

Lower Deer Creek Flood and Ecosystem Improvement Project, Phase 1

Final Environmental Impact Report
State Clearinghouse Number 2020120149



MARCH 2022



Exhibit A

Lower Deer Creek
Flood and Ecosystem Improvement
Project, Phase 1

Final Environmental Impact Report

State Clearinghouse #2020120149

March 2022



Contents

| | |
|---|------------------|
| Chapter 1: Introduction | page 1-1 |
| 1.1 Purpose of this Document | page 1-1 |
| 1.2 Summary of the Lower Deer Creek Flood and Ecosystem Improvement Project | page 1-1 |
| 1.3 Public Participation and Environmental Review Process | page 1-2 |
| 1.4 CEQA Certification and Project Approval | page 1-3 |
| 1.5 Organization of the Final EIR | page 1-4 |
| Chapter 2: Revisions to the Draft EIR | page 2-1 |
| 2.1 Introduction | page 2-1 |
| 2.2 Text Changes to the DEIR | page 2-2 |
| Chapter 3: Comments and Responses | page 3-1 |
| 3.1 Introduction | page 3-1 |
| 3.2 Comments Received | page 3-1 |
| 3.3 Responses to Comments | page 3-1 |
| Useful Web Links | page WL-1 |

Table

| | |
|---------------------------------|----------|
| Table 1 List of DEIR Commenters | page 3-1 |
|---------------------------------|----------|

Acronyms and Abbreviations

| | |
|------|---|
| AB | Assembly Bill |
| CCR | California Code of Regulations |
| CDFW | California Department of Fish and Wildlife |
| CEQA | California Environmental Quality Act |
| CWA | Clean Water Act |
| DEIR | draft environmental impact report |
| DWR | California Department of Water Resources |
| EFH | essential fish habitat |
| ESA | endangered species act |
| FEIR | final environmental impact report |
| FR | federal register |
| FWCA | Fish and Wildlife Coordination Act |
| MSA | Magnuson-Stevens Act |
| NEPA | National Environmental Policy Act |
| NMFS | National Marine Fisheries Service |
| NOA | notice of availability |
| NOAA | National Oceanic and Atmospheric Administration |
| NOC | notice of completion |
| NOP | notice of preparation |

| | |
|------------------|--|
| NPDES | National Pollutant Discharge Elimination System |
| O&M | operations and maintenance |
| PBFs | physical and biological features |
| proposed project | Lower Deer Creek Flood and Ecosystem Improvement Project, Phase 1 |
| RWQCB | regional water quality control board |
| SCH | State Clearinghouse |
| SVRIC | Stanford-Vina Ranch Irrigation Company |
| SWRCB | State Water Resources Control Board |
| TCFCWCD | Tehama County Flood Control and Water Conservation District |
| TNC | The Nature Conservancy |
| USACE | U.S. Army Corps of Engineers |
| WDR | waste discharge requirement |

Chapter 1: Introduction

1.1 Purpose of this Document

This final environmental impact report (FEIR) has been prepared for the Lower Deer Creek Flood and Ecosystem Improvement Project, Phase 1 (proposed project) in accordance with the California Environmental Quality Act (CEQA) and, together with the draft EIR (DEIR) (November 2021; State Clearinghouse [SCH] #2020120149) and the DEIR appendices, constitutes the EIR for the proposed project that will be reviewed and considered by the California Department of Water Resources (DWR) prior to approving the project.

Written comments on the DEIR were received by DWR during the public comment period from November 30, 2021, through January 14, 2022. This document includes all agency and public written comments received on the DEIR and includes written responses to each comment received. Also included are changes to the text of the DEIR, either in response to written comments or initiated by DWR staff.

The responses to comments and text changes correct, clarify, and amplify text in the DEIR, as appropriate. These changes do not alter the conclusions of the DEIR.

The Lower Deer Creek Flood and Ecosystem Improvement Project, Phase 1 DEIR and appendices can be viewed on the [Public Notices](#) webpage on DWR's website.

1.2 Summary of the Lower Deer Creek Flood and Ecosystem Improvement Project

The proposed project would be located along the lower 8 miles of Deer Creek in Tehama County, California, from 2 miles upstream of Red Bridge to the confluence with the Sacramento River and along the lower 2.6 miles of China Slough to the confluence with the Sacramento River. Deer Creek is bounded by agricultural lands (in use as orchards, row crops, and for cattle grazing), by residences on the north and south banks, and by the town of Vina on the south bank downstream of State Route 99. China Slough, located south of Deer Creek but within its floodplain, is a remnant distributary channel from

Deer Creek. The slough serves as a conduit for water on the floodplain from Deer Creek during high flow events.

The proposed project is a multi-benefit project that would restore the design flood protection level of the United States Army Corps of Engineers (USACE) levee system on Lower Deer Creek and construct additional flood control infrastructure to contain a 21,000 cubic-feet-per-second flood event. The proposed project would also create up to 43 acres of new seasonally inundated floodplain rearing habitat for juvenile salmonids between the Stanford-Vina Ranch Irrigation Company (SVRIC) Dam and Red Bridge. In addition, the proposed project would restore conveyance capacity in China Slough, a remnant distributary channel from Deer Creek. The various project elements are intended to improve flood protection, enhance or create new fisheries habitat, and improve the sediment conditions throughout Lower Deer Creek, thereby reducing the need for extensive in-channel maintenance in the future.

The proposed project includes a 74-acre levee setback and floodplain lowering between the SVRIC Dam and Red Bridge, USACE levee raising, floodway and channel migration easements, a new levee, private levee and berm removal, Red Bridge realignment and expansion, Leininger road raise, access road raising, a new embankment, north and south canal cutoff structure installation, and bank protection along Lower Deer Creek. The proposed project also includes vegetation removal, excavation, and culvert replacement along China Slough.

1.3 Public Participation and Environmental Review Process

DWR notified all responsible and trustee agencies and interested groups, organizations, and individuals that the DEIR for the proposed project was available for review. The following list of actions took place during the preparation, distribution, and review of the DEIR:

- A notice of preparation (NOP) for the EIR and notice of completion (NOC) were filed with the SCH on December 9, 2020 (SCH# 2020120149). The NOP was also published on the DWR website under "Public Notices." The NOP included information regarding the project location, background, objectives, description, and potential environmental impacts. The official 30-day public review comment period for the NOP ended on January 11, 2021.
- The NOP was mailed to appropriate local, State, and federal agencies,

the Tehama County Clerk's office, a Native American tribe affiliated with the project area, nearby property owners, and other interested parties. The NOP was also emailed to interested parties pursuant to Public Resources Code 21092.2.

- A virtual public scoping meeting for the EIR was held on December 15, 2020, to solicit input on the scope and content of the EIR.
- Comments received during the comment period were taken into consideration during the preparation of the DEIR.
- The DEIR, notice of availability (NOA), and NOC were filed with the SCH on November 30, 2021, for a public review period ending on January 14, 2022. The DEIR and NOA were also published on the DWR website under "Public Notices."
- The NOA was also published in the Red Bluff Daily News and distributed to appropriate local, State, and federal agencies, the Tehama County Clerk's office, the public library in Red Bluff, a Native American tribe affiliated with the project area, nearby property owners, and other interested parties.

1.4 CEQA Certification and Project Approval

Before DWR makes a decision with regard to the proposed project, State CEQA Guidelines Section 15090(a) requires that DWR first certify that the EIR has been completed in compliance with CEQA, that DWR has reviewed and considered the information in the EIR, and that the EIR reflects the independent judgment and analysis of DWR.

In the event DWR approves the proposed project, CEQA requires that DWR file a Notice of Determination and adopt appropriate findings as set forth in State CEQA Guidelines Section 15091. Under State CEQA Guidelines Section 15092, a lead agency may only approve or carry out a project subject to an EIR if it determines that: (1) the project will not have a significant effect, or (2) the agency has eliminated or substantially lessened all significant effects on the environment where feasible and any remaining significant effects on the environment that are found to be unavoidable are acceptable due to overriding considerations.

1.5 Organization of the Final EIR

The FEIR is organized as follows:

- Chapter 1 – Introduction: This chapter summarizes the project under consideration and describes the contents of the FEIR.
- Chapter 2 – Revisions to the Draft EIR: This chapter summarizes text changes made to the DEIR in response to comments received or initiated by DWR staff.
- Chapter 3 – Comments and Responses: This chapter includes a list of commenters on the DEIR, the comment letters received during the public review period for the DEIR, and DWR responses to each comment.

Chapter 2: Revisions to the Draft EIR

2.1 Introduction

This chapter presents revisions to the DEIR, including those that have been made in response to comments received (see Chapter 3 of this FEIR) or initiated by DWR staff.

