KENNETH PETRUZZELLI (SBN 227192)
HEATHER MAPES (SBN 293005)
OFFICE OF ENFORCEMENT
STATE WATER RESOURCES CONTROL BOARD
801 K Street, 23rd Floor
Sacramento, California 95814
Tel: (916) 319-8577
Fax: (916) 341-5896

Attorneys for the Prosecution Team

BEFORE THE STATE WATER RESOURCES CONTROL BOARD

STATE OF CALIFORNIA

In the Matter of: DOUGLAS AND HEIDI COLE AND MARBLE MOUNTAIN RANCH	CLOSING BRIEF

TABLE OF CONTENTS

I. INTRODUCTION

The Prosecution Team for the State Water Resources Control Board (State Water Board), Division of Water Rights (Division) requests that the State Water Board find that Douglas and Heidi Cole and Marble Mountain Ranch (collectively the "Diverters") have diverted and used water and continue to divert and use water in violation of Article X, section 2 of the California Constitution and section 100 of the California Water Code[1], which both provide that the right to water or to the use or flow of water in or from any natural stream or water course in this State is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water.[2] The Prosecution Team further requests that the State Water Board order corrective actions in accordance with a time schedule to eliminate the misuse and prevent further harm to public trust resources.

II. BACKGROUND

A. Marble Mountain Ranch

Marble Mountain Ranch (MMR) is located at 92520, Highway 96 in Somes Bar, Siskiyou County. (Prosecution Team Exhibit WR-7[3], p. 1053; WR-87, p. 2486.) Douglas and Heidi Cole own and operate MMR with their family. (*Id.*) MMR functions as a commercial guest ranch that offers activities such as horseback trail and arena riding, hiking, whitewater rafting, jet boat rides, sport shooting, fly fishing and kayaking. (WR-7, p. 1053; WR-87, p. 2489; MMR-01, p. 1.)

---

[1] All references to the "Water Code" shall refer to the California Water Code.

[2] Under regulations implementing Article X, section 2 of the California Constitution and Water Code section 100, any waste, unreasonable use, unreasonable method of use, or unreasonable method of diverting of water is collectively referred to as a "misuse of water" or "misuse." (23 Cal. Code Regs. §855, subd. (b).)

[3] Further references to Prosecution Team exhibits will be "WR-[Exhibit Number]." Page references to exhibits the Prosecution Team submitted for its case in chief (WR-1 through WR-193) will cite Bates stamps.

The Diverters' guest season runs from approximately April 1 through December 1. (MMR-01, p. 1; WR-135, p. 2915; WR-157, pp. 3457, 3469-3477.) Their peak guest season occurs from about middle to late June through middle to late August. (RT[4] (11/16/2017), pp. 232:11-236:1, 261:19-263:21; 285:23-25.) Up to 50 people may occupy MMR during the peak guest season, but occupancy exceeds 25 people less than 60 days a year. (WR-61, p. 2029, 2032, 2035, 2037; WR-78, p. 2404; WR-111; WR-155; WR-157, p. 3469-3477.) Six people occupy the ranch in the off-season. (RT (Nov. 14, 2017), pp. 157:18-22, 174:2-10; RT (Nov. 16, 2017), p. 286:1-15.) MMR occasionally supports a fire crew with as many as 500 people. (WR-135, p. 2915.)

The Diverters divert surface water from Stanshaw Creek, a tributary to the Klamath River, in Siskiyou County, under a pre-1914 claim of appropriation, filed under Statement of Water Diversion and Use 15022 and 16375, and a Small Domestic Use Registration. (WR-7, p. 1053; WR-32; WR-61; MMR-1, p. 2.) The pre-1914 claim of appropriation originates from an 1867 claim by Mr. E. Stanshaw for six hundred (600) miner's inches, about 15 cubic feet per second (cfs), on a large patented parcel that includes the present-day MMR property. (WR-7, p. 1053; WR-32; WR-61; WR-80, p. 2411; WR-87, pp. 2486-2487, 2489.) The Diverters today claim up to 3 cfs under the pre-1914 claim of appropriation. (WR-110, p. 2744; MMR-1, p. 1.) The Small Domestic Use Registration, D030945R, supports a pond used for recreation and fire prevention. (WR-34, p. 1858.)

The Diverters' point of diversion (POD) is located approximately three-quarters of a mile upstream of the Highway 96 crossing, on United States Forest Service (USFS) property. (WR-9, p. 1075; WR-82, p. 2439; WR-87, p. 2495.) The POD consists of a handmade rock wing diversion dam that extends about halfway across the creek. (WR-9,

[4] Citations to the Reporter's Transcripts are indicated by "RT," followed by the date of the transcript, page(s), and line(s).

p. 1075; WR-82, p. 2439; WR-87, p. 2495.) The POD has no fish screen and operates independent of demand, limited only by available flow and capacity of the ditch. (WR-82, p. 2439; CDFW-13, p. 4; RT (11/13/2017), pp. 45:8-46:2.) The Diverters regulate the diversion rate at the POD by rearranging and re-stacking the diversion dam's rocks by hand. (WR-9, p. 1075; WR-87, p. 2495; RT (11/13/2017), p. 195:10-22; RT (11/14/2017), pp. 147:21-148:10.) They may regulate the amount of water in the ditch by rearranging flashboards, but lack other means of regulating the diversion rate at the POD.[5] (RT (11/16/2017), pp. 256:23-257:2.) The Diverters have diverted most of Stanshaw Creek's flow and even dewatered the creek during low-flow periods. (WR-76; WR-89, pp. 2524, 2537; OMRT-5; RT (11/16/2017), pp. 104:19-108:20; 170:17-173:19, 186:18-188:24.)

A partially lined ditch conveys the water by gravity approximately one-half mile southeast to MMR along the side of a steep hill slope. (WR-9, p. 1075; WR-82, p. 2440; WR-87, p. 2495.) The POD and ditch were constructed in the late 1800s. (WR-7, p. 1053; WR-82, p. 2440; WR-87, p. 2495.) The ditch has a capacity of up to 3 cfs, but captures significant sediment from upslope and frequently overtops and fails, causing severe erosion and discharging sediment into Stanshaw Creek even when not in use for diversion.[6] (WR-87, p. 2499; WR-89, pp. 2526-2538; WR-142, pp. 3135-3137; WR-167, pp. 3815-3816; WR-197; RT (11/13/2017), pp. 208:5-211:12; RT (11/15/2017), pp. 133:20-134:1; RT (11/16/2017), pp. 229:24-232:6.) Conveyance losses in the ditch from the POD to the penstock have been measured at 0.5 cfs. (WR-4, p. 176-177; WR-9, p. 1077; WR-82, p. 2444; WR-87, p. 2497; RT (11/14/2017), pp. 77:25-79:1.)

[5] Mr. Cole claimed he could precisely regulate MMR's diversion any time by rearranging flash boards. (RT (11/14/2017), pp. 214:23-217:11.) However, this contradicted Mr. Howard's testimony and technical report, which was based both on Mr. Howard's observations at MMR and on information Mr. Cole provided Mr. Howard. (WR-82, p. 2439; RT (11/13/2017), p. 45:3-7; RT (11/14/2017), pp. 217:14-221:18.) Even if true, it would fail to explain the Diverters' historical practice neglecting to regulate MMR's diversion and diverting water in excess of what they reasonably required for their beneficial uses.

