

Appendix B

California Tiger Salamander Site Assessment (2010)



H. T. HARVEY & ASSOCIATES
ECOLOGICAL CONSULTANTS

**PEACHTREE ROAD BRIDGE
CALIFORNIA TIGER SALAMANDER
SITE ASSESSMENT**

Prepared by:

H. T. Harvey & Associates

Patrick Boursier, Ph.D., Principal, Senior Plant Ecologist
Steven C. Rottenborn, Ph.D., Principal, Senior Wildlife Ecologist
Jeff Wilkinson, Ph.D., Senior Herpetologist
Robin Carle, M.S., Wildlife Ecologist

Prepared for:

John Hesler
David J. Powers & Associates
1871 The Alameda, Suite 200
San Jose, CA 95126

29 October 2010

Project No. 1212-11



TABLE OF CONTENTS

TABLE OF CONTENTS..... i
INTRODUCTION 1
CALIFORNIA TIGER SALAMANDER SITE ASSESSMENT..... 3
REFERENCE..... 9

FIGURES

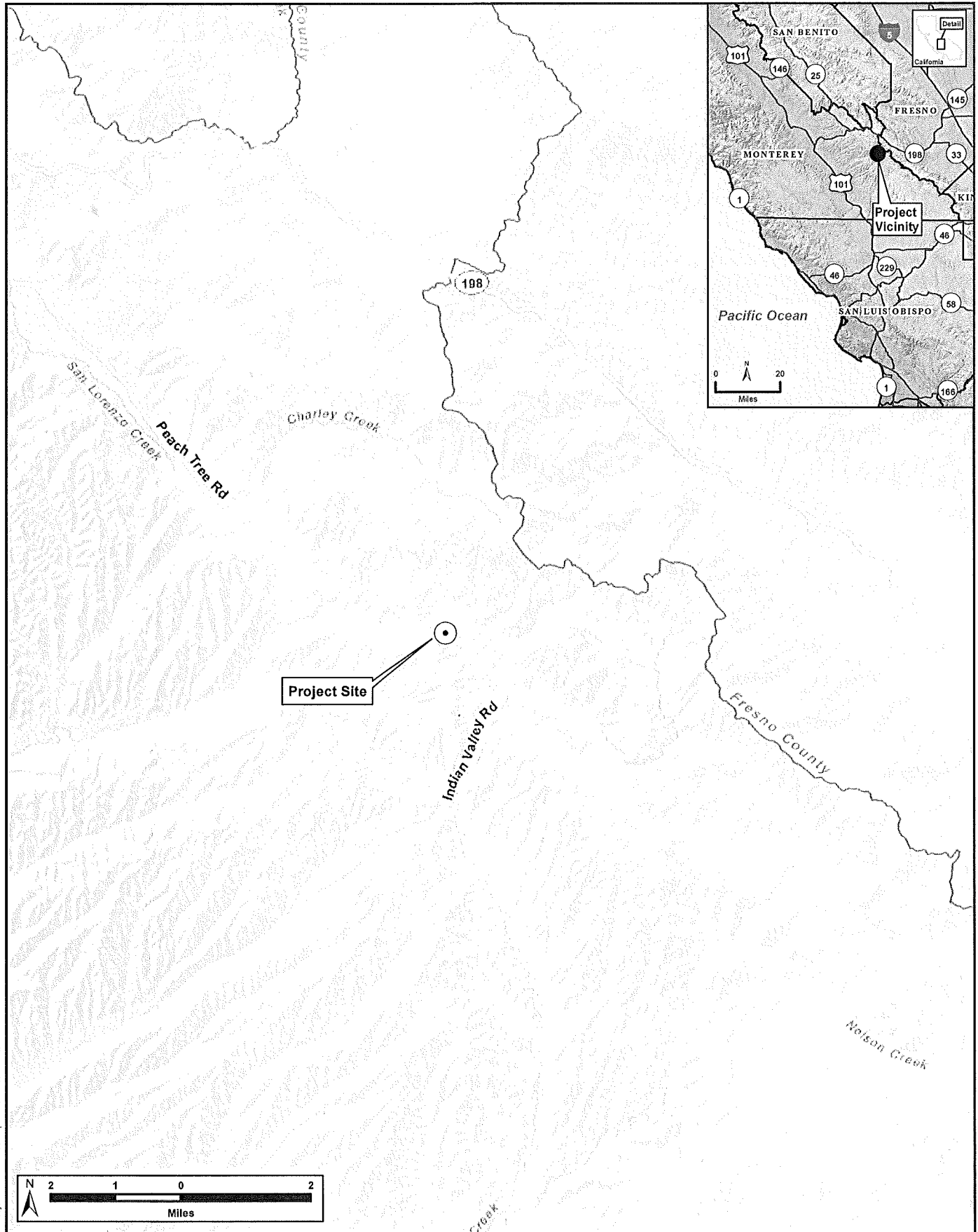
Figure 1. Site Vicinity Map 2
Figure 2. Range of California Tiger Salamander..... 4
Figure 3. CNDDDB California tiger salamander records..... 5
Figure 4. Poned areas within vicinity of Project Site..... 7

