United States Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
Ecological Services
Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, California 93003

IN REPLY REFER TO:
2022-0048094-S7

May 3, 2024

Greg Brown, Senior Project Manager
Regulatory Division
U.S. Army Corps of Engineers, San Francisco District
450 Golden Gate Avenue
San Francisco, California 94102

Subject: Biological Opinion on the Graniterock A.R. Wilson Quarry Project at South Canyon, San Benito County, California (2022-0048094) (Corps File No. 2018-00283S)

Dear Greg Brown:

This document transmits the U.S. Fish and Wildlife Service's (Service) biological opinion based on our review of the U.S. Army Corps of Engineers' (Corps) proposed authorization, pursuant to section 404 of the Clean Water Act, for discharge of fill into waters of the U.S. as part of Graniterock A.R. Wilson Quarry Expansion Project at South Canyon in San Benito County, California and its effects on the federally threatened Central Valley Distinct Population Segment of the California tiger salamander (*Ambystoma californiense*), in accordance with section 7 of the Endangered Species Act of 1973, as amended (Act or ESA) (16 U.S.C. 1531 et seq.). We received your July 30, 2020, request for formal consultation on August 4, 2020. For the purpose of this document, Graniterock will be referred to as the "applicant".

We have based this biological opinion on information that accompanied your July 30, 2020, request for consultation; the revised Biological Assessment for Graniterock A.R. Wilson Quarry (BA, WRA 2022a); the revised A.R. Wilson Quarry Project California Tiger Salamander Take Reduction Plan (CTS TRP, WRA 2023); the Draft Habitat Mitigation and Monitoring/Long-term Management Plan for the Anzar Road Mitigation Site (Management Plan, WRA 2022b); and the California Department of Fish and Wildlife (CDFW) 2081 Incidental Take Permit (ITP, CDFW 2022); and other information in our files.

Not Likely to Adversely Affect Determination

The Corps request for consultation also included the determination that the proposed action may affect but is not likely to adversely affect the federally threatened California red-legged frog

(*Rana draytonii*). The Corps and applicant agree to implement the following conservation measures to avoid and reduce impacts to California red-legged frog:

1. A Service-approved biologist or designated monitor with previous documented experience identifying California red-legged frog will conduct one daytime and one nighttime pre-construction survey of potential suitable breeding or non-breeding aquatic habitats for California red-legged frog at the mitigation site no more than two days in advance of the following activities: aquatic surveys for California tiger salamander, removal of aquatic vegetation to maintain open-water habitat, and excavation of sediment to maintain or improve hydrology, debris removal from drainages, and other earthwork or grading within 100 feet of potential suitable breeding or non-breeding aquatic habitats for California red-legged frog. The daytime and nighttime surveys will be completed within 48 hours prior to the onset of these activities and the survey methods will follow the Service-approved protocol for day and nighttime surveys.
2. In the event a California red-legged frog is encountered at the mitigation site, work activities will cease, the Service will be notified via electronic mail (fw8venturasection7@fws.gov) within 3 business days, and the California red-legged frog will be allowed to leave on their own volition, including waiting for any aquatic life stage to metamorphose and disperse.
3. All work with heavy equipment (e.g., excavators or loaders) at the mitigation site will occur during the dry season (May 1 to October 31). Planting or other work conducted with handheld tools (including powered hand tools) may occur at any time of year.
4. The work area and any access routes will be delineated by placing high visibility stakes or flags around the extent of the area.
5. Any staging of equipment will occur within the existing roads or shoulders, within the Pacific Gas and Electric (PG&E) easement which parallels Anzar Road, or other cleared/disturbed areas.
6. A Service-approved biologist will be present whenever ground disturbance occurs at the mitigation site.
7. All construction within the mitigation site will be limited to daylight hours (sunrise to sunset).
8. No sheer walls or other vertical structures will be created that may act as a migratory barrier for California red-legged frog.
9. Any open excavations or trenches more than 4 inches deep will be covered, filled, or have escape ramps installed at the end of the workday to allow species to escape. A Service-approved biologist will inspect any such holes for California red-legged frog before they are filled.
10. To minimize the total time and extent of disturbance within the mitigation site, exclusion fencing will not be installed.
11. All employees and contractors performing construction related activities will receive training that consists of a review of relevant environmental laws and the conservation measures that are intended to protect the California red-legged frog.

After reviewing the information provided, we concur with your determination that the proposed action may affect, but is not likely to adversely affect the California red-legged frog based on the

following: Ponds and other aquatic features present in areas surrounding the project site may provide potential breeding habitat for California red-legged frog. However, the action area (defined below in the Action Area section of the biological opinion) provides primarily dispersal habitat. Several records of the California red-legged frog are found within 5 miles of the project area (CNDDB 2023), but the closest occurrence is approximately 1.5 miles away approaching dispersal limits of the species. In addition, project activities would occur within the dry season at the mitigation site, thus the species is unlikely to be present.

Our concurrence with the determination that the proposed action is not likely to adversely affect California red-legged frog is contingent on the measures outlined above being implemented by the Corps and applicant. If the Corps or the applicant fails to implement these measures, we will consider our concurrence invalid. If the proposed action changes in any manner or if new information reveals the presence of a federally listed species that is newly listed or not previously known to occur in the project area, you should contact our office immediately and suspend all project activities until the appropriate compliance with the Act is completed.

Consultation History

The Service has participated in telephone/video calls and/or communicated through electronic mail with the Corps, WRA, Graniterock (applicant), and the California Department of Fish and Wildlife (CDFW) regarding the proposed project. The following dates represent milestones in the coordination and consultation process:

July 30, 2020	The Service receives the Corps' request letter to initiate consultation.
August 4, 2020	The Service receives the section 7 initiation package.
October 27, 2020	The Service and the Corps discuss Corps jurisdiction. Corps will assume complete jurisdiction over the project and mitigation site; The Service does not have sufficient information for initiation; Corps requests the Service coordinate directly with WRA for project information needed.
December 10, 2020	WRA responds to the Service's comments and requested information.
June 15, 2021	WRA provides the Service with new project information (revised BA, revised Management Plan, revised CTS TRP).
February 28, 2022	WRA provides the Service and the Corps with a revised BA, CTS TRP, and Management Plan.
March 29, 2022	WRA provides the Service with an updated Management Plan including additional activities that may affect California tiger salamander.

April 20, 2022	WRA provides the Service with a revised BA and CTS TRP, modified action area, access routes, and activities.
May 19, 2022	Correspondence between WRA and the Service regarding California red-legged frog surveys, and if the Service will require breeding in the mitigation pond. The Service confirms no California tiger salamander breeding requirement.
May 3-31, 2022	Correspondence between CDFW and the Service for consistency between ITP and biological opinion; CDFW drafting ITP for 25-year term.
June 10, 2022	The Service provides WRA with a list of questions regarding biological resources in the action area (California red-legged frog, wetlands, observations nearby).
August 23, 2022	The Service provides and requests WRA implement the 2005 California red-legged frog survey guidelines at the mitigation site prior to activities that may result in take of California red-legged frog.
August 30, 2022	The Service provides WRA with California red-legged frog comments and other project description questions.
October 4, 2022	WRA provides to the Service proposed modified language to include in the CTS TRP and the BA for California tiger salamander and California red-legged frog monitoring protocols to incorporate after confirmation from CDFW for consistency.
November 11, 2022	The Service provides WRA with comments on the revised BA and CTS TRP, and biologist qualifications.
February 17-28, 2023	The Service and WRA meet to discuss our response to comments on the revised project documents, activities, and qualifications for biologists, and Graniterock not signing CDFW ITP until issues are resolved.
March 20, 2023	WRA provides the Service with a revised CTS TRP incorporating CDFW ITP requirements. Additional Service measures would need to be included in the biological opinion (e.g., wet weather fence checks).
June 19, 2023	WRA sends a final CTS TRP and summary of activity changes at the mitigation site to the Service.

July 11, 2023	WRA provides the Service with a summary of changes relating to project activities for each site. WRA's revised project description no longer includes California tiger salamander breeding pond construction at Anzar Road Mitigation Site.
July 12, 2023	The Service and WRA meet to discuss Graniterock purchase of 86 acres of mitigation credits as mitigation instead of on-site mitigation. Graniterock will still enhance the mitigation site and include it in the project activities for the biological opinion. The Service informs WRA that the June 20, 2023, receipt of the revised CTS TRP represents sufficient information received for initiation of consultation.
July 17, 2023	WRA confirms with the Service that a may affect, but is not likely to adversely affect determination for California red-legged frog will be retained even though the pond that may attract California red-legged frog will no longer be constructed at the mitigation site.
October 24, 2023	The Service requests information from the Corps regarding regulatory authority for the duration of the project.
October 30, 2023	The Corps clarifies permit time limits and that the Corps would no longer have regulatory authority once jurisdictional work is completed.
October 31, 2023	The Service informs the Corps and WRA of an extension to the anticipated completion date of this biological opinion.
November 7, 2023	The Service and the Corps discuss potential options for take coverage outside the Corps jurisdictional authority.
November 17, 2023	The Service provides a draft project description to the Corps for review.
November 21, 2023	The Service provides a draft project description to WRA for review.
December 19, 2023	The Service received comments from WRA and the Corps. Meet with all parties to discuss options without any Corps regulatory authority for the duration of project. Potential solution was not viable, therefore, explored additional options for incidental take coverage once the Corps regulatory authority expires.
January 18, 2024	The Service and the Corps discuss the use of the small Federal handle agreement for this consultation.
January 24, 2024	The Service informs the Corps and WRA of approval to use small Federal handle agreement.

BIOLOGICAL OPINION

This biological opinion has been prepared consistent with the agreement evidenced through the Service's May 22, 2017, letter (Service 2017a), and the Corps' October 2, 2017, response (Corps 2017) for actions where the Corps' involvement is limited to making a permitting decision for a small component of a larger project (Corps 2017). Per the agreement (Service 2017a):

> "The ESA and our interagency implementing regulations require that Federal agencies consult on the potential effects of projects they intend to fund, authorize, or otherwise carry out that may affect federally-listed species or designated critical habitat. The Service must then consider the direct, indirect, and cumulative effects of the federal action (including effects of any interrelated or interdependent actions) in this consultation. In some instances, the federal action that triggers the section 7 consultation is smaller in scope than the overall project, and the biological opinion and associated incidental take statement consider effects that occur outside the jurisdiction of the action agency. This situation has sometimes resulted in extended negotiations as our staff have attempted to address the dual responsibilities of the Service and the Corps."

The agreement between our two agencies provides an approach on how to address these projects in a manner that respects the limits of the Corps' jurisdiction, adheres to the Service's consultation regulations, and provides a path forward for the Service, Corps, and applicant to address compliance with the ESA.

DESCRIPTION OF THE PROPOSED ACTION

Overview

The Corps proposes to issue a permit, pursuant to section 404 of the Clean Water Act of 1972, to the applicant for the Graniterock A.R. Wilson Quarry Expansion Project at South Canyon (project). Corps authorization under a Nationwide Permit (NWP) is valid for up to 5 years, and could be extended for an additional year to complete any work that is underway, or reauthorized under a new NWP if needed to allow additional or ongoing mining or mitigation work with impacts to jurisdictional waters. Because the duration of the project is expected to be 25 years, once the Corps jurisdictional work is complete and their authorization expires, the Corps would no longer have regulatory authority over the project site. Therefore, we approach this consultation using the above-described agreement.