[6] Mr. Cole has claimed that, when the ditch is in good condition, its capacity may be 4-5 cfs, but has also acknowledged that going beyond 3 cfs risks overtopping. (WR-82, p. 2440; RT (11/15/2017), p. 133:20-24.)

At MMR, the Diverters divert water for domestic use into a series of storage tanks sufficient to support the ranch for up to a week at full occupancy. (WR-9, p. 1075; WR-80, p. 2409.) Flows continue to a penstock and Pelton wheel, which generates hydropower. (WR-9, p. 1076; WR-87, p. 2496; WR-200, p. 3.) Hydropower effluent discharges into a ditch leading to their pond. (WR-9, pp. 1076-1077; WR-82, p. 2440.) When the pond overflows, it discharges into another unlined ditch, which then discharges into a tributary to Irving Creek, a tributary to the Klamath River southeast of MMR, causing erosion and discharging eroded soil.[7] (WR-9, p. 1077; WR-13, pp. 1100, 1104-1107; WR-82, p. 2440)

MMR's current diversion works allow the Pelton wheel to produce up to 33.9 kW. (WR-4, pp. 219, 221; WR-9, p. 1078; WR-22, p. 1782; WR-82, p. 2440.)[8] This is sufficient to meet MMR's highest electrical demands, which occur during its peak guest season. (WR-82, p. 2440; RT (11/14/2017), p. 156:10-23.) However, the Pelton wheel has a minimum operating threshold of approximately 2 cfs and flows in Stanshaw Creek drop below 1.5 cfs even in robust water years. (WR-5, p. 542; WR-40, pp. 1885-1886; WR-53, p. 1982; NMFS-1, p. 7; NMFS-12; RT (11/14/2017), pp. 198:5-6, 207:12-21; RT (11/15/2017), pp. 172:15-173:3.) During low flow periods, the Diverters divert more flow than necessary for their consumptive uses, but not enough to operate the Pelton wheel at its minimum operating threshold. (WR-82, pp. 2441, 2453; RT (11/13/2017), pp. 47:17-48:8) When they cannot divert sufficient flows, they use a diesel generator to meet MMR's electrical demands. (WR-9, p. 1078; WR-82, pp. 2441, 2453) The Pelton wheel and diesel generator operate as a "binary" system, with either the Pelton wheel or the diesel

[7] Mr. Cole testified that Blue Heron Ranch relies on tailwater MMR discharges to Irving Creek. (RT (Nov. 16, 2017), p. 271:13-18.) However, Blue Heron Ranch has no valid claim of right to appropriate MMR's Irving Creek tailwater flows. (WR-5, p. 552-553; RT (Nov. 16, 2017), pp. 223:10-226:2.)

[8] The Pelton wheel could theoretically operate at its rated 40 kW capacity with 3 cfs, but the penstock only has capacity for 2.4-2.5 cfs. (WR-4, pp. 385, 418, 432, 436, 447; MMR-18, p. 6; RT (11/13/2017), p. 58:18-22; RT (11/14/2017), pp. 30:7-10; 78:16-22.) This limits the Pelton wheel's operating capacity to less than 40 kW. A POD at higher elevation with more hydraulic head would allow equivalent power generation with less flow. (RT (11/14/2017) p. 165:1-10.)

generator providing electricity. (WR-82, p. 2441; RT (11/13/2017), p. 47:20-48:17.)

B. Parallel Enforcement and Regulatory Actions

On August 4, 2016, the North Coast Regional Water Quality Control Board (North Coast Water Board) issued CAO No. R1-2016-0031 (CAO) to the Diverters requiring that they eliminate the threat of future discharges and clean up and abate the effects of discharges of soil, rock and miscellaneous debris into Irving Creek, Stanshaw Creek, and the Klamath River, caused by their diversion facility and conveyance system. (WR-142.) The Diverters filed a petition with the State Water Board on September 6, 2016 seeking review of the CAO. (WR-145.) The State Water Board took no action and the petition was dismissed by operation of law. The Diverters filed no legal challenges to the CAO. Pursuant to Water Code section 13330 the CAO is no longer subject to judicial review. As of the hearing on this matter, the North Coast Water Board has issued three notices of violation for the CAO. (WR-13, pp. 1113, 1114-1116; WR-152; WR-162; WR-167.)

III. KEY ISSUES

A. Key Issue 1 - The Past and Current Diversion and Use of Water by the Diverters Constitutes a Misuse of Water, Particularly in Light of Impacts on Public Trust Resources

1. Reasonable Use and the Public Trust Doctrine

The State Water Board has the authority to prevent the misuse of water, regardless of the basis under which the right is held. (*Cal. Farm Bureau Federation v. St. Water Res. Control Bd.* (2011) 51 Cal.4th 421, 429, *as modified* (Apr. 20, 2011).) Under Water Code section 275, the State Water Board shall take all appropriate proceedings or actions to prevent the misuse of water. There is no property right in the unreasonable use of water and no taking when the State Water Board applies the prohibition on waste and unreasonable use to a water right holder. (*In re Waters of Long Valley Stream System* (1979) 25 Cal.3d 339, 354; *Joslin v. Marin Mun. Water Dist.* (1967) 67 Cal.2d 132, 145.)

A reasonable use inquiry must consider "statewide considerations of transcendent importance." (*Id.* at 140.) "Since what occurs is development of a standard of reasonableness on the facts of the case it should be described as a making of law for the particular case," such as in the case-by-case determination of the standard of reasonable care in tort law. (*Cal. Trout, Inc. v. St. Water Res. Control Bd.* (1989) 207 Cal.App.3d 585, 624.) What constitutes unreasonable water use depends upon the circumstances presented and varies as the current situation changes. (*Imperial Irrigation Dist. v. St. Water Res. Control Bd.* (1986) 186 Cal.App.3d 1160, 1166.) Particular methods of use once considered reasonable can become unreasonable due to their deleterious effects. (*U.S. v. St. Water Resources Control Bd.* (1986) 182 Cal.App.3d 82, 130.)

Although the standard of reasonableness is often fixed "ad hoc," the Legislature has the power to "fashion rules concerning reasonableness… by enacting statutory safety obligations which become the basis of negligence per se." (*Cal. Trout, supra* 207 Cal.App.3d at 624.) The State Water Board, in carrying out its statutory duties to administer the state's water resources, prevent misuse of water, and exercise the adjudicatory and regulatory functions of the state, may similarly enact regulations governing the reasonableness of using water. (*Light v. St. Water Res. Control Bd*. (2014) 226 Cal.App.4th 1463, 1484, *as modified on denial of reh'g* (July 11, 2014).)

