

# **Habitat Conservation Plan**

## **California Tiger Salamander and California Red-legged Frog**

**at 215 Valley View Drive (APN 113-172-004)**

**in City of Petaluma, Sonoma County, California**

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## EXECUTIVE SUMMARY

Steven Sannella is applying for a permit pursuant to Section 10(a)(1)(B) of the Endangered Species Act of 1973 as amended (16 U.S.C. 153101544, 87 Stat. 884), from the U.S. Fish & Wildlife Service (USFWS) for the incidental take of the endangered Sonoma County population of California tiger salamander (*Ambystoma californiense*) (CTS). The potential taking would occur incidental to construction of a 67,199 gross square foot (1.54 acres) of development, including roadway and residences, within a 13.31-acre partially developed site located at 215 Valley View Drive (APN 113-172-004), in Sonoma County, CA. This project may affect individual CTS and its Critical Habitat (USFWS 2011), and individual California red-legged frog (*Rana draytonii*) (CRF), but will not affect the Critical Habitat for California red-legged frog (USFWS 2008) or listed plant species (USFWS 2005).

The project site currently supports a single family dwelling, with a detached single car garage and shed. Subdivision of the parcel, with grading and construction of a new access road and future development on the three parcels will result in the permanent removal of 67,199 square feet of non-native grasslands, considered upland habitat for CTS. The closest reported sighting of CTS occurs north, less than 1 mile in distance northeast of the site (CNDDDB 2012). Therefore, Mr. Sannella is applying for a Section 10(a)(1)(B) permit, for a period of five (5) years, and proposes to implement the habitat conservation plan (HCP) described herein, which provides for measures for mitigating adverse effects on the CTS for activities associated with developing 1.54 acres (67,199 square feet) for the access road and residences and includes areas temporarily disturbed during construction.

This HCP summarizes information about the project and identifies the responsibilities of the USFWS and Mr. Sannella for implementing the actions described herein to benefit the CTS Sonoma County population and upland habitat for CRF. The biological goal of the HCP is to replace the CTS habitat impacted by the access road and individual residences with habitat preserved at a secure site in perpetuity. Mr. Sannella will satisfy the mitigation requirements by purchasing 1.54 habitat credits for the endangered CTS from a USFWS and CDFG-approved conservation bank within the Santa Rosa plain, as well as 1.54 credits for CRF from a USFWS-approved conservation bank in Alameda County. This HCP also describes measures to minimize take of individual CTS and CRF, and ensure the elements of the HCP are implemented in a timely manner. Funding sources for implementation of the HCP, actions to be taken for unforeseen events, alternatives to the proposed permit action, and other measures required by the USFWS are also discussed. The HCP permittee will minimize and mitigate for any effects caused by the authorized activity, which will offset or reduce the significance of adverse effects to the critical habitat. As a result, the proposed project will not likely to jeopardize the continued existence of these two species or cause adverse modification to designated critical habitat.

**HABITAT CONSERVATION PLAN**  
**215 Valley View Drive, Sonoma County**

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## 1.0 INTRODUCTION

This Habitat Conservation Plan (HCP) addresses impacts proposed at 215 Valley View Drive in the City of Petaluma, Sonoma County, California. The proposed project includes the lot split of a 13.31-acre parcel into three additional lots, on which is proposed a total of 16,585 sq. ft. for driveways and drainages, 29,159 sq. ft. for building envelopes for residences on Lots 1, 2 and 3. In addition, a further 237 sq. ft. of impacts will be associated with well, water tank and water line trenches, with a further 19,879 sq. ft for the sewage disposal system, and 1,339 sq. ft of impacts from interceptor drains.

This HCP has been prepared pursuant to the requirements of Section 10(a) of the Federal Endangered Species Act (ESA), and is intended to provide the basis for issuance of a Section 10(a)(1)(B) permit to Mr. Sannella, the permit applicant, to authorize incidental take (see Section 6.0) of the California tiger salamander (CTS) (*Ambystoma californiense*), a federally listed endangered and State-listed threatened species, and California red-legged frog (*Rana draytonii*) (CRF), a federally listed threatened species, that could potentially result from the grading and construction activities on the project site

This HCP provides an assessment of the existing habitat at the 215 Valley View Drive project site for the CTS and CRF, evaluates the effects of the proposed project on the salamander and frog, and presents a mitigation plan to offset habitat losses and/or direct harm to CTS and CRF that could result from grading and construction activities at the project site. The U.S. Fish & Wildlife Service (USFWS) has concluded that, 1) the project site provides potential habitat for this salamander and frog, 2) the project site is located within the Critical Habitat (USFWS 2011) for CTS, and, 3) the project site will not affect CRF Critical Habitat (USFWS 2010). The project site is located outside the area for listed plant species that occur on the Santa Rosa Plain (USFWS 2005).

The first biological goal of this HCP is to contribute to a regional preserve design on the Santa Rosa Plains (i.e., assist with the implementation of the Santa Rosa Plain Conservation Strategy) by protecting occupied CTS habitat in the Santa Rosa Plain through the purchase of 1.54-acres of mitigation credits at USFWS-approved CTS conservation bank within the Santa Rosa Plain.

The second biological goal of this HCP is to contribute to the general habitat acreage within the range of California red-legged frog by protecting occupied CRF habitat through the purchase of 1.54-acres of mitigation credits at a USFWS-approved CRF conservation bank in Alameda County. To date there are no Conservation/Mitigation Banks in Sonoma County for CRF. Measures to prevent take of individual CTS and CRF are included in this HCP.

As a result, the proposed project will not likely to jeopardize the continued existence of these two species or cause adverse modification to designated critical habitat.

### 1.1 PROJECT LOCATION

The 13.31-acre Sannella parcel (APN 113-172-004) is situated on the south side of Valley View Drive, west of Highway 101, north of the City of Petaluma and west of the Town of Cotati (Figure 1). The oblong-shaped parcel is located in the southern portion of the Cotati USGS 7.5-minute topographic quadrangle, within the Roblar de la Miseria Rancheria in the area of Township 5N and Range 8W.

## 1.2 PROJECT SITE

The project site is located on a northwest to southeast sloping topography, ranging between 300 and 190 feet in elevation above sea level. The parcel is surrounded by pastureland and rural residences on all sides (Figure 2). The existing on-site structures are located in the north-central portion of the parcel, which includes an existing residence, pool and other structures, and landscaping (Figures 3). An ephemeral drainage is situated in the south central portion of the site and flows from north to south (Figure 4). The drainage is approximately 10 feet wide at the top of the bank by 70 feet in length, with a bed of two to four inches. The bed was moist with surface water at the time of the survey in April, 2008 (Wildlife Research Associates 2008b) although it is not within the jurisdiction of the Corps or RWQCB. No impacts will occur to this drainage.

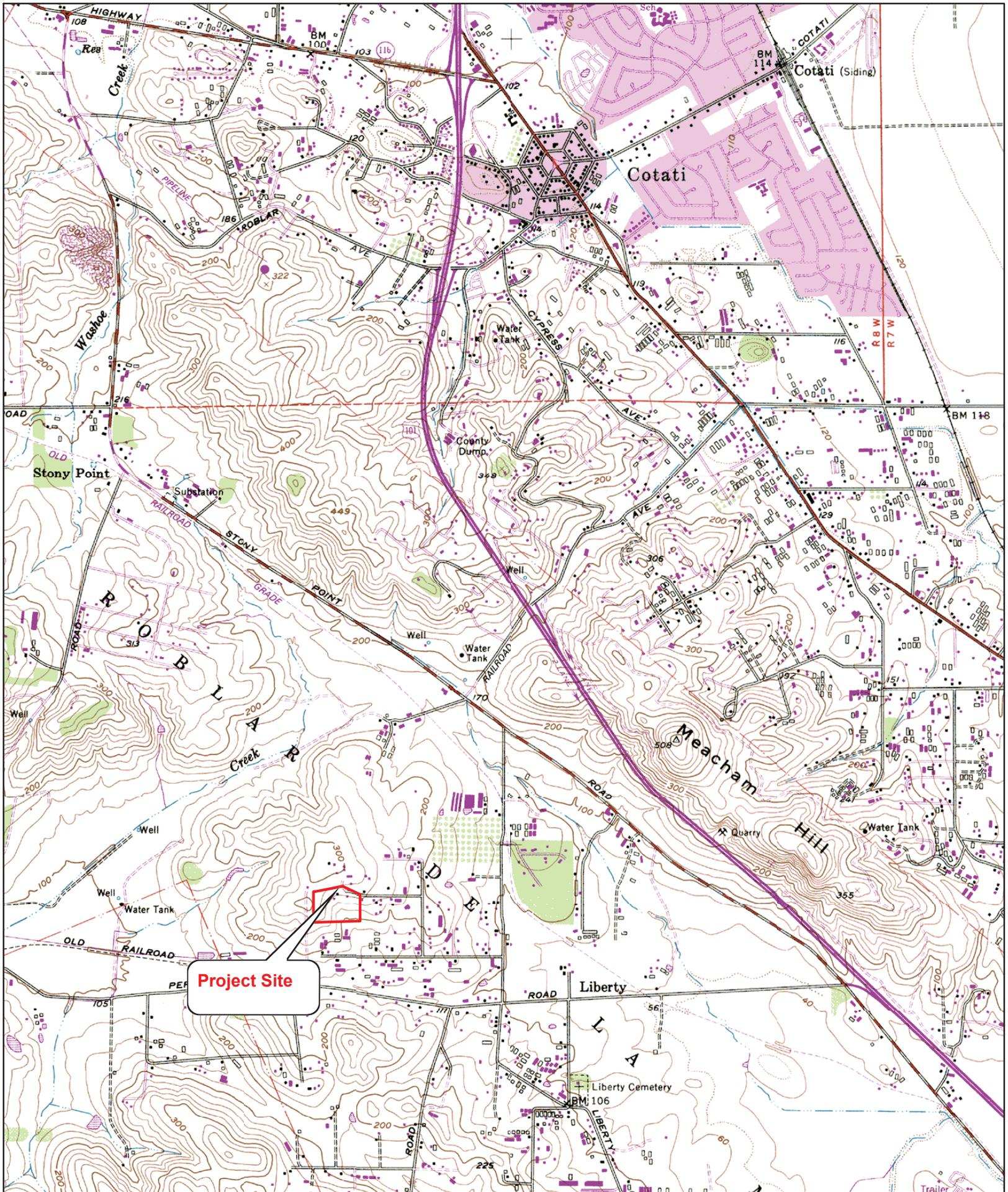
## 1.3 HCP HISTORY

Several documents have been prepared for this project including *California tiger salamander (Ambystoma californiense) Site Assessment, Sannella Property – 215 Valley View Drive, California* (Wildlife Research Associates 2008a), and a *Wildlife Habitat Assessment - 215 Valley View Drive, California* (Wildlife Research Associates 2008b), both of which were sent to the USFWS in March 2008. Additional reports include the *215 Valley View Drive, Petaluma, Sonoma County APN 113-172-004* (Jane Valerius Environmental Consulting 2007), which details the results of the plant surveys conducted in 2007, which were negative (Appendix A).

