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October 21, 2025

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Subject: Glenn-Colusa Irrigation District Gradient Facility Rehabilitation Project
MITIGATED NEGATIVE DECLARATION (MND)
SCH No. 2025091009

Dear Jeff Sutton:

The California Department of Fish and Wildlife (CDFW) received and reviewed the Notice of Intent to Adopt an MND from Glenn-Colusa Irrigation District (GCID) for the Gradient Facility Rehabilitation Project (Project) pursuant the California Environmental Quality Act (CEQA) statute and guidelines.[1]

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, CDFW appreciates 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.

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

CDFW may also act as a 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 lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT DESCRIPTION SUMMARY

The Project site is located within the boundaries of Butte, Tehama, and Glenn counties in a rural area approximately 4 miles north-northwest of Hamilton City. The Project site lies along an approximately 1-mile stretch of the Sacramento River on both sides of the river. The Project site extends from just north of Montgomery Island to just downstream of the return flow channel from GCID's fish screen and main pumping station between river miles 205 and 206.

The Project involves bank stabilization and river channel protection along approximately 1 mile of the Sacramento River. The work would address bank erosion and a deep scour hole that threatens the continued functionality of GCID's Gradient Facility and the intake channel fish screen through measures such as spur dikes, rock slope protection, excavation/fill activities, and revegetation, implemented in phases as needed.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist GCID in adequately identifying and, where appropriate, mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Based on the potential for the Project to have a significant impact on biological resources, CDFW concludes that an Environmental Impact Report, rather than a Mitigated Negative Declaration would be the appropriate environmental document for the Project.

CDFW is primarily concerned with the project impacts to hardhead (*Mylopharodon conocephalus*), Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*), Central Valley fall-run Chinook salmon (*Oncorhynchus tshawytscha*), Sacramento River Winter-run Chinook Salmon (*Oncorhynchus tshawytscha*), pacific lamprey (*Entosphenus tridentata*), river lamprey (*Lampetra ayresii*), green sturgeon (*Acipenser medirostris*), white sturgeon (*Acipenser transmontanus*), Sacramento hitch (*Lavinia exilicauda exilicauda*), Sacramento splittail (*Oncorhynchus tshawytscha*), western pond turtle (*Actinemys marmorata*), yellow breasted chat (*Icteria virens*), yellow warbler (*Setophaga petechia*), osprey (*Pandion haliaetus*), western red bat (*Lasiurus blossevillii*), bald eagle (*Haliaeetus leucocephalus*), Swainson's hawk (*Buteo swainsoni*), bank swallow (*Riparia riparia*), yellow billed cuckoo (*Coccyzus americanus),* nesting birds, other native fish species, reptiles, amphibians, and other aquatic and terrestrial plant and wildlife species and the habitats they depend on.

SURFACE WATER RESOURCES AND DIVERSIONS

Comment 1: Insufficient Project description and environmental setting
Issue: Section 2.1 of the MND (pages 4 and 5) provides a brief overview of the Project environmental setting that is limited primarily to describing existing land designations and a general description of habitats present. Section 2.3 of the MND (page 16) provides a list of Project objectives including to "Preserve the original design objectives and current function of the GF to provide sufficient water surface elevations at GCID's fish screening facility and pumping plant." However, the MND does not include information on GCID's current water diversion(s) or pumping plant operations.

Recommendation: The CEQA document Project description should be revised to include the whole action as defined in the CEQA Guidelines § 15378 including full disclosure with appropriate detail of GCID's current diversion rates, timing, and quantities. Since the Project purpose is to provide sufficient water surface elevations to allow for continued diversion of Sacramento River flows, the CEQA document needs to include GCID's current diversion rates, timing, and quantities as part of the environmental setting and baseline condition. The CEQA document should then use the revised Project description and environmental setting to accurately analyze and mitigate to a less-than-significant level the environmental changes associated with the Project when compared to the current baseline.

Comment 2: Impacts to surface water resources (Sacramento River) not unanalyzed and potentially significant
Issue: Project impacts to surface water resources are not analyzed. It is unclear if the Project will increase, reduce, or restore to original design capacity GCID's ability to divert Sacramento River flows. A lack of information of GCID's water diversion(s) make it difficult to understand how the Project will impact surface water resource management, the quantity of water being diverted from the river, and the consequent impacts to biological resources. The Project and the change or continued diversion of Sacramento River flows will have impacts, both independently and cumulatively, on fish and wildlife resources. However, since the MND does not provide information regarding diversions, CDFW is unable to properly assess the anticipated impacts of the Project on fish and wildlife resources.

Recommendation: To enable meaningful review of the Project's impacts to the Sacramento River and the species it supports, CDFW recommends the CEQA document disclose and analyze water quantity values and the corresponding Project-generated changes at the pumping plant. Appropriate and enforceable mitigation measures should be incorporated into the CEQA document to mitigate impacts to surface water resources to a less-than-significant level.

HYDRAULICS AND GEOMORPHOLOGY

Comment 3: Impacts to river form and function not analyzed
Issue: The intent of the Project is to fundamentally change the river hydraulics and sediment transport in the Project area. However, the MND fails to analyze the potential impacts that these changes will have on river function both in the Project area and downstream.

