

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

ORDER WR 2016-

In the Matter Of Application of

California American Water Company

To Amend State Water Board Order 2009-0060

SOURCE: Carmel River

COUNTY: Monterey County

**ORDER AMENDING IN PART REQUIREMENTS OF
STATE WATER BOARD ORDER WR 2009-0060**

BY THE BOARD:

1.0 OVERVIEW

For decades, California-American Water Company (Cal-Am) has been unlawfully diverting water from the Carmel River to provide municipal water to a large area of the Monterey Peninsula. State Water Resources Control Board (State Water Board) [Order WR 2009-0060](#) (hereafter, WR 2009-0060) is a cease and desist order that, among other requirements, established a compliance timeline for cessation of Cal-Am’s unlawful diversions from the Carmel River by December 31, 2016. This timeline was based on evidence gathered at hearing that indicated that a regional desalination plant would be built, enabling the area’s municipal water needs to be met by new water supplies. It is now clear that no desalination plant will be in operation by the end of this year. In light of this recognition, Cal-Am has proposed modifying the compliance schedule to accommodate the anticipated pace for approval and implementation of several proposed projects (1) a different desalination plant, the Monterey Regional Water Supply Project; (2) a water recycling project, entitled Pure Water Monterey; and (3) the expansion of the facilities for an existing groundwater storage project entitled Aquifer Storage and Recovery (ASR). These projects are undergoing review by permitting agencies.

Since the adoption of WR 2009-0060 in 2009, Cal-Am’s diversions from the Carmel River have consistently been well below the annual diversion levels set by WR 2009-0060, but still remain thousands of acre-feet per annum above the amount available under Cal-Am’s lawful water rights.(See Table 1, p. 2.) The reductions in Carmel River diversions have resulted from a number of factors, including conservation and efficiency measures and implementation of local

supply projects, combined with a moratorium on increased water use within Cal-Am’s service area. To address the impacts of its diversions, Cal-Am has also applied significant resources to fishery conservation and habitat improvement programs.

Seven years after adoption of WR 2009-0060, the State Water Board is again placed in a position of deciding whether to adopt a compliance schedule that may allow for obtaining lawful supplies with less disruption to existing communities than meeting the required legal pumping limit by December 31, 2016. For the reasons described herein, this order adopts a new compliance schedule that essentially maintains an ongoing diversion level as long as specified progress towards alternative supplies is met, but sharply drops allowable diversions should the progress towards these supplies slip. In taking this action, the State Water Board is facilitating local cooperation in development of alternate water supplies and at the same time requiring that unauthorized diversions end by December 31, 2021, regardless of whether the envisioned projects are timely built.

2.0 BACKGROUND

WR 2009-0060 and State Water Board [Order WR 95-10](#) (hereinafter WR 95-10) detail specific information regarding Cal-Am’s lawful and unlawful diversions from the Carmel River, which does not require repetition here.

Since the adoption of WR 2009-0060, Cal-Am has lowered its diversions from the Carmel River more rapidly than the minimum compliance terms in the CDO required, and has not missed the CDO diversion reduction requirements in any year.

Table 1

Water Year (Oct. 1 – Sept. 30)	Carmel River Pumping (to nearest acre-foot)	Pumping Limit under Order 2009-0060
2009-2010	9,786	10,209
2010-2011	8,559	9,994
2011-2012	7,646	9,883
2012-2013	8,008	9,772
2013-2014	7,744	9,661
2014-2015	7,228	9,550

The pumping limit under Order 2009-0060 for Water Year (hereinafter also WY) 2015-2016 is 9,318, and there is no indication from current reporting or based on recent historical use, to think that Cal-Am will not fall well under this mark.

The reductions in pumping are the result of demand reductions as well as new supplies, both of which were required under WR 2009-0060. In terms of demand reduction, Cal-Am and the Monterey Peninsula Water Management District (District) have adopted programs encouraging conservation by business and residential customers, including turf replacement programs, water efficiency requirements, and tiered conservation rates. Cal-Am has also implemented new technologies to identify and address leaks. Additionally, Cal-Am has proposed revisions to its

water rationing program pending at the California Public Utilities Commission (CPUC). The CPUC anticipates making a decision on the proposed changes in October 2016.

Three new non-Carmel River supplies have either already come online, expanded or have received regulatory approval since 2009. Sand City's desalination plant provides to Cal-Am, in the form of offset deliveries, a minimum of 96 acre-feet per annum (afa), and the balance of its capacity which is not needed for expanded use in Sand City. Pebble Beach's water recycling facility has expanded its capacity and technology, and increased its offset of Cal-Am's unlawful pumping to an average of 970 afa. Its average offset prior to the technology changes completed in 2008 was 450 afa. This increase far out-measures the modest increase in usage entitlements, which now measure 65 afa, and are expected to reach on the order of 140 afa¹ by the end of the proposed compliance period. As of June 2016, the City of Pacific Grove was scheduled to have begun construction of a recycled water plant that will offset 100 to 125 afa of current Cal-Am deliveries for golf course and cemetery irrigation.

Additionally, Cal-Am has pursued lawful water rights in the Carmel River. Cal-Am has obtained water right Permit 21330, allowing lawful diversion in the high flow season, under certain bypass flow conditions, at a rate of 4.1 cubic feet per second with an limit of 1,488 afa. This water may only be used within the Carmel River watershed, rather than throughout the Cal-Am service area. In WY 2014-2015, Cal-Am diverted approximately 42 acre-feet under this water right.

Joint owners Cal-Am and the District have lawful water rights under Permit 20808A and Permit 20808C to develop and use up to 5,326 afa (2,426 afa and 2,900 afa, respectively) of pumping from the Carmel River under certain bypass flow conditions for operation of the ASR project. The ASR project has expanded its capacity since the adoption of WR 2009-0060, although increased water has not been available for diversion during the recent drought. The ASR project diverted just over 1,110 afa of water in WY 2009-2010 and WY 2010-2011, and between 0 and 210 afa in the drier water years from WY 2011-2012 through WY 2014-2015. The ASR water is pumped to the Seaside Groundwater Basin and WR 2009-0060 requires Cal-Am to recover the ASR water during the months most beneficial to the fishery. By June 1 of each year, Cal-Am, National Marine Fisheries Service (NMFS) and the California Department of Fish and Wildlife (CDFW) agree on a schedule for using the ASR water by reducing Carmel River pumping for fishery benefits. Cal-Am's diversions from the Carmel River are reduced on a one-to-one basis with the scheduled recovery. NMFS and CDFW can and have agreed to allow some ASR water to be carried over in Seaside Groundwater storage for the next water year's use, as allowed under WR 2009-0060. Cal-Am carried over 215 acre-feet of ASR water, and WY 2015-2016 storms allowed for an additional 699 acre-feet of ASR diversions such that Cal-Am had 914 acre-feet of available ASR water stored in the Seaside Groundwater Basin by June 1, 2016. NMFS and DFW agreed that Cal-Am would recover the ASR water from June through September of 2016, and carry over approximately 315 acre-feet for WY 2016-2017.

¹ Pebble Beach estimates that deliveries of water under new entitlements through the end of December 2020 will be 140 afa. While the application now requests an extension of the compliance deadline for an additional year, there is no reason to think that this number will be significantly different by 2021, given the prior rate of growth in the area and the necessarily imprecise nature of such estimates.

Water previously pumped from the Carmel River for the Odello Ranch under License 13868A, is being provided to offset Cal-Am's unlawful diversions on an interim basis. The water will not be available on a long-term basis. The project provided 85 acre-feet of water to offset Cal-Am's unlawful diversions in 2015, and will provide a minimum of 50 acre-feet in 2016 and 25 acre-feet in 2017. Cal-Am and the Eastwood Trust have reached an agreement for Cal-Am to divert up to 85 afa on an interim basis, to the extent that the water is not being sold by the Malpas Water Company to other users.

Since adoption of WR 2009-0060, Cal-Am has also funded or otherwise implemented significant measures to improve fish habitat and survival. WR 2009-0060 required some of these measures, while others were implemented as part of an agreement with the NMFS and the CDFW.

After the failure of efforts to build the Coastal Water Project and the Regional Desalination Project², it became clear that there would not be a lawful alternative supply of water for the Cal-Am service area prior to the end of 2016, when WR 2009-0060 requires Cal-Am to end all unlawful diversions from the Carmel River.

In 2014, Cal-Am approached State Water Board staff regarding the possibility of reaching an agreement on a proposal to amend the CDO's compliance schedule which State Water Board staff would recommend to the State Water Board for consideration. Staff met with Cal-Am and other stakeholders over a period of two years in an effort to craft a proposal that staff, Cal-Am, and a range of stakeholders could endorse. At points over the two year period, the discussion included representatives from Cal-Am, the District, the Monterey Peninsula Regional Water Authority, the Sierra Club, the Planning and Conservation League, the Pebble Beach Company, and NMFS.³ The group was able to reach an agreement on a framework for a proposal to amend the Cal-Am CDO's compliance schedule until the end of December 2020, even as some of the specifics remained contested. The broad area of agreement was maintaining a diversion limit significantly lower than that required for WY 2015-2016 in the current CDO as long as milestones based on securing alternative water supplies are met. Failure to meet the milestones would result in significant reductions of the diversion limits under the compliance schedule, such that Cal-Am's diversions from the Carmel River would be limited to lawful diversion limits prior to the end of the compliance period.

