June 3, 2020

Craig Altare
Chief, Groundwater Sustainability Plan Review Section
California Department of Water Resources
901 P Street, Room 213
Sacramento CA 95814
Submitted via SGMA Portal

Re: Comments on the Semitropic Water Storage District Groundwater Sustainability Agency Management Area Plan of the Kern Groundwater Authority Groundwater Sustainability Plan

Dear Mr. Altare:

California Waterfowl Association is commenting on the Semitropic Water Storage District Groundwater Sustainability Agency (Semitropic GSA) Management Area Plan of the Kern Groundwater Authority Groundwater Sustainability Plan (GSP) for the Semitropic Water Storage District (Semitropic WSD) GSA, prepared pursuant to the Sustainable Groundwater Management Act (SGMA) and submitted to the California Department of Water Resources (DWR) on January 30, 2020, and posted by DWR on February 19, 2020.

The California Waterfowl Association is a statewide nonprofit organization whose mission is to grow California's waterfowl populations, wetlands and hunter-conservationist communities. California Waterfowl believes hunters have been the most important force in conserving waterfowl and wetlands. California Waterfowl biologists are leading experts on designing, operating, and maintaining managed wetlands throughout California, including the Tulare Lake Basin.

California Waterfowl associates with and supports the Tulare Basin Wetlands Association, which represents private duck clubs with the Semitropic Groundwater Sustainability Management Area. California Waterfowl is also a member of the Central Valley Joint Venture, a coalition of 19 public agencies and private conservation organizations. California Waterfowl associates with Audubon California and incorporates its letter of comments on the Semitropic GSP into these comments by this reference.

California Waterfowl owns two managed wetlands properties in the Goose Lake area near Lost Hills, the Houchin Unit and the Badger Almond Unit. The properties comprise a total of approximately 2,200 acres. More than 400 acres are in the Semitropic service area, but Semitropic does not serve the acreage with water. California Waterfowl pays an annual charge to Semitropic for the undeveloped land within Semitropic's service area. The remaining property is within the Buena Vista Water Storage District.

Within California's Central Valley, only five percent of historic wetlands still exist. Most remaining wetlands are managed to provide optimum habitat value to waterfowl migrating on the Pacific Flyway. Once numbering in the

tens of millions of birds, these waterfowl still number around six million. Hundreds of thousands of shorebirds and other wetlands-dependent wildlife also rely on the remaining wetlands, including state listed birds, such as the Tricolored Blackbird.

Approximately 10,350 acres within the 140,000 acres of irrigated land in the Semitropic GSA are managed wetlands. Managed wetlands provide significant public trust benefits, especially habitat for migratory waterfowl, shorebirds, and listed species. Managed wetlands have been disconnected from natural water sources, such as flood flows, and the historical lakes and marshes that once characterized the Tulare Lake Basin have been reclaimed. Wetlands managers utilize surface water flows when they are available and affordable, and otherwise are forced to rely on pumped groundwater.

One third of the wetlands in the Semitropic GSA (approximately 3,350 acres) are privately owned by duck clubs. These wetlands rely almost entirely on groundwater pumping to provide year-round and seasonal habitat. Private managed wetlands comprise 2.3 percent of irrigated acres in the Semitropic WSD. There are nearly 7,000 acres of wetlands in the federal Kern National Wildlife Refuge, which imports approximately 18,500 acre-feet of surface water annually from the Central Valley Project under the Central Valley Project Improvement Act (CVPIA). This water contributes significantly to annual recharge of the Semitropic WSD groundwater basin.

In the Tulare Lake Basin, managed wetlands represent the final remnants of the Tulare Lake complex that once constituted the largest freshwater lake west of the Mississippi River. With dams on the Tule, Kern, and Kaweah Rivers, the Sierra snow runoff that once fed the Tulare Lake complex no longer is available to the area.

Unlike agricultural operations, private duck clubs do not produce a commodity that provides revenues to support the duck clubs' existence. Duck clubs are supported by their owners, who contribute to their operation and maintenance out of their own pockets. These duck clubs, however, provide a great public benefit by providing habitat for the state's and the nation's wildlife resources. Actions that either reduce the water supply available to these wildlife habitats or that increase the costs of providing a water supply, not only affect the private interests of the owners, but deprive the state and the nation of an important resource.

If more of California's remaining wetlands are lost—particularly in areas like the Tulare Lake Basin where wetland acreage is relatively scarce—hundreds of thousands of waterfowl within the Pacific Flyway will have to find alternative wetland habitat which is already oversubscribed. This will not only create greater competition for food and reduce resources for other waterfowl, but increase the likelihood of waterfowl disease outbreaks. Avian cholera and botulism, for example, can easily occur in wetlands where waterfowl are overly concentrated. Such outbreaks have killed hundreds or even thousands of waterfowl in a short period of time in parts of California in the last several decades, including the Central Valley and Klamath Basin.

