

F. RED LEGGED FROG SITE ASSESSMENT

CALIFORNIA RED-LEGGED FROG SITE ASSESSMENT

WILLOW ROAD EXTENSION PROJECT
SAN LUIS OBISPO COUNTY, CALIFORNIA

Submitted to:

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LSA Project No. RAJ334

LSA

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MILES OF THE PROJECT SITE

INTRODUCTION

LSA Associates conducted a site assessment for the California Red-legged frog (*Rana aurora draytonii*), a federally listed threatened species, for the Willow Road Extension Project, San Luis Obispo County, California (Figure 1). The site assessment was conducted according to the United States Fish and Wildlife Service (USFWS) protocol for this species (USFWS 1997). The project site is situated within the unsectioned lands of the Nipomo Land Grant on the USGS Oceano and Nipomo 7.5 minute quads (Figure 4). This report documents the finding of the site assessment.

The San Luis Obispo County Department of Public Works is planning an extension of Willow Road, a rural roadway located north of the City of Nipomo. The proposed road extension runs from the eastern end of the existing Willow Road, across the eastern edge of the Nipomo Mesa, intersects with US 101 and continues east to Thompson Avenue. The proposed road extension will include construction of an interchange with US 101 and a bridge over Nipomo Creek. The proposed bridge site is located just east of US 101 and north of a nursery. The project site is approximately 98.35 acres in area. With the exception of the Nipomo Creek crossing the proposed project is located in dry upland areas.

METHODS

LSA conducted a general wildlife survey and habitat assessment of the project site on 17 June 2003 (0745-1730 hours). On 28 August 2003 LSA conducted a site assessment for the California red-legged frog within the proposed project area (0900-1800 hours). The site assessment focused on the proposed bridge crossing on Nipomo Creek, but the entire project site was surveyed for potential frog habitat. In addition, the area within one mile of the project site boundary was surveyed for the presence of potential California red-legged frog habitat.

The field surveys were conducted by LSA wildlife biologist Eric R. Lichtwardt. During the August survey LSA also identified, and mapped on an aerial photograph, habitat types within one mile of the proposed project boundary (bridge crossing over Nipomo Creek), see below. The August field work consisted of foot and road surveys, including walking the bed of Nipomo Creek 500 feet up and down stream of the proposed bridge crossing. The stream bed of Nipomo Creek was also walked for approximately 1000 feet upstream from the intersection of Nipomo Creek and Tefft Road (just over one mile downstream of the project site). Some inaccessible areas were surveyed from the roadside with 10X40 binoculars.

The California Natural Diversity Database (CNDDDB) was searched for records of California red-legged frogs within a five mile radius of the proposed bridge site (Figure 3).

FINDINGS

The project site is within the geographic range of the California red-legged frog (USFWS 2002, Stebbins 2003). Jennings and Hays (1994) documented numerous records for this taxon from southern San Luis Obispo County and a search of the CNDDDB indicates that there are records of the California red-legged frog from within five miles of the project site, see below.

California Red-legged Frog Records

There are nine records of the California red-legged frog from within five miles of the project site (Figure 4). These records are all from the CNDDDB and are provided in Appendix B. Five of these records are from the drainage of Los Berros Creek located to the north of Nipomo Creek (2 mile northwest of the project site). The Los Berros Creek watershed is separated from the Nipomo Valley and the headwaters of Nipomo Creek are by a low ridge supporting dry open habitats, agricultural lands, and rural development.

The nearest records downstream of the project site are within the drainage of the Santa Maria River (over 3 miles south of the project site). Two other records within 5 miles of the proposed project site are located in the drainage of Oso Flaco Creek (3.5 miles and about 5 miles respectively) southwest of the western boundary of the proposed project site. Figure 4 also depicts 7 CNDDDB records of the California red-legged frog that are greater than 5 mile from the proposed project site but provide more information on the pattern of distribution of this frog in southwestern San Luis Obispo County.

To the best of our knowledge there are no recent or historical records of the California red-legged frog from the drainage of Nipomo Creek. However, whether this is due to the lack of surveys for this species in the Nipomo Creek drainage or various ecological factors is unknown.

Habitat Types and Land Uses

The habitat types and land uses that are present within the boundaries of the project site are mapped in Figure 2 and are described below. Figure 2 and the accompanying habitat descriptions were compiled for the project EIR/EIS by LSA biologist Micaele Maddison and are included in this report so as to be consistent with these documents.

Habitat Types and Land Uses Within the Project Area. The total study area, which is 98.35 acres, supports eleven basic habitat types (Figure 2). Due to various ongoing disturbances within the study area, these habitat types are further distinguished by mixed, ecotones, and, if the habitat is currently disturbed. The dominant basic plant communities within the study area are developed areas (such as roads) and Oak woodland. Other plant communities present within the study area include annual grassland, maritime chaparral, ruderal herbaceous, agriculture, coastal sage scrub, freshwater marsh, willow riparian, eucalyptus groves, and ornamental landscaping.

The only habitats within or adjacent to the project site that have potential for California red-legged frogs are freshwater marsh and willow riparian woodland at the proposed project bridge site on Nipomo Creek. These wetland habitats total 0.16 acre in area and do not support habitat features considered important for California red-legged frogs (e.g. deep pools). The nomenclature for natural habitat types generally follows Holland (1986).

Developed (17.84 Acres). This habitat consists of the existing paved and graded dirt roads throughout the project area.

Oak Woodland (14.69 Acres). This habitat type, which occurs in the southwest corner of the proposed Willow Road and US 101 interchange, is dominated by a dense coast live oak (*Quercus agrifolia*) canopy. There are scattered native shrubs such as coast ceanothus (*Ceanothus cuneatus* var. *fascicularis*), Nipomo ceanothus (*Ceanothus impressus* var. *nipomensis*), California coffee berry (*Rhamnus californica* ssp. *californica*), and poison oak (*Toxicodendron diversilobum*). The understory is typically annual grassland or ruderal with wild oat (*Avena* sp.), long-beaked filaree (*Erodium botrys*), and telegraph weed (*Heterotheca grandiflora*) and California croton (*Croton californicus*). Although this habitat has been used for grazing, there are many oak propagules (seedlings) present.