The project is located near the City of Aromas in San Benito County, California. The project occurs within two discrete areas: 1) the overburden site and 2) the mitigation site. The overburden site is located within the active A.R. Wilson Granite Rock Quarry's (Quarry) permitted boundary immediately adjacent to and south of the existing Quarry approximately 1 mile northwest of the California State Route (SR) 156 and United States Route (US) 101 intersection, and approximately 0.15-mile west of Cannon Road at approximately 36.869471, -121.602326. The mitigation site is approximately 1.2 miles northeast of the overburden site and

1-mile west of SR 129 and US 101 intersection along Anzar Road, at approximately 36.881825, -121.580221.

Proposed Action Within and Outside the Corps' Jurisdiction

All proposed project activities described below would occur during the Corps authorization under a NWP. The project activities that would continue outside the five-year NWP term is the continuation of the excavation of burrows and capture and relocation of any California tiger salamanders encountered within the 50-foot buffer adjacent to the outside of the overburden exclusion fence, which is a condition of the ITP issued by CDFW (CDFW 2022).

Overburden site

The applicant proposes to use 36.87 acres as an overburden site for the placement of approximately 4.4 million cubic yards of soil and sedimentary rock removed from the Quarry because the current overburden site immediately to the north is nearing capacity. Project activities associated with the overburden site include pre-construction activities, preparation of the overburden site, extending the conveyor system from the adjacent overburden storage site that is nearing capacity, placement of the transported overburden/fill, installing erosion control, and reclamation/revegetation activities.

Access and Staging

The applicant would access the overburden site through the existing Quarry to the north. Project equipment and materials for the installation of the wildlife exclusion fence would be staged within the northern and western portions of the overburden site.

Preconstruction

Prior to construction, the applicant will establish a boundary around the perimeter of the overburden site to delineate the edge of the disturbance area and to support a wildlife exclusion fence. The applicant will maintain and replace the exclusion fence, when necessary, throughout the duration of the project. In preparation for ground disturbing activities, the applicant will conduct clearance surveys, including burrow excavation to capture and relocate California tiger salamanders to the mitigation site following the CTS TRP (WRA 2023). Clearance surveys will occur concurrent with the installation of exclusion fencing.

Initial Ground Disturbance and Overburden Placement

Once the exclusion fence is installed and clearance surveys are complete, the applicant would use heavy equipment (e.g., dozers, scrapers, or loaders) to remove weeds, shrubs, and other vegetation to prepare the overburden site. The applicant would then extend the existing conveyor system from the adjacent overburden storage site using a crane and other equipment to attach framing and foundational supports. Next, the applicant would use heavy equipment to distribute and compact the material as it was deposited by the conveyor system to solidify and stabilize the overburden. The applicant would also install and maintain erosion control devices.

Reclamation and Revegetation
After overburden placement is complete, the applicant will revegetate the overburden site according to the revegetation plan. Upon completion of reclamation and revegetation activities, the applicant will remove the exclusion fencing. All project activities associated with the overburden site would be completed in approximately 25 years.

Mitigation Site
The mitigation site is currently owned by the applicant and would be compensatory mitigation for impacts to aquatic and riparian habitats under the jurisdiction of the Regional Water Quality Control Board (RWQCB) and CDFW. The applicant will preserve existing habitats and conduct various restoration activities such as re-establishment, rehabilitation, and enhancement on portions of an approximately 86-acre site as part of the Corps permitted activities. The size and configuration of the final mitigation site conservation area will be preserved in perpetuity, utilizing an approved conservation easement, easement holder, management plan, endowment, and endowment holder. The endowment will be funded in accordance with the HM Lands Package as part of CDFW Lake and Streambed Alteration Agreement process.

Access and Staging
Access to the mitigation site would primarily occur through existing exterior gates along Anzar Road and potentially two other existing access points. Existing paved, dirt, and ranch roads would be used to enter and exit the mitigation site. No modifications or improvements to existing roads are needed. Staging areas for equipment and materials would occur along the shoulder of Anzar Road adjacent to the mitigation site.

Restoration Activities within Ephemeral Drainages and Seasonal Wetlands
The applicant proposes to re-establish, rehabilitate, and enhance three of five ephemeral drainages and associated seasonal wetland features. The applicant will preserve two remaining ephemeral drainages and the seasonal wetlands in their current state.

Re-establishment: The applicant will re-establish two segments along ephemeral drainages #1 and #3. Activities associated with re-establishment include the removal of debris (e.g., truck chassis, tires) that is restricting channel flow, stabilization as described under rehabilitation activities, and adjacent riparian plantings.

Rehabilitation: The applicant will rehabilitate segments along ephemeral drainages #1, #3, and #4 where recent and ongoing erosional issues (e.g., head cuts or slumping) would be stabilized. Activities associated with stabilization include: 1) planting of oaks, willows, or native shrubs; 2) application of native seed mix; and 3) placement of erosion control fabric and/or minor recontouring and use of rock material.

Enhancement: The applicant will enhance segments along ephemeral drainages #1, #3, and #4 that are stable and without active erosion concerns (in contrast to rehabilitation as described above). Activities associated with enhancement include planting oak and/or willow trees along these ephemeral drainages.

Riparian Plantings
The applicant will plant approximately 198 coast live oak trees and other native trees and shrubs adjacent to ephemeral drainages #1, #3, and #4, covering approximately 1.63 acres. In select areas, oak plantings would serve to stabilize eroding stream segments. The applicant will irrigate oak plantings during the initial establishment period and protect plantings with cattle exclusion fencing. In addition, the applicant will plant approximately 33 willow trees adjacent to ephemeral drainages #3 and #4, covering approximately 0.12 acre. In select areas, willows would serve to stabilize eroding stream segments and may require higher density plantings, such as willow trenching mid-way up ephemeral drainage #3 to prevent further upstream migration of a head cut in the streambed.

The applicant will use a small construction crew for restoration activities. For safety purposes, all work would occur during the dry season. Work would be conducted using handheld tools (e.g., shovels, gas powered augers), and other equipment such as a small excavator, loader, tow truck, and compactor. Trucks and/or off-road utility vehicles would be used to access the site and to shuttle laborers, materials, and tools to the restoration segments.

Monitoring and Maintenance
The applicant will monitor revegetation for five years once initial restoration activities are complete to ensure performance criteria are achieved. Monitoring will be conducted by a qualified botanist annually and will traverse the restoration area on foot. The botanist will assess riparian habitat establishment and survival as well as document any potential weed issues.

Long-Term Management and Monitoring
The Management Plan is being developed in support of the NWP application to the Corps, RWQCB, and a Notification of Lake or Streambed Alteration Agreement and incidental take permit application to the CDFW for the Quarry project on behalf of the applicant. The reviewing regulatory agencies (Corps, RWQCB, CDFW, and the Service) are hereafter referred to as "Agencies." Because the applicant will maintain habitat conditions in perpetuity, management and maintenance activities will continue beyond the timeframe of the Corps permitted activities. These activities include but are not limited to, vegetation monitoring, grazing for vegetation management, maintenance/replacement of livestock watering infrastructure (e.g., water tank, a pump, three water troughs), weed abatement, fence repair/replacement, and general property maintenance. Maintenance crews associated with these activities will access the area on foot or via off-road utility vehicles, which will carry materials or equipment necessary to perform the management and maintenance activities.

For the Conservation Measures section below, we have primarily relied on and summarized measures from the following: CTS TRP (WRA 2023), BA (WRA 2022a), and the Management Plan (WRA 2022b). These documents should be referred to for additional details and are incorporated by reference (A.R. Wilson Quarry Project California Tiger Salamander Take Reduction Plan (WRA 2023); Biological Assessment for Graniterock A.R. Wilson Quarry (WRA 2022a); and Draft Habitat Mitigation and Monitoring/Long-term Management Plan for the Anzar Road Mitigation Site (WRA 2022b)).

Conservation Measures

The following conservation measures will be implemented to avoid and/or reduce impacts to California tiger salamander within the overburden site during project activities and the mitigation site for restoration, maintenance, and adaptive management activities:

General Measures

1. The applicant will submit the names and qualifications of proposed Service-approved biologists and/or designated monitors for Service approval 30 days prior to initiating construction activities for the proposed project. Only Service-approved biologist (or designated biologist) will implement measures associated with take of the California tiger salamander which primarily includes capturing, handling, and relocation to the mitigation site. A monitor will only have authority to conduct activities associated with take under the direct supervision (i.e., within arm's length) of a Service-approved biologist.
2. All project related personnel will attend a mandatory environmental education program delivered by a Service-approved biologist prior to working on the project. The program will provide information about the presence of listed species and habitats, consequences of take, and the conservation measures required for the project. A signature log of training and a fact sheet with distinguishing photographs of the California tiger salamander, their habitat requirements, compliance reminders, and relevant contact information will be available on-site and readily available to workers.
3. Service-approved biologists will conduct pre-disturbance surveys to identify any California tiger salamanders or small mammal burrows with the potential for use as upland refugia. Once identified, burrow locations will be marked physically or digitally for excavation. The use of a burrow camera and, if necessary, burrow excavation will be used to investigate open burrows. See CTS TRP (WRA 2023) for more details about excavation, capture, and relocation.
4. Project activities including fence installation and burrow excavation occurring outside of exclusion fencing (see Figure 5 of the CTS TRP (WRA 2023)) will cease if there is a 70 percent or greater chance of rainfall predicted within 72 hours unless a Service-approved biologist is present.
5. Project activities including fence installation and burrow excavation occurring outside of the exclusion fence will cease if more than 0.25 inch of rain accumulates within a 24-hour period. Project activities will be allowed to commence 24 hours following the completion of the rain event and after the work area is inspected by a Service-approved biologist.
6. Any ground disturbing activities within 250 feet of known or potential breeding habitat will not occur until the pools are dry, or unless pools are completely enclosed with exclusion fence as shown in Figure 5 of the CTS TRP (WRA 2023) before becoming inundated.
7. The Service-approved biologist, monitor, and designated representative will have the authority to stop work if California tiger salamanders are detected in an area where injury or mortality may occur because of project activities. The designated representative will contact a Service-approved biologist, if not present, who will be onsite within 1 hour of being contacted and will then follow the CTS TRP (WRA 2023) mentioned above.
8. A Service-approved biologist and/or the designated representative will report any observation of dead or injured California tiger salamander to the Service within one business day to our

section 7 email account at FW8VenturaSection7@fws.gov. The Service-approved biologist will transport any injured animal to a designated veterinarian or collect the carcass and will notify the Service within one business day of the incident.