APPENDIX

APPENDIX A..... 10

INTRODUCTION

The Peachtree Road Bridge (Bridge 412) over Pancho Rico Creek is located east of San Ardo in Monterey County (Fig. 1). The approximately 0.60-acre Project site is situated within the northern portion of Slack Canyon. The Project site is located on the U. S. Geological Survey Slack Canyon Quadrangle Map (Township 21 South; Range 12 East; Section 22). We conducted a reconnaissance-level assessment for site suitability for the California tiger salamander (CTS) (*Ambystoma californiense*). The CTS assessment was prepared by Dr. Jeff Wilkinson, Senior Herpetologist, based on site observations and photos from a field visit conducted by Robin Carle, Wildlife Ecologist on 12 May 2010.



N:\Projects\1212-10\11\Reports\CTS Site Assmt



H. T. HARVEY & ASSOCIATES
 ECOLOGICAL CONSULTANTS

Figure 1: Site Vicinity Map
 Peachtree Road Bridge
 California Tiger Salamander Site Assessment (1212-11)
 October 2010

CALIFORNIA TIGER SALAMANDER SITE ASSESSMENT

The Project site was surveyed by H. T. Harvey & Associates' wildlife ecologist Robin Carle, M.S. on 12 May 2010 for its potential to serve as habitat for the CTS. The survey was conducted by walking the entire site and focused on locating potential aquatic breeding habitat (freshwater standing pools that persist 3 or more months) and potential aestivation habitat (e.g., small mammal burrows, cracks in the ground). Areas adjacent to the Project site were also assessed for CTS habitat suitability and for physical barriers that might impede CTS movement to or from the Project site. Background resources were reviewed prior to and following fieldwork. Such resources included the following:

- Aerial imagery of the Project site and adjacent lands
- U.S. Geological Survey (USGS) 7.5-minute topographic maps of the Project site and adjacent lands
- California Natural Diversity Data Base (CNDDB, September 2010)
- Patuxent Wildlife Research Center National Amphibian Atlas web page
- [USFWS] U.S. Fish and Wildlife Service. 2005. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the California Tiger Salamander, Central Population. Final Rule. Federal Register 70(162): 49380-49458.

