

Before the State Water Resources Control Board  
Hearing Dates: October 26, 27, and 28, 2009

In the Matter of State Board's Consideration to Remove the Kern River from the Fully Appropriated Streams (FAS) List	Policy Statement of the California Department of Fish and Game
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The California Department of Fish and Game (Department) supports the fully appropriated status of the Kern River<sup>1</sup> and offers this statement of policy as rationale for why the designation should remain.

Pursuant to Fish and Game Code Section 1802, the Department is responsible for the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary to sustain their populations. Fish and certain wildlife are reliant upon aquatic ecosystems, which in turn are reliant upon adequate flows of water. The Department, therefore, has a material interest in assuring that adequate water flows within those streams for the protection, maintenance, and proper stewardship of these resources.

#### **Kern River**

This policy statement focuses on the lower Kern River below the Kern Canyon Hydroelectric Project<sup>2</sup>, where the most substantial water diversions occur, beginning approximately 17 miles northeast of the City of Bakersfield at the mouth of the Kern Canyon. The Rio Bravo Hydroelectric Project is situated immediately downstream of the Kern Canyon Project. The river mainstem supports a community of Great Valley Cottonwood Riparian Forest<sup>3</sup>, dominated by Fremont cottonwood (*Populus fremontii*) and Goodding's black willow (*Salix gooddingii*), with a typical association of Oregon ash (*Fraxinus latifolia*), and boxelder (*Acer negundo*). As the river flows from Kern Canyon, through the City of Bakersfield and towards the west side of the valley, the channel navigates through several substantial water diversions, and instream flows are greatly reduced or non-existent during most times of the year. Consequently, the riparian community progressively becomes more dominated by sparsely distributed mature vegetation, and there is little recruitment of new riparian vegetation.

After flowing westerly through the city, the river branches off into several distributary canals and sloughs, including Buena Vista Slough to the south and Goose Lake Slough to the north, while the river mainstem continues west, eventually flowing in a northwesterly direction and terminating in a series of canals south of the Tulare Lakebed. A review of the Department's California Natural Diversity Data Base (CNDDDB) revealed the following threatened or endangered species are typically associated with aquatic, riparian, and wetland habitats occurring

<sup>1</sup> Kern River from Buena Vista Sink upstream including all tributaries where hydraulic continuity exists.

<sup>2</sup> Pacific Gas and Electric Company, Kern Canyon Hydroelectric Project, located at the mouth of the Kern River Canyon.

<sup>3</sup> Description taken from: Holland, R.F., 1986. Preliminary descriptions of the terrestrial natural communities of California. State of California, The Resources Agency, Nongame Heritage Program, Dept. Fish & Game, Sacramento, Calif. 156 pp.

along the lower Kern River: Swainson's hawk (*Buteo swainsoni*); western snowy plover (*Charadrius alexandrinus nivosus*); Buena Vista Lake shrew (*Sorex ornatus relictus*); giant garter snake (*Thamnophis gigas*); and valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*). Species of Special Concern associated with the lower Kern River include: western pond turtle (*Actinemys marmorata*), western spadefoot toad (*Spea hammondi*); fulvous whistling-duck (*Dendrocygna bicolor*); and tricolored blackbird (*Agelaius tricolor*). Other fish and wildlife not afforded special protection status also occur along the lower Kern River and its associated riparian and wetland habitats. More than 25 species of waterfowl, and more than 70 species of shorebirds, birds of prey, passerines (perching birds), and nonpasserines have been observed using habitats associated with the lower Kern River.

There are a number of protected lands in this region, which rely to varying extent on Kern River water, including the Buena Vista Lake Wildlife Area; Coles Levee Ecosystem Preserve; Lokern, Buttonwillow and Semitropic Ecological Reserves (ER); and the Kern National Wildlife Refuge (NWR). The Semitropic ER and Kern NWR are in close proximity to several privately owned duck clubs that manage ponds and wetland habitat for waterfowl conservation. Numerous local, State and Federal agencies, and non-governmental conservation organizations, (e.g., City of Bakersfield, Department of Fish and Game, United States Fish and Wildlife Service, Tulare Basin Wildlife Partners, Ducks Unlimited, etc.) have plans in place to preserve or enhance the beneficial uses in the lower Kern River and Tulare Lake basins. Their efforts are intended to maintain or improve recreational opportunities, including fishing and hunting, and habitat conservation for fish and wildlife.