Under CEQA, recirculation of all or part of an EIR may be required if significant new information is added after public review and prior to certification. According to State CEQA Guidelines Section 15088.5(a), new information is not considered significant “unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project’s proponents have declined to implement.” More specifically, the State CEQA Guidelines define significant new information as including:

- A new significant environmental impact resulting from the project or from a new mitigation measure proposed to be implemented.
- A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
- A feasible project alternative or mitigation measure considerably different from those others previously analyzed would clearly lessen the environmental impacts of the project, but the project proponents decline to adopt it.
- The DEIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

The text changes described below update, refine, clarify, and amplify the project information and analyses presented in the DEIR. No new significant impacts are identified, and no information is provided that would involve a substantial increase in the severity of a significant impact that would not be mitigated by measures agreed to by DWR. In addition, no new or considerably different DWR alternatives or mitigation measures have been identified. Finally, there are no changes or set of changes that would reflect

fundamental inadequacies in the DEIR. Therefore, recirculation of any part of the DEIR is not required.

2.2 Text Changes to the DEIR

Changes made to the text are indicated by ~~strikeout~~ where text was deleted and by double underline where text was added. The text revisions presented in this FEIR are organized by the chapter, section, and page number in which they appear in the DEIR.

The text revisions provide clarification, amplification, and corrections that have been identified since publication of the DEIR. The text changes do not result in a change in the analysis or conclusions of the DEIR.

Executive Summary

Section ES.2, "Project Overview" (page ES-1), was corrected as follows:

The proposed project would be located along the lower 8 miles of Deer Creek in Tehama County, California, from 2 miles upstream of Red Bridge to the confluence with the Sacramento River and along the lower 2.6 miles of China Slough to the confluence with ~~the Sacramento River~~ Deer Creek (Figure ES-1).

Section ES.4.1, "Agency and Stakeholder Consultation and Coordination" (page ES-5), was corrected as follows:

Outreach has also been conducted with the California Department of Fish and Wildlife (CDFW), U.S. Fish and Wildlife Service, National Marine Fisheries Service, USACE, the Tehama County Flood Control and Water Conservation District, The Nature Conservancy, the Northern California Land Trust, Trout Unlimited, and American Rivers.

Section ES.4.3, "Tribal Consultation" (pages ES-5 and ES-6), was updated as follows:

Assembly Bill (AB) 52 coordination is required when a Tribe has requested that a CEQA lead agency consult with them for a specific geographic area. DWR has not received notification requests pursuant to AB 52 that include the project area, so AB 52 coordination is not required for the proposed project. Although AB 52 coordination is not required, consultation efforts were conducted by DWR in compliance

with the California Natural Resources Agency Tribal Consultation Policy and the DWR Tribal Engagement Policy to ensure effective government-to-government consultation between DWR and Native American Tribes affiliated with the geographic area of the project. A letter of invitation for tribal engagement was mailed in December 2020 to the Paskenta Band of Nomlaki Indians, which was identified as being traditionally and culturally affiliated with the project area. DWR sent a second tribal engagement letter to the contact for the Paskenta Band of Nomlaki Indians in September 2021. To date, no response has been received.

Table ES-3, "Summary of Impacts and Mitigation Measures by Resource Topic" (page ES-17), was corrected as follows (see Mitigation Measures WILDLIFE-6 and WILDLIFE-8 on the next page):

| Impact | Alternative | Impact Significance Before Mitigation | Mitigation Measure | Impact Significance After Mitigation |
|--|-------------|---------------------------------------|---|--------------------------------------|
| Biological Resources — Wildlife | | | | |
| Impact WILDLIFE-1: Have a substantial adverse effect, either directly or through habitat modification, on any wildlife species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or CDFW and USFWS regulations. | No Project | NI | None required. | NI |
| | A through F | LTS (m) | Mitigation Measure WILDLIFE-1: Implement a Worker Environmental Awareness Program. | LTS |
| | A through F | LTS (m) | Mitigation Measure WILDLIFE-2: Implement Protection Measures for the Western Pond Turtle. | |
| | A through F | LTS (m) | Mitigation Measure WILDLIFE-3: Implement Protective Measures for Nesting Raptors. | |
| | A through F | LTS (m) | Mitigation Measure WILDLIFE-4: Habitat Protection – Nesting Migratory Birds. | |
| | A through F | LTS (m) | Mitigation Measure WILDLIFE-5: Tricolored Blackbird Nesting. | |
| | A through F | LTS (m) | Mitigation Measure WILDLIFE-6: Habitat Protection = Burrowing Owl. | |
| | A through F | LTS (m) | Mitigation Measure WILDIFE-7: Implement Protective Measures During Removal of Trees That Provide Suitable Bat Roosting Habitat. | |
| | A through F | LTS (m) | Mitigation Measure WILDLIFE-8: Implement Bat Protection Measures during Construction Activities Under or Within 100 Feet <u>of</u> Red Bridge. | |
| | A through F | LTS (m) | Mitigation Measure WILDLIFE-9: Implement Protection Measures for the Valley Elderberry Longhorn Beetle. | |

Chapter 1. Introduction

Section 1.3, "Project Setting" (pages 1-3 and 1-4), was corrected as follows:

The proposed project would be located along the lower 8 miles of Deer Creek in Tehama County, California, from 2 miles upstream of Red Bridge to the confluence with the Sacramento River, and along the lower 2.6 miles of China Slough to the confluence with the Sacramento River Deer Creek (see Figure 1-1).

Table 1-1, "Anticipated Permits and Approvals for the Lower Deer Creek Flood and Ecosystem Improvement Project" (pages 1-16 and 1-17), was corrected to include the following:

| Agency | Potential Approval/Permit |
|---|--|
| Federal | |
| United States Fish and Wildlife Service | <ul style="list-style-type: none"> • ESA Section 7 Consultation (Biological Opinion). • Federal Fish and Wildlife Coordination Act Report. |
| National Marine Fisheries Service | <ul style="list-style-type: none"> • ESA Section 7 Consultation (Biological Opinion) • Essential Fish Habitat Conservation Recommendations. • <u>Federal Fish and Wildlife Coordination Act Report.</u> |
| United States Army Corps of Engineers | <ul style="list-style-type: none"> • CWA Section 404 Permit • RHA Section 14 (33 USC 408) Permission |

Chapter 2. Consistency with Applicable Plans and Policies

Section 2.1.4.2, "Magnuson-Stevens Fishery Conservation and Management Act" (page 2-3), was revised as follows:

NMFS is the lead agency responsible for the Magnuson-Stevens Fishery Conservation and Management Act (MSA). ~~Compliance with this act is required once consultation under Section 7 of the federal ESA is~~

underway. The MSA requires that all federal agencies consult with NMFS on activities or proposed activities authorized, funded, or undertaken by that agency, which may adversely affect essential fish habitat (EFH) of commercially managed marine and anadromous fish species. The MSA and EFH are described in more detail in Section 4.5.1.7, "Essential Fish Habitat" (page 4-91). Potential impacts to essential fish habitat are described in Section 4.5.3, "Impact Analysis" under "Habitat Modification" (page 4-96). Requirements of this act will be met through during the Section 7 consultation-permitting process in the next phase of the project.

Section 2.1.4.3, "Clean Water Act, Section 401" (page 2-3), was revised as follows:

~~The EPA is the lead federal agency responsible for water quality management. The Clean Water Act (CWA) of 1972 is the primary federal law that governs and authorizes water quality control activities by the EPA as well as the State. CWA Section 401 establishes a requirement that a federal agency may not issue a permit or waiver for any activity~~ gives states and authorized tribes the authority to grant, deny, or waive certification of proposed federal licenses or permits that involves the discharge into waters of the United States unless a Section 401 water qualification is issued.

Section 2.1.4.4, "Clean Water Act, Section 402" (page 2-4), was revised as follows:

CWA Section 402 regulates discharges through National Pollutant Discharge Elimination System (NPDES) and State waste discharge requirements (WDRs). In California, the State Water Resources Control Board (SWRCB) oversees the NPDES program and the regional water quality control boards (RWQCBs) administer it. By complying with this law and obtaining necessary permits for any discharges into navigable waters during construction of the proposed project, the proposed project would be consistent with the CWA, Section 402.

Section 2.1.4, "Biological Resources — Fish and Aquatic Habitat" (page 2-4), was revised to add the following:

2.1.4.6 Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act requires that federal agencies consult with the USFWS, NMFS, and State wildlife agencies for activities that affect, control, or modify waters of any stream or bodies of water, in order to minimize the adverse impacts of such actions on fish and wildlife resources and habitat.

