation programs for achieving objectives, and incorporates by reference, plans and policies adopted by the State Water Resources Control Board. Stanshaw and Irving creeks are tributaries of the Klamath River within the Middle Klamath River Hydrologic Area, which under section 303(d) of the federal CWA is listed as impaired for sediment, temperature, microcystin, organic enrichment/low dissolved oxygen, and nutrients. On September 7, 2010, the State Water Resources Control Board adopted a Resolution approving amendments to the Water Quality Control Plan for the North Coast Region to establish: (1) Site Specific Dissolved Oxygen Objectives for the Klamath River; (2) an Action Plan for the Klamath River Total Maximum Daily Loads (TMDLs) Addressing Temperature, Dissolved Oxygen, Nutrient, and Microcystin impairments in the Klamath River; and (3) an Implementation Plan for the Klamath and Lost River basins. On December 28, 2010, the United States Environmental Protection Agency approved the TMDLs for the Klamath River in California pursuant to CWA section 303(d)(2). The Action Plan indicates that temperature impairments in the Klamath are attributable in part to excess sediment loads from anthropogenic sources, and encourages parties responsible for existing sediment sources to take steps to inventory and address those sources. Existing and potential beneficial uses for the Ukonom Hydrologic Subarea of the Middle Klamath River Hydrologic Area potentially affected by the activities described herein include the following: Municipal and Domestic Supply (MUN); Agricultural Supply (AGR); Industrial Service Supply (IND); Industrial Process Supply (PRO); Ground Water Recharge (GWR); Freshwater Replenishment Groundwater Recharge (GWR); Freshwater Replenishment (FRSH); Navigation (NAV); Hydropower Generation (POW);

Water Contact Recreation (REC-1); Non-contact Water Recreation (REC-2); Commercial and Sport Fishing (COMM); Warm Freshwater Habitat (WARM); Cold Freshwater Habitat (COLD); Wildlife Habitat (WILD); Rare Threatened or Endangered Species (RARE); Migration of Aquatic Organisms (MIGR); Spawning, reproduction, and/or Early Development (SPWN); and Aquaculture (AQUA) and Native American Culture (CUL). Beneficial uses of any specifically identified water body generally apply to all of its tributaries. These include Stanshaw Creek, Irving Creek, and any tributaries thereto.

Section 3 of the Basin Plan contains water quality objectives that specify limitations on certain water quality parameters not to be exceeded as a result of waste discharges. These include, but are not limited to the following:

- a. **Suspended Material:** Waters shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses.
- b. **Settleable Material**: Waters shall not contain substances in concentrations that result in deposition of material that causes nuisance or adversely affect beneficial uses.
- c. <u>Sediment:</u> The suspended sediment load and suspended discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.
- d. <u>Turbidity</u>: Turbidity shall not be increased more than 20 percent above naturally occurring background levels. Allowable zones within which higher percentages can be tolerated may be defined for specific discharges upon the issuance of discharge permits or waiver thereof.
- 7. Failure to Obtain Necessary Permits: Regional Water Board staff determined that discharges of waste earthen material associated with ditch operation, maintenance, and failure, including point source discharges of sediment-laden water to waters of the state has occurred without coverage under either a National Pollutant Discharge Elimination System (NPDES) permit, waste discharge requirements, or a waiver thereof.
- 8. Clean Water Act Violations: Section 301(a) of the CWA provides certain exceptions to "the discharge of any pollutant by any person shall be unlawful." (33 U.S.C. § 1311(a).) One of the exceptions allowed for under the CWA is the discharge from a point source as authorized by a permit granted pursuant to the National Pollutant Discharge Elimination System (NPDES) under section 402 of the CWA. (33 U.S.C. § 1342.) The CWA prohibits the discharge of any pollutant from a point source into waters of the United States without an NPDES permit. Evidence observed by staff along the upper ditch indicated that the ditch had overtopped or caused the berm to fail at several locations.

While staff did not follow the erosion path below each failure point to confirm that flows reached downstream surface waters, staff did observe a number of points where the flows reached Stanshaw Creek. In each case, such a flow, carrying sediment and/or other mobilized materials and delivering them into a surface water represents a point source discharge of waste, requiring an NPDES permit.

9. Water Code Violations:

a. Water Code section 13376 requires any person discharging or proposing to discharge pollutants to waters of the United States to file a report of waste discharge. Each case where the ditch has failed and flows have discharged into Stanshaw Creek or the Klamath River represents a violation of Water Code section 13376 due to the discharge of sediment-laden water into waters of the United States without first filing a report of waste discharge. In addition, the chronic discharge of sediment into Irving Creek associated with the erosion feature at the ditch outfall represents an ongoing violation, and a discharge of waste without a report of waste discharge and/or waste discharge requirements.

b. Water Code section 13304(a) states, in relevant part:

"Any person who has discharged or discharges waste into waters of this state in violation of any waste discharge requirements or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and causes, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts....Upon failure of any person to comply with the cleanup or abatement order, the Attorney General, at the request of the board, shall petition the superior court for that county for the issuance of an injunction requiring the person to comply with the order. In the suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant."

