



032-71

April 17, 2023

Venton L. Trotter, Supervising Engineer
Shasta County Department of Public Works
1855 Placer Street
Redding, CA 96001

SUBJECT: Responses to Comments: Castella Water Intake Replacement Project

In accordance with the California Environmental Quality Act (CEQA) (California Public Resources Code §21000 *et seq.*) and CEQA Guidelines (California Code of Regulations §15000 *et seq.*), an Initial Study/Mitigated Negative Declaration (IS/MND) for the Castella Water Intake Replacement Project was prepared and made available to the general public and interested agencies for a 30-day public review period in March 2023.

The public and agency review period for the IS/MND ended April 7, 2023. Pursuant to CEQA §21091(d)(1), the lead agency must consider comments it receives on a draft environmental impact report (DEIR), proposed negative declaration (ND), or proposed MND if those comments are received within the public review period. In accordance with §15088 of the CEQA Guidelines, the lead agency shall respond to comments that raise significant environmental issues. The written response must be detailed, especially when specific comments or suggestions (e.g., revisions to the project to mitigate anticipated impacts) are not accepted by the lead agency.

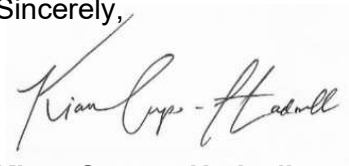
The level of detail contained in the response, however, may correspond to the level of detail provided in the comment (i.e., responses to general comments may be general). A general response may be appropriate when a comment does not contain or specifically refer to readily available information, or does not explain the relevance of evidence submitted with the comment (§15088 of the CEQA Guidelines).

Comments on the Castella Water Intake Replacement Project IS/MND were submitted by the California Department of Fish and Wildlife (CDFW), California Department of Transportation (Caltrans), and State Water Resources Control Board (SWRCB). The comment letters are provided below in their entirety and are followed by a summary of comments included in each letter and a response to each of the comments. As indicated, in response to comments submitted by CDFW, modifications were made to the Revegetation Plan (dated April 2023), revisions were made to two existing mitigation measures, and three additional mitigation measures were added.

Attached is a Mitigation Monitoring and Reporting Program (MMRP); an MMRP must be adopted by the Shasta County Board of Supervisors at the time they adopt the MND. Also attached are the revised Revegetation Plan and Notice of Determination; the Notice of Determination must be filed with the State Clearinghouse and the Shasta County Clerk within five working days of the Board's adoption of the MND.

Please feel free to contact me at **530.221.0440, ext. 7109**, or khadsall@enplan.com if you have any questions or require additional information.

Sincerely,

A handwritten signature in black ink, reading "Kiara Cuerpo-Hadsall". The signature is written in a cursive style with a large, stylized 'K' and 'C'.

Kiara Cuerpo-Hadsall
Environmental Planner

Enclosures:

- Comments and Responses to Comments
- Final Mitigation Monitoring and Reporting Program
- Notice of Determination
- Revised Revegetation Plan (April 2023)

RESPONSES TO COMMENTS

SHASTA COUNTY

CASTELLA WATER INTAKE REPLACEMENT PROJECT

LEAD AGENCY:



Shasta County
1855 Placer St.
Redding, CA 96001-1759
530.225.5661

PREPARED BY:

ENPLAN
3179 Bechelli Lane, Suite 100
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530.221.0440

April 2023



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

Redding, CA 96001

March 23, 2023

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



LETTER 1 California Department of Fish and Wildlife

Venton Trotter, LS
Shasta County Public Works Department
1855 Placer St.
Redding, CA 96001
(530) 245-6811
vtrotter@co.shasta.ca.us



SUBJECT: REVIEW OF CASTELLA WATER INTAKE REPLACEMENT PROJECT, STATE CLEARINGHOUSE NUMBER 2023020554, SHASTA COUNTY

Dear Venton Trotter:

The California Department of Fish and Wildlife (CDFW) has reviewed the Initial Study and Mitigated Negative Declaration (ISMND) dated December 2022, for the above-referenced project (Project). CDFW appreciates this opportunity to comment on the Project, pursuant to the California Environmental Quality Act (CEQA) Guidelines¹.

CDFW's 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 (Id., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW 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. Likewise, "take" authorization, as outlined by the applicable Fish and Game code, may be required if 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, §

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.

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2050 et seq.), or state-listed rare plant pursuant to the Native Plant Protection Act (NPPA; Fish and G. Code § 1900 et seq.). authorization as provided by the applicable Fish and Game Code will be required.

Project Description

The Project, as described in the ISMND, is as follows:

“The proposed project includes improvements to the Shasta County Service Area No. 3 Water Treatment Plant (WTP). Improvements include replacing an existing water intake structure within Castle Creek with an instream infiltration gallery, rehabilitation of an existing clearwell, installation of a new chemical injection vault, and replacing the existing electrical control system equipment with new efficient models. A new post-filter chlorination metering pump and day tank would be installed inside the WTP building, along with a new air compressor, new grating, and new filter and backwash control valves; a new post-filter chlorination vault and appurtenances would be installed to the north of the WTP building. A new surge tank would be installed on the east side of the building, and a new emergency generator and automatic transfer switch would be installed to the south of the WTP building. The purpose of the proposed project is to replace aging infrastructure and ensure a safe and reliable potable water supply for residents within Shasta County Service Area No. 3.”

Comments and Recommendations

CDFW recognizes that Shasta County has taken the appropriate steps to identify and assess potential impacts to biological resources. CDFW offers the following comments and recommendations as they pertain to biological resources.

Special-Status Frogs

As described in the ISMND, the Project area contains suitable habitat for Species of Special Concern (SSC) including foothill yellow-legged frog, north coast DPS (*Rana boylei*, SSC) and Pacific tailed frog (*Ascaphus truei*, SSC). As described in the ISMND, these species have the potential to be present in Castle Creek during the time of Project activities, and Project activities are proposed to occur within the known breeding season for both species.

Potential impacts to SSC warrants implementing appropriate avoidance and minimization measures (AMMs). CDFW does not believe Mitigation Measure 4.4.1 adequately avoids and minimizes potential Project impacts to special-status frogs. To reduce impacts to special-status frogs to less-than-significant, CDFW recommends incorporating the following AMMs into the ISMND:

- Prior to the commencement of onsite Project activities, and thereafter as needed, an environmental awareness training shall be conducted by a qualified biologist to ensure all on-site Project personnel can identify and

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avoid special-status frogs.

- Prior to the commencement of daily Project activities, a qualified biologist, experienced in the identification of special-status frogs and their life-stages, shall conduct pre-construction surveys, every day for the duration Project implementation.
- Pre-construction survey methodology shall target all life stages and shall have an adaptive management approach based on the stream conditions at the time of surveys (i.e., whether ponded or flowing water is present, or whether the stream has been completely dry for less than 30 days). Surveys shall occur within and adjacent to the Project area and shall include, but are not limited to, cavities, under rocks, clumped vegetation, and beneath undercut banks, no less than 50 feet from the streambed and 500 feet upstream and downstream of the Project area. Surveys should be conducted at different times of day and under variable weather conditions if possible.
- If special-status frogs are observed, construction shall not occur until appropriate relocation efforts have been implemented. If foothill yellow-legged frog egg masses are observed in a stream that is scheduled for dewatering, or in an area proposed for disturbance, Project activities shall not occur until the area is appropriately flagged and avoided, or an egg mass relocation plan is approved by CDFW and implemented.
- In the event egg masses are observed avoidance is feasible, a qualified biologist shall flag and monitor the area for the duration of Project implementation.
- In the event adult frogs are observed, temporary wildlife exclusion fence may be installed to prevent frogs and/or other special-status species from entering the work site.
- If the stream has been completely dry for greater than 30 days prior to starting Project activities, and no water or moist areas within the streambed exist within 500 feet upstream and downstream of the Project, then the Project may request CDFW approval that survey methodology and surveys for foothill yellow-legged frogs are not necessary.
- Erosion control materials used throughout the Project site (e.g., geotextiles, fiber rolls) shall be made of loose-weave mesh, such as jute, hemp, coconut (coir) fiber, or other products without welded weaves. Synthetic (plastic or nylon) materials should not be used.

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Please note, to relocate SSC, a scientific collecting permit is required. This link will provide additional details: <https://wildlife.ca.gov/Licensing/Scientific-Collecting>

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Submitting Data

CEQA requires that information developed in environmental documents be incorporated into a database, which may be used to make subsequent or supplemental environmental determinations. (Public Resources Code section 21003(e)). Please report any special status species observations and natural communities detected during Project surveys to the CNDDDB. The CNDDDB field survey form can be found at the following link:

1-3

<https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>

Sensitive Natural Communities

As detailed in the ISMND, three sensitive natural communities are present in the Project area including stream/riverine, seasonal wetlands, and montane riparian habitat. The ISMND states *“An estimated 0.30 acres of Castle Creek would be disturbed during the installation of the new water infiltration gallery. These direct, temporary impacts would result from implementation of a water diversion and dewatering system, and excavation for intake pipe installation. Additionally, indirect temporary downstream impacts could result from increased turbidity due to bed and bank work.”* and *“Approximately 0.09 acres of riparian habitat are present along the southern bank of Castle Creek; it is conservatively assumed that all the on-site riparian habitat may be temporarily impacted due to project implementation.”*.

1-4

CDFW concurs with some components of Mitigation Measure 4.4.2, 4.4.3 and 4.4.4, aimed to reduce potential impacts to water quality, seasonal wetlands, and riparian habitat however, CDFW discourages the use of high visibility fencing around the above-mentioned sensitive natural communities, as they are challenging to maintain, may cause inadvertent wildlife entrapment and may cause inadvertent obstruction to wildlife movement. CDFW encourages a buffer and avoidance mechanism that is easily identifiable, easily maintained and can be feasibly replaced over time such as high visibility indicators, marking whiskers, pin flags or stakes with flagging tape.

While the ISMND offers Mitigation Measure 4.4.5, as a means for unavoidable loss of riparian habitat, this measure does not adequately offset impacts to riparian habitat, and CDFW does not concur with the 1:1 mitigation ratio. To adequately offset temporary and/or permanent loss of riparian habitat, CDFW strongly recommends prioritizing the re-planting of riparian habitat onsite at a minimum 3:1 ratio. If onsite revegetation is not feasible, CDFW recommends contributing funds, at a minimum 2:1 ratio, to a CDFW-approved mitigation bank, contributing funds to a conservation easement for the protection of riparian habitat in perpetuity, or contributing funds to a conservation fund aimed to restore and/or enhancement of

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riparian habitats within Shasta County.

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CDFW strongly discourages disturbance, staging and/or development in wetlands. Avoidance of Project activities within or adjacent to wetlands, should be avoided to the maximum extent possible. Due to severe decline of wetlands throughout the state, CDFW has established a “no net loss” policy regarding wetland habitat². For unavoidable impacts to seasonal wetlands, the ISMND offers Mitigation Measure 4.4.3, which proposes a mitigation ratio of 1:1 for seasonal wetland impacts. CDFW does not concur with the proposed 1:1 mitigation ratio. Additionally, the ISMND indicates temporary and permanent impacts to stream/riverine habitat, however, does not provide mitigation considerations for these impacts. To adequately minimize impacts to less than significant for both seasonal wetlands and riverine habitat, CDFW recommends restoring and/or enhancing these habitats onsite at a 3:1 ratio. If onsite habitat restoration and/or enhancement is not feasible, CDFW recommends contributing funds, at a 3:1 ratio, to a CDFW-approved mitigation bank, contributing funds to a conservation easement for the protection of these habitats in perpetuity, or contributing funds to a conservation fund aimed to restore and/or enhance these habitats within Shasta County. A 3:1 ratio would adequately mitigate for the ecological function, value and temporal elements of these habitats.