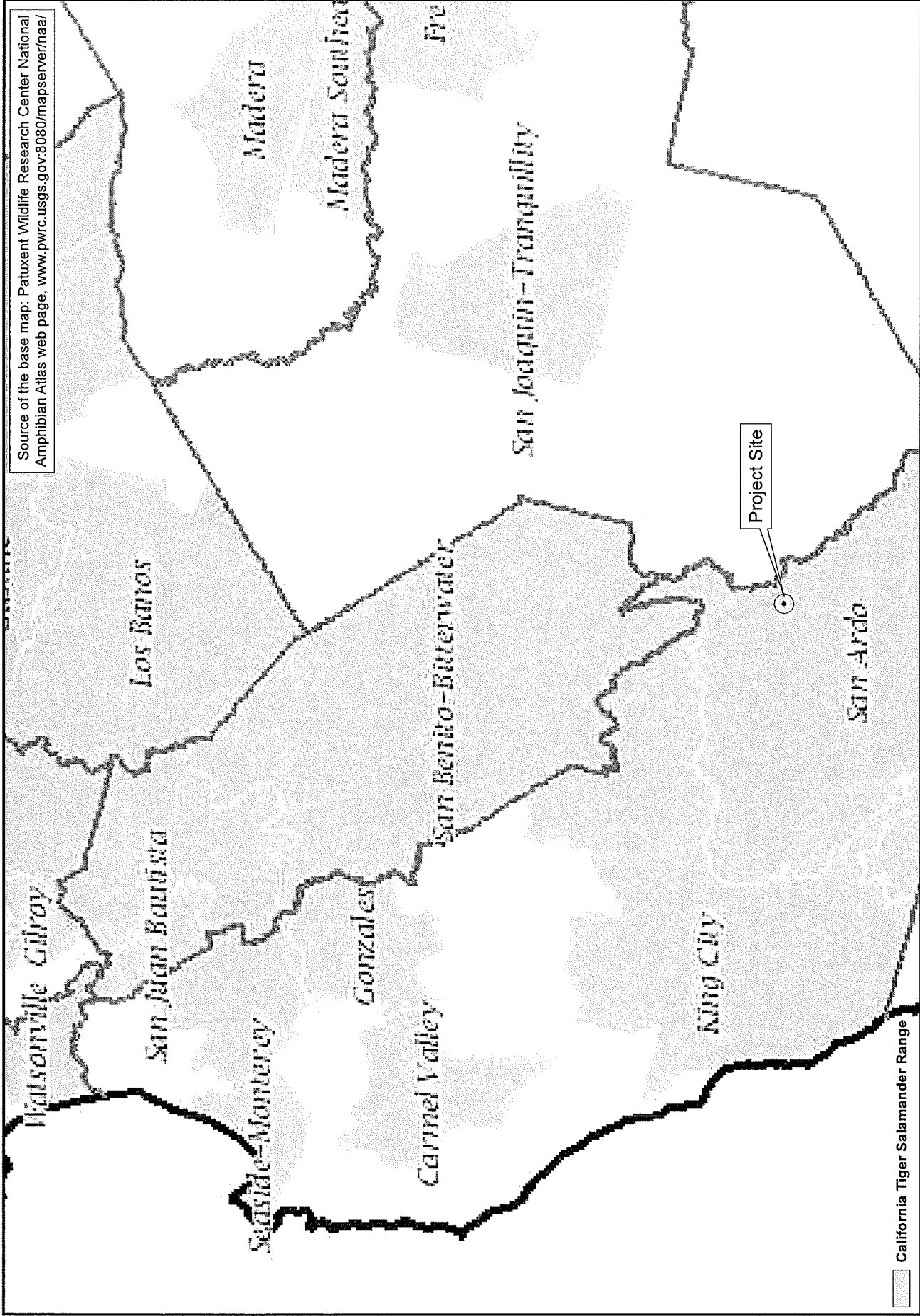
The following sections contain the information requested in the joint USFWS and California Department of Fish and Game (CDFG) site assessment protocol (USFWS and CDFG 2003).

Element 1: Is the project site within the range of the CTS?

Yes, according to Figure 2 (map taken from the Patuxent Wildlife Research Center National Amphibian Atlas web page, www.pwrc.usgs.gov:8080/mapserver/naa/) and Jennings and Hayes (1994) the project site is just within the eastern boundary of the range of the CTS within Monterey County. The project site is not within designated critical habitat for the CTS (USFWS 2005).