Cal-Am, in conjunction with the District, Monterey Peninsula Regional Water Authority, the City of Pacific Grove and the Pebble Beach Company, submitted an application to amend the Cal-Am CDO on November 20, 2015. On April 28, 2016, Cal-Am submitted a revised application to amend the CDO, in light of significant delays in the CPUC's schedule for consideration of a proposed desalination facility, the Monterey Peninsula Water Supply Project (MPWSP) Desalination Project. These delays resulted from the CPUC's desire to prepare a joint environmental impact statement and environmental impact report in conjunction with a federal partner, the Monterey Bay National Marine Sanctuary. In addition, the CPUC needed to

² The CPUC approved an alternative to the Coastal Water Project – the Regional Desalination Project.

³ Cal-Am and other stakeholders indicated that a broader group met in preparation for meetings with staff, including participation by the Carmel River Steelhead Association, Quail Lodge, Bernardus Lodge, and Carmel Valley Ranch.

evaluate a potential conflict of interest issue involving one of the contractors evaluating the project under the California Environmental Quality Act. There have also been repeated interruptions in operations of the test wells used to evaluate the impacts and viability of the proposed facility's slant well technology.

3.0 CAL-AM'S PROPOSAL

On April 28, 2016, Cal-Am's April 28, 2016 revised application to amend WR 2009-0060, was submitted pursuant to Water Code section 1832, which allows the State Water Board to "modify, revoke or stay" cease and desist orders.

The primary change Cal-Am proposes is maintaining an "effective diversion limit" (or EDL) of 8,310 afa from the Carmel River from the start of WY 2015-2016 until December 21, 2021, as long as alternate water supply projects meet defined approval and construction milestones. Cal-Am proposes a milestone for each water year from 2017-2018 until the end of December 2021. If Cal-Am fails to achieve a milestone by the last day of the water year, then the effective diversion limit would be reduced by 1,000 afa for the following water year.⁴ For example, if construction on the Pure Water Monterey project fails to begin and the CPUC fails to issue a certificate of public convenience and necessity for the proposed MPWSP Desalination Project by September 30, 2018, then the proposed effective diversion limit for WY 2018-2019 would be 7,310 acre-feet. Thus, if Cal-Am fails to meet each milestone, the effective diversion limit would fall by 1,000 afa each water year from WY 2018-2019 on. The limit for WY 2021-2022 would be 4,310 acre-feet until the end of December 2021. As discussed above, WR 2009-0060 requires all unlawful diversions from the Carmel River to end by December 31, 2016. This EDL would replace the "base level" that formed the foundation for diversion limits under WR 2009-0060.

Cal-Am also proposes several changes to the manner of calculating the diversion limit, or of assessing compliance with that limit.

One significant change in determining compliance with a diversion limit is Cal-Am's proposal that it be allowed to accrue "credits" in years in which its diversions are lower than the EDL for a particular water year, starting in WY 2015-2016. Cal-Am could then apply any such "credits" to be able to pump more than the EDL in future years, without penalty. WR 2009-0060 had no such credit system. Cal-Am's proposal includes a Cap on Carryover Credits that would need to be calculated to confirm that the sum of non-ASR diversions from the Carmel River plus the amount of ASR water recovered that year cannot exceed the EDL plus 750 afa.

Another substantial calculation change that Cal-Am proposes is to amend the accounting for winter pumping under the ASR.

⁴ The deadline for measuring achievement of a milestone for the 2021-2022 water year is December 31, 2021. Because this is the end of the compliance period, failure to meet this milestone would not result in a reduction of the effective diversion limit, as the limit to Carmel River diversions after that time is the limit of Cal-Am's lawful water rights.

Under WR 2009-0060, any ASR diversions are counted towards the annual limit on Carmel River diversions: Here, Cal-Am proposes to count only the first 600 afa towards the diversion limit. Thus, as proposed, diversions to storage under the ASR program above 600 afa could occur without impacting Cal-Am's subsequent diversions from the Carmel River in a particular water year. For example, Cal-Am reported diversion of 699 afa to ASR storage in WY 2015-2016, so 99 afa would not be considered in measuring compliance with the EDL.

A third significant change to calculating the diversion limits would be the manner in which the limit is changed by the addition of lawful supplies. Under WR 2009-0060, production from new sources of water generally lowered the Carmel River diversion limit acre-foot by acre-foot. Under Cal-Am's proposed application, the EDL would be lowered for water delivered under the Pure Water Monterey water recycling project in this same manner, and the reductions for Sand City desalination project and for accounting for Pebble Beach entitlements would continue unchanged (except that the prohibition on unlawful diversions to serve Pebble Beach entitlements would be extended until December 31, 2021). However, Cal-Am proposes that fifty percent of any water Cal-Am may acquire from other willing water right holders on the Carmel River be added to the EDL, with the other fifty percent being added to instream use. Additionally, Cal-Am proposes that water rights purchased from the Malpas Water Company LLC to Cal-Am be added to the EDL. Finally, Cal-Am proposes that the EDL not apply to excess pumping that any of the petitioners establish was necessary to meet reductions required by mitigation measures imposed by the Seaside Basin watermaster or the court to address seawater intrusion within the Seaside Groundwater Basin.

Cal-Am's application also includes new reporting requirements. The first new reporting requirement is an annual report to the State Water Board regarding progress towards each milestone due 120 days prior to its deadline. In the event that the annual milestones report anticipates a delay in achieving a milestone, Cal-Am proposes that the State Water Board determine whether the delay is beyond the control of the applicants, and, if so, that the State Water Board determine whether or not to lower the EDL by 1,000 afa after a missed milestone. The second proposed reporting requirement is Cal-Am's funding of an annual report on the status of the Carmel River steelhead population that may include adaptive management recommendations.

Cal-Am's application also notes Cal-Am's substantial completion of downstream fish passage facilities at Los Padres Dam, and states that the company will endeavor to remove the Old Carmel River Dam and Sleepy Hollow Ford prior to September 30, 2017.

4.0 NOTICE AND COMMENTS RECIEVED

The State Water Board noticed Cal-Am's application on May 6, 2016. The State Water Board received 16 comments prior to June 1, 2016, the deadline for consideration of comments by staff prior to releasing a preliminary staff recommendation. Staff released a preliminary staff recommendation, along with a rationale document explaining the reasoning behind the proposed adoption of the broad framework of the extension, and for the recommended changes from certain terms in the submitted application. The document further set notice of a comment deadline of July 13, 2016 for written comments. The State Water Board received an additional

77 comments prior to the written comment deadline of July 13, 2016. All comments received were posted on the State Water Board, Division of Water Rights page for the Cal-Am CDO Change Application:

http://www.waterboards.ca.gov/waterrights/water_issues/projects/california_american_water_company/index.shtml.

5.0 ANALYSIS

5.1 Adoption of Proposed Approach to Extension of CDO

Seven years after adoption of Order 2009-0060, the State Water Board finds itself in a situation that is in some respects analogous to the situation before it at the Cal-Am CDO hearings. A project that was presented to the State Water Board as a solution to end unlawful diversions has failed to come to fruition: then, the Los Padres Dam, here the Coastal Water Project. Cal-Am's service area continues to depend on thousands of acre-feet of unlawful diversions from the Carmel River each year. Cal-Am has plans to develop a substitute supply that could resolve reliance on unlawful diversions, and proposes a CDO compliance schedule that would allow continued diversions at recent historic levels during the foreseeable timeframe for construction. The plans are supported by a number of stakeholders, but there is also substantial opposition. Permitting is incomplete and construction not yet begun.

In other ways, however, the situation is different than that in 2009. Cal-Am has complied with the compliance schedule in WR 2009-0060, including making significant reductions in diversions from the Carmel River despite the ultimate failure of the Coastal Water Project and the Regional Desalination Project. WR 2009-0060 required Cal-Am to reduce diversions from the Carmel River as much as possible and set minimum reductions. Cal-Am reduced diversions at a faster rate than the minimum required under the order. (See Table 1, p. 2.) The pumping limit Cal-Am is currently requesting is approximately 2,000 afa less than the first limit for diversions imposed under WR 2009-0060, and the actual reductions top 3,000 af of reduction in some years. These amounts constitute a reduction of approximately one third to almost half of the average annual unlawful diversions found in 2009.

Additionally, Cal-Am has undertaken or funded a number of fishery restoration actions since 2009. As required under an agreement with NMFS and CDFW, Cal-Am has funded a number of significant habitat improvement and fishery recovery projects as mitigation for unlawful diversions. Cal-Am helped fund removal of the San Clemente Dam, with benefits for not only the steelhead fishery, but also public safety. Under an agreement with NMFS, Cal-Am has contributed funding towards a series of steelhead recovery projects identified by the State Coastal Conservancy in consultation with NMFS, CDFW and Carmel River stakeholders. These include ongoing projects to facilitate fish passage by removing barriers, including removal of Old Carmel River Dam and Sleepy Hollow Ford anticipated by the end of September 2017,⁵ to restore habitat upstream of San Clemente Dam and in the Carmel Lagoon and to augment

⁵ This order adds reopener provisions if these anticipated efforts to undertake major habitat expansion efforts do not continue to develop according to the schedule set forth. That schedule would enable realization of the project benefits for almost the entire duration of the extension of the compliance schedule.

water availability for fisheries purposes in the Carmel Lagoon and during the summer. Cal-Am and other stakeholders have also constructed downstream fish passage facilities at Los Padres Dam and the company is helping fund a planning effort to address long-term disposition of Los Padres Dam. These actions are in addition to ongoing habitat restoration and steelhead rescue operations on the lower Carmel River. NMFS has commented that the habitat has improved since 2009, and that an additional four years of diversion at levels similar to recent years would be unlikely to cause jeopardy.