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The Project proponent should determine final mitigation and initiate coordination with the appropriate entity to enable prerequisite mitigation implementation, including securing and contributing the required funds, prior to Project approval. If onsite revegetation and/or habitat restoration/enhancement is determined final mitigation for impacts to the above mentioned habitats, a mitigation and monitoring plan should be prepared by a qualified individual familiar with Shasta County ecology. The mitigation and monitoring plan should clearly define how the Project proponent plans to offset and mitigate for proposed impacts to riparian habitat, riverine habitat, and/or wetland habitat, include conceptual mapping, and include concise monitoring plans to assess for criteria of success. The mitigation and monitoring plan should be formulated and approved by CDFW prior to Project approval and attached to the ISMND.

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Lake and Streambed Alteration Agreement

Fish and Game Code section 1602 requires any person, state or local governmental agency, or public utility to notify CDFW prior to beginning any activity that may do one or more of the following:

1. substantially divert or obstruct the natural flow of the bed, channel, or bank of any river, stream, or lake; or
2. substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or
3. deposit or dispose of debris, waste, or other material containing crumbled, flaked,

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² Fish and Game Commission Wetlands Resources Policy; Amended 08/18/05

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or ground pavement where it may pass into any river, stream, or lake.

To obtain information about the 1600 Notification process, please access CDFW's website at: <https://www.wildlife.ca.gov/Conservation/LSA>

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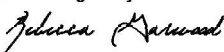
Trenching, Excavation and Pipe Staging

If trenching and excavation will be included in Project activities, any open trench and excavation areas should be covered securely prior to stopping work each day and/or a wildlife exit ramp should be provided in the trench to prevent wildlife entrapment. If pipes are left out onsite, they should be inspected for wildlife prior to burying, capping, moving, or filling.

1-9

We appreciate the opportunity to offer comments and recommendations that may assist Shasta County in adequately analyzing and minimizing impacts to biological resources. If you have any questions, please contact Erika Iacona, Environmental Scientist, by email at R1CEQARedding@wildlife.ca.gov.

Sincerely,

DocuSigned by:

B5D12ECE94324AF...

Rebecca Garwood for
Tina Bartlett, Regional Manager
Northern Region

cc: State Clearinghouse
State.Clearinghouse@opr.ca.gov

Erika Iacona
R1CEQARedding@wildlife.ca.gov

LETTER 1

RESPONSE

Comment 1-1:

The Commenter acknowledges that the Initial Study and Mitigated Negative Declaration (IS/MND) discussed the potential for Species of Special Concern (SSC) including foothill yellow-legged frog, North Coast DPS (*Rana boylei*, SSC) and Pacific tailed frog (*Ascaphus truei*, SSC) to be present in the project area during the time of project activities and the project activities are proposed to occur within the known breeding season for both species. The Commenter states that Mitigation Measure (MM) 4.4.1 does not adequately avoid and minimize impacts to special-status frogs. The Commenter provides avoidance and minimization measures to reduce impacts to special-status frogs to less-than-significant.

Response 1-1:

In response to the comment from the California Department of Fish and Wildlife (CDFW), **MM 4.4.8** and **MM 4.4.9** have been added as follows. New language is shown as **bold and underlined**.

MM 4.4.8

Prior to commencement of any earth disturbance (e.g., clearing, grading, trenching, etc.), all construction personnel shall receive training from a qualified biologist regarding protective measures for special-status animals and their habitats that could exist in the study area (foothill yellow-legged frog and Pacific tailed frog). If new personnel are added to the project, they shall receive the mandatory training before starting work. At a minimum, the training shall include the following:

- a. **A review of the special-status species that could occur in the project study area, the locations where the species could occur, the laws and regulations that protect these species, and the consequences of noncompliance with those laws and regulations.**
- b. **Procedures to be implemented in the event that these species are encountered during construction.**
- c. **A review of sensitive habitats that occur in the study area and the location of the sensitive habitats.**
- d. **A review of applicable mitigation measures, standard construction measures, best management practices, and regulatory agency permit conditions that apply to the protection of special-status species and sensitive habitats.**

MM 4.4.9

Erosion control materials used on the project site (e.g., geotextiles, fiber rolls) shall be made of loose-weave mesh, such as jute, hemp, coconut (coir) fiber, or other products without welded weaves. Synthetic (plastic or nylon) materials shall not be used.

As outlined in Section 1.10 Summary of Mitigation Measures (page 9) and Section 4.4 Biological Resources (page 37) of the IS/MND, **MM 4.4.1** is included to minimize potential impacts to special-status frogs. **MM 4.4.1, MM 4.4.8, and MM 4.4.9** are feasible and will reduce the potential for impacts to special-status frogs to a less-than-significant level.

Additional measures recommended by CDFW were considered but rejected. These measures included conducting frog surveys at the commencement of each day of work, with the surveys extending no less than 500 feet upstream and downstream of the project area, and installing temporary wildlife exclusion fencing to prevent special-status frogs and/or other special-status wildlife from entering the work site.

ENPLAN discussed the proposed project with CDFW Environmental Scientist, Erika Iacona, on March 29, 2023, and met on-site with CDFW staff on April 3, 2023, to review the feasibility of the recommended measures. As a result of these discussions, CDFW concurred that completion of frog surveys prior to each day of in-water work (as opposed to each day of construction work) would be appropriate; this approach is currently called for under **MM 4.4.1**. Additionally, the project area encompasses the entirety of the County-owned parcel; conducting surveys 500 feet upstream and downstream of the project area is not feasible as the County does not have access to the adjoining private properties.

Further, it is not feasible to install temporary wildlife exclusion fencing to prevent frogs and/or other special-status species from entering the work site as this would require fencing in Castle Creek, could impede construction activities, and could cause inadvertent obstructions to wildlife movement. As outlined in **MM 4.4.1**, should special-status frogs be observed during the pre-construction surveys, or by construction personnel at any time, all work shall be stopped within 50 feet of the animals until a qualified biologist can relocate the individual(s). With implementation of **MM 4.4.1, MM 4.4.8, and MM 4.4.9**, no additional measures are needed to minimize impacts to special-status frogs to a less-than-significant level.

Comment 1-2:	The Commenter noted that relocation of a species of special concern would require a scientific collecting permit.
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Response 1-2:	Comment noted. During subsequent discussions with CDFW staff, it was recognized that the agency may be able to authorize a qualified biologist to relocate species of special concern under the auspices of the Lake and Streambed Alteration Agreement (LSAA). The need for a scientific collecting permit will be clarified in the LSAA to be issued for the project.
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Comment 1-3:	The Commenter requests that any special status species and/or natural communities detected during project surveys be reported to the California Natural Diversity Database (CNDDDB).
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Response 1-3:	Comment noted. No revisions to the IS/MND are required.
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Comment 1-4:	The Commenter acknowledges the project's direct and indirect impacts on stream/riverine, seasonal wetlands, and montane riparian habitat. The Commenter concurs with some components of MM 4.4.2, MM 4.4.3, and MM 4.4.4 ; however, the Commenter discourages the use of high visibility fencing around sensitive natural communities, as the fencing is challenging to maintain, may cause inadvertent wildlife entrapment, and may cause inadvertent obstruction of wildlife movement. The Commenter encourages a buffer and an avoidance mechanism that is easily identifiable, easily maintained, and can be feasibly replaced over time, such as high visibility indicators, marking whiskers, pin flags, or stakes with flagging tape.
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Response 1-4:	In response to the comment from CDFW, MM 4.4.3 and 4.4.4 have been revised as follows. Deleted language is shown with striketrough ; new language is shown as <u>bold and underlined</u> . No specific comments were provided regarding MM 4.4.2 , and no changes to this measure are warranted.
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MM 4.4.3

Impacts to seasonal wetlands shall be minimized by implementing the following measures:

- High-visibility ~~fencing, flagging,~~ **indicators such as marking whiskers, pin flags, stakes with flagging tape,** or other markers shall be installed along the outer edges of the construction zone adjacent to wetlands and other waters designated for avoidance. The ~~fencing-marker~~ locations shall be determined by a qualified biologist in consultation with the project engineer and the Shasta County Department of Public Works. No construction activities (e.g., clearing, grading, trenching, etc.), including vehicle parking and materials stockpiling, shall occur within the ~~fenced-~~ **marked** area. The exclusionary ~~fencing-markers~~ shall be periodically inspected during the construction period to ensure the ~~fencing is~~ **markers are** properly maintained. The ~~fencing-~~ **markers** shall be removed upon completion of work.
- If vehicles and/or equipment must enter wetlands, or if wetlands are to be used as a staging area, the wetlands shall be protected through installation of temporary wood slabs, swamp mats, HDPE mats, geotextile fabric with a layer of gravel, or similar protective materials approved by the County. The protective materials shall be removed upon completion of construction.
- If excavation of wetlands cannot be avoided, mitigation shall be achieved by restoring the pre-existing topography of the wetlands upon completion of construction or through purchase of mitigation credits at an agency-approved mitigation bank at a minimum 1:1 ratio, or as may otherwise be required through permits issued by CDFW, U.S. Army Corps of Engineers (USACE), and Regional Water Quality Control Board (RWQCB).

MM 4.4.4

Loss of riparian habitat shall be minimized by implementing the following measures:

- Minimize the construction disturbance to riparian habitat through careful preconstruction planning.
- Install high-visibility ~~fencing, flagging,~~ **indicators such as marking whiskers, pin flags, stakes with flagging tape,** or other markers along the outer edges of the construction zone where needed to prevent accidental entry into the surrounding riparian habitat planned for retention.
- Stockpile equipment and materials outside of the riparian habitat, in the designated staging areas.
- Prune any riparian plants at ground level where feasible (as opposed to mechanically removing the entire plant and root system) in temporary use areas, which will promote regeneration from the root systems.

Comment 1-5:

The Commenter states that **MM 4.4.5** does not adequately offset impacts to riparian habitat and does not concur with the 1:1 mitigation ratio. The Commenter recommends prioritizing the replanting of riparian habitat at a minimum 3:1 ratio. If on-site revegetation is not feasible, CDFW recommends contributing funds at a minimum 2:1 ratio to a CDFW-approved mitigation bank, contributing funds to a conservation easement for the protection of riparian habitat in perpetuity, or contributing funds to a conservation fund aimed to restore and/or enhancement of riparian habitats within Shasta County.

Response 1-5:

As discussed in Section 4.4, Biological Resources (page 34), ±0.09 acres of riparian habitat are present along the southern bank of Castle Creek; it is conservatively assumed that all the on-site riparian habitat may be temporarily impacted due to project implementation. The on-site riparian habitat contains 36 trees with a diameter at breast

height (DBH) of 5 inches or greater. The exact number of trees to be removed is dependent on final construction plans and the contractor's work approach.

During subsequent meetings and discussions, CDFW staff clarified that the recommended 3:1 ratio refers to number of trees, not acreage. Replanting the disturbed portion of the on-site riparian habitat with trees at a 3:1 ratio is feasible and would contribute to the successful re-establishment of riparian habitat. Therefore, **MM 4.4.5** is modified as shown below to incorporate this recommendation.

