

Haggerty, Nicole@Wildlife

From: Kanz, Will@Wildlife
Sent: Friday, January 3, 2025 12:08 PM
To: donnie@buttewater.net
Cc: Seapy, Briana@Wildlife; Wildlife R2 CEQA
Subject: CDFW Comments - Butte Water District 2025 Water Transfer - SCH 2024120212

Dear Donnie Stinnett:

The California Department of Fish and Wildlife (CDFW) received and reviewed the Initial Study and Mitigated Negative Declaration (IS/MND) from Butte Water District (BWD) for the Butte Water District 2025 Water Transfer Program (Project) pursuant the California Environmental Quality Act (CEQA) statute and guidelines.

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish, wildlife, native plants, and their habitat. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may need to exercise its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (Fish & G. Code, § 1802.) Similarly, for purposes of CEQA, CDFW provides, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a potential Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's authority under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.). CDFW also administers the Native Plant Protection Act, Natural Community Conservation Act, and other provisions of the Fish and Game Code that afford protection to California's fish and wildlife resources.

PROJECT DESCRIPTION SUMMARY

The Project area is defined by the BWD boundaries which encompass approximately 32,505 acres in the northern Sacramento Valley in Butte and Sutter Counties. Of that acreage, 24,638 acres are irrigable. Within the BWD boundaries approximately 5,958 acres are dedicated primarily to the production of rice. The Project consists of the proposed transfer of up to 20,532 acre-feet of water to participating member districts of the State Water Contractors or other South of Delta purchasers during the 2025 irrigation season. Transfer

water will be made available by idling rice cropland and/or through groundwater substitution.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist BWD in adequately identifying and, where appropriate, mitigating the Project's significant, or potentially significant, direct, and indirect impacts on fish and wildlife (biological) resources.

COMMENT 1: Giant Garter Snake & California Endangered Species Act

Giant garter snake (*Thamnophis gigas*, GGS) is a State- and federally-listed species with a well-established presence within the Project area. Most of the extant populations of GGS in the Sacramento Valley occur in approximately 494,000 acres of rice agriculture and its associated canals (Halstead et al. 2019).

The IS/MND proposes to limit the Project's adverse impacts on GGS by implementing Mitigation Measure BIO-1 which states that BWD will: keep adequate water in major irrigation and district owned and operated drainage canals; if crop idling occurs near wildlife management areas, document that adequate water remains in drains and canals in those priority areas; disperse lands taken out of production throughout BWD's service area such that contiguity of idled lands will be minimized; avoid idling lands that have high habitat suitability for GGS; and implement avoidance practices during maintenance. These measures are valuable and may not be sufficient to reduce the Project's potential adverse impacts on GGS to below significant.

GGS in the Sacramento Valley are strongly reliant on rice agriculture. Adult GGS survival rates are higher when a greater percentage of the lands surrounding their home ranges are actively cultivating rice. Reducing rice production may also impact GGS populations by reducing the productivity of prey species and/or by increasing the concentration of predators in the nearby canals (Halstead et al. 2019). Reduced rice production may prompt affected GGS to move into other surrounding habitats, increasing the density of GGS and the competition for prey. A significant reduction in the amount of rice grown in the Project area is likely to significantly reduce overall GGS survival rates in the area.

CDFW is responsible for ensuring appropriate conservation of fish and wildlife resources including threatened, endangered, and/or candidate plant and animal species, pursuant to the CESA. CDFW recommends that a CESA Incidental Take Permit (ITP) be obtained if the Project has the potential to result in "take" (Fish & G. Code § 86 defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") of State-listed CESA species during any point of the Project. Please note that mitigation measures that are adequate to reduce impacts to a less-than significant level to meet CEQA requirements may not be enough for the issuance of an ITP. To issue an ITP, CDFW must demonstrate that the impacts of the authorized take will be minimized and fully mitigated (Fish & G. Code § 2081 (b)).

Comment 2.1: Cumulative Impacts Analysis

Issue: The IS/MND states that BWD last participated in groundwater substitution transfers in 2021 and 2022, and groundwater substitution and land idling transfers in 2014 and 2018. It is

not clear if the proposed lands for 2025 have previously been idled, or what the rotational idling frequency is for participating lands in the BWD water transfer program. Sacramento Valley rice production was cut by about 50% in 2022 (NASA 2022), which likely increased mortality in GGS across California. Continued habitat impacts on an already stressed population may have greater overall effects than they would in isolation.