Disturbed Oak Savannah (1.38 Acres). This habitat, which occurs on the northwest corner of Willow road and Hetrick Avenue, appears to be the result of constant land management by landowners to deter the shrub understory beneath the coastal live oak canopy. Understory species such as chamise (*Adenostoma fasciculatum*), and poison oak are continually being sprayed or mechanically removed and annual grasses are being mowed and/or disced. The non native grasses species include veldtgrass (*Ehrharta calycina*), foxtail chess (*Bromus madritensis*), and some scattered ruderal forbs such as long-beaked filaree, field mustard (*Brassica rapa*), and telegraph weed.

Annual Grassland (11.09 Acres). This habitat type, which occurred adjacent to the US 101, is dominated by the non native grass, veldtgrass with some scattered ruderal herbaceous species such as telegraph weed, common catchfly (*Silene gallica*), and Douglas' annual lupine (*Lupinus nanus*).

Disturbed Annual Grassland (11.09 Acres). This habitat type is similar to the annual grassland above, except it is subject to ongoing disturbances such as grazing activities, mowing, as well as, discing. This habitat type is dominated by ripgut grass and veldtgrass, with some scattered natives such as Douglas' nightshade (*Solanum douglasii*) and coastal deerweed (*Lotus scoparius*). Other subdominant species within this habitat are smooth cat's ear (*Hypochaeris glabra*), rough cat's ear (*Hypochaeris radicata*), telegraph weed and long-beaked filaree.

Maritime Chaparral (0.35 Acre). There is a small area of this habitat type west of the Willow Road and Hetrick Avenue intersection which has not been subject to much disturbance. This area is dominated by coast ceanothus and Nipomo ceanothus. Other subdominants include black sage (*Salvia mellifera*), bush monkey flower (*Mimulus aurantiacus*), chamise, poison oak, coyote bush (*Baccharis pilularis*), Douglas' nightshade and chaparral nightshade (*Solanum xantii* var. *obispoense*). Herbaceous understory species include narrow-leaved spineflower (*Chorizanthe angusifolia*), California everlasting (*Gnaphalium californicum*) and milkweed (*Asclepias* sp.).

Annual Grassland/Maritime Chaparral Ecotone (2.65 Acres). Due to previous, as well as ongoing disturbances, such as fire and discing, within this area, this transitional habitat is a mixture of annual grassland and maritime chaparral. This habitat type is located on the northwest corner of the Willow and Pomeroy Road intersection. After time, the habitat will most likely revert to maritime chaparral.

Mixed Oak Woodland/Maritime Chaparral (0.56 Acres). This habitat type is a mixture of Coast live oak canopy and maritime chaparral species, which include chamise, Nipomo ceanothus, black sage, and bush monkey flower. There are two patches of this habitat type west of the Willow Road and Hetrick Avenue intersection. Herbaceous species such as tarweed (*hemizonia* sp.), cryptantha (*Cryptantha* sp.), wedge-leaved horkelia (*Horkelia cuneata* ssp. *cuneata*), California everlasting, narrow-leaved spinedflower, hooked navarretia (*Navarretia hamata*) and chaparral nightshade are scattered throughout the understory.

Disturbed Oak Woodland/Maritime Chaparral Ecotone (4.93 Acres). This habitat is located on either side of the US 101 within the north portion of the proposed interchange. This transitional habitat appears to be the result of previous and ongoing disturbances such as livestock grazing and discing. This habitat would most likely revert to maritime chaparral. Beneath the sparsely scattered coast live oak trees, this habitat has a predominance, of non native grasses which include, veldtgrass and wild oat. However, there are some scattered patches of scrub with bush monkey flower, black sage and California buckwheat (*Eriogonum fasciculatum*). In addition, there is a subdominant component of chaparral species, which include, coffeeberry, coast ceanothus, Nipomo ceanothus, and poison oak, all of which may give way to Maritime chaparral.

Ruderal Herbaceous (2.25 Acres). This habitat type is intermixed with components of ruderal vegetation and non native grasses and occurs west of the US 101, south of the proposed Willow Road alignment, within the proposed frontage road alignment. This habitat type is dominated by wildoat and ripgut grass (*Bromus diandrus*), and long-beaked filaree. Scattered occurrences of Douglas' annual lupine, as well as other non natives typically used for cattle grazing, also occur within this habitat type. The plants within this habitat type are typically nonnative, invasive annual species, and their occurrence is not necessarily limited to the ruderal habitat type, but they may occur scattered within the other habitat types within the study area. In addition, within this habitat are large populations of California spineflower. Overall, the occurrence of this species is patchy throughout the field. However, this species is very common at this location and could be considered a subdominant species. The density of this species in this field was documented within the DEIR "after the hay crop had been mowed, and the field left fallow, [this area] supported large patches of California spineflower that were conspicuous from the US 101 as extensive pink patches in the mowed field." Other common species in this area include telegraph weed, California croton, common catchfly and veldtgrass.

Disturbed Ruderal (0.25 Acre). This habitat type, which is within and adjacent to Nipomo Creek, is currently used for livestock grazing (Figure 5). The dominant species are sweet fennel (*Foeniculum vulgare*), bristly ox-tongue (*Picris echioides*), and field mustard with some annual grasses such as Italian ryegrass (*Lolium multiflorum*) and beardless wild-rye (*Elymus triticoides*).

Mixed Annual Grassland/Ruderal (13.82 Acres). Extensive livestock grazing in this area has produced this mixed habitat type in the field on the northeast corner of Willow Road and Hetrick Avenue. Dominant species within this habitat are long-beaked filaree, wildoat, and veldtgrass. Other species present in this habitat type are doveweed (*Eremocarpus setigerus*), telegraph weed, slender eriogonum (*Eriogonum gracile* var. *gracile*), ripgut grass, foxtail fescue (*Vulpia myuros*), and coastal deerweed.

Agriculture (2.48 Acres). The eastern most portion of the proposed alignment is either active or fallow agricultural fields, which are dominated by agricultural crops, ruderal forbs and non native grasses.