We reviewed the *Programmatic Biological Opinion (Programmatic) for U.S. Army Corps of Engineers (Corps) Permitted Projects that May Affect California Tiger Salamander and Three Endangered Plant Species on the Santa Rosa Plain, California (Corps File Number 223420N)* (USFWS 2007) and the *Santa Rosa Plain Conservation Strategy, Final* (USFWS 2005) for required mitigation measures for CTS for parcels located in the Santa Rosa Plain. We also reviewed the *Revised Designation of Critical Habitat for the Sonoma County Distinct Population Segment of California tiger salamander* (USFWS 2011) and the *Revised Critical Habitat for the California Red-Legged Frog (Rana aurora draytonii)* (USFWS 2010) for potential impacts to CRF.

After initial discussions with Vincent Griego, USFWS Senior Biologist, in 2008, revisions to this document in 2009 and 2010, and finalization in 2012, this document answers specific questions to evaluate the potential impacts to federally listed wildlife species. No further contact or discussions regarding this specific project have been conducted.

A consistency determination from the California Department of Fish and Game will be requested in 2013 after a Section 10 permit has been obtained from the USFWS.



**Project Site**

Name: COTATI  
Date: 7/8/2008  
Scale: 1 inch equals 2222 feet

Location: 10 0525365 E 4239607 N NAD83  
Caption: Figure 1 - Project Location



Project Site

Name: COTATI SW, CA  
Date: 4/16/2009  
Scale: 1 inch equals 588 feet

Location: 10 0524687 E 4237771 N NAD83  
Caption: Figure 2 - Aerial of project site

## 2.0 COVERED ACTIVITIES

### 2.1 COVERED ACTIVITIES

The Covered Activities include subdividing the 13.31-acre property (HCP Plan area) to create 3 additional lots and associated buildings and infrastructure, as described below. Please refer to Table 1 for the proposed lots and their acreages. Lot 1 will be approximately 3.25 acres, Lot 2, approximately 3 acres, and Lot 3, approximately 3.23 acres, with the remainder lot being 3.83 acres. Please refer to Figure 3 for the Development Area map (Lescure Engineers 2012). Each site will have its own well.

**Table 1: Existing and Proposed Parcels in Acres**

Lot	Existing (acres)	Proposed (acres)
1	0	3.25
2	0	3
3	0	3.23
Existing (Remainder)	3.83	

The existing developed area, the 3.83 acre lot, will not be further developed or renovated nor will the other three new lots be developed at this time. The proposed general rural residential development, driveways, and sewage disposal system on Lots 1 and 2 are presented in Table 2. The proposed building envelopes, which include the building staging areas and landscape areas, are proposed as 5,200 sq. ft. on Lot 1, 6,773 sq. ft. on Lot 2, and 17,186 sq. ft. on Lot 3, as shown in the 2012 site plan drawing included in this report (Figure 3).

**Table 2: Square Footage of Development in Lots 1, 2 and 3**

Structure	New Square Footage			Impacts
	Lot 1	Lot 2	Lot 3	Total
Driveway and drainage area	12,724	3,021	840	16,585
House/building envelope	5,200	6,773	17,186	29,159
Well, Water Tank and water line trench	237	0	0	237
Sewage Disposal System	5,640	5,350	8,889	19,879
Interceptor Drain Area	215	492	632	1,339
<b>Total Square Footage (acreage)</b>	<b>24,016 (0.55)</b>	<b>15,636 (0.36)</b>	<b>27,547 (0.63)</b>	<b>67,199 (1.54)</b>

Two new asphalt driveways, together comprising 12,724 sq. ft. will be installed on Lot 1, with the larger driveway created for emergency services access and for access to Lot 2. At this time only the service road is proposed to be built after subdivision of the parcel, with the individual homes being built at an unknown future date. However, mitigation for the entire 67,199 sq. ft. of anticipated future development, the proposed roadway, building envelopes, and associated water and sewage systems will be purchased at this time.

No water will be provided by Sonoma County Water Agency. The designated remainder lot has an existing water system; Lot 1 also has an existing well. Lots 2 & 3 will both get new wells and water tanks as shown in the drawing. Pipelines will be routed as shown or in roadways

All of the measures to protect individual CTS, as outlined in the *Santa Rosa Plain Conservation Strategy* (USFWS 2005) and presented in the *Habitat Assessment* (Wildlife Research Associates 2008), will be adhered during ground breaking of the 215 Valley View Drive project site. They include the following measures, which shall also protect CRF:

1. Immediately prior to the start of work, a pre-construction survey will be conducted in the construction area for CTS and CRF by a Service –approved biologist. If CTS or CRF are found the USFWS shall be notified and the relocation of the individual shall be completed with approval by the USFWS.
2. A USFWS-approved biologist shall conduct an Employee Education Program for all construction personnel. At a minimum, the training will include a description of the CTS and CRF and their habitat, the importance of the species and their habitats, and the general measures that are being implemented to protect the CTS and CRF as they relate to the project. Instruction shall include the appropriate protocol to follow in the event CTS or CRF are found onsite.
3. A USFWS-approved biological monitor will be on site each day during initial site grading of development sites. Thereafter, an onsite person shall be designated to monitor onsite compliance with all minimization measures. The USFWS-approved biologist shall ensure that this individual receives training consistent with that outlined in the Biological Opinion.
4. Before the start of work each morning, the biological monitor will check for animals under any equipment such as vehicles and stored pipes. The biological monitor will check all excavated steep-walled holes or trenches greater than one foot deep for any CTS or CRF. Any listed animals found will be removed by the biological monitor and translocated under approval by the USFWS.
5. An erosion and sediment control plan will be implemented to prevent impacts of wetland restoration and construction on habitat outside the work areas.
6. Best Management Practices will be implemented during construction to prevent any construction debris or sediment from impacting adjacent habitat.
7. The number of access routes, number and size of staging areas and the total area of activity shall be limited to the minimum necessary to achieve the project goal. The Service-approved biological monitor will identify the boundaries of the work and staging area and ensure that that contractor does not disturb any ground outside the designated construction area. The contractor shall obtain approval from the monitor to go outside designated areas.
8. All foods and food-related trash items will be enclosed in sealed trash containers at the end of each day and removed completely from the site once every three days.

9. No pets will be allowed anywhere in the project site during construction.
10. A speed limit of 15 mph on dirt roads will be maintained, if applicable.
11. All equipment will be maintained such that there will be no leaks of automotive fluids such as gasoline, oils, or solvents.
12. Hazardous materials such as fuels, oils, solvents, etc., will be stored in sealable containers in a designated location that is at least 200 feet from aquatic habitats. All fueling and maintenance of vehicles and other equipment and staging areas will occur at least 200 feet from any aquatic habitat.
13. Grading and clearing will typically be conducted between April 15 and October 15, of any given year, depending on the level of rainfall and/or site conditions.
14. Project areas temporarily disturbed by construction activities will be re-vegetated.
15. If CTS or CRF are found, the proponent shall coordinate with the USFWS to prevent take in the form of direct mortality

## **2.2 PERMIT HOLDER/PERMIT BOUNDARIES**

Mr. Steven Sannella will be the holder of the Section 10(a)(1)(B) permit. He may be reached via mail at 290 Marion Avenue, Mill Valley, CA 94941 (415-331-8826) or via email at [ts@sagedesignsinc.com](mailto:ts@sagedesignsinc.com). Additional contact persons will be reported to the USFWS as necessary.

A total of 1.54-acre will be developed within the 13.31-acre parcel in the permit boundary (HCP Plan Area) and includes the areas of permanent impacts. The building envelopes will encompass all permanent impacts. Please refer to Figure 1 for the location of the project site, Figure 2 for the aerial vicinity map and Figure 3 for the proposed site plan map that illustrates the boundaries of the project site.

## **2.3 ZONING AND SURROUNDING LAND USES**

The 215 Valley View Drive project site is zoned AR, meaning for Agricultural and Residential District under the Sonoma County General Plan land-use designation ([www.sonoma-county.org/prmd/docs/zoning\\_data/057-060.pdf](http://www.sonoma-county.org/prmd/docs/zoning_data/057-060.pdf)). Currently, the parcel is surrounded by rural residences. No water will be provided by Sonoma County Water Agency.



### 3.0 REGULATORY FRAMEWORK

Certain animal species are designated as having special status based on their overall rarity, endangerment, restricted distribution, and/or unique habitat requirements. In general, special-status designation is a combination of these factors that leads to the designation of a species as sensitive. The Federal Endangered Species Act (FESA) outlines the procedures whereby species are listed as endangered or threatened and established a program for the conservation of such species and the habitats in which they occur. The California Endangered Species Act (CESA) amends the California Fish and Game Code to protect species deemed to be locally endangered and essentially expands the number of species protected under the FESA. The following section provides a discussion of the federal, state and county regulations as they pertain to the project.

#### 3.1 FEDERAL REGULATIONS

##### 3.1.1 Endangered Species Act of 1973

The Endangered Species Act of 1973 (ESA), 15 United States Code (U.S.C.) Section 1531 *et seq.*, provides for the protection and conservation of various species of fish, wildlife, and plants that have been federally listed as threatened or endangered. Section 9 of the ESA prohibits the "take" of any fish or wildlife species that is listed as endangered under the ESA unless such take is otherwise specifically authorized pursuant to either Section 7 or Section 10(a)(1)(B) of the Act. Pursuant to the implementing regulations of the ESA, the take of fish or wildlife species listed as threatened is also prohibited unless otherwise authorized by the USFWS.

"Take" is defined in the ESA as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Federal regulation 50 CFR 17.3 further defines the term "harm" in the "take" definition to mean any act that actually kills or injures a federally listed species, including significant habitat modification or degradation. Activities otherwise prohibited under ESA Section 9 and subject to the civil and criminal enforcement provisions under ESA Section 11 may be authorized under ESA Section 7 for actions by Federal agencies and under ESA Section 10 for nonfederal entities.

Section 10(a) of the ESA establishes a process for obtaining an "incidental take permit," which authorizes nonfederal entities to incidentally take federally listed wildlife or fish subject to certain conditions. "Incidental take" is defined by the ESA as take that is "incidental to, and not the purpose of, the carrying out of an otherwise lawful activity." Preparation of a conservation plan, generally referred to as a habitat conservation plan or HCP, is required for all Section 10(a) permit applications. The USFWS and the National Marine Fisheries Service (NMFS) have joint authority under the ESA for administering the incidental take program. NMFS has jurisdiction for anadromous fish species and the USFWS has jurisdiction for all other fish and wildlife species.