- c. Sediment, when discharged to waters of the state, is a "waste" as defined in Water Code section 13050. The Dischargers have discharged waste directly into surface waters of Stanshaw Creek, an unnamed tributary to Irving Creek, and to Irving Creeks, which are tributaries of the Klamath River.
- d. The beneficial uses of the Klamath River discussed above in Finding 6 also apply to Stanshaw and Irving creeks.

- e. "Pollution" is defined by Water Code section 13050, subdivision (I)(1) as, an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following:
 - i. The waters for beneficial uses; or
 - ii. Facilities which serve these beneficial uses.
- f. "Nuisance" is defined by Water Code section 13050, subdivision (m) as, anything which meets all of the following requirements:
 - i. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
 - ii. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
 - iii. Occurs during, or as a result of, the treatment or disposal of wastes.
- g. The Dischargers' ditch operations and maintenance activities, and chronic ditch failures result in the relatively continuous unauthorized discharge of waste into surface waters and have created, and threaten to create, a condition of pollution by unreasonably affecting the beneficial uses of waters of the state.
- **10. Basin Plan Violations:** The Water Quality Control Plan for the North Coast Region (Basin Plan) contains specific standards and provisions for maintaining high quality waters of the state that provide protection to the beneficial uses listed above. The Basin Plan's Action Plan for Logging, Construction and Associated Activities (Action Plan) includes two prohibitions (Page 4-29.00 of the 2011 Basin Plan):
 - a. **Prohibition 1** "The discharge of soil, silt, bark, slash, sawdust, or other organic and earthen material from any logging, construction, or associated activity of whatever nature into any stream or watercourse in the basin in quantities deleterious to fish, wildlife, or other beneficial uses is prohibited."
 - b. **Prohibition 2** "The 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 is prohibited."

Evidence observed by staff during the inspection suggests that flows in the ditch chronically overtop portions of the ditch and, at times, cause the ditch berm to fail, and potentially transport that material into Stanshaw Creek or the Klamath River.

Ditch maintenance/repair includes rebuilding or reinforcing the berm, in effect placing additional material at locations where it can transported into watercourses in the event of a ditch failure.

- 11. Cleanup and Abatement Action Necessary: Sediment discharges associated with improperly constructed and maintained ditches and chronic erosion and sedimentation at the Irving Creek outfall, operated by the Dischargers have occurred, and have the potential to continue to occur. Restoration, cleanup, and mitigation action is required on the part of the Dischargers to ensure that the existing conditions of pollution or nuisance are addressed, that threatened unauthorized discharges from the ditch are prevented, and that any impacts to beneficial uses are mitigated. The current conditions represent priority violations and the issuance of a cleanup and abatement order pursuant to Water Code section 13304 is appropriate and consistent with policies of the Regional Water Board.
- 12. Technical Reports Required: Water Code section 13267(a) provides that the Regional Water Board may investigate the quality of any water of the state within its region in connection with any action relating to the Basin Plan. Water Code section 13267 (b) provides that the Regional Water Board, in conducting an investigation, may require Dischargers to furnish, under penalty of perjury, technical or monitoring program reports. The technical reports required by this Order are necessary to assure compliance with this Order and to protect the waters of the state. The technical reports are further necessary to demonstrate that appropriate methods will be used to clean up waste discharged to surface waters and watercourses and to ensure that cleanup complies with Basin Plan requirements. In accordance with Water Code section 13267(b), the findings in this Order provide the Dischargers with a written explanation and evidence with regard to the need to implement cleanup, abatement and restoration actions and submit reports. The Dischargers named in this Order own and/or operate the feature from which waste was discharged, and thus are appropriately responsible for providing the reports.
- 13. California Environmental Quality Act: Issuance of this Order is being taken for the protection of the environment and to enforce the laws and regulations administered by the Regional Water Board and as such is exempt from provisions of the California Environmental Quality Act (CEQA) (Public Resources Code § 21000 et seq.) in accordance with California Code of Regulations, title 14, sections 15061 (b) (3), 15306, 15307, 15308, and 15321. This Order generally requires the Dischargers to submit plans for approval prior to implementation of cleanup and restoration activities at the Site. CEQA exempts mere submittal of plans as submittal will not cause a direct or indirect physical change in the environment and/or cannot possibly have a significant effect on the environment. CEQA review at this time is premature and speculative, as there is simply not enough information concerning the Discharger's proposed remedial activities and possible associated environmental impacts.