By armoring and substantially narrowing a stretch of the Sacramento River within the Project area, the Project may alter velocity and sediment transport on downstream locations, which in turn could significantly alter hydraulics and geomorphology in downstream structures of the river. This could result in substantial deposition, erosion or other alteration to downstream properties, causing property damage, and be a source of liability for GCID.

An example of successful spur dike installation was presented in Section 2.4.1.1 of the MND (pages 17 and 18 of the MND). This section of the MND references the Butte City Bridge 2005 spur dike installation as successfully restoring the west bank of the river upstream of the State Route 162 bridge over the Sacramento River. The MND provides a figure (see Figure 1, below) showing the immediate area of the Butte City Bridge spur dikes; however, it fails to show the change in river form immediately downstream of the bridge over the course of 18 years following construction of the spur dikes (see Figure 2, below). Changes in downstream river form immediately downstream following construction of the spur dikes include gravel bar formation, river meandering, and significant bank erosion. In addition, as reported by the California Department of Transportation and confirmed by CDFW staff in February 2025, approximately 4 acres of the western bank immediately downstream of the bridge eroded into the Sacramento River during the winter of 2024/2025.

Figure 1: Screenshot from the MND's Figure 3: Historic Views of Spur Dike Installation at the Butte City Bridge.

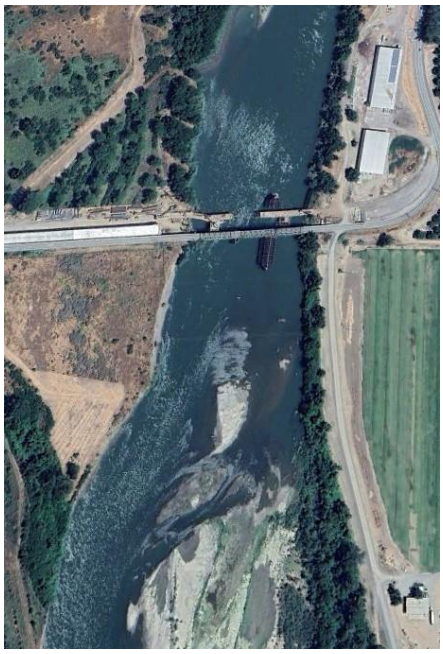
Figure 2. Figure prepared by CDFW including aerial photos from the same years addressed in the MND of the spur dike installation at the Butte City Bridge. However, this figure also includes areas immediately downstream.

2005 Conditions

2007 Conditions

2015 Conditions

2023 Conditions



CDFW is aware of one project, the Wilson Landing Side Channel project, that could be impacted by this Project. This restoration project, being conducted by River Partners in partnership with CDFW and others, could be severely impacted by the Project's alteration to river hydraulics and sediment transport immediately upstream.

The Project's potential to significantly increase downstream erosion may force downstream landowners to, in turn, armor their properties. Hence, armoring GCID's section of the Sacramento River could have cascading effects of prompting downstream landowners to armor additional stretches of the river (Nelson 1985; Micheli & Larsen 2002). Armoring of the Sacramento River reduces river complexity and the ability of the river to adjust, thus reducing habitat for aquatic and terrestrial species, and disrupts natural abiotic processes (Naiman et. al. 1993). The Project would counter recent efforts by state agencies and conservation groups to reduce the quantity of armoring along the Sacramento River, such as the currently proposed Kopta Slough Multi-Benefit Project (California Department of Water Resources 2022).

In summary, the Project may have significant impacts on properties and environmental resources within the Sacramento River that have not been analyzed or mitigated.

Recommendation: The CEQA document should be revised to:

a. Analyze and mitigate to a less-than-significant level the potential for the Project to cause additional erosion downstream of the Project area and the resultant impacts to fish and wildlife habitat.

b. Analyze and mitigate to a less-than-significant level sediment movement changes due to the proposed in channel work and the resultant impacts to fish and wildlife habitat. This analysis should include but not be limited to impacts to CESA-listed fish species' deep-pool, migration, rearing, and holding habitat.

c. Analyze and mitigate to a less-than-significant level the potential property damage for downstream parcels and the resultant impacts to fish and wildlife habitat.

