Policy Statement for the State Water Resources Control Board
Carmel River in Monterey County
Draft Cease and Desist Order against California American Water Company (Cal-Am)
April 1, 2008

By Roger W. Briggs
Executive Officer
Central Coast Regional Water Quality Control Board
March 25, 2008

My remarks are not directly from the Central Coast Regional Water Quality Control Board. However, our Board recently had a workshop and other agenda items regarding the critically low flow of the Carmel River and critical conditions in Carmel River Lagoon in dry months, and its deleterious effects on young steelhead. During dry years, the lack of fresh water to the lagoon results in low water levels in the lagoon that are dictated by the ocean level as opposed to Carmel River flows. This is a change from the historical situation prior to the over allocation of Carmel River and Carmel Valley Aquifer water resources. The subsequent increase in seawater inflow through the sand bar on Carmel River State Beach results in increased salinity and stratification within the lagoon that push steelhead smolt to the warmer fresh water lens near the surface. That lens has lower dissolved oxygen and lesser suitable food sources. Although these critical habitat conditions may eventually result in mortality, increased predation by birds is the most significant cause of mortality, as the young steelhead are forced to the surface where they become easy prey.

In addition, Carmel River flows are generally not sufficient to allow the river to flow into the ocean during late summer and early fall so that young steelhead remaining in the lagoon can reach the ocean to continue their life cycle – that is, any young steelhead that are able to survive these extremely poor summer habitat conditions. County Public Works manual breaching of the sand bar is required during some years to facilitate this ocean connection, or as flood control measures, but during critically dry years, steelhead have generally been rescued to the extent practicable and moved to rearing facilities. These rescue activities can also result in significant mortality as the steelhead can become more stressed and subject to disease.

To minimize the deleterious effects of low flow on steelhead, and to revitalize the health of the Carmel Watershed, we are in favor of maximizing conservation during the protracted and difficult process of augmenting the peninsula's water supply. The State Board already ordered Cal-Am to do just that in 1995.

The two main issues are:

1. Is Cal-Am proceeding toward problem solution as quickly and efficiently as possible? If not, the State Board should escalate enforcement.
2. Is there reasonable room for additional conservation in the meantime, while Cal-Am is in non compliance with 95-10?

We are not in a position to comment on item 1, other than to acknowledge the task of augmenting water supply is a formidable one, with physical difficulties, competing resource demands (habitat and energy), and political conflicts. To answer the question, the State Board should examine the time line and determine if Cal-Am's actions have been as fast as possible. We all know that it can take significant time – years – for an issue like this to lead to the State Board adopting a water rights order. Order 95-10 is thirteen years old, so the understanding of the problem is many years older than that, yet today, perhaps fifteen years later, there is no proposed solution. For example, Cal-Am is just now working on an EIR for the desal project in Moss Landing. We know that Cal-Am initially proceeded with a new dam project but a new dam was rejected by voters several years back. Cal-Am shifted to the desalination alternative. And we understand Cal-Am had at least one legal challenge against the pilot desalination permit issued by the CA Coastal Commission, but it has been ten years since AB1142 said Cal-Am must evaluate desal.

Three of the difficulties with desal are energy needs, entrainment of larvae with direct marine intakes systems, and brine disposal. All of these problems can be reduced by using a system similar to the Marina Coast Water District's desal system which uses beach wells and picks up a mixture of salt and fresh water. This type of intake eliminates the entrainment problem and by having a lower salt content source, reduces energy needs, and reduces the brine concentration. This concept would apply to not only beach wells, which have a limited capacity due to various coastal issues, but also applies to inland wells in seawater intruded aquifers. Cal-Am should not be looking at these source options with an either/or analysis, but should be evaluating combinations of sources to minimize direct use of seawater.

On the second point of reasonable additional conservation...one way of conserving water is to stop issuing permits for additional water usage – water use that exceeds legal and watershed availability. What is Cal-Am's record regarding new connections or allocations since 95-10? How does that rate compare with State housing mandates? (The State Board draft order says the population has increased 12%).