The State Water Board also has the authority and the obligation to protect public trust beneficial uses, such as interests in commerce, fisheries, recreation, and ecology, whenever feasible. (*Nat'l Audubon Society v. Superior Court* (1983) 33 Cal.3d 419, 434.) The public trust doctrine provides that the State, as sovereign, "owns all of its navigable waterways and the lands lying beneath them as trustee of a public trust for the benefit of the people." (*Id.*) The purpose of the public trust "evolve[s] in tandem with the changing public perception of the values and uses of waterways." (*Id*.) The public trust doctrine

prevents any party from acquiring a vested right to divert or use water in a manner harmful to the interests protected by the public trust. (*Id.* at 445.) The State has the obligation, as trustee, to take the public trust into account in the planning and allocation of water resources and to preserve public trust property from harmful diversions by water rights holders whenever feasible. (*Id.* at 445-448.) Public trust uses must conform to the standard of reasonable use. (*Id.* at 443.) However, the public trust and reasonable use doctrines interact. A diversion that harms public trust resources constitutes a misuse of water if the diversion can be managed to avoid the harm. (*Light, supra* 226 Cal.App.4th at 1482; *U.S. v. St. Water Resources Control Bd.*, *supra* 182 Cal.App.3d at 130.)

The State Water Board has previously applied a series of factors as guidance in determining whether a misuse of water is occurring. The factors are: 1) Other potential beneficial uses for conserved water; 2) whether the excess water serves a reasonable and beneficial purpose; 3) the amount of water reasonably required for current use; 4) the availability of a physical plan or solution; 5) the amount and reasonableness of the cost of saving water; 6) whether the required methods of saving water are conventional and reasonable rather than extraordinary; and 7) the probable benefits of water savings. (WR-20, p. 1679-1684; WR-63, p. 2318.) Not all of the factors apply or apply equally in every case. (WR-63, p. 2318.)

2. The Diverters Harm Other Beneficial Uses of Water

a. The Diverters Harm Public Trust Beneficial Uses

Stanshaw Creek has a short but significant section of habitat for coho salmon (*Onchorhynchus Kisutch*) (coho) below the Highway 96 crossing that includes an off-channel pool located just upstream of its confluence with the Klamath River. (WR-7, p. 1054; WR-141, pp. 3122-3123; NMFS-3, pp. 2-3.) Juvenile chinook, coho, and steelhead have been documented in Stanshaw Creek. (WR-40, p. 1885; KT-4, p. 3; KT-6, p 11.)

Coho “threatened” under the federal Endangered Species Act (ESA) and California Endangered Species Act. (WR-7, p. 1054; CDFW-13, p. 2; 62 Fed.Reg. 24,588 (May 6, 1997).) The Klamath River system and adjacent streamside riparian zones are designated critical habitat for coho under. (WR-131, p. 2899; 64 Fed.Reg. 24,049 (May 5, 1999).)

The Klamath River is a recreational component of the Wild and Scenic Rivers System. (Pub. Res. Code, § 5093.54.) Under the California Wild and Scenic Rivers Act, “It is the policy of the State of California that certain rivers which possess extraordinary scenic, recreational, fishery, or wildlife values shall be preserved in their free-flowing state, together with their immediate environments, for the benefit and enjoyment of the people of the state.” (Pub. Res. Code, § 5093.50, subd. (a).) “Such use of these rivers is the highest and most beneficial use and is a reasonable and beneficial use of water within the meaning of Section 2 of Article X of the California Constitution.” (*Id.*)

The Water Quality Control Plan for the North Coast Region (Basin Plan) designates beneficial uses, establishes water quality objectives to protect those beneficial uses, contains implementation programs for achieving water quality objectives, and incorporates, by reference, plans and policies adopted by the State Water Board. (WR-13, pp. 1100-1104; WR-62; WR-142, p. 3.) Under the Basin Plan, “The beneficial uses of any specifically identified water body generally apply to all its tributaries.” (WR-62, p. 2057.) Designated beneficial uses in the Basin Plan for the Klamath River, and by extension Stanshaw Creek, include Cold Freshwater Habitat; Contact and Non-Contact Recreation; Commercial and Sport Fishing; Spawning, Reproduction and/or Early Development; Rare, Threatened or Endangered Species; Municipal; Hydropower Generation; and Migration of Aquatic Organisms. (WR-13, p. 1101; WR-62, p. 2062.)

The Basin Plan temperature objective for intrastate waters prohibits any alteration of natural receiving water temperature “unless it can be demonstrated to the satisfaction

of the [North Coast] Water Board that such alteration in temperature does not adversely affect beneficial uses." (WR-13, p. 1102; WR-62, p. 2078.) To implement temperature objectives, the implementation plan for the Klamath River includes a Thermal Refugia Protection Policy that provides enhanced protection of thermal refugia. (WR-13, p. 1104; WR-62, p. 2078.) The Basin Plan identifies Stanshaw Creek as a tributary to the Klamath River known to provide thermal refugia. (WR-13, p. 1102; WR-62, p. 2189.) The Basin Plan defines "thermal refugia" as "Colder areas within a water body that provide cold water refuge from unsuitably warm water." (WR-13, p. 1104; WR-62, p. 2155.)

"Water temperature is one of the most important factors in the survival of juvenile [coho]" salmon and other salmonids, "especially during the late-spring and early summer," when "temperature conditions in the Klamath River become inhospitable and salmonids migrate into tributaries to over summer in the cooler temperatures to survive." (CDFW-1, p. 2.) Water temperature influences growth, physiology, and behavior. (*Id.*) Flow volume influences wetted rearing area, macroinvertebrate production, and attraction and fish passage flows, as well as temperature. (*Id.*) While juvenile steelhead can tolerate higher water temperatures than coho, steelhead also benefit from cold water refugia in the mainstem and tributaries of the Klamath River Basin. (KT-4, p. 4.)

In the Klamath River watershed, water temperature conditions routinely exceed temperature thresholds protective of salmonids. (WR-62, p. 2181; NMFS-7, p. 2.) Over summering habitat is currently limited to areas of cold water created and maintained by cold water from tributaries, making tributaries "absolutely critical" for the survival of juvenile salmon during the dry hot summer months. (KT-4, p. 3; NMFS-7, p. 2.) When mainstem Klamath River temperatures approach detrimental temperatures in the summer, juvenile coho seek thermal refugia and typically reside there until mainstem temperature again become suitable and migration safe. (KT-4, p. 4.) All upstream salmon populations,

including those from the Shasta River, Scott River, and Upper Klamath River, must migrate through the mainstem Klamath River and benefit from thermal refugia if they can detect it and move in. (RT (11/15/2017), p. 157:3-9.) Available off-channel ponds and thermal refugia pool are factors limiting coho recovery. (*Id.* at 156:9-19.)

Stanshaw Creek represents a critical and unique habitat for the survival of coho in the Klamath Basin. (NMFS-7, pp. 2, 5; NMFS-9, pp. 38, 61, 66-67.) The thermal refugia pool is in the floodplain, just adjacent to the mainstem Klamath River during low flows. (RT (11/15/2017), p. 155:16-22.) Klamath River flows inundate the thermal refugia pool in the winter, flushing and refreshing the habitat, bringing in nutrients from the mainstem and providing food resources to the fish rearing there through the winter. (*Id*. at 155:22-156:2.) The thermal refugia pool provides excellent habitat for juvenile salmonids with cold water temperatures, significant cover and overhanging vegetation, and still water for velocity refuge. (NMFS-7, p. 4.) During the summer, when flows from Stanshaw Creek are low, juvenile fish are essentially trapped in the thermal refugia pool and highly vulnerable to flow manipulations and other habitat impacts. (KT-4, p. 4.)