9. All food-related trash such as wrappers, cans, bottles, and food scraps will be enclosed in sealed containers and removed at least once per week to eliminate attraction of opportunistic predators of California tiger salamander to the overburden site.
10. In accordance with the Quarry's Storm Water Pollution Prevention Plan (SWPPP), appropriate erosion control devices will be implemented to prevent erosion and runoff from transporting sediment offsite until no longer required under the SWPPP.
11. The hazardous materials management/fuel spill containment plan for the Quarry will extend to the mitigation site. A copy of the plan will be located onsite at all times.
12. If changes are to be made to the CTS TRP, they will be done in coordination with the Agencies and may be accomplished without the need to reinitiate consultation with the Corps unless changes are determined to result in an increase in the amount of take of the species, or if additional federally listed species may be impacted.

Overburden site

13. Exclusion fence will be in place to exclude California tiger salamander for the duration of the project. The exclusion fence will be inspected and maintained on a regular basis (at least once weekly after installation).
14. A Service-approved biologist will be present for burrow excavation and will log compliance activities including inspection and maintenance of the exclusion fence. Following preconstruction surveys, burrow excavations, and installation of exclusion fence, all California tiger salamanders will be safely captured and relocated away from the overburden site and will not require further biological monitoring so long as the fence remains intact.

Mitigation site

15. All work with heavy equipment (e.g., excavators or loaders) will occur during the dry season (May 1 to October 31). Planting or other work conducted with handheld tools (including powered hand tools) may occur at any time of year.
16. The work area and any access routes will be delineated by placing high visibility stakes or flags around the extent of the area.
17. Any staging of equipment will occur within the extant roads or shoulders, within the PG&E easement which parallels Anzar Road or other cleared/disturbed areas.
18. Any areas to be disturbed by heavy equipment for restoration activities will be subject to burrow excavation. Any burrows excavated for this process will be the minimum amount necessary to ensure California tiger salamanders are not present within the disturbance footprint.
19. A Service-approved biologist will be present whenever ground disturbance occurs within the mitigation site.
20. All construction within the mitigation site will be limited to daylight hours (sunrise to sunset).

21. No sheer walls or other vertical structures will be created that may act as a migratory barrier for California tiger salamander.
22. Any open excavations or trenches more than 4 inches deep will be covered, filled, or have escape ramps installed at the end of the workday to allow species to escape. A Service-approved biologist will inspect any such holes for California tiger salamander before they are filled.
23. To minimize the total time and extent of disturbance within the mitigation site, exclusion fencing will not be installed.

Long-Term Management and Monitoring

24. For ground disturbing activities and any other activity where there is potential for impacts to special status species, a biological monitor will be onsite during the implementation activity to ensure necessary avoidance and minimization measures are followed to avoid any impacts.
25. Surveys for California tiger salamander will be performed by a biologist that possesses a Federal 10(a)1(A) recovery permit and CDFW memorandum of understanding for California tiger salamander.
26. The biological monitor will periodically review the Management Plan to determine if revisions are needed to better meet management objectives and preserve the habitat and conservation values of the mitigation site. Any proposed changes will be designed with input from all parties (landowner/manager, easement holder, endowment holder, and Agencies). Any party may propose changes to the Management Plan, and amendments to the Management Plan will be approved by all parties. It is anticipated that Management Plan updates will be made every 10 years; although, they may occur more or less frequently depending on the circumstances.

Compensatory Mitigation

To offset impacts associated with project activities at the overburden site, the applicant will purchase 86 California tiger salamander upland mitigation credits at Sparling Ranch, Santa Clara, San Benito, and Merced counties, California.

ANALYTICAL FRAMEWORK FOR THE JEOPARDY AND ADVERSE MODIFICATION DETERMINATIONS

Jeopardy Determination

Section 7(a)(2) of the Act requires that Federal agencies ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of listed species. “Jeopardize the continued existence of” means “to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species” (50 CFR 402.02).

The jeopardy analysis in this biological opinion relies on four components: (1) the Status of the Species, which describes the current rangewide condition of the California tiger salamander, the

factors responsible for that condition, and its survival and recovery needs; (2) the Environmental Baseline, which analyzes the condition of the California tiger salamander in the action area, the factors responsible for that condition, and the relationship of the action area to the survival and recovery of the California tiger salamander; (3) the Effects of the Action, which determines all consequences to the California tiger salamander caused by the proposed action that are reasonably certain to occur in the action area; and (4) the Cumulative Effects, which evaluates the effects of future, non-Federal activities, that are reasonably certain to occur in the action area, on the California tiger salamander.

In accordance with the agreement (Service 2017a), "the Service will issue a biological opinion that evaluates all components of the larger project, including the effects of the larger project on listed species and critical habitat." This means that our jeopardy analysis will determine whether implementation of the larger action (combining the Corps' action and the applicant's action) is likely to reduce appreciably the likelihood of both the survival and recovery of the California tiger salamander in the wild by reducing the species' reproduction, numbers, and distribution.

STATUS OF THE SPECIES

California tiger salamander (*Ambystoma californiense*)

Legal Status

The Service recognizes three distinct population segments (DPS) of the California tiger salamander: one in Sonoma County; one in northern Santa Barbara County; and one in central California. On September 21, 2000, the Service listed the Santa Barbara County distinct population segment of the California tiger salamander as endangered (65 FR 57241). On March 19, 2003, the Service listed the Sonoma County distinct population segment of the California tiger salamander as endangered (68 FR 13497). On August 4, 2004, the Service published a final rule listing the California tiger salamander as threatened range-wide, including the previously identified Sonoma and Santa Barbara distinct population segments (69 FR 47212). On August 19, 2005, U.S. District Judge William Alsup vacated the Service's downlisting of the Sonoma and Santa Barbara populations from endangered to threatened. Thus, the Sonoma and Santa Barbara populations are listed as endangered, and the Central California population is listed as threatened. The Service designated final critical habitat for the Central California DPS on August 23, 2005 (Service 2005).

Natural History

Description

The California tiger salamander is a large and stocky terrestrial salamander with small eyes and a broad, rounded snout. Adults may reach a total length of 8.2 inches, with males generally averaging about 8 inches total length, and females averaging about 6.8 inches in total length. For both sexes, the average snout-to-vent length is approximately 3.6 inches (65 FR 57241). The small eyes have black irises and protrude from the head. Coloration consists of white or pale

yellow spots or bars on a black background on the back and sides. The belly varies from almost uniform white or pale yellow to a variegated pattern of white or pale yellow and black. Males can be distinguished from females, especially during the breeding season, by their swollen cloacae (a common chamber into which the intestinal, urinary, and reproductive canals discharge), larger tails, and larger overall size (Trenham 1998, p. 74).

Habitat

California tiger salamanders spend the majority of their lives in upland habitats and cannot persist without them. The upland component of California tiger salamander habitat typically consists of grassland savannah, but also includes scrub or chaparral habitats (Shaffer et al. 1993; 50 CFR 47216). Juvenile and adult California tiger salamanders spend the dry summer and fall months of the year in the burrows of small mammals, such as California ground squirrels (*Otospermophilus beecheyi*) and Botta's pocket gopher (*Thomomys bottae*) (Storer 1925 p. 70; Trenham 1998, p. 46).

Burrow habitat created by ground squirrels and utilized by California tiger salamanders suggests a commensal relationship between the two species (Loredo et al. 1996, p. 284). Movement of California tiger salamanders within and among burrow systems continues for at least several months after juveniles and adults leave the ponds (Trenham 2001, p. 369). California tiger salamanders cannot dig their own burrows, and as a result, their presence is associated with burrowing mammals. Active ground-burrowing rodent populations likely sustain California tiger salamanders because inactive burrow systems become progressively unsuitable over time (69 FR 47212, p. 32). Loredo et al. (1996, p. 284) found that California ground squirrel burrow systems collapsed within 18 months following abandonment by, or loss of, the mammals.

Breeding and Development

Adults enter breeding ponds during fall and winter rains, typically from October through February (Trenham et al. 2000, p. 369). Males migrate to the breeding ponds before females (Loredo and Van Vuren 1996, p. 895). Males usually remain in the ponds for an average of about 6 to 8 weeks, while females stay for approximately 1 to 2 weeks. In dry years, both sexes may stay for shorter periods (Loredo and Van Vuren 1996, pp. 897-899).

Females attach their eggs singly or, in rare circumstances, in groups of two to four, to twigs, grass stems, vegetation, or debris in the water (Storer 1925, p. 66; Twitty 1941, pp. 1-4). In ponds with little or no vegetation, females may attach eggs to objects, such as rocks and boards on the bottom. In drought years, the seasonal pools may not form and the adults may not breed (Barry and Shaffer 1994, pp. 159-164). The eggs hatch in 10 to 14 days with newly hatched salamanders (larvae) ranging in size from 0.5 to 0.6 inch in total length (65 FR 57241). The larvae are aquatic. Each is yellowish gray in color and has a broad, plump head; large, feathery external gills; and broad dorsal fins that extend well onto its back. The larvae feed on zooplankton, small crustaceans, and aquatic insects for about 6 weeks after hatching, after which they switch to larger prey (Anderson 1968, pp. 273-284). Larger larvae have been known to

consume smaller tadpoles of tree frogs (*Pseudacris* spp.) and California red-legged frogs (*Rana draytonii*). California tiger salamander larvae are among the top aquatic predators in seasonal pool ecosystems.

The larval stage of the California tiger salamander usually lasts 3 to 6 months, because most seasonal ponds and pools dry up during the summer (Petranka 1998, p. 48). Amphibian larvae must grow to a critical minimum body size before they can metamorphose to the terrestrial stage (Wilbur and Collins 1973, pp. 1305-1314). Larvae collected near Stockton in the Central Valley during April varied from 1.9 to 2.3 inches in length (Storer 1925, p. 85). Feaver (1971, p. 51) found that larvae metamorphosed and left the breeding pools 60 to 74 days after the eggs had been laid, with larvae developing faster in smaller, more rapidly drying pools. The longer the inundation period, the larger the larvae and metamorphosed juveniles are able to grow, and the more likely they are to survive and reproduce (Semlitsch et al. 1988, p. 189). The larvae perish if a site dries before they complete metamorphosis. Pechmann et al. (2001) found a strong positive correlation between inundation period and total number of metamorphosing juvenile amphibians, including tiger salamanders (50 CFR 47215).

Metamorphosed juveniles leave the breeding sites in the late spring or early summer. Like the adults, juveniles may emerge from these retreats to feed during nights of high relative humidity (Shaffer et al. 1993, p. 5) before settling in their selected upland sites for the dry, hot summer months. While most California tiger salamanders rely on rodent burrows for shelter, some individuals may utilize soil crevices as temporary shelter during upland migrations (Loredo et al. 1996, p. 284). Mortality of juveniles during their first summer exceeds 50 percent (Trenham 1998, p. 18). Emergence from upland habitat in hot, dry weather occasionally results in mass mortality of juveniles (Holland et al. 1990, p. 219).

Lifetime reproductive success for California tiger salamanders is typically low. Less than 50 percent breed more than once (Trenham 2000, p. 365). In part, this is due to the extended length of time it takes for California tiger salamanders to reach sexual maturity; most do not breed until 4 or 5 years of age. Combined with low survivorship of metamorphs (in some populations, less than 5 percent of marked juveniles survive to become breeding adults (Trenham 1998, p. iv), low reproductive success limits California tiger salamander populations. Because of this low recruitment, isolated subpopulations can decline greatly from unusual, randomly occurring natural events as well as from human-caused factors that reduce breeding success and individual survival. Based on metapopulation theory (Hanski and Gilpin 1991), factors that repeatedly lower breeding success in isolated ponds that are too far from other ponds for dispersing individuals to replenish the population further threaten the survival of a local population.

