



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

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



September 11, 2023

Governor's Office of Planning & Research

September 11 2023

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Shasta County Department of Resource Management
Planning Division
1855 Placer Street, Suite 103
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STATE CLEARINGHOUSE

SUBJECT: REVIEW OF CRYSTAL CREEK AGGREGATES PROJECT, USE PERMIT AMENDMENT 23-0003 AND RECLAMATION PLAN AMENDMENT 23-0004, STATE CLEARING HOUSE NUMBER 2023080240, SHASTA COUNTY

Dear Tara Petti:

The California Department of Fish and Wildlife (CDFW) has reviewed the Draft Environmental Impact Report (DEIR) dated July 2023, 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 and Game Code, §§ 711.7, subd. (a) & 1802; Public 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 is also submitting comments as a Responsible Agency under CEQA (Public 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, to the extent implementation of the Project as proposed may result in "take", as defined by State law, of any species protected under the California Endangered Species Act (CESA) (Fish and Game Code, § 2050 et seq.), or state-listed rare plant pursuant to the Native Plant Protection Act (NPPA; Fish and Game Code § 1900 et

¹CEQA 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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seq.) authorization as provided by the applicable Fish and Game Code will be required.

Comments and Recommendations

CDFW responded to an early consultation solicitation from Shasta County in March 2023. CDFW was pleased to see that Shasta County accepted many of the recommendations provided during early consultation and finds that many of the avoidance and minimization measures included in the ISMND are adequate in avoiding and minimizing impacts to biological resources. CDFW offers the following comments and recommendations below to further assist Shasta County in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct, and indirect impacts on fish and wildlife (biological) resources.

Lake and Streambed Alteration Agreement

CDFW records and the ISMND indicate that the previous Lake or Streambed Alteration (LSA) Agreement (No. 1600-2010-0018-R1) has expired. Project activities, as they are described in the ISMND, including direct and indirect impacts to ephemeral streams, intermittent streams and wetlands associated with such streams, warrant notification under Fish and Game Code section 1602.

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

Due to its expiration, LSA Agreement 1600-2010-0018-R1 cannot be extended nor amended, and therefore a new notification must be submitted to CDFW. Please note that performing Project activities that include any of the activities listed above, without a valid LSA Agreement would be in violation of Fish and Game Code Section 1600. To obtain information about the 1600 Notification process, please access the Department's website at: <https://www.wildlife.ca.gov/Conservation/LSA>

Aquatic Resources

Page 272 of the ISMND states "*As previously discussed, the approved use permit area is proposed to be expanded by an additional approximate 69.28 acres...there are four wetland features totaling 0.566 acres located in the 69.28-acre Mineral Resource Area that would be considered Waters of the United States and Waters*

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of the State...there are approximately 1.086 acres of "Other Waters" within the Mineral Resource Area. Per the active Use Permit (07-020) and the previous Lake and Streambed Alteration Agreement obtained for the Mine (LSAA No. 1600-2012-0018-R1), onsite mitigation was approved to compensate for impacts to wetlands."

While the previous Lake and Streambed Alteration Agreement approved mitigation strategies for impacts to aquatic resources, such strategies are now considered "proposed" until an LSA Agreement is issued. All newly proposed impacts associated with the mineral resource area expansion, and all proposed mitigation strategies, should be included in the updated notification to CDFW. Please note that with any changes of impacts to aquatic resources, there may be necessity to curtail previous mitigation strategies to adequately mitigate such impacts.

Western Pond Turtle

As described in the ISMND, Western pond turtle has been observed within the Project area, outside of the active Mineral Resource Area but within an area that may infrequently incur disturbances. CDFW finds many of the proposed avoidance and minimization measures are adequate in their avoidance and minimization of impacts to Western pond turtle, however, CDFW does not concur with Mitigation Measure BIO-1(d) which states "*The operator shall install exclusion barriers (such as ERTEC Environmental Systems smooth Ridged Polymer Matrix fencing or similar product) along the roadway in the vicinity of ponds PO15, PO16, PO17, PO18, and PO19 to minimize the risk of western pond turtles entering the active mining site*". Such exclusionary devices require specialized design and specific implementation, along with regular maintenance to ensure proper functionality, and such exclusion may impede Western pond turtle movements into terrestrial habitats for nesting. CDFW recommends removing Mitigation Measure BIO-1(d) from the ISMND.

Control of Invasive Wildlife

The ISMND states "*The biological resource assessment of the project site, completed by Gallaway Enterprises, identified that there is currently a significant bullfrog population within the ponds at the site*". Non-native invasive American bullfrogs are known to negatively impact a wide variety of native species through predation and disease². Such species include the Western pond turtle, a CDFW species of Special Concern, known to occur within the Project area. Impacts from bullfrogs may have significant impacts to native species within, adjacent to, and downstream of the Project area. The ISMND describes two of three onsite drainages that flow into Middle Creek, a tributary of the Sacramento River, which may provide an easy route for bullfrog population expansion outside of the Project area. Bullfrog escapees have likely contributed to the introduction and spread of amphibian diseases including chytrid fungus and various ranaviruses, of which

² California Fish and Game Commission Wildlife Resources Committee. 2023. Staff Report on the American Bullfrog and Non-Native Turtle Stakeholder Engagement Process.

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have been linked to mass deaths of amphibians world-wide³. While CDFW acknowledges that American bullfrog may be widespread in Shasta County, with persistence, control has been obtained through small-scale eradication efforts.