Stanshaw Creek has year-round benefits. The thermal refugia pool's connection to the mainstem Klamath remains critical in the fall when juvenile coho salmon redistribute to find different winter rearing habitat. (NMFS-7, p. 4.) During the winter, the thermal refugia pool maintains deep and slow water habitat that provides velocity refuge from the mainstem. (*Id.*) Juvenile salmonids, including coho, use the pool for over summer and winter rearing. (*Id.*) Juvenile coho that overwinter in the thermal refugia pool rely on a connection to the Klamath mainstem in the spring, from March through June, to outmigrate as smolts when they are one year old. (*Id.*) Variability is important in the winter, because high flows shape the channel by tumbling rocks, moving sediment, preventing riparian vegetation from encroaching, and refreshing substrate. (RT

(11/15/2017), pp. 199:16-200:11.) Connection from the thermal refugia pool to the mainstem Klamath is again critical in the fall when juvenile coho salmon redistribute to find different winter rearing habitat. (NMFS-7, p. 4.) Due to limited thermal refugia habitat, losing Stanshaw Creek's habitat benefits would be detrimental to the Klamath River coho population as a whole. (RT (11/15/2017), pp. 197:16-199:1.)

MMR is the only diversion on Stanshaw Creek large enough to measurably affect flow and public trust beneficial uses. (WR-141, p. 3128; NMFS-3, p. 8; KT-4, p. 6.) MMR's diversion causes significant hydromodification and habitat alteration in Stanshaw Creek. (WR-13, p. 1105; RT (11/16/2017), pp. 23:19-24:3.) It has been routinely dewatering the creek since at least 1994. (OMRT-4; OMRT-5; RT (11/16/2017), pp. 155:8-11, 156:17-23, 170:17-173:19.) Moreover, MMR's POD operation rapidly changes Stanshaw Creek's flows and sediment inputs, contributing to the creek's two significant problems. (NMFS-1, p. 7; KT-4, pp. 5-6; OMRT-3, p. 5.) First, fish in the Klamath River mainstem cannot access the thermal refuge pool when flows are too low to connect to Stanshaw Creek. (KT-4, p. 4.) They must seek refuge in other locations further upstream or downstream, which extends their exposure to lethally warm conditions. (*Id.*) Second, fish in the thermal refuge pool are trapped and cannot migrate away from harmful conditions. (*Id.*)

Multiple fish kills have occurred in the thermal refugia pool due to MMR's diversion, including a fish kill in July 2009 reported to the Karuk Tribe. (KT-4, p. 5; RT (11/16/2017), pp. 28:8-31:4, 156:17-23.) Toz Soto, a fish biologist for the Karuk Tribe, responded to July 2009 fish kill and identified dead coho and steelhead. (KT-4, p. 5; RT (11/16/2017), pp. 28:21-30:9.) Alterations in MMR's POD rapidly reduced flows in Stanshaw Creek and killed the fish. (KT-4, p. 6; RT (11/16/2017), p. 70:12-17.) Low flows, "a trickle," had reduced the thermal refugia pool to a fraction of its normal size. (KT-4, p. 6; RT (11/16/2017), pp. 30:16-31:2.) A rapidly head cutting inlet channel indicated a rapid draw-

down of the thermal refugia pool. (*Id.*) The fish were trapped in the pool, could not escape, and died from thermal shock. (KT-4, p. 6; WR-96, p. 2; RT (11/16/2017), p. 70:12-17.) The fish kill coincided with extremely high air temperatures. (KT-4, p. 6.)

Temperature and flow data corroborate the Diverters' impacts on the thermal refugia pool. 2009 flow and temperature data from the Karuk Tribe and USFS indicate a correlation between the MMR diversion and high temperatures in the thermal refugia pool. (WR-13, p. 1117-1118.) Additional data indicate water levels in the thermal refugia pool were drawn down to levels that would no longer support refugia habitat. (WR-13, p. 1117.) In July 2009, the MMR POD drew the thermal refugia pool down so low it exposed the temperature gauge. (WR-13, p. 20; WR-191; RT (11/15/2017), pp. 116:3-120:9.)

The MMR diversion also entrains fish. (CDFW-1, pp. 2-3; CDFW-13, p. 4.) Division staff have observed rainbow trout in the diversion ditch during field inspections. (WR-30, p. 1.) Jennifer Bull, of CDFW, identified salmonids in the MMR pond, down-ditch of the Pelton wheel, during a field visit to MMR on May 14, 2015. (CDFW-1, pp. 2-3.) During that visit, Mr. Cole stated the fish in the pond came from Stanshaw Creek. (CDFW-1, pp. 2-3.) Mr. Cole admitted that a fish that found its way into the MMR pond would have no survivable means of escape. (RT (11/15/2017), pp. 105:9-107:13)

Mr. Steve Cramer, who testified for the Diverters, concluded that Stanshaw Creek lacks suitable habitat for a self-sustaining coho population and is unlikely to support a self-sustaining population of steelhead. (MMR-21, pp. 4, 12, 21, 22.) However, he only surveyed Stanshaw Creek once. (MMR-21, p. 3; RT (11/13/2017), pp. 113:5-7.) A single visit is insufficient to adequately understand the habitat value of Stanshaw Creek or the thermal refugia pool, because it only offers a "snapshot" of the many fish moving in and out from season to season and year to year. (RT (11/15/2017), pp. 170:10-171:6.) He also conducted only one snorkel survey consisting of one circuit around the thermal refugia

pool in each direction. (MMR-21, p. 3.) However, estimating population in a thermal refugial pool requires multiple dives over the course of a day; not just one. (RT (11/16/2017), pp. 73:22-74:5.) Mr. Cramer also opined that the thermal refugia pool was poor habitat, but acknowledged that the pool, like other thermal refugia, is highly dynamic and will look different every year. (KT-4, p. 3; RT (11/13/2017), pp. 121:10-122:8.) Regardless, he acknowledged that the thermal refugia pool has year-round habitat value, because juvenile salmonids utilize it for refuge habitat in the summer and winter and seek to access the pool in spring and fall. (MMR-21, p. 22; RT (11/13/2017), pp. 142:4-143:9.)

Mr. Cramer emphasized that he observed few fish in Stanshaw Creek, even though he visited in October, when temperatures had diminished and fewer fish would have utilized the thermal refugia pool. (RT (11/16/2017), pp. 19:11-23, 102:15-104:18.) Juvenile coho numbers are currently depressed throughout the Klamath River Basin. (*Id.* at p. 98:11-15.) However, Mr. Cramer did not compare his observations in Stanshaw Creek to fish counts elsewhere in the Klamath River Basin to determine whether they were consistent. (RT (11/13/2017), pp. 118:22-119:14.) He further acknowledged that he did not evaluate whether the number of fish he observed reflected impacts from the California drought of 2012-2016. (*Id.* at pp. 127:19-12 9:11.)