MM 4.4.5 also requires the purchase of stream-side riparian habitat mitigation credits at a minimum 1:1 ratio from a CDFW-approved mitigation bank. Because mitigation banks are typically required to create the targeted habitat types in advance of the sale of credits, purchase of credits at a 1:1 ratio (in addition to on-site replanting) is appropriate. However, as subsequently discussed with CDFW, other options for off-site mitigation may be feasible such as contributing funds to the Wildlife Conservation Board for use in Shasta County. **MM 4.4.5** is modified as shown below to incorporate other off-site mitigation options. For mitigation outside of an approved mitigation bank, a mitigation ratio higher than 1:1 may be appropriate. Shasta County will identify a specific mitigation approach (or alternative approaches) when applying for a Lake or Streambed Alteration Agreement (LSAA); the appropriate mitigation ratio will then be identified in the LSAA.

Deleted language is shown with ~~striketrough~~; new language is shown as **bold and underlined**.

MM 4.4.5

Any unavoidable loss of riparian habitat shall be offset by the following measures:

- Prior to any earth disturbance, the County shall purchase stream-side riparian habitat mitigation credits at a minimum 1:1 ratio from a CDFW-approved mitigation bank. Alternatively, the County shall pay in-lieu fees to the USACE, **contribute funds to purchase a conservation easement for the protection of riparian habitat in perpetuity, or contribute funds to a conservation entity (such as Wildlife Conservation Board) to restore and/or enhance riparian habitats within Shasta County.** Proof of purchase shall be provided to CDFW prior to the start of work.
- Following project completion, the bank of Castle Creek shall be restored per the project description and riparian vegetation shall be replanted in accordance with the revegetation plan **dated April 2023** ~~provided in the Biological Study Report (Appendix D of this Initial Study)~~, and as may be modified in accordance with specifications of permits issued by CDFW, USACE, and/or RWQCB.

Comment 1-6:

The Commenter states that CDFW has established a "no net loss" policy regarding wetland habitat, and recommends avoidance of wetlands where feasible. The Commenter also states that the IS/MND indicates temporary and permanent impacts to stream/riverine habitat, but does not provide mitigation for such impacts.

The Commenter states that CDFW does not concur with the proposed 1:1 mitigation ratio for seasonal wetlands and recommends restoring and/or enhancing the seasonal wetland and riverine habitats at a 3:1 ratio. If on-site habitat restoration and/or enhancement is not feasible, CDFW recommends contributing funds, at a 3:1 ratio, to a CDFW-approved mitigation bank, contributing funds to a conservation easement for the protection of these habitats in perpetuity, or contributing funds to a conservation entity to restore and/or enhance these habitats within Shasta County.

Response 1-6:

As discussed in Section 4.4, Biological Resources (page 34), project construction would result in temporary and indirect impacts to stream/riverine habitat, not permanent impacts. The temporary and indirect impacts would cease upon completion of construction, the streambed would be restored to its pre-existing topography, and native

cobbles and gravel would overcover the in-stream work area. Impacts on stream/riverine habitat would be less than significant and no mitigation is warranted.

With respect to wetlands, the IS/MND recommends avoidance where possible, identifies measures to minimize impacts, and requires actions to offset any unavoidable impacts to wetlands. If off-site mitigation is proposed at a mitigation bank, a mitigation ratio at or near 1:1 would be appropriate. If mitigation is provided through purchase of a conservation easement or contribution of funds for future purchase of a conservation easement, a 3:1 ratio would be appropriate.

Comment 1-7: The Commenter states that the project proponent should determine final mitigation and initiate coordination with the appropriate entity to enable prerequisite mitigation implementation prior to project approval. The Commenter recommends that a mitigation and monitoring plan be prepared by a qualified biologist if on-site revegetation and/or enhancement is determined final mitigation for impacts to stream/riverine, seasonal wetlands, and montane riparian habitat. The Commenter recommends that the mitigation and monitoring plan should clearly define how the project proponent plans to offset and mitigate for proposed impacts to riparian habitat, riverine habitat, and/or wetland habitat, include conceptual mapping, and include concise monitoring plans to assess for criteria of success. The mitigation and monitoring plan should be formulated and approved by CDFW prior to project approval and attached to the IS/MND.

Response 1-7: Final mitigation requirements cannot be determined prior to project approval because the final requirements must reflect conditions established during the permitting phase of the project. Further, the project and environmental documentation must be approved prior to the issuance of permits. Nonetheless, the IS/MND for this project emphasizes avoidance of impacts. Where avoidance is not feasible, minimization of impacts is recommended. If avoidance and minimization are not feasible or fully effective, then measures to offset the unavoidable impacts are provided. The IS/MND recognizes that certain impacts may not be fully quantifiable until a contractor is selected and can provide guidance on project construction methods. However, the IS/MND provides as much information as is possible at this time, including a conceptual dewatering plan and a revegetation plan (see **Appendix B** of the IS/MND). The proposed mitigation measures, as modified above, specify actions to be taken to avoid, minimize and offset impacts to riparian, riverine, and wetland habitat, as needed. As part of the CEQA approval process, a mitigation monitoring and reporting program will be adopted by Shasta County to document how the measures will be implemented and to verify that the measures are indeed implemented.

Comment 1-8: The Commenter states that in accordance with Fish and Game Code Section 1602, any person, state, or local governmental agency, or public agency should notify CDFW prior to beginning project activities subject to a LSAA. These activities include any activities that will substantially divert or obstruct the natural flow, or change the bed, channel, or bank of a river or stream, or use material from a streambed.

Response 1-8: Section 1.8 (Regulatory Requirements) of the IS/MND (page 7) identifies permits and approvals that are necessary for construction and operation of the proposed project. The list includes the CDFW Section 1600 LSAA. No revisions to the IS/MND are required.

Comment 1-9: The Commenter states if trenching and excavation will be included in project activities, any open trench and excavation areas should be covered securely prior to stopping work each day and/or a wildlife exit ramp should be provided in the trench to prevent wildlife entrapment. If pipes are left out on-site, they should be inspected for wildlife prior to burying, capping, moving, or filling.

Response 1-9:

In response to the comment from CDFW, MM 4.4.10 has been added as follows. New language is shown as **bold and underlined**.

4.4.10

To prevent the inadvertent entrapment of wildlife, the construction contractor shall ensure that at the end of each workday trenches and other excavations that are over one-foot deep have been backfilled or covered with plywood or other hard material. If backfilling or covering is not feasible, one or more wildlife escape ramps constructed of earth fill or wooden planks shall be installed in the open trench. Pipes shall be inspected for wildlife prior to capping, moving, or placing backfill over the pipes to ensure that animals have not been trapped. If animals have been trapped, they shall be allowed to leave the area unharmed.

LETTER 2 California Department of Transportation

From: [Venton Trotter](#)
To: [Laurie McCollum](#); [Kiara Cuerpo-Hadsall](#)
Cc: [John Heath](#)
Subject: FW: Castella Water Intake Replacement Project
Date: Tuesday, March 28, 2023 9:27:15 AM

Good morning,


I have received a couple of comments/questions concerning the intake process CEQA review. Here is the first. Please let me know if you need anything from me. Thanks.

Venton

Venton Lee Trotter, LS
Deputy County Surveyor
Supervising Engineer
LS No. 8055

Shasta County Department of Public Works
Development Services Division
1855 Placer Street, Redding CA 96001
Office: 530-245-6811
Mob.: 530-949-9358
vtrotter@co.shasta.ca.us

From: Clark, Cherie D@DOT <cherie.clark@dot.ca.gov>
Sent: Thursday, March 23, 2023 4:06 PM
To: Venton Trotter <vtrotter@co.shasta.ca.us>
Cc: Grah, Kathy M@DOT <kathy.grah@dot.ca.gov>; Battles, Michael@DOT <Michael.Battles@dot.ca.gov>; Caruso, Brenda@DOT <Brenda.H.Caruso@dot.ca.gov>
Subject: Castella Water Intake Replacement Project

 **EXTERNAL SENDER:** Do not follow links or open attachments unless you recognize the sender and know the content is safe.

Good Afternoon Venton,

Thank you for the opportunity to review the Castella Water Intake Replacement Project. Caltrans District 2 did request details of the placement of the intake pipes and associated RSP and requested Sheet M2.1 that is referenced on Figure 3 – Site Plan Sheet C2.0 of the Proposed MND/IS but did not receive a response. Based on the study provided, Caltrans D2 does not have any comments.

Thank you again for the opportunity to review and comment.

Thank you,

Cherie Clark

Associate Transportation Planner
Regional Planning and Local Development Review
Caltrans District 2
Cell: (530) 768-7429

LETTER 2

RESPONSE

Comment 2-1:	The Commenter stated that they requested details of the placement of the intake pipes and associated RSP and requested Sheet M2.1 but did not receive a response. The Commenter states that based on the IS/MND, they do not have any comments.
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Response 2-1:	Comment noted. No further discussion or analysis is necessary.
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LETTER 3 State Water Resources Control Board



State Water Resources Control Board

March 7, 2023

Shasta County
Attention: Mr. Venton Trotter
1855 Placer Street
Redding, CA 96001



SHASTA COUNTY (COUNTY), MITIGATED NEGATIVE DECLARATION FOR THE CASTELLA WATER INTAKE REPLACEMENT PROJECT (PROJECT); STATE CLEARINGHOUSE NO. 2023020554

Dear Mr. Venton Trotter:

We understand that the County is pursuing Drinking Water State Revolving Fund (DWSRF) financing for this Project. As a state funding agency with jurisdiction by law to preserve, enhance, and restore the quality of California's water resources, the State Water Resources Control Board (State Water Board) is providing the following information on the MND to be prepared for the Project.

The State Water Board, Division of Financial Assistance, is responsible for administering the DWSRF Program (Program). The primary purpose for the Program is to implement the Safe Drinking Water Act and various state laws by providing financial assistance for facilities improvements to provide clean potable water, and thereby protect and promote health, safety, and welfare of the inhabitants of the state.

The DWSRF environmental review process regulations, 40 Code of Federal Regulations (CFR) § 35.3580, require some steps that are not part of the normal CEQA process. Some of these are below:

- A. An analysis of environmental alternatives discussing environmental impacts of the Project.
- B. A public hearing or meeting for adoption/certification of all CEQA documents except for those with little or no environmental impacts.

Following are specific comments on the County's draft MND:

1. Please discuss impacts the Project's instream riprap will have on downstream banks and the steam channel.

E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

If an application for funding will be submitted, please upload to Financial Assistance Application Submittal Tool the following applicable documents for the proposed Project, according to the County's CEQA process: (1) one copy of the draft and final MND with the Mitigation Monitoring and Reporting Program (MMRP), (2) the resolution adopting the MND and MMRP, (3) all comments received during the review period and the District's response to those comments, and (4) the Notice of Determination filed with the Shasta County Clerk and the Governor's Office of Planning and Research, State Clearinghouse. In addition, we would appreciate notices of any hearings or meetings held regarding environmental review of any projects to be funded by the State Water Board.

Thank you for the opportunity to review the County's draft MND. If you have any questions or concerns, please feel free to contact me at (916) 449-5285, or by email at Lori.Schmitz@waterboards.ca.gov, or contact Mrs. Bridget Binning at (916) 449-5641, or by email at Bridget.Binning@waterboards.ca.gov.

