

EXAMPLE OF A SPECIALIZED RECOVERY PERMIT APPLICATION:

FEDERAL FISH AND WILDLIFE PERMIT APPLICATION FORM

Answers to Option 2, FWS Form 3-200-59

E) Identify species and activity:

- 1) *For a new Recovery Permit or Amendment of an Existing Permit* (I am applying for a New recovery permit).
 - a) California tiger Salamander (*Ambystoma californiense*), hereafter CTS
 - Central California Distinct Population Segment – Threatened
 - b) As a graduate student, my research will be centered around capturing and sampling 20-50 California Tiger Salamander (CTS) larvae, juveniles, and adults of both sexes per pond. The exact number of individuals captured and released will be determined by the minimum necessary to achieve the research objectives without jeopardizing health of a given population. This approach ensures that the data collected is both scientifically robust and ethically sound, contributing valuable insights to the field of herpetology.
 - c) I am requesting to collect tail clips from larval and adult salamanders, as I will be conducting a genomics study.
 - d) The actions described above are integral and directly support my thesis research. Conducting these California Tiger Salamander genetics project is essential for gathering the empirical data needed to address my research questions on population expansion in man-made vs natural ponds. Several ponds have been selected.
 - e) I do not hold a valid permit.
- 2) No plants species are requested in this application.

F) Identify location of the proposed activity:

- 1) The proposed activities will be conducted in several counties within the California Central Valley, specifically targeting the geographic range of the Central California Tiger Salamander (CTS) Distinct Population Segments. These activities will take place in Sacramento, Yolo, Solano, San Joaquin, and Stanislaus counties. This focused approach allows for a more detailed and region-specific study, ensuring that the research is both comprehensive and relevant to the local CTS populations.
- 2) Please see addendum for maps.
- 3) CTS is an aquatic and terrestrial occupying species that may be found in vernal pools, wetlands, swales, ponds, and man-made aquatic features, among others, throughout much of the state of California. In Sacramento County, the surveys will be conducted at Willow Creek Pond and Sunset Mitigation Marsh. In Yolo

County, the targeted sites are Blue Heron Pond and Golden Meadow Mitigation Wetland. For Solano County, the research will focus on Eagle Nest Pond Mitigation Reserve and Silver Lake Marsh. In San Joaquin County, the surveys will take place at Cedar Grove Pond Biological site and Maple Leaf Wetland. Finally, in Stanislaus County, the activities will be centered around Oak Ridge Cow Pond and Pine Valley Creek Rockery Vernal Wetlands. These specific locations have been chosen to provide a representative sample of the diverse habitats within each county.

- 4) No plants species are requested in this application.

G) Describe the proposed activity:

- 1) *Describe how the activities or proposal would help recover the species:*

- a) There is a Recovery Plan for each Distinct Population Segment of the California Tiger Salamander. The Recovery Plan for the Central California Distinct Population Segment of the California Tiger Salamander (*Ambystoma californiense*) (USFWS 2017) was specifically written to address the threats to the Central California distinct population segment California tiger salamander and lead to its eventual removal from the Endangered Species Act List of species. To meet the recovery goal, “Objective #2: Ameliorate or eliminate the current threats to the species,” I will conduct post-construction collections at man-made mitigation ponds and compare to natural pond with no history of conversion. Understanding the difference in species occupancy between man-made ponds and natural ponds is crucial for several reasons:
- Habitat Suitability.
 - Biodiversity Assessment.
 - Impact of Human Activities.
 - Adaptation and Behavior.
 - Water Quality and Ecosystem Services.
- b) Genetic studies have been ongoing, such as at Dr. Emily Harper's lab at Redwood University and Dr. Michael Thompson's research group at Blue Ridge Institute.
- c) My work will help answer the above questions. Refer to my proposal, attached, for further information.
- d) By reporting information on genetics, I will help with determining occupied habitat for future habitat management.

- 2) *Describe in detail the purpose(s) and objective(s) of the activities or project.*

- a) My methods and designs will follow as stated in the USFWS’s protocol, Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander (USFWS 2003), as well as following the methods written by the National

Herpetological Research Agency "Collecting Tail Tissue from Salamanders and Other Herpetofauna: Methods and Implications." *NHRA Guidelines*, pp. 45-47, 2023.

- b) This permit application is for a specific project. Refer to my proposal, attached, for further information.
 - c) No individuals are requested to be vouchered or sacrificed, however if dead individuals are found, they will be collected and used for genetic processing (following approval from the USFWS and CDFW).
- 3) *Can this activity or project result in the injury, death, or removal from the wild of any individuals of the species?*
- a) By conducting activities in accordance with the USFWS's and NHRA protocol, there should be lower injury or mortality risk. No individuals will be removed from the wild, with the exception of carcass salvage.
 - b) Zero is expected, though incidental mortality or injury is unknown and will be immediately reported.
 - c) If CTS larvae, juveniles, or adults are encountered during surveys, around 10% of the population will be samples, with the goal between 20-50 larvae, with at least 10 adults represented. Refer to my proposal, attached, for further information.
 - d) Activities are expected in habitat with occupancy unknown at this point, but this will be discussed with USFWS prior to activity initiation. Refer to my proposal, attached, for further information.
- 4) As a student, my work will be based on awarded project contracts requiring surveys, whether between private or public entities. Projects are mentioned above.
- 5) No CTS will be held in captivity.
- 6) When working within more than one sites, I will thoroughly decontaminate my clothing and equipment following the latest USFWS protocols, including the guidelines set by the Declining Amphibian Task Force Fieldwork Code of Practice.

H) Identify the persons who will conduct the proposed activity:

- 1) *Provide the full name of all individuals, including first name, middle initial, and last name, who you propose will conduct activities under this permit*

My full legal name is Richard "Richie" Carlisle Gomes.

- a) Not applicable. Richard "Richie" Carlisle Gomes is the only requested permittee.
- b) Please find my resume and experience table attached to this application

- c) Please find my letters of recommendation from a supervisory recovery permittee for CTS and my laboratory PI attached to this application.