NMFS has issued flow recommendations for Stanshaw Creek (NMFS Flow Recommendation). (WR-141; NMFS-3; NMFS-1, pp. 1-2.) The NMFS Flow Recommendation applies to all diverters on Stanshaw Creek and requires a 90 percent bypass flow. (WR-141, pp. 3131-3132) Additional flows may be diverted for non-consumptive uses if a minimum of 2 cfs is bypassed at the POD and non-consumptively used flows are returned to Stanshaw Creek above the point of anadromy. (WR-141, pp. 3131-3132; NMFS-3, pp. 11-12.) Limiting consumptive diversions to 10 percent of unimpaired flow will provide a high level of protection for coho by minimizing changes in

the natural structure and function of the riverine ecosystem, while a 2 cfs minimum bypass will maintain stream connectivity above the anadromous reach. (WR-141, pp. 3128-3129; NMFS-3, pp. 8-9; RT (11/15/2017), pp. 200:2-9, 213:20-217:23.) The California Department of Fish & Wildlife (CDFW) has concurred that the NMFS Flow recommendation is scientifically supported and issued a draft lake or streambed alteration agreement (LSAA) with conditions substantially similar to recommendations by Division and North Coast Water Board staff. (CDFW-37, p. 7; RT (11/15/2017) pp. 226:15-227:5) The Karuk Tribe also supports the NMFS Flow Recommendation and the conditions CDFW recommends in its Draft LSAA. (RT (11/16/2017), p. 31:5-19.) Implementing the NMFS Flow Recommendation ensures minimum flows for protecting public trust beneficial uses. Failure to bypass these flows constitutes a misuse of water.

b. The Diverters Harm Senior Rights

A diversion that cannot be managed to avoid harming a senior right is a misuse of water. Old Man River Trust (OMRT) owns property that was part of the original Stanshaw patent and eventually severed. (WR-4, p. 185; WR-15; WR-16; WR-53, p. 1981; WR-193, p. 5357; SWRCB-3; OMRT-1; OMRT-2, p. 2.) OMRT claims rights as both a successor in interest to the E. Stanshaw pre-1914 claim and under a riparian claim of right. (WR-5, pp. 605-606; WR-53, p. 1985; WR-98, p. 2601; WR-99, p. 2609; RT (11/16/2017) pp. 154:7-20, 174:7-178:12.) As a riparian owner, OMRT has water rights equal to and superior to the Diverters' claimed rights. (*U.S. v. St. Water Res. Control Bd., supra* 182 Cal.App.3d at 104-105.) The Diverters did not dispute these claims. MMR's diversion has dewatered Stanshaw Creek and impaired both the water supply and quality at OMRT's POD. (WR-4, p. 104; RT (11/16/2017), pp. 181:11-189:1.) The less reliable water supply makes it harder for OMRT to rent cabins. (WR-4, p. 104; RT (11/16/2017), p. 159:18-21.) The

Diverters' diversion and use of water therefore harms OMRT's use and enjoyment of its property and deprives OMRT of water it is entitled to divert and use under its water rights.

c. The Diverters Impact Water Quality to the Detriment of Beneficial Uses

A diversion or use of water that harms water quality to the detriment of beneficial uses constitutes a misuse or water. (*U.S. v. St. Water Resources Control Bd., supra* 182 Cal.App.3d at 130.) Since 1994, at least half a dozen ditch failures and mudslides have discharged sediment into the thermal refugia pool. (OMRT-4; OMRT-5; RT (11/16/2017), pp. 154:8-11, 156:17-23, 170:17-173:19.) One failure discharged the bulk of a sediment plug into the thermal refugia pool in 2005-2006. (WR-184, p. 4273; CDFW-17; RT (11/16/2017), pp. 41:10-42:3, 181:11-182:18.) In February 2015, North Coast Water Board staff identified evidence of ditch failures and repairs. (WR-13, pp. 1105-1108; WR-89, p. 2524-2539; WR-142, p. 3135; WR-201, pp. 5-18; RT (11/13/2017), pp. 209:5-211:16.) In 2016, the North Coast Water Board issued the CAO, because the methods of diversion, including the poorly regulated POD, unlined diversion ditch, and hydropower effluent discharge into Irving Creek, create conditions of pollution or nuisance in waters of the state by unreasonably impacting water quality and beneficial uses, in violation of section 301(a) of the Clean Water Act (33 U.S.C. § 1311(a)), Water Code section 13376, and Discharge Prohibition 1 and 2 in the Basin Plan's Action Plan for Logging, Construction, and Associated Activities. (WR-88, p. 2519; WR-142, pp. 3135-3141; RT (11/13/2017), p. 208:2-13.) Subsequent evidence shows the Diverters' manner of operating their POD results in elevated temperatures that harm beneficial uses designated in the Basin Plan. (WR-13, pp. 1101, 1117-1118; WR-89, pp. 2522-2539; WR-142, p. 3137; WR-188; WR-189; WR-190; WR-191; WR-201, pp. 28-31; RT (11/13/2017), pp. 214:5-220:2; RT (11/16/2017), pp. 29:12-31:2.) Water quality impacts of MMR's

diversion have continued. State Water Board staff identified additional evidence of failures in a follow-up visit in February 2017. (WR-197; RT (11/16/2017), pp. 230:8-232:10.)

d. The Diverters Harm Tribal Beneficial Uses

The physical and spiritual health and cultural identity of the Karuk Tribe are intimately tied to the ecological integrity of the Klamath River Basin. (KT-1, p. 1; RT (11/14/2017), pp. 128:2-129:16; *see also Karuk Tribe of Cal. v. U.S. Forest Service* (9th Cir. 2012) 681 F.3d 1006, 1011.) The Karuk Tribe is the second largest federally recognized Indian Tribe in California, with over 3,600 members. (KT-1, p. 1.) Its aboriginal territory is located immediately downstream of the Klamath River dams and spans large portions of Siskiyou and Humboldt Counties in Northern California, an area that encompasses Stanshaw Creek. (*Id*.) Before European settlement, the Karuk heavily relied on salmon for their daily diet, but the decline in the Klamath River salmon fishery has led to a significant decline in fish in the Karuk People's diet and, as a result, their overall health. (KT-1 at 3.) The Diverters' misuse of water, by impacting the Klamath River salmon fishery and ecological integrity, impacts the Karuk Tribe's beneficial uses. (*Id.*)

3. Excess Water Does Not Serve a Reasonable and Beneficial Use

An excessive diversion of water for any purpose cannot be regarded as a diversion for a beneficial use. (*Tulare Irr. Dist. supra* 3 Cal.2d at 547.) Consequently, a "beneficial use" is not necessarily a "reasonable use." (*Joslin, supra* 67 Cal.2d at 143.)