Section 7 of the Endangered Species Act requires all Federal agencies to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of any species listed under the ESA or result in the destruction or adverse modification of its habitat. Technically, the issuance of an incidental take permit is an authorization for take by a Federal agency; in conjunction with issuing a permit, USFWS must conduct an internal Section 7 consultation on the proposed HCP. The internal consultation is conducted after an HCP is developed by a nonfederal entity (e.g., Mr. Sannella) and submitted for formal processing and review. Provisions of Sections 7 and 10 of the ESA are similar, but Section 7 requires consideration of several factors not explicitly required by Section 10. Specifically, Section 7 requires consideration of the indirect effects of a project, effects on federally listed plants, and

effects on critical habitat. (The ESA requires that USFWS identify critical habitat to the maximum extent that it is prudent and determinable when a species is listed as threatened or endangered.) The internal consultation results in a Biological Opinion prepared by USFWS regarding whether implementation of the HCP will result in jeopardy to any listed species or adversely modify critical habitat.

There are three phases to the Section 10 process for obtaining an incidental take permit. The first is the HCP development phase, during which the project applicant prepares a plan that integrates the proposed project or activity with the protection of listed species. An HCP submitted in support of an incidental take permit application must include the following information:

- impacts likely to result from the proposed taking of the species for which permit coverage is requested;
- measures that will be implemented to monitor, mitigate for, and minimize impacts;
- funding that will be made available to undertake such measures;
- procedures to deal with unforeseen circumstances;
- alternative actions considered that would minimize or not result in take; and
- additional measures the USFWS may require as necessary or appropriate for purposes of the plan.

The second phase is the permit-processing phase, which begins when a complete application package is submitted to the appropriate permit-issuing office of USFWS. The complete application package for a low-effect HCP consists of, 1) an HCP, 2) a completed permit application; and 3) a \$100 permit fee from the applicant.

The USFWS must publish a “Notice of Availability” of the draft HCP in the Federal Register; prepare a Section 7 Intra-Service Biological Opinion; prepare a Set of Findings that evaluates the Section 10(a)(1)(B) permit application in the context of permit issuance criteria (see below); and prepare an Environmental Action Statement, a brief document that serves as the USFWS's record of compliance with NEPA for categorically excluded actions (see below). An implementing agreement is not required for a low-effect HCP. A Section 10 incidental take permit is granted upon determination by USFWS that all requirements for permit issuance have been met. Statutory criteria for issuance of the permit are as follows:

- the taking will be incidental;
- the impacts of incidental take will be minimized and mitigated to the maximum extent practicable;
- adequate funding for the HCP and procedures to handle unforeseen circumstances will be provided;
- the taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild;
- the applicant will provide additional measures that USFWS requires as being necessary or appropriate; and
- USFWS has received assurances, as may be required, that the HCP will be implemented.

After receipt of a complete application, an HCP and permit application is typically processed within several months. This schedule includes the Federal Register notice and public comment.

During the final phase, the post-issuance phase, the permittee and other responsible entities implement the HCP and the USFWS monitors the permittee's compliance with the HCP and the

long-term progress and success of the HCP. The public is notified of permit issuance through publication in the Federal Register.

### **3.1.2 National Environmental Policy Act of 1969**

The National Environmental Policy Act of 1969, as amended (NEPA), requires that Federal agencies analyze the environmental impacts of their proposed actions (i.e., issuance of an incidental take permit) and include public participation in the planning and implementation of their actions. Although Section 10 of the Endangered Species Act and NEPA requirements overlap considerably, the scope of NEPA also considers the impacts of the proposed action on non-biological resources, such as water quality, air quality, and cultural resources. Depending upon the scope and impact of the HCP, NEPA compliance is obtained through one of three actions:

- 1) preparation of an environmental impact statement (generally prepared for high-effect HCPs);
- 2) preparation of an Environmental Assessment (generally prepared for moderate-effect HCPs); or
- 3) a categorical exclusion (allowed for low-effect HCPs).

The NEPA process helps Federal agencies make informed decisions with respect to the environmental consequences of their actions and ensures that measures to protect, restore, and enhance the environment are included, as necessary, as a component of their actions. Low-effect HCPs, as defined in the USFWS's (1996b) Habitat Conservation Planning Handbook, are categorically excluded under NEPA, as defined by the Department of Interior Manual 516DM2, Appendix 1, and Manual 516DM6, Appendix 1.

## **3.2 CALIFORNIA REGULATIONS**

### **3.2.1 California Endangered Species Act**

The California Endangered Species Act (CESA (FGC §§ 2050–2116) is administered by DFG. The CESA prohibits the “taking” of listed species except as otherwise provided in state law. The CESA includes FGC Sections 2050–2116, and policy of the state to conserve, protect, restore, and enhance any endangered species or any threatened species and its habitat. The CESA requires mitigation measures or alternatives to a proposed project to address impacts to any State listed endangered, threatened or candidate species, or if a project would jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy. Section 86 of the Fish and Game Code (FGC) defines take as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” Unlike the ESA, CESA applies the take prohibitions to species under petition for listing (state candidates) in addition to listed species. Section 2081 of the FGC expressly allows DFG to authorize the incidental take of endangered, threatened, and candidate species if all of the following conditions are met:

- The take is incidental to an otherwise lawful activity.
- The impacts of the authorized take are minimized and fully mitigated.
- Issuance of the permit will not jeopardize the continued existence of the species.
- The permit is consistent with any regulations adopted in accordance with §§ 2112 and 2114 (legislature-funded recovery strategy pilot programs in the affected area).

- The applicant ensures that adequate funding is provided for implementing mitigation measures and monitoring compliance with these measures and their effectiveness.

The CESA provides that if a person obtains an incidental take permit under specified provisions of the ESA for species also listed under the CESA, no further authorization is necessary under CESA if the federal permit satisfies all the requirements of CESA and the person follows specified steps (FGC § 2080.1).

Section 2080.1 allows an applicant who has obtained a federal incidental take statement pursuant to a federal Section 7 consultation or a federal Section 10(a) incidental take permit to notify the Director in writing that the applicant has been issued an incidental take statement or an incidental take permit pursuant to the federal Endangered Species Act of 1973. The applicant must submit the federal opinion incidental take statement or permit to the Director of Fish and Game for a determination as to whether the federal document is "consistent" with CESA. Receipt of the application by the Director starts a 30-day clock for processing the Consistency Determination.

In order for the Department to issue a Consistency Determination, the Department must determine that the conditions specified in the federal incidental take statement or the federal incidental take permit are consistent with CESA. If the Department determines that the federal statement/permit is not consistent with CESA, the applicant must apply for a State Incidental Take Permit under section 2081(b) of the Fish and Game Code.

The exception provided in Fish and Game Code section 2080.1 to CESA's take prohibition can be used only for species that are listed under both federal Endangered Species Act and CESA, and cannot be applied to species that are listed by the State but not federally listed.

### **3.2.2 California Environmental Quality Act**

In many ways, the California Environmental Quality Act, commonly known as CEQA (Public Resources Code Section 21000 *et seq.*), is analogous at the state level as NEPA is to the federal level. CEQA applies to projects that require approval by state and local public agencies. It requires that such agencies disclose a project's significant environmental effects and provide mitigation whenever feasible. This environmental law covers a broad range of environmental resources. With regard to wildlife and plants, those that are already listed by any state or federal governmental agency are presumed to be endangered for the purposes of CEQA and impacts to such species and their habitats may be considered significant.

Sonoma County anticipates that the applicant will meet the CEQA requirements for the proposed development through a Mitigated Negative Declaration.

### **3.2.3 Sonoma County**

In the Sonoma County General Plan 2020, under the Resource Conservation Program, Policy RC-6b states that protection of rare and endangered species, wetlands, and other biotic resources shall be accomplished through compliance with applicable state and federal laws. Section 15380 of the CEQA Guidelines (14 Cal. Admin. Code section 15000 *et seq.*) defines a species as being "rare" if it may be considered threatened or endangered as defined in the federal Endangered Species Act.

This HCP addresses potential impacts to individuals and habitat of CTS, as well as its Critical Habitat, and to individuals and habitat of CRF.

## 4.0 BIOLOGY

### 4.1 ON-SITE HABITAT TYPES

A total of four wildlife habitat types (Mayer and Laudenslayer 1988) were identified on the Sannella parcel: 1) non-native grasslands, which includes pasture, 2), eucalyptus and other trees, 3) urban, which is categorized as disturbed/rural landscape for the purposes of this report, and 4) wet meadow (seasonal pools).

*Non-native grasslands:* The majority of the parcel is comprised of non-native grasslands, including pasture, which supports wild oats (*Avena barbata*), Mediterranean barley (*Hordeum marinum*), annual ryegrass (*Lolium multiflorum*), ripgut brome (*Bromus diandrus*), wild radish (*Raphanus sativus*), bur clover (*Medicago ployomorpha*), milk thistle (*Silybum marinum*) and Italian thistle (*Carduus pycnocephalus*), among others (Figures 4 through 7). Please refer include a plant survey report, 215 Valley View Drive, Petaluma, Sonoma County APN 113-172-004 (Jane Valerius Environmental Consulting 2007) for further details on plant species potentially occurring and observed on the project site (Appendix A).

Wildlife species or signs observed on the Valley View Drive parcel include meadow vole (*Microtis californicus*) and Botta's pocket gopher (*Thomomys bottae*). Other species potentially occurring on the site include small mammals, such as western harvest mice (*Reithrodontomys megalotis*) and house mice (*Mus musculus*), which are attracted to these areas for nesting. Nesting avian species using the non-native grasslands include western meadowlark (*Sturnella neglecta*), mourning dove (*Zenaida macroura*). Raptors potentially using the site for foraging on small mammals include red-shouldered hawk (*Buteo lineatus*) and white-tailed kite (*Elanus leucurus*). Other species that may use the site as a travel corridor between open parcels include skunk (*Mephitis mephitis*), and opossum (*Didelphis virginiana*).

*Urban (rural/disturbed):* The urban habitat on the parcel occurs on the remainder parcel and encompasses the residence, the garage and a barn. Several trees have been planted in this area including Japanese maple (*Acer palmatum*), poplars (*Populus* sp.), Santa Rosa plum (*Prunus* sp.), weeping willows (*Salix* sp.) and coast redwood (*Sequoia sempervirens*) (Jane Valerius Environmental Consulting 2007). Wildlife species using this habitat are those species inured to human habitation, including mockingbird (*Mimus polyglottos*), northern flicker (*Colaptes auratus*), white-crowned sparrow (*Zonotrichia leucophrys*) and black phoebe (*Sayornis nigricans*). Mammals potentially using the structures include opossum (*Didelphis virginianus*), and striped skunk (*Mephitis mephitis*), and roosting bats may be using the attic spaces in the residence, gaining access by the holes in the fascia.

