California American Water Cease & Desist Order Hearing
Exhibit 3 - Testimony of Roy Thomas and Brian LeNeve
for the Carmel River Steelhead Association

All Steelhead, including the unique and threatened Carmel River fish, have similar needs. They need surface water devoid of pollutants and rich with oxygen. Flowing water needs to be present in differing amounts at different stages of the Steelhead life cycle. They need rivers and creeks with shade, woody debris, sand, gravel, boulders, pools, riffles, and safe access up and down river to complete their life cycle. Unfortunately, Cal-Am operations and facilities on the Carmel River prevent the successful use of the Carmel River by all life stages of native Steelhead. The only section of the Carmel River undamaged by Cal-Am is above Los Padres Dam in the Ventana Wilderness. Even this more pristine environment provides little to the Carmel Steelhead because they can't safely get there and back to the ocean. The biggest, ever-present problem is the lack of safe and successful up and down stream access over Los Padres Dam. The Dam needs a large, efficiently operating fish ladder capable of passing 200 cfs (cubic feet per second) water flow. This flow could provide relatively safe passage during most conditions. Without this access, under present state board rulings the Steelhead's extinction is likely.

Presently, all the steelhead migrating in early fall from the Ventana Wilderness are killed as they pass through the badly screened outlet works. The Carmel River Steelhead Association [CRSA] has been trying to get Cal-Am to screen the diversion for years. When Los Padres is full, all migrants either go through the outlet works and die or pass over the long, steep, rough spillway to the plunge pool. The California Department of Fish & Game [DFG] has been trying for many years to get Cal-Am to modify its

spillway with a berm to help avoid abrasions and bruises that now have been shown by the Monterey Peninsula Water Management District [MPWMD] research to harm a large portion of out-migrants. The spillway has a very wide, level lip that sheets the spill during the lower spring flow. Smolt (juveniles on the way to the sea) out-migrate in the spring and are not attracted to the spillway as a way out of the reservoir. Also kelt (adults that have already spawned) find it nearly impossible to find a way over the spillway. To mitigate for this, CRSA tried for over 15 years to get a fish passage notch cut in the spillway. Finally, a few years ago Cal DFG cut a small notch, but it proved too small. A deep "V" groove was suggested to deepen the notch, but for some reason Cal-Am filled the notch to create a much smaller "V" notch. The result was the opposite of the intent to create more attraction and depth of spill. If a large fish ladder is not built, a 3-foot deep and 4-foot wide notch needs to be created to attract and allow adult and juvenile Steelhead to pass more safely.

Los Padres Dam is filling, and some say it's more than half full of sediment. It also has a large amount of rotting, sunken, organic debris. This debris breaks down, polluting the reservoir with CO^2 and Hydrogen Sulfide (H^2S), both of which are poisonous to Steelhead. In the Spring I have seen Los Padres reservoir spewing bubbles of CO^2 like champagne. In the Fall I have been sickened by the stench of Hydrogen Sulfide coming out of the outlet works. I have been told by Kevan Urquhart, who was the regional senior fisheries biologist for Cal DFG, that he tested the river level of H^2S and found it to be lethal for Steelhead close to one mile downstream of the dam. Los Padres needs to be maintained. It needs to have sediment and debris removed every year. There is a very large "Barrow Pit" just below the dam where the material could be safely

dumped. Aeration on a large scale along with water quality monitoring is essential for all reservoirs that contain aquatic life. Los Padres does not have enough of either.

Below Los Padres is a serious problem. Dams tend to trap the bed load (everything that moves down the river) that is larger than silt. Gravel, sand and cobble are necessary for insect life and spawning material for Steelhead. There is virtually no gravel or cobble below Los Padres and San Clemente Dams for miles. We have observed more than 15 Steelhead spawning on the small patch of gravel just below Rose's Bridge. In so doing, they destroyed each other's nests. Gravel is very rare below the dams, forcing Steelhead to spawn in creeks that dry up or to spawn very low in the river where it is now pumped dry most years. Bed load needs to be mined out of both reservoirs and piled near the river to be carried by high flows and thereby redistributed by the river. Piles of bed load could be shoved into the river by heavy equipment during high flows. The damage to the productivity of the river caused by the loss of bed load is one of the most serious problems for all aquatic species. Furthermore, the down-cutting caused by loss of new bed load greatly increases the risk of erosion of stream banks and loss of property down river.