Coastal Sage Scrub/Annual Grassland Ecotone (3.62 Acres). This habitat occurs on the northeast corner of Willow Road and Hetrick Avenue in a field used for livestock grazing. The coastal sage scrub components within this habitat type are California sagebrush (*Artemisia californica*), mock heather (*Ericameria ericoides*), pinebush (*Ericameria pinifolia*) and coastal deerweed. The annual grassland components include veldtgrass, foxtail chess, and wildoat. Ruderal species, such as long-beaked filaree, telegraph weed, California croton, common catchfly, California filago (*Filago californica*), and field mustard also occur within this habitat type.

Freshwater Marsh (0.11 Acre). This habitat type occurs west of Nipomo Creek, east of the US 101, and was dominated by herbaceous cover, annual grasses and some ruderal forbs. There are also stands just down stream of the proposed project bridge crossing (Figure 6, Site Photo 4). The hydrophytic vegetation included beardless wild-rye, common toad rush (*Juncus bufonius*), narrow-leaved cat-tail (*Typha angustifolia*), rabbitfoot grass (*Polypogon monspelienses*), and California dock (*Rumex salicifolius*). This habitat type appears to be, at least partially, supported by irrigation run off from the adjacent plant nursery. Although separated from Nipomo Creek by a small berm, the berm has been trampled extensively by cattle grazing activities so that the water from the freshwater marsh would flow into Nipomo Creek.

Willow Riparian Woodland (0.05 Acre). The willow riparian habitat within the study area occurs to the west side of the freshwater marsh associated with Nipomo Creek (Figure 5, Site Photo 1). It appears that this habitat type, as with the freshwater marsh, is supported, at least partially, by irrigation runoff from the adjacent nursery. Mature arroyo willow (*Salix lasiolepis*) form a dense, closed overstory. Understory species include iris-leaved rush (*Juncus xiphiodes*), poison hemlock (*Conium maculatum*), Bermuda buttercup (*Oxalis pes-caprae*), Italian ryegrass, bristly ox-tongue and rabbit foot grass. Cattle have created a few animal trails throughout this habitat. Surface water in this area is limited. Just downstream (approximately 100 feet) of the project boundary are areas with a mucky substrate and a thin sheet of surface water (Figure 6, Site Photo 3).

Eucalyptus Grove (6.20 Acres). This habitat type is composed of stands of blue gum (*Eucalyptus globulus*.) and is typically located along roadways and property lines throughout the project area. There are scattered occurrences of some non native ruderal vegetation such as veldtgrass and California burclover (*Medicago polymorpha*) within this habitat.

Ornamental Landscaping (0.43 Acre). This habitat type is located in the westernmost portion of the proposed willow road alignment. This area is mulched and planted with ornamental species used for landscaping.

Habitat Types and Land Uses Within a One Mile Radius of the Project Site. The habitat types and land use types present within one mile of the proposed project site (bridge crossing over Nipomo Creek) are presented in Figure 3. The habitats mapped in Figure 3 are more generalized (i.e. similar habitat types from Figure 2 are lumped) than those mapped within the project site boundaries. The level of detail provided in Figure 2 was not possible for the broader area around the project site (i.e. within 1 mile of the proposed bridge site) due to time constants and lack of access. Therefore the habitat and land use types in Figure 3 were identified primarily from aerial photographs and what could be surveyed from public roads.

The habitats surrounding the project site were mapped within an area extending one mile from the proposed bridge crossing over Nipomo Creek, not one mile from the entire project site boundary. The proposed bridge crossing was used as the center for the one mile area surrounding the project site for the following reasons; 1) aerial photographs covering the area extending one mile from the entire project boundary were unavailable for this project, 2) the only potentially suitable habitat for the California red-legged frog on the project site is at the proposed bridge crossing over Nipomo Creek, and 3) Nipomo Creek is the only important aquatic habitat within one mile of the project site and is included within the area mapped (Figure 3).

Oak Woodlands, Chaparral, and Scrub. This generalized habitat includes maritime chaparral, mixed maritime chaparral/oak woodland, oak woodland, disturbed oak savannah, disturbed oak woodland/maritime chaparral ecotone. See above discussion for details of these habitats types. Most of the oak woodlands, chaparral, and scrub habitats within one mile of the project site have been disturbed to some extent by cattle or human activity.

Developed Areas and Roads. This habitat category includes paved and dirt, roads, parking lots, buildings, and other developed lands. Numerous roads are present within one mile of the project site.

Eucalyptus. See above. Groves of blue gum form prominent stands in several areas and scattered trees of this species occur throughout the area within one mile of the project site.

Pond. The pond located west of the project site (Figure 3) is situated within open agricultural lands. This pond was not accessible during the field work so the suitability of this pond as habitat for the California red-legged frog is unknown.

Willow Riparian/freshwater Marsh. These habitats are described above. In the area within one mile of the project site this habitat is restricted to the drainage of Nipomo Creek downstream of the proposed bridge crossing (Figure 6). Upstream of the proposed bridge crossing there was no surface water present during the field surveys and the stream bed lacked riparian vegetation. Upstream of the project site the vegetation was similar to that depicted in Figure 5, see below. Downstream of the project site most of the stream bed of Nipomo Creek was not accessible, however, several isolated pools were located in the creek bed just over one mile downstream of the proposed bridge crossing. These pools though small (approximately 3-5 X 2-3 feet wide and 0.5-3 feet deep) could potentially provide habitat of California red-legged frogs, however, no frogs were seen in these pools.

Annual Grassland/Disturbed/Ruderal. This habitat category includes annual and disturbed annual grassland, ruderal herbaceous, disturbed ruderal, mixed annual grassland/ruderal, coastal sage scrub/annual grassland ecotone. The bed of Nipomo Creek, upstream of the proposed project bridge crossing, supports this type of habitat (Figure 5, Site Photo 2). In this area the stream bed has been highly impacted by cattle and no surface water is present.

Agricultural/ornamental Landscaping. This category includes agricultural land use and ornamental planting (see above). Ornamental plants are generally associated with human dwelling, however, scattered individuals of ornamental trees and shrubs can be found in riparian area downstream of the project site.