*Eucalyptus and other trees:* The western stand of blue gum trees (*Eucalyptus* sp.) trees is not of a depth to support nesting raptors (birds of prey). Passerines (perching birds) may use the western stand for nesting. The row of eucalyptus along the southern boundary line is more protected and one large nest was observed in one of the trees. Raptors potentially using the site for nesting include red-shouldered hawk and white-tailed kite. The coast live oak trees (*Quercus agrifolia*) may provide roosting habitat for bats such as pallid bat (*Antrozous pallidus*), Yuma myotis (*Myotis yumanensis*), long-eared myotis (*Myotis evotis*), and other species.

*Seasonal wetlands:* The ephemeral wetland, approximately 10 feet wide at the top of the bank by 70 feet in length, located in the south central portion of the site, although incised, is shallow and supported approximately 2-4 inches of water at the time of the survey. As observed during the April 2008 survey, as detailed in the Methods Section of the *Habitat Assessment* (Wildlife Research Associates 2008), the wetland does not support ponding water of a duration that is

suitable to support breeding California tiger salamander or any other amphibian species. No other seasonal wetlands occur on the adjacent parcels. The location of the ephemeral wetlands on the southern portion of the remainder parcel is depicted on the Tentative Map Figure 3 (Lescure Engineers 2013).

#### **4.1.1 Habitats within One Mile**

The majority of the lands west of the proposed project site support cattle and horse grazing ranches and supports primarily non-native grasslands. Parcels located east of the proposed project site are rural residences with horse ranches, landscaping and non-native grasslands. Lands to the south are cattle ranches with silage and non-native grasslands. Two ephemeral creeks occur within one mile of the project site, Stemple Creek located northwest and an unnamed tributary to the Petaluma River. A total of eight ponds occur north of Pepper Road, none within the rural residential area of the proposed project site. A total of two ponds occur south of Pepper Road. It is unknown whether any of these ponds have been surveyed for special-status amphibians.

#### **4.1.2 Movement Corridors**

Wildlife movement includes migration (i.e., usually one way per season), inter-population movement (i.e., long-term genetic flow) and small travel pathways (i.e., daily movement corridors within an animal's territory). While small travel pathways usually facilitate movement for daily home range activities such as foraging or escape from predators, they also provide connection between outlying populations and the main corridor, permitting an increase in gene flow among populations.

These linkages among habitat types can extend for miles between primary habitat areas and occur on a large scale throughout California. Habitat linkages facilitate movement among populations located in discrete areas and populations located within larger habitat areas. The mosaic of habitats found within a large-scale landscape results in wildlife populations that consist of discrete sub-populations comprising a large single population, which is often referred to as a meta-population. Even where patches of pristine habitat are fragmented, such as occurs with coastal scrub, the movement between wildlife populations is facilitated through habitat linkages, migration corridors and movement corridors. Depending on the condition of the corridor, genetic flow between populations may be high in frequency, thus allowing high genetic diversity within the population, or may be low in frequency. Potentially low frequency genetic flow may lead to complete isolation, and if pressures are strong, potential extinction (McCullough 1996; Whittaker 1998).

Movement corridors for large and small mammals occur between this parcel and potentially occupied parcels to the north and south. Movement east is restricted by the presence of Highway 101. Movement to the west is not restricted. The proposed construction will not be an impediment to any movement corridors in this area.

There are no barriers to movement between this site and other undeveloped lands. Although man-made ponds occur in the vicinity of the site, they are more than 1,100 feet from the proposed project site. The majority of ponds are more than 1,400 feet west of the Valley View site. No ponds were detected between Jewett Road, where known CTS occur, and the project site.

## **4.2 COVERED SPECIES**

*Special-Status Plants:* Although several federally listed plant species occur in the Santa Rosa Plain and are associated with vernal pools and seasonal wetlands, no special-status species were detected during the surveys conducted on April 13, 2007 (Jane Valerius Environmental Consulting 2007), and very few native plants were observed on the property. Native plant species

on the site include coast live oak, coast redwood, and a very small patch of purple needlegrass (*Nasella pulchra*), some miner's lettuce (*Claytonia perfoliata*), toad rush (*Juncus bufonius*) and blue-eyed grass (*Sisyrinchium bellum*) (Jane Valerius Environmental Consulting 2007). No special-status plant species were found on the parcel and none are expected to occur based on the dense cover of non-native plants present on the site (Jane Valerius Environmental Consulting 2007).

*Special-Status Amphibians:* The species addressed in this HCP and covered by the HCP's associated Section 10(a)(1)(B) permit includes two federally listed animal species. The first is the federally endangered and State-listed threatened Sonoma County population of California tiger salamander, which is known to occur less than 0.5 miles northeast of the site. The project area is within Critical Habitat for CTS (USFWS 2011). The second species is the federally listed threatened California red-legged frog, which has been reported less than one mile north of the site. The proposed project is outside the Critical Habitat for this species (USFWS 2010, 2011). Both CTS and CRF (collectively Covered Species) are the only federally listed species that could be incidentally taken by the proposed project.

#### **4.2.1 Conservation Status**

*California tiger salamander:* In 2003, the USFWS listed the Sonoma County Distinct Population Segment of CTS as an endangered species (USFWS 2003), due to habitat destruction, degradation, and fragmentation, collection, invasive exotic species, and inadequate regulatory mechanisms due to development on the Santa Rosa Plain (Plain), which extends from Cotati north to Windsor (USFWS 2002). To remedy this, the Santa Rosa Plain Conservation Strategy (Conservation Strategy) (Federal Register Notice 70: 74137) was created in 2005 to mitigate potential adverse effects on listed species on the Plain (USFWS 2005). The purpose of the Conservation Strategy was threefold: (1) to establish a long-term conservation program sufficient to mitigate potential adverse effects of future development on the Plain, and to conserve and contribute to the recovery of the listed species and the conservation of their sensitive habitat; (2) to accomplish the preceding in a fashion that protects stakeholders' (both public and private) land use interests, and (3) to support issuance of an authorization for incidental take of CTS and listed plants that may occur in the course of carrying out a broad range of activities on the Plain.

In December 2005, the USFWS concluded that the designation of critical habitat for the Sonoma County distinct population segment of the California tiger salamander would have negative impacts on the finalization and implementation of the Santa Rosa Plain Conservation Strategy (Federal Register Notice 70: 74137). However, in 2009 Critical Habitat for CTS was proposed and encompasses all of the potential habitat for CTS in Sonoma County (USFWS 2009) and Critical Habitat was finalized for the species in 2011 (USFWS 2011).

In May 2010 the California Department of Fish and Game listed the CTS as Threatened throughout the State of California (California Department of Fish and Game 2012). As a result, a 2081 Incidental Take permit will be required before development can occur. The Incidental take permit will allow for authorized take if it is, 1) incidental to an otherwise lawful activity, 2) the impacts are minimized and fully mitigated, 3) the mitigation measures are roughly proportional in extent to the impacts of taking the species, maintain the applicants objectives and are capable of successful implementation, 4) adequate funding is provided to implement the mitigation and 5) issuance of the permit will not jeopardize the continued existence of a State-listed species.

*California red-legged frog:* In 1996, the California red-legged frog was listed Threatened (USFWS 1996). A draft Recovery Plan was presented in 2000 (USFWS 2000) with a final published in 2002 (USFWS 2002) and in 2001 a final determination of critical habitat for the

CRF was published (USFWS 2001). In 2004, the critical habitat was reassessed (USFWS 2004), adopted in 2008 (USFWS 2008) and further revised in 2010 (USFWS 2010).

In Sonoma County, although no critical habitat for CRF was proposed in 2004, two discrete areas of habitat were adopted under the 2008 rule for Critical Habitat for the species and are more than three miles from the proposed project site.

The California Natural Diversity Data Base (CNDDDB) recognizes the CRF as a *Species of Special Concern* (California Department of Fish and Game 2012). Although the state designation does not afford the CRF any legal protection, the CRF qualifies as a rare species under CEQA.

#### **4.2.2 Description**

*California tiger salamander*: This species is a member of the mole salamander family, known as Ambystomatidae, and are large and stocky amphibians with broad, rounded snouts. Adults range in length from 75 to 162 millimeters and are typically black on the dorsal area, with pale yellow spots that are often scarce or absent along the back. The aquatic CTS larvae may reach up to 70 mm before metamorphosing (Stebbins 1985). This species can live up to 10 years and does not reach sexual maturity until three or four years of age (Trenham et al. 2000).

*California red-legged frog*: This species is listed Threatened by the USFWS and a California Special Concern species by the CDFG. The California red-legged frog is the largest native frog in California. It is typically found from sea level to elevations of approximately 1,500 meters (5,000 feet). Body length ranges from 40 to 130 millimeters (1.6 to 5.1 inches), with adult females being larger than males (138 mm (5.4 in.) versus 116 mm (4.6 in.)) (Hayes and Miyamoto 1984). The tympanum is smaller in diameter than the orbit (Storer 1925). The posterior abdomen and hind legs of adults vary in color, but are often of a reddish hue; the back is characterized by small black flecks and larger irregular dark blotches with indistinct outlines on a brown, gray, olive, or reddish-brown background. Dorsal spots usually have light centers (Stebbins 1985), and the dorsolateral folds (folds along the sides of the frog) are prominent. Larvae range from 14 to 80 mm (0.6 to 3.1 in.) in length (Storer 1925).

#### **4.2.3 Ecology and Habitats**

*California tiger salamander*: This species spends most of the year underground in the burrows of California ground squirrels (*Spermophilus beecheyi*) and pocket gophers (*Thomomys bottae*), feeding on insects (Loredo et al. 1996; Van Hattem 2004). Within Sonoma County, pocket gophers provide the majority of subterranean habitat for CTS. In general, gopher burrow systems consist of a main tunnel, generally 4 to 18 inches below the soil surface, and a variable number of lateral burrows extending from the main (UC Davis 2003). A burrow system may be linear to highly branched, may contain up to 200 yards of tunnels, and may have a hundred or more mounds. There is no correlation between the number of mounds observed above ground and the length of tunnels underground. Except during the breeding season (spring), only one gopher occupies one burrow system. In Monterey County, CTS were removed from burrows at depths between 8 inches and 3 feet (Trenham 2001). Upland terrestrial habitat for Ambystomids usually occurs within 300 meters of aquatic breeding sites, but movements have been reported as far away as 800 meters (Trenham 2001, Madison and Farrand 1998). Following heavy winter rains (normally December-March) adults emerge briefly to lay their eggs in ponds, preferring vernal pools, alkali sinks or cattle troughs that have muddy bottoms or contain some algal growth in the water for hiding in, but are devoid of fish. Although no studies have been conducted on the water quality requirements of CTS, it has been noted that turbid water is preferred (reduces predation), and water quality can prevent the transformation into the adult stage.