Sincerely,

Lori Schmitz
Digitally signed by Lori Schmitz
Date: 2023.03.07 10:43:05
-08'00'
Water Boards

Lori Schmitz

Lori Schmitz
Environmental Scientist
Division of Financial Assistance
Special Project Review Unit
1001 I Street, 16th floor
Sacramento, CA 95814

Attachment: Division of Financial Assistance CEQA Requirements

cc: State Clearinghouse

Mrs. Bridget Binning, Division of Financial Assistance

STATE WATER RESOURCES CONTROL BOARD, DIVISION OF FINANCIAL ASSISTANCE

California Environmental Quality Act Requirements

The State Water Resources Control Board (State Water Board) Division of Financial Assistance (DFA) funds wastewater, recycled water, and drinking water infrastructure projects as well as water quality improvement projects using resources from various state grant programs. All applicants seeking grant funds must comply with the California Environmental Quality Act (CEQA) and provide appropriate documents to the State Water Board so that it can fulfill its CEQA responsibilities.

LEAD AGENCY

The applicant is usually the **Lead Agency** and must prepare and circulate an environmental document before approving a project. Only a public agency, such as a local, regional or state government, may be the Lead Agency under CEQA. If a project will be completed by a non-governmental organization, Lead Agency responsibility goes to the first public agency providing discretionary approval for the project. In this situation, the State Water Board may serve as Lead Agency.

RESPONSIBLE AGENCY

Typically, the State Water Board is a **Responsible Agency**. As a Responsible Agency, the State Water Board must make its own findings using information provided by the Lead Agency before funding a project.

STATE WATER BOARD RESPONSIBILITIES

The State Water Board's mission is to preserve, enhance, and restore the quality of California's water resources and drinking water for the protection of the environment, public health, and all beneficial uses, and to ensure their proper allocation and efficient use for the benefit of present and future generations. To fulfill this responsibility, and to carry out obligations as a Responsible Agency under CEQA, the State Water Board must consider the Lead Agency's environmental document before funding a project.

ENVIRONMENTAL REVIEW

The State Water Board's environmental review process must be completed before the State Water Board can approve a project for funding and the project can begin construction.

DOCUMENT REVIEW

The State Water Board would like to review CEQA documents as early as possible. Applicants are encouraged to consult with agency staff during development of CEQA documents if considering applying for funding from DFA. Potential applicants should consider sending their environmental documents to DFA, Environmental Section during the CEQA public review period. This way, any environmental concerns the State Water Board has about the project can be addressed early in the process.

REQUIRED DOCUMENTS

The Environmental Section within DFA requires the documents listed below to complete the environmental review:

1. Draft and Final Environmental Documents – Environmental Impact Reports, Negative Declarations, Mitigated Negative Declarations, Notice of Exemptions, as appropriate for the project;

2. All comments – that were received during the public review period and the Lead Agency's responses to those comments;

3. Adopted Mitigation Monitoring and Reporting Plan – this is separate from, and in addition to, the identification of mitigation measures in the CEQA document;

4. Resolution/Minutes – these document that the applicant adopted or certified the CEQA document, made CEQA findings, and approved the project;

5. Date-stamped copy of the Notice of Determination or Notice of Exemption – these result after filing of the document with the County Clerk and the Governor's Office of Planning and Research; and

6. Completed Environmental Package – this is a component of the Funding Application.

Once the State Water Board receives all the required documents and determines them to be adequate to make its own findings, the environmental review for the funding application will be completed.

CONTACT INFORMATION

For more information about the State Water Board's environmental review process, please visit our website: https://www.waterboards.ca.gov/water_issues/programs/grants_loans/environmental_requirements.html



LETTER 3

RESPONSE

Comment 3-1:

The Commenter asks for an evaluation of the Project's impacts on the downstream bank and channel due to placement of instream riprap.

Response 3-1:

As discussed in Section 4.4 (Biological Resources) of the IS/MND under Questions A and B (page 34), an estimated 0.30 acres of Castle Creek would be disturbed during the installation of the new water infiltration gallery. These direct, temporary impacts would result from implementation of a water diversion and dewatering system, and excavation for intake pipe installation.

Upon project completion, the bed and bank of Castle Creek would be restored to near-native conditions and preconstruction contours in accordance with resource agency permit conditions, with riprap being used to stabilize the steep stream bank. The streambed will be restored to pre-project conditions using native material (i.e., gravel and cobble).

Indirect temporary downstream impacts could result from increased turbidity due to bed and bank work; however, **MM 4.4.2** requires preparation of a diversion/dewatering plan, use of appropriate best management practices (BMPs) to prevent spills, instream sedimentation, and erosion, and seasonal restrictions on in-water work.

To supplement the discussion in the IS/MND, Lawrence & Associates (L&A) prepared a memorandum discussing the potential impacts of the proposed riprap on downstream banks and the stream channel (**see attached**). According to L&A, the existing intake is located in a relatively stable portion of the creek channel that is unlikely to migrate significantly. The thalweg of the creek will migrate within the confines of the existing channel, but not to the extent that it does farther upstream. Additionally, because the riprap will be placed only on the streambank and not in the channel, and the streambed will be restored to pre-project conditions using native material, the general condition of the streambed will not change. No additional mitigation measures are warranted, and no revisions to the IS/MND are required.

ATTACHMENT -

**LAWRENCE & ASSOCIATES RESPONSE TO QUESTION
REGARDING IN-STREAM RIPRAP EFFECTS**



020068.00

March 21, 2023

Ms. Laurie McCollum
PACE Engineering
5155 Venture Parkway
Redding, CA 96002

Dear Laurie:

SUBJECT: RESPONSE TO QUESTION REGARDING INSTREAM RIPRAP EFFECTS, CASTELLA WATER INTAKE REPLACEMENT PROJECT; STATE CLEARINGHOUSE NO. 2023020554

Per your request, this letter presents a response to a question from the State Water Resources Control Board (SWRCB) regarding the proposed in-stream water-supply intake replacement project (Project) for the town of Castella, California (**Figure 1**).

The proposed Project includes the replacement of the existing water intake structure (a buried cedar “crib” with a perforated pipe at the base, within the streambed and approximately 14 feet below the stream bottom). The replacement instream infiltration gallery also would be located within the streambed just upstream of the existing structure, and buried to approximately between 6 and 7 feet. In addition to the new infiltration structure, there will be new subsurface piping between the infiltration gallery and the existing clear well. Upon project completion, the bed and bank of Castle Creek would be restored to near-native conditions and preconstruction contours in accordance with resource agency permit conditions. Riprap will be used to stabilize the steep stream bank, but will not be placed on the streambed. The streambed will be restored to pre-Project conditions using native material (primarily gravel and cobble).

Shasta County prepared a Mitigated Negative Declaration for the Project. The SWRCB’s question was as follows - *Please discuss impacts the Project’s instream riprap will have on downstream banks and the stream channel.*

As discussed in L&A’s letter report of November 2020 (L&A, November 2020, *Hydrogeologic Evaluation of Alternatives for Water-intake Structure, Castella, California*, and presented here for ease of reference, **Figure 2** shows a series of aerial photographs, dating from 1993 through 2016, of the section of Castle Creek from near the I-5 bridge to approximate one mile upstream (to the west). The aerial photos show that the active creek banks and thalweg historically have shown more variability upstream of the intake, but not within the area of the intake. Upstream at more than approximately 550 feet from the existing intake, the thalweg migrates across a channel ranging from

approximately 100 to 200 feet wide. In the area of the intake, the stream channel has shown less variability and a more linear shape, with a channel approximately 50 to 60 feet wide. The length of the linear section of the channel has decreased since 1993, from approximately 1,235 feet in 1993 to 550 feet currently. From at least 2005 to July 2022, the linear section of the channel has remained stable.

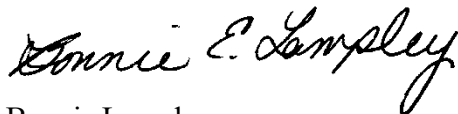
The linear section of the channel may reflect the presence of the Volcanic deposits (basalt flows) in this area. Because the basalt is both relatively resistant and geologically young, it has not been eroded to the extent that the much older bedrock units have been. Construction of the I-5 bridge also may be a factor in the shape of the channel here; the channel may have been modified as part of that construction.

Regardless of the reason for the decrease in the length of the linear section of creek, the existing intake is located in a relatively stable portion of the creek channel that is unlikely to migrate significantly. The thalweg of the creek will migrate within the confines of the existing channel, but not to the extent that it does farther upstream.

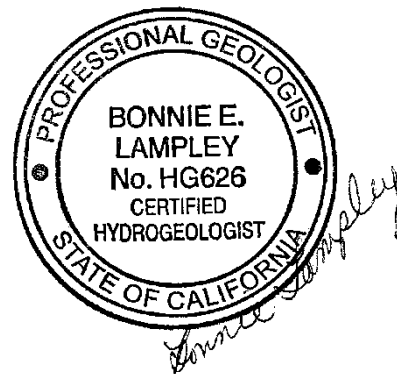
Additionally, because the riprap will be placed only on the streambank and not in the channel, the general condition of the streambed will not change. It will be restored with native materials.

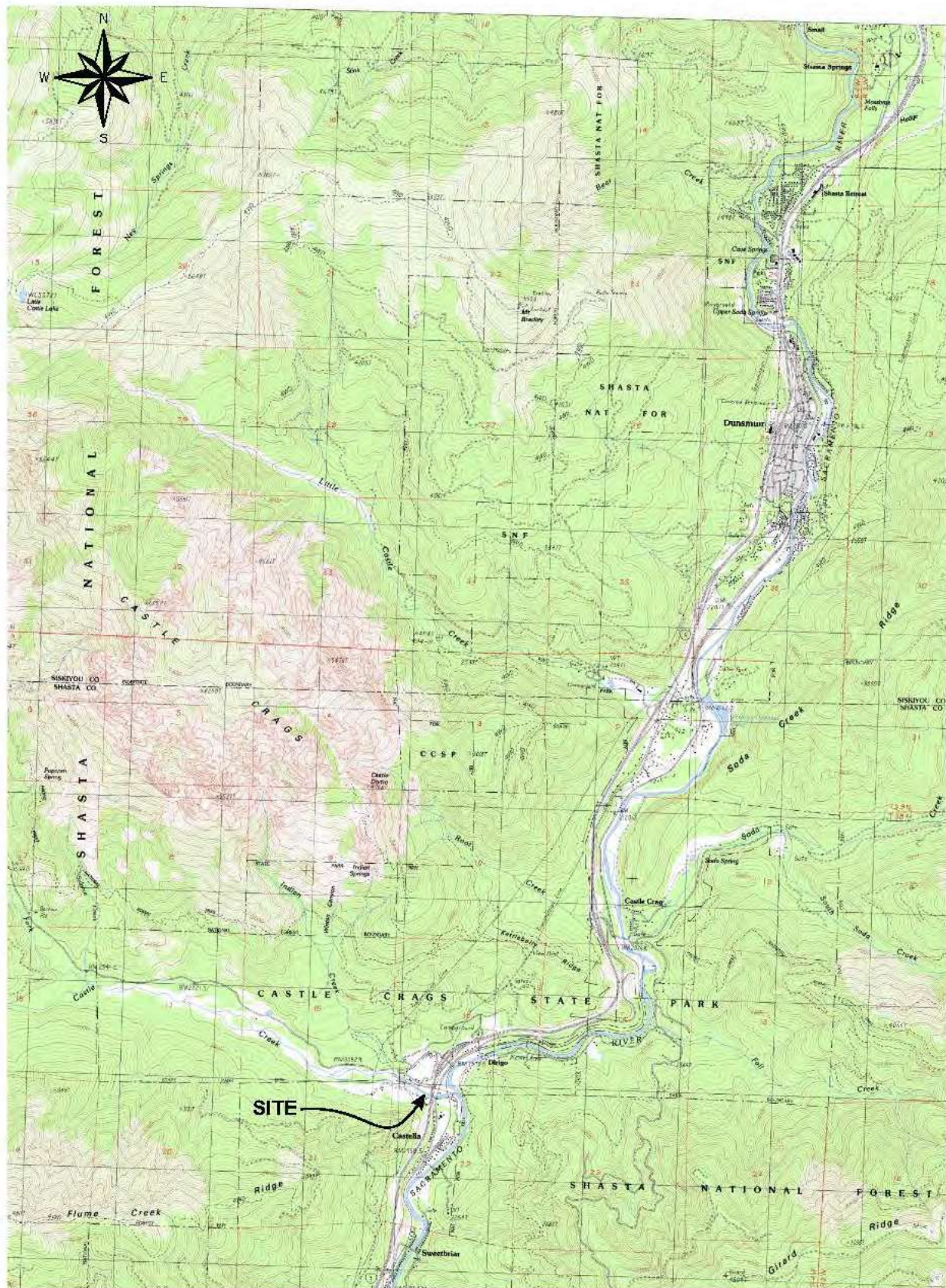
Please feel free to contact me at blampley@lwrnc.com or 530-275-4800 if you have questions regarding this report.