Chapter 3. Description of Project Alternatives

Section 3.2.2, "Levee Setback Options" (page 3-10), was revised for clarification:

Discussions with adjacent landowners prompted the evaluation of the multiple setback options (A through F); the options are described below and shown in plan-view on Figure 3-4; and cross-section views representing coarse modeling conditions are shown in Figures 3-5a through 3-5f:

Section 3.4.12, "Levee Setback Options" (pages 3-23 and 3-24), was revised for clarification:

Despite the variation in size and alignment of the levee setback options, all of the levee setbacks would be constructed in the same way. The new setback levees would be designed and constructed in accordance with the 23 CCR and USACE criteria. The levees would have a 12-foot crest width and 3H:1V slopes. The setback levee heights would be adjusted between a raise of 5.5 feet and lowering by 2 feet at various points throughout the alignment of each. Table 3-2 summarizes the levee height adjustments. Figure 3-7 shows these differences in levee heights that would be required to meet USACE freeboard requirements along the entire length of Deer Creek within the project area. Figures 3-5a to 3-5f show the cross-sections of the levee setback options. These cross-sections are based on coarse modeling conditions and are not intended to represent design-level drawings.

Section 3.6.2, "Flood Conveyance-Related Maintenance" (pages 3-31 through 3-33), was revised for clarification, as follows:

China Slough maintenance is expected to include invasive plant species maintenance and removal. These maintenance activities, which may include applying natural weed killers that prevent weeds from sprouting, using flame weeding to destroy weeds and seeds at once, layering mulch in weed-prone areas to suppress weed sprouting and attract insects that eat seeds, heating soil to temperatures high enough to kill weeds seeds, or forcing seeds to sprout and destroy growing weeds, would be conducted by private landowners in coordination with the TCFCWCD. China Slough vegetation maintenance would be the same under each project alternative.

Chapter 4. Environmental Impact Analysis

Section 4.5.1.4, "Designated Critical Habitat" (page 4-89 and 4-90), was updated, as follows:

Designated critical habitat for spring-run Chinook salmon and Central Valley steelhead (70 FR 52488, September 2, 2005) occurs in the project area. Critical habitat is defined as specific areas that contain physical and biological features (PBFs) (formerly referred to as primary constituent elements (PCEs) and physical habitat elements essential to the conservation of species listed as threatened or endangered under the ESA. ~~PCE~~PBFs for spring-run Chinook salmon and Central Valley steelhead include sites essential to support one or more life stages of the ESU (sites for spawning, rearing, migration, and foraging). These sites, in turn, contain physical or biological features essential to the conservation of the ESU (for example, spawning gravels, water quality and quantity, side channels, forage species). The ~~PCE~~PBFs for these species within the project area, which include freshwater rearing habitat and freshwater migration corridors, are described below.

Section 4.5.2, "Regulatory Setting" (page 4-91), was revised to add the following:

Federal Regulations

- ESA (protects species listed as threatened and endangered from take.) — Applies to impact analysis, project design, and construction.

- Magnuson-Stevens Fishery Conservation and Management Act — Applies to impact analysis and construction.
- Fish and Wildlife Coordination Act — Applies to impact analysis and construction.

Section 4.5, “Biological Resources — Fish and Aquatic Habitat” (page 4-97), was corrected as follows:

Mitigation Measure FISH-1: Implement Avoidance Work Windows.

All instream work shall be conducted between August 1 and September 30 to minimize impacts to migration of anadromous fish, pending discussion with CDFW. By scheduling activities when anadromous fish are least likely to be present, this work window avoids rearing and migration windows for Central Valley spring-run Chinook salmon, Central Valley steelhead, and fall-run and late-fall-run Chinook salmon. NMFS and CDFW approvals will be required for work instream work if it is to occur before July 1 or after September 30 (but no later than October 14).

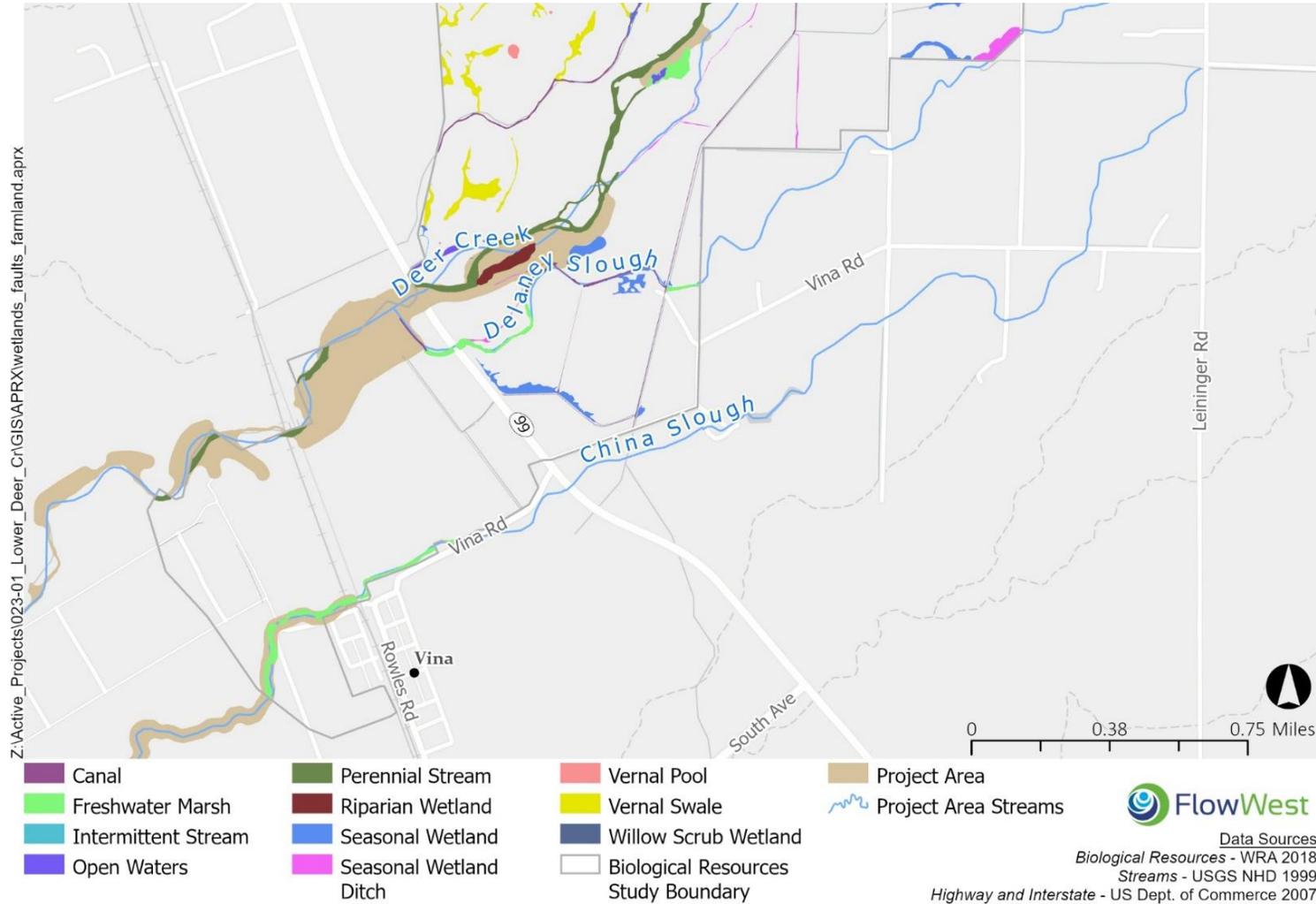
Section 4.5, “Biological Resources — Fish and Aquatic Habitat” (page 4-98), was corrected as follows:

Mitigation Measure FISH-3: Construction Activities requiring Pile Driving will be conducted with a Vibratory Pile Driver.

Construction activities requiring pile driving will be conducted with a vibratory pile driver.

Figure 4.6-2 (page 4-104) was replaced with the correct image:

Figure 4.6-2 Potentially Jurisdictional Wetlands and Other Waters Mapped in the Deer Creek Assessment Area – Downstream



Section 4.8, "Biological Resources — Wildlife" (page 4-167), was corrected to omit the following:

Construction activities that would occur within the vicinity of elderberry shrubs have the potential to degrade habitat quality, directly harm the VELB, or result in the loss or relocation of the shrubs. If avoidance is feasible, implementation of the elderberry shrub protection measures included in Mitigation Measure WILDLIFE-9 would reduce potential impacts to **less than significant**. ~~If avoidance is not feasible, implementation of the compensatory measures included in Mitigation Measures WILDLIFE-10 would reduce potential impacts to **less than significant**.~~

Section 4.8, "Biological Resources — Wildlife" (page 4-173), was corrected as follows:

Mitigation Measure WILDLIFE-6: Habitat Protection = Burrowing Owl.