During the short breeding season, salamanders can be observed moving to temporary rain pools, ponds, and lakes nocturnally. Eggs are usually laid singly or may be in small clusters attached to vegetation in shallower water (Stebbins 1985). Larvae live in ponds until early or mid-summer, when they metamorphose into adults and emigrate from the pond during a summer storm (Dunn 1940, Loredó et al. 1996, Loredó and Van Vuren 1996; Holland et al. 1990).

Based on the current knowledge of the life history, biology, and ecology of the species and the relationship of its essential life history functions to its habitat, the USFWS has determined that the CTS requires the following primary constituent elements (USFWS 2005):

- (1) Standing bodies of fresh water (including natural and manmade (*e.g.*, stock)) ponds, vernal pools, and other ephemeral or permanent water bodies which typically support inundation during winter rains and hold water for a minimum of 12 weeks in a year of average rainfall.
- (2) Upland habitats adjacent and accessible to and from breeding ponds that contain small mammal burrows or other underground habitat that CTS depend upon for food, shelter, and protection from the elements and predation.
- (3) Accessible upland dispersal habitat between occupied locations that allow for movement between such sites.

*California red-legged frog*: Non-breeding CRF have been found in both aquatic and upland habitats. The majority of individuals prefer dense, shrubby or emergent vegetation, closely associated with deep (>0.7 meters) still, or slow moving water. However, some individuals use habitats that are removed from aquatic habitats, seeking cover in ground squirrel burrows, under boulders and logs and in non-native grasslands (Tatarian 2008). Upland refugia habitat includes areas up to 90 meters from a stream corridor or breeding pond and includes natural features, such as boulders, rocks, trees, shrubs, and logs. In general, densely vegetated terrestrial areas within the riparian corridor provide important sheltering habitat during the winter flooding of the streams (Tatarian 2008).

California red-legged frog movements, from one aquatic water body to another, typically occur to and from breeding habitats. Movement may occur after egg laying, instead of egg laying or as a result of the breeding pond drying. Radio-tracking in Marin County (Fellers and Kleeman 2007) and Contra Costa County (Tatarian 2008) reveal that distances varied between 320 meters to 2.8 kilometers and were typically in a straight line. While many movements occurred across open grasslands, 100-200 meters in distance, other movements taking more than one night were along riparian corridors (Fellers and Kleeman 2007).

Movements were not always associated between water bodies. In Contra Costa County, CRF were detected moving onto upland habitat in search of food and were observed to make multiple movements throughout a season (Tatarian 2008). Movements typically occurred with the onset of more than 0.5 cm of rain and distances moved overland averaged 90 meters, while aquatic distances were measured up to 600 meters (Tatarian 2008). Time spent in the upland habitats were a maximum of 52 days (Tatarian 2008).

#### **4.2.4 Geographic Distribution**

*California tiger salamander*: The species is restricted to California and does not overlap with any other species of tiger salamander. California tiger salamanders are restricted to vernal pools and seasonal ponds, including many constructed stock ponds, in grassland and oak savannah plant communities, predominantly from sea level to 2,000 feet, in central California.

The Sonoma County Distinct Population Segment appears to have been geographically isolated from the remainder of the California tiger salamander population by distance, mountains and

major waterway barriers for more than 700,000 years. In Sonoma County the tiger salamander is restricted to a portion of the Santa Rosa Plain, extending from approximately Windsor to the Cotati area.

*California red-legged Frog*: Once widespread throughout California, from the Coast Ranges to the Sierra Nevada, and into the southern San Joaquin Valley (Jennings & Hayes 1985), the species is now extirpated from the San Joaquin Valley and has declined to near extinction in the Sierra Nevada, with only six populations remaining. California red-legged frog has been extirpated from approximately 70% of its former range and is known to occur in 243 streams or drainages in 22 counties. Within Sonoma County, this species occurs in low numbers in the surrounding hills of the Santa Rosa Plain and Petaluma.

**Reported Occurrences**

A review of the CNDDDB for the Cotati, Two Rock and Petaluma topographic quadrangles revealed 24 occurrences of CTS in September 2009, with two new occurrences in 2010, and no new occurrences in 2012. However, review of the occurrences within a three-mile radius required by the *Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander* (USFWS 2003), only five CTS locations have been reported. Review of occurrences within a one-mile radius, as required by the *Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog* (USFWS 2005), only two CRF occurrences have been reported. Please refer to Table 3 and Figure 4 for a detailed occurrence of the sightings.

**Table 3: CNDDDB Reported Sightings of CTS and CRF**

I.D.	Location	UTM Coordinates (10 S)
CTS 396	Along Stony Point Road, from Meacham Road SW for 0.5 miles, SW of Cotati. <b>(1.35 miles N of the site)</b>	N4240152 E523460
CTS 687	N side of Eucalyptus Ave, S of Cotati. <b>(2.6 miles E of the site)</b>	N4241184 E527142
CTS 727	Jewett Rd, 0.4 mi S of Stony Point Rd. <b>(2,717 feet NE of the site)</b>	N4238205 E525348
CTS 729	Stony Point Rd, 0.6 mi NW of Railroad. <b>(1.05 miles N of the site)</b>	N4239619 E524291
CTS 994	Stony Point Road S of Meacham. <b>(2.01 miles N of the site)</b>	N4240920 E523136
CTS 1017	Meachum Road, 0.3 mi SSW of Stony Point Road <b>(1.48 miles NW of the site)</b>	N4239883 E523015
CRF 932	Along Stony Point Road, and Jewette Rd. <b>(0.82 miles NE of the site)</b>	N4238888 E0525357
CRF 218	0.5 miles SW of the intersection of Hammell Road and Meacham Road, at the Sonoma County Central Landfill <b>(1.63 miles W of the site)</b>	N4238421 E0521178
CRF 779	Along Stony Point Road, 0.2 miles SE of Meachum Road, SW Cotati <b>(1.35 miles N of the site)</b>	N4240152 E523460

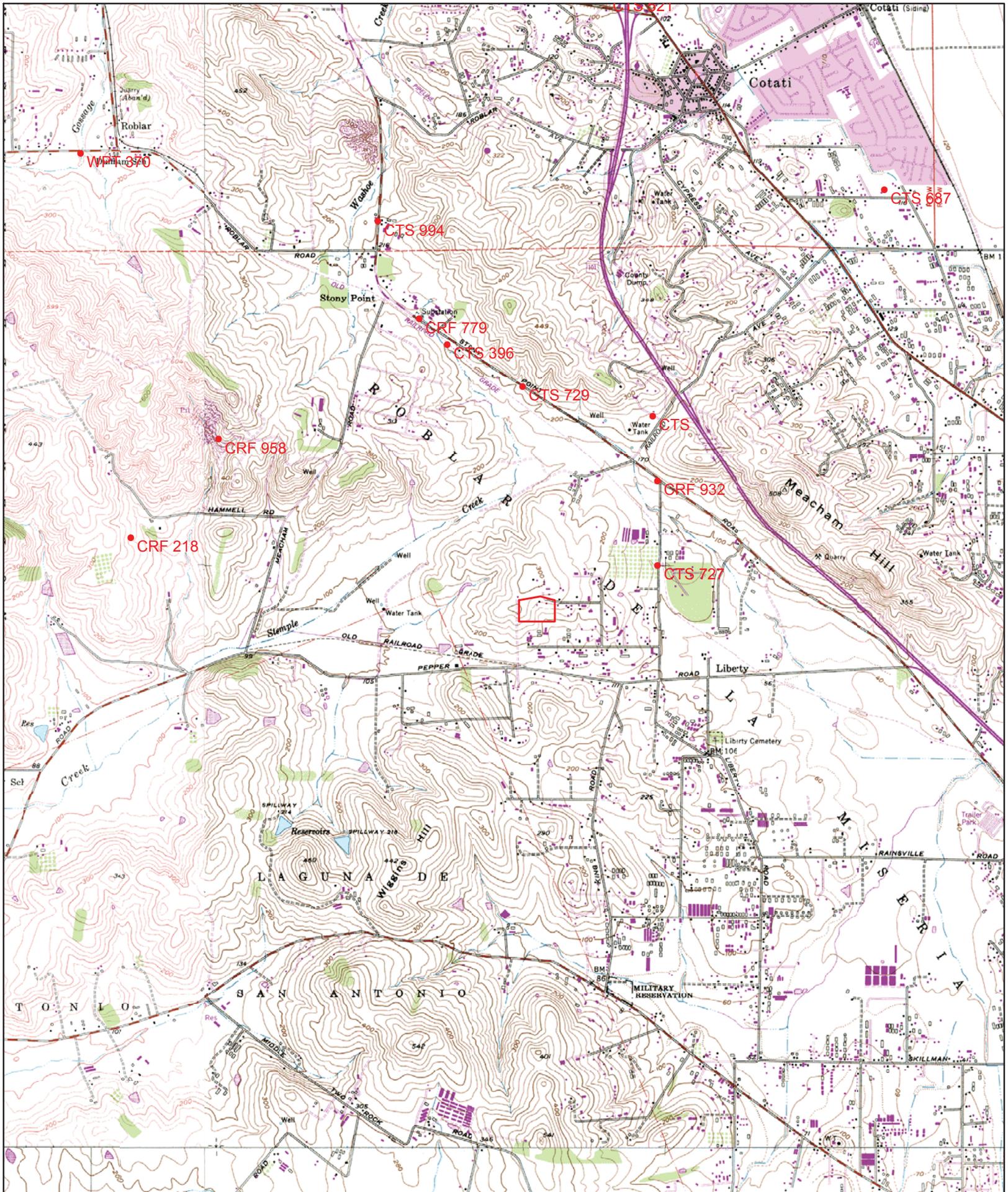
*California tiger salamander*: Based on the observed occurrences, the Valley View Drive parcel is located in an area that is designated as being greater than 2,200 feet but within 1.3 miles of a breeding population/habitat for CTS and will therefore require a 1:1 mitigation ratio that is

consistent with the Conservation Strategy and the Programmatic Biological Opinion (USFWS 2005, USFWS 2007). To prevent take of individuals, both prior to and during construction, Avoidance and Minimization Measures from the Conservation Strategy (USFWS 2005), as presented in Section 2.1, will be adopted.