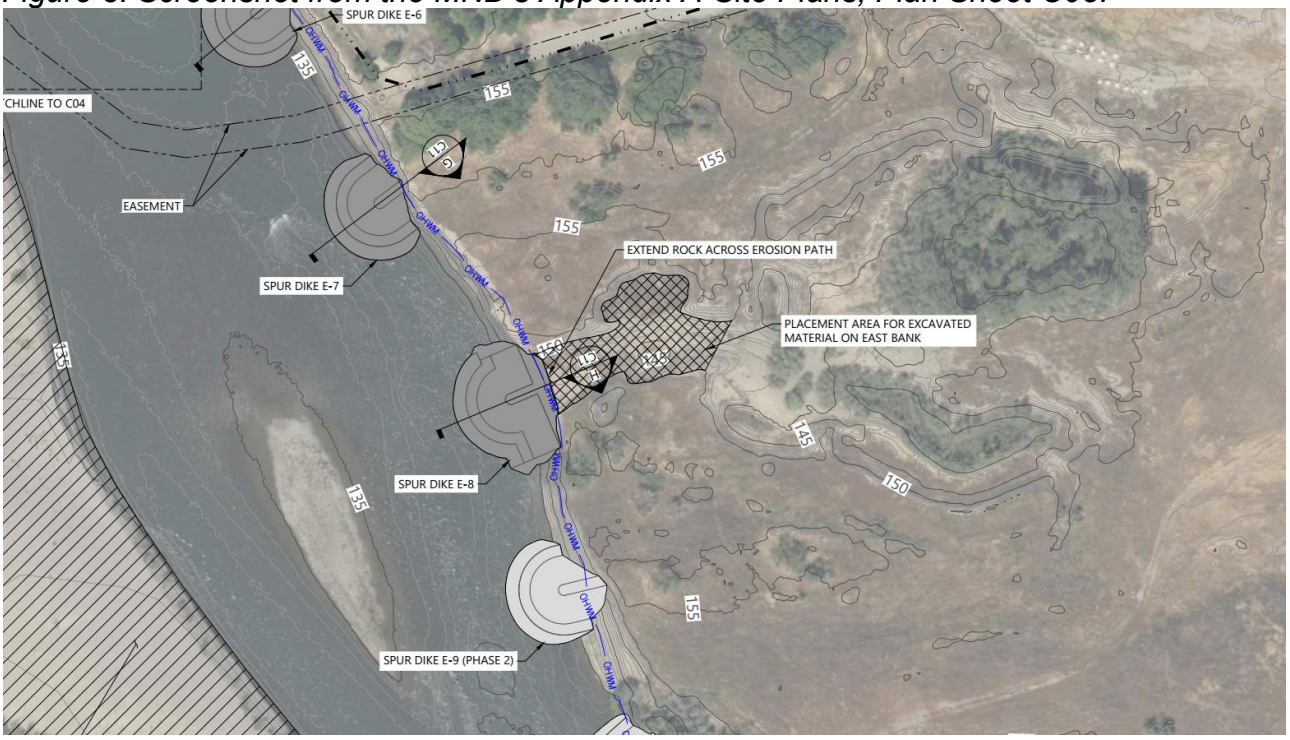
d. Analyze and mitigate to a less-than-significant level the potential prompting of additional armoring and the resultant impacts to fish and wildlife habitat within the Sacramento River. This analysis should include but not be limited to impacts to CESA-listed fish species' deep-pool, migration, rearing, and holding habitat.

e. Proper analysis of these potential impacts should be supported by hydraulic and sediment modeling. Pre- and post-construction modeling (e.g. 2D hydraulic modeling, HEC-RAS, etc.) which demonstrates minor Project generated changes to flow velocities and depths should be prepared as part of the analysis.

Comment 4: Spur Dike E-8 and adjacent fill may eliminate floodplain habitat and strand fish

Issue: The MND proposes construction of Spur Dike E-8 (shown in dark gray in Appendix A-Site Plans, Plan Sheet C05; screenshot Figure 3 below) and placement of excavated material (hatched area in Plan Sheet C05). These two features will be constructed on top of an existing low-lying area (page 18). This low-lying area likely floods multiple times each winter, creating flooded riverine habitat that is essential for aquatic resources like rearing, juvenile special-status species such as the salmonids listed above. Additionally, this floodplain habitat appears to support forested wetland, which has the potential to support other special-status species. Work in this area may also directly impact natural floodplain and riparian habitat creation and restoration within the Sacramentos River Wildlife Area – Wilson Landing Unit to the east and south.

Figure 3: Screenshot from the MND's Appendix A-Site Plans, Plan Sheet C05.



These two features will impact this habitat in three ways.

1. The features will be placed directly on top of habitat, thereby eliminating habitat within the footprints of the two features.

2. The features will disconnect the additional low-lying habitat (further to the east) from routine flooding. This hydrologic disconnection will prevent fish from accessing this valuable floodplain habitat during common winter flows.

3. The features will not entirely prevent the low-lying area to the east from flooding. CDFW estimates that the low-lying area will still flood during a one-year interval.

> However, the features will act as a plug, blocking water from draining from this low-lying area; thereby providing an opportunity for fish to enter the low-lying area and then stranding them.

The MND has not considered the impacts of these features on resources such as fish and the riparian forest. It is possible that the riparian forest may decline and disappear due to the proposed hydrologic disconnection.

Recommendation:
The CEQA document should be revised to assess the impacts of these construction features. Then, the CEQA document should be revised to either alter the designed to avoid these impacts or mitigate them to a less-than-significant level. In addition, project components affecting river channel and forested wetland should be designed to be consistent with the Sacramento River Conservation Area Handbook. This book was developed following SB 1086 and guides riparian habitat management in the river (SB1086 SRCAF Handbook).

RECREATION

Comment 5: Project impacts to recreational opportunities and floodplain habitat
Issue: The Wilson Landing Unit of the Sacramento River Wildlife Area abuts Deseret Farm's property on the eastern bank of the river. The Sacramento River Wildlife Area has a comprehensive land management plan. The management objectives of the Sacramento River Wildlife Area are to preserve and restore riparian habitat, maintain and enhance habitat for special status species, and support scientific research and monitoring. Additional objectives are to provide opportunities for wildlife-related, low impact public recreational activities such as fishing, hunting, hiking, wildlife observation, photography, interpretation and environmental education. This wildlife area provides varied successions of riparian forest habitat for terrestrial species. As outlined in Comment 1 above, the MND has not analyzed whether the Project will significantly increase downstream erosion, specifically erosion of the Wilson Landing Unit. The MND also does not analyze how the Project may have a potentially significant impact on the size of the Wilson Landing Unit or the public's ability to access the wildlife area from the river to recreate. There is also the potential for impacts from this Project to conflict with management objectives of the plan.