Sincerely,



Bonnie Lampley
Principal Hydrogeologist, CHG 626





LOCATION MAP CASTELLA WATER INTAKE

PROJECT NAME:
 INTAKE EVAL.

CLIENT:
 PACE

SCALE:
 1 INCH = 1 MILE

PROJECT NO:
 020068.00

DRAWN BY:
 B. LAMPLEY

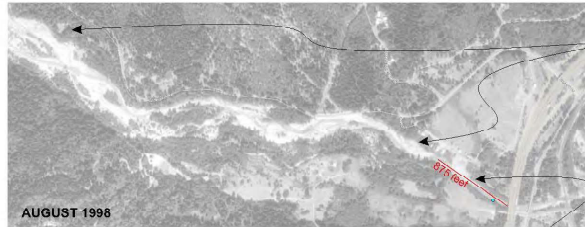
CHECKED BY:
 B. GARTNER

DATE:
 11/19/2021

FIGURE 1



EXISTING INTAKE



The active creek banks and thalweg historically have shown more variability upstream (to the west) of the general area of the existing intake.



In the general area of the existing intake, the active channel and thalweg historically (at least since 1993) have shown less variability than farther upstream and have exhibited a more linear channel.

Since 1993, however, the length of the linear section of channel has decreased. In 1993, the linear portion of the channel was approximately 1,235 feet long. Currently, it is approximately 550 feet long.



The linear portion of the channel has remained straight and approximately 550 feet in length from at least 2005 through July 2022 (the date of the most recent available imagery).



LAWRENCE
& ASSOCIATES
ENGINEERS & GEOLOGISTS

CASTLE CREEK STREAM BED MORPHOLOGY 1993 THROUGH 2016 (Imagery from Google Earth)

PACE ENGINEERING
CASTELLA - CSA NO. 3
SHASTA COUNTY, CALIFORNIA
WATER INTAKE EVALUATION

PROJECT NO: 020068.00	SCALE: 1 INCH = 0.2 MILES
DRAWN BY: B. LAMPLEY	DATE: 03/21/23
CHECKED BY: B. GARTNER	FIGURE 2

ATTACHMENT -

FINAL MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION MONITORING AND REPORTING PROGRAM

CASTELLA WATER INTAKE REPLACEMENT PROJECT

INTRODUCTION

This Mitigation Monitoring and Reporting Program (MMRP) has been prepared pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines to provide for the monitoring of mitigation measures required of the Castella Water Intake Replacement Project (project) as set forth in the Initial Study/Mitigated Negative Declaration (IS/MND) prepared for the project.

Section 15074(d) of the CEQA Guidelines requires public agencies to adopt a program for monitoring or reporting on revisions to a project and the measures it has imposed to mitigate or avoid significant environmental effects. An MMRP is required for the proposed project because the IS/MND for the project identified potentially significant adverse impacts related to the implementation of proposed activities, and mitigation measures have been identified to reduce those impacts to a less-than-significant level.

SHASTA COUNTY ADOPTION OF THE MMRP

If Shasta County, as lead agency, decides to approve the project, it must concurrently adopt the MMRP. The MMRP will be kept on file at the Shasta County Department of Public Works, 1855 Placer Street, Redding, CA 96001.

PURPOSE OF THE MMRP

The purpose of the MMRP is to ensure the effective implementation and enforcement of adopted mitigation measures. Mitigation is defined by CEQA Guidelines Section 15370 as a measure that does any of the following:

- Avoids impacts altogether by not taking a certain action or parts of an action.
- Minimizes impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifies impacts by repairing, rehabilitating, or restoring the impacted environment.
- Reduces or eliminates impacts over time by preservation and maintenance operations during the life of the project.
- Compensates for impacts by replacing or providing substitute resources or environments.

ROLES AND RESPONSIBILITIES

Unless otherwise specified herein, the County is responsible for taking all actions necessary to implement the mitigation measures according to the specifications provided for each measure and for demonstrating that the action has been successfully completed. The County will be responsible for monitoring implementation of the mitigation measures and for verifying that County staff or a qualified contractor has completed the necessary actions for each measure. The County will designate a project manager to oversee the MMRP during the project implementation period. Duties of the project manager include the following:

- Ensure that routine inspections of the project's actions are conducted.

- Serve as liaison between the County and the County's contractor regarding mitigation monitoring issues (if appropriate).
- Complete forms and maintain records and documents required by the MMRP.
- Coordinate and ensure that corrective actions or enforcement measures are taken, if necessary.

MMRP SUMMARY TABLE

The MMRP table identifies the mitigation measures proposed for the project. These mitigation measures are reproduced from the IS/MND and are conditions of approval for the project. The table has the following columns:

- Mitigation Measure: Lists the mitigation measures identified within the IS/MND, as amended, for a specific impact, along with the number for each measure as enumerated in the IS/MND.
- Monitoring Action: Identifies what actions the County shall take to comply with the mitigation measure.
- Monitoring Timing/Frequency: Identifies at what point in time, review process, or phase the mitigation measure will be completed.
- Date Checked/By Whom: Space to be initialed and dated by the individual designated to verify adherence to a specific mitigation measure.

CONCLUSION

The MMRP contained herein will provide for monitoring of construction activities as necessary, on-site identification and resolution of environmental problems, and proper reporting by the County. The MMRP is to be used by County staff, participating agencies, project contractors, and mitigation monitoring personnel during implementation of the project. The MMRP and any related supporting documentation shall be maintained in the project file and be made available to the public upon request.

Mitigation Monitoring and Reporting Program
Castella Water Intake Replacement Project

Mitigation Measure	Monitoring Action	Monitoring Timing/Frequency	Completion	
			Date	Initials
Air Quality				
MM 4.3.1 The following measures shall be implemented throughout construction: a. All material excavated, stockpiled, or graded shall be covered or sufficiently watered to prevent fugitive dust from leaving property boundaries and causing a public nuisance or a violation of ambient air quality standards. Watering shall occur at least twice daily with complete site coverage, preferably in the mid-morning and after work is completed each day. b. All material transported offsite shall be either sufficiently watered or securely covered to prevent a public nuisance. c. All areas (other than paved roads) with vehicle traffic shall be watered periodically or have dust palliatives applied for stabilization of dust emissions. d. All on-site vehicles shall be limited to a speed of 15 miles per hour on unpaved roads. e. All land clearing, grading, earth moving, and excavation activities on the project site shall be suspended when winds are causing excessive dust generation. f. All trucks hauling dirt, sand, soil, or other loose materials shall be covered or shall maintain at least two feet of free board in accordance with the requirements of Section 23114 of the California Vehicle Code. This provision is enforced by local law enforcement agencies.	BC <ul style="list-style-type: none">Confirm mitigation measure is included in construction contract. DC <ul style="list-style-type: none">Field check to ensure compliance with the mitigation measure.	BC <ul style="list-style-type: none">One-time check of construction contract. DC <ul style="list-style-type: none">Field check as needed to ensure compliance.		

BC = Before Construction, DC = During Construction, AC = After Construction

Page 1 of 11

Mitigation Measure	Monitoring Action	Monitoring Timing/Frequency	Completion	
			Date	Initials
MM 4.3.1 continued. g. Paved streets in and adjacent to the construction site shall be swept or washed at the end of the day to remove excessive accumulations of silt and/or mud resulting from activities on the development site. h. When not in use, motorized construction equipment shall not be left idling for more than five minutes. Responsibility: Shasta County (County)				
Biological				
MM 4.4.1 To avoid impacts to the Pacific tailed frog and the foothill yellow-legged frog, the following shall be implemented: <ul style="list-style-type: none"> On each day in which in-stream work would occur, a qualified biologist shall conduct a pre-construction survey for the Pacific tailed frog and foothill yellow-legged frog. Surveys are not required for work occurring in the dewatered portion of the stream channel. Should juveniles or adults of the Pacific tailed frog or foothill yellow-legged frog be observed during the surveys, or by construction personnel at any time, all work shall be stopped within 50 feet of the animal until a qualified biologist can relocate the individuals. Should eggs of either species be observed, a qualified biologist shall identify and flag an area of avoidance; if full avoidance is not possible, the egg masses shall be relocated outside of the work area by the qualified biologist. Responsibility: County	BC <ul style="list-style-type: none"> Confirm mitigation measure is included in construction contract. DC <ul style="list-style-type: none"> Check pre-construction documentation provided by the biologist regarding the presence/absence of the Pacific tailed frog and foothill yellow-legged frog. If frogs are observed during the preconstruction surveys or during construction, or if frog egg masses are observed and must be relocated, confirm all construction activities stop within the affected area and that the biologist relocates the frogs and/or egg masses. If frog egg masses are observed but do not need to be relocated, confirm that 	BC <ul style="list-style-type: none"> One-time check of construction contract. DC <ul style="list-style-type: none"> One-time check of pre-construction survey documentation. One-time check of biologist's relocation report. If eggs are observed and flagged for avoidance, conduct weekly field checks to verify that the avoidance flagging is properly maintained until the frogs 		

BC = Before Construction, DC = During Construction, AC = After Construction

Mitigation Measure	Monitoring Action	Monitoring Timing/Frequency	Completion	
			Date	Initials
	flagging is in place around the avoidance area.	have hatched and dispersed outside the work area.		
MM 4.4.2 Impacts to water quality in Castle Creek shall be minimized by implementing the following measures: <ul style="list-style-type: none"> In-water construction activities shall take place between June 1 and October 31, when there is a minimal change of precipitation and flows are near their lowest; the in-water work period may be extended if weather conditions allow and if authorized by permitting agencies. Construction activities that include earth disturbance shall involve the use of Best Management Practices (BMPs) to prevent erosion, sedimentation, and accidental spills from entering Castle Creek. Prior to the start of in-water work, the dewatering/diversion plan shall be reviewed and accepted by the California Department of Fish and Wildlife (CDFW), U.S. Army Corps of Engineers (USACE), and Regional Water Quality Control Board. The final plan shall be implemented by the project contractor and the diversion shall be properly maintained throughout the course of in-water construction. Responsibility: County	BC <ul style="list-style-type: none"> Confirm mitigation measure is included in construction contract. Confirm approval of the dewatering/diversion plans by resource agencies in accordance with mitigation measure. DC <ul style="list-style-type: none"> Field check implementation of BMPs and approved dewatering/diversion plan. Confirm work start/stop dates are in compliance with mitigation requirements. 	BC <ul style="list-style-type: none"> One-time check of construction contract. One-time check of documentation from resource agencies. DC <ul style="list-style-type: none"> Weekly field checks to ensure compliance with BMPs and dewatering/diversion plan. One-time field check of work start/stop dates. 		