Further significant habitat restoration actions have also been set in motion, indicating that habitat improvement will continue over the next few years even absent an immediate cessation of Cal-Am's unlawful diversions.

Cal-Am has also funded a forbearance agreement with Rancho Cañada to add approximately 300 afa to the Carmel River for the next three years. This agreement is part of a larger effort to convert much of the property to riparian habitat, with additional potential ecological benefits. Cal-Am is also a purchaser of water from Malpas Water Company, with the funds from its water purchase helping to offset unlawful diversions, and to facilitate the transfer of the Eastwood/Odello Ranch for wetland restoration near the Carmel Lagoon.

Thus, the current situation on the Carmel River has improved in that the Cal-Am service area has meaningfully reduced its dependence on unlawful diversions, fish habitat has undergone improvement and expansion, plans are underway to undertake additional large fishery habitat improvements, robust fish rescue and habitat restoration efforts have been ongoing for years and will continue throughout the requested extension period, and additional instream flows have been secured. These factors all indicate that the impact of extending the compliance period will not be as great as the impacts found in 2009. The broad terms of the proposed revisions to the compliance plan also provide a framework that encourages success in constructing new water supplies, and that allow for planned reductions to lawful levels of diversions regardless of the success of supply projects.

Cal-Am is proposing a more diversified approach to water supply on the Monterey Peninsula than the efforts in 2009, so that the water supply does not depend so heavily on the success of any one project. In 2009, the State Water Board required Cal-Am to diligently pursue small projects, including requiring implementation of small projects that would result in at least 500 afa of additional water supply, and also required annual reductions in Carmel River diversions of between 121 and 242 afa. The central element of the effort to reduce diversions to sustainable levels, however, required construction of the Coastal Water Project. Development of a water supply project large enough to address the region's water needs has proven a challenge, given the failure of several major proposed water supply projects: the New Los Padres Dam, the Carmel River Dam and Reservoir Project, the Coastal Desalination Project, and the Regional Water Supply Project. Here, Cal-Am has proposed three potential projects to substitute for unlawful Carmel River diversions: a 6,250 to 9,752 afa desalination facility currently undergoing environmental review and permitting at the CPUC; a 3,500 afa water recycling project with completed environmental review that is currently undergoing expedited permitting review at the CPUC, with a decision expected in August 2016; and a proposed expansion of facilities to complete the ASR groundwater storage project, which is permitted to produce up to 5,326 afa,

albeit subject to water availability. Each of these projects has the potential to provide a significant amount of new lawful water supplies to the Cal-Am Service area, and to greatly reduce Cal-Am's remaining unlawful diversions of approximately 3,500-4,500 afa.

The application changes the incentive for conservation and for adopting smaller-scale projects. WR 2009-0060 required yearly reductions in diversion amounts and did not specify whether these reductions stem from conservation measures or small water supply projects. As described above, conservation and small projects have resulted in a combined reduction of approximately 2,000 to 3,000 afa of demand from the Carmel River. As these projects were the first to be implemented, they likely represent some of the lowest-hanging fruit in terms of demand reduction. Rather than imposing additional reductions, the application proposes adopting a "credit" system that incentivizes conservation and small projects. Should the larger projects fail to proceed on their expected timelines, Cal-Am can draw on these credits to offset the majority of the required reduction in diversions. Thus, Cal-Am and other stakeholders can anticipate whether the milestones will be met, and undertake efforts to build credits in anticipation of failures to meet milestones, but are otherwise not required to expend additional resources on conservation and small projects. Stakeholders can thus focus efforts on working to make implementation of the larger supply projects go more smoothly.

The Board implements the overall concept of credits in this order, but imposes more limits on the accrual and use of credits so as to avoid overwhelming other incentives and results of the extended compliance schedule. (see explanation below)

The milestones approach proposed is similarly broadly acceptable, as it accomplishes two important goals. First of all, it provides structural encouragement to timely develop lawful water supplies for the Cal-Am service area. Implementing a large municipal water supply project is a long-term decision that affects a wide range of stakeholders and involves impacts to costs of service to existing users, to the environment, and to the cost of and potential for municipal growth. The potential for sharp reductions in water availability provides an incentive to multiple stakeholders to make diligent progress, and to shift the baseline of a discussion regarding the area's water needs away from a status quo that relies on cheap unlawful diversions. If the alternative to implementation of a project is severely limited access to water there is an incentive to implement change from the status quo.⁶ It is the Board's hope that the focus on annual deadlines with large but achievable reductions of up to 1,000 afa for failure to meet them will be an effective incentive. The fact that Cal-Am did meet the more incremental annual reductions each year under WR 2009-0060 provides reason to believe that the incremental approach may be an effective inducement to alternate water supply development. Secondly, in

⁶ Numerous commenters have asserted that the milestone approach inappropriately burdens ratepayers and water users for Cal-Am's unlawful diversions, and that therefore the CDO should impose monetary fines in-lieu-of requiring diversion reductions. The remedies of issuing a CDO and imposing penalties for unlawful diversions are not mutually exclusive, however, and payment of a penalty does not authorize continuing violations. The penalty addresses past violations; the law still requires elimination of future violations. Moreover, the argument that the State Water Board should impose penalties *in-lieu-of* requiring elimination of unlawful diversions fails to recognize the connection between Cal-Am's diversions and the ratepayers – Cal-Am diverts water only for the purpose of serving it to ratepayers, whose costs have been artificially lowered and expectations of supply have been artificially raised because of diversions in excess of the available lawful supply. California law prohibits both the diversion and the use of water without a lawful right. The State Water Board's concern is not forcing one party or another to bear a burden, but is rather to encourage compliance, and both Cal-Am and its customers have a role in achieving that outcome.

the event that one or more of the proposed projects fails to move forward as envisioned, the step-wise reduction of diversions ensures a staggered approach to ending reliance on unlawful Carmel River diversions through continued conservation, efficiency and smaller supply development. This step-wise reduction approach allows for greater planning for reductions and implementation of alternative projects. As discussed below, this order does make changes to the milestones proposal to better serve the goals described above.

This more diversified approach, in combination with diversion reductions for failure to achieve milestones allows for Cal-Am to reduce its diversions to lawful levels by the end of December 2021, regardless of whether any one of the proposed projects – or any of them at all - are built. Implementation of one or more of these projects in combination with diversion limits for any failure to reach particular milestones provides sufficient assurance that the State Water Board will not again find itself in the same position of again extending the compliance deadlines in the CDO at the end of December 2021.

The proposed annual reporting on milestone progress will give the State Water Board the opportunity to track compliance. This order adopts the annual reporting requirement with minor timeline modifications that better accommodate State Water Board processes. The report gives time for a formal warning should progress towards a milestone be lacking, which will allow Cal-Am and other stakeholders to prepare for step-wise reductions through development of additional supplies, to generate additional credits, or to implement additional conservation measures. It also provides for the opportunity for the State Water Board to re-assess whether to impose EDL cuts where the anticipated failure to meet a milestone is not reasonably within the control of the Applicants.

The annual report on the state of the fishery gives the State Water Board additional assurance that an extension of the compliance period will not cause undue harm to the fishery. If the restoration measures planned are not undertaken or fail to achieve the improvements that this order relies on in part, then the report will recommend adaptive management measures.

The foreseeable consequences if State Water Board were not to extend the compliance schedule also provide reasons to extend the schedule.

Without amendment of WR 2009-0060's deadline, Cal-Am would need to cease its unlawful diversions from the Carmel River by the end of December 2016. This would mean that Cal-Am's diversions from the Carmel River would be limited to 3,376 afa, plus whatever lawful diversions are available in the diversion seasons under Permit 21330, and Permits 20808A and 20808C for the ASR project, plus any water available under transfers from other rights holders on the Carmel River. Because the Cal-Am service area continues to rely on thousands of acre-feet per year of unlawful diversions, a reduction to lawful levels would require immediate and substantial curtailment of use, and the purchase and importation of additional supplies at costs previously believed to be untenable. Since 2009, the average total reported diversions in the Carmel River basin under other confirmed or claimed rights are approximately 2,000 afa. But, there is no indication that users are willing or able to transfer that amount of water for use in the Cal-Am service area. State Water Board staff have calculated that the annual average residential per-capita usage in the Cal-Am service area from June 2014 through May 2016 was

55 to 57 gallons per person per day, based on reporting required under emergency conservation regulations. This level is in the lowest 12% of urban water users in the state. During this period, such residential use accounted for between 40 and 70% of total usage. Numerous commenters have suggested that additional measures would cause economic harm, and could potentially affect health and safety.