Recommendation: The CEQA document should analyze and mitigate to a less-than-significant level the potential for the Project to erode the Wilson Landing Unit of the Sacramento River Wildlife Area and the resultant impacts to public recreational opportunities and the other management plan objectives.

FISHERIES RESOURCES

Comment 6: Mitigation Measure MM-BIO-19: Conduct Real-Time Presence Assessment Using Migration Data

Issue: The MND expects several special status fish may be in the Project area during the Project's July 15–October 31 work window (page 29). Species include:

- Central Valley Distinct Population Segment (DPS) steelhead (*Oncorhynchus mykiss*; ESA threatened). Introduced on pages 76–77.

- Sacramento River Winter-run ESU Chinook salmon (*Oncorhynchus tshawytscha*; ESA endangered, CESA endangered). Introduced on pages 78–79.

- Southern distinct population segment (SDPS) green sturgeon (*Acipenser medirostris*; ESA threatened, California Species of Special Concern). Introduced on page 79.

Mitigation Measure MM-BIO-19 states: "*Prior to and during mobilization, staging, or implementation of proposed project activities, a biological monitor or designated biologist will consult data on juvenile salmonid and juvenile sturgeon migration and passage daily from monitoring stations at Red Bluff (operated by USFWS, reported biweekly) and at the GCID diversion fish screen (operated by GCID when water temperatures are <69.8°, reported daily) to inform on the potential for and relative abundance of listed fish species to be in the project area.*" As written this measure is infeasible and does not mitigate impacts to CESA-listed fish species to a less-than-significant level. Specifically:

a. This measure requires the designated biologist or biological monitor to review fisheries data on a daily basis; however as indicated in the mitigation measure, the data is released by USFWS on a biweekly basis.

b. This measure fails to identify what the designated biologist or biological monitor would do with this monitoring data and how that would impact the Project or help mitigate Project impacts on CESA-listed species to a less-than-significant level.

c. While rotary screw trap capture data is a good indicator of presence of migrating special status fish in the area, absence cannot be inferred from negative results. Similarly, rotary screw trap capture data is poor at detecting benthic rearing juveniles such as sturgeon species.

d. The Red Bluff rotary screw traps are more than 40 miles upstream from the Project. This is not sufficient to inform precisely when listed fish are moving into the Project area.

e. In addition, GCID has not operated its bypass channel rotary screw trap since 2022. The MND does not commit GCID to restarting its sampling and data collection program or obligate GCID to comply with CESA by obtaining a new Memorandum

of Understanding with CDFW for the operation of the rotary screw trap. Without operating the bypass channel rotary screw trap, it is unclear how data would be collected or analyzed by the Project biologist to inform potential for and relative abundance of listed fish in the Project area. Similarly, this measure requires the Project biologist to review data daily that is released biweekly by USFWS.

Recommendation: Sampling and data collected at the GCID bypass channel rotary screw trap was critical in informing salmon and steelhead recovery, conservation, and management activities. CDFW strongly encourages GCID to obtain an MOU and restart its trapping program. CDFW recommends GCID commit to a minimum of five years of trapping, consisting of daily operation of the trap, daily data collection, and biweekly provision of data to CDFW and the National Marine Fisheries Service.

GCID committing to restarting its trapping program in order to collect and share rotary screw trap data with the regulatory agencies and scientific community could be used to help reduce Project impacts to CESA-listed salmonids to a less-than-significant level. Please note that measures that are adequate to reduce Project impacts to a less-than significant level to meet CEQA requirements may not be enough for the issuance of an Incidental Take Permit (ITP).

Comment 7: Plans for monitoring and exclusion of fish are infeasible, unpermitted, and unmitigated

Issue: The MND proposes to monitor for fish within the in-water work area (MM-BIO-21 Daily Clearance Fish Surveys, page 106) and to exclude fish from the work areas (MM-BIO-20 Install Block Nets, page 105). MM-BIO-20 Install Block Nets states: "*Where and when feasible depending on hydraulic conditions, seines will be used to evacuate fish, and block nets will be used to exclude fish from re-entering in-water work areas for installation of temporary water diversions and turbidity curtains around spur dikes and rock slope protection sites, and if and when, the land bridge is installed in the side channel between Montgomery Island and the mid-channel bar to access the bar.*" (page 105).

The plan for fish monitoring and exclusion is deficient in several ways.

a. The MND proposes to exclude fish from in-water work areas "where and when feasible depending on hydraulic conditions" by using seines and block nets (page 105). The MND has not described what hydraulic conditions might limit feasibility and how often this might occur. Therefore, the MND is noncommittal regarding monitoring and the resultant scope of impacts to unmonitored fish is unknown.