The State Board in 95-10 required Cal-Am to continue the Interim Relief Plan and to do all the mitigation required in the 1990 allocation EIR, if not done by MPWMD. Unfortunately, Cal -Am has failed to maintain an environmental trigger for rationing as required in the Interim Relief Plan. The river environment and the Steelhead suffered greatly in 2007 because of this failure. The lack of the required acclimation facilities at Schulte Bridge and in the lagoon have hampered safe movement of rescued fish.

There are a number of fish passage studies that were promised in the allocation

EIR that were not done. Also the acclimation facilities in mid valley and at the lagoon were not built as required. Replacement water supply for the lagoon was not found or installed in violation of 95-10. The fish rearing facility has failed in its role as a mitigation feature for miles of dewatered river and has caused the death of 40,000 to 200,000 baby Steelhead. There has been no mitigation for the lagoon and its spectrum of fast growing young of the year Steelhead, yearling and adults that try to over summer in this initially very rich habitat. No serious water supply has been developed except for a little state park well water encouraged by CRSA and a few sporadic releases of recycled water that was stopped by technical and regulatory problems. Cal-Am did help with a programmable valve, but releases have virtually stopped. For a while, as part of their restoration plan, state parks paid to have water quality measurements. MPWMD has measured lagoon volume; it inventories some plant species and monthly O^2 and salinity, but there is no plan to act when conditions get bad and tens of thousands of Steelhead die because of lack of cool, fresh, oxygenated water.

Cal-Am dams have been blocking bed load in the lower river for over 80 years. The bed load-starved lower river has incised (down cut) dangerously deep into the alluvium. This, along with dewatering the river, greatly increases bank erosion. In response to the erosion, many property owners have installed riprap to guard their property. Riprap is destructive to in-stream habitat and, in all the riprap structures on the Carmel River, I can think of only one that made an attempt to add in-stream habitat. The loss of bed load in the lower river has reduced the spawning gravel to areas mostly downstream of Schulte Bridge. This causes many fish to spawn in Grazas Creek, or in the lower river, where in dry years such as 2007, the water is gone before the fish hatch.

The loss of beach sand for Carmel River Beach and Carmel City Beach is another adverse effect of San Clemente Dam.

Loss of large woody debris is another problem of these dams. In Los Padres Dam the wood is trapped, gets water logged and sinks, causing CO^2 and H^2S pollution. At San Clemente the wood is broken up in the reservoir or as it falls to the plunge pool. For 10 years MPWMD, contrary to their environmental purpose, cut up all large wood to short lengths to help with bank stabilization and bridge protection. Now it is against the Endangered Species Act to do this, but they and many others cut it into useless lengths, but still leave it in the river. Large wood in a natural stream helps create pools, cover and escape habitat. Carmel River has very little of this important habitat. MPWMD did install some large straight logs close to each other near the ballpark for bank stabilization and pool habitat.

Part of the Interim Relief Plan and 1991 EIR includes the rescue of stranded Steelhead. This rescue is done in the main part of the river by MPWMD staff and as a follow up in the tributaries by CRSA volunteers. Most years the rescues are successful in helping 40% - 70% of the stranded fish. The real problem is that in many years very few of the rescued fish survive the summer. Many are placed up river or in the lagoon. Both areas have limited caring capacity, and some years all are lost. The MPWMD fish rearing facility has had lots of problems with much loss of fish life for a number of reasons. Real mitigation for the loss of the flowing river has yet to be attained.