Legal Requirements of Addressing the Needs of Managed Wetlands in GSPs

The comments submitted by Audubon California lay out in detail the legal requirements in the Sustainable Groundwater Management Act (SGMA) for the specific inclusion of managed wetlands as a land use type and beneficial user of water in the Semitropic GSP. California Waterfowl incorporates Audubon California's comments by reference.

As pointed out in Audubon California's comments, the Semitropic GSP does not clearly define and identify managed wetlands in the Semitropic WSD. Managed wetlands are confounded with native vegetation and riparian vegetation. Managed wetlands that use pumped groundwater by necessity are not clearly designated. Furthermore, the water budgets in the Semitropic GSP do not clearly delineate the needs of managed wetlands. The GSP acknowledges that there is a data gap regarding the applied water needs and consumptive uses of managed wetlands. Ultimately, the water budgets require a reduction of consumptive use or evapotranspiration (ET) from managed wetlands to 0.52 acre-feet per acre by 2040. Recent modeling indicates a wetland ET rate of 3.5 acre-feet per acre. An allocation of 0.52 acre-feet per acre would lead to an estimated loss of over 2,500 acres, or 72 percent of the private managed wetlands. There is no indication of where a water supply might be made available that will mitigate the loss of pumped groundwater. The loss of wetlands acreage will lead to a direct loss of public trust wildlife habitat for migratory waterfowl, shorebirds, and listed species.

California's "No Net Loss" Policy for Wetlands

In 1993, by executive order, the state adopted a goal of no net loss under the California Wetlands Conservation Policy, along with a goal to "achieve a long-term net gain in the quantity, quality, and permanence of wetlands acreage and values in California in a manner that fosters creativity, stewardship, and respect for private property." The Department of Fish and Wildlife (formerly, Fish and Game) includes this goal in Section 1775-1779.5 of the Fish and Game Code: This goal can also be found in the state's Five Year Coordinated Work Plan for Wetland Conservation Program Development.
https://www.aswm.org/pdf_lib/state_summaries/california_state_wetland_program_summary_102615.pdf

Although the water supply necessary to support waterfowl habitat varies by region and soil type, California Waterfowl has found that applied water in a range of four acre-feet per acre to ten acre-feet per acre seems to be the amount necessary to provide high-quality habitat for migrating birds. This depends on management type, i.e., whether the wetlands are managed for the migratory bird season, or as semi-permanent wetlands. The evapotranspiration rate for managed wetlands are estimates in the GSP that may result in inadequate water supplies.

Managed wetlands flood up in the fall and winter for the migration south and return north. Some managed wetlands are also irrigated in the late spring and summer to grow plants on which waterfowl depend for nutrition and cover against predators.

The Tulare Basin Regional Conservation Plan

In 2010, the Tulare Lake Basin Working Group completed the Tulare Basin Regional Conservation Plan (Regional Plan)
http://www.tularebasinwildlifepartners.org/uploads/2/1/4/7/21473344/tbwpconservationvision072110.pdf.
The working group consisted of 70 organizations, including private landowners, state and federal agencies including the Department of Water Resources, and non-profit groups including California Waterfowl, Tulare Basin Wetlands Association, and Audubon California.

The Regional Plan consists of five constituent plans, which would protect or restore over 100,000 acres of wetlands throughout the Tulare Lake Basin. To the extent those wetlands are within the Semitropic WSD, their

protection and long-term water supply must be considered in any report or plan prepared or approved by a government agency.

California Waterfowl requests that DWR, in its review of the Semitropic GSP, take into account the state's policy of "no net loss" of wetlands when deciding whether to approve the water budgets set forth in the Semitropic GSP. Also, California Waterfowl requests that DWR take into account the Tulare Basin Conservation Plan's provisions for protecting wetlands within the Tulare Basin. Without the substitution of other affordable water sources, the water budgets required by 2040 would lead to the catastrophic loss of managed wetlands in the Tulare Basin.

The loss of a significant portion of the Tulare Lake Basin's remaining private managed wetlands and the impact on the iconic migration of waterfowl on the Pacific Flyway would be tragic. Only 2.3 percent of the lands in the Semitropic WSD are managed wetlands, but they provide habitat of international importance for migratory birds and state listed species, and need sufficient water supplies to continue to do so. The 2040 ET water budget allocated to managed wetlands under the Semitropic GSP would inevitably lead to the eradication of a significant portion of the state's managed wetlands unless an affordable replacement source of water is provided.

If you would like further information about California Waterfowl and its conservation programs, please contact Jeffrey Volberg at (916) 217-5117 or jvolberg@calwaterfowl.org or Jake Messerli at (916) 648-1406 ext 141 or jmesserli@calwaterfowl.org.

Sincerely,

Jeffrey A Volberg
Director of Water Law & Policy