   Historically, Sacramento River flows were lowest in the summer and represented base flows. However, in the current era, water releases from upstream reservoirs for agricultural, municipal, and industrial uses result in artificially elevated flows during the proposed work window. This creates conditions in the Sacramento River with high water surface elevation and fast velocities that make monitoring and exclusion difficult. Utilizing seining as a method for monitoring and exclusion is

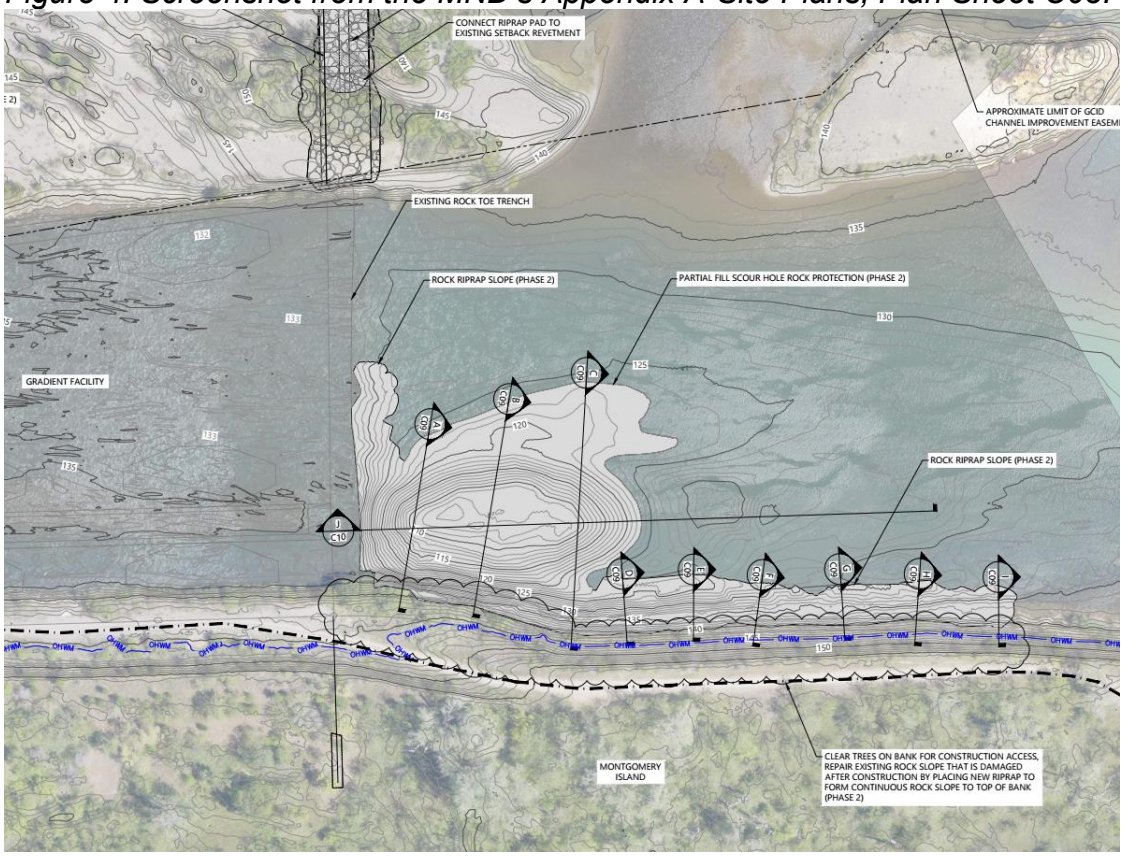
problematic under these conditions. This will limit the areas that can be surveyed to shallow, slow-flowing edges of the river.

CDFW understands that GCID diverts a substantial portion of the water released from upstream reservoirs, may have information regarding the schedule of these releases, which may be scheduled coordination with GCIDs planned diversions. Furthermore, GCID may have the ability to alter the release schedule.

b. The MND devotes a paragraph to describe the proposed biological monitoring for "installation and removal of the temporary construction platform bridge and installation of the spur dikes" (section titled: In-Water Construction/Temporary Structure Removal Fish Monitoring, page 106). However, because the other in-water construction activities are not listed in this paragraph, it is unclear if monitoring has been proposed for the other in-water construction activities.

c. One construction activity in particular, filling in the scour hole, appears to be the greatest risk for an absence of fish monitoring and exclusion. This construction activity is absent from the section titled: In-Water Construction/Temporary Structure Removal Fish Monitoring, page 106 (mentioned above). Additionally, this activity, more than any other, extends far into the middle of the Sacramento River (see screenshot Figure 4 below), where hydraulic conditions may be most challenging for biological monitors. This activity could add significant turbidity to the water column, further complicating the ability of biological monitors to identify fish. In particular, sturgeon are benthic and tend to reside near the bottom of the river channel where they would be difficult to detect and at risk of being buried by fill material.

Figure 4: Screenshot from the MND's Appendix A-Site Plans, Plan Sheet C03.



In summary, as currently written, the MND leaves the door open for in-water construction activities to proceed without any fish monitoring or exclusion. As a result, the Project may have unanalyzed and unmitigated impacts to fish.

Recommendation: The CEQA document should be revised to address the three issues noted above:

a. Analyze the degree to which hydraulic conditions might limit feasibility of monitoring and exclusion, how often these conditions might occur, and the resultant impacts to fish.

b. This analysis should address the schedule of water releases from upstream reservoirs. Furthermore, the CEQA document should consider use of a minimization measure whereby GCID alters the release schedule to reduce flows during the proposed work window (with the goal of enhancing the feasibility of monitoring and exclusion).

c. Clearly state which in-water construction activities will benefit from monitoring and exclusion.

d. Preferably, the CEQA document should be revised to incorporate biological monitoring and exclusion for fish during construction of all Project elements that involve an in-water component. If necessary, this may require alternate methodology.

e. Finally, for any impacts that cannot be addressed through avoidance and minimization, the CEQA document should propose mitigation for impacts.