On the subject of fish rescues: the Carmel River Steelhead Association has for more than 35 years been rescuing and rearing Steelhead that have been stranded by Cal-American's trespass on the Carmel River water. We have been mostly self-financed, i.e.

bake sales, wild game BBQ donations, and dues. Cal-Am did donate an old pickup truck, but we think they should be required to help finance our volunteer efforts. Our volunteers frequently salvage almost as many fish as MPWMD employees do. Most of our members have gray hair and are not as able as they used to be to haul 5 gallon buckets of rescued fish from the river to our tank truck. The last rescue net cost was over $2,300.00. The cost for oxygen bottles and dip nets is going up. We would like to hire day laborers to help but don't have the cash. The board references us as part of the mitigation; Cal-Am should pay us the same per fish as MPWMD gets.

The 1987-1991 drought sent an ominous message to those of us who want to avoid extinction of the Carmel River Steelhead. The river went dry for close to 4 years. Virtually no adults returned to spawn, and all but a few smolts died in the dry riverbed. When faced with this deadly condition, CRSA went into action, salvaged the last 90 smolts that were trying to out-migrate, and reared them to sexual maturity over 4 years. The offspring of these rescued smolts we returned to the headwaters of the Carmel River where they live as wild fish. The results of this 4-year, 24/7 rescue project produced the highest return seen in close to 60 years over Los Padres Dam. The problem is that the drought and Cal-Am trespass pumping prevents the river from reaching the sea. There was 500 cu ft/sec measured at Rose's Bridge, which never made it past Rancho Cañada. All the rest of the coastal streams made it to the ocean, including the San Lorenzo River. The problem was then, and still is that Cal-Am is over-pumping from the underflow of the Carmel Valley. To partially mitigate for this trespass, a captive wild broodstock must be maintained on a yearly basis. CRSA is the only group that could and did react fast enough to save the Carmel fish. All the resource agencies at present are unwilling

and unable to respond. You don't know you're in an extended drought until it's too late for bureaucracy to act. Money and facilities need to be established on a yearly basis so that a random sample of 50 wild smolt each year are raised. If there turns out to be no need for the adults they can be released to the lagoon to spawn with the rest of the wild fish.

The lagoon is very important to ocean survival of smolts. In a nearby steady stream close to 90% of all returning adults spent extended time growing in the lagoon. Recycled water could be used to keep the Carmel lagoon in good condition. The problem is that recycled water contains too many minerals to legally put it directly into the lagoon. California state parks, Carmel Area Waste Water District, Big Sur Land Trust, NOAA Fisheries and CRSA are trying to create an artificial coastal wetland using the waste water district's R.O. (reverse osmosis) water. It can be used to percolate into the natural lagoon to support water volume. Another serious problem with the lagoon is the lack of a fresh water refuge. In the fall when storms start, the rain runoff does not reach the lagoon or river flow for 3 or more storms. The storm waves, however, tend to overtop the sand bar and fill the lagoon with seaweed and saltwater. The saltwater sinks and thins out the fresh water lenses to expose Steelhead to bird predation. The seaweed breaks down and has frequently made the lagoon anoxic and deadly to Steelhead. Research has shown that in other coastal lagoons the Steelhead leave the lagoons and travel up-river to avoid the dangerous conditions that occur in the fall. Cal-Am, MPWMD and state parks need to set up plumbing and operate their wells to provide cool fresh water refuges for the Steelhead in the lagoon as required by the 1990 EIR.

The A.S.R. (Aquifer Storage and Recovery) Project has some serious flaws. The

idea, if cost effective, is good. The problem is with the definition of surplus flows. The Endangered Species Act not only prohibits "TAKE" but it requires recovery. The Carmel River ASR Project uses minimum flow guidelines as a definition of surplus. Recovery of the Steelhead population may be impossible with minimum flows. The other problem of minimum flow is the table allows ASR recovery when fall and winter flows are above 40 CFS. In some years this removal of "surplus" water could delay or eliminate adult migration by preventing the lagoon from opening or if an "attraction event" didn't occur, A.S.R. could prevent upstream migration and spawning of adults.