Mitigation Measure	Monitoring Action	Monitoring Timing/Frequency	Completion	
			Date	Initials
MM 4.4.3 Impacts to seasonal wetlands shall be minimized by implementing the following measures: <ul style="list-style-type: none"> High-visibility indicators such as marking whiskers, pin flags, stakes with flagging tape, or other markers shall be installed along the outer edges of the construction zone adjacent to wetlands and other waters designated for avoidance. The marker locations shall be determined by a qualified biologist in consultation with the project engineer and the Shasta County Department of Public Works. No construction activities (e.g., clearing, grading, trenching, etc.), including vehicle parking and materials stockpiling, shall occur within the marked area. The exclusionary markers shall be periodically inspected during the construction period to ensure the markers are properly maintained. The markers shall be removed upon completion of work. If vehicles and/or equipment must enter wetlands, or if wetlands are to be used as a staging area, the wetlands shall be protected through installation of temporary wood slabs, swamp mats, HDPE mats, geotextile fabric with a layer of gravel, or similar protective materials approved by the County. The protective materials shall be removed upon completion of construction. If excavation of wetlands cannot be avoided, mitigation shall be achieved by restoring the pre-existing topography of the wetlands upon completion of construction or through purchase of mitigation credits at an agency-approved mitigation bank at a minimum 1:1 ratio, or as may otherwise be required through permits issued by CDFW, U.S. Army Corps of Engineers (USACE), and Regional Water Quality Control Board (RWQCB). Responsibility: County	BC <ul style="list-style-type: none"> Confirm mitigation measure is included in construction contract. Confirm installation of high-visibility markers at locations determined by a qualified biologist. Confirm installation of protective materials over wetlands (if wetlands are not protected by high-visibility markers). DC <ul style="list-style-type: none"> Field check to ensure that high-visibility markers and/or protective materials are maintained throughout the construction period. AC <ul style="list-style-type: none"> Field check to ensure removal of markers and/or protective materials. If wetland excavation occurred, conduct a field check or check documentation demonstrating implementation of wetland mitigation. 	BC <ul style="list-style-type: none"> One-time check of construction contract. One-time field check to confirm installation of high-visibility markers. One-time field check to confirm installation of protective materials over wetlands. DC <ul style="list-style-type: none"> Weekly field checks to ensure that high-visibility markers and/or protective materials are maintained. AC <ul style="list-style-type: none"> One-time field check to ensure removal of markers and/or protective materials after project completion. If necessary, conduct a one-time field check to confirm restoration of wetland topography, conduct a one-time check of documentation of mitigation credit purchase, and/or conduct other actions to confirm implementation of permit conditions. 		

BC = Before Construction, DC = During Construction, AC = After Construction

Mitigation Measure	Monitoring Action	Monitoring Timing/Frequency	Completion	
			Date	Initials
MM 4.4.4 Loss of riparian habitat shall be minimized by implementing the following measures: <ul style="list-style-type: none"> Minimize the construction disturbance to riparian habitat through careful preconstruction planning. Install high-visibility indicators such as marking whisksers, pin flags, stakes with flagging tape, or other markers along the outer edges of the construction zone where needed to prevent accidental entry into the surrounding riparian habitat planned for retention. Stockpile equipment and materials outside of the riparian habitat, in the designated staging areas. Prune any riparian plants at ground level where feasible (as opposed to mechanically removing the entire plant and root system) in temporary use areas, which will promote regeneration from the root systems. Responsibility: County	BC <ul style="list-style-type: none"> Confirm mitigation measure is included in construction contract. Confirm installation of high-visibility markers at locations determined by a qualified biologist. DC <ul style="list-style-type: none"> Field check to confirm maintenance of high-visibility markers, use of designated staging areas, and appropriate vegetation management techniques. 	BC <ul style="list-style-type: none"> One-time check of construction contract. One-time field check to confirm installation of high-visibility markers. DC <ul style="list-style-type: none"> Weekly field checks to ensure compliance. 		
MM 4.4.5 Any unavoidable loss of riparian habitat shall be offset by the following measure: <ul style="list-style-type: none"> Prior to any earth disturbance, the County shall purchase stream-side riparian habitat mitigation credits at a minimum 1:1 ratio from a CDFW-approved mitigation bank. Alternatively, the County shall pay in-lieu fees to the USACE, contribute funds to purchase a conservation easement for the protection of riparian habitat in perpetuity, or contribute funds to a conservation entity (such as Wildlife Conservation Board) to restore and/or enhance riparian habitats within Shasta County. Proof of purchase shall be provided to CDFW prior to the start of work. Following project completion, the bank of Castle Creek shall be restored per the project description 	BC <ul style="list-style-type: none"> Confirm mitigation measure is included in construction contract. Confirm purchase of credits, conservation easement funding, or payments of fees. AC <ul style="list-style-type: none"> Field check to confirm restoration of site topography and implementation of revegetation plan. 	BC <ul style="list-style-type: none"> One-time check of construction contract. One-time check of mitigation credit purchase, conservation easement funding, or fee payment. AC <ul style="list-style-type: none"> One-time field check to confirm implementation of revegetation plan. 		

BC = Before Construction, DC = During Construction, AC = After Construction

Mitigation Measure	Monitoring Action	Monitoring Timing/Frequency	Completion	
			Date	Initials
MM 4.4.5 continued and riparian vegetation shall be replanted in accordance with the revegetation plan dated April 2023, and as may be modified in accordance with specifications of permits issued by CDFW, USACE, and/or RWQCB. Responsibility: County				
MM 4.4.6 The potential for introduction and spread of noxious weeds shall be avoided/minimized by: <ul style="list-style-type: none"> Using only certified weed-free erosion control materials, mulch, and seed; Limiting any import or export of fill material to material that is known to be weed free; and Requiring the construction contractor to thoroughly wash all equipment at a commercial wash facility prior to entering the job site and upon leaving the job site. Responsibility: County	BC <ul style="list-style-type: none"> Confirm mitigation measure is included in construction contract. DC <ul style="list-style-type: none"> Field check to confirm compliance with mitigation measure. Check documentation (i.e. receipts) to confirm equipment was washed at a commercial wash facility. 	BC <ul style="list-style-type: none"> One-time check of construction contract. DC <ul style="list-style-type: none"> One-time check of erosion-control material and seed packaging. Field check fill material imports/exports as needed to ensure compliance. Check equipment-wash documentation at outset of project, as additional equipment is deployed, and as equipment is removed from the job site. 		
MM 4.4.7 To avoid impacts to nesting birds and raptors protected under the federal Migratory Bird Treaty Act and California Fish and Game Code §3503 and §3503.5, including their nests and eggs, one of the following shall be implemented (removal of raptor nests at any time of the year is prohibited unless appropriate permits are obtained): <ul style="list-style-type: none"> Vegetation removal and other ground-disturbance activities associated with construction shall occur between September 1 and January 31, when birds are not nesting; or 	BC <ul style="list-style-type: none"> Confirm mitigation measure is included in construction contract. If vegetation removal or construction occur between February 1 and August 31, check pre-construction survey report provided by biologist regarding the presence/absence of active nests. 	BC <ul style="list-style-type: none"> One-time check of construction contract. One-time check of biologist's documentation and submittal to CDFW. 		

BC = Before Construction, DC = During Construction, AC = After Construction

Mitigation Measure	Monitoring Action	Monitoring Timing/Frequency	Completion	
			Date	Initials
<ul style="list-style-type: none"> If vegetation removal or ground disturbance activities occur during the nesting season (February 1 – August 31), a pre-construction nesting survey shall be conducted by a qualified biologist to identify active nests in and adjacent to the work area. The survey shall consider acoustic impacts and line-of-sight disturbances occurring as a result of the project in order to determine a sufficient survey radius to avoid nesting birds. At a minimum, the survey report shall include a description of the area surveyed, date and time of the survey, ambient conditions, bird species observed in the area, a description of any active nests observed, any evidence of breeding behaviors (e.g., courtship, carrying nests materials or food, etc.), and a description of any outstanding conditions that may have impacted the survey results (e.g., weather conditions, excess noise, the presence of predators, etc.). <p>The results of the survey shall be submitted electronically to CDFW at R1CEQARedding@wildlife.ca.gov upon completion. The survey shall be conducted no more than one week prior to the initiation of construction. If construction activities are delayed or suspended for more than one week after the pre-construction survey, the site shall be resurveyed.</p> <p>If active nests are found, appropriate actions shall be implemented to ensure compliance with the Migratory Bird Treaty Act and California Fish and Game Code. Compliance measures may include, but are not limited to, exclusion buffers, sound - attenuation measures, seasonal work closures based on the known biology and life history of the species identified in the survey, as well as ongoing monitoring by biologists.</p> <p>Responsibility: County</p>	<ul style="list-style-type: none"> Confirm submittal of pre-construction survey report to CDFW. <p>DC</p> <ul style="list-style-type: none"> If active nests are present, monitor implementation of nest protection measures presented in biologist's report. 	<p>DC</p> <ul style="list-style-type: none"> If active nests are present, conduct field checks on the schedule specified by the qualified biologist. 		

Mitigation Measure	Monitoring Action	Monitoring Timing/Frequency	Completion	
			Date	Initials
MM 4.4.8 Prior to commencement of any earth disturbance (e.g., clearing, grading, trenching, etc.), all construction personnel shall receive training from a qualified biologist regarding protective measures for special-status animals and their habitats that could exist in the study area (foothill yellow-legged frog and Pacific tailed frog). If new personnel are added to the project, they shall receive the mandatory training before starting work. At a minimum, the training shall include the following: <ol style="list-style-type: none"> A review of the special-status species that could occur in the project study area, the locations where the species could occur, the laws and regulations that protect these species, and the consequences of noncompliance with those laws and regulations. Procedures to be implemented in the event that these species are encountered during construction. A review of sensitive habitats that occur in the study area and the location of the sensitive habitats. A review of applicable mitigation measures, standard construction measures, best management practices, and regulatory agency permit conditions that apply to the protection of special-status species and sensitive habitats. Responsibility: County	BC <ul style="list-style-type: none"> Confirm mitigation measure is included in construction contract. DC <ul style="list-style-type: none"> Check awareness training sign-in sheets to confirm employee training. 	BC <ul style="list-style-type: none"> One-time check of construction contract. DC <ul style="list-style-type: none"> One-time check of awareness training sign-in sheets. 		
MM 4.4.9 Erosion control materials used on the project site (e.g., geotextiles, fiber rolls) shall be made of loose-weave mesh, such as jute, hemp, coconut (coir) fiber, or other products without welded weaves. Synthetic (plastic or nylon) materials shall not be used. Responsibility: County	BC <ul style="list-style-type: none"> Confirm mitigation measure is included in construction contract. DC <ul style="list-style-type: none"> Field check to confirm compliance. 	BC <ul style="list-style-type: none"> One-time check of construction contract. DC <ul style="list-style-type: none"> Periodic field checks to ensure compliance. 		