SUMMARY

Suitable habitat for the California red-legged frog, within one mile of the project site, appears to be very limited. Most of the landscape within one mile of the project site supports dry upland habitats and agricultural land uses with scattered residential development and associated disturbed areas. The area west of the Nipomo Creek drainage consists of old dune deposits and is very well drained. This area appears to support little if any wetland habitat. Downstream of the project site, along Nipomo Creek, there is extensive willow riparian habitat (Figure 6), however, in areas where the stream bed was accessible, there was little surface water present, with the exception of the two small pools discussed above.

Just downstream of the project site, under a willow canopy, the stream bed was wet in places with a mucky substrate under a thin sheet of standing surface water, however, no pools were present in this area and there appeared to be little surface flow (Figure 6, Site Photo 3). Between the closed canopy clumps of willows in the drainage there were dense stands of cattails (Figure 6, Site Photo 4). The surface water that was present in this area appeared to be due primarily to runoff from the adjacent nursery.

During periods of wet weather California red-legged frogs could potentially move into the project site, at the proposed bridge crossing, if populations are present in Nipomo Creek downstream of the project site. However, there is not any suitable habitat to support breeding populations of this frog on or adjacent to the project site.

LITERATURE CITED

Holland, R. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Non-game Heritage Program, California Department of Fish and Game.

Jennings, M. R., and M. P. Hayes. 1994. Amphibians and Reptile Species of Special Concern in California. Final Report submitted to the California Department of Fish and Game, Inland Fisheries Division. Contract Number 8023

Stebbins R. C. 2003. *A Field Guide to Western Reptiles and Amphibians*, 3rd ed. Houghton Mifflin Company, Boston.

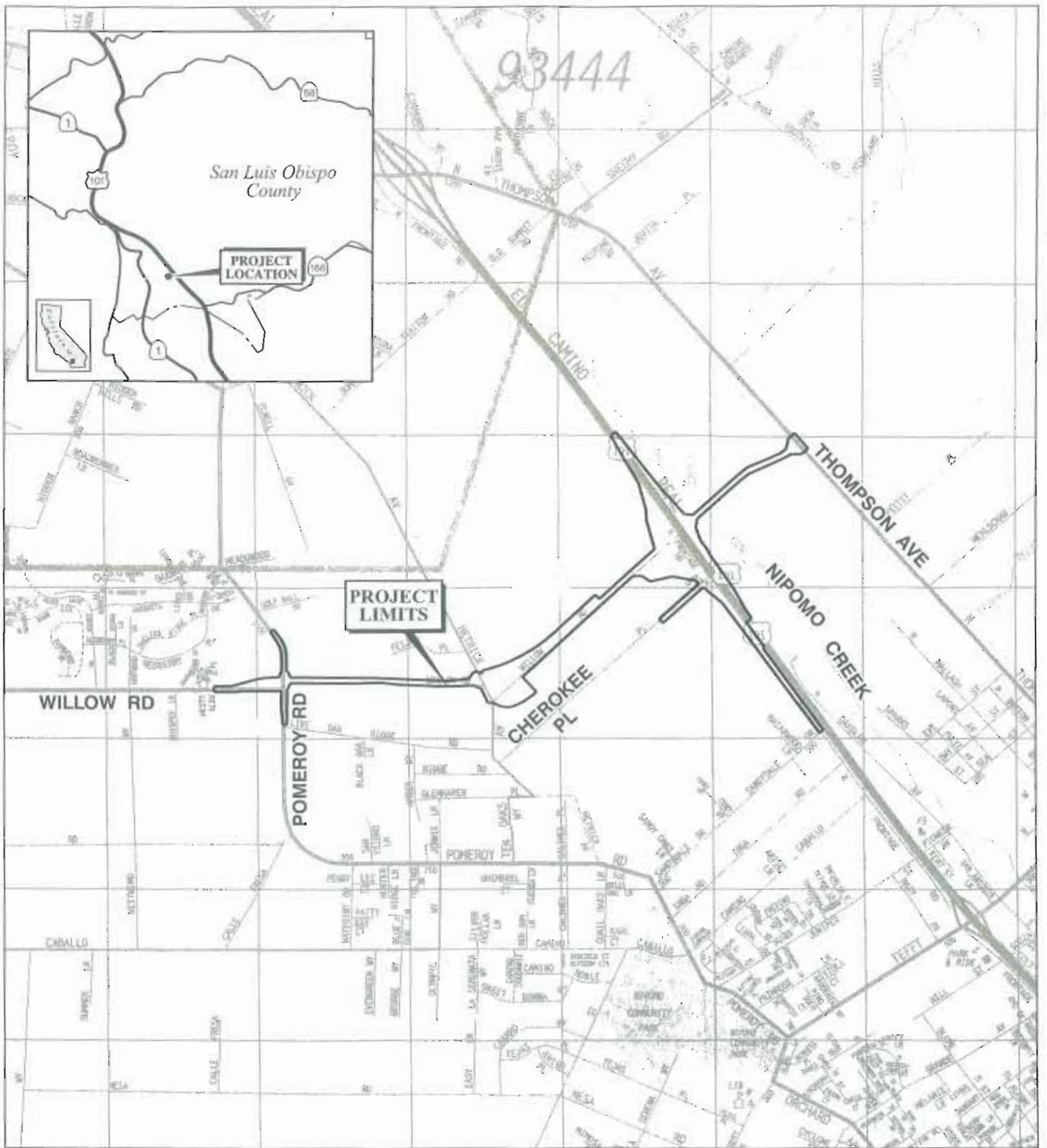
USFWS 1997. Guidance on Site Assessment and Field Surveys for the California Red-legged Frog (*Rana aurora draytonii*). United States Fish and Wildlife Service.

U.S. Fish and Wildlife Service. 2002. Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*) U.S. Fish and Wildlife Service, Portland, Oregon.