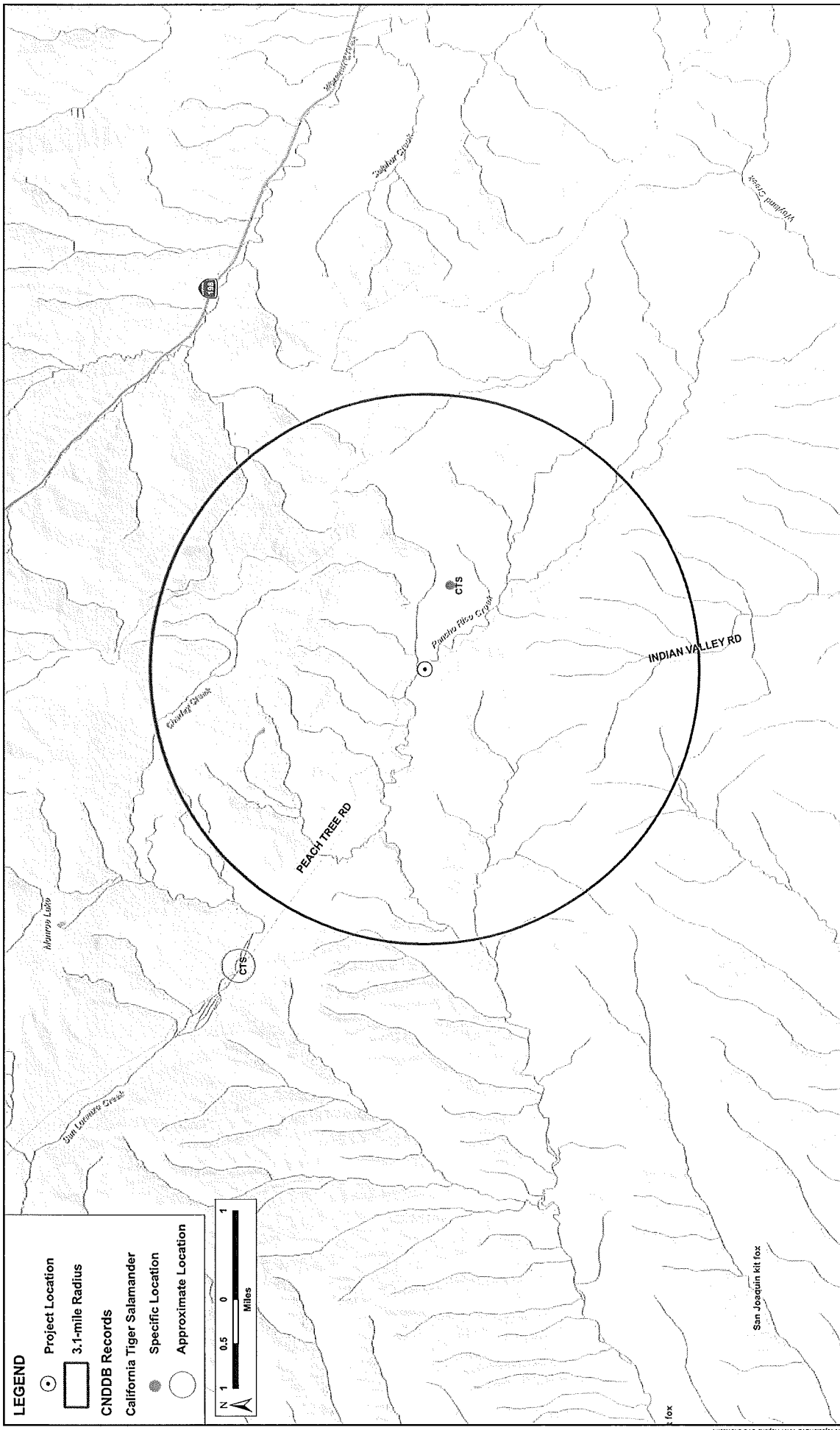
Element 2: What are the known localities of CTS within the project site and within 3.1 miles of the project boundary?

The CNDDB (2010) lists one occurrence of CTS within 3.1 miles of the project boundary (Figure 3). The occurrence (occurrence number 905) is located approximately 1.1 miles southeast of the Project site at a seasonal pool surrounded by grasslands. The occurrence record consists of an observation of a single juvenile approximately 20 feet from the dry pool in adjacent upland habitat on 15 November 2006. The occurrence is considered extant, as the pool is evident on recent Google Earth imagery.



Source of the base map: Patuxent Wildlife Research Center National Amphibian Atlas web page, www.pwrc.usgs.gov:8080/mapserver/naa/

Figure 2: Range of California Tiger Salamander
 Peachtree Road Bridge California Tiger Salamander Site Assessment (1212-11)
 October 2010



LEGEND

- Project Location
- 3.1-mile Radius
- CNDDB Records
- California Tiger Salamander
- Specific Location
- Approximate Location

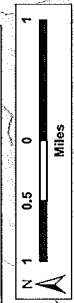


Figure 3: CNDDB Map
 Peachtree Road Bridge California Tiger Salamander Site Assessment (1212-11)
 October 2010

Element 3: What are the habitats within the project site and within 1.24 miles of the project boundaries?