*California red-legged frog*: The Valley View Drive parcel is located within one mile of a reported CRF (CNDDDB 2010). Measures to prevent direct mortality of CRF individuals will be incorporated into the conservation measures for CTS. Loss of habitat for CRF will be compensated for at a 1:1 mitigation ratio by the purchase of off-site mitigation credits at a Service-approved mitigation or conservation bank in Alameda County. No mitigation bank for CRF occurs within Sonoma County.

#### **4.2.5 Occurrence at the Project Site**

No surveys for the species occurred at the project site. Presence for CTS is assumed based on the habitats on the site and the occurrence of a known breeding population less than 1.3 miles northeast of the site. Presence of CRF upland habitat is based on presence of individuals reported 0.82 miles northeast of the site (Figure 4).



Name: COTATI  
 Date: 6/1/2010  
 Scale: 1 inch equals 3077 feet

Location: 10 0524136 E 4237929 N NAD83  
 Caption: Figure 4- Reported Locations of CRF and CTS

## **5.0 IMPACTS AND ENVIRONMENTAL COMPLIANCE**

### **5.1 IMPACT ASSESSMENT**

*Special-Status Plants:* No special-status plant species were found on the parcel during the April 13<sup>th</sup> 2007, plant surveys and none are expected to occur based on the dense cover of non-native plants present on the site (Jane Valerius Environmental Consulting 2007) (Appendix A). No further action is required.

*Special-Status Amphibians:* As discussed in the previous section, upland habitat for CTS occurs on the site and the proposed development will result in the loss of 1.54 acre of the 13.31-acre site.

The proposed lot division is located 2,717 feet southwest of a known location of an individual CTS and the closest known CTS breeding site is 1.30 miles north of the proposed lot division (CNDDDB 2010). There are no barriers to CTS movement between the breeding pond and the Valley View Drive site. The increased area of hardscape in this portion of the species range is small, and disparate, and will not form a barrier to CTS movement in the area.

The proposed lot division is located 0.82 miles south of a known location of an individual CRF (CNDDDB 2010). There are no barriers to CRF movement between the individual and the Valley View Drive site. The increased area of hardscape in this portion of the species range is small, 1.54 acre, and disparate, and will not form a barrier to CRF movement in the area.

The Covered Activities will result in the permanent loss of 1.54 acres of CTS and CRF habitat as a result of anticipated construction of residences and related structures (driveways, access roadway, water and sewage lines). Measures to prevent direct mortality of individuals of both Covered Species are presented as part of the proposed project and are presented below.

### **5.2 DIRECT AND INDIRECT EFFECTS**

For the purposes of this document, direct effects are those effects that occur at or very close to the time of the action itself. Examples could include construction noise disturbance, loss of habitat, or sedimentation that results from construction activity. Indirect effects are those that are caused by or result from the proposed action and are later in time but are still reasonably certain to occur. Examples include changes to ecological systems such as predator/prey relationships, long-term habitat changes, or anticipated changes in human activities including changes in land use. Indirect effects may occur outside of the area directly affected by the action.

Direct and indirect effects to CTS and CRF, and their preferred habitat may occur from the proposed development. Direct effects may include direct mortality to individuals during development of the 1.54-acres on the 2 parcels within the 13.31-acre Plan Area. Measures to protect individuals are presented in Section 2.1. Indirect effects due to changes in human activity may occur based on the increased development on 1.54 acres of the Plan Area.

There are no barriers to movement between this site and other undeveloped lands. Although man-made ponds occur in the vicinity of the site, they are more than 1,100 feet from the proposed project site. The majority of ponds are more than 1,400 feet west of the Valley View site. No ponds were detected between Jewett Road, where known CTS occur, and the project site. Development within the Plan Area will not result in indirect effects to adjoining parcels

### **5.3 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 (Plan Area). Future Federal actions that are

unrelated to the proposed action are not considered in this analysis because they require separate consultation pursuant to section 7 of the Endangered Species Act (Act) or Section 10a of the Act. Cumulative effects to the CTS and CRF include continuing and future conversion of suitable breeding, foraging, sheltering, and dispersal habitat resulting from urban development. Additional urbanization can result in road widening and increased traffic on roads that bisect breeding and aestivation sites, thereby increasing road-kill while reducing in size and further fragmenting of the remaining habitats.

CTS and CRF probably are exposed to a variety of pesticides and other chemicals throughout their range. They also could die from starvation by the loss of their prey base from the use of pesticides. Hydrocarbon and other contamination from oil production and road runoff; the application of numerous chemicals for roadside maintenance; urban and suburban landscape maintenance; and rodent and vector control programs may all have negative effects on CTS populations. In addition, tiger salamanders may be harmed through collection by local residents.

A commonly used method to control mosquitoes, used in Sonoma County (Marin/Sonoma Mosquito and Vector Control District, internet website 2002), is the application of methoprene, which increases the level of juvenile hormone in insect larvae and disrupts the molting process. Lawrenz (1984) found that methoprene (Altosid SR 10) retarded the development of selected crustaceans that had the same molting hormones (*i.e.*, juvenile hormone) as insects, and anticipated that the same hormone may control metamorphosis in other arthropods. Because the success of many aquatic vertebrates relies on an abundance of invertebrates in temporary wetlands, any delay in insect growth could reduce the numbers and density of prey available (Lawrenz 1984).

#### **5.4 EFFECTS ON CRITICAL HABITAT**

The Valley View Drive project site is located within the West Cotati Core Boundary Area and within the Santa Rosa Plain Unit Critical Habitat for the CTS. The 1.54 acres proposed for development occurs in the most southern portion of the 74,000 acres of the species range.

The project site is not within any designated Critical Habitat for CRF or any other federally listed species.

The HCP permittee will minimize and mitigate for any effects caused by the authorized activity, which will offset or reduce the significance of adverse effects to the critical habitat. As a result, the proposed project will not likely to jeopardize the continued existence of these two species or cause adverse modification to designated critical habitat

## 6.0 TAKE OF THE COVERED SPECIES

*California tiger salamander*: No surveys have been conducted for CTS on the site, nor have surveys of adults been conducted in the surrounding habitats. In 2002, 2 CTS adults, 1 live and 1 dead, were observed on Jewette in December (CNDDDB 2012). Other locations of observed CTS are north of the Jewett Road locations, between 1.05 miles and 2.01 miles north of the site, as described in Table 3 (CNDDDB 2012). As a result, it is not possible to quantify the exact number of individual CTS that could be taken by the development of the proposed development. For these reasons, construction monitoring by a qualified biologist shall occur to reduce the level of take of individuals.

The range of the Sonoma County CTS population occurs north of Pepper Road, as stated in the *Santa Rosa Plain Conservation Strategy, Final* (USFWS 2005). However, the area is considered rural residential development. Thus, the potential level of take of CTS at the Valley View Drive project site, as described above, is expected to have negligible effects on the species' overall survival. The likely number of animals incidentally taken will be very low.

*California red-legged frog*: No surveys have been conducted for CRF on the site and none have been reported on the adjacent property. The nearest reported sighting is located 0.82 miles NE of the site (CNDDDB 2012). No breeding habitat for the species occurs within the project area.

The maximum levels of take of CTS and CRF anticipated to occur under the HCP are as follows:

- A. Individuals may be taken (killed, injured, harmed, or harassed) within the boundaries of the 1.54-acre area of disturbance during the following covered activities;
  - any grading and construction operations including, but not limited to use of equipment, vegetation removal, trampling of vegetation, compaction of soils, ground disturbance, grading, or creation of dust; and
  - any permanent loss of habitat as a result of development of infrastructure including, but not limited to buildings, roads, installation of utilities, and drainage;

These incidental take limits are subject to full implementation of all mitigation measures, as described in Section 7.0. If any of these take limits are exceeded, Mr. Sannella shall cease all grading and construction operations and contact the USFWS immediately.

## 7.0 MITIGATION MEASURES

### 7.1 USFWS CONSERVATION GUIDELINES

*California tiger salamander*: The USFWS (2005) has established guidelines and accepted procedures for mitigating impacts to the CTS and its habitat, which have been adopted as part of this project.

*California red-legged frog*: Unlike with CTS, the USFWS does not have established guidelines for mitigating impacts to CRF and its habitat. Mitigation is conducted on a project by project basis. As a result, this document presents the following reasoning to support the proposed purchase of mitigation lands for CRF in Alameda County, the closest available location of mitigation bank land.

One of the goals of the *Recovery Plan for the California Red-legged Frog* (USFS 2002) is to ultimately delist the CRF when populations that exist throughout the species' range become stable (Recovery Criteria #2). This goal applies to CRF at the species level, not the subspecies or population level. As a result, purchasing lands at the mitigation bank in Alameda County is consistent with USFWS Recover Criteria #2, because it will help meet the goal of stabilizing the population of the species, in total, and within its northwestern range.

The *Recovery Plan* (USFWS 2002), Figure 5, identifies three Recovery Units in the greater Bay Area; 1) North Coast and North San Francisco Bay, 2) South and East San Francisco Bay and 3) the Central Coast. Within these Recovery Units are Core Recovery Areas, a subset in which recovery actions will be focused (Figure 12, USFWS 2002). The core areas represent a system of areas that, when protected and managed for CRF, will allow for long-term viability of existing populations and reestablishment of populations within the historic range. The proposed project in Petaluma is located outside the two discrete Core Recovery Areas in Sonoma County (Figure 20, USFWS 2002). Being outside the Core Recovery Area, the USFWS has identified that this area is not suitable for the following scenarios (but for which Core Recovery Areas are): a) restoration of habitat, b) pilot reestablishment efforts will likely succeed, and c) where recolonization by CRF is expected. This area of Sonoma County was not identified as representing an important element of the historic ecosystems used by CRF. The Ohlone Mitigation Bank site is located within one of the Core Recovery areas in Alameda County (Figure 21) (USFWS 2002). Therefore, there is a greater overall benefit to the species to mitigate for impacts that occur within a non-core area with conservation lands within a core area.

Typically, mitigation lands are purchased within the same county or ecotone as the impacted lands so that genetic flow is preserved for the local meta-population. However, since no mitigation banks for CRF are yet established in Sonoma County and the size of the project is small, mitigation lands will be purchased within the same genetic population of the San Francisco Bay Area. Based on the data from Shaffer, et al. (2004), CRF in Sonoma County and Alameda County share the same genetic phylogeny, with the contact zone between *Rana draytonii* and *Rana aurora* occurring north in Mendocino County.

Based on the Outline of Recovery Actions (page 61) (USFWS 2002), Task 1(b) provides the guidelines when developing mitigation measures for development projects, and states the following: "Purchase conservation easements or parcels from willing sellers where acquisitions may protect existing populations, allow for expansion of metapopulations, and increase the quantity of protected suitable habitat within the range of the species." The proposal for purchase

of CRF mitigation credits in Alameda County would be satisfying this recovery action because it would expand the acreage of protected high quality habitat with a core area.