APPENDIX A

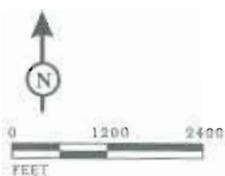
FIGURES

- Figure 1: Project Location
- Figure 2: Habitat Types and Land Use Within the Project Site
- Figure 3: Habitat Types Within One Mile of the Project Site (Proposed Bridge Crossing)
- Figure 4: California red-legged Frog Records Within 5 Miles of the Project Site
- Figure 5: Riparian Area on and Adjacent to Project Site - Nipomo Creek
- Figure 5: Site Photo 1
- Figure 5: Site Photo 2
- Figure 6: Riparian Area Downstream of Project Site - Nipomo Creek
- Figure 6a: Site Photo 3
- Figure 6b: Site Photo 4



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FIGURE I



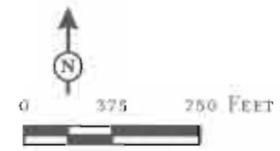
SOURCE: THE THOMAS GUIDE

Willow Road Extension/U.S. 101 Interchange
Project Location



FIGURE 2

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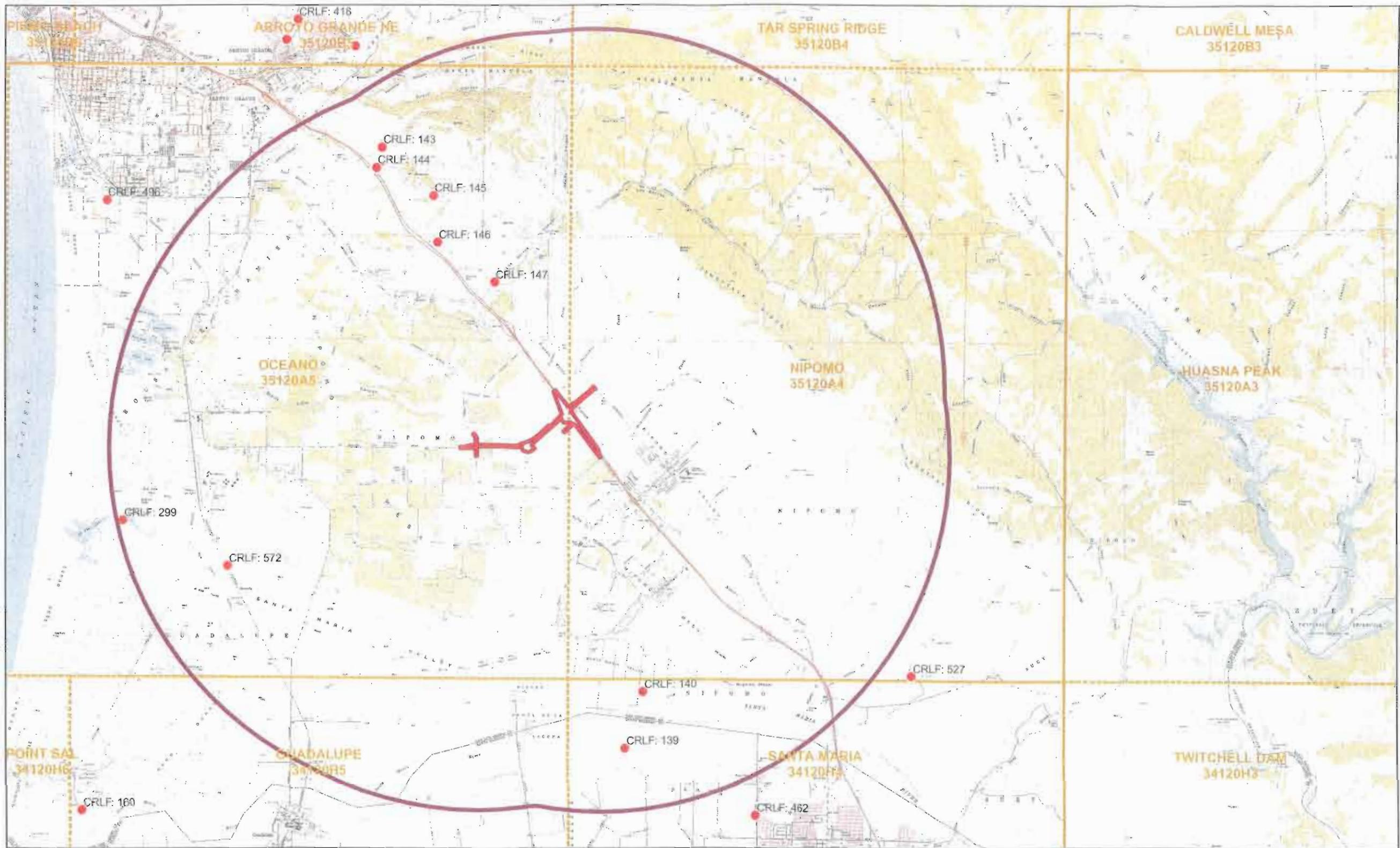


LEGEND

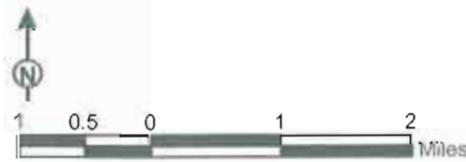
Project Boundary	AG/MC ecotone	Annual Grassland (AG)	Eucalyptus Grove	Mixed OW/MC	Oak Woodland (OW)	Ruderal Herbaceous
Disturbed Vegetation	AG/Ruderal	CSS/AG ecotone	Freshwater Marsh	OW/MC ecotone	Ornamental Landscaping	Willow Riparian
Agriculture (Crops)	Developed Areas	Maritime Chaparral (MC)	Oak Savannah	Ruderal		

SOURCE: County of San Luis Obispo, I:\RA\334\gis\Fig2_vegmap.mxd (6/7/05)

Willow Road Extension/U.S. 101 Interchange Project
Vegetation Communities



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- CNDDDB RED-LEGGED FROG RECORDS
- PROPOSED PROJECT SITE
- QUADRANGLE DIVIDING LINES
- 5 MILES FROM PROPOSED PROJECT SITE

FIGURE 4
WILLOW ROAD EXTENSION
CALIFORNIA RED-LEGGED FROG RECORDS
WITHIN 5 MILES OF PROJECT SITE BOUNDARY



Site Photo 1: Nipomo Creek at proposed project bridge crossing.