Regarding conservation by Cal-Am and its customers, they have achieved noteworthy conservation, with greatly reduced water use per capita. I've seen reference to Cal-Am's local water use being half the average per capita rate for California. However, Europe's average is half of the US average. Germany's per capita rate is one third of the US rate. With Cal-Am, have conservation gains been directed to reductions in pumping under 95-10, or have those gains increased water available to be sold by Cal-Am? How can conservation gains be locked in to allow for a reduction of pumping? There's still room for improvement, and the question is how much. Cal-Am could do better with low flow and conservation plumbing fixtures. They could do better with having businesses implore their customers to minimize water use. The area doesn't recycle wastewater as much as it could, although Carmel AWD is getting close to maxing out with a project underway now to recycle even more water on Pebble Beach golf courses. Also, the reductions proposed in the State Board CDO can be partially achieved by currently planned projects,

such as the Aquifer Storage and Recovery project. Here's a table comparing the State Board draft CDO with some suggested changes in the percentage reductions and with the ASR's 2426 acre feet annually (afa) included.

			RWB Suggestion	
Water Year	St Bd draft CDO % reduce	St Bd draft CDO afa	Reduction from '06 Diversion	Max Diversion, afa
05-06				10540
08-09-	15	9592	5%	10013
09-10	15	9592	10%	9486
10-11	20	9028	0-2426 afa (ASR) w/10%	9486 minus ASR diversion (down to 7060)
11-12	20	9028	15%	8959 to 6533
12-13	35	7335	20%	8432 to 6006
13-14	35	7335	25%	7905 to 5479
14-	50	5642	30%	7378 to 4952

These percentage reductions (from the '06 actual use figure of 10,540 afa) seem more reasonable for additional conservation in an area that already has very low per capita water use data. As Cal-Am is able to develop or reap the benefits of other water sources (e.g., increased recycle in Carmel or Seaside), the actual percentage reduction required by individual homeowners and businesses will be relaxed. When Cal-Am is able to benefit from the full-scale alternative water project, Cal-Am should be able to completely eliminate its water rights violation, so the above table should apply until that time, although conservation needs to remain in place.

Another way to conserve water is to use low impact development techniques to recharge Carmel and Seaside basins to minimize loss of fresh water to the ocean during wet cycles. High impact development prevents rainfall from recharging the watershed and causes unnaturally high quantities of fresh water to runoff to the ocean where that fresh water resource is lost. That water is wasted, and that is an unreasonable diversion of water from the watershed. Low impact development prevents that waste and unreasonable use. While Carmel Valley is predominantly rural, it does have its developed areas. Seaside is very urban. As stated above, use of intruded aquifers for desal source water eliminates problems with marine intakes. The lower Salinas Valley has seawater intrusion, which should be fought with LID in the entire Salinas Valley. Cal-Am should be required to

work with Monterey County and the Cities of Seaside, Gonzales, Soledad, etc., to institute LID in these areas for new development as well as any changes to existing developments (using LID as retrofit with any redevelopment). It might make sense for Cal-Am to provide financial assistance toward this work, since it is work that would provide a benefit to Cal-Am as well as the watersheds (including the Carmel watershed that Cal-Am is harming).

Additionally, we are working toward significantly increasing irrigation efficiency to the point of, for example, eliminating overdraft in the Salinas Valley. It may be difficult to fathom that LID in, for example, Soledad and improved irrigation in places like the ag land between Gonzales and King City will not only increase the health of Salinas Valley, but will also increase the health of Carmel Valley watershed and help Carmel River steelhead, but that is just what I'm proposing.

Cal-Am may have plenty of incentive to comply with 95-10, but this CDO may actually provide assistance. That is, additional state board enforcement action such as the ACL years ago, and a stringent schedule for reductions with the consequences of additional ACL or injunction for violating that schedule, may also assist Cal-Am in its negotiations with others in pursuing its means to solve the problem.