## **7.2 PASSIVE RELOCATION OF CTS AND CRF**

Construction of the proposed project is considered to take place in what is considered to be occupied CTS habitat. Therefore, passive exclusion operations will be undertaken in the winter prior to construction to exclude CTS and CRF from the site and work area. The location and layout will be approved by the USFWS. The installed fences and ramps will remain in place into the following spring or until no water remains in the nearest known breeding pond.

In addition, the USFWS has developed additional measures in the *Programmatic Biological Opinion for U.S. Army Corps of Engineers (Corps) Permitted Projects that May Affect California Tiger Salamander and three Endangered Plants on the Santa Rosa Plain, California* (USFWS 2007) that are used for determining the mitigation for loss of habitat requirements for this project:

- To mitigate for loss of potential or occupied California tiger salamander upland habitat, suitable upland habitat at an off-site location shall be purchased at a 1:1 ratio, based on the project site being located within 1.3 miles of a known breeding pond (USFWS 2007).
- The USFWS will conduct an intra-Service Consultation. The USFWS will issue a permit on the HCP to allow for consideration of loss of habitat and mitigate for that loss. Upon receipt of the mitigation bank purchase agreement, the Service will send a technical letter of acceptance acknowledging the purchase of mitigation acreage. The applicant will adhere to the HCP and permit.
- Evidence that the Proponents/Applicant have complied with the requirements of the USFWS shall be submitted to the Sonoma County planning Department prior to issuance of any grading or building permits.

A total of 1.54 acre of CTS upland habitat and 1.54 acres of CRF upland habitat will be directly impacted. Mitigation lands will be purchased at a 1:1 ratio for both species at a Service approved mitigation or conservation bank.

## **7.3 MITIGATION PLAN**

Mr. Sannella will compensate for loss of CTS and CRF upland habitat due to development of the residence on Valley View Drive. This compensation will be accomplished as follows:

- 1) by purchasing 1.54 acres of CTS mitigation credits from a conservation bank within the Santa Rosa Plain which is approved by the USFWS.
- 2) by purchasing 1.54 acres of CRF mitigation credits from a conservation bank, such as Ohole Mitigation bank in Alameda County, which is approved by the USFWS.

By making these purchases, Mr. Sannella will have satisfied his mitigation requirements by purchasing, a) 1.54 acres of CTS credits from a USFWS-approved CTS conservation bank located in Sonoma County, and b) 1.54 acres of CRF credits from a USFWS-approved CRF conservation bank located in Alameda County. A map illustrating both locations and their service territories will be displayed on the USFWS web site.

## 8.0 PLAN IMPLEMENTATION

### 8.1 BIOLOGICAL GOALS AND OBJECTIVES

The first biological goal of this HCP is to contribute to a regional preserve design on the Santa Rosa Plain (i.e., assist with the implementation of the Santa Rosa Plain Conservation Strategy) by protecting occupied CTS habitat in the Santa Rosa Plain through the purchase of mitigation credits at USFWS-approved CTS conservation bank within the Santa Rosa Plain. : The objectives of this HCP will be achieved through the purchase 1.54 credits at a Service approved mitigation or conservation bank as shown on the USFWS website for Conservation Banks within the Sacramento Office Service area ([http://www.fws.gov/sacramento/ES/Conservation-Banking/Banks/In-Area/es\\_conse-bank-in-area.htm](http://www.fws.gov/sacramento/ES/Conservation-Banking/Banks/In-Area/es_conse-bank-in-area.htm)), to compensate for impacting 1.54 acres of upland habitat for CTS within the Santa Rosa Plain.

A second biological goal of this HCP is to contribute to the general habitat acreage within the range of California red-legged frog by protecting occupied CRF habitat through the purchase of mitigation credits at USFWS-approved CRF conservation bank.

Credits at an approved Conservation Bank, as shown on the USFWS website for Conservation Banks ([http://www.fws.gov/sacramento/ES/Conservation-Banking/Banks/In-Area/es\\_conse-bank-in-area.htm](http://www.fws.gov/sacramento/ES/Conservation-Banking/Banks/In-Area/es_conse-bank-in-area.htm)) will be purchased for impacts to 1.54 acres of CRF habitat. Although many of the Service Area maps do not include Sonoma County as its Service Area, they do include Marin County. This may be due to the date of establishment - prior to 2004 - when CRF populations located outside the drainages to San Francisco Bay were not considered *Rana draytonii* but rather *Rana aurora* (Shaffer, et al 2004).

### 8.2 RESPONSIBILITIES

As specified in the USFWS Habitat Conservation Planning Handbook (1996b), an Implementing Agreement (IA) is not required for low-effect HCPs unless requested by the permit applicant. Mr. Sannella understands that he is responsible for implementing this HCP in accordance with the specifications for mitigation and funding.

Mr. Sannella will purchase CTS habitat credits and CRF habitat credits from a USFWS-approved mitigation or conservation bank, such as the Alton North Conservation Bank, a USFWS-approved conservation bank for CTS mitigation. .

### 8.3 SCOPE

The proposed project is a subdivision of an existing lot and proposed general rural residential development of 1.54 acres, which will include driveways, building envelopes, as well as sewage and water lines, as shown in the site plan drawing in Figure 3, and as described in Section 2.0 of this HCP. The mitigation site will be at a USFWS-approved mitigation or conservation bank, such as the Alton North Conservation Bank, which is operated by Alton Preserve, LLC, and is located about 13 miles north of the project site in Sonoma County, CA. This HCP covers activities only within the 13.31-acre site and addresses direct and indirect effects.

### 8.4 PLAN DURATION

Mr. Sannella seeks a five (5) year permit from the USFWS to cover those activities associated with development of 67,199 square feet at the 13.31-acre site. The five-year permit term is requested to accommodate any unforeseen delays in planning and construction. Since 1.54 CTS habitat credits will be purchased from the Alton North Conservation Bank, the operator of the

conservation bank will assume all responsibilities for implementation of the required mitigation. The same will apply for the CRF credits purchased at a USFWS-approved conservation bank. The permit will expire once Mr. Sannella has fulfilled all of his responsibilities as described in Section 8.2.

## **8.5 MONITORING**

No on-site habitat will be created for CTS or CRF, therefore no monitoring will occur other than those measures identified in Section 2.1 to reduce mortality and injury of individuals. Once construction has been completed no further on-site monitoring is required. Additional monitoring will be conducted at the USFWS-approved conservation bank as per the Conservation Bank agreement with the USFWS.

### **8.5.1 Performance and Success Criteria**

Mr. Sannella's mitigation requirements will be satisfied by the purchase of CTS and CRF credits from a USFWS-approved mitigation or conservation bank. It will be the responsibility of the conservation bank operator to insure that the performance criteria are successfully achieved. If necessary, the conservation bank operator will employ appropriate adaptive management strategies to meet the biological goals and objectives of this HCP.

### **8.5.2 Reporting**

Based on the scope of the project and conservation strategy, Mr. Sannella will adhere to the requirements of this HCP and include the purchase of the mitigation credits once approved by the USFWS and documentation that the project was implemented as proposed within 120 days of implementation. Acceptable documentation shall include a description of the implemented project, as built drawings clearly indicating any changes in the proposed project, and before and after photographs.

## **8.6 FUNDING**

Mr. Sannella is responsible for the purchase of 1.54 acres of CTS mitigation credits and 1.54 acres of CRF mitigation credits. A copy of the sales agreement for the purchase of the mitigation credits is attached as Appendix B. The USFWS-approved mitigation or conservation bank will assume all responsibilities for funding of annual maintenance of the Conservation Bank, and the fulfillment of all monitoring and reporting activities.

## 9.0 CHANGED AND UNFORESEEN CIRCUMSTANCES

Section 10 regulations [50 CFR 17.22 (b)(2)(iii)] require that an HCP specify the procedures to be used for dealing with unforeseen circumstances that may arise during the implementation of the HCP. In addition, the Habitat Conservation Plan Assurances ("No Surprises") Rule [50 CFR 17.21 (b)(5)-(6) and 17.22(b)(5)-(6); 63 F.R. 8859] defines "unforeseen circumstances" and "changed circumstances" and describes the obligations of the permittees (Mr. Steven Sannella) and the USFWS.

The purpose of the Assurances Rule is to provide assurances to nonfederal landowners participating in habitat conservation planning under the ESA that no additional land restrictions or financial compensation will be required for species adequately covered by a properly implemented HCP, in light of unforeseen circumstances, without the consent of the permittee. "Changed circumstances" means changes in circumstances affecting a species or geographic area covered by the conservation plan that can reasonably be anticipated by plan developers and the USFWS and that can be planned for (e.g., the listing of a new species, or fire or other natural catastrophic events in areas prone to such events). The policy defines "unforeseen circumstances" as changes in circumstances that affect a species or geographic area covered by the HCP that could not reasonably be anticipated by plan developers and the USFWS at the time of the plan's negotiation and development and that result in a substantial and adverse change in status of the covered species.

In determining whether any event constitutes an unforeseen circumstance, the USFWS shall consider, but not be limited to, the following factors: size of the current range of the affected species; percentage of range adversely affected by the HCP; percentage of range conserved by the HCP; ecological significance of that portion of the range affected by the HCP; level of knowledge about the affected species and the degree of specificity of the species conservation program under the HCP; and whether failure to adopt additional conservation measures would appreciably reduce the likelihood of survival and recovery of the affected species in the wild.

If the USFWS determines that the unforeseen circumstance will affect the outcome of the HCP, additional conservation and mitigation measures may be necessary. Where the HCP is being properly implemented and an unforeseen circumstance has occurred, the additional measures required of the permittee must be as close as possible to the terms of the original HCP and must be limited to modifications within any conserved habitat area or to adjustments within lands or waters that are already set aside in the HCP's operating conservation program. Additional conservation and mitigation measures shall not involve the commitment of additional land or financial compensation or restrictions on the use of land or other natural resources otherwise available for development or use under the original terms of the HCP without the consent of the permittee. Resolution of the situation shall be documented by letters between the USFWS, Mr. Sannella, and the conservation bank operator.

Thus, in the event that unforeseen circumstances adversely affecting the CTS occur during the term of the permit, Mr. Sannella would not be required to provide additional financial mitigation or implement additional land use restrictions above those measures specified in the HCP, provided that the HCP is being properly implemented. This HCP expressly incorporates by reference the permit assurances set forth in the Habitat Conservation Plan Assurances ("No Surprises") Rule adopted by the USFWS and published in the Federal Register on February 23, 1998 (50 CFR Part 17). Except as otherwise required by law or provided for under the HCP, including those provisions regarding changed circumstances, no further mitigation for the effects of the proposed project on the CTS may be required from a permittee who is properly

implementing the terms of the HCP and the permit. The HCP will be properly implemented if the commitments and provisions of the HCP and the permit have been or are being fully implemented by the permittee and the conservation bank operator.

