

1
2
3
4
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6
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8
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14
15
16
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19
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22
23
24
25
26

**BEFORE THE STATE WATER
RESOURCES CONTROL BOARD**

In the Matter of the State Water Resources) Hearing Date: September 24, 2007
Control Board (State Water Board))
Hearing to consider Monterey Peninsula) Carmel River in Monterey County
Water Management District's (MPWMD))
Petitions to Change Permits 7130B and)
20808 (Applications 11674B and 27614))

EXHIBIT HS-6

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

**Except from Final EIR for ASR Project (pages 2-15 through 2-22)
with text changes to Chapters 5 and 8**

the City of Seaside Fire Department will be located and maintained by MPWMD between the well site and the adjacent NRMA.

The following corrections are made to page 4-21 of the draft EIR/EA in response to a comment from the California Department of Fish and Game (CDFG). The numbering of Mitigation Measure BIO-4 has also been changed to Mitigation Measure BIO-2 due to a typographical error.

Mitigation Measure BIO-42: Remove Trees and Shrubs during the Nonbreeding Season for Most Birds (September 1 To February 15)
Clearing of the site for construction of the well and associated facilities and the pipeline, and subsequent inspection, maintenance and cleaning activities will result in the removal of trees and shrubs that provide suitable nesting habitat for migratory birds. To avoid the loss of active migratory bird nests, tree and shrub removal will be conducted only during the nonbreeding season for migratory birds (generally September 1 to February 15). Removing woody vegetation during the nonbreeding season will ensure that active nests will not be destroyed by removal of trees supporting or adjacent to active nests.

Chapter 5, Aquatic Resources

Impact Analysis

Impacts and Mitigation Measures

On page 5-21 of the draft EIR/EA, Impact AR-1 has been revised and Mitigation Measure AR-1 has been added in response to verbal and written comments from NOAA Fisheries.

Impact AR-1: Reduced Flows for Adult Upstream Migration Improved Flows for Upstream Mitigation

Compared to existing No Project conditions, operation of the ASR Project would improve opportunities for upstream migration by slightly increasing the duration of attraction flows and lengthening the duration of the migration season. On average, the ~~Proposed~~ ASR Project would provide 38 days of attraction flows (the minimum flows, ranging from 75 cfs to 200 cfs depending on year type, that induce steelhead to enter the river from the ocean) and would provide at least two weeks (14 days) of attraction flows during the average dry, below-normal, and above-normal, ~~and~~ wet years; and no difference in critically-dry years (Figures 5-6 ~~and 5-7~~). ~~Although the average number of attraction days and the duration is increased by only one day, I-~~ In dry years the attraction days are increased by two days (Figure 5-6) and the duration of the migration season increases by three days (Figure 5-7). Although small, these differences are considered a significant beneficial impact because steelhead migrate over a short time period of three to six-weeks ~~long period~~ in dry years, so increases of a few days in years with naturally overwhelming constraints will increase the probability that a larger

portion of the potential run will successfully migrate and spawn in the upper river. For this reason, the overall impact on upstream migration is considered a small, but beneficial impact. Although mitigation is not required, the following mitigation would ensure that the lower Carmel River is adequately monitored.

Mitigation Measure AR-1: Conduct Annual Survey below River Mile 5.5 and Monitor River Flow in January–June Period.

Even though the project impact is beneficial and no mitigation is required, the following mitigation is proposed to ensure adequate monitoring of the lower Carmel River. At the beginning of each diversion season and following each storm with a peak flow greater than 3,000 cfs, the District shall conduct a survey of the river channel below RM 5.5 and identify five specific locations where low flows or the channel configuration could potentially block or impair upstream migration of adult steelhead.¹ During the period from December 1 through May 31 when water is being diverted from the Carmel River and injected into the Seaside Groundwater Basin, the District shall monitor flow at the Highway One Bridge, and water currents, depths, and channel configuration at each of the five sites previously identified. If evidence of impairment or blockage is found, the District shall cease diverting until flow increases or until the channel configuration is modified so as to alleviate the blockage or impairment. In the event that channel conditions improve or deteriorate for more than two seasons, the bypass flow criteria shall be reexamined and may be modified by agreement between NOAA Fisheries, California Department of Fish and Game, and the Monterey Peninsula Water Management District.