For routine operations, the Diverters use a set of markings in a 30-inch corrugated metal pipe to determine whether MMR is diverting sufficient water. (WR-82, p. 2441; RT (11/15/2017), pp. 10:9-11:12.) These markings, which Mr. Cole refers to as "Stanshaw Units," are unique and do not correlate with any commonly used unit of measure. (WR-82, p. 2441; RT (11/15/2017), pp. 10:21-11:12, 133:8-19; RT (11/16/2017), p. 261:1-16.) Diversion measurement regulations adopted by the State Water Board are evidence of a

per se standard of reasonableness for measuring water use. (Cal. Code Regs., tit. 23, §§ 931-938.) The "Stanshaw Unit" does not meet these requirements. (RT (11/16/2017), pp. 258:7-259:2; WR-69, p. 2345; Cal. Code Regs., tit. 23, § 933, subd. (b)(1).) Since the Diverters cannot adequately measure their diversion, there is no evidence that they apply no more than the reasonable amount of water necessary for their beneficial uses.

The Diverters similarly lack information indicating how much power MMR generates at different times of the year or how much it consumes. (WR-157, pp. 3458-3459.) Estimated unimpaired flow dips below 3 cfs in late July and most of August, September, and October, a period that includes most of the Diverters' peak guest season and their highest electrical demands. (WR-40, p. 1885.) To meet their electrical demands under these conditions, the Diverters must use their diesel generator, but since the Pelton wheel and diesel generator operate as a binary system, diversion flows do not generate power that support the ranch. (WR-82, p. 2441; RT (11/13/2017), p. 47:20-48:17.)

Although power needs may change in the course of a year, more people generally require more power and, for hydropower generation, more flow. (WR-82, p. 2451; MMR-18, p. 6; RT (11/14/2017), pp. 157:2-158:16, 224:14-15.) Mr. Cole claimed that MMR needs 3 cfs to support its electrical demands in the off-season, even though only six people occupy MMR. (RT (11/14/2017), pp. 180:9-13, 225:21-226:7.) Mr. Cole's statement is inconsistent with characterizations that MMR's peak electric demand occurs in the peak guest season. (WR-82, p. 2440; RT (11/14/2017), p. 156:10-23.) If true, it constitutes a staggering amount of water use, approximately one acre-foot per person per day, which on its own is enough for MMR's hydropower use to be unreasonable.[9]

[9] 1 cfs equals 1.98 acre-feet per day. (WR-5, p. 624; WR-49, p. 1.) 3 cfs would therefore require 5.94 acre-feet per day. An acre-foot is equal to approximately 325,580 U.S. gallons. (*Stockton East Water Dist. v. U.S.* (Fed. Cir. 2009) 583 F.3d 1344, 1350 n6, *on reh'g in part* (Fed. Cir. 2011) 638 F.3d 781.) This is sufficient to meet the domestic needs of at least 26,000 people a day. (Cal. Code Regs., tit. 23, §697, subd. (b).)

4. The Diverters Claim Far More Water Than Reasonably Required for Their Current Beneficial Uses

The most recent consumptive use calculations indicate the Diverters use up to 0.183 cfs during their peak guest season, but this occurs less than 60 days a year. (WR-9, p. 1087; WR-111; WR-140, pp. 3119-3120; WR-155; MMR-18, p. 3; RT (11/16/2017), pp. 261:19-263:21.) Consumptive water use would be even lower in the off-season when only six people occupy the ranch. (WR-61, p. 2029, 2032, 2035, 2037; WR-78, p. 2404.)

MMR may occasionally use up to 0.235 cfs when its supports a fire camp. (WR-9, p. 1087; WR-140, pp. 3119-3120; MMR-18, p. 3.) USFS staff have reported using the ditch for fire suppression, but there is no evidence they actually use 3 cfs from the ditch. (MMR-1, p. 9-10; MMR-18, p. 3; RT (11/15/2017), pp. 12:17-14:10.) Regardless, the USFS has alternative sources it may use instead of the ditch and USFS policies prohibit filling fire trucks from areas that serve thermal refuges. (RT (11/15/2017), pp. 14:11-15:3.)

The Diverters use the vast majority of their diversion flows for hydropower generation, but no evidence indicates how much they reasonably need. The Electrician estimated MMR's annual power demand at 126,265 kWh per year. (WR-157, p. 3458, 3536; MMR-19, pp. 1.) However, people who live off-grid rely on appliances with low electrical demands. (MMR-19, p. 1; RT (11/16/2017), p. 165:21-166:13.) Since the Diverters did not include The Electrician's attachment explaining how their annual power demand was calculated, there is no evidence they reasonably and prudently rely on appliances with low electrical demands. (WR-157, p. 3458, 3536; MMR-19, pp. 1-2; RT (11/16/2017), pp. 167:23-170:5) The Diverters have not conducted an energy audit and they have refused to comply with the CDO's directive to review opportunities to optimize water needs and use for power generation. (WR-9, p. 1088; WR-13, p. 1110; WR-167, p.

3808-3810.) They have instead asserted that, under their pre-1914 claim of appropriation, they may use their water as they wish. (WR-183, pp. 2466-2467.)

Although the Diverters today claim 3 cfs, Mr. Cole previously defended the conclusions in a report, known as the "Lennihan Report" for its author Martha Lennihan, which independently evaluated MMR's water rights. (WR-83, p. 2475; KT-2, pp. 2-3; RT (11/16/2017), pp. 135:1-24, 228:18-229:23.) The Lennihan Report concluded that MMR's pre-1914 appropriative right was likely 1.16 cfs, with 0.5 cfs for conveyance losses, 0.31 cfs for hydropower, and 0.35 cfs for consumptive uses. (WR-80, pp. 2430-2431.) Although the Prosecution Team does not assert that the Lennihan Report establishes MMR's pre-1914 water right or that 0.66 cfs is reasonable for MMR's beneficial uses, if Mr. Cole was willing to accept the Lennihan Report's findings that MMR only has a right to 0.66 cfs for beneficial use, it is reasonable to infer that when he made the statements he reasonably believed MMR could feasibly operate with 0.66 cfs - much less than the 3 cfs claimed. Regardless, depending on the time of year, 3 cfs is more than reasonably necessary for MMR's beneficial uses, unavailable due to insufficient flows, or available only with substantial impacts to public trust beneficial uses and senior water rights.

5. Reasonable and Feasible Physical Solutions are Available

In disputes between competing water users, "physical solution" can meet the needs of all competing users and put water to beneficial use to the fullest extent capable. (WR-20, p. 1683; *City of Barstow v. Mojave Water Agency* (2000) 23 Cal.4th 1224, 1250.)

Installing a pipe in the diversion ditch would allow the Diverters to properly regulate their diversion to ensure they divert only water necessary for their beneficial use demands, as well as eliminate conveyance losses, ditch failures, erosion, and sediment discharges into Stanshaw Creek. (WR-4, p. 176-177; WR-9, pp. 1075, 1077; 1079; WR-82, p. 2444; WR-87, p. 2497; WR-157, pp. 3458-3459; RT (11/13/2017), p. 206:10-11; RT

(11/14/2017), pp. 77:25-79:1; RT (11/15/2017), pp. 133:10-19, 238:8-24.) A pipe could include a fish screen, diversion control structure, and diversion measurement device. (WR-114, p. 2772; WR-122, pp. 2848-2849; WR-125; WR-126; WR-177, pp. 4225-4226; RT (11/13/2017), pp. 49:15-50:25.)