BC = Before Construction, DC = During Construction, AC = After Construction

Mitigation Measure	Monitoring Action	Monitoring Timing/Frequency	Completion	
			Date	Initials
MM 4.4.10 To prevent the inadvertent entrapment of wildlife, the construction contractor shall ensure that at the end of each workday trenches and other excavations that are over one-foot deep have been backfilled or covered with plywood or other hard material. If backfilling or covering is not feasible, one or more wildlife escape ramps constructed of earth fill or wooden planks shall be installed in the open trench. Pipes shall be inspected for wildlife prior to capping, moving, or placing backfill over the pipes to ensure that animals have not been trapped. If animals have been trapped, they shall be allowed to leave the area unharmed. Responsibility: County	BC <ul style="list-style-type: none"> Confirm mitigation measure is included in construction contract. DC <ul style="list-style-type: none"> Field inspection of trenches and pipes outside of construction crew work hours. 	BC <ul style="list-style-type: none"> One-time check of construction contract. DC <ul style="list-style-type: none"> Periodic field checks as needed to ensure compliance. 		
Cultural Resources				
MM 4.5.1 In the event of any inadvertent discovery of cultural resources (i.e., burnt animal bone, midden soils, projectile points or other humanly modified lithics, historic artifacts, etc.), all work within 50 feet of the find shall be halted until a professional archaeologist can evaluate the significance of the find in accordance with PRC §21083.2(g) and §21084.1, and CEQA Guidelines §15064.5(a). If any find is determined to be significant by the archaeologist, Shasta County staff shall meet with the archaeologist to determine the appropriate course of action. If necessary, a Treatment Plan prepared by an archeologist outlining recovery of the resource, analysis, and reporting of the find shall be prepared. The Treatment Plan shall be reviewed and approved by Shasta County prior to resuming construction. Responsibility: County	BC <ul style="list-style-type: none"> Confirm mitigation measure is included in construction contract. DC <ul style="list-style-type: none"> If any cultural resources are encountered, confirm all construction activities stop within the affected area and a qualified archaeologist is contacted. If a Treatment Plan is prepared, confirm that it has been approved by the County prior to resumption of construction. 	BC <ul style="list-style-type: none"> One-time check of construction contract. DC <ul style="list-style-type: none"> Field check as needed to confirm temporary construction stoppage within the buffer zone. One-time check of Treatment Plan approval (if a plan is prepared). The archaeologist shall specify the timing/ frequency of additional monitoring, as appropriate. 		
MM 4.5.2 In the event that human remains are encountered during construction activities, Shasta County shall comply with the §15064.5 (e) (1) of the CEQA Guidelines and PRC §7050.5. All project-related	BC <ul style="list-style-type: none"> Confirm mitigation measure is included in construction contract. 	BC <ul style="list-style-type: none"> One-time check of construction contract. 		

BC = Before Construction, DC = During Construction, AC = After Construction

Mitigation Measure	Monitoring Action	Monitoring Timing/Frequency	Completion	
			Date	Initials
<p>ground disturbance within 50 feet of the find shall be halted until the County coroner has been notified. If the coroner determines that the remains are Native American, the coroner will notify the Native American Heritage Commission (NAHC) to identify the most likely descendants of the deceased Native Americans. Project-related ground disturbance in the vicinity of the find shall not resume until the process detailed in §15064.5 (e) has been completed.</p> <p>Responsibility: County</p>	<p>DC</p> <ul style="list-style-type: none"> If any human remains are encountered, confirm all construction activities stop within the affected area and that a qualified archaeologist and the county coroner are contacted. If human remains are recognized as Native American, notify the NAHC in accordance with the mitigation measure and assess the discovery; implement any additional mitigation measures identified through the NAHC consultation process. 	<p>DC</p> <ul style="list-style-type: none"> Field check as needed to confirm temporary construction stoppage within buffer zone. Field check or check documentation as needed to confirm implementation of any additional measures identified through the NAHC consultation process. 		
Noise				
Implementation of Mitigation Measure MM 4.3.1(h)	See above.	See above.		
<p>MM 4.13.1</p> <p>Construction activities (excluding activities that would result in a safety concern to the public or construction workers) shall be limited to between the daytime hours of 7:00 A.M. and 7:00 P.M., Monday through Saturday. Construction activities shall be prohibited on Sundays and federal/state recognized holidays. Exceptions to these limitations may be approved by the County for activities that require interruption of utility services to allow work during low demand periods, or to alleviate traffic congestion and safety hazards.</p> <p>Responsibility: County</p>	<p>BC</p> <ul style="list-style-type: none"> Confirm mitigation measure is included in construction contract. <p>DC</p> <ul style="list-style-type: none"> Field check to confirm compliance with the mitigation measure. 	<p>BC</p> <ul style="list-style-type: none"> One-time check of construction contract. <p>DC</p> <ul style="list-style-type: none"> Field check as needed to ensure compliance. 		

Mitigation Measure	Monitoring Action	Monitoring Timing/Frequency	Completion	
			Date	Initials
MM 4.13.2 Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation. Responsibility: County	BC <ul style="list-style-type: none"> Confirm mitigation measure is included in construction contract. DC <ul style="list-style-type: none"> Field check to confirm compliance with the mitigation measure. 	BC <ul style="list-style-type: none"> One-time check of construction contract. DC <ul style="list-style-type: none"> Field check as needed to ensure compliance. 		
MM 4.13.3 Stationary construction equipment (generators, compressors, etc.) shall be located at the furthest practical distance from nearby noise-sensitive land uses. Responsibility: County	BC <ul style="list-style-type: none"> Confirm mitigation measure is included in construction contract. DC <ul style="list-style-type: none"> Field check to confirm compliance with the mitigation measure. 	BC <ul style="list-style-type: none"> One-time check of construction contract. DC <ul style="list-style-type: none"> Field check as needed to ensure compliance with the mitigation measure. 		
Tribal Cultural Resources				
Implementation of Mitigation Measures 4.5.1 and MM 4.5.2.	See above.	See above.		

ATTACHMENT -

NOTICE OF DETERMINATION

Notice of Determination

To:

☒ **Office of Planning and Research**
1400 Tenth St.
Sacramento, CA 95814

☒ **Shasta County Clerk**
1643 Market St
Redding, CA 96001

From:

Shasta County
1855 Placer St.
Redding, CA 96001-1759

Contact: Venton Trotter, LS

Phone: 530.245.6811

Lead Agency: Same

Subject: Filing of Notice of Determination in compliance with §21152 of the Public Resources Code.

State Clearinghouse Number: SCH 2023020554

Project Title: Castella Water Intake Replacement Project

Project Applicant: Shasta County

Project Location: The project is located within the unincorporated community of Castella in northern Shasta County; approximately 50 miles north of Redding and 5 miles south of Dunsmuir. Improvements would occur on the west side of Interstate 5 at the Shasta County Service Area No. 3 Water Treatment Plant (WTP) and within the Castle Creek stream bed. (See Figures 1 and 2 in the Initial Study).

Project Description: The proposed project includes improvements to the Shasta County Service Area No. 3 WTP. Improvements include replacing an existing water intake structure within Castle Creek with an instream infiltration gallery, rehabilitation of an existing clearwell, installation of a new chemical injection vault, and replacing the existing electrical control system equipment with new efficient models. A new post-filter chlorination metering pump and day tank would be installed inside the WTP building, along with a new air compressor, new grating, and new filter and backwash control valves. A new post-filter chlorination vault and appurtenances would be installed to the north of the WTP building. A new surge tank would be installed on the east side of the building, and a new emergency generator and automatic transfer switch would be installed to the south of the WTP building. The purpose of the proposed project is to replace aging infrastructure, and ensure a safe and reliable potable water supply for residents within Shasta County Service Area No. 3.

This is to advise that Shasta County (Lead Agency) approved the above-described project on April 25, 2023, and made the following determinations:

1. The project will not have a significant effect of the environment.
2. A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures were made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan was adopted for this project.
5. A Statement of Overriding Considerations was not adopted for this project.
6. Findings were made pursuant to the provisions of CEQA.

This is to certify that the Mitigated Negative Declaration and record of project approval are available to the General Public at:

1855 Placer Street
Redding, CA 96001

Signature:

Venton Trotter, Supervising Engineer

Date: April 25, 2023

ATTACHMENT -

REVISED REVEGETATION PLAN (APRIL 2023)

REVEGETATION PLAN

CASTELLA WATER INTAKE REPLACEMENT PROJECT

SHASTA COUNTY SERVICE AREA NO. 3

SHASTA COUNTY, CALIFORNIA

April 2023

LEAD AGENCY:



Shasta County
1855 Placer St.
Redding, CA 96001-1759
530.225.5661

PREPARED BY:

ENPLAN

3179 Bechelli Lane, Suite 100
Redding, CA 96002
530.221.0440

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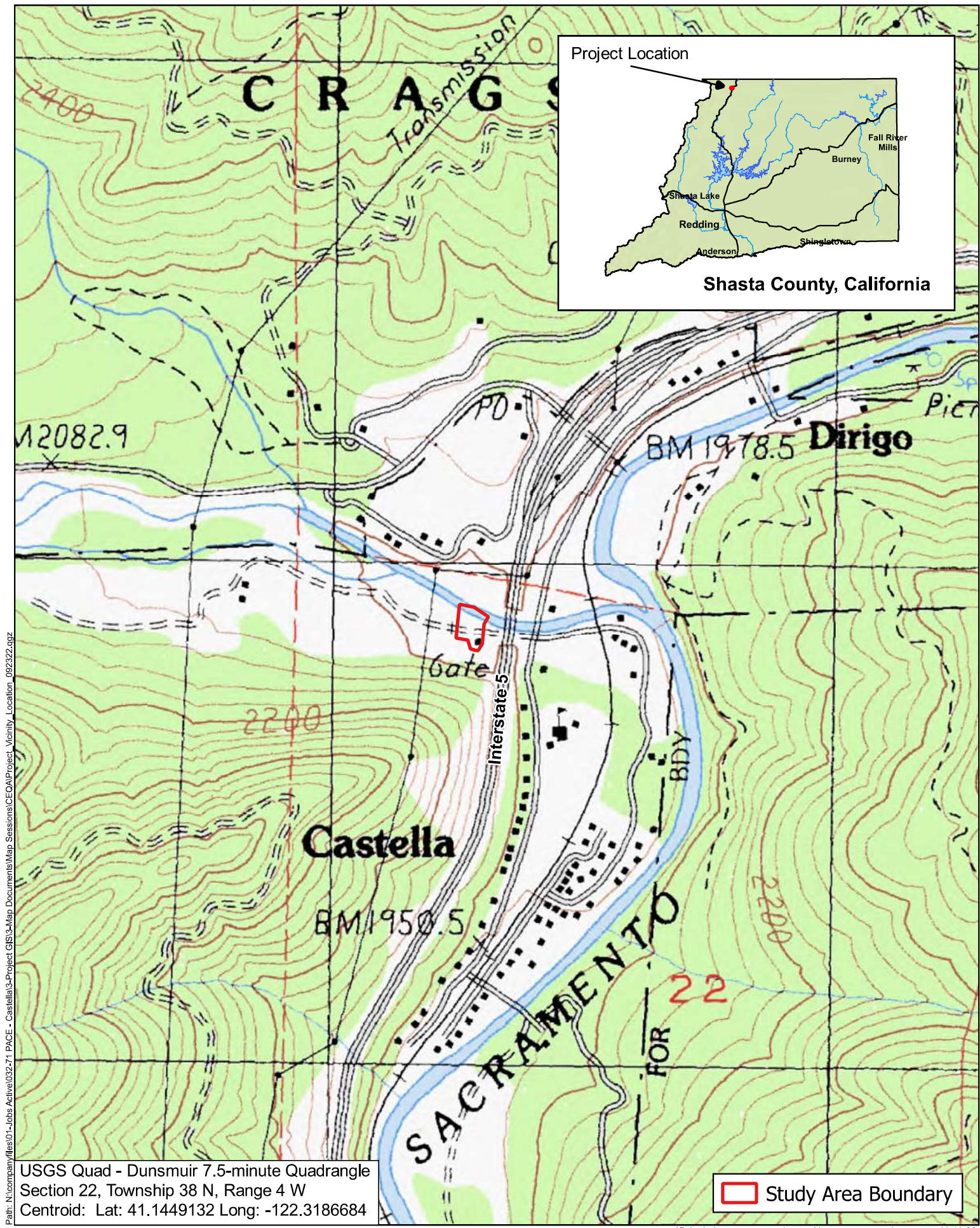
Castella Water Intake Replacement Project

Revegetation Plan

1.0 PROJECT LOCATION AND DESCRIPTION

Shasta County is proposing to improve the County Service Area No. 3 (CSA No. 3) water intake and water treatment plant (WTP). Proposed improvements include replacing the existing water intake structure within Castle Creek with a new in-stream infiltration gallery; rehabilitating an existing wet well; replacing the electrical controls with new, efficient models; and installing a new chemical injection vault, new post-filter chlorination vault and metering pump, a day tank, air compressor, grating, control valves, surge tank, emergency generator, and automatic transfer switch.