Section 4.8, "Biological Resources — Wildlife" (page 4-174), was corrected as follows:

Mitigation Measure WILDLIFE-8: Implement Bat Protection Measures during Construction Activities Under or Within 100 Feet of Red Bridge.

Chapter 3: Comments and Responses

3.1 Introduction

This chapter contains written responses to all comments received by DWR from agencies and the public on the draft EIR. The information included in responses to comments clarify, amplify, or make insignificant modifications to the draft EIR. These responses do not identify any new significant effects on the environment or a substantial increase in the severity of an environmental impact requiring major revisions to the Draft EIR that would require recirculation. Text changes in the DEIR that are warranted based on comments received on the DEIR are included in Chapter 2, "Revisions to the Draft EIR."

3.2 Comments Received

Table 1 lists all of the parties who submitted comments on the Draft EIR during the public comment period. All comments were submitted via email.

Table 1 List of DEIR Commenters

| Letter Number | Entity | Author of Comment Letter | Date Received |
|----------------------|-----------------------------------|---|----------------------|
| 1 | Hamilton Ranch | Justin Hamilton | January 6, 2022 |
| 2 | The Nature Conservancy | Andrea Craig, on behalf of Michael McFadden | January 12, 2022 |
| 3 | National Marine Fisheries Service | Ellen McBride | February 17, 2022 |

3.3 Responses to Comments

This section presents the comment letters received (see Table 1) followed by responses to the comments contained in each letter.

January 5, 2022
Justin Hamilton
6393 Leininger Rd
Vina, CA 96092

Dear Amy Lyons,

The attached letter, sent by Curt Babcock, Habitat Conservation Program Manager for the California Department of Fish and Wildlife to Mike Wallace, president of the Deer Creek Watershed Conservancy, on May 5, 2021, is being shared with the Department of Water Resources as part of our comment on the Draft Environmental Impact Report (DEIR) for the Lower Deer Creek Flood and Ecosystem Improvement Project. We have incorporated this letter in our comment on the DEIR to ensure that CDFWs commitments for the project are included in the public record, and to clarify our expectations as landowners located within the project area.

The attached letter describes CDFWs support of the project Alternative A, which includes the largest levee setback configuration, and describes CDFWs commitment *“to finding options that help ensure the viability of agricultural land in the project area. CDFW will support and aid, where possible, in the implementation of improvements needed to offset the change in land use within the levee setback reach and to help landowners minimize impacts to their livelihood from this project.”* The specific types of support for ensuring viability listed in the CDFW letter include:

- **Preservation/stockpiling of remnant levee material for possible future use.** This could include the levee material as well as material from the floodplain lowering areas throughout the project extent. This material would be placed as directed by the landowner to improve agricultural conditions. This may include such improvements as filling in and leveling of currently unused areas in order to extend irrigated pasture. It may also be required that material be sifted to be suitable for use as topsoil.
- **Installation of cutoff structures in south (and north, if needed) ditches to prevent flood flows from leaving the floodway.** These structures would be compatible with existing and potential future water supply system infrastructure and maintained as part of that system.
- **Land purchase and/or exchange.** Land that can no longer be maintained as productive, irrigated pasture within setback areas will need to be replaced with nearby irrigated pasture of equal or greater productivity. Funding for the purchase, exchange, acquisition of easements, or other mechanisms will be prioritized under CDFWs grant programs for restoration projects of this type. This land must be in the immediate area of current operation. This is due to the trucking costs and complexities associated with moving cattle. The current operational overhead costs do not include any trucking of cattle except for those being shipped to market. Any added trucking costs would greatly affect the sustainability of the operation in the future.

- **Assistance in establishing grazing on nearby pastures, and keeping livestock fed during construction.** We expect that it could take one or more seasons of construction to complete the levee setback work, during which time we expect our ability to feed the same number of cattle as prior to the project will be impacted. We interpret this as CDFW facilitating successful discussions with nearby landowners to provide temporary access to grazing land and/or funding our purchase of feed needed to maintain our production level during construction. If adequate grazing land cannot be procured, then the amount, and quality of feed to be purchased shall be of equal or greater nutritional value as the perennial vegetation which would have been available before the project.
- **Irrigation system installation and replacement.** This would include replacement of irrigation systems that need to be moved due to the location of project elements, and new irrigation systems as needed to improve production on new grazing land put into production through acquisition, exchange, easement, or some other mechanism. The current acreage that is feasible for improvement from non-irrigated to irrigated is roughly 28 acres. This would require approximately 4800 feet of irrigation pipeline which shall be installed to meet or exceed NRCS standards.
- **Fencing.** This would include both fencing that would need to be relocated due to project elements and new fencing that could include parallel fencing along levees to facilitate movement of cattle to nearby grazing land. All fencing must be installed to meet or exceed standards set by NRCS.
- **Regulatory coverage for access to, minor maintenance in, and grazing in setback areas.** This would include coverage for access to the new setback areas as long as they continue to produce suitable forage for cattle as well as access for passage of livestock. CDFW would assist in streamlining and allowing access for cattle movement and grazing in the setback areas.
- **Regulatory coverage for a cattle creek crossing if new grazing land is on other side of Deer Creek and an alternate route is not feasible.** CDFW would provide necessary technical and administrative services required to establish regulatory coverage (environmental compliance documentation and permits) for cattle to cross Deer Creek as needed at a location of the landowner's designation.
- **Easements to offset the changing of land from irrigated pasture to "opportunistic" grazing or no grazing.** If post-project conditions in portions of the setback areas are deemed by the landowner to still provide viable grazing conditions at a lower level of production than existed prior to the setbacks, CDFW will support using grant funds from programs for habitat restoration projects like this one to acquire easements that offset the value of lost grazing production.
- **Easement for land use changes at the SVRIC dam, as well as the dam access road and adjacent areas.** CDFW will support using grant funds from programs for habitat

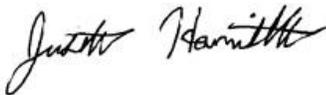
restoration projects like this one to acquire easements that offset the costs or lost production value to the landowner related to changes at SVRIC dam and the access road to the dam.

- **Flood migration easements to offset potential loss-of-use for portions of the creek and riparian areas.** CDFW will support using grant funds from programs for habitat restoration projects like this one to acquire easements that offset the costs or lost production value to the landowner related to changes in the active channel of Deer Creek related to this project.

Consistent with CDFW, we support Alternative A and the findings of the DEIR. Our intent in submitting this comment letter is to make it clear that unless the support described above is provided to our satisfaction, implementation of this project would render our livelihood unsustainable. Therefore, Alternative A will only be viable for us as landowners if the commitments described in the attached letter from CDFW are delivered. Thank you for the opportunity to comment on this project.

Sincerely,

Justin Hamilton, Ranch Manager

A handwritten signature in black ink that reads "Justin Hamilton". The signature is written in a cursive style with a large initial "J" and "H".

See Attachment 1, CDFW Support Letter 5-5-2021.

Response to Comments from Hamilton Ranch

Correspondence Dated January 6, 2022

The commenter's support for the preferred alternative (Alternative A) and the findings of the DEIR are noted and appreciated. The commenter's letter and attachment (which includes CDFW's letter of commitment to support and aid, where possible, in the implementation of improvements needed to offset the change in land use within the setback reach and to help landowners minimize impacts to their livelihood from this project) are included in this FEIR and, consequently, in the project record.



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Northern Region
601 Locust Street
Redding, CA 96001
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



May 5, 2021

Mike Wallace
President, Deer Creek Watershed Conservancy (DCWC)

**SUBJECT: LOWER DEER CREEK FLOOD AND ECOSYSTEM IMPROVEMENT
PROJECT, PHASE 1**

Dear Mike Wallace:

The California Department of Fish and Wildlife (CDFW) is supportive of the Lower Deer Creek Flood and Ecosystem Improvement Project and the proposed project alternatives identified in the draft EIR (to be available for public comment in July 2021). The project will likely involve levee setbacks between Red Bridge and the Stanford-Via Ranch Irrigation Company Dam and depending on the alternative selected, has the potential to create up to 74 acres of new floodplain. To maximize the ecological benefits of this project, CDFW supports the project alternative that will involve the largest overall levee setback and corresponding creation of the floodplain and riparian forest. Currently, the proposed alternative with the largest setback is labeled as Alternative A in the draft EIR.