If the Regional Water Board determines that implementing any plan required by this Order will have a significant effect on the environment that is not otherwise exempt from CEQA, the Regional Water Board will conduct the necessary and appropriate

environmental review prior to approval of the applicable plan. The Dischargers will bear the costs, including the Regional Water Board's costs, of determining whether implementing any plan required by this Order will have a significant effect on the environment and, if so, in preparing and handling any documents necessary for environmental review. If necessary, the Dischargers and a consultant acceptable to the Regional Water Board shall enter into a memorandum of understanding with the Regional Water Board regarding such costs prior to undertaking any environmental review.

REQUIRED ACTIONS

IT IS HEREBY ORDERED that, pursuant to Water Code sections 13304 and 13267, Douglas and Heidi Cole (Dischargers) shall clean up and abate the impacts to water quality in accordance with the scope and schedule set forth below and provide the following information. The Dischargers shall obtain all necessary permits for the activities required in this Order.

1. Retain an appropriately licensed and experienced California Licensed Professional(s) to evaluate, and provide recommendations on the following:

Evaluate the operation of the Pelton wheel to determine if there are methods of diversion operation that would increase efficiency and reduce the required volume of the diversion, such as piping the diversion flow for example. Provide a report including recommendations based upon this evaluation. The evaluation shall consider the following:

- a. Water balance in vs. out;
- b. Water quality review in vs. out;
- c. Review onsite water needs and usage, and hydropower generation;
- d. Review opportunities to optimize water needs and usage for power generation;
- e. Review opportunities to reduce water loss or head loss; and
- f. Design a delivery system that optimizes water conservation.

In the event that this evaluation concludes that a piped delivery system is appropriate, develop a plan to decommission the ditch by removing the outboard berm and restoring all affected watercourses. In addition, provide design standards for slope restoration and outsloping to ensure evenly distributed surface flows. All bare soils shall be stabilized with erosion controls and replanted with native vegetation. Submit all information and recommendations as described above on or before 5:00 pm October 15, 2016.

2. Retain an appropriately licensed and experienced California-licensed professional to evaluate, assess, and develop a Restoration and Monitoring Plan (RMP) to restore and stabilize the head cut and slope at the outlet of the Stanshaw Creek diversion to the unnamed tributary of Irving Creek. Submit

the plan by **September 10, 2016** to the Executive Officer for review and approval.

- a. The RMP shall (1) restore the vegetative and hydrological functions of the damaged streams to ensure the long term recovery of the affected streams; and (2) replant the slopes and streamside areas with native vegetation to prevent erosion and sediment delivery to streams.
- b. The RMP shall include and apply best management practices for all current and planned work associated with construction activities affecting, or having the potential to impact, the ditch outfall, unnamed tributary and Irving Creek. The RMP shall contain, at a minimum, design and construction standards, specifications, and designs for stream restoration, surface drainage controls, erosion control methods and standards for unanticipated precipitation during restoration, compaction standards, an implementation schedule, a monitoring and reporting plan, and success criteria meeting the requirements specified herein.
- c. The RMP shall include map(s) and/or project designs at 1:12000 or larger scale (e.g., 1:6000) that delineate existing site conditions including existing channels, the projected restored slopes and stream channels, illustrating all restoration plan work points, spoil disposal sites, re- planting areas, and any other factor that requires mapping or site construction details to complete the scope of work.
- d. The RMP shall include a time schedule for completing the work including receiving any necessary permits from State, County and/or federal agencies that may be required. The time schedule must adhere to any regulatory deadlines prescribed by the State Water Resource Control Board or North Coast Regional Water Quality Control Board.
- e. To ensure a successful re-vegetation/earthen stabilization effort, site restoration and mitigation, the Discharger shall monitor and report for five years. All tree and shrub plantings must have a minimum of 85% success of thriving growth at the end of five years with a minimum of two consecutive years (two growing seasons) of monitoring after the removal of irrigation. Planting shall be adequately spaced to ensure adequate vegetative cover to control surface erosion and increase soil stability. In the event the re-planting fails, re-planting is required and the monitoring shall be extended for another five years until the 85% success rate of vegetation re-establishment is accomplished. The Dischargers are responsible for replacement planting, additional watering, weeding, invasive/exotic eradication, or any other practice to achieve the success criteria.
- f. The RMP must include a time schedule for completing the work, including receiving any necessary permits from State, County and/or federal agencies that may be required. The time schedule must describe and include installing temporary erosion control measures prior to October 15, 2016 and completion of slope and ditch outlet restoration by October 15, 2017.
- g. A monitoring plan is required for all site restoration and replanting to determine the success of stream restoration efforts and re-vegetation. The monitoring plan

