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**BEFORE THE STATE WATER  
RESOURCES CONTROL BOARD**

In the Matter of the State Water Resources )      Hearing Date: July 23 -25, 2008  
Control Board (State Water Board) )  
Hearing to Determine whether to Adopt a )      Carmel River in Monterey County  
Draft Cease & Desist Order against )  
California American Water Regarding its )  
Diversion of Water from the Carmel River )  
in Monterey County under Order WR 95-10 )  
\_\_\_\_\_ )

**EXHIBIT MPWMD-DF9**  
**MONTEREY PENINSULA WATER MANAGEMENT DISTRICT**  
**TESTIMONY OF DARBY W. FUERST**



1           3.     In addition to serving as General Manager, I have also served as the Water  
2 Resources Manager and Senior Hydrologist with the Water Management District. In this first  
3 position, I have been responsible for the management of the programs, services, and staff of the  
4 Water Resources Division including surface and ground water data collection programs,  
5 development and application of computer simulations models, administration of the fishery  
6 protection activities in the Carmel River basin, development of quarterly water supply strategies and  
7 budgets for CAW's main water distribution system, and negotiation of the annual Carmel River  
8 Memorandum of Agreement (MOA) among CAW, California Department of Fish and Game  
9 (CDFG), and the Water Management District that governs reservoir releases to the lower Carmel  
10 River during the low-flow season. In this second position, I have been responsible for the  
11 development, maintenance, and application of the Water Management District's computer  
12 simulation model of the water resources of the Monterey Peninsula area. This model, the Carmel  
13 Valley Simulation Model (CVSIM), is the Water Management District's principal analytical tool for  
14 assessing the performance of the water resources system under varying physical, structural, and  
15 operational conditions. I have been involved with the development, testing, calibration, and  
16 application of CVSIM since 1985.

17  
18 **Q2.    DID YOU PROVIDE TESTIMONY DURING PHASE ONE OF THIS HEARING?**

19  
20           4.     Yes, My written testimony for Phase One was lodged in hearing as Exhibit  
21 MPWMD-DF1. I presented oral testimony during Phase One on June 19 and 20, 2008.

22  
23 **Q3.    PLEASE DESCRIBE THE WATER MANAGEMENT DISTRICT'S ROLE AS**  
24 **INTEGRATED WATER RESOURCES MANAGER.**

25           5.     In the District's enabling law, the California Legislature found that the water  
26 problems in the Monterey Peninsula area could not be solved on a piecemeal basis and created

1 the District to provide integrated management of the ground and surface water supplies in the  
2 Monterey Peninsula area. The District was given broad powers to protect the public welfare and  
3 environmental quality in the area. Specifically, the District was authorized to do any and every  
4 lawful act necessary to ensure that sufficient water is available for any present or future  
5 beneficial use or uses of lands or inhabitants within the District.

6 6. As the local integrated water resources manager, the District regularly interacts  
7 with the SWRCB, California Public Utilities Commission (CPUC), eight local jurisdictions  
8 within the District, and the Seaside Groundwater Basin Watermaster on a variety of water supply  
9 and demand issues.

10  
11 **Q4. WITH RESPECT TO THE KEY ISSUE IDENTIFIED IN THE HEARING NOTICE,**  
12 **SHOULD THE STATE WATER BOARD ADOPT THE DRAFT CDO?**

13 7. No, as indicated in my previous testimony and consistent with District  
14 Resolution No. 2008-08 which was submitted in evidence as Exhibit MPWMD-DF8A, the State  
15 Water Board should not adopt the CDO as drafted.

16  
17 **Q5. IF THE DRAFT CDO IS ADOPTED, SHOULD ANY MODIFICATIONS BE MADE**  
18 **TO THE MEASURES IN THE DRAFT ORDER? IF MODIFIED, WHAT IS THE BASIS**  
19 **FOR EACH MODIFICATION?**

20 8. Yes, as suggested in District Resolution No. 2008-08, the amounts and timetable  
21 for reductions in CAW's diversions from the Carmel River should be modified to be more  
22 realistic, achievable, and not jeopardize public health and safety in the Monterey Peninsula area.