CDFW is committed to finding options that help ensure the viability of agricultural land in the project area. CDFW will support and aid, where possible, in the implementation of improvements needed to offset the change in land use and within the setback reach and to help landowners minimize impacts to their livelihood from this project. The following topics have been discussed through meetings with individual landowners, DCWC, FlowWest, and CDFW:

- Preservation / stockpiling of remnant levee material for possible future use
- Installation of cutoff structures in south (and north, if needed) ditches to prevent food flows from leaving the floodway
- Land purchase and exchange
- Assistance in establishing grazing on nearby pastures, and keeping livestock fed during construction
- Irrigation system installation and replacement
- Fencing
- Regulatory coverage for access to, minor maintenance in, and grazing in setback areas

Mike Wallace
Deer Creek Watershed Conservancy
May 5, 2021
Page 2

- Regulatory coverage for a cattle creek crossing if new grazing land is on other side of Deer Creek and an alternate route is not feasible
- Easements to offset the changing of land from irrigated pasture to “opportunistic” grazing of no grazing
- Easement for land use changes at the SVRIC dam, as well as the road leading to the dam and adjacent areas
- Flood mitigation easements to offset potential loss-of-life for portions of the creek and riparian areas

The next phase of the project will involve outreach work to determine the terms of the easements for the project and finalize the improvements needed for the landowners to be supportive of the project. This will be done prior to the completion of the project engineering design to ensure on-going support for the project from all the stakeholders involved. CDFW is committed to helping streamline this process wherever possible and will advise the DCWC project team on best approaches to secure funding for the next phases of the project, including the landowner improvements necessary to develop a feasible design.

If you have any questions, please contact Philip Cramer, Environmental Scientist, at Philip.Cramer@wildlife.ca.gov

Sincerely,

DocuSigned by:
Curt Babcock
974D273FEE784E2...

Curt Babcock
Habitat Conservation Program Manager

ec: Mike Wallace
President, Deer Creek Watershed Conservancy (DCWC)
mike@crainwalnut.com

Brad Henderson, John Downs, Michael Harris, Matt Johnson, and Philip Cramer
California Department of Fish and Wildlife
brad.henerson@wildlife.ca.gov; john.downs@wildlife.ca.gov;
michael.r.harris@wildlife.ca.gov; matt.johnson@wildlife.ca.gov;
philip.cramer@wildlife.ca.gov

January 12, 2022

California Department of Water Resources
Attention: Amy Lyons
2440 Main Street
Red Bluff, CA 96080
VIA EMAIL amy.lyons@water.ca.gov

RE: Lower Deer Creek Flood and Ecosystem Improvement Project Public Comment

Dear Ms. Lyons:

Thank you for the opportunity to comment on the above-referenced project (the "Project"). The Nature Conservancy ("TNC") currently holds property interests in the form of conservation easements over the following properties that will be impacted by the Project:

1. Leininger Ranch (Grant Leininger): TNC is the Grantee under that certain Grant Deed of Conservation Easement (Deer Creek – Leininger Ranch) dated November 24, 1998 recorded in Tehama County in Book 1836 Page 354.
2. Berens Property (Gene Amato): TNC is the Grantee under that certain Grant Deed of Conservation Easement (Lassen Foothills – Deer Creek – Berens) dated October 27, 2008 recorded in Tehama County as Document No. 2008015561.
3. Lazy Y Ranch (Darrell Wood): TNC is the Grantee under that certain Grand Deed of Conservation Easement (Lassen Foothills – Deer Creek – Wells 2/Lazy Y Ranch) dated December 9, 2003 recorded in Tehama County in Book 2419 Page 218.
4. The Peek Ranch (Darrell Wood): TNC is the Grantee under that certain Grant Deed of Conservation Easement dated June 25, 2013 recorded in Tehama County as Document No. 2013009248.

Links to the referenced Grants of Easement (together "TNC Easements") are included in this email for your reference.

FlowWest has provided us with a map in which the locations of the Project elements are overlaid against the affected properties (also attached for your reference), and it is clear that all of the TNC Easements properties will be impacted by the Project. Therefore, in addition to the fee property owners, please include TNC in your outreach as to the specific activities being undertaken on the above properties encumbered by TNC Easements.

We are supportive of the goals of the Project to increase flood protection and to restore natural instream habitat. At this time, we do not see a conflict with TNC's conservation easement property interests with most of the activities contemplated by the Project except for the levee setback to be constructed on the Leininger Ranch and potentially bank alterations on the Lazy Y Ranch. Paragraph 2, Exhibit D of the Leininger Easement specifically prohibits the construction of levees and flood control structures on the property. Additionally, the area in which the levee is currently planned includes untouched, native

grassland and rare blue oak habitat. Disturbance by construction equipment, human presence, and the introduction of fill creates a high risk of introduction of weeds and other organisms that could directly threaten the existing native grassland. Additionally, Exhibit D of the Lazy Y Easement prohibits alteration of the water course and riprapping. Therefore, we will also need to closely track project details as they pertain to the Lazy Y Ranch as well.

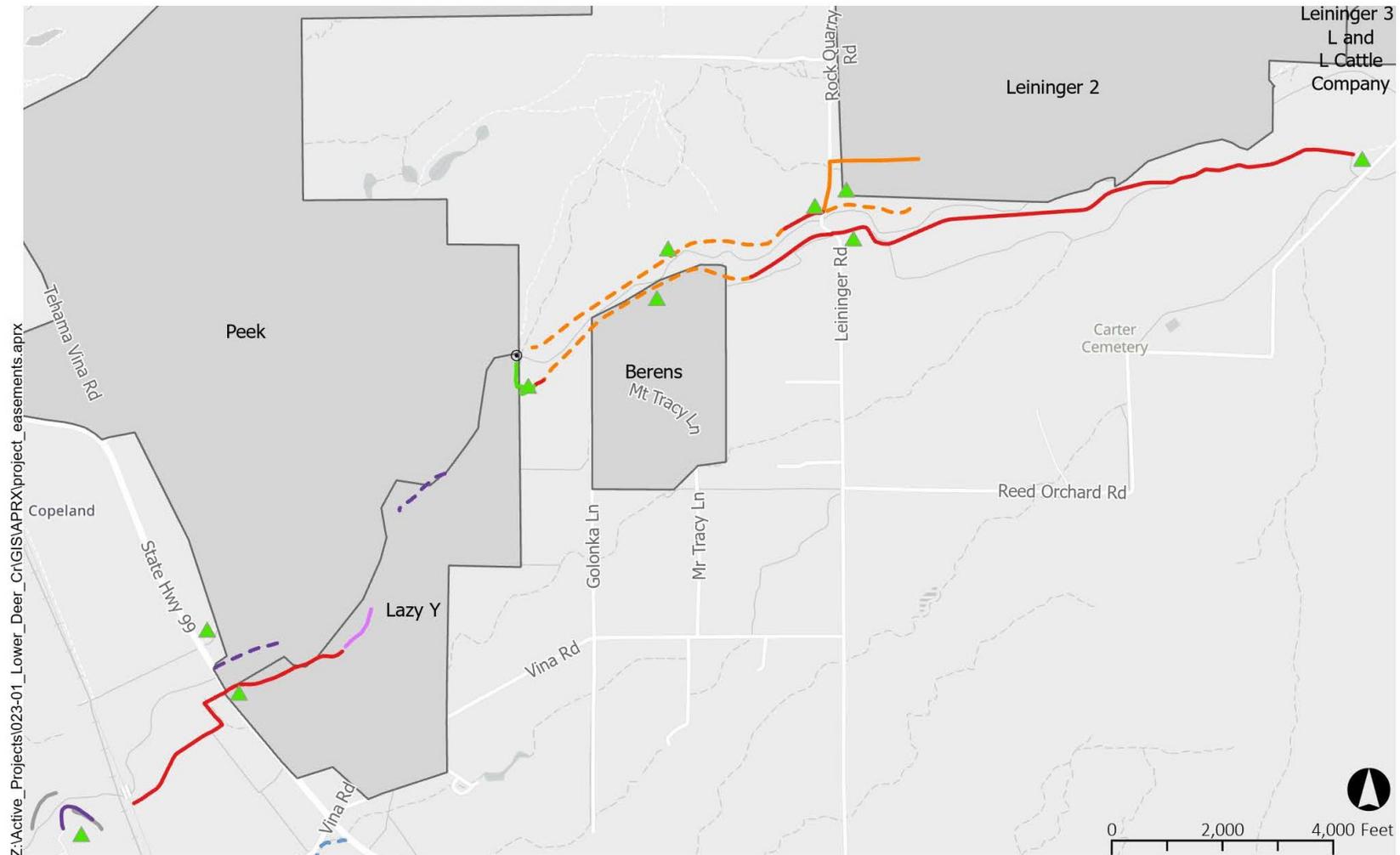
As a nonprofit "qualified holder" of conservation easements as recognized by the Internal Revenue Code, we are mandated by law to protect in perpetuity the conservation values in the TNC Easements. As earlier noted, we understand the regional importance of the Project and the potential improvements the Project will make to habitat for certain species and protection of people and property. We wish to work collaboratively with DWR and its consultants to address our concerns and to ensure that the conservation values for which we acquired the TNC Easements are not compromised.