must include regularly scheduled inspections, and established monitoring photo points of sufficient number to document the site recovery for five years or until the Site is restored, mitigation is complete, vegetation is reestablished, erosion is no longer ongoing and meets the success criteria in the approved RMP. These photo-documentation points shall be selected to document the stability of the tributaries. The Dischargers shall prepare a site map with the photo-documentation points clearly marked. Prior to and immediately after implementing the restoration and/or mitigation, the Dischargers shall photographically document the pre- and post-conditions of the tributaries at the pre-selected photo-documentation points. The Dischargers shall submit the pre-restoration photographs, the post-restoration photographs, and the map with the locations of the photo-documentation points to the Water Board as part of the as-built report as defined below.;

- The monitoring plan must include regularly scheduled inspection dates. We recommend October 15, January 5, and March 1 of each year, and a monitoring report is required within 30 days of each inspection. Monitoring Reports shall summarize monitoring results; describe any corrective actions made or proposed to address any failures of the Site and restoration measures (features to be assessed for performance and potential failure include, but are not limited to, erosion controls, stream bed and bank erosion, sediment discharges, work, and re-vegetation); and include narrative and photo documentation of any necessary mitigation and evidence of successful restoration and Site recovery for five years, or until Site recovery meets the approved success criteria. At the conclusion of restoration work, when the site is stable and the monitoring program has been fulfilled, submit a Summary report by January 1, 2021 or the year that site remediation and replanting meets the approved success criteria. The Executive Officer or designee will review the report and determine if the site meets all the requirements and the Order can be terminated.
- **3.** In the event that the delivery system will require continued operation of all or a portion of the diversion ditch, retain an appropriately qualified and experienced California-licensed professional to evaluate and submit a report to the Executive Officer for review and approval by **October 15, 2016.** The report shall include the following:
 - a. Evaluation of the entire ditch system, identifying all features and locations susceptible to failure by any of the physical processes and mechanisms described herein, (including but not limited to ditch seepage, berm fill saturation, upslope cutbank stability), and identifying where there is potential for sediment delivery to receiving waters in the event of a failure.

Specify appropriate corrective action measures or steps to take, including design and construction standards and an implementation schedule to complete the

defined scope of work. In addition, assess all areas of past failures to determine if the features reach Stanshaw Creek and deliver sediment and represent future delivery routes that require mitigation, propose mitigation as necessary to control sediment delivery and surface flows in the event of future failures or during annual rainfall events.

- b. A ditch operation and maintenance plan that includes an inspection and maintenance schedule and identifies any permits required for the scope of work anticipated. The plan should include proposed measures to ensure that the slopes above the ditch do not collapse into or block the ditch, that water seepage from the ditch does not saturate underlying materials and result in failure, that the ditch does not overtop the berm, that the berm does not fail, and that sediment does not deliver from the ditch to waters of the state. The plan must also include specifications for measures to be constructed and/or incorporated to prevent further erosion and sediment delivery from the discharge point to Irving Creek, and to restore and stabilize the channel between the discharge point and Irving Creek.
- 4. Regardless of the ultimate water delivery system, the following additional measures shall be taken by **September 10, 2016** to protect water quality:
 - a. Assess slopes between the upper ditch and Stanshaw creek and the streambed of Stanshaw Creek and Irving Creek and the unnamed tributary to Irving Creek for stored sediment deposits and erosional sources associated with the past and current failures of the ditch. Identify all erosional issues and those that should be corrected, propose corrective measures and provide a schedule for implementing corrective measures.
 - b. Ensure that water used onsite, conveyed in the ditch and discharged does not adversely impact waters of the state. Develop a sampling plan to assess the quality of water in the ditch as it passes through the ranch property for potential sources of fecal coliform, total coliform, total petroleum hydrocarbons, temperature, and nutrients. 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. Submit the Sampling Plan for approval by the Executive Officer by September **10, 2016**. Upon approval implement the sampling plan and provide results of the sampling by **November 1, 2016**. In the event that sampling identifies inputs of constituents of concern, then develop a plan to remedy the discharges and submit the plan by December 1, 2016 to the Executive Officer for review and approval.
- 5. Progress reports are due quarterly the first of the month starting on **October 1**, 2016. Quarterly progress report deadlines shall be January 1, April 1, July 1, and October 1 through January 1, 2022. Progress reports should include an update on project development and permitting, a description of steps taken to develop and

implement the required plans, and any unforeseen circumstances that may affect progress on meeting the deadlines and requirements of this Order. Progress reports will continue until the RMP is fully implemented.