CDFW does not find the bullfrog analysis, as it is described on Page 76 of the ISMND, to be adequate in its justification for taking no action in the control of invasive wildlife from the Project area. According to the ISMND, subject ponds will be filled by 2102 and will no longer provide suitable habitat for bullfrogs. However, this timeframe will provide bullfrogs nearly 80 years to thrive within the Project area. Additionally, filling-in the subject ponds is contradicted by the reclamation plan, which describes a post-operation 32.67-acre freshwater pond.

Due to the potential for significant impacts to native wildlife over the lifetime of the Project and thereafter, CDFW recommends the County prepare an invasive wildlife species management plan to address the control of bullfrogs as a condition of approval. The invasive species management plan should consider active management strategies, such as seasonal egg mass removal, setting fyke traps for frogs and tadpoles, dispatching juvenile and adult frogs, draining ponds to eliminate habitat, and adaptive management strategies should management techniques fail. The plan should detail specifics for performing management strategies and should be submitted for CDFW approval.

Reclamation Prescriptions and Designs

The ISMND states “*The primary objectives of the reclamation plan amendment are to 1) establish a new vegetative cover that provides future fire protection; 2) stabilize finished mined surfaces and prevent erosion; and 3) revegetate with plant species adapted to this locale.*” CDFW recommends including a reclamation objective to reestablish natural ecological functions of the area for the benefit of local flora and fauna. The ISMND does not include an analysis describing how the proposed reclamation prescriptions may reestablish and enhance ecological value and function of the Project area, beyond being planted with ponderosa pine and native herbaceous cover. CDFW recommends the County include a section in the ISMND that provides the public and responsible and trustee agencies greater detail on how the reclamation prescriptions offer restored ecological benefits and function.

The Reclamation Plan Details (ISMND, Figure 15), feature 40-foot vertical walls with revegetated benches. It is unclear how many 40-foot vertical walls and benches are proposed, and how this design may impact the use of the area by local wildlife once implemented. Such designs typically contribute to wildlife habitat fragmentation and movement barriers which is contradictory to what remediation of the area may be striving to achieve. CDFW recommends the County include greater detail of the proposed vertical walls and benches, and insights into how this design may impact use

³ California Fish and Game Commission Wildlife Resources Committee. 2023. Staff Report on the American Bullfrog and Non-Native Turtle Stakeholder Engagement Process.

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of the site by local wildlife. If the County finds that this design may have significant impacts to the environment, lacks beneficial impacts to wildlife movement, and lacks in contributing to the ecological function of the area, CDFW recommends the County consider alternative designs that fulfill the primary reclamation objectives while simultaneously benefiting ecological function and minimizing potentially significant impacts to local wildlife.

Revegetation Plan

The ISMND includes a brief overview of the proposed revegetation efforts, however, the ISMND does not include a revegetation plan or revegetation success criteria. The ISMND states “*Following the completion of reclamation, the progress of revegetation will be monitored until success standards are met without human intervention.*” Preparing a revegetation plan was previously recommended by CDFW because they are important tools for addressing overall restoration and revegetation objectives, detail plans for implementation, detail the monitoring strategies for revegetation efforts, outline success criteria and adaptive management strategies. CDFW recommends the County prepare a Revegetation Plan and include the plan in the ISMND to demonstrate how this Projects’ potentially significant environmental impacts will be proportionately remediated throughout revegetation and restoration of habitat.

Additionally, the ISMND lists ponderosa pine as the only tree species planned for revegetation of the Project area, “*Ponderosa Pine is chosen since it is native to the area*”. Revegetating with only one native tree species limits the biodiversity of the area, which is essential for a healthy ecosystem. Revegetating with several different tree species provides a wide range of ecosystem services including opportunities for increased fire resiliency, increased habitat availability for a variety of wildlife, reduces the susceptibility to disease and pests, provides climate adaptability and enriches soil health. CDFW recommends the County include more than one tree species in the revegetation plan and consider native species that are known to thrive in this area of Shasta County.

Last, the ISMND indicates the Project area contains non-native invasive plant species, however, non-native invasive plant and/or noxious weed control and removal is not addressed. Allowing non-native invasive plants and noxious weeds to persist may cause such species to outcompete native species generally, as well as those included in revegetation efforts, and reduce the diversity of plant species, therefore reducing food and pollen availability for local wildlife. One of the Amended Reclamation Plan objectives is, “to establish a new vegetative cover that provides future fire protection”, however, some invasive plants may increase the risk of wildfire and fuel active wildfire⁴. CDFW recommends the County include non-native invasive and noxious weed control methods in the Revegetation Plan.

⁴ <https://wildlife.ca.gov/Conservation/Plants/Invasives>

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Dust Palliatives


The ISMND indicates dust palliatives may be applied to roadways and stockpiles. CDFW does not encourage the use of chemical dust palliatives and recommends against applying chemical dust palliatives, especially where transmission to a waterway or sensitive habitat could occur. Many dust palliatives are toxic to fish and wildlife and have adverse effects on the environment. Transmission of palliatives may occur from run-off, leaching, deposition of palliative laden dust, and release from tires after traffic has traversed areas treated with palliative. CDFW is primarily concerned with the transport of palliatives during storm events from areas of approved use that may spread into depressions, streams and washes that may be sources of water for wildlife. If chemical dust palliatives are proposed for use, potentially significant impacts to fish, wildlife, and sensitive habitats should be addressed in the ISMND, and measures should be proposed to reduce impacts to less than significant.

Watering

The ISMND indicates “watering” of areas throughout the Project area including, but not limited to, areas planted with herbaceous erosion control ground covers and areas that are susceptible to causing fugitive dust. It is unclear from the ISMND where the water for this activity will be sourced. CDFW recommends including this information in the ISMND.

CDFW appreciates the opportunity to comment on this Project to 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:

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Tina Bartlett, Regional Manager
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