Rangewide Status

The Central California tiger salamander is endemic to the grassland community found in California's Central Valley, the surrounding foothills, and coastal valleys (Fisher and Shaffer

1996, p. 1390). The distribution of breeding locations of this species, and the other two distinct populations, does not naturally overlap with that of any other species of tiger salamander (Petranka 1998, p. 47; Stebbins 2003, p. 469).

California tiger salamanders occur in upland habitats at various distances from aquatic breeding habitats. During a mark and recapture study in the Upper Carmel River Valley in Monterey County, Trenham et al. (2000, p. 3526) observed California tiger salamanders dispersing up to 2,200 feet between breeding ponds between years. In research at Olcott Lake in Solano County, Trenham and Shaffer (2005, p. 1160) captured California tiger salamanders in traps installed 1,312 feet from the breeding pond. In a trapping study in Contra Costa County (Orloff 2011, p. 266), most California tiger salamanders were trapped at least 2,600 feet from the nearest breeding pond, and some were captured as far as 7,200 feet from the nearest breeding pond.

Historically, natural ephemeral vernal pools were the primary breeding habitats for California tiger salamanders (Trenham 2001, p. 3). However, with the conversion and loss of many vernal pools through farmland conversion and urban and suburban development, ephemeral and permanent ponds that have been created for livestock watering are now frequently used by the species (Robins and Vollmar 2002, p. 406).

The California tiger salamander is threatened primarily by the destruction, degradation, and fragmentation of upland and aquatic habitats, primarily resulting from the conversion of these habitats by urban, commercial, and intensive agricultural activities. Additional threats to the species include hybridization with introduced nonnative barred tiger salamanders (*A. tigrinum mavortium*), destructive rodent-control techniques (e.g., deep-ripping of burrow areas, use of fumigants), reduced survival due to the presence of mosquitofish (*Gambusia affinis*) (Leyse and Lawler 2000, p. 76), and mortality on roads due to vehicles. Disease, particularly chytridiomycosis and ranaviruses, and the spread of disease by nonnative amphibians, are discussed in the listing rule as an additional threats to the species.

We do not have data regarding the absolute number of Central California tiger salamanders due to the fact that they spend most of their lives underground. Virtually nothing is known concerning the historical abundance of the species. At one study site in Monterey County, Trenham et al. (2000, p. 369) found the number of breeding adults visiting a pond varied from 57 to 244 individuals. A Contra Costa County breeding site, approximately 124 miles north of the Trenham et al. (2000) study site in Monterey County, showed a similar pattern of variation, suggesting that such fluctuations are typical (Loredo and Van Vuren 1996, p. 896). At the local landscape level, nearby breeding ponds can vary by at least an order of magnitude in the number of individuals visiting a pond, and these differences appear to be stable across years (Trenham et al. 2001).

Recovery of the California Tiger Salamander

The strategy of the Recovery Plan for the Central California Distinct Population Segment of the California Tiger Salamander (Service 2017b, p. iv) focuses on alleviating the threat of habitat

loss and fragmentation in order to increase population resiliency (ensure each population is sufficiently large to withstand stochastic events), redundancy (ensure a sufficient number of populations to provide a margin of safety for the species to withstand catastrophic events), and representation (conserve the breadth of the genetic makeup of the species to conserve its adaptive capabilities). Recovery of this species can be achieved by addressing the conservation of remaining aquatic and upland habitat that provides essential connectivity, reduces fragmentation, and sufficiently buffers against encroaching development and intensive agricultural land uses. Appropriate management of these areas will also reduce mortality by addressing non-habitat related threats, including those from non-native and hybrid tiger salamanders, other non-native species, contaminants, disease, and road mortality. Research and monitoring should be undertaken to determine the extent of known threats, identify new threats, and reduce threats to the extent possible.

The recovery strategy is intended to establish healthy, self-sustaining populations of Central California tiger salamanders through the protection and management of upland and aquatic breeding habitat, as well as the restoration of aquatic breeding habitat where necessary. It also ensures habitat management and monitoring and the conducting of research. Due to shifting conditions in the ecosystem (e.g., invasive species, unforeseen disease, climate change, and effects from future development and conversion to agriculture), the Service anticipates the need to adapt actions that implement this strategy over time. The recovery strategy ensures that the genetic diversity of the Central California tiger salamander is preserved throughout the DPS to allow adaptation to local environments, maintenance of evolutionary potential for adaptation to future stresses, and reduction in the potential for genetic drift and inbreeding to result in inbreeding depression.

The range of the Central California tiger salamander has been classified into four recovery units (Service 2017b, p. II-1). These recovery units are not regulatory in nature; the boundaries of the recovery units do not identify individual properties that require protection, but they are described solely to facilitate recovery and management decisions. The recovery units represent both the potential extent of Central California tiger salamander habitat within the species' range and the biologically (genetically) distinct areas where recovery actions should take place that will eliminate or ameliorate threats. All recovery units must be recovered to achieve recovery of the DPS.

The four recovery units have been further subdivided into Management Units. These subdivisions of recovery units are areas that might require different management, that might be managed by different entities, or that might encompass different populations. In the recovery plan, the management units are primarily administrative in that they serve to organize the recovery units into separate and approximately equal areas that will assist in managing the implementation of the recovery actions.

ENVIRONMENTAL BASELINE

The implementing regulations for section 7(a)(2) (50 CFR 402.02) define the environmental baseline as "the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. The consequences to listed species or designated critical habitat from ongoing agency activities or existing agency facilities that are not within the agency's discretion to modify are part of the environmental baseline."

Action Area

The implementing regulations for section 7(a)(2) of the Act (50 CFR 402.02) define the "action area" as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. The action area for this biological opinion encompasses all areas where people and equipment would be working within the overburden and mitigation sites, including access routes, and a 100-foot-wide buffer around these areas.

Habitat Characteristics and Existing Conditions of the Action Area

Overburden site
The overburden site is dominated by non-native annual grasslands, a eucalyptus grove, and coast live oak (*Quercus agrifolia*) woodland. The remaining habitat consists of bracken fern (*Pteridium aquilinum*) and an arroyo willow (*Salix lasiolepis*) thicket. Small aquatic features such as ephemeral drainages and a shallow pond occur within the overburden site, many of which have been altered by cattle grazing. Of the 36.87 acres that will be removed for overburden, 20.93 acres are considered upland habitat used for aestivation and dispersal. Surrounding land consists of private property used for cattle grazing to the west, the existing Quarry to the north, US 101 to the south, and a closed canopy eucalyptus plantation to the east and south. The surrounding land use limits movement of California tiger salamander to and from the overburden site primarily to the west.

Mitigation Site
The mitigation site is dominated by non-native annual grasslands where small mammal burrows occur throughout the site. The remaining habitat consists of coast live oak woodland, coyote brush (*Baccharis pilularis*)/poison oak scrub (*Toxicodendron diversilobum*), and arroyo willow thickets present in smaller areas. Aquatic features present include several seasonal wetlands, ephemeral drainages, and an excavated man-made pond with concrete banks at the base of ephemeral drainage #1, which dries out completely by summer. The mitigation site was previously used for grazing by horses and is currently grazed by cattle. Grazing and introduced species have altered many of these features. Surrounding land to the north, east, and west is

predominantly rural residential, and pastureland used for ranching operations; approximately 0.1 mile to the south is the active Steven's Creek Quarry.

Previous Consultations in the Action Area

To our knowledge there have been no previous consultations in the action area.

Condition (Status) of the Species in the Action Area

California tiger salamander occur at the overburden and mitigation sites. Surveys and habitat assessments for listed species were conducted on various portions of the action area between 2013 and 2023 (WRA 2022a and WRA 2024). Information specific to the overburden and mitigation sites is provided below.

Overburden site
Within the overburden site, the grasslands, willows, and aquatic areas are assumed to contain California tiger salamander upland aestivation and dispersal habitat. Small mammal burrows, primarily pocket gopher (*Thomomys spp.*) occur throughout the grasslands in small groups of 4 to 15 burrows spaced approximately 50 to 60 feet between colonies. The most densely occupied areas average 12 to 15 burrows per 0.25 acre. Results from a study conducted in 2013, using drift fences and pitfall traps documented use of the uplands for aestivation and dispersal habitat; no potential breeding habitat was identified (Dana Bland and Associates 2013 in WRA 2022a). The existing pond in 2018, during an average rainfall year, was less than 1-inch deep in March; when at full capacity, the pond was less than 6-inches deep (WRA 2022a). Given the pond lacks sufficient characteristics, such as depth, inundation period, and size, it is not considered aquatic breeding habitat for California tiger salamander. However, the overburden site is well within dispersal distance from potential suitable breeding habitat. While most of these aquatic features have not been surveyed, there is a 2007 documented occurrence of larvae found in a pond within approximately 0.5 mile to the west (CNDDB 2023).

Mitigation site
In the winter of 2018/2019, WRA conducted trapping studies within the mitigation site and documented use of the uplands by California tiger salamander (WRA 2022a). In the spring of 2023, WRA conducted surveys of the pond and found no evidence of use by California tiger salamander (WRA 2024). While breeding has not been documented within the existing pond, it provides suitable depth, inundation period, and size to potentially support the aquatic characteristics necessary for breeding habitat. Potential breeding habitat does occur within 1 mile of the mitigation site where approximately 20 ponds have been identified. Other than a single occurrence approximately 0.5 mile to the northeast where juveniles were documented in 2003, it is difficult to identify which other ponds are currently used for breeding by California tiger salamander (CNDDB 2023).

Recovery

As described in the recovery plan for the Central California tiger salamander (Service 2017b), the following descriptions provide information about recovery as it relates to the action area.

Overburden site
This portion of the action area is located within the Central Coast Range Recovery Unit and the Salinas River Management Unit. This recovery unit has some habitat protection; however, most populations are not protected and have not been monitored for population status, trends, and threats. The primary threat to populations within this recovery unit is hybridization with non-native tiger salamanders. Maintaining the native genetic integrity of Central California tiger salamanders within this recovery unit is a priority.

A principal delisting criterion for the Central Coast Range Recovery Unit is the protection of sufficient high-quality habitat within all of its management units to ensure sustainable Central California tiger salamander populations (recovery criterion A/4). Specific protection targets for the 333,044-acre Salinas Valley Management Unit are the creation of four preserves totaling at least 13,592 acres. Each preserve should encompass a minimum of 3,398 acres, include at least four breeding ponds showing variation in ponding, and include at least one moderately sized burrowing mammal colony that occurs within the average dispersal distance of the salamander of each breeding pond (Service 2017b). Other conservation needs identified for this and other recovery and management units include reducing or eliminating threats posed by disease, predation, road-crossing mortality, contaminants, mosquito control efforts, some livestock grazing practices, and climate change.