23 9. Specifically, the proposed reduction schedule for CAW's diversions from the  
24 Carmel River should take into account the reductions that CAW will be required to make to its  
25 diversions from the Coastal Subareas of the Seaside Groundwater Basin for customers in its main  
26 system as a result of the Seaside Basin adjudication decision. This decision by the Monterey  
County Superior Court (*California American Water v. City of Seaside et al.*, Case No. M66343)

1 requires that the initial "Operating Yield" for the Coastal and Inland Subareas of the basin be  
2 decreased by ten percent every three years until the "Natural Safe Yield" of the basin is reached.  
3 These required reductions can be forestalled if the Seaside Basin Watermaster secures and adds  
4 an equivalent amount of "Non-Native" water to the basin on an annual basis or the Watermaster  
5 secures an equivalent amount of reclaimed water and contracts with one or more of the  
6 "Producers" to utilize the reclaimed water in lieu of "Native" water or the Watermaster  
7 determines that groundwater levels within the Santa Margarita and Paso Robles aquifers are at  
8 sufficient levels to ensure a positive offshore gradient to prevent seawater intrusion.

9 10. As shown in Exhibit MPWMD-DF10, CAW's share of the operating yield for  
10 the Coastal Subareas of the Seaside Groundwater Basin could be reduced by 313 acre-feet (AF)  
11 in Water Year (WY) 2009<sup>1</sup> and 417 AF in WY 2010 and WY 2011. Similar reductions could  
12 also occur in WY 2012, WY 2015, WY 2018, and WY 2021 and would be cumulative. Because  
13 of the impact of these reductions on CAW's ability to serve customers in its main system, these  
14 reductions must be considered as part of the CDO.

15 11. Exhibit MPWMD-DF10 also shows the reduction schedule for CAW's  
16 diversions from the Carmel River proposed in the CDO and the combined effect of the two  
17 reduction schedules. As shown, in WY 2009, if the CDO is adopted as drafted and the Seaside  
18 Basin reductions occur as scheduled, CAW will need to reduce its Carmel River diversions by  
19 1,693 AF and its diversions from the Coastal Subareas of the Seaside Basin by 313 AF, for a  
20 total required reduction of 2,006 AF. This total reduction equates to an approximate 14 percent  
21 reduction in CAW's currently allowed diversion limit of 14,789 AF per year (AFY)<sup>2</sup> for its main  
22

23  
24 <sup>1</sup> The reduction shown for WY 2009 is less than the reductions shown for WYs 2010 and 2011 because the  
25 reduction in WY 2009 does not begin until January 1, 2009, and only applies to the last nine months of this water  
year. The reductions for WYs 2010 and 2011 begin on October 1 and apply to all 12 months of these water years.

26 <sup>2</sup> This diversion limit applies to CAW's main system in WY 2007 and is based on a limit of 11,285 AFY from  
Carmel River sources and a limit of 3,504 AFY from sources in the Coastal Subareas of the Seaside Groundwater  
Basin.

1 system. It is unlikely that this level of additional water conservation could be achieved without  
2 affecting public health and safety.

3 12. As noted in my previous testimony, residential water users in CAW's main system  
4 are among the most frugal in California. Based on an average daily use of approximately 170  
5 gallons per connection and a census-weighted average of 2.54 residents per connection, daily  
6 residential use in the Monterey Peninsula area averages approximately 68 gallons per day. In  
7 order to comply with a 14 percent reduction in diversions, this average use would be reduced to  
8 58 gallons per capita per day (gpcpd). In WY 2015, when 6,896 AF may need to be conserved, a  
9 47 percent reduction in diversions could be required. If development of replacement water  
10 supplies is delayed beyond 2015, average residential water use could be limited to approximately  
11 32 gpcpd. This amount of use is less than the 50 gpcpd that was required in the Monterey  
12 Peninsula area during the severe 1976-1977 drought period.

