

CALIFORNIA DEPARTMENT OF FISH AND GAME

TESTIMONY OF MICHAEL HEALEY

I, Michael Healey, provide the following written testimony under penalty of perjury in relation to the State Water Resources Control Board's Hearing to Determine whether to Reconsider Order WR 2006-0018-DWR Denying North San Joaquin Water Conservation District's Petition for Extension of Time (Application 12842)

Q1: Please state your name and your professional qualifications.

1. I, Michael Healey, graduated from Humboldt State University with a Bachelor of Science Degree in Fisheries in 1987. After graduation, I held a variety of seasonal jobs which entailed using many different methodologies for sampling fish and also for conducting fish populations with respect to hydroelectric power plant projects that ranged from small power plants to large scale power plants and water projects, such as the Central Valley Project and State Water Project. A copy of my resume is attached as CDFG Exhibit 4.

Q2: How long have you worked for the California Department of Fish and Game (CDFG) and in what capacity?

2. I have worked for the Department of Fish and Game for over 15 years as a full time employee. For over nine years I was involved with conducting fishery research in the South Delta related to special water diversions. My current position is the District Fishery Biologist for Sacramento and San Joaquin Counties. In that position, I am tasked with multiple assignments related to fishery management within my assigned Counties. These assignments include, but are not limited to the following:

- I am the Lead Biologist for performing the annual American River Escapement Survey,
- I am the Biologist in Charge of the Rotary Screw Trap Monitoring on the American River,
- I am the DFG representative for several river groups as they relate to Water Management and Fishery Protection, including the Mokelumne River Technical Advisory Committee, American River Operations Group, and the American River Task Force. In addition, in the past, I have participated in the Calaveras River Fish Group.
- I serve as the Department representative for a number of project teams working to improve monitoring survey data for use in assessing the success of restoration activities and flow standards, evaluating progress toward recovery of listed anadromous and other fish species, and managing ocean and inland fisheries.
- I am the North Central Region's Triploid grass carp coordinator.

Q3: Is the Mokelumne River in San Joaquin County, one of your assigned counties?

3. Yes. I am generally familiar with the Mokelumne River and its resources below Camanche Reservoir. I have been the CDFG representative to the Mokelumne River Technical Advisory Committee since 2001. The Mokelumne River Technical Advisory Committee was created as a result of the 1996 Joint Settlement Agreement among CDFG, East Bay Municipal Utility District (EBMUD) and the United States Fish and Wildlife Service (JSA) and is a venue to coordinate fishery and habitat studies, river operations, monitoring programs, and research efforts to advance the knowledge and science about the Mokelumne River. In accordance with the JSA, EBMUD established a \$2,000,000 Partnership Fund in 1999 to develop joint action plans to protect the Mokelumne River Ecosystem. Currently, I am representing the CDFG on the Mokelumne River Partnership Coordinating Committee (PCC), which is another committee created pursuant to the JSA. The PCC provides operating support for the Partnership Fund program and consists of members from EBMUD, U.S. Fish and Wildlife Service, and the CDFG. The PCC makes recommendations to the Partnership Steering Committee to approve or reject funding for proposals with respect to the Mokelumne River ecosystem.

Q4: To your knowledge, what aquatic species are present in the Mokelumne River?

4. The Mokelumne River has approximately 38 aquatic species that I am aware of. Twelve species are native and twenty six species are non-native species. These species include five anadromous fish species: fall-run Chinook salmon, Central Valley steelhead, striped bass, American shad, and Pacific lamprey. (J. Merz, EBMUD, 2004). Central Valley steelhead are currently listed under the Federal Endangered Species Act as a threatened species

5. According to creel census data, the steelhead trout was the most important recreational fish in the Mokelumne River prior to the completion of Camanche Dam (DFG, 1959, The Influence of Proposed Water Projects on the Fisheries Resources of the Lower Mokelumne River; Amador, Calaveras, and San Joaquin Counties). After construction of Camanche Dam in 1963, steelhead numbers in the Mokelumne River declined precipitously (DFG Mokelumne River Fish Hatchery Annual Reports 1964-2001), reducing runs to a level of 200 or fewer fish per year (DFG 1991). More recent data suggests that the number of steelhead spawning redds ranged from zero in 1996 and 1997 to as high as 50 redds in 2002 (EBMUD, 2004), and that annual runs remain low.