With respect to the claims of potential health and safety impacts, there is no established level of per capita water use required for health and safety in the U.S. or California. The State Water Board has used 50 gallons per person per day as a benchmark for drought evaluation of diversions – just slightly under the amount typically considered for indoor use. Some Coastal California communities have achieved averages of approximately 40 gallons per person per day during the ongoing drought emergency. The standards adopted by the United Nations General Assembly in 2010 to implement a basic human right to water require 50-100 liters per person per day (13-26 gallons).

The State Water Board recognizes that requiring major reductions in water use rates over a relatively short period could cause substantial adverse economic impacts, and even greater inconvenience. Rapid curtailments in water use and implementation of rationing may be necessary, however, to end unlawful diversions on the Carmel River if the area continues to fail to develop alternative supplies. Economic impacts are a consideration in establishing a schedule of compliance, but cannot justify a decision not to require compliance. This order allows for cuts to occur on a predictable schedule, should the planned projects not meet development milestones, and also sets forth a clear method to address health and safety concerns as the reductions of 1,000 afa for each milestone missed occur. The plans also allow time for and provide incentive for additional innovation in water supply planning should the processes underway fail.

To the extent that additional demand reduction and immediate supply acquisition efforts fail, Cal-Am would face significant fines. Each day of violation of a CDO accrues a potential administrative penalty of \$10,000 in certain drought years, or of \$1,000 in wetter years. (See Wat. Code, § 1845, subd. (b)(1).)

This administrative penalty is in addition to the potential administrative civil liability penalties for unlawful diversion of water under Water Code section 1052, which may be imposed for all unlawful diversions, not just those which are in excess of the levels set in the CDO. Such penalties are up to \$1,000 per day and \$2,500 per acre-foot of unlawfully diverted water in certain drought years, and up to \$500 per day in wetter years. (See Wat. Code, § 1052, subd. (c).) Thus, in wetter years, Cal-Am would face approximately \$550,000 for each year of violation of the CDO. In certain drought years, such as those the state is currently experiencing, Cal-Am could face over \$4 million per year of violation in per-diem penalties, in addition to up to \$2.5 million in penalties for every 1,000 acre-feet that the company diverts unlawfully. These penalties would be deposited in the Water Rights Fund for the state, rather than being used directly to fund a more stable water supply for the Monterey Peninsula. To the extent that Cal-Am or others dispute the imposition of fines, the process could result in additional expenditures of time and resources on issues related to the peninsula's lack of water supply, but that do not have the potential to provide a long-term solution. The CPUC would determine the

question of whether these penalties would ultimately be borne by Cal-Am as a corporation or by the area's ratepayers, or whether the burden of these penalties would be shared. (See Cal. Const., Art XII, 6; Pub. Util. Code, §§ 427, 727.5.)

The result of an immediate reduction in pumping such that Cal-Am is taking only lawful supplies by the end of December 2016 is likely to be divert time and resources from building a permanent, lawful supply, and to cause significant hardship to the residents of the Monterey Peninsula and to have broad economic impacts.

An immediate end to unlawful diversions would provide significantly more water for the fishery, and NMFS continues to have serious concerns regarding the impact of diversions on the fishery. However, NMFS supports extension of the CDO for the 6 years requested, under the conditions outlined for fishery protection, habitat restoration and rescue efforts, so long as sufficient monitoring of the fishery occurs.⁷ Environmental organizations with longstanding and immediate experience in the area similarly support the limited extension of the compliance period, as conditioned.

Amending the existing compliance schedule in WR 2009-0060 is appropriate in light of the fishery agency's support, the substantial mitigation measures that are completed, ongoing and planned for the immediate future, and the substantial hardships in immediately cutting off unlawful diversions where there is no clear alternative supply.

For the reasons discussed above, the Board will extend the CDO in a manner following the application's broad approach. This order does, however, make modifications to the application's proposal, as discussed below.

5.2 Adoption of Initial Effective Diversion Limit

Cal-Am's application proposes a starting Carmel River diversion limit of 8,310 acre-feet per annum, which is approximately 1,000 acre-feet less than the requirement of WR 2009-060 for WY 2015-16, and approximately the five-year average of pumping from WY 2009-2010 until WY 2012-2013. Staff's Preliminary Recommendation had suggested reducing this limit to 7,990, which is the most recent six-year average of diversions with adjustments to reflect modifications to ASR accounting.⁸

⁷ Some comments have proposed specific additional measures during the compliance period in order to mitigate impacts to the Carmel River fisheries. The State Water Board does not have before it sufficient information regarding the potential efficacy, need for, and cost of these measures, and is reluctant to re-balance the suite of priorities that NMFS has expressed without this information. This order provides for an annual fisheries report that includes the opportunity for recommendations for any adaptive management measures, including those suggested by commenters.

⁸ As described above, the application proposes counting only the first 600 acre-feet of ASR pumping in any water year towards the EDL.

A table comparing the various average diversion levels over the past few years is below:

Requested Limit	8,310 af
Unadjusted Averages	
WY 2009/10 to 2013/14	8,348 af
WY 2009/10 to 2014/15	8,162 af
WY 2010/11 to 2014/15	7,836 af
Averages Adjusted - New ASR Accounting	
WY 2009/10 to 2013/14	8,143 af
WY 2009/10 to 2014/15	7,990 af
WY 2010/11 to 2014/15	7,733 af

Applicants submitted a letter in response to the preliminary recommendation requesting again that the State Water Board set the EDL at 8,310.⁹ The submittal included additional information on the proposed EDL, demand levels during the historic drought, and the scheduled decreases in pumping from the Seaside Basin¹⁰ under the management plan ordered under the Seaside Groundwater Basin Adjudication, *California American Water v. City of Seaside* (Monterey County Superior Court, Case Number M66343). This information indicates that, because of a scheduled reduction in allowable pumping from the Seaside Groundwater Basin of approximately 400 afa starting in WY 2017-2018, setting the diversion limit at 7,990 afa would require improvement on conservation levels from those achieved during the historic drought. Thus, setting the EDL at 7,990 would therefore require immediate efforts to lower demand or cultivate alternate sources, rather than only requiring such efforts if milestones are missed. This would potentially undermine one of the benefits of the milestone structure – namely, allowing parties to focus on development of the primary water supply projects already underway.

The only comments submitted in support of lowering the proposed EDL were submitted by Planning and Conservation League and the Sierra Club, prior to the submittal of Cal-Am's revised application. The two environmental organizations have submitted a new joint letter explaining that they now support the EDL level of 8,310 for two primary reasons: (1) Cal-Am has entered into a forbearance agreement with Rancho Cañada which will increase flows in the river by 300 afa, reducing the fisheries impact of a slightly higher pumping level than that used over the past three years; and (2) the agreements to accelerate the Pure Water Monterey project indicate that it will provide water by 2018, resulting in an EDL after that date of 4,810.

For the reasons discussed above, this order adopts an initial EDL of 8,310, despite the fact that diversions at this level would constitute an actual increase in Carmel River diversions over those in recent years, and would likely result in Cal-Am accruing a significant number of credits prior to implementation of further restrictions on Seaside Groundwater Basin diversions.¹¹

⁹ A number of additional commenters also wrote in support of setting the diversion level at 8,310, either independently or in explicit support of the Applicants' letter.

¹⁰ Cal-Am's major alternative supply to Carmel River water is groundwater extracted from the Seaside Groundwater Basin, an adjudicated basin regulated by a watermaster. Due to a continued negative gradient for seawater intrusion, there is a ten percent reduction every three years in to the production allocations to the Basin users, including Cal-Am. According to the Watermaster Report for WY 2014-15, the watermaster has implemented another ten percent reduction. Cal-Am exceeded its allotments from the Basin in 2014-2015.

¹¹ Since the adjusted average for usage in the last six years is 7,990 afa, using an EDL for 8,310 afa is likely to result in accrual of approximately 400 afa of credits in 2015-2016 and in 2016-2017, prior to enactment of the next reductions in Seaside Groundwater Basin pumping.

5.3 Modifications to Cal-Am's Application

5.3.1 Changes to Proposed Credit Framework

As discussed above, allowing Cal-Am to generate "credits" for reducing unlawful diversions from the Carmel River below the EDL is a worthwhile tool to encourage continued efficiency and conservation measures, as well as to encourage investment by various parties in development of water supply and re-use projects. Any additional reductions in diversions are likely to assist the fishery. However, allowing too generous accrual and use of credits threatens to undermine the basic principle of having a substantial drop in diversions for failure to meet a milestone and of ensuring that the diversion limits are ratcheted down such that unlawful diversions end by December 31, 2021 regardless of whether Cal-Am meets the milestones.

Therefore, this order adopts the concept of credits, but makes a minor adjustment to the proposed method of their accrual and use.

The order sets a clear limit to the number of credits that can be used in any year to 750 acre-feet. This 750 acre-foot limit prevents the entire reduction from a missed milestone (and its associated incentive to meet deadlines) from being cancelled out by significant accrual of credits.