On page 5-23 of the draft EIR/EA, Mitigation Measure AR-2 has been revised by the MPWMD to better clarify the role of the MPWMD and Cal-Am in the operation of Los Padres Dam and Reservoir.

Mitigation Measure AR-2: Cooperate to Help Develop a Project to Maintain, Recover, or Increase Storage in Los Padres Reservoir and If Needed, Continue Funding Program to Rescue and Rear Isolated Juveniles

To ensure the continued benefit of the Proposed Project to the Carmel River and dependent resources during future low-flow periods, MPWMD will encourage and work with Cal-Am, CDFG, and NMFS NOAA Fisheries to investigate and develop a project to improve summer flows and the quality of releases by maintaining, recovering, or increasing surface storage capacity in the existing Los Padres Reservoir. MPWMD will provide staff expertise and data, as requested but does not control the reservoir. Cal-Am, as owner and operator of Los Padres Dam and Reservoir, is responsible for maintenance of the dam and compliance with existing regulations including water right conditions. The MPWMD will request that Cal-Am develop an updated elevation-capacity curve

¹ Potential impairment or blockage shall be monitored by measuring water depths at the shallowest points at 2-foot intervals along the crest of riffles. For the purpose of monitoring and assessing the need for channel modifications, the potential for impairment and/or blockage shall be based on the following criteria: **blockage**, if the width and depth of a continuous section is less than 5 feet wide and ≥ 0.6 feet deep; **impaired**, if the width and depth of a continuous section is five to ten feet wide and ≥ 0.6 feet deep, and **no impairment**, if the width and depth of a continuous section is ≥ 10 feet wide and ≥ 0.6 feet deep.

for Los Padres Reservoir that provides current estimates of the amount of storage capacity available at various elevations in the reservoir area.

In the meantime, MPWMD will continue operation and funding of its the program to rescue and rear juveniles steelhead that are stranded isolated downstream of the USGS Robles del Rio gaging station at Robles del Rio (RM 14.4). This program is part of the District's mitigation program that was adopted in 1990 when the MPWMD Board certified the MPWMD Water Allocation Program EIR. Without significant progress in maintaining recovering storage capacity in Los Padres Reservoir, and obtaining an alternate source of water, this the rescue program will be needed in most years, especially as Los Padres Reservoir continues to fill with sediment and the ability to maintain flow releases continues to diminish.

Chapter 8, Surface and Groundwater Hydrology and Water Quality

Seaside Groundwater Basin

Impacts and Mitigation Measures

Impact GWH-1: Changes in Seaside Basin Groundwater Storage

The following paragraphs have been added to page 8-11 of the draft EIR/EA in order to clarify the impact discussion.

As indicated earlier, increased groundwater storage in the coastal area of the SGB would result in increased outflow to the offshore portions of the aquifers in the basin. For the 45-year period of analysis, simulated subsurface outflow from the coastal area with No Project would average 410 AF per year and range from 32 AF in Water Year 1991 to 830 AF in Water Year 1958. The median or typical subsurface outflow with No Project would be approximately 420 AF per year. With the Proposed Project and elevated water levels due to increased storage, simulated subsurface outflow would average 910 AF per year and range from 90 AF in Water Year 1991 to 1,960 AF in Water Year 1984. The median or typical subsurface outflow with the Proposed Project would be approximately 850 AF per year.