- 6. By October 15, 2018, complete all approved restoration and mitigation measures.
- 7. By December 15, 2018, submit a Completion Report for the Restoration, and Monitoring Plan including an as built report. The Completion Report shall accurately depict all restoration and/or mitigation measures and document that the above plan(s) to restore, compensate for, avoid and minimize any further impacts to waters of the state and United States have been fully implemented.

GENERAL REQUIREMENTS AND NOTICES

- **8. Duty to Use Qualified Professionals:** The Dischargers shall have the documentation, plans, and reports required under this Order prepared under the direction of appropriately qualified professionals. As required by the California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. The Dischargers shall include a statement of qualification and registration numbers, if applicable, of the responsible lead professionals in all plans and reports required under this Order. The lead professional shall sign and affix their registration stamp, as applicable, to the report, plan, or document.
- 9. Signatory Requirements: All technical reports submitted by the Discharger shall include a cover letter signed by the Discharger, or a duly authorized representative, certifying under penalty of law that the signer has examined and is familiar with the report and that to his or her knowledge, the report is true, complete, and accurate. The Discharger shall also state if they agree with any recommendations/proposals and whether they approve implementation of said proposals. Any person signing a document submitted under this Order shall make the following certification:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my knowledge and on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

10. Notice of Change in Ownership or Occupancy: The Discharger shall file a written report on any changes in the Site's ownership or occupancy and/or any changes in responsible party or parties operating the ditch. This report shall be filed with the

Regional Water Board no later than 30 days prior to a planned change and shall reference the number of this Order.

11.Submissions: All monitoring reports, technical reports or notices required under this Order shall be submitted to: the Assistant Executive Officer and Stormer Feiler:

> Assistant Executive Officer - Shin-Roei Lee Shin-Roei.Lee@waterboards.ca.gov Stormer.Feiler@waterboards.ca.gov

By mail to: North Coast Regional Water Quality Control Board, 5550 Skylane Blvd. Suite A, Santa Rosa, CA 95403

- **12.Other Regulatory Requirements:** The Dischargers shall obtain all applicable local, state, and federal permits necessary to fulfill the requirements of this Order prior to beginning the work.
- 13. Cost Recovery: Pursuant to Water Code section 13304, the Regional Water Board is entitled to, and may seek reimbursement for, all reasonable costs it actually incurs to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order.
- **14.Delayed Compliance:** If for any reason, the Dischargers are unable to perform any activity or submit any document in compliance with the schedule set forth herein, or in compliance with any work schedule submitted pursuant to this Order and approved by the Assistant Executive Officer, the Dischargers may request, in writing, an extension of the time specified. The extension request shall include justification for the delay. Any extension request shall be submitted as soon as a delay is recognized and prior to the compliance date. An extension may be granted by revision of this Order or by a letter from the Assistant Executive Officer.
- **15. Potential Liability:** If the Dischargers fail to comply with the requirements of this Order, this matter may be referred to the Attorney General for judicial enforcement or may issue a complaint for administrative civil liability. Failure to comply with this Order may result in the assessment of an administrative civil liability up to \$10,000 per violation per day, pursuant to California Water Code sections 13268, 13350, and/or 13385. The Regional Water Board reserves its right to take any enforcement actions authorized by law, including but not limited to, violation of the terms and condition of this Order.
- 16. No Limitation of Water Board Authority. This Order in no way limits the authority of the Regional Water Board to institute additional enforcement actions or to require additional investigation and cleanup of the Site consistent with the Water Code. This Order may be revised as additional information becomes available.

- **17.Modifications.** Any modification to this Order shall be in writing and approved by the Executive Officer of the Regional Water Board, including any potential extension requests.
- 18. Requesting Review by the State Water Board: Any person aggrieved by this or any final action of the Regional Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and Title 23, California Code of Regulations, section 2050 et al. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the State Water Board must receive the petition on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

http://www.waterboards.ca.gov/public notices/petitions/water quality or will be provided upon request.

This Order is effective upon the date of signature.

Matthias Digitally signed by Matthias St.John

St.John
Date: 2016.08.04
18:06:55 -07'00'