Mitigation site
This portion of the action area is located within the Bay Area Recovery Unit and East Santa Cruz Mountains Management Unit. This recovery unit has a high degree of habitat protection relative to the other recovery units. However, the majority of populations within this recovery unit have not been monitored for population status, trends, and threats. Hybridization with non-native tiger salamanders is a threat to some populations within this recovery unit (Service 2004). Maintaining the native genetic integrity of Central California tiger salamanders within this recovery unit is a priority.

A principal delisting criterion for the Bay Area Recovery Unit is the protection of sufficient high-quality habitat within all of its management units to ensure sustainable Central California tiger salamander populations (recovery criterion A/3). Specific protection targets for the 78,774-acre East Santa Cruz Mountains Management Unit are the creation of 4 preserves totaling at least 13,592 acres. Each preserve should encompass a minimum of 3,398 acres, include at least four breeding ponds showing variation in ponding, and include at least one moderately sized burrowing mammal colony that occurs within the average dispersal distance of the salamander of each breeding pond (Service 2017b). Other conservation needs identified for this and other

recovery and management units include reducing or eliminating threats posed by disease, predation, road-crossing mortality, contaminants, mosquito control efforts, some livestock grazing practices, and climate change.

EFFECTS OF THE ACTION

The implementing regulations for section 7(a)(2) define effects of the action as "all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action" (50 CFR 402.02).

In conducting this analysis, we have considered factors such as previous consultations, Federal Register rules, 5-year reviews, conservation agreements, California Environmental Quality Act (or other environmental documents) documents, published scientific studies and literature, professional expertise of Service personnel, information obtained from other academic researchers or experts particularly dealing with aspects directly related to the sensitive species involved, species threats assessment or other related documents in determining whether effects are reasonably certain to occur. We have also determined that certain consequences are not caused by the proposed action, such as the increase or spread of disease, poaching, or collecting, because they are so remote in time, or geographically remote, or separated by a lengthy causal chain, so as to make those consequence not reasonably certain to occur.

Overview of Corps' Jurisdiction for Effects of the Action

Although the Corps has taken jurisdiction over the entire action area, the Corps' jurisdictional authority under the Nationwide Permit (NWP) is valid for 5 years and the project's duration is 25 years. However, the Corps could extend the NWP for an additional year to complete any work that is underway, or reauthorize work under a new NWP if needed to allow additional or ongoing mining or mitigation work with impacts to jurisdictional features. The Corps' jurisdictional authority would end at the point that the applicant achieves the success criteria for the requisite compensatory wetland mitigation and restoration activities required under section 404 of the Clean Water Act. Based on the above, we anticipate that the majority of the duration of the project would be outside the Corps' jurisdiction. Project activities that would occur outside of the Corps' jurisdiction include continued maintenance of the exclusion fence at the overburden site, capture and relocation of California tiger salamander at the overburden site to the mitigation site, and long-term management and maintenance of the mitigation site.

Effects of the Action within the Overburden Site

Within the overburden site, the majority of adverse effects to California tiger salamander are anticipated to occur during the first five years, specifically, during the preconstruction phase when exclusion fence is installed and during capture and relocation of California tiger salamander to the mitigation site. After the exclusion fence is installed, and burrow excavation

and relocation of California tiger salamanders is complete, no additional encounters are expected within the enclosed area of the overburden site. However, there is potential to encounter undetected California tiger salamanders during the removal of vegetation and trees, grubbing, and grading of the overburden site. Project activities within the overburden site are expected to occur for approximately 25 years including revegetation of the site and the removal of exclusion fence which will again allow for California tiger salamanders to access the site for dispersal and aestivation. Beyond the Corps jurisdiction and for the duration of the project, California tiger salamanders will continue to be captured and relocated if found within 50 feet of the outside of the exclusion fence.

Of the 36.87 acres that will be removed for overburden, 20.93 acres are considered upland habitat used by California tiger salamanders for aestivation and dispersal. To offset the loss of habitat during this time, the applicant will purchase 86 California tiger salamander upland mitigation credits at Sparling Ranch, Santa Clara, San Benito, and Merced counties, California.

Effects of the Action within the Mitigation Site

At the mitigation site, adverse effects to California tiger salamander are expected to occur primarily during the first five years, specifically during ground disturbance activities such as digging holes for planting vegetation and erosion control. Activities occurring beyond the Corps jurisdictional authority include long-term management and maintenance of the mitigation site, which includes the continuation of grazing and other related routine ranching activities that are expected to have minor but overall beneficial effects to California tiger salamander habitat. The mitigation site will be preserved in perpetuity, utilizing an approved conservation easement, easement holder, management plan, endowment, and endowment holder. The applicant will fully fund the endowment prior to ground disturbing activities at the overburden site.

Because the applicant is placing a conservation easement with an endowment for managing the mitigation site in perpetuity, there remains potential for effects to California tiger salamander beyond the timeframe of the Corps permitted activities. To address these potential effects, the applicant has developed and will implement a management plan. As part of a management plan, a biological monitor will be on site during ground disturbing activities that may impact listed species and will ensure the implementation of appropriate avoidance and minimization measures as identified by the monitor. Furthermore, any proposed changes to management will be designed with input from all parties (landowner/manager, easement holder, endowment holder, and Agencies). Any party may propose changes to the management plan, and amendments to the management plan will be approved by all parties. Additionally, livestock grazing would be included in the plan. In 2004, the Service published a 4(d) rule with the final listing rule that exempts existing routine ranching activities from prohibitions under section 9 of the ESA (Service 2004) and the recovery plan for the Central California tiger salamander further states that livestock management can be used as a tool to improve habitat for the Central California tiger salamander (Service 2017b).

Effects Throughout the Action Area

We expect the below effects of the project to be similar within and outside the Corps' jurisdiction because habitat conditions, the likelihood of the species being present, and construction impacts are expected to be similar in both areas.

The presence of the exclusion fence at the overburden site will remain in place for the duration of the project, approximately 25 years, which may disrupt dispersal patterns of California tiger salamander and increase the potential for predation, desiccation, competition for food and shelter, or strike by vehicles on roadways.

Project activities within the overburden and mitigation sites could result in mortality or injury to the California tiger salamander, if not captured and relocated, through crushing by equipment or vehicles, construction debris, and worker foot traffic. Individuals in burrows may be killed or injured by project activities, or could become trapped and die if their burrow entrance is crushed or covered. California tiger salamanders may experience a disruption of normal behavioral patterns from work activities and their associated noise and vibration. This disturbance and displacement may increase the potential for predation, desiccation, competition for food and shelter, or strike by vehicles on roadways. Pre-construction surveys, burrow excavation, and the relocation of individuals by a Serviced-approved biologist would reduce these impacts. Excavation of trenches could entrap California tiger salamanders or temporarily interfere with their movements to and from aestivation sites. The Corps and applicant propose to include monitoring by a biologist and either cover or provide escape ramps for any excavations left open to reduce these effects.

Within the overburden and mitigation sites, capture and relocation of California tiger salamanders could result in injury or death. Although survivorship for translocated California tiger salamanders has not been estimated, survivorship of translocated wildlife in general is reduced due to intraspecific competition, lack of familiarity with the location of potential breeding, feeding, and sheltering habitats, and increased risk of predation. The Corps and applicant propose to reduce this risk by using Service-approved biologists, limiting the duration of handling, and identifying suitable burrows and/or crevices prior to ground disturbance or capture per the CTS TRP (WRA 2023).

Project activities that occur during the wet season within the mitigation site may impact dispersal patterns of California tiger salamanders. California tiger salamanders can disperse overland in mesic conditions if substantial rainfall (greater than 0.2 inch of rain in a 24-hour period) occurs. The Corps and the applicant propose to reduce effects to dispersing California tiger salamanders that require the use of heavy equipment to the dry season (May 1 to October 31) and ceasing activities during substantial rain events until the rain has stopped.

Observations of diseased and parasite-infected amphibians are now frequently reported. Releasing amphibians following a period of captivity, during which time they can be exposed to infections of disease agents, may cause an increased risk of mortality in wild populations.

Amphibian pathogens and parasites can also be carried between habitats on the hands, footwear, or equipment of fieldworkers, which can spread them to localities containing species that have had little or no prior contact with such pathogens or parasites. Chytrid fungus is a water-borne fungus that can be spread through direct contact between aquatic animals and by a spore that can move short distances through the water. The fungus only attacks the parts of an animal's skin that have keratin (thickened skin), such as the mouthparts of tadpoles and the tougher parts of adults' skin, such as the toes. It can decimate amphibian populations, causing fungal dermatitis, which usually results in death in 1 to 2 weeks. Infected animals may spread the fungal spores to other ponds and streams before they die. Once a pond has become infected with chytrid fungus, the fungus stays in the water for an undetermined amount of time. Relocation of individuals captured from the project area could contribute to the spread of chytrid fungus. In addition, infected equipment or footwear could introduce chytrid fungus into areas where it did not previously occur. The possible spread of chytrid fungus or other amphibian pathogens and parasites would be minimized by following the Declining Amphibian Populations Task Force's Fieldwork Code of Practice (DAPTF 1998).

Trash left during or after project activities could attract predators to work sites, which could, in turn, prey on California tiger salamanders. For example, raccoons (*Procyon lotor*) and feral cats (*Felis catus*) are attracted to trash and also prey opportunistically on the California tiger salamander. This potential impact would be reduced or avoided by careful control of waste products at all work sites.

Accidental spills of hazardous materials or careless fueling or oiling of vehicles or equipment could degrade water quality or upland habitat to a degree where California tiger salamanders are adversely affected or killed. The potential for this effect to occur would be reduced by implementation of measures contained in the Quarry's SWPPP.

Uninformed workers could disturb, injure, or kill California tiger salamanders. The potential for this to occur would be reduced by educating workers about the presence and protected status of California tiger salamander and the measures that are being implemented to protect them during project activities.

In summary, the proposed action would adversely affect California tiger salamanders if present within the action area; however, the Corps and applicant have proposed conservation measures to reduce these impacts. To offset impacts to dispersal and aestivation habitat within the overburden site, the applicant will purchase 86 California tiger salamander upland mitigation credits at Sparling Ranch, Santa Clara, San Benito, and Merced counties, California. In addition, the applicant is placing approximately 10 acres into a conservation easement at the mitigation site that will conserve habitat, and will be preserved and managed to benefit California tiger salamander in perpetuity. Based on these factors, we anticipate that few California tiger salamanders are likely to be killed or injured during this project and any adverse effects to the species would be offset by the proposed compensatory mitigation.

Effects on Recovery

We anticipate that effects on recovery of the California tiger salamander from the proposed project will be minimal with implementation of proposed conservation measures, purchase of mitigation credits, and placement of a conservation easement on the mitigation site. The project would remove 36.87 acres of which 20.93 acres are upland and dispersal habitat for a period of approximately 25 years at the overburden site. After restoration and exclusion fence removal is complete, California tiger salamanders would again have access to the overburden site. Upland habitat loss during this time will be offset through the applicant's commitment to purchase 86 California tiger salamander upland mitigation credits at Sparling Ranch, Santa Clara, San Benito and Merced counties, California. In addition, the mitigation site will be placed in a conservation easement and be managed in perpetuity benefitting California tiger salamander through active management by using grazing practices to maintain suitable grassland habitat. The recovery plan for the Central California tiger salamander states that livestock management can be used as a tool to improve habitat for the Central California tiger salamander (Service 2017b).