Comment 8: Spur dikes may increase predation
Issue: Installation of the spur dikes has a high potential to increase predation rates on juvenile salmonids and larval or early-stage southern DPS Green Sturgeon migrating down the main channel by providing piscivorous fish species current refugia and ambush habitat. However, the MND has not analyzed these potentially significant impacts on CESA-listed fish or proposed mitigation.

Recommendation: GCID should analyze and mitigate to a less-than-significant level the Project's potential to increase predation of juvenile salmon and larval or early-stage green sturgeon from the construction of the spur dikes. GCID should apply for an ITP for the long-term Project caused loss of listed salmonids resulting from increased predation rates.

Comment 9: MM-BIO-18 is insufficient to mitigate impacts to CESA-listed salmonids to a less-than-significant level
Issue: Spring-run and winter-run Chinook will be present in the Project area during in-river construction. The MND acknowledges that spring-run Chinook salmon have the potential to be present within the Project area through August (page 77). The MND also acknowledges that winter-run Chinook salmon fry are expected to be present in the Project area beginning mid-August and with increasing frequency and abundance when water temperatures generally begin to decline in mid-September (page 78). In addition, monitoring data has documented winter-run Chinook being caught within the GCID bypass channel as early as July (*Annual Fish Sampling and Data Collection at the GCID Bypass Channel,* 2019*)*.

Mitigation Measure MM-BIO-18 (page 105) proposes an in-water work window of July 15 and October 31 annually "to avoid or minimize working when federal and state-listed threatened and endangered fishes may be present." As demonstrated above and included in the MND, CESA-listed salmonids occur in the Project boundary year-round. There is no in-water work window the Project can adhere to that will avoid "take" (Fish & G. Code § 86 defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") of CESA-listed salmonids. As proposed, the Project will have significant, unmitigated impacts to spring-run and winter-run Chinook salmon.

Recommendation: The CEQA document should be revised to acknowledge that in-river Project activities have a high potential to take spring-run and winter-run Chinook salmon. The CEQA document should also clearly state that the Project will permanently impact CESA-listed salmon critical habitat. The CEQA document should at a minimum include the

following measures to help reduce impacts to CESA-listed salmon to a less-than-significant level:

a. Commit GCID to obtaining an ITP for spring-run and winter-run Chinook from CDFW for the construction and long-term maintenance of the Project;

b. Commit GCID to obtaining an MOU and restarting its bypass channel rotary screw trap program for a minimum of five years. The trapping program should include the daily operation of the bypass channel rotary screw trap including data collection with the collected trap data being provided to CDFW and NMFS on a biweekly basis.

Comment 10: The proposed Project will have significant, unmitigated impacts to Sacramento River winter-run Chinook and Central Valley spring-run Chinook salmon

Issue: CDFW is responsible for ensuring appropriate conservation of fish and wildlife resources including threatened, endangered, and/or candidate plant and animal species, pursuant to CESA. As outlined in the previous four comments, CDFW considers fish protection criteria identified in the biological resources section of the MND to be insufficient to avoid take or reduce impacts to CESA-listed salmonids to less-than-significant levels. Population trends of native anadromous and pelagic fish are steadily declining under existing regulatory conditions and the permanent loss of critical habitat and continued or increased extraction of Sacramento River flows via the pumping plant facilitated by the installation of the spur dikes and maintenance of the Gradient Facility will exacerbate the problem.

Recommendation: To reduce Project impacts to CESA-listed species to a less-than-significant level the CEQA document should disclose the high potential for take and commit GCID to obtaining an ITP from CDFW. 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 facilitate the issuance of an ITP, CDFW recommends the CEQA document include measures to minimize and fully mitigate the impacts to any CESA-listed species the Project has potential to take. CDFW encourages early consultation with staff to determine appropriate measures to facilitate future permitting processes and to engage with the National Marine Fisheries Service (NMFS) to coordinate specific measures for spring-run and winter-run Chinook.

Comment 11: Mitigation measures inadequate for green sturgeon

Issue: Larval or juvenile SDPS green sturgeon may occur in the Project Area during the in-water work window of July 15 through October 31, particularly in years with high Sacramento River flows (NMFS 2018). Individuals may occupy the Project Area during downstream migration or while utilizing the area for short-term rearing habitat.

Larval and juvenile SDPS green sturgeon are primarily nocturnal (Hansen et. al. 2022), taking cover in deep water habitat areas or in interstitial spaces during the day to avoid predation. Therefore, the MND's reliance on monitoring and exclusion efforts, such as

seining during the daytime, may be ineffective for detecting, herding, and excluding larval and juvenile SDPS green sturgeon.

Recommendation: The CEQA document should be revised to consider potential impacts to larval and juvenile SDPS green sturgeon that may be undetected by the existing proposed methodology. Additionally, the CEQA document should consider alternative mitigation measures to minimize impacts and, if necessary, mitigate for impacts.