Recommendation: CDFW recommends the IS/MND be revised to include an analysis of the cumulative effects of repeated reductions of the density of active rice fields within BWD's boundaries that have taken place because of its water transfer program. CDFW recommends the IS/MND include measures to minimize and fully mitigate the impacts to any State-listed species the Project has potential to take. To reduce the significance of the Project's impact on GGS, CDFW recommends measures such as reducing the proposed acreage of idled rice crops, restoring or enhancing existing GGS habitat, creating new GGS habitat, or preserving vegetative cover in edge rows and canals to provide areas of safe forage and shelter for GGS.

Comment 2.2: GGS Best Management Practices

Issue: Mitigation measure BIO-1 states "BWD will perform GGS best management practices during irrigation canal maintenance activities, including educating maintenance personnel to recognize and avoid contact with GGS, cleaning only one side of a conveyance channel per year to retain foraging areas and cover habitat for GGS within maintained canals and ditches, and avoid stockpiling of vegetation and sediment debris adjacent to canals and ditches. BWD will create and distribute a GGS best management practices information pamphlet to maintenance personnel that includes photos of GGS and their habitat, a map depicting locations of where GGS have been identified during recent trapping efforts and descriptions of best management practices. If any GGS are detected during maintenance activities...". While CDFW appreciates the mitigation described in BIO-1, further detail is needed related to GGS best management practices.

Recommendation: CDFW recommends revising the IS/MND to more clearly describe planned operations, whether they will include physical alterations to GGS habitat, and any monitoring or reporting data associated with actions taken to implement this mitigation measure. For instance, further detail is needed on the type and location of maintenance activities that the maintenance personnel will be conducting and what type of education will be provided.

Comment 2: Groundwater Dependent Ecosystems

Issue: CDFW is concerned with potential localized and cumulative impacts associated with proposed and future groundwater substitution water transfers that may impact groundwater dependent ecosystems. Ecological communities or species that depend on groundwater emerging from aquifers or on groundwater occurring near the ground surface are collectively known as groundwater dependent ecosystems (GDEs) (23 Cal. Code Regs. § 351 (m)). These GDEs include seeps and springs; wetlands and lakes; rivers, streams, and estuaries; and terrestrial vegetation.

Water transfers made available by groundwater substitution have the potential to affect groundwater hydrology due to increased groundwater extraction and reduced

groundwater recharge. Correlating effects could be temporary and/or long-term declines in groundwater levels, reduction of groundwater storage, depletions of interconnected surface water, land subsidence, integrated water quality. These effects have the potential to adversely impact GDEs and the species therein in basins where water transfers are made available by groundwater substitution.

The IS/MND has identified the historical low groundwater level of each well as the groundwater level trigger that, when reached, will result in a reduction in pumping volume or cessation of transfer pumping from the applicable well. Historical groundwater lows reflect surface water scarcity during which time groundwater extraction becomes the primary water supply. For instance, during the 2012 to 2016 drought, groundwater extraction increased to replace more than 70% of the reduced surface water supplies for agriculture (Lund 2018). It is likely that at these historically low groundwater levels in the Sacramento Valley, vegetated aquatic GDEs experienced adverse impacts due to combined groundwater depletion and reduced surface water availability during the series of dry and critically dry water years of the last drought (CDFW 2019). Groundwater extraction lowers groundwater tables and exacerbates already low streamflow where groundwater-surface water interconnectivity exists. These depleted conditions lead to poor instream habitat availability, increased water temperatures, and stressed or dying riparian vegetation and terrestrial groundwater dependent vegetation that limits available forage and habitat relying on groundwater triggers that mere periods of extreme water scarcity and associated ecosystem duress does not protect against adverse impacts to habitat.