Matthias St. John Executive Officer

16_0031_MarbleMountainRanch_CAO

1 2	Barbara A. Brenner (SBN 142222) Kerry A. Fuller (SBN 292466) CHURCHWELL WHITE LLP			
3	1414K Street, 3 rd Floor Sacramento, CA 95814			
3	(916) 468-0950 Phone (916) 468-0951 Fax			
5	barbara@churchwellwhite.com			
6	Attorneys for Petitioners DOUGLAS COLE AND HEIDI COLE			
7	BOOGLAG COLL AND MEIDI COLL			
8	STATE OF CALIFORNIA			
9	STATE WATER RESOURCES CONTROL BOARD			
10	In the Matter of the Petition of Douglas Cole and DECLARATION OF ROCCO FIORI IN			
11	Heidi Cole for Review and Stay of the North Coast Regional Water Quality Control Board SUPPORT OF PETITION FOR REVIEW AND STAY OF CLEANUP AND			
12	Issuance of Cleanup and Abatement Order No. R1-2016-0331 R1-2016-0331.			
13				
14				
15				
16	I, ROCCO FIORI, declare as follows:			
17	1. I am the Principle at Fiori Geosciences, a position I have held for 10 years, a			
18	Licensed Geologist (PG 8066), and have 30 years of experience assessing and mitigating			
19	anthropogenic erosion and sedimentation problems. I make this declaration in support of the			
20	accompanying Petition for Review and Stay of Cleanup and Abatement Order No. R1-2016-0331			
21	I have personal knowledge of the following facts and, if called and sworn as a witness, could and			
22	would competently testify thereto.			
23	2. I am the author of the Fiori Geosciences Technical Memorandum dated May 14,			
24	2016.			
25	3. I evaluated the Coles diversion at Marble Mountain Ranch on April 20, 2016,			
26	reviewed the North Coast Regional Water Quality Control Board inspection report by Stormer			
27	Feiler dated March 9, 2015, and used desktop analysis, including qualitative assessment of site			
28	conditions using a 1-meter resolution LiDAR DEM, Digital Ortho-Photographs, and the Regional			

{CW026585.2}

Geologic Map to reach my conclusions in my Technical Memorandum dated May 14, 2016.

- 4. The May 14, 2016 Technical Memorandum accurately reflects my opinion of the causes of sedimentation and erosion that results from the Coles diversion at Marble Mountain Ranch.
- 5. The May 14, 2016 Technical Memorandum accurately reflects my recommendations for addressing the sedimentation and erosion impacts to waters of the state from the Coles diversion at Marble Mountain Ranch
- 6. I have reviewed all of the required reports and deliverables contained in Cleanup and Abatement Order No. R1-2016-0031 and determined that leaf off, wet conditions are necessary to accurately complete the required reports and deliverables in Cleanup and Abatement Order No. R1-2016-0031.
- 7. The requirements in paragraph 4(a) on page 11 of Cleanup and Abatement Order No. R1-2016-0031 requires that the Coles "[a]ssess slopes between the upper ditch and Stanshaw creek and the streambed of Stanshaw Creek and Irving Creek and the unnamed tributary to Irving Creek for stored sediment deposits and erosional sources associated with the past and current failures of the ditch" cannot be fully implemented as it would be difficult to deconvolve natural, and legacy ditch related sediment deposits from those that are a result of modern ditch failures. Furthermore, an assessment of the cause of the erosion and sediment deposits cannot provide unequivocal evidence that a nuisance impact to the waters of the State had occurred unless the actual discharge, or flow path and deposit can be traced from the point of origin to the discharge location.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration was executed on this <u>6</u> day of September, 2016, at Klamath, California.

ROCCO FIORI

Engineering Geologist, PG 8066

Fiori GeoSciences

TECHNICAL MEMORANDUM

Sediment Delivery Potential from Failures on the Stanshaw Creek Diversion Ditch

Prepared for: Will Harling, Mid-Klamath Watershed Council and Douglas and Heidi Cole, Marble Mountain Ranch.

Prepared by: Rocco Fiori, Engineering Geologist, PG8066.

May 14, 2016

1.0 Introduction

This memorandum provides my preliminary findings of a survey to assess the sediment delivery potential from failures on the Stanshaw Creek diversion ditch. The Marble Mountain Ranch has a patented water right to divert water from Stanshaw Creek for consumptive and non-consumptive uses. The North Coast Regional Water Quality Control Board (NCRWQCB) and National Marine Fisheries Service (NMFS) are concerned operation of the diversion ditch constitutes a threat to downstream beneficial uses including water quality, and fish and wildlife habitat. This assessment was conducted at the request of Douglas and Heidi Cole, owners of the Marbled Mountain Ranch, and Will Harling, Director of the Mid-Klamath Watershed Council (MKWC).

2.0 Approach

The purpose of the survey was to assess the relative potential for ditch failures to deliver sediment to Stanshaw Creek and other waters of the State of California. The assessment was comprised of the following activities:

- 1. Review of a recent ditch inspection report prepared by NCRWCB staff (Feiler 2015).
- 2. Rapid field reconnaissance of the site on April 20, 2016, with Douglas Cole, Will Harling, and Joey Howard (Cascade Stream Solutions).
- 3. Desktop analysis, including qualitative assessment of site conditions using a 1-meter resolution LiDAR DEM, Digital Ortho-Photographs, and the Regional Geologic Map (Wagner and Saucedo 1987) with ArcGIS.