Cal-Am also proposes limiting the quantity of credits available for use in any one year, but using a different calculation for this limit. The application proposes limiting carryover credits once the non-ASR total production from the Carmel River plus the amount of ASR water recovered that year exceeds the sum of EDL + 750 acre-feet. Because Cal-Am's pumping from Carmel River to ASR storage typically often exceeds the amount of ASR recovered that year (due to allowable ASR carryover), the value of non-ASR water plus ASR recovery is less than the Carmel River production counted under the EDL in most years. Thus, under the calculation method in the application, Cal-Am could use credit to pump up to 1,350 acre-feet above the otherwise-applicable limit, if it had diverted 600 or more acre-feet to storage in that year and had not recovered that amount from storage. In simpler terms, there would potentially be no reduction in diversions for missing a milestone during a year when there is water banking under the ASR, which could undermine the incentives for compliance, and the step-down structure towards ending unlawful diversions by the end of December 2021.

Additionally, it is easier to understand, comply with, and enforce the order when it treats ASR water in the same manner, rather than counting it in different ways for different purposes.

5.3.2 Changes to Proposed EDL Following Late Achievement of Milestones

This order adjusts Cal-Am's proposed accounting system by modifying the requested elimination of step-wise reductions when compliance with a milestone is achieved late. Under the application, Cal-Am proposes that the 1,000 afa reduction in the EDL be eliminated in the water year following late achievement of a milestone. This proposal reduces too greatly the incentive to meet a milestone. Additionally, it does not provide meaningful incentives for stakeholders to adhere as closely as possible to proposed timelines, even in the event of a delay. The order requires that for milestones achieved within the month following the deadline, the continuing reduction shall be 250 afa. For those achieved between one and six months after the deadline, the continuing reduction shall be 500 afa. For milestones achieved between

six and nine months after the deadline, the continuing reduction shall be 750 afa. The 1,000 afa reduction to the EDL shall remain for milestones achieved more than nine months after the deadline. This structure provides meaningful incentives for adhering as closely as possible to the timelines proposed. Additionally, as discussed below in the Changes to EDL Accounting section, this order permits the accrual of credits for up to 50 percent of instream flow agreements, upon approval of the Deputy Director for the Division of Water Rights.

5.3.3 Changes to Milestones

5.3.3.1 New Milestones

This order adds two milestones to those proposed. These additions are necessary to track progress towards completion of the Pure Water Monterey recycled water project, even in the face of delays for the review of the desalination project. The first added milestone, for WY 2015-2016, is for CPUC approval of the Water Purchase Agreement for Cal-Am's purchase of water from the Pure Water Monterey Project, and of construction of the Cal-Am components of the Pure Water Monterey facilities. On April 25, 2016, Administrative Law Judge Sandoval ruled that the Pure Water Monterey portions of Cal-Am's pending request for a certificate of public convenience and necessity should be expedited. The order set an accelerated schedule for hearings and a decision on Cal-Am's ability to purchase and convey water from the recycled water project, with a decision anticipated in August 2016. The joint Applicants' letter of June 29, 2016 informed the Board that the CPUC has subsequently issued a ruling, on June 10, 2016, that includes a newly-noticed workshop and public hearing that will address the Pure Water Monterey Project. Cal-Am has filed a motion to the CPUC to confirm whether a decision is still anticipated on August 18, 2016. Absent such confirmation, Applicants have requested that the deadline for meeting this milestone be set for the end of December 2016, rather than the September 30, 2016 date proposed in the preliminary staff recommendation. This order sets December 31, 2016 as the deadline for meeting the milestone, but notes that, should there be additional delay in the decision or a denial, the entire 1,000 afa reduction in use would occur for the 2016-2017 water year, despite the extension of the deadline.

The order also adds a second milestone for start of construction of the Cal-Am portion of Pure Water Monterey Project to track progress on this Pure Water Monterey Project, for WY 2016-2017.

The Applicants have affirmed in their April 2016 application, and in their letter of June 29, 2016, that they anticipate water deliveries to begin under the Pure Water Monterey project in 2018. This timeline is significantly accelerated compared to the timeline in the initial application, and is based on the CPUC's ruling expediting proceedings for this project. In the initial application, the start of construction of the Pure Water Monterey project facilities constituted part of a WY 2017-2018 milestone. However, in the April 2016 application, this milestone was pushed back to 2018-2019 in its entirety, including the Pure Water Monterey portions. This order returns the Pure Water Monterey construction milestone to WY 2017-2018, as there is no indication that such an extension is necessary—acceleration rather than delay of the project is anticipated.

5.3.1.2 New Limit to Milestone Reductions

This order additionally limits the cuts to the EDL for missing a milestone when the diversions from the Carmel River in a particular water year are reduced to lawful levels. This addition is necessary because the Pure Water Monterey Project is anticipated to begin providing 3,500 afa to the Cal-Am service area, with water deliveries beginning in 2018. While this amount of water is insufficient on its own to eliminate the threat of unlawful diversions, implementation of the project followed by a failure to meet milestones related to the desalination project could result in the EDL falling below lawful pumping levels. Implementation of Pure Water Monterey and use of significant ASR water in the same water year could allow Cal-Am to pump lawfully at a level above the EDL if milestones are missed. However, as ASR water is not always available, the CDO would not likely be lifted under this scenario: termination of the CDO requires that Cal-Am have a permanent supply available.

5.3.1.3 Requirement to Revisit Milestones Based On Alternative Supply Projects

In a final change to the proposed milestones, this order adds the requirement that Cal-Am submit revised milestones within 60 days of CPUC approval of any water purchase agreement with Cal-Am for a major water supply project not specified in the milestones receives CPUC approval.

Two competing desalination projects at Moss Landing are currently undergoing environmental review: the People's Moss Landing Water Desalination Project and the Deep Water Desal Project. Proponents of both projects project that they could be permitted and built to begin serving water by 2019. The People's Moss Landing Water Desalination Project is a proposed 13,400 afa project that could serve the North Monterey County and Monterey Peninsula communities. The Moss Landing Harbor District is the lead agency for environmental review. The facility would use existing open ocean intakes that operate under proven technologies, and would be built on a previously-used industrial site. The use of these facilities could significantly reduce the cost of the facilities, and therefore of the water produced.

The Deep Water Desal Project is a proposed 25,000 afa project that could serve from Santa Cruz to the Monterey Peninsula, and east to Salinas. The facility would use open ocean intakes that draw deep ocean water, with the goal of lessening impacts on ocean organisms. It would be run conjunctively with a computer data center, to reduce the energy demand of each of the two facilities, as compared to separate operation. The District has identified the Deep Water Desal Project as a potential supply project for the service area, should Cal-Am's proposed desalination facility not be built.

Open ocean intakes can cause significant impacts to the ocean. The State Water Board's 2015 amendments to the Ocean Plan require that subsurface intakes be infeasible, including consideration of alternative siting and sizing of facilities, before issuance of a permit for a surface intake of ocean water. (State Water Board [Resolution No. 2015-0033](#), approved by Office of Administrative Law on January 28, 2016.) The Coastal Commission would also need to permit construction of either of these facilities, and The Public Utilities Commission would need to issue a Certificate of Public Convenience and Necessity in order for the facilities to sell water in the Cal-Am Service Area.

Additionally, the Central Coast Regional Water Quality Control Board has suggested that there is significant untapped potential in recycling water from wastewater treatment plants owned by

Cal-Am and others in the Salinas area. Discharges that are not currently recycled could be routed through the existing water recycling facilities operated by the Monterey Peninsula Regional Water Pollution Control Agency.

Cal-Am's application does not include milestones for either of these larger desalination facilities, and neither of the project proponents have submitted usable potential amendments to the existing milestones.¹² Yet, the construction of either Moss Landing facility could provide sufficient water to end unlawful diversions from the Carmel River, were its water approved for sale within the Cal-Am Service Area. Other large projects, such as the wastewater recycling augmentations mentioned above, may emerge as review of the proposed projects continues. The State Water Board's interest is in ending unlawful diversions from the Carmel River, rather than in supporting a particular facility. The specification of the MPSWP desalination and water recycling facilities in the milestones in this order are based on

Cal-Am's application and on evidence suggesting that they have made regulatory progress and are capable of ending unlawful diversions by the end of 2021. Should either of the other large desalination projects, or any other major water supply project, emerge as an alternative to all or part of the MPWSP, the State Water Board should have the opportunity to consider amendment of the proposed milestones.

5.3.1.4 Changes to EDL Accounting

The order adopts some of the new water diversion accounting methods proposed, in order to encourage full development of new water supplies. But it also amends or rejects other proposed changes that undermine the principle that new supplies must offset current unlawful diversions. It also clarifies whether or not various sources of additional supply count towards the EDL, rather than raising the EDL for specific supplies, in order to reduce confusion about what the EDL actually is.

The order adopts a new method of accounting for lawful winter diversions from the Carmel River to aquifer storage for later recovery, under the ASR. These changes encourage Cal-Am to maximize diversion during the winter months when sufficient water is available to meet bypass flows, and encourage further development of facilities to capture flows when they are available. The ASR permits authorize diversion of 5,326 afa of winter high flows, but the pumping and transportation pipeline facilities have limited the diversions to a maximum of about 1,110 af. Because the fisheries impact of diversions during periods of higher flow in winter, and under specified bypass requirements, are significantly less than the impact of the same amount of diversion in the lower-flow summer months, it makes sense to implement a strong incentive signal in the pumping limits to encourage reliance on this pumping rather than on summer diversions. Because the pumping continues to have some impact on the fishery, the first 600 afa will continue to count towards determination of the EDL. Additional pumping will not be counted in the EDL.