6. A number of factors for over 100 years, including water use and availability, have contributed to the sparse returns of steelhead to the lower Mokelumne River. Recently, several of those factors have been identified and corrective measures taken by EBMUD and Woodbridge Irrigation District have been invested in

efforts to enhance the availability and quality of habitat for salmon and steelhead spawning and rearing within the river. For example, in 1994 EBMUD installed a Super Oxygenation cone in Camanche Reservoir in an effort to increase dissolved oxygen levels below Camanche Dam and prevent further fish kills in the Lower Mokelumne River. In 2006 Woodbridge Irrigation District completed construction of a new and improved Woodbridge Irrigation Dam and its associated fish ladders to improve flow control at the dam to manage more effectively the JSA flow releases and provide attraction and passage for upstream migration. In addition, Woodbridge Irrigation District has placed a bypass pipe for fish diverted at their fish screen and subsequently released into the lower Mokelumne River downstream of the dam. I am informed and believe that Woodbridge Irrigation District is currently in the process of constructing a new fish screen at their diversion.

7. Because steelhead have been so heavily impacted by the construction of Camanche Dam, and by the allocation and availability of water downstream from the dam, the process of reestablishing a viable population in the Mokelumne River remains challenging. This process could be significantly enhanced through the screening of intake facilities along the river and by increasing river flows, especially during warm weather months when temperatures are highest.

Q5: Have you read Order WR 2006-0018-DWR?

8. Yes.

Q6: Do you have a recommendation regarding a modification to Order WR 2006-0018-DWR?

9. Yes. As I understand it, Permit 10477 will, with this Order, create a new point of diversion for the permittee. Ordering paragraph 7 of Order WR-2006-0018-DWR includes language that will require the permittee to install devices to measure the quantities of water placed into underground storage. Ordering paragraph 7 needs to be revised to require the permittee to install measuring devices that will measure not only the quantities of water placed into underground storage but also devices that would measure the rate of direct diversion and the amount of diversion at this new point.

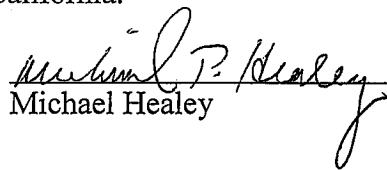
10. In addition, Order WR-2006-0018-DWR should be changed to amend Permit 10477 to require the permittee to install measuring devices at all its diversions to ensure the diversion limits in the permit are being met. In addition, a measuring device at each authorized diversion should help determine if the permittee is complying with any applicable fish bypass requirements that may be included in the permit.

11. Paragraph 10 of Amended Permit 10477 has a statement that the permittee may be required to implement a water conservation plan, one element of which

may be efficient water measuring devices to assure compliance with the quantity limitations of the permit and to determine accurately water use as against reasonable water requirements for the authorized project. This does not seem to be a mandatory requirement. I recommend that Order WR 2006-0018-DWR be amended to include a permit term that amends Permit 10477 and clearly requires the permittee to install devices, satisfactory to the State Water Resources Control Board, capable of measuring the direct diversion amount and rate at each diversion and any bypass flows that may be required by the permit.

I, Michael Healey, declare under penalty of perjury under the laws of the State of California that I have read the foregoing "Testimony of Michael Healey" and know its contents. The matters stated in are true of my own knowledge except as to those matters which are stated based on information and belief, and as to those matters, I believe them to be true.

Executed on May 30 2007 at Sacramento, California.


Michael Healey