Site Photo 2: Nipomo Creek at proposed project bridge crossing.

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FIGURE 5

Willow Road Extension/U.S. 101 Interchange
Riparian Area on and Adjacent to Project Site
Nipomo Creek



Site Photo 3: Riparian understory, Nipomo Creek approximately 50 feet south of project.



Site Photo 4: Willow woodland and fresh water marsh, Nipomo Creek approximately 500 feet downstream of project site.

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FIGURE 6

Willow Road Extension/U.S. 101 Interchange
Riparian Area Downstream of Project Site
Nipomo Creek

APPENDIX B

CNDDDB RECORDS OF CALIFORNIA RED-LEGGED FROGS WITHIN 5 MILES OF PROJECT SITE

California Department of Fish and Game
Natural Diversity Data Base

CRLF records within 5 miles of Willow Road Extension Project

Rana aurora draytonii (cont.)
California red-legged frog

Element Code: AAABH01022

_____Status_____	_____NDDDB Element Ranks_____	_____Other Lists_____
Federal: Threatened	Global: G4T2T3	CDFG Status: SC
State: None	State: S2S3	

_____Habitat Associations_____

General: LOWLANDS & FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.
Micro: REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Occurrence No. 299 Map Index: 41130
Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: CARPANZANO, C. 1998 (OBS)

_____Dates Last Seen_____
Element: 1998-05-30
Site: 1998-05-30

Quad Summary: OCEANO (3512015/221D)
County Summary: SAN LUIS OBISPO
SNA Summary:

Location: SW END OF LITTLE OSO FLACO LAKE, PISMO DUNES STATE VEHICULAR RECREATION AREA.

Lat/Long: 35°01'55" / 120°36'42"	Township: 11N
UTM: Zone-10 N3879014 E717857	Range: 35W
Mapping Precision: SPECIFIC	Section: 18 Qtr XX
Symbol Type: POINT	Meridian: S
Radius: 80 meters	Elevation: 20 ft

_____Comments_____

Distribution:

Ecological: HABITAT CONSISTS OF DUNE SWALES, DOMINATED BY JUNCUS, TULE, AND POISON OAK. SUBSTRATE IS SAND ON A LOW SLOPE. ADJACENT UPLANDS ARE COMPRISED OF DUNE SCRUB.

Threat:

General: 1 ADULT OBSERVED ON 30 MAY 1998.
Owner/Manager: DPR-PISMO DUNES SVRA

_____Source Codes_____

CAR98F11

California Department of Fish and Game
Natural Diversity Data Base

CRLF records within 5 miles of Willow Road Extension Project

<i>Rana aurora draytonii</i> California red-legged frog		Element Code: AAABH01022
Status	NDDB Element Ranks	Other Lists
Federal: Threatened State: None	Global: G4T2T3 State: S2S3	CDFG Status: SC
Habitat Associations		
General: LOWLANDS & FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.		
Micro: REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.		

Occurrence No. 139 Map Index: 33289 ~~Dates Last Seen~~
Occ Rank: Fair Element: 1995-04-01
Origin: Natural/Native occurrence Site: 1995-04-01
Presence: Presumed Extant
Trend: Unknown
Main Source: MULLEN, E. 1995 (OBS)

Quad Summary: SANTA MARIA (3412084/195B)
County Summary: SANTA BARBARA
SNA Summary:

Location: SANTA MARIA RIVER, APPROX 3 MILES WEST (DOWNSTREAM) OF THE HWY 101 RIVER CROSSING, NW OF SANTA MARIA.

Lat/Long: 34°59'10" / 120°29'08"	Township: 11N
UTM: Zone-10 N3874178 E729515	Range: 34W
Mapping Precision: SPECIFIC	Section: XX Qtr XX
Symbol Type: POINT	Meridian: S
Radius: 80 meters	Elevation: 155 ft

~~Comments~~
Distribution:
Ecological: HABITAT CONSISTS OF RIPARIAN DOMINATED BY WILLOW, WITH A STEADY WATER FLOW MAINLY DUE TO IRRIGATION RETURN; SURROUNDED BY OPEN GRASSLAND AND AGRICULTURE. CHANNEL IS 75 FEET WIDE. RED-LEGGED FROG IS ALSO FOUND HERE.
Threat: THREATENED BY IRRIGATION RUNOFF OF FERTILIZERS AND PESTICIDES INTO THE SANTA MARIA RIVER.
General: 3 ADULTS OBSERVED ON 1 APRIL 1995.
Owner/Manager: UNKNOWN

~~Source Codes~~
MUL95F09

California Department of Fish and Game
Natural Diversity Data Base

CRLF records within 5 miles of Willow Road Extension Project

Rana aurora draytonii (cont.)
California red-legged frog

Element Code: AAABH01022

_____Status_____	_____NDDB Element Ranks_____	_____Other Lists_____
Federal: Threatened	Global: G4T2T3	CDFG Status: SC
State: None	State: S2S3	

_____Habitat Associations_____

General: LOWLANDS & FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.

Micro: REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Occurrence No. 140	Map Index: 33290	_____Dates Last Seen_____
Occ Rank: Poor		Element: 1995-07-27
Origin: Natural/Native occurrence		Site: 1995-07-27
Presence: Presumed Extant		
Trend: Unknown		
Main Source: MULLEN, E. 1995 (OBS)		

Quad Summary: SANTA MARIA (3412084/195B)
County Summary: SAN LUIS OBISPO
SNA Summary:

Location: 0.5 MILE NORTH OF THE SANTA MARIA RIVER CHANNEL AND 2.7 MILES WEST OF HWY 101, NW OF SANTA MARIA.

Lat/Long: 34°59'51" / 120°28'52"	Township: 11N
UTM: Zone-10 N3875468 E729891	Range: 34W
Mapping Precision: SPECIFIC	Section: XX Qtr XX
Symbol Type: POINT	Meridian: S
Radius: 80 meters	Elevation: 160 ft

_____Comments_____

Distribution: POOL IS LOCATED APPROX 2750 FEET SOUTH OF RIVERSIDE DRIVE AND NIPOMO OSO FLACO ROAD INTERSECTION.