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. We do not consider future Federal actions that are unrelated to the proposed action in this section because they require separate consultation pursuant to section 7 of the Act. We are not aware of any non-Federal actions that are reasonably certain to occur in the action area.

CONCLUSION

The regulatory definition of "to jeopardize the continued existence of the species" focuses on assessing the effects of the proposed action on the reproduction, numbers, and distribution, and their effect on the survival and recovery of the species being considered in the biological opinion. For that reason, we have used those aspects of the California tiger salamander's status as the basis to assess the overall effect of the proposed action on the species.

Reproduction

We expect minor appreciable effects on California tiger salamander reproduction locally or rangewide. Project activities may harm some California tiger salamanders and reduce the number of reproductive individuals. However, the potential for harm to California tiger salamander is reduced through the implementation of conservation measures, including conducting ground disturbing activities during the dry season, having a Service-approved biologist survey for and relocate any California tiger salamander at risk of harm to suitable sites within the mitigation site. Project activities could disrupt dispersal behavior of California tiger salamanders, therefore potentially reducing reproduction by blocking the dispersal movement to and from breeding habitat. The conservation measures proposed by the Corps and the applicant will minimize and mitigate impacts to dispersal. Additionally, the applicant will mitigate for potential adverse effects to reproduction by funding the protection of California tiger salamander habitat in

perpetuity. Therefore, we expect the species' reproduction in the action area and rangewide would not be appreciably reduced as a result of the proposed action.

Numbers

We expect an unknown number of California tiger salamanders to be injured or killed as a result of project activities. However, we expect that number to be low due to conservation measures proposed by the Corps and the applicant to minimize the number of California tiger salamanders adversely affected by project activities. The applicant will mitigate for the potential injury or mortality of California tiger salamanders during project activities by funding the protection of California tiger salamander habitat in perpetuity. Therefore, we conclude that the loss of the small number of individuals, which may be present during the proposed project would not appreciably reduce the local or rangewide population of the California tiger salamander.

Distribution

We expect minor appreciable effects on California tiger salamander distribution. The proposed project could injure, kill, or temporarily displace a small number of California tiger salamanders, but the applicant has proposed conservation measures to minimize adverse effects on individuals. Project activities would permanently remove or degrade upland and dispersal habitat at the overburden site for approximately 25 years as well as temporarily remove or degrade a small amount of upland and dispersal habitat at the mitigation site, representing a negligible portion of California tiger salamander habitat available locally or in the population's relatively large geographic range. Temporarily affected habitats would return to their previous condition after construction, and any salamanders displaced by project activities are expected to recolonize the action area over time, as is the case at the overburden site after exclusion fence is removed. The applicant would mitigate for the loss of upland aestivation and dispersal habitat and impacts to distribution by funding the protection of California tiger salamander habitat through the purchase of mitigation credits at Sparling Ranch and placing a conservation easement on approximately 10 acres at the mitigation site that will be managed in perpetuity. We do not expect the applicant's proposed activities to reduce the species distribution because the California tiger salamander would continue to occupy its current geographic distribution. Therefore, we conclude that the proposed action would not reduce the distribution of California tiger salamander locally or rangewide.

Recovery

As described in the Effects of the Action section, the proposed project has been designed to minimize effects to California tiger salamander by implementing a suite of conservation measures, including the purchase of 86 upland mitigation credits, and placing a conservation easement on approximately 10 acres at the mitigation site to be managed in perpetuity. We have determined that the effects to California tiger salamander and its habitat would not be substantial on either a local or rangewide basis. Furthermore, applicable to the mitigation site, the 4(d) rule published with the final listing rule exempts existing routine ranching activities from prohibitions under section 9 of the ESA (Service 2004), and the recovery plan for the Central California tiger

salamander further states that livestock management can be used as a tool to improve habitat for the Central California tiger salamander (Service 2017b). Therefore, the proposed action would not appreciably diminish the species' likelihood of recovery.

Conclusion for California Tiger Salamander

After reviewing the current status of the California tiger salamander; the environmental baseline for the action area; the effects of the proposed action; the Corps' authorization of the discharge of fill into the waters of the U.S. as a part of the applicant's project and the applicant's implementation of the project, on the California tiger salamander; and the cumulative effects; it is the Service's biological opinion that the proposed action is not likely to jeopardize the continued existence of the California tiger salamander, because:

1. The project would have a low effect on reproduction of the species, but would not appreciably reduce reproduction of the species rangewide;
2. The project would cause a small decrease in the number of individuals, but would not appreciably reduce numbers of the species rangewide;
3. The project would not reduce the species' distribution rangewide; and
4. The project would not cause any effects that would preclude our ability to recover the species and would most likely increase the value of the area through active management of upland aestivation and dispersal habitats in perpetuity within the mitigation site.

Our conclusion is contingent on the implementation of the project as described in this biological opinion, including the implementation of the conservation measures, placing a conservation easement on the mitigation site to be managed in perpetuity, and the purchase of compensatory mitigation credits for loss of California tiger salamander habitat. If the applicant fails to implement these measures as described in the biological opinion or if monitoring efforts are determined to be insufficient, we will consider this conclusion invalid.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened wildlife species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm in the definition of "take" in the Act means an act which actually kills or injures wildlife. Such [an] act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering (50 CFR 17.3). Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not the purpose of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this incidental take statement.

This incidental take statement is based upon the proposed action occurring as described in the accompanying biological opinion. Take of listed species in accordance with this incidental take statement is exempted under section 7(o)(2) of the Act. The Corps must ensure that the applicant

implements the proposed action as described in this biological opinion and undertake the non-discretionary measures described below; otherwise, the exemption provided under section 7(o)(2) of the Act may lapse. The Corps has a continuing duty to regulate the activity covered by this incidental take statement. If the Corps: (1) fails to assume and implement the terms and conditions, or (2) fails to require the applicant to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, the protective coverage of section 7(o)(2) may lapse. To monitor the impact of incidental take, the Corps or applicant must report the progress of its action and the impact on the species to the Service as specified in this incidental take statement (50 CFR 402.14(i)(3)).”

AMOUNT OR EXTENT OF TAKE

Incidental Take within the Corps’ Jurisdiction

We anticipate that some California tiger salamanders could be taken as a result of the proposed action and expect that most incidental take would be in the form of capture during relocation activities. We acknowledge that the benefits of relocation (i.e., minimizing mortality) outweigh the risk of capture and that all California tiger salamanders that are detected and in harm’s way would be captured and relocated out of harm’s way. Take in the form of harm, injury, or death also would occur as a result of construction activities, if individuals are accidentally injured or killed during capture and relocation, unable to be collected for relocation and remain in active construction areas, or are subject to desiccation and predation if they leave shelter sites or when they encounter the exclusion fence.

We cannot quantify the precise number of California tiger salamander that may be taken as a result of the action the Corps has proposed because California tiger salamanders move over time; for example, animals may have entered or departed the action area since the time of pre-construction surveys. Other individuals may not be detected due to their cryptic nature, small size, and low mobility. The protective measures proposed by the Corps are likely to prevent mortality or injury of most individuals. In addition, finding a dead or injured California tiger salamander is unlikely.

Consequently, we are unable to reasonably anticipate the actual number of California tiger salamanders that would be taken by the Corps’ proposed action; however, we must provide a level at which formal consultation would have to be reinitiated. The Environmental Baseline and Effects Analysis sections of this biological opinion indicate that adverse effects to California tiger salamander would occur mainly at the overburden site given the nature of the proposed activities; therefore, we anticipate that take of California tiger salamander would be higher at the overburden site than the mitigation site. We also recognize that for every California tiger salamander found dead or injured, other individuals may be killed or injured that are not detected, so when we determine an appropriate take level, we are anticipating that the actual take would be higher and we set the number below that level.

Therefore, within the overburden site, if two (2) California tiger salamander adults, subadults, or juveniles are found dead or wounded in any given year or the total of five (5) individuals are found dead or wounded for the duration of the Corps jurisdiction, the Corps must contact our office immediately to reinitiate formal consultation. Within the mitigation site, if two (2) California tiger salamander adults, subadults, or juveniles are found dead or wounded for the duration of the Corps jurisdiction, the Corps must contact our office immediately to reinitiate formal consultation. Project activities that are likely to cause additional take should cease as the exemption provided pursuant to section 7(o)(2) may lapse and any further take could be a violation of section 4(d) or 9.

Incidental Take Outside the Corps' Jurisdiction

We anticipate that some California tiger salamanders could be taken as a result of the proposed action and expect that most incidental take would be in the form of capture during relocation activities. We acknowledge that the benefits of relocation (i.e., minimizing mortality) outweigh the risk of capture and that all California tiger salamanders that are detected and in harm's way would be captured and relocated out of harm's way. Take in the form of harm, injury, or death also would occur as a result of construction activities, if individuals are accidentally injured or killed during capture and relocation, unable to be collected for relocation and remain in active construction areas, or are subject to desiccation and predation if they leave shelter sites or when they encounter the exclusion fence.

We cannot quantify the precise number of California tiger salamander that may be taken as a result of the action that the Corps has proposed because California tiger salamanders move over time; for example, animals may have entered or departed the action area since the time of pre-construction surveys. Other individuals may not be detected due to their cryptic nature, small size, and low mobility. The protective measures proposed by the applicant are likely to prevent mortality or injury of most individuals. In addition, finding a dead or injured California tiger salamander is unlikely.

Consequently, we are unable to reasonably anticipate the actual number of California tiger salamanders that would be taken by the proposed action; however, we must provide a level at which formal consultation would have to be reinitiated. The Environmental Baseline and Effects Analysis sections of this biological opinion indicate that adverse effects to California tiger salamander would mainly occur at the overburden site and would be minimal at the mitigation site given the nature of the proposed activities. We also recognize that for every California tiger salamander found dead or injured, other individuals may be killed or injured that are not detected, so when we determine an appropriate take level, we are anticipating that the actual take would be higher and we set the number below that level.

Therefore, within the overburden site, if two (2) California tiger salamander adults, subadults, or juveniles are found dead or wounded in any given year or if the total of five (5) individuals are found dead or wounded for the duration of the project that occurs outside the Corps jurisdiction, the applicant must contact our office immediately to reinitiate formal consultation. Project

activities that are likely to cause additional take should cease as the exemption provided pursuant to section 7(o)(2) may lapse and any further take could be a violation of section 4(d) or 9.

For the mitigation site, as described above, the long-term management includes continuation of grazing and other related routine ranching activities that are expected to have an overall beneficial effect to California tiger salamanders. The Service published a 4(d) rule with the final listing rule for California tiger salamander, which exempts existing routine ranching activities from prohibitions under section 9 of the ESA (Service 2004). Therefore, ranching activities associated with the implementation of the Management Plan at the mitigation site that occur beyond the Corps jurisdiction are exempt from prohibitions under section 9 of the ESA.