TERRESTRIAL RESOURCES

Comment 12: Direct impacts on bank swallows
Issue: The MND states that there is no suitable bank swallow (*Riparia riparia*; listed as threatened under CESA) nesting habitat within the Project area at this time, due to "extreme high winter flows and resulting bank erosion" that occurred in the winter of 2024-2025 (page 91). However, bank swallow have nested in the Project area as recently as 2022 (page 72). The MND fails to consider the possibility that just as natural riverine forces eliminated bank swallow habitat within the span of a single year (page 91), that those same forces could restore bank swallow habitat within the Project area prior to the start of construction. Therefore, the MND states that there will be "no significant direct impacts" on bank swallows (page 91). However, it is possible that bank swallows could recolonize the Project area prior to the start of construction. Therefore, the Project could have direct and significant impacts on bank swallows.

These statements on page 91 seem contradicted by the inclusion of Mitigation Measure BIO-11 (page 100), which involves preconstruction surveys for bank swallows and efforts to minimize construction impacts.

Recommendation: The CEQA document should be revised to analyze and mitigate to a less-than-significant level impacts to bank swallows resulting from Project activities. Additionally, while Mitigation Measure BIO-11 includes avoidance and minimization measures, it does not describe measures for compensatory mitigation to offset impacts should direct impacts to bank swallows be unavoidable. Therefore, following the inclusion of a more robust assessment of potential impacts, the CEQA document should be revised to include mitigation for these impacts.

Comment 13: Loss of bank swallow habitat
Issue: The Project will armor a stretch of the Sacramento River through installation of spur dikes and rock slope protection. These structures will physically exclude bank swallows from nesting within this stretch of the Sacramento River in perpetuity. Additionally, the Project will channelize the Sacramento River and reduce river meander within the Project area, potentially limiting the future production of eroded banks, which form nesting habitat for bank swallows. The MND fails to consider this potential indirect impact of the Project on bank swallows caused by suppression of production of future bank swallow habitat.

Recommendation: The CEQA document should be revised to analyze the Project's potential indirect impacts on production of future bank swallow habitat, the cumulative impact of other projects, and, if necessary, include mitigation for these potential impacts.

Comment 14: Mitigation for impacts to bumblebee habitat, page 97
Issue: In MM-BIO-6, the MND states that "*GCID will compensate for the permanent loss of suitable foraging bumble bee habitat at a 1:1 ratio by including suitable native plants commonly used as food sources by Crotch's bumble bee and western bumble bee at suitable on-site and/or off-site restoration or preservation areas.*" This proposed mitigation measure is inadequate for two reasons:

a. CEQA Guidelines §15126.4 (a)(1)(B) states that: "Formulation of mitigation measures shall not be deferred until some future time." This section goes on to state: "The specific details of a mitigation measure, however, may be developed after project approval when it is impractical or infeasible to include those details during the project's environmental review…" Therefore, it is understandable that the MND has not provided full details regarding the restoration or preservation areas, but it is notable that the MND has not provided any evidence that suitable on-site and/or off-site restoration or preservation areas will be available to GCID.

b. Compensating for permanent loss of habitat at a 1:1 ratio is inadequate. This is particularly inadequate because it is unlikely that 100% of the restored areas will be converted into suitable habitat.

Recommendation: The CEQA document should be revised to include a more robust description of the required mitigation. Specifically:

a. To ensure that this mitigation measure is feasible, the CEQA document should identify the "suitable on-site and/or off-site restoration or preservation areas" and assess the likelihood that GCID can preserve and/or restore these properties.

b. Habitat should be mitigated at a ratio greater than 1:1 to prevent the net loss of habitat.

GENERAL COMMENTS

Comment 15: Hypothetical activities inadequately analyzed
Issue: In addition to the analysis regarding those Phase 1 activities that are definitively planned, the MND also includes some description of additional hypothetical activities:

a. As-Needed Mid-Channel Bar Excavation activity. According to the MND, "*GCID would conduct annual aerial and topographic surveys of the mid-channel bar. Although such an outcome is not anticipated, if net fill values below OHWM do not equate to net zero within 5 years of construction of Phase 1, to ensure that the proposed project causes no net fill, GCID would excavate sufficient gravel and sediment from the mid-channel bar*" (page 5).

b. Phase 2 activities. According to the MND, "*Phase 2 would be completed between 5 and 15 years after Phase 1 and would potentially consist of the following… It is possible that not all Phase 2 elements will be determined to be necessary, but for planning purposes, all are covered in this IS/MND.*" (page 5). The MND goes on to say: "*… conditions at the project site would be monitored after completing Phase 1. Depending on observations during that time, it is possible that not all Phase 2 elements would be determined to be necessary. If erosion of the west and east banks has ceased or dramatically slowed, additional spur dikes may not be required. If the scour hole shallows or poses reduced risk to the Gradient Facility with the downstream banks bolstered, then partial fill may not be required. However, for planning purposes, all potential Phase 2 project elements are covered in this report.*" (page 23).

As made clear by the foregoing statements, activities are hypothetical and will be conducted in a project area that differs from the project area described in the existing MND. Forces that will continue to alter the project area include completion of Phase 1, changes to environmental and biological resources within the riverine environment, and changes to the environmental setting, which is inherently dynamic.

In particular, Phase 2 of the project is highly hypothetical. Many of the critical details regarding the hypothetical Phase 2 activities are not disclosed in the MND. Furthermore, the MND acknowledges that Phase 2 may not commence until the year 2042 (assuming that Phase 1 is completed by 2027 and that Phase 2 is initiated 15 years later). The MND has not effectively predicted environmental conditions, and the resultant impacts of Phase 2 activities, that far into the future. Accordingly, the MND is incapable of adequately describing and mitigating for the impacts of Phase 2 activities.