As indicated in the *Project Operations* section later in this chapter, a revised version of CVSIM3 (Version 6.4) was developed to address concerns expressed by commenters on the Draft EIR/EA. For the Final EIR/EA, two revisions were incorporated into the operations model. First, the logic was revised to require that the water diverted from the Carmel River by Cal-Am during the high-flow season for injection would be supplied by wells in the reach between San Clemente Dam and RM 5.5. This revision was made to ensure that the

operations were consistent with Condition 5 of SWRCB Order 95-10 that requires Cal-Am to satisfy the water demands of its customers by extracting water from its downstream wells to the maximum extent feasible. By moving the diversion point for water for injection from the reach below RM 5.5 to the reach above RM 5.5, less water would be available for injection because the bypass flow requirements in the reach above RM 5.5 are greater than the requirements in the reach below RM 5.5. Second, the logic was revised to include more explicit rules governing how and when the injected water in the Seaside Basin would be recovered. These "recovery" rules would be similar to the bypass flow requirements recommended by NMFS that govern how and when water can be diverted from the Carmel River for injection. The recovery rules were developed in cooperation with staff from CDFG and NMFS and were designed to provide assurance that the excess water diverted from the Carmel River by Cal-Am and injected into the Seaside Basin during the high-flow period would be used by Cal-Am to meet customer demand during the low-flow period rather than pumping from Carmel River sources. The recovery rules were developed to provide an explicit accounting procedure to track the water injected, stored, and recovered over time. The revised simulation results for the Phase I ASR Project were compared with the original simulation results and did not differ significantly.

Because of the revisions described above, the injected water would be recovered and used sooner than in the original simulations. By using the injected water sooner, less water would remain in storage in the Seaside Basin and less water would move offshore as subsurface outflow. Specifically, during wet years, simulated end-of-month usable storage in the coastal area of the SGB would be between 1,230 and 2,490 AF greater with the Proposed Project. During normal years, the increases in usable storage with the Proposed Project would range from 1,200 to 1,820 AF. During dry years, simulated storage would be between 970 and 1,570 AF greater with the Proposed Project. During critically dry years, simulated usable storage would be between 400 and 1,400 AF greater with the Proposed Project. As indicated in the Draft EIR/EA, the Proposed Project would have a beneficial effect on SGB storage

Based on the reduction in storage in the Seaside Basin with the revised logic, especially during normal and wet years, the simulated subsurface outflow offshore with the Proposed Project would be reduced. These "losses" would average 660 AFY and range from 110 AF in Water Year 1991 to 1,150 AF in Water Year 1984. The median or typical subsurface outflow with the Proposed Project would be approximately 700 AFY.

Mitigation: No mitigation is required.

The following changes have been added to page 8-20 of the draft EIR/EA in order to consistently identify the phrase Proposed Project with capital letters.

Mitigation Measure GWH-2: Operate Project in Compliance with SWRCB and DHS Policies

MPWMD shall operate the Proposed Project in compliance with the SWRCB's Anti-Degradation Policy (Resolution 68-16), and applicable DHS regulations regarding drinking water quality.

Carmel River Basin

Project Operations

The following paragraphs have been added to page 8-22 of the draft EIR/EA in order to clarify the text.

Other changes to CVSIM3 included a 139-acre increase in the amount of riparian areas and a 5-acre decrease in non-wooded areas between San Clemente Dam and the Carmel River Lagoon. The net affect of these changes in riparian and non-wooded areas was a 500 acre-foot increase in annual water use by riparian vegetation between San Clemente Dam and the Carmel River Lagoon, compared to previous simulations. This change in riparian area and associated evapotranspiration was calculated by District staff (Christensen 2003) based on 2001 orthoimagery from San Clemente Dam to the Carmel River Lagoon. Previous estimates of riparian area along the Carmel River were based on 1986 aerial photographs.