¹² Pure Water Monterey has suggested requiring Cal-Am to support the People's Water Supply Project, but as discussed above, the State Water Board supports a more diversified approach at this point, given the track record for large water supply projects in the area.

The application recommends that water delivered on an interim basis by the Malpas Water Company LLC to Cal-Am under State Water Board License 13868A be added to the EDL for the water year. License 13868A requires that all water diverted under the right and provided to Cal-Am for municipal purposes be for the purpose of reducing Cal-Am's unlawful diversions¹³ in 2015, that 50 afa be used to reduce unlawful diversion in 2016, and that 25 afa be so used in 2017. Because these amounts are used to offset unlawful diversions rather than increase deliveries, they should not increase the EDL. The order does add clarification, provided in State Water Board Division of [Water Rights Decision 2005-0001](#), regarding the extent to which Condition 2 of WR 2009-0060 applies to water that Cal-Am may wheel on behalf of Malpas Water Company. Namely, where Cal-Am is the purchaser of the water, Condition 2 applies. Where Malpas Water Company sells to a customer outside the current service area, however, Condition 2 does not apply. The order also establishes monthly reporting requirements to monitor implementation of this condition.

The application additionally requests that fifty percent of the water from other water supply projects and from forbearance agreements be used to increase the EDL, with the other fifty percent of the water being used for instream use. Increasing the EDL is contrary to the basic premise of the enforcement action that new water supplies must offset current unlawful diversions. However, in the event that a milestone is missed, small projects and instream flow agreements may prove to be the fastest and best way to obtain supplies and river protection in the short term. The credit system as proposed provides incentives for small water supply projects and conservation: it does not, however, provide incentives for instream flow projects, as increasing instream flows does not directly¹⁴ affect water supplies or demand. Therefore, this order adds provisions to incentivize such projects.¹⁵ This order provides that fifty percent of the flows provided through forbearance agreements or other instream water dedications may be accrued as carryover credits, provided that the Deputy Director reviews the agreements to ensure that the agreement provide increased flows in the river as envisioned.

It is worth noting that the temporary non-diversion of water, and its use instream for fisheries and instream habitat improvement purposes may be considered a reasonable and beneficial use of water in some circumstances. Consistent with state policy and water rights law, the State Water Board encourages appropriately-documented forbearance agreements to improve fisheries flows. Short-term agreements and agreements regarding riparian rights may be structured in such a manner that the subject rights are not prejudiced. The substantive standards of Water Code section 1707, and various decisions approving such instream flow dedication, provide guidance as to the appropriate manner by which to construct forbearance agreements that provide real benefits to instream flow and which do not prejudice the water holder dedicating the flow or the rights of other lawful water users.

¹³ See Division of Water Rights Decision 2005-0001, Condition 2.

¹⁴ In certain winters, increasing instream flows above the ASR points of diversion may have minor impacts on the number of days that ASR pumping can occur, by affecting whether bypass flows are achieved. However, these changes are likely to be minimal as the bypass flows are set to be triggered only when there are high flows. It is unlikely that flows would remain in the range where an instream flow dedication makes the difference in the ability to pump ASR supplies.

¹⁵ This change did not appear in the preliminary staff recommendations distributed on June 17, 2016.

The application requests that the State Water Board provide assurances regarding a particular forbearance agreement with Rancho Cañada for a significant amount of water in calendar years 2016-2019. This agreement generates funding for a planned permanent land conservation and restoration project, and for the potential permanent retirement of associated water diversions. This proceeding is not the context to make definitive findings regarding the water rights at issue in the agreement: This is neither a noticed adjudicative proceeding regarding the rights at issue, nor a rulemaking regarding instream fishery needs. However, it is worth noting that a four-year cessation of diversion cannot be the basis for forfeiture, and that the State Water Board has recently approved a water right change petition to add instream beneficial use and use for wetland protection in the vicinity.

5.3.1.5 Clarification of Increased Use Ban

The Division of Water Rights sent guidance letters to the District on April 9, 2012 and May 31, 2013 regarding the interpretation of Condition 2 of State Water Board Order 2009-0060, which limits deliveries of water for growth during the period in which the growth depends on unlawful diversions of water. These letters provided information requested by the District in 2012 and 2013, on interpretation and implementation of Condition 2. The Preliminary Staff Recommendation released June 17, 2016, recommended adding clarifying language to Condition 2 that would eliminate the potential to misinterpret the WR 2009-0060 condition with respect to comparison years. Staff's concern was that otherwise, those who undertook extraordinary conservation measures during the drought period would be in a worse position vis-à-vis changes in property use than those who conserved less.

However, the Preliminary Staff Recommendation included a typographical error that would have led to a change in the manner of calculating use. Numerous commenters expressed concern about the potential hardship that changing the ongoing method of interpreting Condition 2 would cause. Staff added additional clarification in the narrative section to describe that the comparison years do not need to include those very low levels achieved during historic drought. As this narrative addresses these concerns, staff does not propose that this order make any changes to the text of Condition 2.

5.3.1.6 Changes as to Form

Attachment 1 to the Application recommends embedding the changes proposed in the ordering section of WR 2009-0060. Because WR 2009-0060 was issued after an evidentiary hearing, and is based on the evidence presented therein, the State Water Board has determined that it is clearer to issue a separate order based on the Water Code section 1832 application.

5.3.1.7 Modifications to Reporting

This order generally adopts the reporting provisions requested in the application, but modifies the timelines to better fit State Water Board needs and to give NMFS additional authority over the selection of a contractor to prepare the fisheries report, in the event that NMFS cannot itself prepare the report.

6.0 CONCLUSION

For the reasons discussed above, the State Water Board approves, with modifications, Cal-Am's application to modify the compliance schedule in WR 2009-0060.

ORDER

NOW, THEREFORE, IT IS ORDERED THAT as of the effective date of this Order, Cal-Am shall cease and desist from the unauthorized diversion of water from the Carmel River in accordance with the following schedule and conditions.

1. This Order shall supersede the requirements in State Water Board Orders WR 2009-0060, 95-10 and any other State Water Board orders affecting Cal-Am's diversions from the Carmel River, to the extent stated herein, or to the extent that there is an irreconcilable conflict between the requirements here and those orders. All other requirements in State Water Board orders affecting Cal-Am's diversions from the Carmel River remain in effect until terminated by operation of law or action of the State Water Board.
2. Cal-Am shall diligently implement actions to terminate its unlawful diversions from the Carmel River and shall terminate all unlawful diversions from the river no later than December 31, 2021. This date supersedes the December 31, 2016 date in State Water Board Order WR 2009-0060, ordering paragraph 1.
3. At a minimum, Cal-Am shall adjust its diversions from the Carmel River in accordance with the following terms and conditions. These terms and conditions supersede the annual reductions in State Water Board Order 2009-0060, ordering paragraph 3.a.(2), after the effective date of this Order:
 - a. **Effective Diversion Limit:** The limit set forth in this Condition 3.a., as may be further reduced or increased pursuant to the terms and conditions of this Order, is referred to as the "Effective Diversion Limit."
 - i. **Immediate Reduction:** Commencing on October 1, 2015 (Water Year 2015-2016) the Effective Diversion Limit shall be 8,310 acre-feet per annum (afa). This Effective Diversion Limit shall not be exceeded through December 31, 2021 except as provided in condition 3.b.ii or 3.c. of this Order. This limit supersedes the reduction limit required under Order 2009-0060

for Water Year 2015-2016.

b. Adjustments to the Effective Diversion Limit:

i. **Pure Water Monterey Groundwater Replenishment Project Offset:** In any year that Cal-Am delivers water stored in the Seaside Groundwater Basin as part of the Pure Water Monterey Groundwater Replenishment Project to its customers for use, the Effective Diversion Limit shall be reduced by one acre foot for every acre foot of Pure Water Monterey Groundwater Replenishment Project Water so delivered. If this reduction will result in the Effective Diversion Limit for that year being lower than Cal-Am’s available lawful diversions from the Carmel River in that year, Cal-Am may apply to the Deputy Director for a limitation of this condition such that the provision will not limit lawful diversions.

ii. **Seaside Groundwater Basin Limitations:** The Board may adjust the Effective Diversion Limit if an unexpected reduction in Cal-Am’s production allocation from the Seaside Groundwater Basin, or access to water pumped makes the supply unavailable. The Applicants¹⁶ may request such relief whenever they can establish that access to water in the Seaside Groundwater Basin is limited due to unexpected mitigation measures imposed pursuant to the Seaside Basin Watermaster's Seawater Intrusion Response Plan, or by the court pursuant to the Seaside Groundwater Basin Judgment in response to a detection of seawater intrusion within the Seaside Groundwater Basin.

iii. **Carryover:** After October 1, 2015 if Cal-Am's diversions from the Carmel River during a given water year are less than the Effective Diversion Limit for that water year, Cal-Am will accumulate credit for the difference between the Effective Diversion Limit and Cal-Am's actual diversions. Additionally, Cal-Am may generate credits through instream flow agreements, as described in 3.b.xii, below. Any such credit may be carried over to offset an exceedance of the Effective Diversion Limit prior to December 31, 2021, subject to the restriction in Paragraph 3.b.iv below, and subject to the overall cap on diversions in Paragraph 3.a.i., above.

iv. **Cap on Carryover:** The amount of carryover water accumulated under Paragraph 3.b.iii that may be credited in any one water year shall not exceed 750 afa.

v. **Milestones:** For purposes of calculating a reduction to the Effective Diversion Limit, the following Milestones and Deadlines will apply:

Water Year	Milestone ¹⁷	Deadline
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¹⁶ “Applicants” refers to the joint applicants for the request to modify State Water Board Order WR 2009-0060: Cal-Am, the Monterey Peninsula Regional Water Authority, the Monterey Peninsula Water Management District, the Pebble Beach Company, and the City of Pacific Grove.

