



City of Santa Rosa
Planning & Economic
Development Department
Apr 4, 2022
RECEIVED

March 24, 2022

Floyd Masalta
Gibraltar
830 Stewart Dr., Suite 178
Sunnyvale, CA 94085
floydmasalta@gmail.com – *Sent via email*

Re: California tiger salamander assessment for 460 Timothy Road, Santa Rosa, California

Mr. Masalta:

This letter provides a habitat assessment for the federal and state listed California tiger salamander (CTS; *Ambystoma californiense*) at the property located at 460 Timothy Road (Study Area) in the City of Santa Rosa, Sonoma County, California. It is WRA's understanding that this assessment was requested by the City as part of a redevelopment/site improvement application being submitted for the property, one component of which would be installation of a retention basin in the southern portion of the property.

Species Background

The natural history of CTS is summarized by the U.S. Fish and Wildlife Service (USFWS; 2007) and others. The species occurs in grasslands and low-elevation foothill regions in California (generally under 1,500 feet), and uses seasonally-inundated aquatic features for breeding. Typical breeding features are natural ephemeral (vernal) pools, or ponds that mimic ephemeral pools (e.g., manmade stock ponds that go dry); features must be continuously inundated for a minimum of 10 weeks, though high-quality breeding features typically exhibit much longer inundation periods. Adults and sub-adult CTS are terrestrial and fossorial, spending the majority of their lives in grasslands surrounding breeding pools. Individuals survive hot, dry summers by living underground in burrows (usually those created by ground squirrels or pocket gophers) and deep cracks or holes in the ground, where the soil atmosphere remains near the water saturation point. During wet periods, adult salamanders emerge from underground refugia to migrate to breeding features, at times also feeding in the surrounding uplands. CTS are known to migrate and disperse up to 1.3 miles over terrestrial habitats, though the average distance is typically much smaller.

The Sonoma County "Distinct Population Segment" (DPS) of CTS is isolated from the remainder of the species' range and, as is known historically occurred on and adjacent to the greater Santa Rosa Plain roughly from the northern limits of greater Santa Rosa south to Petaluma. Although CTS is listed as federal threatened throughout most of its range, the Sonoma County DPS is listed as endangered and, as with all CTS populations is also listed as threatened species under the California Endangered Species Act.

Assessment Methods

Relevant background literature was reviewed as a component of this assessment. The nearest documented occurrences of CTS to the Study Area were queried in the California Department of Fish and Wildlife (CDFW) Natural Diversity Database (CNDDDB; CDFW 2022). The Study Area is also located within the area covered by the Santa Rosa Plain Conservation Strategy (SRPCS), which was developed in 2005 by

the USFWS and other stakeholders to create a long-term conservation program for five federal listed species that occur on the Santa Rosa Plain, including CTS (USFWS et al. 2005); the SRPCS was thus also reviewed.

A field investigation of the Study Area was performed by WRA senior wildlife biologist Jason Yakich (author) on March 11, 2022, from 2:00 PM: to 3:00 PM. The entirety of the Study Area was traversed on foot to assess its potential to support CTS. Key indicators such as the presence of potential fossorial refugia for CTS (e.g., mammal burrows or facsimiles of such) and/or seasonal aquatic features were searched for throughout the site.

Results

Study Area Description

The Study Area is approximately 1.4 acres in size and highly disturbed, with the bulk of the property developed for apparent light industrial or commercial uses. Approximately 93 percent of the Study Area features hardscape substrate with virtually no remnant/exposed soil substrate. The southernmost portion of the site (less than 0.1 acre) does not feature hardscape, and the soil substrate there extends onto a neighboring property to the south that also predominantly consists of light industrial/commercial development. No mammal burrows or similar potential refugia were observed within the Study Area, including the small non-hardscaped area. All substrates were completely dry. As per the National Wetland Inventory (USFWS 2022) and the California Aquatic Resources Inventory (SFEI 2022), the apparent headwaters of Roseland Creek (a local stream that flows for approximately 7 miles through the western portion of Santa Rosa) are mapped south of and adjacent to the Study Area boundary, though no water was observed in this area as was visible through portions of the boundary fence.

Literature Review

The nearest documented CTS occurrence to the Study Area in CNDDDB is located approximately 1.1 mile to the southwest along Hearn Avenue, where an adult CTS was observed in 2003 (CDFW 2022); this location features relatively large (greater than 30 acres) areas of undeveloped (non-hardscape) land in close proximity, including and a seasonal aquatic feature known to support CTS breeding as recently as 2010. Additional occurrences in and near western Santa Rosa are all found at greater distances to the west and south.

In the SRPCS, the Study Area and all adjacent (surrounding) parcels are mapped as “Already Developed (no potential for impact [to federal listed species])” (Figure 3; updated April 2007).

Assessment

The Study Area is developed, with only limited remnant soil (non-hardscape) substrate present. No potential CTS refugia were observed on-site during the site visit. Additionally, the site is surrounded by urban development including a rail line to the east, light industrial/commercial uses to the north and south, and dense (multi-unit) residential development to the west. Essential CTS habitat requirements, namely undeveloped, upland areas of grassland/savannah and vernal pools or similar features, are absent on-site, and the Study Area is considered “Already Developed” by the SRPCS as of 2007. A review of aerial photography (Google Earth 2022) shows that current conditions both on-site and adjacent have existed for approximately 16 years, and the maximum documented lifespan of CTS in the wild appears to be 11

years (Trenham et al. 2000). Therefore, any CTS that may have been historically present within or adjacent to the Study Area have presumably either exited during movement periods, or died out. For these reasons, CTS is assessed as highly unlikely to be present within the Study Area.

Please contact me should you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Jason Yakich". The signature is written in a cursive, slightly slanted style.

Jason Yakich
Senior Wildlife Biologist
yakich@wra-ca.com

Enclosures: Attachment A – Figure 1

References

- California Department of Fish and Wildlife (CDFW). 2022. California Natural Diversity Database. Wildlife and Habitat Data Analysis Branch, Sacramento, CA. Accessed: March.
- Google Earth. 2022. Aerial Imagery 1993-2021. Most recently accessed: March 2022.
- San Francisco Estuary Institute (SFEI). 2022. California Aquatic Resource Inventory. Available at: <http://www.sfei.org/cari#sthash.Mzz93W9i.dpbs>. Accessed: March 2022.
- Trenham, P.C., Shaffer, H.B., Koenig, W.D., and M.R. Stromberg. Life History and Demographic Variation in the California Tiger Salamander (*Ambystoma californiense*). *Copeia* 2000(2): 365-377.
- U.S. Fish and Wildlife Service (USFWS) et. al. 2005. Final Santa Rosa Plain Conservation Strategy. Sacramento Office of the U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, North Coast Regional Water Quality Control Board, County of Sonoma, Cities of Cotati, Rohnert Park, and Santa Rosa, and Laguna de Santa Rosa Foundation. December.
- (USFWS). 2007. Species Account: California Tiger Salamander (*Ambystoma californiense*). Sacramento Fish and Wildlife Office. Sacramento, California 95825. Last updated December 7, 2007.
- (USFWS). 2022. National Wetlands Inventory. Available at: <http://www.fws.gov/wetlands/index.html>. Accessed: March 2022.

— Approximate Study Area Boundary



Figure 1. Study Area Location

460 Timothy Road, Santa Rosa, Sonoma County, California