As discussed above in Impact GWH-1, a revised version of CVSIM3 (Version 6.4) was developed to address concerns expressed by commenters on the Draft EIR/EA. For the Final EIR/EA, two revisions were incorporated into the operations model. First, the logic was revised to require that the water diverted from the Carmel River by Cal-Am during the high-flow season for injection would be supplied by wells in the reach between San Clemente Dam and RM 5.5. By moving the diversion point for water for injection from the reach below RM 5.5 to the reach above RM 5.5, less water would be available for injection because the bypass flow requirements in the reach above RM 5.5 are greater than the requirements in the reach below RM 5.5. Second, the logic was revised to include more explicit rules governing how and when the injected water in the Seaside Basin would be recovered. The recovery rules were developed to provide assurance that the excess water diverted from the Carmel River by Cal-Am and injected into the Seaside Basin during the high-flow period would be used by Cal-Am to meet customer demand during the low-flow period rather than pumping from Carmel River sources. With the proposed recovery rules, the amount of water that can be recovered each year is tied to the amount of water that was injected during the current year (i.e., during the preceding injection season, and if necessary, injected water in storage from previous years).

The revised logic for the recovery operations was designed to provide an explicit accounting procedure to track the amount of water injected, stored, and recovered each year. The logic in the original simulation of the Proposed Project used an implicit method to quantify the increased yield from the Seaside Basin due to the

Proposed Project. This yield was calculated as the difference between the Cal-Am's total production from the coastal area of the Seaside Basin with and without the Proposed Project. For the Final EIR/EA, the logic for the Proposed Project was revised to use a more explicit method. In the revised simulation, the amount of water diverted for injection, the amount of water injected, the amount of water recovered, and the amount of injected water in storage in the Seaside Basin were tracked on a daily basis. In this regard, Cal-Am's production of non-ASR water (i.e., naturally occurring water) from the Seaside Basin was tracked separately from Cal-Am's production of ASR water (i.e., injected water) from the Seaside Basin. The recovery rules used in the revised simulation for the Proposed Project were specified so that the results (e.g., streamflow, groundwater storage, production, and months of rationing) from the original and revised simulation runs were the same or similar.

Operating Logic

The following corrections are made to page 8-23 of the draft EIR/EA in response to a comment from the Carmel River Steelhead Association.

This operating logic was chosen to facilitate comparisons between the No Project and Proposed Project simulation results. ~~Actual operations may differ depending on future project objectives.~~ In response to future hydrologic conditions, actual operations may vary in certain periods as determined by the interagency management group (i.e., MPWMD, Cal-Am, CDFG, and NMFS). For example, more water could be extracted from the SGB in April and May and less in October and November to provide increased flows for steelhead smolt emigration in the spring and less flow for juvenile rearing in the fall. ~~Similarly, more storage in the SGB could be held in reserve for municipal use during extended dry periods.~~ The magnitude and range of Cal-Am's production from the coastal area of the SGB due to operation of the ~~proposed~~ Proposed Project is explained further in the "Project Yield" section.

Project Yield

The following paragraphs have been added to page 8-26 of the draft EIR/EA in order to clarify the text.

Lastly, it should be noted that the incremental firm yield associated with the Proposed Project is part of Cal-Am's overall yield from the MPWRS. For both simulations, i.e., No-Project and Proposed Project, overall annual production from the MPWRS to serve Cal-Am's main system was set at a maximum of 15,285 AF. Therefore, any increase in Cal-Am's ability to reliably divert from the coastal area of the SGB due to the Proposed Project would result in a corresponding decrease in Cal-Am's need to continue to divert from the Carmel River alluvial aquifer. None of the increased yield from the SGB due to the Proposed Project will be provided to new connections or intensified existing uses.

As discussed above, a revised version of CVSIM3 (Version 6.4) was developed to address concerns expressed by commenters on the Draft EIR/EA. These revisions resulted in less water being available for diversion for injection and, as a consequence, less yield for the Proposed Project. Based on the revised simulation, the increased average yield from the coastal area of the Seaside Basin due to the Proposed Project would be 916 AFY. Annual injections during this period would average 918 AFY. During the six-month recovery season, approximately 100 to 120 AF per month would be recovered from the Seaside Basin and not diverted from the Carmel River by Cal-Am.