While CDFW commends GCID for disclosing future plans for the As-Needed Mid-Channel Bar Excavation activity and Phase 2 activities, it is inappropriate for GCID to compress three projects into a single MND as Project impacts cannot be accurately analyzed, disclosed to the public, and mitigated to less-than-significant levels. This precludes the opportunity for adequate future public review of these projects.

Recommendation: If and when GCID seeks to perform the As-Needed Mid-Channel Bar Excavation activity or the Phase 2 activities, GCID should prepare separate CEQA environmental review documents that include a current description of the environmental setting, modeling that incorporates current environmental conditions (including conditions altered by Phase 1), an assessment of impacts to environmental resources, and mitigation as necessary.

Comment 16: Cumulative impacts not analyzed
Issue: The CEQA Guidelines define cumulative impacts as: “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

a. The individual effects may be changes resulting from a single project or a number of separate projects.

b. The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.” (CEQA Guidelines § 15355).

The MND has not considered the potential effect on the environment caused by cumulative impacts by this Project and other projects.

Recommendation: The CEQA document should be revised to include a discussion of cumulative impacts pursuant to the requirements of CEQA Guidelines § 15130. This may be best accomplished with preparation of an EIR. Other projects that should be considered, include:

a. Other projects that armor the Sacramento River or reduce natural riverine processes, such as meander. Armoring of the Sacramento River reduces habitat for aquatic and terrestrial species and disrupts natural abiotic processes. Therefore, the Project may have significant cumulative impacts on fish and wildlife habitat within the Sacramento River.

b. Substantial diversions from the Sacramento River. The Project will alter the hydraulics of the Project area and the Sacramento River. Likewise, diversions of water from the Sacramento River via the Hamilton City Pumping Plant alter hydraulics and hydrology in the Project area. Both the Project and the diversions will have impacts, both independently and cumulatively, on fish and wildlife resources. Relevant diversions include both the existing and reasonably foreseeable future diversions (for instance, from the Sites Reservoir Project) from the Hamilton City Pumping Plant.

c. Other projects and operations that impact aquatic resources in nearby areas of the Sacramento River.

Additionally, if necessary, the CEQA document should include mitigation for these cumulative impacts.

Comment 17: Alternatives not analyzed
Issue: As described in the technical comments above, the MND has not adequately analyzed the potential impacts of the Project to conclude that the Project will avoid causing significant environmental effects. Pub. Resources Code §21002 states "The Legislature finds and declares that it is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects, and that the procedures required by this division are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects."

Recommendation: Due to the magnitude of potentially significant environmental effects, GCID should prepare a revised CEQA document that analyzes feasible alternatives. This may be best accomplished with preparation of an EIR. For reference, CEQA Guidelines §15126.6 states: "An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives."

Potential alternatives that GCID should analyze include:

a. A no-project alternative.

b. A project that focuses more narrowly on protection of GCID's infrastructure on the west bank. This alternative might omit spur dikes on the east bank, which appear to reduce erosion of the east bank, but not directly contribute to the continuing functionality of the Gradient Facility.

c. A project that utilizes alternate means to protect vital infrastructure (e.g., alternatives to spur dikes and rock slope protection).

Comment 18: EIR should be prepared
Issue: Pub. Resources Code, § 21064.5 defines a Mitigated Negative Declaration as: "a negative declaration prepared for a project when the initial study has identified potentially significant effects on the environment, but (1) revisions in the project plans or proposals made by, or agreed to by, the applicant before the proposed negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur, and (2) there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment." As noted by the comments above, the MND has not adequately demonstrated that the Project would avoid a significant effect on the environment.

Recommendation: GCID should prepare a more robust CEQA document, in the form of an EIR. The MND is incapable of adequately analyzing the potential effect on the environment

from a project of this size and magnitude occurring within the Sacramento River, an important and sensitive resource. An EIR is necessary to provide the "detailed information about the effect which a proposed project is likely to have on the environment; to list ways in which the significant effects of such a project might be minimized; and to indicate alternatives to such a project." (Pub. Resources Code, § 21061).

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 (CNDDB). The CNNDB field survey form can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data. The completed form can be submitted online or mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov.

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 MND for the Gradient Facility Rehabilitation Project to assist GCID in identifying and mitigating Project impacts on biological resources. Due to the issues presented in this letter, CDFW concludes that the MND does not adequately identify or mitigate the Project's significant, or potentially significant, impacts on biological resources. Deficiencies in the Lead Agency CEQA document can affect later project approvals by CDFW in its role as a Responsible Agency. In addition, because of these issues, CDFW has concerns that Lead Agency may not have the basis to approve the project or make "findings" as required by CEQA unless the environmental document is modified to eliminate and/or mitigate significant impacts, as reasonably feasible (CEQA Guidelines, §§ 15074, 15091 & 15092). 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 Ian MacLeod, Senior Environmental Scientist (Specialist) at 916-907-3782 or ian.macleod@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Morgan Kilgour
C3A86764C0AD4F6...

Morgan Kilgour
Regional Manager

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Office of Land Use and Climate Innovation, State Clearinghouse, Sacramento

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