Ecological: HABITAT CONSISTS OF A FARM POND SURROUNDED BY AGRICULTURAL FIELDS; POOL CONTAINS MINIMAL AQUATIC VEGETATION (MOSS AND REEDS).

Threat: POSSIBLE THREATS INCLUDE POOL DRAINING, PRESENCE OF EXOTIC KOI FISH, AND REMOVAL OF SPARSE VEGETATION.

General: 1 ADULT OBSERVED ON 27 JULY 1995.

Owner/Manager: UNKNOWN

_____Source Codes_____

MUL95F10

California Department of Fish and Game
Natural Diversity Data Base

CRLF records within 5 miles of Willow Road Extension Project

Rana aurora draytonii (cont.)
California red-legged frog

Element Code: AAABH01022

_____Status_____	_____NDDB Element Ranks_____	_____Other Lists_____
Federal: Threatened	Global: G4T2T3	CDFG Status: SC
State: None	State: S2S3	

_____Habitat Associations_____

General: LOWLANDS & FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.

Micro: REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Occurrence No. 143	Map Index: 33293	_____Dates Last Seen_____
Occ Rank: Fair		Element: 1995-02-27
Origin: Natural/Native occurrence		Site: 1995-02-27
Presence: Presumed Extant		
Trend: Unknown		
Main Source: POPE, K. 1995 (OBS)		

Quad Summary: OCEANO (3512015/221D)
County Summary: SAN LUIS OBISPO
SNA Summary:

Location: UNNAMED DRAINAGE, 0.5 MILE EAST OF HWY 101, 2 MILES SE OF ARROYO GRANDE.

Lat/Long: 35°06'31" / 120°32'52"	Township: 32S
UTM: Zone-10 N3887635 E723510	Range: 13E
Mapping Precision: SPECIFIC	Section: XX Qtr XX
Symbol Type: POINT	Meridian: M
Radius: 80 meters	Elevation: 325 ft

_____Comments_____

Distribution:

Ecological: CREEK IS SURROUNDED BY OAK WOODLAND AND WILLOW RIPARIAN; WILLOW RIPARIAN IS BORDERED BY GRAZED, NON-NATIVE GRASSLAND. CREEK STILL HAD FLOWING WATER THROUGH THE END OF JULY. CHANNEL IS 3 FT WIDE & ~10-20 INCHES DEEP.

Threat: POSSIBLE THREAT FROM GRAZING.

General: 3 JUVENILE FROGS OBSERVED ON 27 FEBRUARY 1995.

Owner/Manager: UNKNOWN

_____Source Codes_____

California Department of Fish and Game
Natural Diversity Data Base

CRLF records within 5 miles of Willow Road Extension Project

Rana aurora draytonii (cont.) California red-legged frog		Element Code: AAABH01022
Status	NDDB Element Ranks	Other Lists
Federal: Threatened State: None	Global: G4T2T3 State: S2S3	CDFG Status: SC
Habitat Associations		
General: LOWLANDS & FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.		
Micro: REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.		

Occurrence No. 144 Map Index: 33294 ~~Dates Last Seen~~
Occ Rank: Poor Element: 1995-03-28
Origin: Natural/Native occurrence Site: 1995-03-28
Presence: Presumed Extant
Trend: Unknown
Main Source: MULLEN, E. 1995 (OBS)

Quad Summary: OCEANO (3512015/221D)
County Summary: SAN LUIS OBISPO
SNA Summary:

Location: OLD GRAVEL PIT, JUST EAST OF HWY 101 AND WEST OF PICACHO, 2 MILES SE OF ARROYO GRANDE.

Lat/Long: 35°06'16" / 120°32'57"	Township: 32S
UTM: Zone-10 N3887176 E723397	Range: 13E
Mapping Precision: SPECIFIC	Section: XX Qtr XX
Symbol Type: POINT	Meridian: M
Radius: 80 meters	Elevation: 350 ft

~~Comments~~
Distribution:
Ecological: HABITAT CONSISTS OF AN OLD GRAVEL PIT (3-1/2 FEET DEEP), WITH LITTLE AQUATIC VEGETATION; SURROUNDED BY OPEN, NON-NATIVE GRASSLAND.
Threat: POSSIBLE THREAT FROM GRAZING.
General: 1 ADULT OBSERVED ON 28 MARCH 1995.
Owner/Manager: UNKNOWN

~~Source Codes~~
MUL95F16

California Department of Fish and Game
Natural Diversity Data Base

CRLF records within 5 miles of Willow Road Extension Project

Rana aurora draytonii (cont.)
California red-legged frog

Element Code: AAABH01022

Status	NDDB Element Ranks	Other Lists
Federal: Threatened	Global: G4T2T3	CDFG Status: SC
State: None	State: S2S3	

Habitat Associations

General: LOWLANDS & FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.

Micro: REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Occurrence No. 145 Map Index: 33295
Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: MULLEN, E. 1995 (OBS)

—Dates Last Seen—
Element: 1995-07-27
Site: 1995-07-27

Quad Summary: OCEANO (3512015/221D)
County Summary: SAN LUIS OBISPO
SNA Summary:

Location: UNNAMED DRAINAGE JUST SOUTH OF PICACHO, 0.6 MILE EAST OF HWY 101, SE OF ARROYO GRANDE.

Lat/Long: 35°05'56" / 120°32'05"	Township: 32S
UTM: Zone-10 N3886591 E724725	Range: 13E
Mapping Precision: SPECIFIC	Section: 36 Qtr NW
Symbol Type: POINT	Meridian: M
Radius: 80 meters	Elevation: 350 ft

Comments

Distribution: POOL IS APPROXIMATELY 100 FEET X 200 FEET.

Ecological: HABITAT CONSISTS OF A FARM POND WITH ABUNDANT VEGETATION (TYPHA SP AND JUNCUS SP). OAK WOODLAND AND WILLOW RIPARIAN ARE FOUND UPSTREAM AND DOWNSTREAM OF POOL.

Threat: THREATENED BY GRAZING; COWS WERE OBSERVED STANDING IN THE POOL.