We look forward to further conversations. For further information and coordination, please contact Andrea Craig, Conservation Project Associate at acraig@tnc.org.

Sincerely,
THE NATURE CONSERVANCY

Andrea M. Craig on behalf of Michael McFadden

Michael McFadden
Associate Director, California Land Program
Attachments



- SVRIC Diversion Dam
- Conservation Easements (TNC)
- Common Project Elements**
- USACE Levee Raising
- - - USACE Levee Removal (for setback)
- USACE Levee Setback
- - - Private Levee and Berm Removal
- New Levee
- - - Bank Protection
- - - New Embankment
- - - USACE Levee (no improvements)
- - - China Slough Vegetation Removal and Grading
- ▲ Potential Stockpiles

FlowWest
 Data Sources
 Project Elements - FlowWest 2021
 Conservation Easements - TNC 2021

Response to Comments from The Nature Conservancy

Correspondence Dated January 12, 2022

The commenter's description of proposed project benefits and support for the project is noted and appreciated. The Nature Conservancy (TNC) will be included in future outreach efforts related to project activities being undertaken within the easement boundaries of the four Lower Deer Creek properties encumbered by TNC easements.

DWR reviewed the terms of the Leininger Ranch Grant Deed of Conservation Easement and met with TNC to discuss proposed project activities within the easement boundary. TNC confirmed that it would need to obtain the necessary approvals (which may include amending the conservation easement) to allow the setback levee to be constructed as long as the conservation values for which the conservation easement was imposed remain intact. Based on discussions with TNC and an evaluation of aerial imagery, DWR confirmed that project activities would be conducted to avoid removal of blue oaks. DWR also confirmed that project activities would be conducted to minimize disturbance to intact native grasslands. Native grassland areas disturbed by project activities outside of the levee footprint would be restored, in collaboration with TNC, to ensure the conservation values for which the conservation easement was imposed remain intact.

DWR commits to reintroduction of native plant species because, as described in the project description and included in Mitigation Measure VEG-3 (refer to DEIR Section 4.7.4, "Impact Analysis" [page 4-139], for the full text of this mitigation measure), disturbed areas would be revegetated with native plant materials and best management practices would be implemented to prevent the introduction of invasive plant species. DWR commits to collaborating with TNC to ensure that any impacts by the proposed project activities within the boundaries of the Leininger Ranch conservation easement would have limited impact on conservation values protected by the easement. Project activities will then have the potential to enhance the conservation values through the enhancement of aquatic habitat in Deer Creek that would result from project implementation.

DWR also reviewed the terms of the Lazy Y Ranch Grant Deed of Conservation Easement as they relate to the proposed bank protection. Proposed bank protection would not alter the course of Deer Creek. The

proposed bank protection would replace existing riprap within the boundary of the easement; no additional linear feet of riprap would be installed beyond the existing riprap. Replacement of bank protection would reduce flood risk and the associated damage from flood flows on the Lazy Y Ranch. TNC acknowledged that bank protection measures to protect Deer Creek could enhance the conservation values of the property as long as such measures are undertaken with minimal impact to the existing creek bank. DWR commits to undertaking stream bank protection in a manner that has as little impact on the existing stream bank as possible. DWR will consult with TNC regarding the manner of such installation to protect the conservation values for which the conservation easement was imposed.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
650 Capitol Mall, Suite 5-100
Sacramento, California 95814-4700

February 17, 2022

Amy Lyons
Manager, Environmental Services Section
California Department of Water Resources
Northern Region Office
2440 Main Street
Red Bluff, California 96080

RE: Draft Lower Deer Creek Flood and Ecosystem Improvement Project, Phase 1 Environmental Impact Report comments

Electronic transmittal only

Dear Ms. Lyons:

Thank you for soliciting comments to the draft Phase 1 Environmental Impact Report (dEIR) for the Lower Deer Creek Flood and Ecosystem Improvement Project (Project). The National Marine Fisheries Service (NMFS) appreciates the opportunity to provide comments and recommendations to the California Department of Water Resources (DWR) regarding those activities that may affect our trust fish species listed under the Endangered Species Act (ESA). NMFS wishes to provide these general comments to the proposed Project described in the dEIR:

- Did the hydrodynamic modeling conducted for the Project include future conditions under different climate change scenarios? How do future conditions related to climate change affect the frequency and volume of flood flows and their elevations in regard to the Project's design for levee heights and floodplain grading?
- Based on the cross-sectional figures provided for the proposed alternatives in figures 3-5a-c, how will the floodplains on the southern side of Deer Creek be graded? The figures depict a gradient that slopes from north to south and has the lowest point of the floodplain against the toe of the southern setback levee. If this is the true gradient, how will flood waters be routed back to the channel of Deer Creek to avoid fish stranding as flood waters recede?
- In multiple sections of the document, under "Regulatory Setting," when a federal permit is issued (*i.e.*, Clean Water Act Section 404), there is no mention of the potential for additional consultations between the permitting federal agency and the Services (NMFS and the United States Fish and Wildlife Service) under the ESA, the Magnuson-Stevens Act (MSA), the Fish and Wildlife Coordination Act (FWCA), as well as other pertinent Acts. This should be included in the narrative for thoroughness of the federal regulatory process.



- As part of the multi-agency and stakeholder coordination process, DWR should engage with NMFS regarding the future development of this Project. In particular, DWR should engage with NMFS' engineering staff in the design of the culverts in China Slough to ensure effective fish passage, and with the staff of the NOAA Restoration Center to ensure that the Project components align with the Programmatic Biological Opinion for the Implementation of Restoration Projects in the Central Valley of California.

In addition to the general comments provided above, NMFS wishes to make these more specific comments regarding the draft EIR's content:

1. On page ES-5, Section ES4.1: Why wasn't NMFS one of the agencies that was part of the outreach and coordination actions?
2. Page 1-16, Table 1-1: NMFS also conducts FWCA consultations. The table should be updated to reflect this role.
3. Page 2-2, Section 2.1.4.1: Prior to future consultations regarding this Project, the species list should be updated to the most current status of species in the area.
4. Page 2-3, Section 2.1.4.2: The ESA and MSA are separate acts and do not require each other for consultation. They are frequently done as a joint consultation for efficiency, and frequently different species are covered by the two acts. Also a subsection should be added to 2.1.4 indicating that consultations under FWCA may also occur for fish and aquatic habitat impacts.
5. Page 2-3, Section 2.1.4.3 and 2.1.4.4: Clean Water Act permitting for Sections 401 and 402 have been delegated to the State of California by the U.S. Environmental Protection Agency.
6. Page 3-3, Section 3.2.1.1: Does the design criteria for the levee heights and flood flows take into account Climate Change? Is the 21,000 cfs flow still a valid number for the 50 year event under future climate change conditions?
7. Page 3-7, Section 3.2.1.5: Please make sure that any culvert designs have been coordinated with NMFS' engineering staff to ensure fish passage criteria are met.
8. Page 3-12, Figures 3-5a-c: Please explain why the floodplain gradient on the southern side of Deer Creek under Alternatives A-C slope towards the southern setback levee toe. This would have the potential to create pooling conditions along the southern levee that could lead to stranding issues for listed fish after flood waters recede.
9. Page 3-15, Section 3.2.2.2: Do the exceedance frequencies for flows in Deer Creek reflect future climate change conditions? Values in Table 3-3 may change if future climate change conditions are taken into consideration.
10. Page 3-20, Section 3.4.1: Which levee vegetation operations and maintenance criteria from the Corps will be followed? The old ETL-1110-2-583 was supposed to have sunset in 2019, and the new criteria have not been finalized yet by the Corps.
11. Page 3-20, Section 3.4.3: How will roots and existing seed bed deposits in the soil from invasive plants be handled to prevent regrowth at a later time?
12. Page 3-21, Section 3.4.4: Please coordinate with NMFS' engineering staff to ensure that the culvert design has the capacity to pass fish during high flow events successfully.
13. Page 3-22, Section 3.4.6: Fish passage past the Red Bridge realignment and expansion should be maintained at all times. If a box culvert style temporary bridge is used, please confer with NMFS' engineers to determine the appropriate designs. In describing the