If a new species that is not covered by the HCP but that may be affected by activities covered by the HCP is listed under the ESA during the term of the Section 10 permit, the USFWS may consider this to be a changed circumstance. In such case, the Section 10 permit will be reevaluated by USFWS. In coordination with the applicant, the HCP-Covered Activities may need to be modified, to ensure that the Covered Activities do not result in take of the newly species not covered under the HCP. The USFWS would also need to ensure continued implementation of the HCP (including its Covered Activities) are not likely to jeopardize or result in adverse modification of any designated critical habitat of the newly listed species. Mr. Sannella shall implement the modifications to the HCP Covered Activities identified by the USFWS as necessary to avoid the likelihood of jeopardy to or take of and adverse modification of the designated critical habitat of the newly listed species. Mr. Sannella shall continue to implement such modifications until such time as he has applied for and USFWS has approved an amendment of the Section 10 permit, in accordance with applicable statutory and regulatory requirements, to cover the newly listed species, or until the USFWS notifies Mr. Sannella in writing that the modifications to the HCP Covered Activities are no longer required to avoid take, the likelihood of jeopardy, or adverse modification of designated critical habitat of the newly listed species.

As to other potential changed circumstances (e.g., fire, flood, insect infestation, plant diseases, earthquake or other natural disaster), the short duration of the permit (i.e., five years) makes the occurrence of any such circumstance within the permit period unlikely. Furthermore, it would not be possible to address the problem on site because this HCP contemplates the complete removal of potential habitat, not continued on-site management of the species.

## **10.0 PERMIT AMENDMENT/RENEWAL PROCESS**

### **10.1 HCP OR PERMIT AMENDMENTS**

At this time there is no reason to expect that an amendment to the Section 10(a)(1)(B) permit will be needed to complete the development at 215 Valley View Drive. However, during the specified permit period an amendment of the Section 10(a)(1)(B) permit for the project would be required for any change in the following:

- a) significant revision of the permit area boundary;
- b) the listing under the ESA of a new species not currently addressed in the HCP that may be taken by project activities;
- c) modification of any important project action or mitigation component under the HCP, including funding, that may significantly affect authorized take levels, effects of the project, or the nature or scope of the mitigation programs; and
- d) any other modification of the project likely to result in significant adverse effects to CTS not addressed in the original HCP and permit application.

Amendment of the Section 10(a) permit would be treated in the same manner as an original permit application. Permit amendments typically require a revised HCP, a permit application form and application fee, an Implementing Agreement, a NEPA document, and a 30-day public comment period. However, the specific documentation needed in support of a permit amendment may vary, depending on the nature of the amendment. If the permit amendment qualifies as a low-effect HCP, an Implementing Agreement and NEPA document would not be needed.

### **10.2 HCP MINOR MODIFICATIONS**

This HCP may, under certain circumstances, be modified without amending the associated permit, provided that such amendments are of a minor or technical nature and that the effect on the species involved and the levels of take resulting from the amendment are not significantly different than those described in the original HCP. Examples of minor amendments to the HCP that would not require permit amendment include, but are not limited to:

- minor revisions to the HCP's plan area or boundaries;
- minor changes to survey, monitoring, or reporting protocols.

To make a minor modification to the HCP without amending the permit, Mr. Sannella must submit to the USFWS, in writing, a description of:

- the proposed minor modification;
- an explanation of why the minor modification is necessary or desirable; and
- an explanation of why Mr. Sannella believes the effects of the proposed minor modification would not be significantly different than those described in the original HCP.

If the USFWS concurs with Mr. Sannella's proposal, it shall authorize the HCP minor modification in writing and the minor modification shall be considered effective upon the date of the USFWS's written authorization.

### **10.3 PERMIT RENEWAL**

Upon expiration, the Section 10(a)(1)(B) permit may be renewed without the issuance of a new permit, provided that the permit is renewable, and that biological circumstances and other pertinent factors affecting CTS and CRF are not significantly different than those described in the original HCP. To renew the permit, Mr. Sannella shall submit to the USFWS, in writing:

- a request and application to renew the permit;
- reference to the original permit number;
- certification that all statements and information provided in the original HCP and permit application, together with any approved HCP amendments, are still true and correct, and inclusion of a list of changes;
- a description of any take that has occurred under the existing permit; and
- a description of any portions of the project still to be completed, if applicable, or what activities under the original permit the renewal is intended to cover.

If the USFWS concurs with the information provided in the request, it shall renew the permit consistent with permit renewal procedures required by Federal regulation (50 CFR 13.22). If Mr. Sannella files a renewal request and the request is on file with the issuing USFWS office at least 30 days prior to the permit's expiration, the permit shall remain valid while the renewal is being processed, provided the existing permit is renewable. However, Mr. Sannella may not take listed species beyond the quantity authorized by the original permit. If Mr. Sannella fails to file a renewal request within 30 days prior to permit expiration, the permit shall become invalid upon expiration. Mr. Sannella and the conservation bank operator must have complied with all annual reporting requirements to qualify for a permit renewal.

### **10.4 PERMIT TRANSFER**

Although the sale or transfer of ownership of the property prior to construction of the proposed project is not expected to occur during the life of the permit, should it occur, a new permit application, and permit fee, will be submitted to the USFWS by the new owner(s). The new owner(s) will commit to all requirements regarding the take authorization and mitigation obligations of this HCP.

## **11.0 ALTERNATIVES CONSIDERED**

### **11.1 ALTERNATIVE #1: NO-ACTION**

Under the No-Action Alternative, development of 215 Valley View Drive would not occur and Mr. Sannella would not implement a HCP or receive a Section 10(a) incidental take permit from the USFWS. The project site would remain undeveloped and the existing upland habitat would not be disturbed.

However, potential impacts to CTS may be greater in the absence of this HCP. It would result in unnecessary economic burden on the applicant and may force the sale of the parcel to a developer that would develop the site to full capacity, thus reducing the available undeveloped land for CTS and CRF. For this reason, the No-Action Alternative has been rejected.

### **11.2 ALTERNATIVE #2: REDUCED DEVELOPMENT**

The Reduced Take Alternative would reduce the size of the proposed residences but not the required access roadway, thereby allowing some additional upland habitat to remain. In general, biological impacts, including loss of CTS and CRF habitat, associated with this alternative would still result, but would be reduced in magnitude. The HCP would encompass the 13.31 acre site, of which the proposed developed would occur on only 11% of the site, or on 1.54-acres. Due to the relatively small proposed development dimensions, however, it would be impossible to implement a reduced size project that would drastically reduce the acreage of CTS and CRF upland habitat. This alternative would result in unnecessary economic burdens to the applicant. For these reasons, the Reduced Take Alternative was rejected.

### **11.3 ALTERNATIVE #3: PROPOSED ACTION (PERMIT ISSUANCE)**

Under the Proposed Action Alternative, Mr. Sannella would develop the site at 215 Valley View Drive site as described in Section 2.0. The Proposed Action Alternative would require the issuance of a Section 10(a)(1)(B) permit to allow development of driveways and three rural residences, which would result in the net loss of 67,199 square feet of CTS and CRF upland habitat. Therefore, the Proposed Action is the preferred alternative.

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April 18, 2007  
Mr. Tony Sannella  
Sage Designs, Inc.  
150 Shoreline Hwy., #A8  
Mill Valley, CA

**RE: 215 Valley View Drive, Petaluma, Sonoma County APN 113-172-004.**

Dear Mr. Sannella:

This letter report provides a description of methods and results of a survey for special status plant species for your family property located at 215 Valley View Drive in Petaluma, Sonoma County, California. It is my understanding that your family is proposing to subdivide the property to create three more lots. Based on the Tentative Map that you provided, Lot 1 will be approximately 3.25 acres, Lot 2 will be approximately 3 acres, Lot 3 will be approximately 3.23 acres and the designated remainder is 3.83 acres and includes the existing residence, pool, and associated structures. The total size of the parcel is 13.31 acres.

Tables and attachments to this report are provided at the end of the report.

#### **SITE DESCRIPTION**

The property is located north of Petaluma, north of Pepper Road and west of Highway 101 and Stony Point Road. The property ranges in elevation from around 190 feet in the southeast corner to approximately 300 feet in the northwest corner. The property slopes from the northwest to the southeast. Blue gum (*Eucalyptus globulus*) trees line the west and south property line and Valley View Drive forms the northern boundary. The property is located within an unsectioned area of the Cotati USGS quadrangle in Township 5 North, Range 8 West.

The property is currently grazed by sheep and comprised of mostly non-native grassland with a few coast live oak (*Quercus agrifolia*) trees in the northwest portion of the site. There is also a residence and pool and other structures. The residence has a landscaped yard and a garden area. A small orchard of fruit trees has also been planted in the area designated as Lot 1. The property also includes some coast redwood (*Sequoia sempervirens*) trees that were planted by your family, along with some poplars (*Populus* sp.) and weeping willow (*Salix* sp.).

#### **METHODS**

Prior to the site visit I reviewed the letter provided sent to you by the County of Sonoma Permit and Resource Management Department (PRMD) regarding your application for a minor subdivision. I also reviewed the California Natural Diversity Data Base (CNDDDB) for a list of special status plants that could potentially occur within the Cotati USGS quadrangle and could therefore potentially occur on the property if potential habitat was present. In addition the California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Plants of California was also reviewed for the Cotati USGS quadrangle. Based on these three sources a list of special status plants that could potentially occur on your property, based on the presence of potential habitat, was prepared (Table 1).

The California Department of Fish and Game (CDFG) guidelines for conducting special status plant surveys requires that surveys be conducted at the time of year when special status plants are most identifiable, which is typically when they are in flower. The guidelines also require that the surveys be floristic in nature, which means that a list of all plant species that are identifiable at the time of the survey be recorded for the site. The entire property was walked on April 13, 2007 and a list of plant species identifiable at the time of the survey was recorded (Attachment A). The April site visit was selected because this corresponded to the

flowering period for all the potential special status plants that could occur on the site based on the literature review and data base searches.

### **RESULTS**

The undeveloped portions of the property consist mainly of non-native grassland with the blue gum trees forming windrows along the west and south sides of the parcel.

### **CONCLUSIONS**

No special status plants were found on the project site and no special status plants are likely to occur based on the conditions of the site. I hope that this information was helpful. If you require additional information, or have any comments, please don't hesitate to contact me.

Sincerely,

Jane Valerius

Botanist/Wetland Specialist