¹⁷ If at any point prior to completion of the facilities listed in these Milestones the CPUC authorizes Cal-Am to acquire more than 1,000 afa of water from an alternative source, then the following shall occur. Cal-Am shall submit to the Executive Director within 60 days a revised set of milestones taking this water supply source into account. If the proponents of the alternative project are unable to reach concurrence with Cal-Am on revised milestones to propose,

2015-2016	CPUC approval of (1) the Water Purchase Agreement for Cal-Am’s purchase of Pure Water Monterey water, and of (2) construction of the Cal-Am components of the Pure Water Monterey conveyance facilities, ¹⁸ including the Monterey Pipeline and pump station.	December 31, 2016*
2016-2017	Start of construction of the Cal-Am components of the Pure Water Monterey project, meaning commencement of physical work after issuance of required regulatory permits and authorizations to begin work.	September 30, 2017
2017-2018	Issuance of a Certificate of Public Convenience and Necessity to Construct the Monterey Peninsula Water Supply Project Desalination Plant ("MPWSP Desalination Plant") by the California Public Utilities Commission.	September 30, 2018
2018-2019	Start of construction for any of the Cal-Am Components of the MSWSP Desalination Plant ¹⁹ , meaning commencement of physical work after issuance of required regulatory permits and authorizations to begin work. ²⁰	September 30, 2019
2019-2020	(1) Drilling activity for at least one MPWSP Desalination Plant source water production well ²¹ complete; (2) foundation and structural framing complete for MPWSP Desalination Plant pretreatment seawater reverse osmosis, and administration buildings at desalination plant; (3) excavation complete for MPWSP Desalination Plant brine and backwash storage basins; and (4) 25% of MPWSP Desalination Plant transmission pipelines installed based on total length, including 100% installation of the “Monterey Pipeline and other ASR related improvements”.	September 30, 2020
2020-2021	For MPWSP Desalination Plant: (1) 50% of drilling activity complete for source water production wells based on total number of wells required; (2) mechanical systems for brine and backwash storage basins complete; (3) construction of filtered water tanks and finished water tanks complete; (4) 50% of transmission pipelines installed based on total length.	September 30, 2021

the proponents may also submit revised milestones within that time period. The Executive Director shall determine whether to bring forward a recommendation to the State Water Board regarding amendment of the milestones.

¹⁸ “Cal-Am components” of the Pure Water Monterey Project refers to the pump station and pipeline within or leading to Cal-Am’s Service Area needed to transmit water to Cal-Am’s service area.

¹⁹ For purposes of this proposal the Cal-Am Components of the MPWSP Desalination Plant include: source water production wells; desalination plant; brine disposal system; and transmission pipelines

²⁰ Such work may include, among other things, any of the following: desalination plant site grading and preparation; electric utility installation; yard piping; subsurface excavation for structural foundations; and transmission pipeline installation.

²¹ Not including construction of the MPWSP Desalination Plant Test Well completed in 2015.

2021-2022 and beyond	Substantial completion of the Cal-Am Components of the MPWSP Desalination Plant, meaning the Cal-Am Components are sufficiently complete and appropriately permitted to allow delivery of MPWSP Desalination Plant produced potable water to Cal-Am's Monterey Main system, eliminating further Cal-Am diversions of Carmel River water without valid basis of right	December 31, 2021
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* It is anticipated that this milestone will be achieved during Water Year 2015-2016. The deadline provides a three-month extension in the event that it occurs soon after the end of the water year.

vi. **Reductions to the Effective Diversion Limit Based on Missed Milestones:** The following reductions to the Effective Diversion Limit shall apply if an applicable Milestone Deadline is not met:

Water Year	Milestone Missed	Reduction in Effective Diversion Limit	Date Reduction Assessed
2016- 2017	1	1,000 AFA	Dec. 31, 2016*
2017- 2018	2	1,000 AFA	Oct. 1, 2017
2018- 2019	3	1,000 AFA	Oct. 1, 2018
2019- 2020	4	1,000 AFA	Oct. 1, 2019
2020-2021	5	1,000 AFA	Oct. 1, 2020
Oct. 1, 2021 – Dec 31, 2021	6	1,000 AFA	Oct. 1, 2021

* The entire 1,000 AFA reduction for failure to meet this milestone must occur in the 9 remaining months of WY 2016-2017.

If a Milestone is not achieved by its Deadline but is subsequently achieved, the 1,000 afa reduction to the Effective Diversion Limit shall be amended on the first day of the water year following achievement of the Milestone, as follows. For Milestones achieved within the first month following the deadline, the reduction shall be 250 afa. For Milestones achieved between one and six months after the deadline, the reduction shall be 500 afa. For Milestones achieved between six and nine months after the deadline, the reduction shall be 750 afa. The 1,000 afa reduction to the Effective Diversion Limit shall remain for milestones achieved 9 months after the deadline or later.

If the reductions required under this subparagraph will result in the Effective Diversion Limit for that year being lower than Cal-Am's available lawful diversions from the Carmel River in that year, Cal-Am may apply to the Deputy Director for Water Rights for a limitation of this section such that the provision will not limit lawful diversions.

vii. **Illustration:** The following table illustrates the effect of the reduction in the Effective

Diversion Limit over the term of this Order, and assumes no Deadlines have been met and no carryover credits have been applied under Paragraph 3.b.iii, and no additional water rights have been obtained or other adjustments made to the Effective Diversion Limit. The result is an elimination of unauthorized diversions from the Carmel River on October 31, 2020 if no Deadlines are met.

Water Year	EDL if All Milestones Missed, No Other EDL Adjustments
2015-2016	8,310 AFA
2016- 2017	7,310 AFA
2017- 2018	6,310 AFA
2018-2019	5,310 AFA
2019-2020	4,310 AFA
2020–2021	Legal limit
Thereafter	Legal limit

viii. **Joint Annual Report:** At least 120 days prior to each Milestone Deadline described in Condition 3.b.v, Cal-Am, in coordination with Applicants, shall submit a joint report to the Deputy Director for Water Rights, describing progress towards that Milestone, whether Applicants expect the Milestone to be achieved by its Deadline and, if not, whether the Milestone will be missed for reasons beyond Applicants’ control. Sufficient evidence supporting the reasons that missing a milestone is beyond the control of Applicants shall be included for any further action related to such a claim.

If requested, Cal-Am, in coordination with Applicants, shall present written and/or oral comments on the progress towards Milestones at a regularly scheduled State Water Board meeting that falls at least 60 days after submission of the report. If the report indicates that a Milestone is likely to be missed for reasons beyond Applicants’ control, the State Water Board may make a determination during that meeting or at a subsequent meeting whether the cause for delay is beyond Applicants’ control. If the State Water Board determines that the cause is beyond Applicants’ control, it may suspend any corresponding reductions under Condition 3.b.vi until such time as the Applicants can reasonably control progress towards the Milestone.

- ix. **ASR Project:** Commencing for water year 2015-2016, only the first 600 afa of the amount of any water diverted to underground storage under State Water Board Permits 20808A and 20808C as of May 31 of each water year shall be included in determining compliance with the Effective Diversion Limit: Diversions greater than 600 afa in a single water year shall not count as annual production of Carmel River water for the Effective Diversion Limit calculation. This section supersedes State Water Board Order WR 2009-0060, ordering paragraph 3.a.(3).
- x. **Sand City Desalination Plant:** Any volume of water that is produced by the Sand City Desalination Plant and not served to persons residing within the City of Sand City shall be subtracted from the Effective Diversion Limit for the water year in which it is produced.
- xi. **Pebble Beach:** Pebble Beach Company (PBC) shall continue to annually submit, on September 30, a report to the Deputy Director for Water Rights accounting for any additional water that is diverted from the Carmel River as the result of an increased use of its remaining District water entitlement. Any diversions from the river by Cal-Am to satisfy PBC remaining entitlements from District shall not be considered in calculating compliance with the Effective Diversion Limit. After December 31, 2021, Cal-Am shall not illegally divert water from the river to supply the holders of PBC entitlements. This order supersedes the last sentence of paragraph 3.a.(6) of State Water Board Order WR 2009-0060.
- xii. **Supplemental Water Rights and Acquisitions:** Provided Cal-Am is able to identify suitable and willing transacting parties, Cal-Am will acquire supplemental Carmel River water rights, and/or will pursue other Carmel River water acquisitions and water right changes in order to increase flows in the Carmel River and decrease Cal-Am's unauthorized Carmel River diversions ("Carmel River Flow Enhancement Program"). Cal-Am will implement the Carmel River Flow Enhancement Program to the extent it can negotiate agreements with water right holders. Such acquisitions or water right changes may include forbearance agreements, leases and/or purchases of water rights along the Carmel River on a temporary or permanent basis, and may include water right change approvals or permits (permanent or temporary) from the State Water Board. The acquisitions may increase the proportion of Cal-Am's diversions that are made under lawful right, or increase Carmel River instream flows during periods of lower flow on the Carmel River. Instream flow agreements made with other parties can generate carryover credits described in 3.b.iii. at 50% of the amount that the Deputy Director confirms that the agreements have increased Carmel River flows without being diverted by other downstream users. To claim the credits, Cal-Am must first submit the agreement and a monitoring and reporting plan to the Deputy Director for concurrence. After concurrence in the plan, Cal-Am shall implement the monitoring and reporting, and shall annually submit the proposed credit amount for the water year within 2 months of the end of the instream flow agreement or of the water year, whichever comes first. The amount shall become available as credit in the amount approved by the Deputy Director.