Another proposed solution would use alternative energy systems to reduce reliance on hydropower generation. (WR-177, p. 4225-4226; RT (11/13/2017), p. 49:10-14.) The Electrician proposed a system using solar power, batteries, and a propane generator that would interconnect with the current hydropower system, which would remain available for winter use. (MMR-19, p. 1; WR-157, p. 3536; RT (11/13/2017), pp. 48:18-49:18) Golden West Energy proposed a system using solar power and batteries. (MMR-19, pp. 3-27.) The Diverters also stated they would conduct an energy audit to evaluate alternatives for reducing their overall electrical demand. (WR-110, p. 2747; WR-115, p. 2805.)

6. The Cost of a Physical Solution is Reasonable and Will Save Significant Water

The cost of water conservation does not justify wasteful or unreasonable practices. (WR-20, p. 1682.) For the Diverters, physical solutions will save significant water and ultimately cost less than their current operations by offsetting significant expenses.

A proposed 6-inch pipe, sized to support the Diverters' consumptive use demands, with a fish screen, diversion control structure, and Doppler flow meter, would have cost $77,675. (WR-114, p. 2774.) By comparison, Mr. Cole testified that from 1994 to 2016, MMR spent roughly $321,000 solely on employee time for ditch maintenance and repair, an average of roughly $14,000 a year. (MMR-26, p. 24; RT (11/16/2017), p. 268:16-19.)

The Diverters could save significant water by using alternative methods of energy production such as solar power to reduce their reliance on hydropower. The Electrician quoted a system for $425,000. (WR-157, p. 3536; MMR-19, p.1.) Golden West Energy

quoted a system for $526,000. (MMR-19, pp. 2-3; WR-157, pp. 3459, 3536.) The quotes were based on MMR's current electrical demands. (RT (Nov. 15, 2017), pp. 42:5-43:22.)

The Diverters currently rely on diesel power generation for much of their peak guest season, because flows in Stanshaw Creek are insufficient for them to divert adequate flows to generate sufficient power. (RT (11/14/2017), p. 207:15-21; RT (11/16/2017), pp. 261:11-263:21.) The Diverters have reported utility expenses, which would have included fuel costs for the diesel generator, in the range of $31,296 to $37,522 in their tax returns from 2013 through 2016. (WR-194, p. 4; WR-196, p. 13; RT (11/14/2017), pp. 239:25-240:8, 242:5-7.) With financing and tax credits, the Diverters could pay off the Golden West Energy system in as little as 8 years. (MMR-19, pp. 3; RT (11/14/2017), p. 249:5-21.) They could continue operating the system for at least 12 to 17 more years with dramatically lower utility expenses. (RT (11/14/2017), pp. 249:22-251:10; RT (11/16/2017), pp. 221:18-222:22.) The system would reduce the cost of upgrading other diversion infrastructure, because a larger diversion for hydropower generation would be unnecessary. (*Id.*) Long-term, the Diverters could save money. (WR-194, p. 5; RT (11/16/2017), pp. 220:17-221:9, 222:3-22.) Although these are preliminary quotes, they nonetheless demonstrate that reasonable and feasible alternatives are available.

The Diverters are financially capable of paying for corrective actions. (WR-194, pp. 1-5; WR-196, p. 15; RT (11/16/2017), pp. 220:2-221:16) MMR has positive net cash flow and substantial equity in the property and business. (RT (11/16/2017), p. 221:10-12.) There is no indication of any excessive expenses incurred over the last year. (*Id.* at p. 221:13-15.) The alternatives with available cost information – the engineering and land surveying services from KASL Engineering and the alternative energy system quotes, are financially feasible, based on a review of the Diverters' current cash flow, net worth, liabilities, and excessive expenses. (WR-194, p. 5; RT (11/16/2017), p. 220:2-16.) Insofar

as the Diverters have declared "losses," such losses are relevant to tax liability; not necessarily to the health of the business or of the ability of the business to pay for necessary improvements. (WR-194, p. 2; WR-196, p. 5; RT (11/16/2017), p. 213:1-13.) The Diverters have made substantial capital investments in recent years, such as new structures and vehicles. (WR-194, p. 4.) They can reinvest in their business. (*Id.*)

The Diverters submitted evidence of additional expenses, but insofar as these expenses have been included in their financial disclosures, directly or indirectly, the Prosecution Team included them in its financial analysis. (MMR-25; MMR-26; MMR-27.). To the extent the Diverters alleged additional expenses, they did not explain how such additional expenses would preclude them from paying for substantial corrective actions.

7. Required Methods of Saving Water are Conventional and Reasonable

Conformity of a use, method of use, or method of diversion of water with local custom is only one factor weighed in considering whether misuse is occurring. (Water Code § 100.5.) Even common practices consistent with local custom can be unreasonable depending on conditions and the amount of water used. (*Tulare Irr. Dist., supra* 3 Cal.2d at 586; *Erickson v. Queen Valley Ranch Co.* (1971) 22 Cal.App.3d 578, 585.)

Mr. Meyer testified that conveyance losses in MMR's ditch were similar to losses in other ditches he has evaluated and that he had observed similar failures in other unlined ditches located along steep hillsides. (RT (11/14/2017), pp. 139:1-140:9.) However, he acknowledged he has never evaluated a ditch that diverts water from a stream that is above a rim dam, used by ESA-listed salmonids, designated as having thermal refugia under the Basin Plan, or used by tribes dependent on salmon. (*Id.* at pp. 163:14-164:10.)

Mountain Home, the Diverters' upstream neighbor, uses a pipeline, rather than an unlined ditch, to transport water from its POD to place of use. (WR-118, p. 2827.)

Mountain Home also uses solar power, hydropower generation that returns tailwater to the source stream, and batteries to store excess power generation. (WR-9, p. 1080; WR-118, p. 2829; WR-119, p. 2832; WR-120, p. 18; RT (11/13/2017), p. 199:14-22.) Use of these methods by Mountain Home, just upstream of MMR, shows they are conventional and reasonable even in the mid-Klamath region.

8. Saving Water Has Significant Benefits

Conserving water will result in substantial benefits. Implementing the NMFS Flow Recommendation will maintain the natural functions of Stanshaw Creek, including temperatures in thermal refuge pool, and contribute to protecting chinook, steelhead, and ESA-listed coho. OMRT will benefit from improved water supply and water quality for its water rights. Lining or piping the ditch will eliminate conveyance losses and ditch failures and improve water quality.

The Diverters will benefit as well. Lining or piping the ditch will improve their water supply reliability by eliminating risk of ditch failure. It will also substantially reduce the cost and labor of ditch maintenance. Solar power generation and batteries will reduce their reliance on hydropower and diversion flows from Stanshaw Creek, providing them with more reliable power year-round to continue operating their business at lower overall cost.