The artificial breaching of the Carmel lagoon needs to be eliminated or greatly modified. The usual practice has destroyed fall, winter and spring habitat conditions as well as sometimes summer critical habitat. The SWRCB needs to understand these problems and respond immediately. Not only does the SWRCB have its public trust responsibilities to the Carmel River and its fish, but it also has a responsibility under the Federal Endangered Species Act. If the SWRCB takes any action that facilitates or causes "TAKE", or doesn't take actions that would result in the avoidance of "Take", the legal protections afforded these fish by state and federal law are completely illusory.

The California state water resources control board has failed in its oversight responsibility concerning the enforcement of Order 95-10 by not managing the environmental mitigation needed for this serious, long term trespass that Cal-Am has been allowed. The public trust needs better management. With decades of Cal-Am dams changing the Carmel River's shape and bed composition, and with decades of over-pumping of the Carmel River aquifer, steelhead runs that historically numbered in the tens of thousands, and in our lifetime numbered in the thousands, now number in the

hundreds. Because of the above mentioned items the Carmel River Steelhead Association requests the following remedies

1: Cal-Am must reduce its Carmel River diversion to the degree necessary to preserve the breeding, spawning, rearing, migrating, feeding, and sheltering of Central Coast Steelhead and take such actions as are necessary to eliminate the unlawful take of South California Central Coast Steelhead.

2: Each and every year the Carmel River dries up in the first 9-plus miles from the ocean. Any fish in that part of the river would die if not rescued by either MPWMD or CRSA members. This year, up to June 26, 2008, MPWMD has rescued 34,842 steelhead and the CRSA has rescued approx 15,000 steelhead. Even with efforts by CRSA and MPWMD there is no way to rescue all stranded fish, so countless steelhead still die. NMFS has estimated that over 100,000 fish could be in the lower 9-plus miles in any given year. To mitigate for the loss of habitat and loss of fish an adequate fish rearing facility must be constructed. The MPWMD facility at Sleepy Hollow is, unfortunately, terribly inadequate and inefficient. CRSA, CA Fish and Game and NOAA Fisheries have complained for years about the lack of year around water, lack of year around access, and the mortality rate of the held fish. It is probable that the MPWMD does not even have a permit to operate the facility.

A: There must be fish a rearing facility that can raise 100,000 year-of-the-young fish with an 80 percent survival rate. Those fish must be released into the river only when conditions regarding water and feed are such that the fish can survive.

B: To mitigate for decades of lost fish and to return the steelhead run to acceptable numbers, 20,000 fish must be raised to smolt size and returned to the river only when they can out migrate to the ocean without restrictions.

C: To prevent extinction, there must be a plan in place to provide a captive breeding program when the Monterey Peninsula experiences another drought. There should be at all times a randomly collected stock of 50 smolt to use for such a breeding program.

3: NOAA Fisheries has been studying steelhead in Scott Creek, a small river north of Santa Cruz. In an article published on January 8, 2008, entitled "Steelhead Growth in a Small Central California Watershed:" NOAA Fisheries states that "The majority of fish reaching typical steelhead ocean entry size (150-250mm FL: age 0.8-3.0) were estuary-lagoon reared, which indicates a disproportional contribution of this habitat type to survival of Scott Creek steelhead." In a talk that Sean A. Hayes, the author of the aforementioned paper gave to the Carmel River Steelhead Association, he stated that a lagoon was the single most important habitat for a critical phase in the life cycle of steelhead.

The Carmel River Lagoon is not functioning as that habitat or as it did for decades before the illegal Cal-Am diversions. Cal-Am must contribute to and cooperate with efforts to improve water quality and therefore steelhead habitat in the Carmel River Lagoon by:

A: Providing water from wells in the lower valley and/or through any other methods necessary to keep enough water in the lagoon during the summer and fall to

maintain a level of 5 feet N.G.V.D thereby maintaining water quality and preventing lethal levels of CO2.

B: Implement proceedings and complete CEQA documents to provide tertiary treated water for the lagoon.

C: If the tertiary treated water is required to be released into percolation ponds to seep into the lagoon, Cal-Am must provide funding to build these ponds.

D: Build a berm or other containment device to keep water in the south arm of the lagoon. This berm must be high enough to prevent the draining of the south arm and to prevent salt-water intrusion into the south arm.