The proposed project is located within the unincorporated community of Castella in northern Shasta County, (see **Figure 1**). The Shasta County CSA No. 3 WTP is located west of Interstate 5 (I-5) and south of Castle Creek. The WTP is located on two discontinuous County-owned lots identified as one Assessor's Parcel Number (APN 014-600-016), which totals ±1.2 acres. The two lots are separated by an 80-foot-wide access corridor, which is a portion of APN 014-600-015 owned by Eugene Ammirati.



Path: N:\company\files\01-Jobs Active\032-71 PACE - Castella\3-Map Documents\Map Sessions\CEQA\Project_Vicinity_Location_092322.gxd

All depictions are approximate. Not a survey product. 11.11.22

2.0 SENSITIVE NATURAL COMMUNITIES

The principal natural communities in the study area are stream/riverine, montane hardwood – conifer, annual grassland, barren, and montane riparian. Riverine habitat and montane riparian habitat are considered sensitive natural communities by the California Department of Fish and Wildlife (CDFW). In addition, the project area contains inclusions of seasonal wetlands that are also considered sensitive natural communities. **Figure 2** shows the on-site sensitive natural communities as well as the locations of on-site trees with a diameter at breast height (DBH) that is 5 inches or greater. The on-site sensitive communities are further described below.

Stream/Riverine

The stream/riverine habitat occurs in the project area as Castle Creek, an upper perennial stream tributary to the Sacramento River. Castle Creek flows for approximately 178 feet through the northern portion of the study area and is an average of 39 feet wide along that distance. The dominant in-stream substrate is cobbles and boulders.

The reach of Castle Creek within the project area may be utilized by a variety of fish and wildlife species. Pools and backwater areas provide breeding habitat for amphibians, while waterfowl forage for aquatic plants and invertebrates in slow moving sections of the stream. Small mammals such as beaver, river otter, and muskrat may use the stream as a location for nesting. Habitat complexity is provided by overhanging trees and shrubs, which provide shade, as well as by roots from trees and fallen vegetation that provide shelter for rearing fish and amphibians.

Montane Riparian

A narrow zone of montane riparian habitat borders the south side of Castle Creek in the project area. Montane riparian habitat is generally considered a sensitive community due to its high value for wildlife species. Riparian habitat provides cover, migration corridors, and nesting and foraging opportunities to a variety of wildlife.

Riparian species present in the project area include white alder (*Alnus rhombifolia*), American dogwood (*Cornus sericea* subsp. *sericea*), common horsetail (*Equisetum arvense*), big-leaf maple (*Acer macrophyllum*), black cottonwood (*Populus balsamifera* subsp. *trichocarpa*), Himalayan blackberry (*Rubus armeniacus*), and several species of willow (*Salix* spp.).



1" = 40'

0 20 40 Feet

Figure 2

Sensitive Habitat Types and Tree Survey Results

Not a survey product. All features and boundaries are preliminary until verified by the Army Corps of Engineers.

10.28.22

ENPLAN

Seasonal Wetlands

Three seasonal wetlands are present as inclusions within the annual grassland habitat. These features are generally considered to be sensitive communities due to the uniquely adapted flora and fauna species that may be present in them. Wetlands within the study area are represented by the following species: tall fescue (*Festuca arundinacea*), annual hairgrass (*Deschampsia danthonioides*), Mediterranean barley (*Hordeum marinum*), chicory (*Cichorium intybus*), and Spanish lotus (*Acmispon americanus*).

3.0 IMPACTS ON SENSITIVE NATURAL COMMUNITIES

Stream/Riverine

An estimated 0.30 acres of Castle Creek will be directly impacted due to the proposed project. Work within the ordinary high-water mark of Castle Creek will be temporary and will include the implementation of a water diversion and dewatering system during the installation of the new water intake gallery. A diversion/dewatering plan has been prepared and includes the use of a cofferdam and bypass pipes, water intake and discharge locations, and the potential use of settling tanks if needed to control turbidity. Additionally, the potential for indirect impacts downstream from the project site could result from increased turbidity and a temporary decrease in water quality. Because vegetation is not present within the riverine habitat, no revegetation will be necessary following project completion; therefore, no further discussion of Castle Creek is warranted in this revegetation plan.

Seasonal Wetlands

Approximately 0.053 acres of seasonal wetlands are present in the study area. Due to the limited space available at the project site, full avoidance of the wetlands is unlikely to occur. Instead, it is expected that the wetlands may be used for staging of equipment and materials or as part of an access route to Castle Creek. If this is the case, the wetlands would be protected through the use of wetland mats or similar materials that would protect wetland soils and plant roots, and allow speedy recovery of the wetland habitats upon completion of the project, with no human intervention.

Alternatively, it is possible that the contractor may need to excavate portions of the wetlands for equipment access or installation of subsurface facilities. If this were to

occur, then, in accordance with standard Corps of Engineers permit conditions (e.g., NWP 58: Utility Line Activities for Waters and Other Substances), the upper 6-12 inches of topsoil would be separately removed and stockpiled. Upon completion of construction, the wetland topography would be restored and the reserved topsoil would be applied as the uppermost soil layer. Because the restored wetlands would have their pre-construction topography, hydrology, surface soils, and seed bank, no further restoration work would be necessary following project completion. No further discussion of seasonal wetland restoration is needed in this revegetation plan.

Montane Riparian

Approximately 0.09 acres of montane riparian habitat is present in the study area. The riparian habitat includes 36 trees with a diameter at breast height (DBH) of greater than five inches. These trees include 17 white alders, 10 black cottonwoods, 6 ponderosa pines, 2 incense-cedars, and 1 Pacific willow. The extent of montane riparian habitat that will be impacted by project implementation is not known at this time and is dependent on the contractor's construction plans. However, tree removal will undoubtedly be necessary to provide equipment access to Castle Creek and for installation of subsurface water lines and other facilities. Section 4.0 of this report presents the actions to be taken to restore the on-site montane riparian habitat following completion of project construction.

4.0 REVEGETATION PLAN

4.1 Responsible Party

Shasta County is responsible for implementation of this Revegetation Plan. At the County's discretion, some or all activities may be delegated to contractors.

4.2 Contractor Qualifications

Implementation of this Revegetation Plan shall be overseen by a qualified biologist or landscape professional with documented habitat restoration experience. The installation contractor must have documented native habitat restoration experience.

4.3 Revegetation/Restoration Methods and Materials

Upon completion of construction activities, the project site shall be evaluated by a qualified biologist to determine the extent of impact sustained by the montane riparian habitat. The qualified biologist shall identify disturbed areas that need to be recontoured, re-seeded with herbaceous species, and/or replanted with woody species. The ground surface will then be restored to its pre-existing grade and the soil will be track-walked to achieve a density suitable for planting. Although the sloped southern bank of Castle Creek will be treated with rip rap to provide slope stability, woody riparian vegetation will be planted within the rip rap.

The objective of reseeding with herbaceous species is to provide cover for immediate erosion control and soil stabilization. All hydroseeding shall use a California native seed mix. An appropriate seed mix is provided in Table 1, and would be applied at a rate of 40 pounds per acre. Because seed availability may vary from year to year, the species composition and application rate may necessarily differ from that suggested in the table.

Table 1
Sample Herbaceous Seed Mix

Scientific Name	Common Name	Quantity
<i>Nasella pulchra</i>	Purple needlegrass	30%
<i>Elymus glaucus</i>	Blue wildrye	25%
<i>Bromus sitchensis</i> var. <i>carinatus</i>	California brome	20%
<i>Festuca idahoensis</i>	Idaho fescue	18%
<i>Vulpia microstachys</i>	Six-weeks fescue	5%
<i>Achillea millefolium</i>	Common yarrow	2%

The herbaceous cover will be achieved by hydroseeding with the selected seed mix, or planting with the selected seed mix and covering the seed with a weed-free mulch at a rate of one ton per acre. The hydroseeding slurry (including seed mix, fiber, fertilizer, binder, etc.) shall be per the revegetation/restoration contractor's specifications. Should planting rather than hydroseeding be selected, seeding will be conducted by hand-broadcasting or by using a whirlybird-type spreader. After seeding, the site will be dragged, harrowed, or raked to cover the seed with soil. Seeding and mulching will be conducted between October 15 and December 31; seeding may be conducted earlier if regular watering is provided.

Trees and other woody vegetation to be removed will be pruned at ground-level or crushed with equipment where feasible at the start of construction, leaving the root systems in place to encourage regrowth. Following construction, replanting would occur

using cuttings or seedlings of native riparian trees and shrubs. Replanting of trees will occur at a 3:1 ratio. Assuming that all onsite riparian habitat would be disturbed and all 36 trees would be removed, 108 trees would be replanted. The exact number of trees to be removed is dependent on final construction plans and the contractor's work approach; therefore, the actual 3:1 replanting requirement will be dependent on tree removal. Recommended species for the riparian habitat replanting are white alder, American dogwood, Oregon ash, locally native willows (e.g., Pacific willow, arroyo willow, dusky willow, Scouler's willow), and black cottonwood. Cuttings may be collected from vigorously growing plants in the vicinity of the project site (use of cuttings is not recommended for white alder or Oregon ash). The cuttings will be approximately two feet in length although longer cuttings may be needed for planting within the rip rap. The base cut will be made at an approximately 45-degree angle to the stem. The terminal end cut will be horizontal to the stem to aid in correct orientation and to facilitate planting. Cuttings and seedlings will be planted between October 15 and December 31, after fall rains have thoroughly moistened the soil. If cuttings are used, they will be planted on the same day they are collected.

Prior to planting, each cutting may be treated with a rooting hormone and fungicide, such as hormodin powder, by dipping the basal portion of the cutting. The plant should then dry to minimize the loss of rooting hormone through handling and planting. Cuttings will be pushed into moist soil, with 6 to 8 inches of the cutting remaining above the ground surface. Plantings will be placed in staggered rows, or as recommended by a qualified biologist.

To minimize weed problems and competition for water, weed mats or bark mulch shall be placed around the plants, extending to 18 inches from the stem where feasible. If bark is used, it shall be spread to a depth of three inches.

4.4 Monitoring and Remedial Measures

No long-term monitoring of the site is proposed because riparian habitat credits will be purchased at a 1:1 ratio from an approved mitigation bank. Purchase of the riparian habitat credits will ensure that direct impacts to riparian habitat is mitigated even if restoration effort is not immediately successful.