3.0 Findings

3.1 Ditch Failure Modes

I observed many of the erosion points described in the NCRWCB ditch inspection report and concur with the general characterization of the types of failure modes operating along at the ditch line by Feiler (2015). Based on my observations it appears the failure modes and frequency of occurrence can the ranked in the following order, (with type 1 modes having the greatest likelihood of occurring):

- 1. Water seepage through the outboard embankment fill material. This failure mode has two likely outcomes: a) slow slump failure of the fill with the potential for ditch flow to overtop the embankment and discharge downslope; or b) rapid slump failure of the fill, leading to the near instantaneous discharge of ditch flow downslope. Type 1b failures are most likely to lead to onsite erosion and possibly contribute to offsite sedimentation.
- 2. Cutbank failure. The outcome of this failure mode depends on the volume of the failed material. For a) small cutbank failures, the failed material will likely displace some of the ditch flow onto the outboard edge of the embankment and not lead to any onsite erosion; or for b)

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- larger cutbank failures, the failed material can cause the ditch flow to overtop the embankment. Type 2b failures are the most likely to lead to onsite erosion and possibly contribute to offsite sedimentation.
- 3. Tree Windthrow. Windthrow from the cutbank or embankment fillslope can lead to either a) slow, or b) rapid failure of the embankment fill, or c) slow and d) rapid displacement of ditch flow on to or over the embankment fill. The magnitude of onsite erosion and possibility of offsite sedimentation is dependant on the size of the tree and duration of uncontrolled ditch flow through the failure.

3.2 Sediment Delivery Potential

Based on my preliminary field observations and desktop analysis it appears the first 1100 feet (starting at the Point of Diversion) of the ditch has the greatest potential to deliver sediment to Stanshaw Creek in the event of a ditch failure. This is primarily because the ditch is located directly above the stream channel, and secondarily because the ditch is partially within the fluvial corridor of Stanshaw Creek (Figure 1). The remaining sections of the ditch have a low to moderate sediment delivery potential (Figure 1 and Table 1). The lower delivery ratings are due to the capacity of large topographic benches and dense vegetation to intercept and store a majority of sediment before it can be delivered to the receiving waters of the State (Figure 1).

Table 1. Relative sediment delivery potential of the Stanshaw Creek Diversion Ditch.

Distance from POD (feet)	Relative Sediment Delivery Potential	Percent of Ditch Length	Receiving Waters	Rationale
0 to 1100	High	24	Stanshaw Creek	Ditch is directly above stream
1100 to 2100	Low	22	Stanshaw Creek	Topographic bench likely to store most sediment and attenuate turbid runoff
2100 to 2800	Moderate	15	Stanshaw Creek	Reduced effect of the topographic bench to store most sediment and attenuate turbid runoff.
2800 to 4600	Low to Moderate	39	Klamath River	Topographic bench likely to store most sediment and attenuate turbid runoff

3.3 Other Sediment Sources

There is approximately 6,400 feet of streambank (2 X 3,200 ft.) on Stanshaw Creek between the Point of Diversion and the Highway 96 Culvert (Figure 1). A preliminary slope stability analysis indicates these slopes are marginally to highly un-stable. Wagner and Saucedo (1987) mapped the landform in this area as Qls (Quaternary Landslide), which also indicates a higher potential for slope instability. Slope failures along the lower reach of Stanshaw Creek are likely a greater source of sediment delivery compared to the features along the ditch described by Feiler (2015), and could create background sedimentation and turbidity levels that would likely overprint inputs emanating from a ditch related failure.

3.4 Recommendations

- 1. During the field review, Mr. Cole described that his inspection and maintenance efforts target repairs to seepage and other minor failure problems before they evolve into larger or catastrophic failures. Similar inspection and maintenance efforts are recommended moving forward.
- 2. The use of a pipeline would avoid or minimize the likelihood of sediment delivery related to conveyance of the Cole's water right from the Point of Diversion to the points of consumptive and non-consumptive use.
- 3. If a pipeline is the selected alternative, consider retaining the existing ditch alignment as an inspection and maintenance travel way. Mild outsloping and appropriately spaced rolling dips along the travel way could be used to effectively improve the stability and drainage of the travel way, and to provide a route for rapid response in the event of a pipeline failure.
- 4. Slope stability analysis could be used to identify potential areas of concern and develop mitigation strategies.
- 5. A sediment budget could be used to obtain an accurate assessment of sediment contributions from past ditch failures and other sources.

References

Wagner, D.L., and G.J. Saucedo. 1987. Geologic Map of the Weed Quadragle, California, 1:250,000. State of California, Department of Conservation. Regional Geologic Map Series. Weed Quadrangle – Map No, 4A (Geology), Sheet 1 of 4.