REASONABLE AND PRUDENT MEASURES

According to the agreement (Service 2017a), "The Service will identify in the incidental take statement what reasonable and prudent measures (RPMs) address impacts of activities within the Corps' jurisdiction and thus which the Corps must implement through its permit. The Service will likewise identify those RPMs that address impacts of the larger project outside of the Corps' jurisdiction and will specify that they must be implemented directly by the applicant if the take exemption is to apply." To accommodate this part of the agreement, we have split the RPMs into measures to be implemented by the Corps and applicant.

RPMs to be Implemented by the Corps

The measures described below are non-discretionary, and must be undertaken by the Corps or made binding conditions of any grant or permit issued to the applicant, as appropriate, for the exemption in section 7(o)(2) to apply. The Corps has a continuing duty to regulate the activity covered by this incidental take statement within its jurisdiction. If the Corps (1) fails to assume and implement the terms and conditions or (2) fails to require the applicant to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit document, the protective coverage of section 7(o)(2) may lapse. To monitor the impact of incidental take, the Corps must report the progress of the action and its impact on the species within the area of its jurisdiction to the Service as specified in the Reporting Requirements below [50 CFR 402.14(i)(3)].

The Service believes the following reasonable and prudent measure are necessary and appropriate to minimize the impacts of the incidental take of California tiger salamander:

1. The Corps will work with the applicant to provide the Service with access to the project site, if requested by the Service.
2. Biologists must be authorized by the Service before they implement conservation measures for the California tiger salamander within the area of the Corps' jurisdiction. The Corps or applicant will submit the biologist's resume, including any relevant field experience, for the Service's approval of the biologist to implement the project's avoidance and minimization measures.

RPMs to be Implemented by the Applicant

The measures described below are non-discretionary and must be undertaken by the applicant for the exemption in section 7(o)(2) to apply. If the applicant (1) fails to assume and implement the terms and conditions or (2) fails to adhere to the terms and conditions of the incidental take statement, the protective coverage of section 7(o)(2) may lapse. To monitor the impact of incidental take, the applicant must report the progress of the action and its impact on the species to the Service as specified in the Reporting Requirements below [50 CFR 402.14(i)(3)].

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize the impacts of the incidental take of California tiger salamanders:

1. The Service must be allowed reasonable oversight of the implementation of project activities.
2. Biologists must be authorized by the Service before they implement conservation measures for the California tiger salamander outside the Corps' jurisdiction. The applicant will submit the biologist's resume, including any relevant field experience, for the Service's approval of the biologist to implement the project's avoidance and minimization measures.
3. The applicant must contact the Service immediately if take of the California tiger salamander exceeds the limits provided in the incidental take statement to ensure continued compliance with the Act.

TERMS AND CONDITIONS

Terms and Conditions to be Implemented by the Corps

To be exempt from the prohibitions of section 9 of the Act, the Corps must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline reporting and monitoring requirements. These terms and conditions are non-discretionary:

1. The following terms and conditions implement reasonable and prudent measure 1:

    a. The Corps must work with the applicant to provide the Service access to any area of the project site to survey and inspect project activities, including restoration areas.
    b. The Corps must notify the Ventura Fish and Wildlife Office via electronic mail (fw8venturasection7@fws.gov) prior to the initiation of project activities pursuant to this biological opinion.

2. The following term and condition implements reasonable and prudent measure 2:

    a. The Corps must request or require the applicant to seek our approval through terms of their permit of any biologists that they, the applicant, or their contractors employ to

conduct project activities associated with the California tiger salamander within the Corps' area of jurisdiction pursuant to this biological opinion. Such requests must be in writing (communication by electronic mail: fw8venturasection7@fws.gov) and be received by the Ventura Fish and Wildlife Office at least 30 days prior to any such activities being conducted. Please be advised that possession of a 10(a)(1)(A) recovery permit for the California tiger salamander does not substitute for the implementation of this measure. Authorization of Service-approved biologists is valid for this project only.

Terms and Conditions to be Implemented by the Applicant

To be exempt from the prohibitions of section 9 of the Act, the applicant must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline reporting and monitoring requirements. These terms and conditions are non-discretionary:

1. The following term and condition implements reasonable and prudent measure 1:

    a. The applicant must allow the Service access to any area of the overburden and mitigation sites to observe how the project is being implemented, particularly with regard to measures to minimize take, adherence to the project description, and these terms and conditions.

2. The following term and condition implements reasonable and prudent measure 2:

    a. The applicant must request our approval of any biologists that they or their contractors employ to conduct project activities associated with the California tiger salamander outside the area of the Corps' jurisdiction pursuant to this biological opinion. Such requests must be in writing (communication by electronic mail: fw8venturasection7@fws.gov) and be received by the Ventura Fish and Wildlife Office at least 30 days prior to any such activities being conducted. Please be advised that possession of a 10(a)(1)(A) recovery permit for the California tiger salamander does not substitute for the implementation of this measure. Authorization of Service-approved biologists is valid for this project only.

3. The following term and condition implements reasonable and prudent measure 3:

    a. If two (2) adult, subadult, or juvenile California tiger salamanders are found dead or injured during any given year or if a total of five (5) California tiger salamanders are found dead or injured at the overburden site outside the Corps' jurisdiction, work must immediately cease and the Service promptly contacted by the applicant for guidance on how to continue to remain in compliance with the Act, such as whether to seek an incidental take permit under section 10.

Consistent with the agreement (Service 2017a), if the Corps had limited or no longer retains discretionary Federal involvement or control over incidental take anticipated in the biological opinion, but the applicant is carrying out the action in full compliance with the project description and all of the terms and conditions required by this incidental take statement, the Service will exercise its enforcement discretion and not seek section 11(e) enforcement against the applicant in these situations for the take that was anticipated in this incidental take statement. However, we recognize that the applicant in those situations will face some exposure to a citizen suit brought under section 11(g).

REPORTING REQUIREMENTS

Pursuant to 50 CFR 402.14(i)(3) and the agreement, the Corps and applicant must report the progress of their respective actions and their impact on the species to the Service as specified in this incidental take statement (Service 2017a, Corps 2017). The report(s) should be sent to fw8venturasection7@fws.gov.

Corps' Reporting Requirements

The Corps will provide a final report via electronic mail describing the activities that occur within its jurisdiction and their impacts on the species to the Service's Ventura Fish and Wildlife Office using the email address above within 90 days following completion of all work allowed under its permit. The applicant and parties contracted by the applicant may prepare the Corps' final report on behalf of the Corps documenting compliance with the above measures and reporting all impacts to the species. The report must describe all activities that were conducted under this biological opinion within the Corps' jurisdiction, including activities and conservation measures that were described in the proposed action and required under the terms and conditions, and discuss any problems that were encountered in implementing conservation measures or terms and conditions and any other pertinent information. The report must include the Service's file number for this biological opinion (2022-0048094) and the following information:

> The number of California tiger salamanders observed, captured and relocated during the project, and the number killed or injured during project activities, if any; and the dates and times of capture, mortality, or injury; specific locations and circumstances of capture, mortality, or injury; approximate size and life stage of individuals; and a description and map of relocation sites.

The Service recognizes that the applicant and other parties may author the report described above. However, the Corps must review the report to ensure compliance with the requirements of this biological opinion for all actions conducted within its jurisdiction prior to submitting the report to the Service.

Within 90 days following the completion of the project, the Corps or applicant will report all observations of federally listed species within its area of jurisdiction to CDFW for inclusion in the CNDDB (refer to https://wildlife.ca.gov/Data/CNDDB/Submitting-Data).

Applicant's Reporting Requirements

The applicant will provide a final report via electronic mail describing the activities that occur outside the Corps' jurisdiction and their impacts on the species to the Service's Ventura Fish and Wildlife Office using the email address above within 90 days following completion of all work on the proposed project. The report must describe all activities that were conducted under this biological opinion outside the Corps' jurisdiction, including activities and conservation measures that were described in the proposed action and required under the terms and conditions, and discuss any problems that were encountered in implementing conservation measures or terms and conditions and any other pertinent information. The report must also include the following information:

> The number of California tiger salamanders observed, captured, and relocated from the project area, and killed or injured during project activities, if any; the dates and times of capture, mortality, or injury; specific locations and circumstances of capture, mortality, or injury; size and life stage of individuals; and a description and map of relocation sites.

The Service recognizes that parties contracted by the applicant may author the report described above. However, the applicant must review the report to ensure compliance with the requirements of this biological opinion for all actions conducted outside the Corps' jurisdiction prior to submitting the report to the Service.

Upon completion of the project or within 90 days of a California tiger salamander observation, whichever comes first, the applicant will report all observations of federally listed species outside the area of the Corps' jurisdiction to CDFW for inclusion in the CNDDB.

DISPOSITION OF DEAD OR INJURED SPECIMENS

As part of this incidental take statement and pursuant to 50 CFR 402.14(i)(1)(v), upon locating a dead or injured California tiger salamander, initial notification within 3 working days of its finding must be made by electronic mail to the Ventura Fish and Wildlife Office's section 7 electronic mail account fw8venturasection7@fws.gov. The report must include the date, time, location of the carcass, a photograph, cause of death or injury, if known, and any other pertinent information. In the subject of the notification, include the Service's reference number (2022-0048094) for the consultation and the county the project is in.

The Corps and applicant must take care in handling injured animals to ensure effective treatment and care, and in handling dead specimens to preserve biological material in the best possible state. The Corps or applicant must transport injured animals to a qualified veterinarian. Should any treated California tiger salamander survive, the Corps or applicant must contact the Service regarding the final disposition of the animal(s).

We recommend that dead California tiger salamanders identified in the action area be tested for amphibian disease and undergo genetic analysis for the purpose of investigating hybridization;

however, these recommendations are discretionary and to be determined by the Corps or applicant upon contacting the Ventura Fish and Wildlife Office at the discovery of a dead California tiger salamander. If the Corps or applicant choose not to submit dead California tiger salamanders for testing, they must be placed with the California Academy of Sciences; Contact: Jens Vindum, Collections Manager, California Academy of Sciences Herpetology Department, Golden Gate Park, San Francisco, California 94118, (415) 750-7037. Remains of California tiger salamander can also be placed with educational or research institutions holding the appropriate State and Federal permits.

CONSERVATION RECOMMENDATIONS

We are providing separate conservation recommendations for the Corps and applicant in recognition of the extent of their respective abilities to implement the recommendations.

Corps

Section 7(a)(1) of the Act directs Federal agencies to use their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

1. We recommend the Corps advise Service-approved biologist(s) to relocate any other native reptiles or amphibians found within work areas to suitable habitat outside of project areas if such actions comply with State laws.
2. We recommend the Corps investigate the efficacy of capture and relocation of California tiger salamanders to determine the extent that this minimization measure reduces adverse effects of project activities on the species. As part of this, information on repeat capture and behavior of individuals post-movement should be noted.
3. We recommend dead California tiger salamanders identified during the period when the Corps has jurisdiction be tested for amphibian disease, and any dead California tiger salamanders undergo genetic analysis for the purpose of investigating hybridization.
4. We recommend the Corps advise Service-approved biologist(s) to remove any non-native animals if present, such as bullfrogs and crayfish which may prey on California tiger salamanders.

The Service requests notification of the implementation of any conservation recommendations by the Corps so we may be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats.