- different alternative bridge replacement strategies, the one with the least environmental impacts should be noted.
14. Page 3-27, Section 3.4.13: Please provide what the success criteria for the floodplain plantings will be (*i.e.*, X% of plants will remain viable, Y years after planting, or something to that nature). Please include any descriptions of contingency plans should planting success criteria not be met.
 15. Page 3-30, Section 3.5.5: Is it anticipated that work will be completed in one calendar year between mid-March and the end of October? If not, will structures such as the cofferdams that alter the stream's channel alignment remain in place between work seasons or will they be removed and the channel allowed to follow its natural course during the non-work intervals? In addition, if the stream of funding for this Project is not guaranteed, how will this impact the certainty that the Project elements will be completed as proposed?
 16. Page 3-31, Section 3.6.2: Besides the four listed regulations, will DWR follow MSA, FWCA, or other regulatory constraints that may pertain to maintenance activities?
 17. Page 4-90, 4.5.1.4: NMFS uses physical and biological features (PBFs) now instead of principal constituent elements (PCEs) to describe critical habitat components, although the two terms identify the same factors in the critical habitat Federal Register listings.
 18. Page 4-91, Section 4.5.2: This section should also include FWCA as a regulatory instrument that is applicable to this Project.
 19. Page 4-96, Section 4.5.4 – O&M-related Impacts: Please explain how the floodplains will be graded to avoid the north to south gradient that was previously seen in the earlier cross-sectional figures, and thus avoid any ponding of water against the southern setback levee.
 20. Page 4-98, Mitigation Measure FISH-2: How will surveys be conducted to look for the presence of sensitive fish species? Will seines or electrofishing be used and what type of handling protocol will be used? Also, NMFS has a newer guidance document for screening (NMFS 2011) besides the 1996 criteria for screening pump intakes.
 21. Pages 4-103 and 4-104, Figures 4.6-1 and 4.6-2: These two figures look identical, yet have different titles.

NMFS wishes to thank the California Department of Water Resources for the opportunity to offer comments and suggestions for the Draft Lower Deer Creek Flood and Ecosystem Improvement Project, Phase 1 Environmental Impact Report.

Please contact Neal McIntosh at (916) 930-5647 or via email at <neal.mcintosh@noaa.gov> if you have any questions concerning these comments or require additional information.

Sincerely,



Ellen Roots McBride, M.S.
Branch Chief
Sacramento River Basin Branch

Response to Comments from the National Marine Fisheries Service Correspondence Dated February 17, 2022

The commenter contacted DWR after the public review comment period had closed, explaining that the National Marine Fisheries Service (NMFS) did not receive the NOA for the Lower Deer Creek Flood and Ecosystem Improvement Project during the review period because the NOA was mailed to their office and staff no longer work in the office — mail is only checked intermittently. After taking into consideration the circumstances that led to NMFS' request for late comment, and in the interest of maintaining the good working relationship that DWR has with NMFS, DWR agreed to extend the timeline to provide NMFS with the opportunity to comment.

Responses to NMFS' four general comments and 21 specific comments are addressed below in the order that they were presented in the comment letter. Changes made to the DEIR text in response to comments are indicated by ~~strikeout~~ where text was deleted and by double underline where text was added.

Responses to General Comments

1. Subject: Climate change.

This comment is not related to the adequacy or accuracy of the CEQA analysis. However, climate change is relevant to the design and sustainability of this project. The modeling team did account for climate change in the modeling and design of the project:

Hydraulic modeling included a sensitivity analysis that increased and decreased the downstream boundary condition elevations by 10 percent. The sensitivity analysis showed that upstream water surface elevations were the same as baseline elevations less than 2 miles upstream. This result confirmed that if climate change modified future hydrology, hydraulic predictions for the project would still be accurate.

The project design addresses potential future climate change impacts on hydrology with setback levees, which are more resilient to future climate change impacts than the existing levees. In general, climate change is expected to result in more rain and less snow pack, and more extreme dry and wet conditions. Setback levees are more resilient to potential future extreme flows with

climate change, and the floodplain rearing habitat provided by the project will provide improved rearing habitat for salmonids that could be further impacted by warmer conditions expected with climate change. As the project design is refined in the next phases of the project, the design will account for climate change as required by existing applicable laws or regulations.

2. Subject: Fish stranding.

The cross-sections shown on Figures 3-5a through 3-5c (page 3-13) do not represent the proposed design of the project, but rather coarse modeling conditions of lowering the floodplain uniformly. These images should not be interpreted as design-level drawings. For clarification, the text preceding these figures was revised (page 3-10):

Discussions with adjacent landowners prompted the evaluation of the multiple setback options (A through F); the options are described below and shown in plan-view on Figure 3-4; ~~and~~ cross-section views representing coarse modeling conditions are shown in Figures 3-5a through 3-5f:

Text within the description of construction techniques was also revised for clarity, as follows (page 3-24):

3.4.12 Levee Setback Options

Despite the variation in size and alignment of the levee setback options, all of the levee setbacks would be constructed in the same way. The new setback levees would be designed and constructed in accordance with the 23 CCR and USACE criteria. The levees would have a 12-foot crest width and 3H:1V slopes. The setback levee heights would be adjusted between a raise of 5.5 feet and lowering by 2 feet at various points throughout the alignment of each. Table 3-2 summarizes the levee height adjustments. Figure 3-7 shows these differences in levee heights that would be required to meet USACE freeboard requirements along the entire length of Deer Creek within the project area. Figures 3-5a to 3-5f show the cross-sections of the levee setback options. These cross-sections are based on coarse modeling conditions and are not intended to represent design-level drawings.

As described on page 4-99 under the description of O&M-related

Impacts related to Impact FISH-2, "Interfere substantially with the movement of any native resident or migratory fish species":

"Setting back the existing levees would expose the area between the channel and the proposed setback levee to seasonal flooding. As flood waters recede, topographic low points could remain inundated but become isolated from receding floodwaters and result in fish stranding, which would be potentially significant. But, the setback area would be designed and graded appropriately to include proper drainage following floodplain inundation to avoid potential for fish stranding and reduce impacts to less-than-significant levels."

As described on page 4-99, the project design would include grading so that the floodplain would properly drain to the channel and no fish stranding would occur.

3. Subject: Federal agency consultation.

The regulatory setting in each resource section includes a list of applicable laws and regulations. Each regulatory setting section directs the reader to refer to Chapter 2, "Consistency with Applicable Laws, Regulations, Policies, and Plans," for additional information on the laws, regulations, policies, and plans listed. Chapter 2 includes information related to consultation requirements. In addition, Table 1-1, "Anticipated Permits and Approvals for the Lower Deer Creek Flood and Ecosystem Improvement Project" (page 1-16), lists consultation requirements under each of the regulations.

4. Subject: China Slough culvert.

Previous discussions with Matthew Johnson of CDFW indicated that China Slough is unlikely to support special-status fish species. As described on page 4-77, "...because of extensive emergent vegetation and degraded water quality conditions present in ponded areas, the slough is unlikely to support any special-status fish species (Johnson 2021)." Although special-status fish species likely are not present in China Slough, it is possible for special-status fish species, such as juvenile salmonids, to have access to China Slough during flood conditions on the Sacramento River.

The new culvert(s) will be subject to all relevant permits and design will be subject to CDFW review during the Lake and Streambed Alteration Agreement process and NMFS federal consultation under the ESA, the Magnuson-Stevens Act (MSA), the Fish and Wildlife Coordination Act (FWCA), as well as other pertinent regulations. NMFS and the National Oceanic and Atmospheric Administration (NOAA) Restoration Center will be engaged during consultations to ensure adequate and appropriate fish passage in the design of the China Slough culvert(s).

Responses to Specific Comments

1. NMFS was erroneously omitted from the list of agencies in this section. On December 4, 2020, DWR sent the NOP for the project to NMFS via certified mail. The NOP was returned to DWR on January 22, 2021, with an "UNCLAIMED" stamp. On January 26, 2021, DWR sent the NOP via email to Ruth Goodfield at NMFS explaining what had happened, asking who the appropriate NMFS contact person was for the project. The email explained that although the comment period already closed, and although the project is designed to benefit fisheries and floodplain and riparian habitat, it was very important to DWR and the project team to get feedback from NMFS on the scope and content of the EIR. Ms. Goodfield replied that same day requesting a more detailed project description. A more detailed project description was not available at that time. The detailed project description was provided to NMFS via distribution of the DEIR.