Recommendation: CDFW recommends identifying more protective groundwater level triggers for inclusion in the groundwater substitution transfer mitigation plan that are shallower than the historical minimum groundwater elevations that occurred in the transfer pumping wells. The groundwater level triggers should be shallower than the historical low groundwater levels to avoid adverse impacts of transfer-related pumping on GDEs, especially cumulative impacts that may manifest after sequential dry or critically dry water years when groundwater reliance and streamflow depletions increase. For example, the mitigation plan could include a reduction in the transfer pumping rate at 70% of the historical low groundwater elevation, and a cessation of pumping at 80% of the historical low groundwater elevation.

Comment 3: Streamflow Depletion Factors

Issue: The IS/MND relies on a presumptive streamflow depletion factor (SDF) of 13%, suggesting streamflow losses associated with the Project are estimated to be 13% of the groundwater extracted as part of the transfer (Reclamation and DWR 2019). The IS/MND also states that the 13% SDF is to prevent any adverse impacts associated with groundwater/surface water interaction.

Streamflow depletion is a function of many criteria, including the distance of a pumping well from a nearby stream; streamflow depletion can occur relatively quickly from continued pumping from wells adjacent to surface waters (USGS 2012). Surface water supply effects on groundwater substitution transfers compound over time, particularly when transfers occur in back-to-back years or when dry hydrologic years follow the transfer period, extending the duration of aquifer refill (Reclamation 2019). Dry consecutive hydrology corresponds to

increased reliance on groundwater and necessarily increases the volume of streamflow depletion from surface water supplies as rivers refill depleted aquifers at a greater rate. Thus, groundwater substitution transfers concurrent with dry antecedent conditions can increasingly contribute to streamflow depletion throughout a series of sequential dry water years (DWR 2022). The Sacramento Valley Groundwater-Surface Water Simulation Model developed by the Department of Water Resources determined the effect of groundwater pumping on stream depletion can be gradual and last for decades (DWR 2023). Absent accurate streamflow depletion factors, groundwater transferors may be under-counting their surface water usage by selling surface water rights while pumping additional river water via subsurface stream depletion; this undercounting of streamflow depletions can negatively impact aquatic and riparian ecosystems.

Recommendation: The Department recommends a more conservative presumptive standard for the SDF based on available information (DWR 2023), or the development of site-specific and hydrology-specific SDFs that consider multiple criteria impacting streamflow depletion rates and that more accurately account for the volume of streamflow depletion attributable to pumping transfer water. At a minimum, the BWD transfer should be subject to a 20% SDF as recently presented by the Department of Water Resources and the Bureau of Reclamation at the 2024 Water Transfers Annual Meeting as a negotiated, presumptive, interim SDF to be applied to groundwater substitution transfers for Water Year 2025.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be found at the following link:

<https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be mailed electronically to CNDDDB at the following email address: CNDDDB@wildlife.ca.gov. The types of information reported to CNDDDB can be found at the following link: <https://wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

CONCLUSION

Pursuant to Public Resources Code §21092 and §21092.2, CDFW requests written notification of proposed actions and pending decisions regarding the proposed project. Written notifications shall be directed to: California Department of Fish and Wildlife North Central Region, 1701 Nimbus Road, Rancho Cordova, CA 95670 or emailed to r2CEQA@wildlife.ca.gov.

CDFW appreciates the opportunity to comment on the IS/MND to assist in identifying and mitigating Project impacts on biological resources. CDFW personnel are available for consultation regarding biological resources and strategies to minimize and/or mitigate impacts. Questions regarding this letter or further coordination should be directed to Will Kanz, Environmental Scientist at (916) 880-8981 or Will.Kanz@wildlife.ca.gov.

References

Bureau of Reclamation and California Department of Water Resources (Reclamation and DWR). 2019. Draft Technical Information for Preparing Water Transfer Proposals.

Bureau of Reclamation, San Luis & Delta-Mendota Water Authority (Reclamation). 2019. Long-Term Water Transfers Environmental Impact Statement/Environmental Impact Report.

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U.S. Geological Survey (USGS). 2012. Streamflow Depletion by Wells – Understanding and Managing the Effects of Groundwater Pumping on Streamflow.

Sincerely,

Will Kanz

Water Infrastructure Scientist
North Central Region (R2)
California Department of Fish and Wildlife
Will.Kanz@wildlife.ca.gov
Cell: 916-880-8981