No suitable breeding habitat for CTS was observed on the Project site. This species requires lentic waterbodies, such as ponds or pools not associated with flowing water, for breeding purposes and does not typically breed in creeks. The pools in Pancho Rico Creek (Appendix A, Photo 1) would be a lotic environment during the winter breeding season, and therefore would not be used by CTS. Potential aestivation habitat was observed on the Project site in the form of burrows of Botta's pocket gophers (*Thomomys bottae*) and California ground squirrels (Appendix A, Photo 2). Therefore, if a suitable breeding site is present close enough to the Project site to provide a source for CTS, there is some potential for CTS to use the Project site for aestivation and dispersal.

With respect to potential off-site aestivation habitat, Ms. Carle observed surrounding hills that were vegetated with grasses and trees, with many rocks and squirrel burrows on the substrate during the reconnaissance-level survey (Appendix A, Photo 3). No barriers to CTS movement such as roads or steep topographical features were observed surrounding the Project site. A review of aerial photographs of the area between the Project site and the nearest known occurrence of CTS to the southeast revealed no discernable barriers to movement of individuals (*i.e.*, busy roads, development, or steep topographical features).

Three standing bodies of water were observed on aerial images and topographical maps to be within approximately 1.24 miles of the project site (Figure 4). The first of these bodies of water is the vernal pool 1.1 miles southeast of the Project Site from which the CTS occurrence was documented. The second is approximately 1.16 miles east northeast of the Project Site, and the third is approximately 0.8 mile north northeast of the Project Site. A fourth is just outside of the 1.24 mile range at approximately 1.31 miles northeast of the Project Site. All of these bodies of water appear to be seasonal ponds and may provide breeding habitat for CTS, but we did not have access to these sites, so their current status and suitability as CTS breeding habitat is unknown.

Summary and conclusion

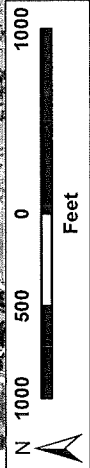
Due to the proximity of the CNDDDB-mapped occurrence, which was at a vernal pool assumed to be a breeding site for a population of CTS 1.1 miles from the project site, it is possible for CTS to disperse to the Project site, as they are known to disperse up to 1.3 miles from breeding sites (Orloff 2007). The Project site and adjacent lands provide dispersal habitat and the project site itself provides aestivation habitat for CTS. The Project site does not provide breeding habitat for CTS and there is no apparent breeding habitat within the immediate vicinity of the Project site. California tiger salamander abundance has been shown to decrease with increasing distance from a breeding pond, with few individuals dispersing 1 mile or more from the breeding pond (Trenham and Shaffer 2005). Given the lack of breeding habitat in the immediate vicinity, the relatively small size of the Project site, and the distance between the Project site and the assumed breeding site associated with the nearest occurrence, it is the opinion of H. T. Harvey &



LEGEND

○ Project Site

● Ponded Areas



Associates' herpetologist that there is a low probability of CTS presence on the Project site, though occurrence of the species cannot be ruled out.

REFERENCE

- [CNDDDB] California Natural Diversity Data Base. 2010. Rarefind. California Department of Fish and Game.
- Orloff, S. 2007. Migratory movements of California tiger salamanders in upland habitat- a five-year study. Pittsburg, California. Prepared for Bailey Estates, LCC by Ibis Environmental, Inc. May.
- Jennings, M. R. and M. P. Hayes. 1994. Amphibian and Reptile Species of Special Concern in California. Final Report Submitted to the California Department of Fish and Game Inland Fisheries Division.
- Trenham, P. C. and H. B. Shaffer. 2005. Amphibian upland habitat use and its consequences for population viability. *Ecological Applications* 15:1158-1168.
- [USFWS] U.S. Fish and Wildlife Service. 2005. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the California Tiger Salamander, Central Population. Final Rule. *Federal Register* 70(162): 49380-49458.
- [USFWS and CDFG] U.S. Fish and Wildlife Service and California Department of Fish and Game. 2003. Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander.

APPENDIX A
Photo Documentation



Photo 1. The bed of Pancho Rico Creek in the Project vicinity. Pools were present but are not stagnant during the winter breeding season and therefore not considered to be used by CTS.



Photo 2. Burrow located in the bank of Pancho Rico Creek on the northeast side of the upstream end of Bridge 412.



Photo 3. The surrounding grassland/oak savannah habitat presents no visible physical barriers to CTS dispersal.