Impacts and Mitigation Measures

Impact GWH-11: Changes in Carmel River Streamflow During High Flow Periods

The following text is added to page 8-31 of the draft EIR/EA in order to clarify the discussion.

As discussed above, Cal-Am's ability to deliver water to and transmit water from the Proposed Project site is a limiting factor. As proposed, the temporary, above-ground pipeline that would connect the Proposed Project site with Cal-Am's existing distribution system at the east end of Hilby Avenue in Seaside would be limited to 3,000 gpm or 13.3 AF per day. This limit will constrain the amount of excess water in the Carmel River Basin that could be diverted for injection and storage in the coastal area of the SGB. Specifically, the average simulated amount of excess water in the Carmel River during the high-flow season that would be diverted for injection as part of the Proposed Project is 960 AF and would range from zero AF to 2,370 AF per year. The median or typical amount of excess flow that would be diverted for injection based on available transmission capacity during the high-flow season is 1,150 AF per year. During the high-flow season, monthly diversions for injection would average between 80 and 240 AF per month. The maximum monthly diversion for injection would be approximately 410 AF.

With the revised logic for the Final EIR/EA, the average simulated amount of excess water in the Carmel River Basin during the high-flow season that would be diverted for injection as part of the Proposed Project is 918 AF and would range from 0 to 2,348 AF per year. The median or typical amount of excess flow that could be diverted from the reach between San Clemente Dam and RM 5.5 for injection based on available transmission capacity is 950 AF per year. During the high-flow season, monthly diversions for injection would average between 80 and 220 AF per month. The maximum monthly diversion for injection would be approximately 410 AF.

Figures 8-20 through 8-31 show the monthly impact of the Proposed Project on Carmel River streamflow at the Narrows, Near Carmel, and Lagoon sites for four types of water year: wet, normal, dry, and critically-dry. Each figure also includes the estimated monthly unimpaired flows for site for reference.

The following corrections are made to page 8-33 of the draft EIR/EA in order to clarify the mitigation.

Mitigation Measure GWH-4: Operate Project in Compliance With NOAA Fisheries Recommendations and to Reduce Unlawful Diversions

MPWMD shall operate the Proposed Project in accordance with all of the bypass terms recommended by NOAA Fisheries in its 2002 report, "Instream Flow Needs for Steelhead in the Carmel River, Bypass Flow Recommendations for Water Supply Projects Using Carmel River Waters." ~~In addition, Cal-Am should be required to utilize water that is available from the Seaside Basin to help reduce unlawful diversions from the Carmel River.~~ In addition, Cal-Am shall, to the maximum extent feasible, be required to utilize water that is available from the Seaside Basin due to the Proposed Project during the low-flow season from June 1 through November 30 to help reduce unlawful diversions from the Carmel River.

Chapter 10, Noise

Proposed Project

Construction Impacts

On page 10-11 of the draft EIR/EA, the text for Mitigation Measure NZ-1a is revised by the MPWMD to reflect the fact that 24-hour-per-day use of certain equipment is necessary to drill the ASR well. The text of the Mitigation Measure is changed to read as follows.

Mitigation Measure NZ-1a: Prohibit Ancillary and Unnecessary Equipment During Nighttime Well Drilling Activities.

The project applicant shall ensure that the construction contractor prohibit the use of all ancillary and unnecessary equipment (i.e., backhoe, truck, air compressor, ~~and pump, etc.~~) during nighttime hours. The only equipment that will be allowed to operate during nighttime activities would be the drilling equipment and well construction equipment; cleanup and other activities will occur only during daytime activities.

Chapter 11, Hazards and Hazardous Materials

Impacts and Mitigation Measures

The following corrections are made to page 11-9 and 11-10 of the draft EIR/EA in response to a comment from the Department of Toxic Substances Control.