E: Cal-Am must provide water flows to the lagoon in the fall to allow fish to migrate upstream when salt water overtopping becomes a problem.

4: Monterey County must breach the sand bar at the lagoon in such a way as to maintain as consistent a level of water in the lagoon as possible. If necessary, Monterey County or Cal-Am should construct a berm or retaining wall to protect houses flooded when the river is allowed to breach naturally.

5: Cal-Am must construct fish passage facilities at Los Padres Dam for adult and juvenile steelhead that meet the standards set by NMFS, in consultation with CDFG.

6: Cal-Am must improve the ladder at San Clemente Dam to meet standards set by NMFS, in consultation with CDFG, unless work on removal of San Clemente begins within three years.

7; Cal-Am must also remove the Old Carmel Dam, or construct passage facilities that meet standards set by NMFS, in consultation with CDFG, within three years.

8: Cal-Am must, within one year, develop and implement a plan to pass course sediment around Los Padres Dam and San Clemente Dam to reverse the effects of the dams on spawning and rearing habitat. Until the San Clemente Dam is removed Cal-Am must install spawning material below both Los Padres and San Clemente Dams.

9: Cal-Am must, within one year, develop and implement a plan to prevent nuisance levels of hydrogen sulfide from developing in Los Padres Reservoir or in water released from Los Padres Reservoir.

10: Cal-Am must, within one year, install and maintain fish screens on the outlet works on Los Padres Dam to prevent juvenile or adult steelhead from being entrained into the works.

11: The Los Padres Reservoir must be dredged to provide additional habitat for juvenile steelhead and to provide additional water to release for summer flows. The course dredging material could be used for spawning habitat below the dam to reverse decades of no gravel movement.

12: The SWRCB must reduce the permitted water to Cal-Am by the amount that Los Padres Dam has silted in.

13: There must be verifiable aeration and water quality monitoring in Los Padres Reservoir and the plunge pool below Los Padres Dam to maintain spring, summer and fall water quality.

14: Cal-Am must enlarge the notch in the top of the Los Padres Dam to allow out migration of steelhead.

15: No new water right applications such as Rancho Canada, Quail Lodge, or Carmel Valley ranch can be approved

16: The Carmel River must be adjudicated to state that the water in the river is fully allocated, or at what level the river would be fully allocated.

17: Cal-Am must put restrictors on the meters of customers who chronically over use rationed water.

18: The ASR project must not take water from the river before there has been an attraction event, and minimum flows of 100 cfs must be maintained.

19: Cal-Am should abandon pumps in the upper and middle river and pump only from the lower river. This would allow higher flows to be maintained to the lower river.

20: Cal-Am must use water from the Seaside aquifer and/or a de-sal plant during the summer and fall and not pump from the Carmel River at that time. At times when Cal-Am is allowed to pump from the Carmel River Cal-Am must continue to operate the de-sal plant and inject that water into the Seaside aquifer. Transfer water must be purchased from federal, state, and private interests and distributed to existing water users until a long-term replacement supply is permitted.

21: There should be a restoration fund of $3,000,000.00 per year for mitigation and restoration of the steelhead population that has been decimated over the last 60 years by Cal-Am

22: There must be a Board enforced water-rationing plan in place for drought years. The plan should be implemented when there is no surface water at Schulte Bridge.

23: Cal-Am should buy some of the water rights from Quail Lodge, Rancho Canada, and Carmel Valley Ranch until Cal-Am obtains an additional source of water. The golf courses could allow their fairways to turn brown allowing that water for domestic use.

24: Once Cal-Am obtains a secondary source of water, Cal-Am must meet customer demands from the secondary water supply during dry periods beginning when the river drops below 40 cfs in the spring and only starting after the first attraction event sufficient to breach the lagoon.

25: We have heard that State Parks will allow a demonstration grower to use the old artichoke field. Pumping water for this purpose will drastically reduce water in the lagoon negating any benefits of any of the lagoon supplemental water acts. This grower should not be allowed to use that area.

Dated: July 8, 2008

Roy Thomas and Brian LeNeve

Carmel River Steelhead Association