13  
14 **Q6. HOW SHOULD THE REDUCTION SCHEDULE IN THE CDO BE MODIFIED?**

15 13. Because of the uncertainty in estimating further conservation savings and the  
16 availability of replacement water supplies, it is difficult to recommend a specific reduction schedule  
17 that will not jeopardize public health and safety. Instead, an adaptive management approach is  
18 recommended, consistent with the continuing jurisdiction of the SWRCB. Under this adaptive  
19 management approach, reductions in diversions would be tied to development of specific water  
20 supply alternatives. For example, in WY 2009, reductions in CAW's diversions from the Carmel  
21 River would be tied to implementation of the City of Sand City's Brackish Water Desalination  
22 Plant, operation of CAW's and MPWMD's Joint Phase 1 ASR Project, and completion of the  
23 advanced treatment component of the Carmel Area Wastewater District/Pebble Beach Community  
24 Service District (CAWD/PBCSD) Wastewater Reclamation Project.

1 **Q7. WHAT ADDITIONAL MEASURES TO PROTECT PUBLIC TRUST RESOURCES**  
2 **DURING PERIODS OF CONTINUED DIVERSIONS FROM THE CARMEL RIVER**  
3 **SHOULD BE INCLUDED IN THE CDO?**

4 14. Exhibit MPWMD-DF11 includes a list of recommended spending priorities for  
5 restoration of the steelhead resource in the Carmel River. This list, which includes nine measures,  
6 was developed by District staff based on earlier recommendations by the National Marine Fisheries  
7 Service (NMFS) and Carmel River Watershed Conservancy (CRWC). The projects shown in this  
8 list represent measures that could be undertaken to protect the public trust resources of the Carmel  
9 River during periods when continued diversions from the Carmel River are allowed in excess of  
10 CAW's recognized rights.

11 15. Special emphasis should be given to restoration projects that maintain or improve  
12 flow conditions in the Carmel River during low-flow periods, usually from June through November.  
13 Specifically, projects that enable CAW to provide greater releases from Los Padres Reservoir in the  
14 Upper Carmel River Basin or greater inflows into the Carmel River Lagoon in the Lower Carmel  
15 River Basin during low-flow periods should be encouraged.

16 **Q8. PLEASE DESCRIBE THE DISTRICT'S COMMUNITY OUTREACH EFFORTS**  
17 **REGARDING THE DRAFT CDO.**

18 16. As a result of the draft CDO against CAW being issued in January 2008 and based  
19 on concerns regarding the impact of the CDO on CAW's water users, the District Board convened  
20 its Ad-Hoc Community Advisory Committee in March 2008. The Committee was charged to  
21 discuss the potential impacts on the community that could occur if the draft CDO was adopted and  
22 recommend strategies to address these potential impacts. Exhibit MPWMD-DF12 includes the  
23 Final Report from the Community Advisory Committee to the MPWMD Board of Directors dated  
24 April 21, 2008. As noted in the report, the Committee agreed that the CDO should be modified and  
25 that the percentage reductions in CAW's diversions from the Carmel River should be revised. The  
26 Committee also found that the reduction schedule should allow time for implementation of water

1 supply solutions that are currently underway. In addition, the Committee indicated that any fines  
2 resulting from failure to comply with the CDO should not be passed on to CAW's ratepayers.  
3 Lastly, the Committee, which supported additional water conservation measures focused on  
4 reducing outdoor water use and water use by "water wasters", noted that conservation alone could  
5 not meet the requirements of the CDO and urged the District, CAW, and other local and state  
6 entities to work expeditiously towards water supply solutions for the Monterey Peninsula area.

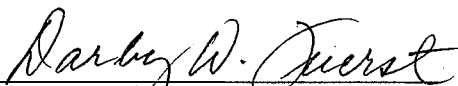
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8 **Q9. DOES THIS CONCLUDE YOUR TESTIMONY?**

9 17. Yes.

10  
11 I, Darby W. Fuerst, declare under penalty of perjury that I have read the foregoing  
12 "Testimony of Darby W. Fuerst" and know its contents. The matters stated in it are true of my  
13 knowledge except as to those matters which are stated on information and belief, and as to those  
14 matters I believe them to be true.

15  
16 Executed on July 8, 2008, at Monterey, California.

17  
18 MONTEREY PENINSULA WATER  
19 MANAGEMENT DISTRICT

20   
21 By: Darby W. Fuerst  
Interim General Manager

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