Applicant

Although non-federal entities are not subject to section 7(a)(1), we are also providing conservation recommendations for the applicant. These discretionary recommendations are

intended to minimize or avoid adverse effects of a proposed action on listed species, to help implement recovery plans, or to develop information.

1. We recommend that the applicant advise Service-approved biologist(s) to relocate any other native reptiles or amphibians found within work areas to suitable habitat outside of project areas if such actions comply with State laws.
2. We recommend the applicant investigate the efficacy of capture and relocation of California tiger salamanders to determine the extent that this minimization measure reduces adverse effects of project activities on the species. As part of this, information on repeat capture and behavior of individuals post-movement should be noted.
3. We recommend dead California tiger salamanders identified in areas outside the Corps' jurisdiction be tested for amphibian disease, and that dead California tiger salamanders undergo genetic analysis for the purpose of investigating hybridization.
4. We recommend the applicant advise Service-approved biologist(s) to remove non-native animals if present, such as bullfrogs and crayfish which may prey on California tiger salamanders.

The Service requests notification of the implementation of any conservation recommendations by the applicant so we may be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats.

REINITIATION NOTICE

This concludes formal consultation on the action(s) outlined in the request. As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, the exemption issued pursuant to section 7(o)(2) may have lapsed and any further take could be a violation of section 4(d) or 9. Consequently, we recommend that any operations causing such take cease pending reinitiation or obtaining an incidental take permit pursuant to section 10.

The applicant cannot reinitiate formal consultation if any of the criteria listed above are met within the area outside the Corps' jurisdiction or if the Corps' jurisdiction has lapsed because the NWP has expired because the applicant is not a Federal agency with discretionary involvement or control over the action. If any of these criteria listed above are met, the applicant may need to seek a permit through section 10(a)(1)(B) of the Act if take of listed species would continue to occur.

Because we cannot reinitiate consultation solely with an applicant, we encourage the applicant to implement its proposed activities, including the conservation measures, as described in this biological opinion and comply with the incidental take statement. As stated above, in instances where the amount or extent of incidental take is exceeded, the exemption provided pursuant to section 7(o)(2) may lapse and any further take could be a violation of section 4(d) or 9.

If you have any questions about this biological opinion, please contact Robert McMorran of my staff by electronic mail at robert_mcmorran@fws.gov.

Sincerely,

LEILANI TAKANO Digitally signed by LEILANI TAKANO Date: 2024.05.03 13:58:30 -07'00'

for Stephen P. Henry
Field Supervisor

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[Service] U.S. Fish and Wildlife Service. 2017b. Recovery plan for the Central California distinct population segment of the California tiger salamander (*Ambystoma californiense*). U.S. Fish and Wildlife Service, Pacific Southwest Region, Sacramento, California. v + 69 pp.

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WRA. 2022b. Draft habitat mitigation and monitoring/long-term management plan for the Anzar Road mitigation site. Prepared for Graniterock. Revised March 2022.

WRA. 2023. A.R. Wilson Quarry project California tiger salamander take reduction plan. Revised June 2023.

WRA. 2024. Survey results for FT, ST California tiger salamander at Anzar Road property, San Benito County, California. Memorandum from Rob Schell to Chris Kofron. January 26, 2024.

Appendix A

United States Department of the Interior

FISH AND WILDLIFE SERVICE

MAY 2 2 2017

In Response Reply To:
FWS/AES/065732

Mr. James C. Dalton
Director of Civil Works
U.S. Army Corps of Engineers
441 G Street, NW
Washington, DC20314

Dear Mr. Dalton:
The purpose of this letter is to follow up on our July 27, 2015, meeting with your predecessor, Mr. Steven Stockton, where we discussed clarifying the consultation process under section 7 of the Endangered Species Act of 1973 (ESA) when the U.S. Army Corps of Engineers (Corps) is considering permitting an action where the Corps' involvement is limited to making a permitting decision for a small component of a larger project (e.g., installation of a culvert across a small stream that will provide access to a larger upland development area or the crossing of multiple streams to support the construction of a pipeline through areas that are predominantly uplands). As we discussed at that meeting, staff within both of our agencies have struggled to consult in a manner that is consistent with our respective laws, regulations, and policies.

The ESA and our interagency implementing regulations require that Federal agencies consult on the potential effects of projects they intend to fund, authorize, or otherwise carry out that may affect federally-listed species or designated critical habitat. The U.S. Fish and Wildlife Service (Service) must then consider the direct, indirect, and cumulative effects of the federal action (including effects of any interrelated or interdependent actions) in this consultation. In some instances, the federal action that triggers the.section 7 consultation is smaller in scope than the overall project, and the biological opinion and associated incidental take statement consider effects that occur outside the jurisdiction of the action agency. This situation has sometimes resulted in extended negotiations as our staff have attempted to address the dual responsibilities of the Service and the Corps.

Enclosed is a summary of what we believe is an agreement in principle between our two agencies on how to address these projects going forward in a manner that respects the limits of the Corps' jurisdiction, adheres to the Service's consultation regulations, and provides the most efficient path forward for the Service, Corps, and applicants to address ESA compliance.

We appreciate your willingness to work with us to craft a mutually acceptable resolution of this issue, and we hope to continue our dialogue. Clarifying our respective roles and responsibilities will simplify future informal and formal consultations, thus saving time and money for both agencies and applicants. Please let me know if the process outlined in the enclosure is agreeable, and feel free to contact me at (202) 208-4646 or Gary_Frazer@fws.gov if you would like to discuss further.

Sincerely,

Gary Frazer
Assistant Director for
Ecological Services

Enclosure

Process for Section 7 Consultation in Small Federal Handle Situations

The agreement in principle outlined below applies to situations where both of the following conditions apply: (1) where there is a legitimate Federal nexus to the larger project via activities subject to Clean Water Act or Rivers and Harbors Act of 1899 jurisdiction that cannot be avoided (i.e., but for the federal permit, the larger action could not occur); and (2) where the effects considered within the biological assessment and biological opinion are all appropriately within the scope of a section 7 consultation (i.e., the direct and indirect effects of the federal action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, and including consideration of cumulative effects).

- The Corps will provide the Service with a Biological Assessment (BA) for a proposed action that evaluates the larger project as a whole and is inclusive of all anticipated effects of the larger project (including those resulting from interrelated or interdependent activities) to listed species and critical habitat, along with consideration of cumulative effects. However, in situations where the Corps' involvement is limited to a small component of the larger project, in the BA the Corps will clearly distinguish between the areas and activities within the Corps' jurisdiction and the areas and activities outside the Corps' jurisdiction. The BA will also clearly distinguish between effects to listed species and designated critical habitat within and outside the Corps' jurisdiction.

- If the BA outlines avoidance and minimization measures that may lead to a "not likely to adversely affect" determination for the entire project, the Corps will work with the Service to finalize the informal consultation. The Corps may ask the Service to work directly with the permit applicant to develop avoidance and minimization measures, but the Corps will provide the final letter requesting concurrence regarding the determination of "may affect, not likely to adversely affect" for the project.

- For formal consultations, the Service will issue a biological opinion that evaluates all components of the larger project, including the effects of the larger project on listed species and critical habitat. Take that is anticipated to result from the larger project that is not likely to jeopardize the continued existence of a species, or that results from implementing a reasonable and prudent alternative in order to avoid the likelihood of jeopardy, will be addressed through an incidental take statement included with the biological opinion. As noted in section 7(o)(2), "any taking that is in compliance with the terms and conditions specified in ... [an incidental take statement] shall not be considered to be a prohibited taking of the species concerned." The Service will identify in the incidental take statement what reasonable and prudent measures (RPMs) address impacts of activities within the Corps' jurisdiction and thus which the Corps must implement through its permit. The Service will likewise identify those RPMs that address impacts of the larger project outside of the Corps' jurisdiction and will specify that they must be implemented directly by the applicant if the take exemption is to apply.

- The Corps will oversee compliance with RPMs, including monitoring and reporting the impacts of incidental take, that apply to the activities within its jurisdiction. For RPMs that apply to activities outside of the Corps' jurisdiction, the Service will monitor the impacts of the incidental take through reports submitted by the applicant on the progress of the action and its impact on the listed species, as specified in the incidental take statement. The Corps is required to request reinitiation of section 7 consultation when triggered by one of the reinitiation factors listed at 50 C.F.R. § 402.16 and "where discretionary Federal involvement or control over the action has been retained or is authorized by law." Reinitiation is triggered by, among other factors, exceedance of the extent of taking specified in the incidental take statement regardless of where such taking occurs.

- If the Corps never had or no longer retains discretionary Federal involvement or control over incidental take anticipated in the biological opinion, but the applicant is carrying out the action in full compliance with the associated incidental take statement, the Service will exercise its enforcement discretion and not seek section 11(e) enforcement against the applicant in these situations for the take that was anticipated in the incidental take statement. However, we recognize that the applicant in those situations will face some exposure to a citizen suit brought under section 11(g).

- The process outlined above will also apply to species and critical habitat addressed through conference opinions, as appropriate.

Appendix B

The Declining Amphibian Populations Task Force Fieldwork Code of Practice

1. Remove mud, snails, algae, and other debris from nets, traps, boots, vehicle tires, and all other surfaces. Rinse cleaned items with sterilized (e.g., boiled or treated) water before leaving each work site.

2. Boots, nets, traps, and other types of equipment used in the aquatic environment should then be scrubbed with 70 percent ethanol solution and rinsed clean with sterilized water between study sites. Avoid cleaning equipment in the immediate vicinity of a pond, wetland, or riparian area.

3. In remote locations, clean all equipment with 70 percent ethanol or a bleach solution, and rinse with sterile water upon return to the lab or "base camp." Elsewhere, when washing-machine facilities are available, remove nets from poles and wash in a protective mesh laundry bag with bleach on the "delicates" cycle.

4. When working at sites with known or suspected disease problems, or when sampling populations of rare or isolated species, wear disposable vinyl[1] gloves and change them between handling each animal. Dedicate sets of nets, boots, traps, and other equipment to each site being visited. Clean them as directed above and store separately at the end of each field day.

5. When amphibians are collected, ensure that animals from different sites are kept separately and take great care to avoid indirect contact (e.g., via handling, reuse of containers) between them or with other captive animals. Isolation from unsterilized plants or soils which have been taken from other sites is also essential. Always use disinfected and disposable husbandry equipment.

6. Examine collected amphibians for the presence of diseases and parasites soon after capture. Prior to their release or the release of any progeny, amphibians should be quarantined for a period and thoroughly screened for the presence of any potential disease agents.

7. Used cleaning materials and fluids should be disposed of safely and, if necessary, taken back to the lab for proper disposal. Used disposable gloves should be retained for safe disposal in sealed bags.

The Fieldwork Code of Practice has been produced by the Declining Amphibian Populations Task Force with valuable assistance from Begona Arano, Andrew Cunningham, Tom Langton, Jamie Reaser, and Stan Sessions.

1 Do not use latex gloves as latex is toxic to amphibians.

For further information on this Code, or on the Declining Amphibian Populations Task Force, contact John Wilkinson, Biology Department, The Open University, Walton Hall, Milton Keynes, MK7 6AA, UK, e-mail: DAPTF@open.ac.uk.