The Department's Strategic Plan identifies as a priority, managing wildlife from a broad habitat perspective. This requires protecting large ecosystems to ensure the future existence of viable habitats for a variety of species. A main goal implementing that theme is to ensure there is adequate water available (quality and quantity) for fish and wildlife. California Fish and Game Code Section 711.7 states that fish and wildlife resources are held in trust for the people of the state by and through the Department. As Trustee Agency over the State's public trust resources, the Department recommends Kern River instream flows not be diminished, but rather preserved or enhanced to support aquatic, riparian, and wetland ecosystem functions, and the values provided to the public.

#### Aquatic Habitat

The lower Kern River and its distributary sloughs (e.g., Buena Vista Slough and Goose Lake Slough) support aquatic, riparian and wetland habitats. Aquatic habitat, which includes both lentic (i.e., streams, sloughs, and canals), and lotic (i.e., ponds) environments with associated wetland fringe, typically provide the following ecosystem functions: a medium within which aquatic life is able to survive, grow, and reproduce; growth medium for attached fungi and bacteria (periphyton) that serve as a food source for aquatic insects and crustaceans, which in turn are prey items for fish and amphibians; production of dissolved oxygen and consumption of carbon dioxide, which benefits aquatic animals; and foraging habitat for wildlife such as raccoons, shorebirds, as well as adult fish and amphibians.

Riparian<sup>4</sup> Habitat

Riparian zones, which occur along portions of the lower Kern River and its distributary sloughs, are valued for their ecosystem processes which provide such functions as: protecting water quality by filtering pollutants in runoff discharging into surface waters; stabilizing stream banks to prevent erosion and the resulting sedimentation/siltation of the aquatic environment; dissipating flow energy during flood conditions thereby spreading the volume of surface water, reducing peak flows downstream, and increasing the duration of instream base (i.e., low) flows by slowly releasing stored water into the channel through subsurface flow. Riparian corridors also serve as migration routes and connectors between habitats for wildlife with large territories and broad home ranges, or for those that require stopover points on long-distance migrations such as migratory birds, shorebirds, and waterfowl.

Wetland Habitat

A variety of types of permanent and seasonal wetlands occur along and adjacent to the lower Kern River and its distributary canals and sloughs. The lower Kern River and Tulare Lake Basin provide a variety of wetland types including alkaline wetlands, seasonal and permanent freshwater marsh, and pond margins. Wetlands generally perform such functions as: providing habitat for rare, threatened and endangered species, wintering and migratory waterfowl; serving as migration routes and connectors between habitats for those that require stopover points on long-distance migrations such as migratory birds, shorebirds and waterfowl; and sequestering pollutants and/or transforming nutrients thereby improving water quality.

The Department's Mission is to manage the State's diverse fish and wildlife, and the habitats upon which they depend, for their ecological values and for their use and enjoyment by the public. Concerning water availability for fish and wildlife, the California Water Code (CWC) Section 1243 states in part:

"The use of water for preservation and enhancement of fish and wildlife resources is a beneficial use of water. In determining the amount of water available for appropriation for other beneficial uses, the board shall take into account, whenever it is in the public interest, the amounts of water required for recreation and the preservation and enhancement of fish and wildlife resources... for protection of beneficial uses, including any uses specified to be protected in any relevant water quality control plan..."

The Water Quality Control Plan for the Tulare Lake Basin designates for the lower Kern River the following beneficial uses: recreation including fishing; preservation or enhancement of aquatic, terrestrial, and wetland habitats and associated vegetation, fish, and wildlife; preservation or enhancement of water and food sources for wildlife; and habitat for rare, threatened or endangered species. For the preservation or enhancement of fish and wildlife resources, Kern River water should only be available for appropriation after these beneficial uses are supported. Only after public trust resources are preserved or enhanced and beneficial uses protected may water be available for appropriation.