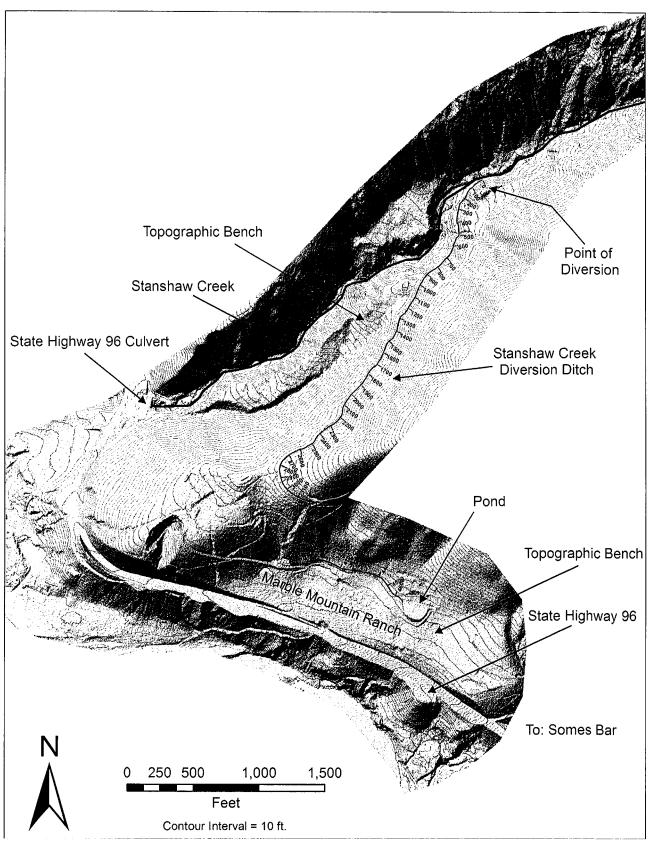


Figure 1. Project Location Map. Marble Mountain Ranch and the Stanshaw Creek Diversion Ditch. Base image is a 2010 1-meter LiDAR DEM Hillshade, provided by the Mid-Klamath Watershed Council.

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1 2 3 4 5 6	Barbara A. Brenner (SBN 142222) Kerry A. Fuller (SBN 292466) CHURCHWELL WHITE LLP 1414 K Street, 3 rd Floor Sacramento, CA 95814 (916) 468-0950 Phone (916) 468-0951 Fax barbara@churchwellwhite.com Attorneys for Petitioners DOUGLAS COLE AND HEIDI COLE
7	
8	STATE OF CALIFORNIA
9	STATE WATER RESOURCES CONTROL BOARD
10	In the Matter of the Petition of Douglas Cole and DECLARATION OF DOUGLAS COLE IN
11	Heidi Cole for Review and Stay of the North Coast Regional Water Quality Control Board Issuance of Cleanup and Abatement Order No. SUPPORT OF PETITION FOR REVIEW AND STAY OF CLEANUP AND ABATEMENT ORDER NO. R1-2016-0331
12	Issuance of Cleanup and Abatement Order No. R1-2016-0331 ABATEMENT ORDER NO. R1-2016-0331
13	
14	
15	
16	I, DOUGLAS COLE, declare as follows:
17	1. I am the Petitioner in the above-captioned matter. I make this declaration in
18	support of the accompanying Petition for Review and Stay of Cleanup and Abatement Order No.
19	R1-2016-0331. I have personal knowledge of the following facts and, if called and sworn as a
20	witness, could and would competently testify thereto.
21	2. I am the owner and operator of Marble Mountain Ranch.
22	3. Marble Mountain Ranch is a small business that operates as a dude ranch
23	seasonally from April 1 through December 1, where guests stay in guest cottages and are taken on
24	expeditions in the National Forest that abuts my property and engage in other nature related
25	activities.
26	4. Marble Mountain serves as a home for me, my wife and family, and several of my
27	staff members.
28	5. I must personally fund all improvements at Marble Mountain Ranch or seek out
	1

grant funding for those improvements.

- 6. During low flow periods in Stanshaw Creek, such as the current conditions, I forbear exercising my full pre-1914 right to divert up to 3 cfs of water and reduce the amount of water I divert to comply with the National Marine Fisheries Service's recommended bypass flow to protect fishery resources in the Klamath River.
- 7. I have worked with a resource improvement team to propose construction and implementation plans to install a six inch pipe in the diversion ditch for Marble Mountain Ranch to transport consumptive use water to Marble Mountain Ranch.
- 8. I am prepared to implement a North Coast Regional Water Quality Control Board approved ditch operation and monitoring program during high flow periods to avoid any overtopping or erosion impacts to water of the state.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration was executed on this <u>and</u> day of September, 2016, at <u>Sowes Bay</u>, California.

DOUGLAS COLE

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