B. Key Issue 2

1. The Diverters Should Implement Corrective Actions, With a Time Schedule, to Eliminate Their Misuse of Water

To eliminate the misuse of water, the Prosecution Team recommends that the State Water Board adopt the Draft Order. (WR-1.) However, instead of ordering the Diverters to cease their discharges to Irving Creek and return flows to Stanshaw Creek, as currently proposed in Table 3 and Table 4, the Prosecution Team instead recommends simply requiring the Diverters to meet the NMFS Flow Recommendation. (WR-1, pp. 21-

22.) This would give the Diverters more flexibility, while achieving the end goal of protecting public trust beneficial uses.

Issues related to the diversion and use of water at MMR have been continuing for many years without resolution. Division staff identified the Diverters' public trust and water quality impacts as early as 2000 and recommended substantially similar solutions as those in the Draft Order. (WR-1; WR-35. WR-36; WR-37; WR-38; WR-39; WR-40, WR-42; CDFW-1, p. 1; p. 1887; RT (11/16/2017), pp. 226:23-228:14.) An investigation in 2002 again recommended similar actions. (WR-53, p. 1990-1991.) The Diverters proposed their own compliance project and time schedule in 2016, but missed one deadline after another and subsequently abandoned nearly their entire proposed project. (WR-9, p. 1088; RT (11/13/2017), pp. 203:1-11, 213:2-12) The Diverters have voluntarily limited their spring and summer diversion to their consumptive use demands since about May 2016, but nothing requires them to continue limiting their diversion. (WR-147, p. 3235.)

The Karuk Tribe has proactively met with the Diverters and attempted to collaborate and present grant opportunities to improve flows available for public trust beneficial uses through improved water conservation. (KT-4, p. 7; RT (Nov. 16., 2017), pp. 128:16-130:12, 133:22-140:7.) CDFW similarly attempted to facilitate grants. (CDFW-13, pp. 2-7; RT (Nov. 15, 2017, pp. 232:17-247:4.) Despite 20 years of discussions and attempts at collaborative solutions, the Diverters did little. (WR-9, p. 1088; KT-1, p. 3; RT (11/13/2017), p. 203:1-11) The Diverters will not eliminate their misuse of water absent an order and implementation time schedule holding them legally accountable.

2. An Implementation Time Schedule for Corrective Actions Should Be Consistent With the Requirements of the CAO Issued By the North Coast Water Board

Any order the State Water Board issues should include an implementation time schedule for corrective actions consistent with the time schedule and corrective actions

ordered in the CAO. The Diverters petitioned for review of the CAO and the State Water Board took no action. As a result, the findings, time schedule, and corrective actions are no longer subject to judicial challenge. Insofar as the Diverters believe modifications of the CAO would be necessary to comply with an order from the State Water Board, this argument is speculative as it presumes the State Water Board order will direct actions that are in conflict with the CAO requirements. The relief sought in this action, and the measures required in the CAO can be implemented without conflict. Further, the CAO provides a remedy for any alleged inconsistency as the CAO allows the Diverters to request that the North Coast Water Board modify the CAO. (WR-142, pp. 3147-3148.)

IV. CONCLUSION

The Diverters have misused water and continue misusing water. Their POD dewaters Stanshaw Creek, altering habitat and impairing thermal refugia utilized by ESA-listed salmonids. Their diversion ditch erodes and discharges sediment into Stanshaw Creek. Their hydropower effluent discharges into Irving Creek with more sediment. They kill steelhead and ESA-listed coho and injure senior water rights. The Diverters have feasible physical solutions available to control and measure their diversion, eliminate sediment discharges, and implement the NMFS Flow Recommendation. The Prosecution Team therefore requests that the State Water Board find that the Diverters have misused water and continue to misuse water. The Prosecution Team further requests that the State Water Board order the Diverters to cease misusing water and order corrective actions, in accordance with a time schedule to eliminate the misuse.

Respectfully submitted,

Kenneth Petruzzelli
OFFICE OF ENFORCEMENT
Attorney for the Prosecution Team

SERVICE LIST OF PARTICIPANTS
Douglas and Heidi Cole and Marble Mountain Ranch
Waste and Unreasonable Use Hearing
Scheduled for November 13, 2017

PARTIES

THE FOLLOWING **MUST BE SERVED** WITH WRITTEN TESTIMONY, EXHIBITS AND OTHER DOCUMENTS. (All have AGREED TO ACCEPT electronic service, pursuant to the rules specified in the hearing notice.)

DIVISION OF WATER RIGHTS Prosecution Team Ken Petruzzelli, Attorney III State Water Resources Control Board Office of Enforcement 801 K Street, 23rd Floor Sacramento CA 95814 kenneth.petruzzelli@waterboards.ca.gov heather.mapes@waterboards.ca.gov	**DOUGLAS AND HEIDI COLE, MARBLE MOUNTAIN RANCH** Barbara A. Brenner 1414 K Street, 3rd Floor Sacramento, CA 95814 barbara@churchwellwhite.com kerry@churchwellwhite.com
CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE Stephen Puccini, Staff Counsel Nathan Voegeli, Staff Counsel 1416 Ninth St. Sacramento, CA 95814 stephen.puccini@wildlife.ca.gov nathan.voegeli@wildlife.ca.gov	**CALIFORNIA SPORTFISHING PROTECTION ALLIANCE** Chris Shutes 1608 Francisco St. Berkeley, CA 94703 blancapaloma@msn.com Michael Jackson P.O. Box 207 75 Court Street Quincy, CA 95971 mjatty@sbcglobal.net
KLAMATH RIVERKEEPER Paul Kibel 2140 Shattuck Ave., Suite 801 Berkeley, CA 94704-1229 pskibel@waterpowerlaw.com	**KARUK TRIBE** Fatima Abbas, General Counsel 64236 Second Ave. Happy Camp, CA 96039 fabbas@karuk.us Drevet Hunt 1004 O'Reilly Ave. San Francisco, CA 94129 drev@lawyersforcleanwater.com updated 11/3

SERVICE LIST OF PARTICIPANTS
Douglas and Heidi Cole and Marble Mountain Ranch
Waste and Unreasonable Use Hearing
Scheduled for November 13, 2017

PARTIES, CONT'D

THE FOLLOWING **MUST BE SERVED** WITH WRITTEN TESTIMONY, EXHIBITS AND OTHER DOCUMENTS. (All have AGREED TO ACCEPT electronic service, pursuant to the rules specified in the hearing notice.)

NATIONAL MARINE FISHERIES SERVICE Christopher Keifer, Attorney NOAA Office of General Counsel, 501 W. Ocean Blvd., Suite 4480 Long Beach, CA 90802 christopher.keifer@noaa.gov margaret.tauzer@noaa.gov justin.ly@noaa.gov	**OLD MAN RIVER TRUST** Konrad Fisher 100 Tomorrow Rd. Somes Bar, CA 95568 k@omrl.org
PACIFIC COAST FEDERATION OF FISHERMEN'S ASSOCIATIONS AND INSTITUTE FOR FISHERIES RESOURCES Noah Oppenheim Regina Chichizola P.O. Box 29196 San Francisco, CA 94129-8196 regina@ifrfish.org	