General: 6 ADULTS AND 4 JUVENILES WERE OBSERVED ON 27 JULY 1995.

Owner/Manager: UNKNOWN

Source Codes

MUL95F15

California Department of Fish and Game
Natural Diversity Data Base

CRLF records within 5 miles of Willow Road Extension Project

Rana aurora draytonii (cont.)
California red-legged frog

Element Code: AABH01022

Status	NDDB Element Ranks	Other Lists
Federal: Threatened State: None	Global: G4T2T3 State: S2S3	CDFG Status: SC

Habitat Associations

General: LOWLANDS & FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.
Micro: REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Occurrence No. 146	Map Index: 33269	Dates Last Seen—
Occ Rank: Fair		Element: 1995-02-27
Origin: Natural/Native occurrence		Site: 1995-02-27
Presence: Presumed Extant		
Trend: Unknown		
Main Source: POPE, K. 1995 (OBS)		

Quad Summary: OCEANO (3512015/221D)
County Summary: SAN LUIS OBISPO
SNA Summary:

Location: JUST EAST OF HWY 101, 1 MILE NW OF THE INTERSECTION OF HWY 101 AND LOS BERROS CANYON, SE OF ARROYO GRANDE.

Lat/Long: 35°05'22" / 120°32'01"	Township: 12N
UTM: Zone-10 N3885546 E724856	Range: 35W
Mapping Precision: SPECIFIC	Section: 26 Qtr XX
Symbol Type: POINT	Meridian: S
Radius: 80 meters	Elevation: 250 ft

Comments

Distribution:

Ecological: HABITAT CONSISTS OF A DRAINAGE WITH SPARSE WILLOW RIPARIAN, AND DENSER WILLOWS UPSTREAM; OPEN, NON-NATIVE GRASSLAND WITH ROCK OUTCROPPINGS ADJACENT.

Threat:

General: 1 JUVENILE OBSERVED ON 27 FEBRUARY 1995.

Owner/Manager: UNKNOWN

Source Codes

POP95F01

California Department of Fish and Game
Natural Diversity Data Base

CRLF records within 5 miles of Willow Road Extension Project

Rana aurora draytonii (cont.)
California red-legged frog

Element Code: AAABH01022

_____Status_____	_____NDDB Element Ranks_____	_____Other Lists_____
Federal: Threatened	Global: G4T2T3	CDFG Status: SC
State: None	State: S2S3	

_____Habitat Associations_____

General: LOWLANDS & FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.

Micro: REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Occurrence No. 147	Map Index: 33270	_____Dates Last Seen_____
Occ Rank: Good		Element: 1995-07-12
Origin: Natural/Native occurrence		Site: 1995-07-12
Presence: Presumed Extant		
Trend: Unknown		
Main Source: MULLEN, E. 1995 (OBS)		

Quad Summary: OCEANO (3512015/221D)
County Summary: SAN LUIS OBISPO
SNA Summary:

Location: LOS BERROS CANYON CREEK, 0.3 MILE NE OF HWY 101, 4 MILES SE OF ARROYO GRANDE.

Lat/Long: 35°04'53" / 120°31'08"	Township: 12N
UTM: Zone-10 N3884686 E726202	Range: 35W
Mapping Precision: SPECIFIC	Section: 36 Qtr XX
Symbol Type: POINT	Meridian: S
Radius: 80 meters	Elevation: 250 ft

_____Comments_____

Distribution:

Ecological: HABITAT CONSISTS OF A DENSE RIPARIAN CORRIDOR OF SYCAMORES, WILLOWS, AND OAKS, WITH A STEADY WATER FLOW. POOLS PRESENT (10-25 INCHES DEEP). CHANNEL IS ABOUT 15 FT WIDE.

Threat: THREATENED BY AGRICULTURAL RUN-OFF.

General: 1 JUVENILE OBSERVED ON 12 JULY 1995.

Owner/Manager: UNKNOWN

_____Source Codes_____

MUL95F14

California Department of Fish and Game
Natural Diversity Data Base

CRLF records within 5 miles of Willow Road Extension Project

Rana aurora draytonii (cont.)
California red-legged frog

Element Code: AAABH01022

_____Status_____	_____NDDB Element Ranks_____	_____Other Lists_____
Federal: Threatened	Global: G4T2T3	CDFG Status: SC
State: None	State: S2S3	

_____Habitat Associations_____

General: LOWLANDS & FOOTHILLS IN OR NEAR PERMANENT SOURCES OF DEEP WATER WITH DENSE, SHRUBBY OR EMERGENT RIPARIAN VEGETATION.

Micro: REQUIRES 11-20 WEEKS OF PERMANENT WATER FOR LARVAL DEVELOPMENT. MUST HAVE ACCESS TO ESTIVATION HABITAT.

Occurrence No. 572	Map Index: 48885	_____Dates Last Seen_____
Occ Rank: Good		Element: 2002-06-04
Origin: Natural/Native occurrence		Site: 2002-06-04
Presence: Presumed Extant		
Trend: Unknown		
Main Source: SEMONSEN, V. 2002 (OBS)		

Quad Summary: OCEANO (3512015/221D)
County Summary: SAN LUIS OBISPO
SNA Summary:

Location: OSO FLACO CREEK, 3.5 MILES NORTH OF GUADALUPE

Lat/Long: 35°01'22" / 120°35'07"	Township: 11N
UTM: Zone-10 N3878043 E720290	Range: 35W
Mapping Precision: SPECIFIC	Section: 17 Qtr XX
Symbol Type: POLYGON	Meridian: S
Area: 222.7 ac	Elevation: 45 ft

_____Comments_____

Distribution:

Ecological: HABITAT CONSISTS OF WILLOW RIPARIAN WITH PONDS LINED WITH CATTAILS AND BULRUSH.

Threat: THREATENED BY SEDIMENTATION, CHANNEL CLEARING, AND AGRICULTURAL RUN-OFF.

General: 28 ADULTS AND 15 JUVENILES OBSERVED BETWEEN 30 MAY-4 JUN 2002.

Owner/Manager: PVT-TEIXEIRA FARMS

_____Source Codes_____

SEM02F01