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<sup>4</sup> Riparian is defined here as the vegetated buffer between terrestrial and aquatic ecosystems, consisting of plants adapted to survive varying stages of periodic inundation and perform ecosystem processes of value to terrestrial, aquatic, and semi-aquatic life.

### **Upper Kern River**

Beneficial uses of the Kern River, above the Kern Canyon Hydroelectric Project, are the same as the lower Kern River but also include: recreation including rafting and kayaking; cold freshwater habitat; fish spawning, reproduction, and/or early development; and freshwater replenishment. Above Lake Isabella, along the South Fork Kern River, occur the Department's Canebrake Ecological Reserve and the Audubon Society's Kern River Preserve. These protected areas provide some of the most valuable riparian habitat for birds in the country. Bird species afforded special protection status have been observed using riparian habitat along this corridor including Species of Special Concern tricolored blackbird (*Agelaius tricolor*) and summer tanager (*Piranga rubra*), as well as endangered yellow-billed cuckoo (*Coccyzus americanus*) and southwestern willow flycatcher (*Epidonax traillii extimus*). The southwestern willow flycatcher nests only in dense riparian vegetation, and its decline is primarily due to modification and loss of this habitat. The South Fork Kern River is currently the western-most extension of this breeding range with several breeding pairs observed at the Kern River Preserve.

Many other special status species of fish and wildlife depend to some extent on the upper Kern River and its tributaries including the southwestern pond turtle (*Clemmys marmorata pallida*), foothill yellow-legged frog (*Rana boylei*), and native California golden trout (*Onchoryncus mykiss aquabonita*) and Kern River rainbow trout (*Onchoryncus mykiss gilberti*). Today, these native trout species have in many areas been replaced by introduced brown (*Salmo trutta*) and rainbow trout (*Onchoryncus mykiss*). Other native fishes occurring in the upper Kern River include hardhead (*Mylopharodon conocephalus*), Sacramento sucker (*Catostomus occidentalis*), and Sacramento pikeminnow (*Ptychocheilus grandis*). It is equally important for the State Board to ensure the upper Kern River maintains its fully appropriated status for the protection of the fish and wildlife beneficial uses, as well as recreational uses by the public.

CWC Section 1255 provides that the board shall reject an application when in its judgment the proposed appropriation would not best conserve the public interest. The Department urges this Board to reject the applications that have points of diversion within the Kern River. As discussed above, the lower Kern River is home to many public trust resources, some of which are designated as threatened or endangered under the State or Federal Endangered Species Act. The ecosystem is in a degraded state and more water, not less, is needed in the lower Kern River. If the Board does not reject these applications outright, then the Department urges you to consider CWC mandate that every application contain sufficient information to demonstrate a reasonable likelihood that water is available for the proposed appropriation (CWC Section 1260(k)). The Department believes any such credible study and analysis would instead demonstrate the need for provision of additional instream flows to preserve or enhance the degraded aquatic, riparian, and wetland habitats associated with the lower Kern River. In fact, a credible study and analysis would most likely demonstrate the lower Kern River is over-appropriated, since existing flows appear insufficient to support instream beneficial uses, including riparian habitat.

The Department also believes that accepting these applications, in violation of the current FAS status for the Kern River and ending the fully appropriated status of the Kern River and the associated protection of its related ecosystem, would be contrary to the Board's obligation to reject an application that would not best conserve the public interest and adequately take into account that amount of water necessary to protect public trust resources.

### Summary

The Department supports the FAS status of the Kern River and believes these applications should be rejected as the proposed appropriations would not best conserve the public interest. The lower Kern River aquatic, riparian, and wetland habitats in their present state represent approximately 5 percent of the historical areal coverage, and provide only a fraction of the ecosystem functions and values (e.g., beneficial uses) of that which occurred prior to the historical alteration of natural waterways into artificially maintained water conveyances. This Board has approved plenty of diversions from the Kern River in the past and then had the forethought to recognize that the river had no more water to give from the mainstem of the river. This Board placed this area on its Fully Appropriated Stream List. This determination that the river is fully appropriated should stand. The species discussed above are still in peril and arguably need more water, not less, dedicated to the river. Ending the Fully Appropriated Stream status and allowing these applications to go forward would be heading in the wrong direction.

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