Page ES-5, Section ES.4.1, "Agency and Stakeholder Consultation and Coordination" (page ES-5), was corrected as follows:

Outreach has also been conducted with the California Department of Fish and Wildlife (CDFW), U.S. Fish and Wildlife Service, National Marine Fisheries Service, USACE, the Tehama County Flood Control and Water Conservation District, The Nature Conservancy, the Northern California Land Trust, Trout Unlimited, and American Rivers.

2. Table 1-1, "Anticipated Permits and Approvals for the Lower Deer Creek Flood and Ecosystem Improvement Project" (page 1-16), was updated to list Fish and Wildlife Coordination Act consultation as a NMFS role.

3. Comment is noted, and species lists will be updated to the most current status of species in the area during the permitting phase of the project.
4. Page 2-3, Section 2.1.4.2, "Magnuson-Stevens Fishery Conservation and Management Act" (page 2-3), was revised as follows:

~~NMFS is the lead agency responsible for the Magnuson-Stevens Fishery Conservation and Management Act (MSA). Compliance with this act is required once consultation under Section 7 of the federal ESA is underway. The MSA requires that all federal agencies consult with NMFS on activities or proposed activities authorized, funded, or undertaken by that agency, which may adversely affect essential fish habitat (EFH) of commercially managed marine and anadromous fish species. The MSA and EFH are described in more detail in Section 4.5.1.7, "Essential Fish Habitat" (page 4-91). Potential impacts to essential fish habitat are described in Section 4.5.3, "Impact Analysis" under "Habitat Modification" (page 4-96). Requirements of this act will be met through during the Section 7 consultation-permitting process in the next phase of the project.~~

Page 2-4 was revised to include the following:

2.1.4.6 Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act requires that federal agencies consult with the USFWS, NMFS, and State wildlife agencies for activities that affect, control, or modify waters of any stream or bodies of water, in order to minimize the adverse impacts of such actions on fish and wildlife resources and habitat.

5. Page 2-3, Section 2.1.4.3, "Clean Water Act, Section 401" (page 2-3), was revised as follows:

~~The EPA is the lead federal agency responsible for water quality management. The Clean Water Act (CWA) of 1972 is the primary federal law that governs and authorizes water quality control activities by the EPA as well as the State. CWA Section 401 establishes a requirement that a federal agency may not issue a permit or waiver for any activity gives states and authorized tribes the authority to grant, deny, or waive certification of proposed~~

federal licenses or permits that involves the discharge into waters of the United States ~~unless a Section 401 water qualification is issued.~~

Page 2-3, Section 2.1.4.4, "Clean Water Act, Section 402" (page 2-3), was revised as follows:

CWA Section 402 regulates discharges through National Pollutant Discharge Elimination System (NPDES) and State waste discharge requirements (WDRs). In California, the State Water Resources Control Board (SWRCB) oversees the NPDES program and the regional water quality control boards (RWQCBs) administer it. By complying with this law and obtaining necessary permits for any discharges into navigable waters during construction of the proposed project, the proposed project would be consistent with the CWA, Section 402.

6. Please see General Comment Response #1.
7. Please see General Comment Response #4.
8. Please see General Comment Response #2.
9. Please see General Comment Response #1.
10. As stated in the DEIR, project activities would be conducted in accordance with USACE requirements. The criteria used would be those in effect at the time of the permitting process and would be determined during consultation with USACE.
11. Section 3.6.2, "Flood Conveyance-Related Maintenance" (pages 3-31 through 3-33), acknowledges that China Slough maintenance is expected to include invasive plant species maintenance and removal. Native seed and plant propagation strategy takes into account competition between native species and invasive weeds, seeds, and roots. Native plant species, in general, will outcompete invasives if soils, moisture, and shade are adequate. It may be necessary to employ additional methods to reduce invasive weeds, seeds, and roots from re-establishing. These methods would be conducted by private landowners in coordination with the TCFCWCD. Section 3.6.2 (page 3-31) was updated to provide examples of potential methods that may be used:

China Slough maintenance is expected to include invasive plant species maintenance and removal. These maintenance activities, which may include applying natural weed killers that prevent weeds from sprouting, using flame weeding to destroy weeds and seeds at once, layering mulch in weed-prone areas to suppress weed sprouting and attract insects that eat seeds, heating soil to temperatures high enough to kill weeds seeds, or forcing seeds to sprout and destroy growing weeds, would be conducted by private landowners in coordination with the TCFCWCD. China Slough vegetation maintenance would be the same under each project alternative.

12. Comment noted. Please see General Comment Response #4.
13. Fish passage at the Red Bridge realignment and expansion would be maintained at all times, as described in Section 3.4.6, "Red Bridge Realignment and Expansion" (pages 3-21 and 3-22): "Diversion of the channel during construction would maintain flows in the channel upstream and downstream of the dewatered construction area for habitat and aquatic species and to ensure maintenance of water diversions for agricultural irrigation." If a temporary box-culvert bridge is installed during construction, NMFS and the NOAA Restoration Center will be engaged during required consultations to ensure adequate and appropriate fish passage.
14. Planting success varies with the landscape and requires a finer resolution that will be provided by further project design. Success criteria for plantings will be determined by CDFW and the RWQCB during the lake and stream bed alteration agreement and a CWA Section 401 permitting process, respectively.
15. It is anticipated that all work requiring cofferdams will be completed in one calendar year during the construction season. If unforeseen circumstances change this, all cofferdams and instream structures would be removed by the end of the construction season.

The project would not move forward without a dedicated stream of funding. Additionally, any unforeseen changes to the project elements would be made in compliance with relevant laws and regulations, including CEQA and NEPA compliance and consultation under State and

federal permits requirements.

16. The four regulations listed were quoted directly from the DWR website referenced in the in-text citation preceding the list. The paragraph following the list discusses additional regulations that DWR complies with during ongoing maintenance activities. The regulations listed are not comprehensive and are not intended to be. DWR complies with all required federal, State, and, where appropriate, local regulations that are relevant to the maintenance activities being conducted.
17. Comment noted. Text in Section 4.5.1.4, "Designated Critical Habitat" (pages 4-89 and 4-90), was updated as follows:

Designated critical habitat for spring-run Chinook salmon and Central Valley steelhead (70 FR 52488, September 2, 2005) occurs in the project area. Critical habitat is defined as specific areas that contain physical and biological features (PBFs) (formerly referred to as primary constituent elements (PCEs) and ~~physical habitat elements~~ essential to the conservation of species listed as threatened or endangered under the ESA. PCEPBFs for spring-run Chinook salmon and Central Valley steelhead include sites essential to support one or more life stages of the ESU (sites for spawning, rearing, migration, and foraging). These sites, in turn, contain physical or biological features essential to the conservation of the ESU (for example, spawning gravels, water quality and quantity, side channels, forage species). The PCEPBFs for these species within the project area, which include freshwater rearing habitat and freshwater migration corridors, are described below.
18. The Fish and Wildlife Coordination Act was added to the list of regulations in Section 4.5.2, "Regulatory Setting" (pages 4-91 and 4-92).
19. Please see General Comment Response #2.
20. All handling and transfer of fish from the cofferdam area will follow safe handling procedures approved by CDFW. The planning for in-water work will consider all life stages and migration timing to protect listed fish species. In accordance with CDFW's fish discovery and handling protocols, the lead fisheries biologist will work with the appropriate agency lead

biologist to plan the staging and sequencing for work area (cofferdam) isolation, fish capture and removal, and dewatering. The fish handling strategy and protocols will consider the size and channel characteristics of the area to be isolated, the method(s) of dewatering (e.g., diversion with bypass flume or culvert; diversion with sandbag, sheet pile or similar cofferdam; etc.), and what sequence of activities will provide the best conditions for safe capture and removal of fish. Where the area to be isolated is small, depths are shallow, hiding cover is limited, and conditions are conducive to fish capture, it may be possible to isolate the work area and remove all fish prior to dewatering or flow diversion. Where the area to be isolated is large, water is deeper, uncut banks or other hiding cover is present, flow volumes or velocities are high, and conditions are not conducive to efficient fish capture, it may be necessary to commence with dewatering or flow diversion staged in conjunction with fish capture and removal.

21. The image presented for Figure 4.6-2 is incorrect. Figure 4.6-2 was replaced with the correct image showing potentially jurisdictional wetlands and other waters mapped in the downstream portion of the Deer Creek assessment area (refer to Chapter 2 [page 2-11] of this document to see the correct figure).

Useful Web Links

Lower Deer Creek Flood and Ecosystem Improvement Project, Phase 1,
Draft Environmental Impact Report and Appendices

<https://water.ca.gov/News/Public-Notices/2021/November-2021/NOA-Lower-Deer-Creek-EIR>