xiii. **Malpaso Water Company:** Water provided by the Malpaso Water Company LLC to Cal-Am under water right License 13868A shall not be counted towards calculation of compliance with the Effective Diversion Limit for the water year in which the water is provided to Cal-Am to the extent that Cal-Am is merely transporting the water on behalf of Malpaso Water Company to serve Malpaso Water Company's contracts with water users. To the extent such water is used by Cal-Am to serve its customers, this water will be counted towards calculation of compliance with the EDL, and shall serve to increase the portion of such diversion that are made under lawful rights. Any use of the Malpaso Water Company's diversions shall be consistent with the terms of License 13868A and Division Decision 2015-0001.

c. Either Cal-Am or the District may petition the Deputy Director for Water Rights for relief from reductions imposed under this Order. No relief shall be granted unless all of the following conditions are met: (1) Cal-Am and the District continue the moratorium on new service connections; (2) the demand for potable water by Cal-Am customers meets all applicable conservation standards and requirements; and (3) a showing is made that public health and safety will be threatened if relief is not granted. Any relief granted shall remain in effect only as long as a prohibition on new service connections remains in effect, and compliance with applicable conservation standards and requirements remains in effect. This section supersedes ordering paragraph 3.b. of State Water Board Order WR 2009-0060.

4. Status of Steelhead Fishery Report. During the extension period Cal-Am will provide funding in an amount up to \$175,000 per year for the preparation of an annual report that evaluates the status of the threatened South-Central California Coast Steelhead Distinct Population Segment ("SCCC Steelhead DPS") in the Carmel River ("Status of Steelhead Fishery Report"). If possible, the annual Status of the Steelhead Fishery Report will be prepared by the National Marine Fisheries Science ("NMFS") Southwest Fisheries Science Center ("SWFSC"). If NMFS West Coast Region finds a significant change in the status of the SCCC Steelhead DPS since the previous report (or, in the case of the first report, since the effective date of this Order), NMFS West Coast Region may provide recommendations for additional adaptive management measures to be taken with respect to the SCCC Steelhead DPS in the Carmel River. If SWFSC cannot complete the Status of the Steelhead Fishery Report for any or all years during the extension period, Cal-Am will designate another individual or entity, in consultation with the other Applicants and other stakeholders, with requisite expertise to complete the report. If NMFS objects to the choice, Cal-Am shall designate a different individual or entity. If the NMFS West Coast Region cannot review the Status of the Steelhead Fishery report in any or all years, Applicants and other stakeholders may develop an alternative system for making adaptive management recommendations. Cal-Am will deliver the report in a cost effective and efficient manner, and will work with Applicants, stakeholders, and the preparer of the Status of the Steelhead Fishery Report to share resources, and to avoid duplication of effort to lower the cost of the report to the extent practicable. The Status of the Steelhead Fishery Report and any adaptive management recommendations shall be submitted to the State Water Board by Cal-Am each year with the corresponding joint annual report.

5. Additional Conservation Measures: Cal-Am has stated that it will implement an additional \$2.5 million of projects to improve fish passage and habitat during the four years following adoption of this Order, as follows: improvements to the existing upstream fish passage ladder and trap at Los Padres Dam (\$0.2 million); installation of a fish screen at the lower outlet pipe on Los Padres Dam (\$0.8 million); a pit tagging program (\$1.0 million); and a through-reservoir survival study for Los Padres Reservoir (\$0.5 million). If the above projects are not implemented according to plans developed in coordination with the California Department of Fish and Wildlife and the National Oceanic and Atmospheric Administration, the State Water Board may revisit this Order to determine whether to make further adjustments to protect public trust resources in the Carmel River.

6. Carmel River Volitional Fish Passage: Cal-Am has substantially completed downstream fish passage facilities at Los Padres Dam. If Cal-Am fails to remove the Old Carmel River Dam and the Sleepy Hollow Ford before September 30, 2017, the State Water Board may reopen this order to determine whether to make further adjustments to improve fish passage in the Carmel River or otherwise restore public trust resources.

7. On June 1 of each year, Cal-Am shall submit an operating plan to the Deputy Director for Water Rights specifying the quantity of water it will supply from the ASR Project for its customers after May 31 of each year. This plan shall provide for use of the water between June 1 and September 30 of the water year the water was pumped from the Carmel River, unless otherwise authorized by the fishery agencies. Cal-Am shall reduce its illegal diversions from the Carmel River at the same rate ASR water is recovered from the groundwater basin. ASR diversions remain subject to State Water Board Order WR 2009-0060, ordering paragraph 3.c. This section supersedes ordering paragraph 4 of WRO 2009-0060.

8. In addition to the reporting required elsewhere in this order or required under WRO 2009-0060 ordering paragraph 6, except as specified, Cal-Am shall provide and post on its website the following information in quarterly reports:

a. Monthly summaries of the total quantity of water produced from the Carmel River, and other separate sources of water used by Cal-Am within the service area.

b. Monthly summaries of the total quantity of ASR project water diverted from the river under water right Permits 20808A and 20808C and stored in the Seaside Groundwater Basin, including the separate accounting of the amounts pumped in excess of 600 afa. The monthly reporting shall also state the quantity of ASR water recovered from aquifer storage and beneficially used, and the current balance of ASR water remaining in storage in the Seaside Groundwater basin. This paragraph supersedes WRO 2009-0060, ordering paragraph 6.(b).

c. Monthly summaries of the quantity of water being supplied by the Malpas Water Company to Cal-Am and to Malpas customers supplied using Cal-Am facilities. The reporting shall identify the amount of water used at Cal-Am's existing meter connections and within the Cal-Am service area, and the amounts used at new service connections served by Malpas Water Company. The monthly reports shall specify the quantity of water used to reduce diversions from the river during the reporting period.

- d. Monthly summaries of the quantity of water produced by the City of Pacific Grove, and the quantity of water used to reduce diversions from the river during the reporting period. Cal-Am shall not deliver water produced by the City of Pacific Grove unless such use is consistent with [Resolution 2015-0070](#), paragraph 4.
 - e. For the final quarter of each water year, the report shall include the quantification and basis of any credits earned and of any amount being carried over for future years.
 - f. An accounting of the progress towards completion of the Water Supply Project MPWSP Desalination Plant and Pure Water Monterey Project that identifies all progressive steps completed during the previous 12 months and the upcoming 12 month's anticipated progress, and discussion of potential setbacks that may be beyond the Applicant's control.
10. Each report submitted by Cal-Am shall be certified under penalty of perjury and shall include the following declaration: "I declare under penalty of perjury, under the laws of the State of California, that all statements contained in this report and any accompanying documents are true and correct, with full knowledge that all statements made in this report are subject to investigation and that any false or dishonest statement may be grounds for prosecution."
11. Cal-Am shall file quarterly reports of its diversions under Paragraph 5 (small project implementation) of State Water Board Order WR 2009-0060. This section corrects an error in State Water Board Order WR 2009-0060 ordering paragraph 7, which incorrectly identified the relevant paragraph as State Water Board Order WR 2009-0060 ordering paragraph 3.
12. The Deputy Director for Water Rights is authorized to modify the timing and the content of the reporting required by all of the provisions of this Order to more effectively carry out the intent of this Order.
13. Cal-Am shall comply with all requirements of State Water Board Order 95-10, except as provided in State Water Board Order WR 2009-0060, ordering paragraph 9, or except as inconsistent with this Order.
14. The Deputy Director for Water Rights is directed to closely monitor Cal-Am's compliance with State Water Board Order 95-10, State Water Board Order WR 2009-0060, and this Order. Appropriate action shall be taken to insure compliance with these Orders including the issuance of additional cease and desist orders under Water Code section 1831, the imposition of administrative civil liability under Water Code section 1055, and referral to the Attorney General under Water Code section 1845 for injunctive relief and for civil liability. If additional enforcement action becomes necessary, the Deputy Director is directed to consider including in such actions all Cal-Am's violations of Water Code section 1052 since the adoption of Order 95-10.

15. The conditions of this Order, State Water Board Order WR 2009-0060 and State Water Board Order 95-10 shall remain in effect until (a) Cal-Am certifies, with supporting documentation, that it has obtained a permanent supply of water that has been substituted for the water illegally diverted from the Carmel River and (b) the Deputy Director for Water Rights concurs, in writing, with the certification.

CERTIFICATION

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on July 19, 2016.

Jeanine Townsend
Clerk to the Board